REGULAR MEETING
OF THE MADERA CITY COUNCIL

205 W. 4th Street, Madera, California 93637

NOTICE AND AGENDA

Wednesday, September 2, 2015
6:00 p.m.

Council Chambers
City Hall

CALL TO ORDER

ROLL CALL: **Mayor Robert L. Poythress**
Mayor Pro Tem William Oliver
Council Member Charles F. Rigby
Council Member Sally J. Bomprezzi
Council Member Andrew J. Medellin
Council Member Donald E. Holley
Council Member Derek O. Robinson Sr.

INVOCATION: Chaplain Don Caballero, Madera Rescue Mission

PLEDGE OF ALLEGIANCE:

PUBLIC COMMENT:

The first fifteen minutes of the meeting are reserved for members of the public to address the Council on items which are within the subject matter jurisdiction of the Council. Speakers shall be limited to three minutes. Speakers will be asked to identify themselves and state the subject of their comment. If the subject is an item on the Agenda, the Mayor has the option of asking the speaker to hold the comment until that item is called. Comments on items listed as a Public Hearing on the Agenda should be held until the hearing is opened. The Council is prohibited by law from taking any action on matters discussed that are not on the Agenda, and no adverse conclusions should be drawn if the Council does not respond to public comment at this time.

A. WORKSHOP

There are no items for this section.

B. CONSENT CALENDAR

B-1 Minutes – 5/06/15

B-2 Information Only – Warrant Disbursement Report

B-3 Proclamation Declaring October as Manufacturing Awareness and Appreciation Month (Report by Sonia Alvarez)

B-4 Consideration of a Minute Order Approving Acceptance of Existing Well 18 Rehabilitation Project No. W12-01, Recording of the Notice of Completion, and Release of Retention 35 Days After Recording of the Notice of Completion (Report by Keith Helmuth)

B-5 Consideration of a Minute Order Approval of City Administrator Travel to League of California Cities Annual Conference & Expo, September 30, 2015 - October 2, 2015 (Report by David Tooley)

B-6 Consideration of a Resolution Approving an Agreement with Thales Consulting Inc. for the Preparation of the City's Financial Transactions Report, the Special District Report and the Annual Transit Report and Authorizing the Mayor to Execute the Agreement (Report by Tim Przybyla)

B-7 Consideration of a Resolution Approving an Agreement with Adhara Systems, Inc. for Professional Engineering and Technical Services to the City of Madera for Pavement Distress Survey and Analysis of Arterial and Collector Streets (Report by Keith Helmuth)

B-8 Consideration of a Resolution Approving Amendment No. 1 to the Agreement with Price Paige & Company for Professional Auditing Services and Authorizing the Mayor and City Administrator to Execute the Amendment (Report by Tim Przybyla)

B-9 Consideration of a Resolution Approving Amendment No. 2 to Agreement with Love's Travel Stops and Country Stores for the Funding of an Environmental Impact Report for the Love's Travel Center (Report by David Merchen)

B-10 Consideration of a Resolution Approving Amendment No. 2 to Agreement with Quad Knoph, Inc. for Environmental Planning Services to the City of Madera in Preparation of an Environmental Impact Report for the Love's Travel Center (Report by David Merchen)

B-11 Consideration of a Resolution Authorizing the City Administrator to Execute All Documents Required to Complete a Lot Line Adjustment Affecting Parcel 11 within Freedom Industrial Park to Facilitate Rail Access within the Park (Report by David Merchen)

C. HEARINGS, PETITIONS, BIDS, RESOLUTIONS, ORDINANCES, AND AGREEMENT

C-1 Consideration of a Resolution Approving the First Amendment to an Agreement with Mid Valley Disposal for the Collection, Transportation, and Recycling of Solid Waste Services and Authorizing the Mayor to Execute the Amendment on Behalf of the City (Report by Dave Randall)

C-2 Public Hearing and Consideration of a Resolution Adopting a Negative Declaration for the City of Madera Climate Action Plan and Approving the Climate Action Plan

And

Consideration of a Minute Order Designating the Community Development Director as Climate Action Plan Coordinator for the City (Report by David Merchen)

D. WRITTEN COMMUNICATIONS

D-1 Consideration of a Written Request by the Madera South High School Seeking Council Approval to Waive Permit Fees and Cover the Cost of Police and Public Works Efforts in Association with their Homecoming Parade and Request for the City to Pay $1,200 Towards the Rental of Barricades (Report by Steve Frazier)

E. ADMINISTRATIVE REPORTS

E-1 Informational Report and Request for Direction Regarding Citizen Relationship Management and Communication Service Delivery (Report by David Tooley)

E-2 Update on the Status of the Laurel Street Bike Path Sunset Avenue to Fresno River Trail and Request for Direction Regarding the Installation of Trail Lighting (Report by Keith Helmuth)

E-3 Weekly Water Conservation Reports (Report by Dave Randall)

F. COUNCIL REPORTS

F-1 Request for Direction Council Participation in Old Timers' Day Parade (Report by Sonia Alvarez)

G. CLOSED SESSION

G-1 Closed Session Announcement – City Attorney

G-2 PERSONNEL EVALUATION--Pursuant to Government Code §54957
Position: City Administrator

G-3 PERSONNEL EVALUATION--Pursuant to Government Code §54957
Position: City Clerk

G-4 Conference with Legal Counsel – Pending Litigation pursuant to Government Code §54956.9(d)(1): 3 cases:

William Roger Anderson WCAB No. ADJ 8262131
John Roybal WCAB No. ADJ 8647772 & ADJ 9864983

G-5 Closed Session Report – City Attorney

ADJOURNMENT – Next regular meeting September 16, 2015

Any writing related to an agenda item for the open session of this meeting distributed to the City Council less than 72 hours before this meeting is available for inspection at the City of Madera Office of the City Clerk, 205 W. 4th Street, Madera, California 93637 during normal business hours.

The meeting room is accessible to the physically disabled, and the services of a translator can be made available. Request for additional accommodations for the disabled, signers, assistive listening devices, or translators needed to assist participation in this public meeting should be made at least seventy two (72) hours prior to the meeting. Please call the Human Resources Office at (559) 661-5401. Those who are hearing impaired may call 711 or 1-800-735-2929 for TTY Relay Service.

Para asistencia en Español sobre este aviso, por favor llame al (559) 661-5405.

I, Sonia Alvarez, City Clerk for the City of Madera, declare under penalty of perjury that I posted the above agenda for the regular meeting of the Madera City Council for September 2, 2015, near the front entrances of City Hall at 3:00 p.m. on August 28, 2015.

Sonia Alvarez

Sonia Alvarez, City Clerk

Item:	B-1
Minutes for:	5/06/15
City Adopted:	9/02/15
MPFA Adopted:	_____

Return to Agenda

MINUTES OF A REGULAR MEETING OF THE MADERA CITY COUNCIL And SPECIAL MEETING OF THE MADERA PUBLIC FINANCING AUTHORITY CITY OF MADERA, CALIFORNIA

May 6, 2015
6:00 p.m.

Council Chambers
City Hall

CALL TO ORDER

Mayor/Chairperson Poythress called to order the regular meeting of the Madera City Council, the special meeting of the Madera Public Financing Authority, and the special meeting of the Housing Authority of the City of Madera for 5/06/15 at 6:00 p.m.

ROLL CALL: City Clerk Sonia Alvarez called roll for the three agencies.

Present: **Mayor/Chairperson Robert L. Poythress**
Mayor Pro Tem/Authority Member William Oliver
Council/Authority Member Charles F. Rigby
Council/Authority Member Andrew J. Medellin
Council Member/Vice Chairperson Donald E. Holley
Council/Authority Member Derek O. Robinson Sr.

Absent: **Council/Authority Member Sally J. Bomprezzi**

Others present were City Administrator David Tooley, City Attorney Brent Richardson, City Clerk Sonia Alvarez, Director of Community Development David Merchen, Director of Financial Services Tim Przybyla, City Engineer Keith Helmuth, Chief of Police Steve Frazier, Director of Parks and Community Services Mary Anne Seay, Director of Human Resources Wendy Silva, Grant Administrator Daniel Abdella, Chief Building Official Steve Woodworth, Information Services Manager Ted Uyesaka, Planning Manager Chris Boyle, Commander Dino Lawson, Fire Chief Nancy Koerperich, Division Fire Chief Ron Eldridge, Housing Authority Interim Director Elena Shrayberman, and Housing Authority Executive Administrative Assistant Cheryl Cagle.

INVOCATION: Pastor Garland Wilson, New Generation

The invocation was given by Pastor Roger Leach due to the absence of Pastor Wilson.

PLEDGE OF ALLEGIANCE: Mayor/Chairperson Poythress led in the Pledge of Allegiance.

PUBLIC COMMENT:

The first fifteen minutes of the meeting are reserved for members of the public to address the Council on items which are within the subject matter jurisdiction of the Council. Speakers shall be limited to three minutes. Speakers will be asked to identify themselves and state the subject of their comment. If the subject is an item on the Agenda, the Mayor has the option of asking the speaker to hold the comment until that item is called. Comments on items listed as a Public Hearing on the Agenda should be held until the hearing is opened. The Council is prohibited by law from taking any action on matters discussed that are not on the Agenda, and no adverse conclusions should be drawn if the Council does not respond to public comment at this time.

Mayor/Chairperson Poythress opened the public comment for the three agencies. No comments were offered.

PRESENTATIONS Older Americans Month

Mayor Poythress stated this presentation reminds him of the song Young Americans by David Bowie. He noted that this is not about young Americans; it is actually about older Americans. He thinks that is really a very diplomatic way of referring to folks. He commented that anybody can be an older American. It is based on who you are around. If you are 20 years old and you are around a bunch of 10 years olds, you are an older American. He noted that looking at it that way is being reflective of their audience but it is all about people being involved. When he thinks of older Americans, he thinks of experience, he thinks of value, he thinks of people who have been there, who have demonstrated a commitment and have just so much to offer. In this day and age they often hear about today's 60 is like yesterday's 50 and so forth, and so many more people are active. They used to hear about people retiring at age 55 and 60. He noted that still happens at the City of Madera but why retire. He stated that there is too much to life, there is too much to offer and there is too much that they need from their older Americans. He commented that he would say why, and don't, and we need you. Mayor Poythress advised that they have a number of representatives here this evening. He announced that he has a proclamation declaring May 2015 as Older Americans Month in the City of Madera.

Mayor Poythress invited the representatives present to join him at the podium including: Ruby Spencer, Board Member of the Bergon Senior Club; Barbara Tyler, Jim Hardesty, Carol Aragon; and from the Pan Am Senior Program they have Don and Manuela Martinez, Jessica Sotelo, and Carmen Martinez.

Mayor Poythress asked the representatives to introduce themselves and asked that they share why they are happy to be somebody that is described in this category.

Ruby Spencer stated she has been an older American quite a while. She noted they are very good people to begin with. She added that it is nice to be here. At her age she is glad she is still here. She commented that she likes to go to the senior center because it is people her age and they do get along sometimes; sometimes they don't. They have a lot of fun over there.

Don Martinez stated he is retired. He has volunteered at Pan Am for the last 9 years. He stated God Bless America.

Mayor Poythress presented the proclamation honoring older Americans. He added that he looks here and he really doesn't see any older Americans. One of the representatives present stated he is 80 years old.

Mayor Poythress thanked them and asked that they keep up the great work.

INTRODUCTIONS Fire Chief Ron Eldridge

Fire Chief Nancy Koerperich stated that the Fire Chief is in charge of many things throughout the Madera/Mariposa/Merced area. In order to maintain her span of control, she needs to make sure that someone is here taking care of the issues within Madera City and the County of Madera and they do that with a Division Chief.

Chief Koerperich stated they are very pleased to bring Ron Eldridge here to the City and the County in their Madera division. She commented that he is a local gentleman. He grew up in the North Fork area so he is very familiar with their area and what they do here. He has been working in numerous places but of recent, before he promoted to Division Chief, he was a Battalion Chief in their Fresno office working in their cost recovery. They are very grateful that he stayed a little bit close to home for them that he was willing to head their way as a Division Chief. She added that Chief Eldridge began his career in 1988 in the U.S. Navy and was deployed in the Persian Gulf during Operation Desert Shield and Desert Storm. In 1993, he joined the Auberry Fire Department and established their county service area in Fresno

County. In 1998, they were lucky on the Cal Fire side to have him join their department as a Firefighter I in the Blasingame Station which is in the Fresno/Kings Unit just south of here. He promoted to Lt. Engineer in March of 2000 so for the last 15 plus years he has been a member of Cal Fire and has done an excellent job and lots of things in the department. Two years after he was a Lt. and promoted to a permanent station in the Fresno County Schedule A Agreement so he did municipal firefighting in the Fresno area and then in May of 2003 promoted to a Fire Captain at Miramonte Camp. Their camps are their inmate systems. They work with the California Department of Corrections and Rehabilitation and utilize inmate workforce to fight fires in the wild line fires. She added that their inmate crews do phenomenal work for them both on fires and off fires. In December 2006, he transferred to their Fire Prevention Bureau and that is where he began his law enforcement career with Cal Fire. She advised that they do have many positions that hold law enforcement responsibilities in the department and Chief Eldridge was one of those that did that. She added that in December of 2011 he promoted to Battalion Chief in the law enforcement office that is the Cost Recovery in Clovis. He took his law enforcement time and moved that into the Battalion Chief position. She noted that he is very active on several committees. He is currently serving as the Board President for his school district. He is very community oriented; understands what his role is in representing the Fire Department both in the City and the County and they are very glad to bring him on board. Chief Koerperich introduced Chief Eldridge.

Chief Eldridge stated his appreciation to Chief Koerperich for allowing him to be a member of her team noting that she has a great team. He also thanked the Council for the hospitality for being here this evening. He looks forward to developing a professional relationship with each of them and looking at the Fire Department and figuring out ways that they can deliver the best possible customer service that they can in the community. He stated his appreciation.

Mayor Poythress thanked Chief Eldridge.

Mayor Poythress announced that they would now move to the agenda for the Housing Authority of the City of Madera. Mayor Poythress turned the meeting over the Chairperson Holley at 6:15 p.m.

The Housing Authority meeting was adjourned at 6:19 p.m.

Mayor/Chairperson Poythress called back to order the regular meeting of the Madera City Council and the Special Meeting of the Madera Public Financing Authority.

A. WORKSHOP

A-1 Study Session – 2015 Housing Element Update

Planning Manager Chris Boyle stated the workshop this evening will be a study session introducing the 2015 Housing Element Update. Mr. Boyle introduced Ted Holzem of Mintier Harnish.

Ted Holzem of Mintier Harnish advised that he will be presenting the draft Housing Element and requesting authorization to submit the draft to the Department of Housing and Community Development (HCD) for their review pursuant to state law. He noted that he will get into that as he goes through his presentation in a little more detail.

Mr. Holzem advised that the Housing Element is part of the General Plan and it is one of the seven state mandated elements within the General Plan. He commented that the purpose of the Housing Element is to show how the City is going to accommodate future housing needs across all income groups, all income categories and across the spectrum of different types of individuals who are living within the City including seniors, farmworkers, persons with disabilities, large families, and single mothers. He stated it is unique, as far as General Plans and General Plan Elements go in that it has to be updated every 8 years. It is on a set timeframe. He added that it is actually extended from what it used to be which was every five years but SB 375 extended the time period. He noted that the deadline for adopting the Housing Element during this round is January of 2016 so they have some time here. They are well on their way to meeting the state mandated deadline. He commented that the Housing Element is also unique in that it is the only

part of the General Plan that is reviewed and certified by the state and that is the portion of the process that they are going to be moving into next is working with the State Department of Housing and Community Development to review and certify the document.

Mr. Holzem advised that the draft Housing Element before them is organized into two main parts: the policy document which includes all the goals policies and implementation programs that the City will use to address future housing needs as well as background information that provides the data and support for those goals, policies, and implementation programs. He noted that the background information, even though there are more sections here, can roughly be organized into three categories of information. One is the needs: what are the community's needs in the next 8 years related to housing and that is generally developed through analysis of population and household and demographic trends and information. He advised that the second is resources: what resources are available to provide for housing whether it is the availability of land that is zoned sufficiently to provide for a range of housing types or the types of funding mechanisms that are in place to support the development of housing particularly affordable housing for lower income groups. He added that the third is constraints: what types of governmental constraints could be in place that needs to be remedied and what type of non-governmental constraints, for example, high land prices are in place that could somehow programmatically be addressed through the Housing Element.

Mr. Holzem stated they are right about in the middle of their process although most of the heavy lifting related to preparing the documents being completed. They are here this evening having this study session before they submit the Housing Element to HCD. He advised that leading up to this point they have done quite a bit of outreach as part of this process including focus group meetings, a survey, a community forum to gather input from the community on what they view their housing needs are and to ensure that the document is addressing those needs and responding to them. He commented that moving forward after they submit the document to HCD they have 60 days to review and provide comments on the document. During that timeframe they will be working with them to address any of the concerns they have related to the document itself. They will also be conducting environmental review during that time period and shortly after, as they go into the adoption period, they will be coming back before the Council for final adoption later on in the fall of this year.

Mr. Holzem stated that one of the key parts of the Housing Element is what is known as the Regional Housing Needs Allocation. He advised that this is the number of the projected housing units that are going to be needed to accommodate the population within the City over the next 8 years. He stated that this number is first developed by the State Department of Housing and Community Development. It is then given to regional agencies, in this case, the Madera County Transportation Commission to allocate those units among the various jurisdictions within the region. The three jurisdictions are the County, Chowchilla, and the City of Madera. He noted that number was split according to a methodology to distribute it in an equitable manner among the various jurisdictions and in this case the City of Madera received 6,099 dwelling units. He added that when they take that number they also break it down by income category to ensure that all segments, all income categories within the community are able to afford housing or have an opportunity to afford housing. They can see on the slide the breakdown across the various income groups from above moderate income households to the lower, very low, and extremely low income households. He added that they might notice that the extremely low and very low income houses are the same number. He explained that the number is generally developed as a single number and it is just split evenly between those two and that is how the methodology is addressed across the state for all jurisdictions.

Mr. Holzem stated when they talk about densities there is a general policy at the state that associates density with affordability. He referred to the slide and explained what it illustrates is the different affordability levels of different types of housing units so when they talk about meeting those different needs and providing the environment in which different types of housing can be constructed, this is what they are really talking about, large lot single family homes and town homes and small lot single family homes are generally more affordable to moderate and above moderate incomes. He added that they take up more land; they are more expensive; they are less affordable to lower income groups. As they get into higher densities the affordability becomes much more available to lower income groups. He

commented that apartments and other types of high density housing are generally more affordable. They use this as a guide as they identify the resources that are available to build housing to meet the community's needs in the future.

Mr. Holzem displayed the map to demonstrate the various types of vacant land, other types of land that are available and zoned to accommodate those different types of income categories. They can see the densities here are corresponding to the various zoning districts that can be accommodated and the map illustrates the different locations within the City where those units could be accommodated in future. He commented, as they can see, when they do the math and compare the Regional Housing Needs Allocation that is provided to the City compared to the capacity on these sites within the City, there is plenty of capacity to meet that Regional Housing Needs so there is no need to rezone any land. He stated there is sufficient land readily available here in the community to accommodate the future need.

Mr. Holzem stated they would move on to the document itself and what has changed related to the actions and policies. He explained that the policies and programs are organized under the displayed goal statements. He noted that there are more specifics as to the goals themselves within the document itself. He advised that he won't go through all of the details but the goals have not really changed much from the previous Housing Element so all the goal statements are relatively the same. Their approach to updating this Housing Element, because not a lot has happened over the last five years with development during the recession, was really to refocus and try and streamline the Housing Element as much as possible. They removed things that the City has already done; all the implementation programs that have been completed. They reflected the fact that the Redevelopment is no longer available as a resource in providing affordable housing. They removed any type of repetitive programs or policies and finally when they couldn't measure something, the program wasn't measurable either by something that was being produced or a timeframe for when it should be completed, they either revised it or removed that as well. They also might have noticed that a lot of the document that has been highlighted. He advised this deals with a new way that the State Department of Housing and Community Development is reviewing and it is what is being called a streamlined review where the City will only be evaluated on the sections of the Housing Element that are changing. He noted that all of the highlighted sections of the document are those that have been changed since the last Housing Element. He added that as HCD reviews the document it is only going to focus in on those parts that are highlighted so if anything hasn't changed from the last round, they won't review that and won't ask the City to revise it or amend it in any way. They will only focus on the highlighted changes.

Mr. Holzem stated that there are some eligibility requirements associated with that streamlined review and those are listed on the display. He noted that the first two are already taken care of and the other three are being taken care of as part of this process so that the City is eligible to use that streamlined review mechanism.

Mr. Holzem advised the recommended action is to provide any input that the Council might have on the draft before they submit it to HCD. He added that to move forward from this point, if there is anything that they think needs to be changed in the document, that they let them know so that they can do so before they submit it to HCD. They don't want to go to the state, submit the document, come back and have any significant changes that would require them to go back through that process again and potentially impact their ability to meet the deadline. He advised that is not to say that they can't do that if necessary but really they would like to get it as far along as possible at this point so that as they go through the remainder of the process there aren't a lot of changes occurring in the document. Mr. Holzem stated he is happy to answer any questions.

Mayor Poythress asked if Council has any questions.

Mr. Boyle clarified that there isn't any action taken by the Council tonight and this is a study session. They wanted to allow the Council to have an opportunity to have that study session in advance to submittal to HCD. After the 60 day review period it will come back to Council for their discretionary review and approval.

Mayor Poythress thanked Mr. Holzem for the presentation.

B. CONSENT CALENDAR

B-1 Minutes – There are no minutes for consideration.

B-2 Information Only – Warrant Disbursement Report

B-3 Consideration of a Resolution Approving Amendment No. 3 to the Agreement with Lars Andersen & Associates, Inc. for Engineering Services Relating to the Construction of the Fresno River Trail Undercrossings at Gateway Drive and Union Pacific Railroad (Report by Keith Helmuth)

B-4 Consideration of a Resolution Approving an Agreement with Pyro Spectaculars, Inc. for Operation of the 2015, 4th of July Fireworks Show and Authorizing the Mayor to Execute the Agreement on Behalf of the City (Report by Mark Etheridge)

B-5 Consideration of a Resolution Accepting Easements and Approving Deferral Agreement for Construction of Sidewalk Improvements, 501 North 'C' Street, DMP Development, and Authorizing the Mayor to Execute the Agreement (Report by Keith Helmuth)

B-6 Consideration of a Resolution Approving an Agreement with Compliance Solutions, Inc. for Professional Environmental Services to the City of Madera for the Laurel Bike Path, Sunset Ave. to Fresno River Trail Project Federal Project No. CML 5157 (097) (Report by Keith Helmuth)

B-7 Consideration of a Resolution Approving an Agreement with O'Dell Engineering to Provide Design Services for Knox Park Rehabilitation, CIP Project No. PK-59 and Authorizing the Mayor to Execute the Agreement on Behalf of the City (Report by Mark Etheridge)

B-8 Consideration of a Resolution Approving an Amendment to Agreement with Quad Knopf, Inc. for Environmental Planning Services to the City of Madera in Preparation of an Environmental Impact Report for the Love's Travel Center (Report by David Merchen)

B-9 Consideration of a Resolution Approving an Amendment to Agreement with Love's Travel Stops and Country Stores for the Funding of an Environmental Impact Report for the Love's Travel Center (Report by David Merchen)

B-10 Consideration of a Resolution Approving a Short Sale for a HOME Assisted First Time Homebuyer (Report by Daniel Abdella)

B-11 Consideration of a Resolution Approving an Amendment to the Agreement with Raftelis Financial Consultants Inc. to Perform Rate Studies of Sewer, Water, and Storm Drainage Fees (Report by Dave Randall)

B-12 Consideration of a Resolution Amending the City of Madera Utility Services Policy (Report by Tim Przybyla)

B-13 Resolutions Necessary to Initiate the Process of Issuing Wastewater and Water Revenue Refunding Bonds (Report by Tim Przybyla)

A. Consideration of a Resolution of the City Council of the City of Madera, California Directing Staff to Initiate the Process of Issuing Wastewater and Water Revenue Refunding Bonds in the Aggregate Principal Amount of Approximately $30,000,000

and Authorizing the City Administrator and Finance Director to Engage the Selected Parties for Professional Services Relating Thereto (**City**)

B. Consideration of a Resolution of the Board of the Madera Public Financing Authority Directing Staff to Initiate the Process of Issuing Wastewater and Water Revenue Refunding Bonds in the Aggregate Principal Amount of Approximately $30,000,000 and Engagement of Professional Services Relating Thereto (**Madera Public Financing Authority**)

B-14 Consideration of a Resolution of the Governing Board of the Madera Public Financing Authority Establishing Regular Meeting Schedule and Repealing MPFA Res. No. 10-01 and All Resolutions in Conflict Herewith (**MPFA** – Report by Sonia Alvarez)

Mayor/Chairperson Poythress announced that he would like items B-13 and B-14 removed from the consent calendar for special consideration.

Mayor/Chairperson Poythress announced that he needs to conflict out of item B-5 due to a customer relationship.

Mayor/Chairperson Poythress announced that they will be considering items B-1 through B-4 as well as B-6 through B-12.

Mayor/Chairperson Poythress asked if there are any other items a Councilperson/Authority Member would like to have pulled for further discussion or clarification. No other requests were made and Mayor/Chairperson Poythress announced that he would accept a motion for action.

ON MOTION BY COUNCIL MEMBER MEDELLIN, AND SECONDED BY COUNCIL MEMBER OLIVER, THE CONSENT CALENDAR, WITH THE EXCEPTION OF ITEMS B-5, B-13 AND B-14 WAS ADOPTED UNANIMOUSLY BY A VOTE OF 6-0. ABSENT: COUNCIL MEMBER BOMPREZZI.

RES. NO. 15-65 **A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MADERA, CALIFORNIA APPROVING AMENDMENT NO. 3 TO THE AGREEMENT WITH LARS ANDERSEN & ASSOCIATES, INC. FOR ENGINEERING SERVICES RELATING TO THE CONSTRUCTION OF THE FRESNO RIVER TRAIL UNDERCROSSING AT GATEWAY DRIVE AND UNION PACIFIC RAILROAD**

RES. NO. 15-66 **RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MADERA, CALIFORNIA APPROVING AN AGREEMENT WITH PYRO SPECTACULARS, INC. FOR OPERATION OF THE 2015, 4TH OF JULY FIREWORKS SHOW AND AUTHORIZING THE MAYOR TO EXECUTE THE AGREEMENT ON BEHALF OF THE CITY**

RES. NO. 15-67 **A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MADERA, CALIFORNIA APPROVING AN AGREEMENT WITH COMPLIANCE SOLUTIONS, INC. FOR PROFESSIONAL ENVIRONMENTAL SERVICES TO THE CITY OF MADERA FOR THE LAUREL BIKE PATH-SUNSET AVENUE TO FRESNO RIVER TRAIL PROJECT, FEDERAL PROJECT NO. CML 5157 (097), AND AUTHORIZING THE MAYOR TO EXECUTE THE AGREEMENT**

RES. NO. 15-68 **A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MADERA, CALIFORNIA APPROVING AN AGREEMENT WITH O'DELL ENGINEERING TO PROVIDE DESIGN SERVICES FOR KNOX PARK REHABILITATION, CIP PROJECT NO. PK-59 AND AUTHORIZING THE MAYOR TO EXECUTE THE AGREEMENT ON BEHALF OF THE CITY**

RES. NO. 15-69 **A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MADERA, CALIFORNIA APPROVING AMENDMENT TO AGREEMENT WITH QUAD KNOPF INC. FOR ENVIRONMENTAL PLANNING SERVICES TO THE CITY OF MADERA FOR THE LOVE'S TRAVEL CENTER AND AUTHORIZING THE MAYOR TO EXECUTE THE AMENDMENT TO AGREEMENT**

RES. NO. 15-70 **A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MADERA, CALIFORNIA APPROVING AMENDMENT TO AGREEMENT WITH LOVE'S TRAVEL STOPS AND COUNTRY STORES FOR FUNDING TO THE CITY OF MADERA FOR PREPARATION AN ENVIRONMENTAL IMPACT REPORT FOR THE LOVE'S TRAVEL CENTER**

RES. NO. 15-71 **A RESOLUTION OF THE CITY OF MADERA, CALIFORNIA APPROVING A SHORT SALE FOR A HOME-ASSISTED FIRST TIME HOMEBUYER AND AUTHORIZING THE CITY ADMINISTRATOR TO SIGN THE SUBORDINATE LIEN APPROVAL LETTER**

RES. NO. 15-72 **A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MADERA APPROVING AN AMENDMENT TO AN AGREEMENT WITH RAFTELIS FINANCIAL CONSULTANTS INC. TO PERFORM RATE STUDIES OF SEWER, WATER, AND STORM DRAINAGE FEES AND AUTHORIZING THE MAYOR TO EXECUTE THE AGREEMENT**

RES. NO. 15-73 **A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MADERA, CALIFORNIA AUTHORIZING THE AMENDMENT OF THE CITY OF MADERA UTILITY SERVICES POLICY**

Mayor Poythress turned the meeting over to Mayor Pro Tem Oliver for consideration of item B-5.

Mayor Poythress exited the Council Chambers.

B-5 Consideration of a Resolution Accepting Easements and Approving Deferral Agreement for Construction of Sidewalk Improvements, 501 North 'C' Street, DMP Development, and Authorizing the Mayor to Execute the Agreement (Report by Keith Helmuth)

Mayor Pro Tem Oliver announced that they would move to item B-5 and asked if there are any members of the Council who wish further discussion. No requests were made and Mayor Pro Tem Oliver announced that he would entertain a motion for action.

ON MOTION BY COUNCIL MEMBER MEDELLIN, AND SECONDED BY COUNCIL MEMBER ROBINSON, ITEM B-5, RES. NO. 15-74 WAS ADOPTED UNANIMOUSLY BY A VOTE OF 5-0. ABSTENTION: MAYOR POYTHRESS. ABSENT: COUNCIL MEMBER BOMPREZZI.

RES. NO. 15-74 **A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MADERA, CALIFORNIA ACCEPTING EASEMENTS AND APPROVING DEFERRAL AGREEMENT FOR CONSTRUCTION OF SIDEWALK IMPROVEMENTS, 501 NORTH 'C' STREET, DMP DEVELOPMENT, AND AUTHORIZING THE MAYOR TO EXECUTE THE AGREEMENT**

Mayor/Chairperson Poythress reentered the Council Chambers.

B-13 Resolutions Necessary to Initiate the Process of Issuing Wastewater and Water Revenue Refunding Bonds (Report by Tim Przybyla)

A. Consideration of a Resolution of the City Council of the City of Madera, California Directing Staff to Initiate the Process of Issuing Wastewater and Water Revenue Refunding Bonds in

*the Aggregate Principal Amount of Approximately $30,000,000 and Authorizing the City Administrator and Finance Director to Engage the Selected Parties for Professional Services Relating Thereto (**City**)*

B. *Consideration of a Resolution of the Board of the Madera Public Financing Authority Directing Staff to Initiate the Process of Issuing Wastewater and Water Revenue Refunding Bonds in the Aggregate Principal Amount of Approximately $30,000,000 and Engagement of Professional Services Relating Thereto (**Madera Public Financing Authority**)*

Mayor/Chairperson Poythress announced that they would now move to items B-13 and B-14, and asked for the Director of Financial Services to present a report.

Director of Financial Services Tim Przybyla stated that the City is looking for an opportunity to save money by refunding the Water / Waste Water Bonds in the amount of approximately $30 million. He noted that he and the City Administrator interviewed a number of firms for financial advisory services for underwriting services and they selected those they thought would best serve the City of Madera to help them save money by refunding those bonds and reissuing bonds at a lower interest rate. He added that it would be over the same remaining time but it would save the City a good portion of money. Mr. Przybyla stated they are requesting permission to engage the financial advisors and the underwriters and the bond counsel so that they can work on this item and seek to save dollars for the City's water and waste water funds.

City Administrator David Tooley stated, for those members of the Council/Authority who have not been through a bond issue before, all of the fees are contingent upon the sale of the bond. He advised that there is a window of opportunity to enter the market and get an interest rate that generates savings of potentially $100,000 a year in present value. They are trying to get inside that window and issue the refunding of these bonds. He restated that all fees are contingent.

Mayor/Chairperson Poythress announced that they have two actions on this particular item. They have one action by the City of Madera and then another action by the Madera Public Financing Authority.

City Attorney Brent Richardson agreed.

Mayor/Chairperson Poythress announced that he would accept a motion for action on the resolution for the City of Madera.

ON MOTION BY COUNCIL MEMBER HOLLEY, AND SECONDED BY COUNCIL MEMBER ROBINSON, ITEM B-13A, RES. NO. 15-75 WAS ADOPTED UNANIMOUSLY BY A VOTE OF 6-0. ABSENT: COUNCIL MEMBER BOMPREZZI.

RES. NO. 15-75 **RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MADERA, CALIFORNIA DIRECTING STAFF TO INITIATE THE PROCESS OF ISSUING WASTEWATER AND WATER REVENUE REFUNDING BONDS IN THE AGGREGATE PRINCIPAL AMOUNT OF APPROXIMATELY $30,000,000 AND AUTHORIZING THE CITY ADMINISTRATOR AND FINANCE DIRECTOR TO ENGAGE THE SELECTED PARTIES FOR PROFESSIONAL SERVICES RELATING THERETO**

Mayor/Chairperson Poythress announced that they would now move to the resolution of the Madera Public Financing Authority and advised that he would accept a motion for action.

ON MOTION BY AUTHORITY MEMBER HOLLEY, AND SECONDED BY AUTHORITY MEMBER ROBINSON, ITEM B-13B, RES. NO. MPFA 15-01 WAS ADOPTED UNANIMOUSLY BY A VOTE OF 6-0. ABSENT: COUNCIL MEMBER BOMPREZZI.

MPFA 15-01 **RESOLUTION OF THE BOARD OF THE MADERA PUBLIC FINANCING AUTHORITY DIRECTING STAFF TO INITIATE THE PROCESS OF ISSUING WASTEWATER AND WATER REVENUE REFUNDING BONDS IN THE AGGREGATE PRINCIPAL AMOUNT OF APPROXIMATELY $30,000,000 AND ENGAGEMENT OF PROFESSIONAL SERVICES RELATING THERETO**

Mayor Poythress announced that they would move to item B-14 which is a related item.

*B-14 Consideration of a Resolution of the Governing Board of the Madera Public Financing Authority Establishing Regular Meeting Schedule and Repealing MPFA Res. No. 10-01 and All Resolutions in Conflict Herewith (**MPFA** – Report by Sonia Alvarez)*

Mayor/Chairperson Poythress stated that this item is for the Madera Public Financing Authority and if there are no questions he would accept a motion for action.

ON MOTION BY AUTHORITY MEMBER HOLLEY, AND SECONDED BY AUTHORITY MEMBER OLIVER, ITEM B-14, RES. NO. MPFA 15-02 WAS ADOPTED UNANIMOUSLY BY A VOTE OF 6-0. ABSENT: COUNCIL MEMBER BOMPREZZI.

MPFA 15-02 **A RESOLUTION OF THE GOVERNING BOARD OF THE MADERA PUBLIC FINANCING AUTHORITY ESTABLISHING REGULAR MEETING SCHEDULE AND REPEALING MPFA RESOLUTION NO. 10-01 AND ALL RESOLUTIONS IN CONFLICT HEREWITH**

C. HEARINGS, PETITIONS, BIDS, RESOLUTIONS, ORDINANCES, AND AGREEMENT

C-1 Public Hearing and Consideration of a Resolution Adopting the Community Development Block Grant 2015-2019 Consolidated Plan and the 2015-2016 Action Plan and Authorizing the City Administrator to Sign the Certifications

City Administrator David Tooley declared a conflict of interest on this item and recused himself from any discussion on this item.

Mayor Poythress asked if that would be the entire section. He asked if they are going to vote on these by each category.

City Attorney Brent Richardson responded that when they have the tentative allocations previously, it was his advice that if they were conflicted out of a piece of it since basically they are somewhat intertwined that the conflict would be as to the whole item.

Mayor Poythress also declared a conflict of interest on this item due to his association with the Madera County Workforce Investment Board and turned the meeting over to Mayor Pro Tem Oliver.

Council Member Holley also declared a conflict of interest on this item.

Mayor Poythress, Council Member Holley, and Mr. Tooley exited the Council Chambers.

Mayor Pro Tem Oliver opened item C-1.

Grant Manager Daniel Abdella stated that tonight represents the final Council hearing for the 2015/2016 CDBG allocation process. He asked Mr. Rojas to offer translation services to those who may require them.

Jorge Rojas, Program Manager for Grants, announced in the Spanish the subject matter and asked if anyone in the audience needs assistance in Spanish. Mr. Rojas announced that no one requested assistance.

Mr. Abdella advised that the primary purpose of tonight's meeting is for Council to approve by resolution its final allocation of FY 15/16 CDBG funds. He noted that as a result, Council allocated over $942,000 to fund the various projects and programs that applicants have submitted for their consideration. Mr. Abdella advised that staff has included four columns in the attached worksheet to assist Council during this process. He noted that the first indicates the Review and Advisory Committee's (RAC) recommendations from their March 5th meeting; the second column expresses staff's preferences for the use of CDBG; the third contains Council's tentative allocations from their April 1st meeting; and the fourth column is intended for tonight's meeting. Mr. Abdella stated that staff has also included the public comments that they received since the last tentative allocation. He added that given the broad scope of the grant the CDBG award has the potential to advance an extensive number of the Vision Plan's objectives depending on Council's final allocation. Mr. Abdella offered to address any questions or concerns Council may have. No questions were asked.

Mayor Pro Tem Oliver stated he understands they are going to have a presentation for the Consolidated Plan and asked if the consultant is here.

Mr. Rojas responded that the presentation was done earlier.

City Attorney Brent Richardson asked Mayor Pro Tem Oliver if he is talking about the next item.

Mayor Pro Tem Oliver responded that he is looking at item C-1 recommendation which states the staff recommendation to allow for the consultant's presentation of the CDBG Consolidated Plan. He knows they went over it at their previous meeting on CDBG.

Mr. Richardson stated it looks like that is the next item.

Council Member Medellin stated that is what he shows on item C-1. He thinks it is worded wrong and the recommendation is to accept the consultant's presentation from the April 1st meeting.

Mr. Abdella stated it appears they have different titles and it is an error.

Mayor Pro Tem Oliver advised they would move on to the public hearing portion of this item. He knows that they had some lengthy discussion about each application and formed some tentative allocations. He invited any member of public or applicant who wishes to address the Council at this time to speak. No requests were made and Mayor Pro Tem Oliver closed the public hearing and brought the item back to Council for further discussion and consideration.

Mayor Pro Tem Oliver stated he knows there was some additional correspondence submitted to staff and Council within the 30 day comment period from an applicant. He knows that they provided a suggestion to look at previous year's performance and compliance with CDBG funds. He just wanted to note that he found the information to be very, very fruitful and informative and he thinks it brings a good recommendation moving forward with CDBG since a lot of the applicants do come back each year and apply for these funds to include those benchmarks and those quarterly reports as a complement to the applications. He just wanted to thank the applicant for their input and he thinks it presents a good idea for the future.

Council Member Medellin commented that is a point well said. He also wanted to thank Mr. Abdella and Mr. Rojas for their efforts and their hard work. He knows this is not easy and it has taken quite a while but their presentation was very well presented.

COUNCIL MEMBER MEDELLIN MADE A MOTION TO APPROVE THE PRESENTATION.

Mayor Pro Tem Oliver stated before they move to a motion he might ask his colleagues to revise the content to authorize the Mayor Pro Tem to sign the certifications to avoid any potential conflict. He thinks the current language reads the City Administrator.

COUNCIL MEMBER MEDELLIN STATED THAT IS DULY NOTED.

THE MOTION WAS SECONDED BY COUNCIL MEMBER ROBINSON.

MAYOR PRO TEM OLIVER STATED THEY HAVE A MOTION AND A SECOND WITH THE REVISED AUTHORIZATION OF THE MAYOR PRO TEM TO SIGN THE CERTIFICATIONS AND CALLED FOR THE QUESTION, AND ITEM C-1, RES. NO. 15-76 WAS ADOPTED UNANIMOUSLY BY A VOTE OF 4-0. ABSTENTIONS: MAYOR POYTHRESS, COUNCIL MEMBER HOLLEY. ABSENT: COUNCIL MEMBER BOMPREZZI.

RES. NO. 15-76 **A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MADERA, CALIFORNIA ADOPTING THE COMMUNITY DEVELOPMENT BLOCK GRANT 2015-2019 CONSOLIDATED PLAN AND THE 2015-2016 ACTION PLAN AND AUTHORIZING THE MAYOR PRO TEM TO SIGN THE CERTIFICATIONS**

Mr. Abdella asked, for clarification, if they are adopting the tentative allocation as the final allocation.

Mayor Pro Tem Oliver responded he believes Council Member Medellin's motion included as referred to on the screen.

Administration	
• Local Administration	$166,000
• Fresno Madera Continuum of Care	$13,511
	$179,511
Public Services	
• Madera Co. Workforce Investment Center Scholarships for Adults Learning and Training	$13,000
• City of Madera Parks Senior Services	$111,633
• Madera Coalition for Community Justice Resilient Madera Program	$10,000
	$134,633
Capital Projects / Public Improvements	
• City of Madera Public Works Dept. Graffiti Abatement Program	$163,570
• Neighborhood Revitalization Program	$400,000
• City of Madera Parks & Community Services ADA Improvements At Community Centers	$65,238
	$628,808

Mayor Poythress, Council Member Holley, and Mr. Tooley returned to the Council Chambers.

C-2 Public Hearing and Consideration of a Resolution Adopting the Community Development Block Grant Analysis of Impediments to Fair Housing Choice

Grant Administrator Daniel Abdella stated that as recipients of the CDBG funds, the Department of Housing and Urban Development (HUD) requires the City to prepare and Analysis of Impediments to Fair Housing Report every five years. He advised that this cycle they had Mintier Harnish prepare it and their report was exhaustive. He noted that since 2010 apparently only five fair housing complaints have been filed with the Department of Housing and Urban Development and zero have been filed with the California State Department of Housing and Fair Employment. He added that while they did not identify many fair housing issues in the City, they did have a series of recommendations which are in the staff report. To summarize, he thinks what they are urging the City to do is to work closer with the fair housing non-profits

and to provide more fair housing education through the City's resources such as the website, Facebook but other than that, he doesn't want to put words in their mouths, but he thinks they got a fairly good evaluation. He is optimistic that HUD will find it satisfactory. He offered to answer any questions and advised that concludes his report.

Mayor Poythress stated if there are no questions from the Council then he will open the public hearing. No questions were asked and Mayor Poythress opened the public hearing. No commented were received from the public and Mayor Poythress closed the public hearing.

ON MOTION BY MAYOR PRO TEM OLIVER, AND SECONDED BY COUNCIL MEMBER ROBINSON, ITEM C-2, RES. NO. 15-77 WAS ADOPTED UNANIMOUSLY BY A VOTE OF 6-0. ABSENT: COUNCIL MEMBER BOMPREZZI.

RES. NO. 15-77 **A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MADERA, CALIFORNIA APPROVING THE CITY OF MADERA'S COMMUNITY DEVELOPMENT BLOCK GRANT 2015-2020 ANALYSIS OF IMPEDIMENTS TO FAIR HOUSING CHOICE**

C-3 Public Hearing and Consideration of Introduction of an Ordinance Amending Title X: Planning and Zoning of the Madera Municipal Code to be in Compliance with the State Department of Housing and Community Development Requirements for Qualification for the Housing Element Streamlined Review Process

Planning Manager Chris Boyle stated this is an ordinance that would provide the City an opportunity to qualify for the streamlining component that would allow them to submit for adoption of their Housing Element to Housing and Community Development (HCD). He noted that they have a two day advance lead of their submittal to HCD of the draft as shown in their timelines by a recent study session. He commented that in order to use that HCD timeline review process, a jurisdiction must document that its existing Housing Element was adopted and found to be in compliance with State Housing Element law, specifically five items. He advised that the first one, the Council recently took action on, and that was the implementation of their Housing Element Rezone Program. He commented that they might recall just recently the Council adopted the ordinance that changed the zoning districts on specific parcels to be in compliance with the Regional Housing Needs Allocation and to provide sufficient Housing across all income groups. He added that the second item which is a part of the ordinance that is under their review tonight is adoption of emergency shelter provisions. He explained that this ordinance essentially provides for emergency shelters as a non-discretionary item, a ministerial item, which would be allowed for this ordinance in the C-2 zone. He noted that there are specific criteria which would be applied per that allowance and they would be done ministerially through the site plan review process. He commented that is a requirement of the HCD to provide non-discretionary approval of emergency shelters. He advised that the third item is adoption of Transitional and Supportive Housing Provisions. He explained that this essentially requires that transitional and supporting housing be looked at and be held to the same standard of any other permitted housing types within residential zones within the City. He stated that the ordinance provides specific definitions that in essence assure that transitional and supportive housing are compliant with HCD guidelines. He noted that the fourth item is adoption of a Reasonable Accommodation Procedures that ultimately ensure that reasonable accommodations are provided and that there are no impediments to fair housing for handicapped Individuals. He added that last, the ordinance, under their review tonight, would provide for a consistency with the State Density Bonus Law. He commented that they have a Density Bonus provision within their ordinance but it is slightly dated and the new density bonus ordinance would provide for updates that would provide consistency with HCD law. He noted for instance, their current ordinance doesn't make provisions for bonuses to be allowed for daycare centers as a component of a housing element.

Mr. Boyle commented that with adoption of this ordinance the City's ordinance would be allowed to qualify for the streamlining ordinance as they submit their Housing Element to the Housing and Community Development Department. He added that it would provide for consistency with their City of Madera General Plan and their Vision 2025 Statement.

Mr. Boyle advised that the Planning Commission and staff recommend that the Council, after consideration of public testimony introduce the ordinance amending Title X, Planning and Zoning for the Madera Municipal Code to be in compliance with the State Department of Housing and Community Development requirements for qualifications for the Housing Element Streamlined Review Process. Mr. Boyle stated that completes his presentation and he would be happy to answer any questions the Council might have.

Mayor Poythress thanked Mr. Boyle for the presentation and asked if members of the Council have any questions for Mr. Boyle. No questions were asked.

Mayor Poythress opened the public hearing. No comments were received and Mayor Poythress closed the public hearing.

Mayor Poythress called on the City Clerk for title.

The introduction of an ordinance was read by title by the City Clerk.

ON MOTION BY COUNCIL MEMBER MEDELLIN, AND SECONDED BY MAYOR PRO TEM OLIVER, FURTHER READING WAS WAIVED, AND ITEM C-3, INTRODUCTION OF AN ORDINANCE WAS ADOPTED UNANIMOUSLY BY A VOTE OF 6-0. ABSENT: COUNCIL MEMBER BOMPREZZI.

INTRO. ORD. INTRODUCTION OF AN ORDINANCE AMENDING THE MADERA MUNICIPAL CODE TO PROVIDE ELIGIBILITY FOR AND COMPLIANCE WITH THE HOUSING ELEMENT STREAMLINED REVIEW PROCESS OF THE CALIFORNIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT

C-4 Consideration of an Introduction of an Ordinance of the City Council of the City of Madera, California, Amending Chapter 7 of Title VIII of the Madera Municipal Code Pertaining to Municipal Utilities

Director of Financial Services Tim Przybyla stated the introduction of this ordinance is to help to clean up the ordinance regarding utility billing by amending Chapter 7 of Title VIII of the Municipal Code. Mr. Przybyla referred to the ordinance and advised that he would point out the few changes they are proposing to make. He referred to page 4 beginning with Section C under 8-708, Charges for Municipal Utilities. They are proposing to change the date from the 5th of the following month to the 25th of the current month. The reason for that is because currently with the delinquent date being set as the 5th of the following month and the utility bills being sent out on the first of the month, people come to pay their late fees on the 6th. They will pay their penalty and what is past due and at the time they pay, they will pay what shows as being past due. Then they have to explain to them well there is another past due amount that you pay on the past due and it just doesn't work out; the timing is not right. He advised that they are actually changing the wording in the document to delinquent date rather than due date because in his opinion the utility bills are due upon receipt but they are delinquent after a certain date. They are hoping to change the date to make it less confusing and easier for them to explain to customers and for the customer to be able to see on their bill how much they will actually owe if they don't pay by a certain date.

Mr. Przybyla moved to the next section under Delinquent Accounts and stated that after establishing the delinquency date they just name the date rather than saying the 5th of the following month just to make the wording easier to follow. He added that at the bottom of the next page they are taking out the section that talks about all costs of collection shall be charged against the delinquent customer account in addition to any other late fees, penalties and interest. He commented that after discussion with the City Attorney they didn't think that was legal to try to make them pay the amount plus the amount that the collection people take out of the collection. They are proposing to take that out of the ordinance.

Mr. Przybyla referred to the eighth page which is Section 8-7.14, Noticing Prior to Termination of Service. He explained that this is another section that basically what they are trying to do is streamline the process. He advised that currently the process really is not working because they generate a list of all the people that they need to send notices out to and they mail out a separate list to all those people after they have generated those lists so they do a separate mailing around the 10th or 15th of the month telling them that they are going to be shut off in 10 days if they don't pay by then. He stated that the proposal is to just have them include on the utility bill, when there is a past due amount, they will put bold red lettering saying the past due and then a statement that the past due amount is paid by such and such a date or you will be subject to penalties and possible shut off. He believes they included a sample utility in the report that shows the additional wording. They will be able to see both; adding due upon receipt at the top and the bold red indicating that if you don't pay it by this date you will be subject to further penalties and shut offs.

Mr. Przybyla commented that the other proposed change is going from the 5-day notice to a 48-hour notice, noting that the P.U.C. only requires a 24-hour notice, so they are still giving more notice than is necessary. They would send out the notice 5 days prior to that time because they have to allow 5 days for postage. He advised what that would be replacing is the two field reps that they have out in the field that are expected to go to some 2,000 houses that are delinquent at the time and hang something on their door knob. They will replace that process with mailing out the 48-hour notices 7 days before the shut off date. That will inform them and they will also make a reasonable attempt to contact them by phone. He explained that rather than have their field reps going out, finding all these houses and hanging something they will mail it out and then they will attempt to contact them by phone to meet all the requirements of the P.U.C.

Mr. Przybyla commented that by changing the timelines and changing the process of how they notify them they think they will be able to save a whole lot of staff hours and make it much more understandable for the public; for their customers. They are hoping to provide a better level of service to them. He offered to answer any questions.

Mr. Przybyla stated that the recommendation is for Council to introduce the ordinance amending Chapter 7 pertaining to Municipal utilities.

Mayor Poythress stated that was a nice presentation and asked if members of the Council have any questions for Mr. Przybyla. No questions were asked.

Mayor Poythress called on the City Clerk for title.

The introduction of an ordinance was read by title by the City Clerk.

ON MOTION BY MAYOR PRO TEM OLIVER, AND SECONDED BY COUNCIL MEMBER HOLLEY, FURTHER READING WAS WAIVED, AND ITEM, C-4, INTRODUCTION OF AN ORDINANCE, WAS ADOPTED UNANIMOUSLY BY A VOTE OF 6-0. ABSENT: COUNCIL MEMBER BOMPREZZI.

INTRO. ORD. INTRODUCTION OF AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF MADERA, CALIFORNIA AMENDING CHAPTER 7 OF TITLE VIII OF THE MADERA MUNICIPAL CODE PERTAINING TO MUNICIPAL UTILITIES

D. WRITTEN COMMUNICATIONS

D-1 Presentation by Jerry Lee Regarding Community Media Access Collaborative (CMAC) and Report by Ted Uyesaka

Information Services Manager Ted Uyesaka thanked the Council for allowing them to come before them today. He noted that this report was prepared in response to Mr. Lee, the Executive Director of the Community Media Access Collaborative (CMAC) out of Fresno to address the Council on availability of Public Education and Governmental or PEG access fees. Mr. Uyesaka added that the report went over

their current franchise fees that they collect from the cable providers and also talks about the possibility of collecting additional fees if the City Council wishes to. It also talks about how those fees are generally passed on to the consumer through their bill by the providers and it talks a little bit about Mr. Lee's organization CMAQ, who they work with today. Mr. Uyesaka introduced Mr. Lee who will talk to the Council about his organization, introduce them to some opportunities he feels the City may have, and a little bit more information on what is going on.

Jerry Lee with Community Media Access Collaborative thanked the Council for the opportunity to address them and give them some information about Public Education and Government Access. He commented that the City is already collecting 5% of gross from Comcast and AT&T U-Verse that goes into their general fund. He noted that there is an additional 1% that is available. They have to tell Comcast and AT&T U-Verse that they want to collect that and it is passed on as a user fee to their customers. He commented that that 1% goes through the City to an agency for part of the government, or part of the education system that the City designates to be used for any of the three: public access, education access, or government access. He noted that he has been in conversation with Superintendent Gonzalez and some others, and they know there is an interest in having PEG access in Madera. Mr. Lee played a short video about how it works in Fresno and in Clovis.

Mr. Lee stated that they obviously have two rather large communities that provide funding for them. He believes that if they ask for the additional 1% they would receive somewhere between $50,000 and $75,000 a year for the purpose of Public Education and Government Access. He stated that according to the DIVCA law, the Digital Infrastructure and Video Competition Act of 2006, they are allowed to tell the cable companies that they want up to three channels but that probably is too aggressive at this point. They would be better served, he thinks, with just one channel early on to be divided up between government and education. He commented that one of the success stories that they had very recently, they trained 21 students from Sunnyside High School in the use of their mobile production van and they broadcast live three football games out of the stadium. He added that two of the young women who they trained went to the Grizzlies Stadium and applied for jobs with the Grizzlies and when they saw that they were trained by CMAQ they interviewed them and those two young ladies now have positions in the media department at Chukchansi Stadium. He noted that it becomes an opportunity to train students in the art of media. He commented that Terry Dolph is a citizen of Madera County and they started many, many years ago in this process and together they designed and built the studio that they saw there. They have only their advice to offer the City. They have no skin in the game as it were but they so firmly believe in what Public Education and Government Access can do for a community to open up their meetings to the public to give schools the opportunity to teach students the art of media in a professional environment. He commented that it gives them a leg up; gives them confidence and if the City decides to go ahead and request that 1% at some point, they will be happy to give the City advice and help guide them along in the process. Mr. Lee stated that he and Mr. Dolph are happy to answer any questions the Council may have.

Mayor Poythress asked if members of the Council have any questions.

Council Member Medellin stated he had the opportunity to meet with Mr. Lee, Mr. Dolph, and Superintendent Gonzalez who is also present this evening. He commented that he would like to hear from Superintendent Gonzalez who has some ideas himself. He added that Sheryl Sisil is also in the audience and she made a wonderful presentation to the Council just a couple of weeks ago on how this ties in to the Pathways concept. He thinks the training, teaching and education of this media avenue would be absolutely wonderful.

Ed Gonzalez, Madera Unified School District Superintendent, stated he will keep this as brief as he can. He advised that they are expanding their Career Pathways through their high schools and extending them down into the middle schools as part of their integrated secondary program. They see expansion of video production and other media as really partial to what they want to do in preparing students for post secondary education and jobs. They also think it is an excellent opportunity to train Maderans in media so they can enhance Madera's image throughout the region and throughout the state.

Sheryl Sisil with Madera Unified School District stated they have talked recently about providing opportunities for their students from Madera to gain skills that will help their community and their kids, and keep those skills here. She noted that with the opportunity that this could offer for their students, again, it is another high level skill. It is another need in their local community and surrounding communities that they could provide students with an opportunity to be trained. She stated that the technology that they have access to now is nothing compared to what they would get through the type of program that CMAQ runs. She thinks that their mobile van is like what ESPN has. It is equivalent technology. She noted that they are not exactly able to offer that to their current students. They can imagine the financial impact that would have. She commented that she would love the support and being able to move forward with this project so that they can provide their students, Madera kids, with another opportunity and it is going to enhance Madera and enhance their own students and give them additional opportunities that they are not currently getting. They all know that technology encompasses all industry sectors. She commented that it is not specific to one; it kind of covers them all.

Mr. Gonzalez stated that one of the dreams that they have as a school district is to create a technology center in Madera. He noted that the technology center would encompass video production as part of it as well programming, coding, just different things. He commented that technology is changing so fast that if he were to give them a litany of all the things that they want to do right now it would be obsolete in a year. He stated that Steven Alexander, their Director of Information Technology, is also here because they want to emphasize that they think this is an opportunity for the City and possibly even the County, if that would be the wishes of the County, to really help them get on the map and integrate what they want to do with the schools, with the community at large. He stated that at this point they are here to answer any questions that the City Council may have.

Mayor Poythress asked if there are any other questions from Council.

Council Member Rigby referred to the comment that they hope to have a media center. He asked if this is a future plan. He asked if this is something that is in the works, we hope to, or we are going to wait and see how Council...

Mr. Gonzalez responded that from the district perspective they have talked about a tech center. He didn't specifically call it a media center because media would be a part of that. They have purchased land for it. They haven't proceeded with anything beyond that at this point. He advised that this could be something that could go into, from the CMAQ perspective, an existing building if that would suit purposes or it could be something that would be built.

Council Member Rigby asked where that was purchased.

Mr. Gonzalez responded that it is at Sunrise and Road 28.

Mayor Poythress thanked them for their comments.

E. ADMINISTRATIVE REPORTS

E-1 Staff Requests Direction from Council Regarding Temporary Landscape Maintenance Service to Underfunded Landscape Maintenance Zones

Parks and Community Services Director Mary Anne Seay stated that over the balance of the last several months they have heard a lot of presentations from staff on landscape maintenance districts. They have heard a lot of commentary from the community about landscape maintenance districts and staff has worked together to prepare 218 ballots that will be heading out to impacted zones within a week and a half's time. Today they are here to seek direction from Council. She noted that they have the understanding from those previous dialogues that she referenced that there are 23 zones who voted against an increased assessment. She commented that in those 23 zones there are varying degrees of deficit. She advised that some are very underfunded; some zones they had to stop landscape services back in November of 2014; others are going to fall out of service in the next month or two. She added

that in response to significant community concern, Council asked staff to prepare some information for them about what it would take to offer some relief in those underfunded zones from this point to the beginning of the new fiscal year. Ms. Seay stated that as a reminder, Council directed staff to bring that work in house and effective July 1 the landscape maintenance program, the landscape itself, the administration of all that will in house and the Parks Department is currently ramping up and purchasing equipment, hiring staff, and trying to get the word out to have a good crop of folks to choose from to build their team. She advised that the question before the Council is what do they do from now until July 1 with those underfunded zones. She added that there still is the question mark, to be fair and to be completely open, on how the ballots are going to come in for this next fiscal year and that is something for the Council to consider as well. She commented that her colleague John Scarborough has done an enormous amount of work on this and Keith Helmuth has as well. They have worked together as a team. They have been to some community meetings. They plan on doing an outreach effort to make sure all impacted residents know that they have a ballot, that they live in a zone, what that means, what a yes vote means, what a no vote means, what the consequences look like, and they are always available to take phone calls and emails from the community to answer questions that they don't feel like they are getting.

Ms. Seay stated she is happy to answer any questions the Council may have now. She commented that the staff report before them is seeking direction from Council if they would like staff to provide some relief in those underfunded zones and use general fund dollars. She advised that they can do that. They have prepared three different levels of service. One would be once a month; one would be every other week; and one would be weekly service. She commented that this is going to be using their existing staff and existing equipment in overtime capacity. She stated this is not going to restore these zones to extremely manicured bushes and landscapes; it is going to be more of the basics such as mowing down the weeds and eradicating some of the blight they see in some of the worst zones.

Mayor Poythress stated he received an email from Jose Evangelista today in regards to the community meetings that have been set up. He thinks there are roughly six or seven and they are scattered around the community where they have landscape zones that are going to be subject to a vote coming up. He asked Ms. Seay to give a brief summary of what is going to happen at those meetings.

Ms. Seay replied that at those meetings they are asking residents who live in those neighborhoods to come out to meet with City officials, to meet with City staff both from Engineering and Parks. They want to be able to explain to them that they are getting a ballot in the mail. She noted that a lot of people have confessed to them that they got the ballot and didn't know what it was and tossed it away. They are explaining very objectively what a 218 election is, what the ballot is, making sure they understand what to do if they don't get a ballot, making sure they understand how to vote and making sure that they understand what the consequences of a no vote are. They are not advocating for one position one way or the other but they are there to objectively explain the situation to any of those residents. They encourage residents in those impacted neighborhoods to come to those smaller community meetings so they can really start to understand more about the zone that they live in.

Mayor Poythress suggested that as far as those particular areas where the meetings are going to take place, as far as getting the information out to the folks, he thinks it would be really helpful, and he would be willing to volunteer and he knows his colleagues would be more than happy to do so, to see if they could have door hangars or something that they could leave. He commented that it is just extra notice and again, it is something that rather than coming in the mail it is just one more thing that people have in front of them that they could take a look at. He restated that it is just a suggestion.

Council Member Rigby advised that he too has talked to Mr. Evangelista and he agreed that there would be a foot campaign prior to meetings. Council Member Rigby stated he would be working not only his district but volunteering to help his colleagues with theirs as well so their job is not yet over.

Mayor Poythress stated he would comment on the alternatives and asked that members of the Council weigh in. Mayor Poythress commented that he thinks about this time of the year, today is the 6th, and he knows that what he notices is that a lot of the weeds and stuff that grow typically grow mainly like in the

winter, and early spring they get that big growth. After that some of the weed varieties die off and so forth. He is not sure, based on what the recommendations are here, whether they need to do more than say once a month because he could see the initial service being done. It would take out those winter and spring weeds and then in another month, whatever had a chance to grow up could be eliminated also and by then it takes them through July. Then they have this other issue coming from another direction from the Governor which is a whole different factor that comes into play here in regards to less water on medians and so forth that really pulls off the growth. He is wondering if it is even necessary to go beyond Option 1.

Council Member Rigby commented that it is less than 60 days until it is reported that the City would take over full maintenance of these areas. He asked if once they take over is it full service or will it be that which was suggested in this report that there would be large scale shrubs and tree trimming would not be presently part of the service plan. He commented that in other words will they be well equipped to take on full service of these maintenance zones or is there a possibility that whatever option might be selected tonight that that could be prolonged into past the July 5th time because of insufficient people, not enough people, not enough resources.

City Administrator David Tooley replied that he thinks there are a couple of parts to Council Member Rigby's question so he needs to check in with staff. He asked Ms. Seay if at this point, she can't be absolutely, but is she relatively confident that they will be ready to spool up on July 1.

Ms. Seay replied yes. They have purchased equipment. She noted that Human Resources has been an excellent partner for them in terms of fast tracking the hiring of staff.

Mr. Tooley commented that they have a reasonable expectation that they will be spooled up to provide a full level of service. He asked that they suppose that for some reason they didn't get there. They could provide a lesser level of service. They would charge less to that zone and the monies that are contributed to that zone through the landscape maintenance zone process remain in that zone and available for either future expenditures for zone or a refund to the people in the zone. He thinks they are in a position to provide service. To the extent that they would not do so they are going to make sure that they accurately account for revenues and expenditures.

Council Member Medellin stated they are talking about July 1 but asked that they go back to the timeline for the 218 vote. He asked that they give him a timeline on once they have their town hall meetings, once they educate the public, they vote, it comes back to Council, when can they reasonably say through these zones that they will have a definite answer as to yes versus no and then they can move forward at that point.

Mr. Tooley responded that the Proposition 218 vote is scheduled for July 1st so it syncs up nicely for them.

Council Member Medellin referred to Option 1, 2, or 3, once a week, twice a month, once a month and noted that it is going to be at the City's expense until July 1 Proposition 218 votes come in and at that point they have done the education, they have done the outreach, they have talked to as many people as they can in their districts or sharing districts and at that point what else could they do.

Mr. Tooley responded that at that point, those zones that are fully funded will receive full service. He asked that they suppose hypothetically that a zone only has enough funds for 50% service the City would scale its service plan to meet the available funds.

Council Member Medellin stated he is prepared to suggest Option 2 simply because of the timeline for July 1 to do it twice a month because he thinks that is about what it is going to take regardless of water to get it to at least looking satisfactory. As they drive around, all of their neighborhoods, all of their medians or islands again, whether it is once a month or five times a month the grass is not going to turn green and they still have a separate issue with the water. For his particular vote he is leaning towards Option 2 which is $7,000 roughly out of the general fund and twice a month.

Council Member Robinson stated he read somewhere that they won't be able to use drinking water for watering the medians.

Ms. Seay replied that is correct. Per the Governor's executive order that came out on April 1st ornamental turf in median islands cannot be irrigated effective April 25th and the water in those median islands have been shut off for the turf and staff is in the process of retrofitting and making sure that the trees in those medians get irrigation so they don't have a significant tree mortality.

Mayor Poythress stated he has a question arising out of Option 1 and 2. He asked if they do a once over on all of the zones and so forth how long would it be, considering the fact that there isn't going to be a lot of watering, that they would have to go through again.

Ms. Seay asked John Scarborough, Parks Planning Manager, who has direct experience with landscape maintenance, to respond. She can tell them that the weeds in her yard seem to grow whether they are watered or not.

John Scarborough, Parks Planning Manager, stated that Council has wisely touched on something that they have been thinking about over the last couple of weeks and the fact is, he thinks it is keeping all of them awake at night, is that the Governor's order and the City's subsequent water restrictions are mandating that they only water two times per week. He stated that obviously the benefit to that is a substantial reduction in the consumption of water and another way to look at that is that all turf, not just the turf in the medians where they are turning the water off, but all the turf that is currently getting watered two days a week, all of the shrubbery that is getting watered two days a week, as they move into warmer weather will begin to stress somewhat. They believe that through some of their newer technology and just by monitoring things really, really closely that they will be able to get all the plant life through the summer ok but a beneficial side effect is that the typical weed growth that they see this time of year is usually due to an abundance of soil moisture. They are not going to have that this year. They believe that if they come through and they clean an area up the need to come back will be extended over what it has typically been in a normal year. He added that the same thing with the turf being that it is not over-watered and probably right at the level of continually being under-watered, the lawns aren't going to grow like they typically do. They are hopeful that as they move into summer, they are gearing up and that sort of thing, that they can extend some things out a little bit. They believe that the initial clean up in the zones that are looking kind of shabby right now is going to make a pretty dramatic impact. He commented that as mentioned in the staff report, they don't believe that they have the time and the resources onboard right at this time to do large scale tree trimming and shrub trimming and that sort of thing but the lawn mowing, the weed clean up, removing the leaves and the litter, and that sort of thing are going to go a long ways towards making things look a lot more presentable.

Council Member Medellin stated that clears up his statement. As a for instance, once a month, if it looks good for a week, then it is semi-tall for a week, then it is out of hand after the third week, then they are looking at more ugly looking tall weeds than not. But if they are saying that really without any moisture the growth on the dry grass is minimal and why go after 14 days or so and pretty much mow the half inch growth that they have does seem like a waste. He thinks they answered his question and if that is the case and they can keep at least neat then he doesn't mind Option 1.

Council Member Rigby stated he came in here with ears wide open, eyes wide open and wanting to consider all options. He noted that maybe his colleagues can weigh in on this, he is the new guy. He stated that dipping into the general fund, to him, seems like a slippery slope. He thinks that there are definitely things that need to get done but when they start dipping into the general fund they are taking away resources from other areas that it could better be used. They are taking salaries from their Police Department. They are taking potential building funding from a much needed Fire Department on the north side. He agreed that the cost is minimal but what he doesn't want to do is set a precedent as Council Members. With that said however he is curious what it would look like to have Option 4, a one time only clean up where they go in completely clean up, one and done and then they wait out the less than 60 days until July whatever. He is not sure if that throws a wrench in the game however, he is very

concerned at what sort of precedence they would be setting as a Council willing to dip into the general fund for something such as landscaping.

Mayor Poythress stated he really appreciates Council Member Rigby's comment. He thinks it is very responsible and very prudent. Mayor Poythress commented that he would suggest that it would not present a precedence only becomes it is so unusual. He thinks if it was something that they were looking at the potential of occurring year, after year, after year, and occurrence after occurrence he would say yes absolutely. He thinks that this is going to be more than likely a very isolated type of situation. He stated that Council Member Rigby's comment is well taken and he agrees to be careful about how they take a look at general fund.

Mayor Pro Tem Oliver agreed with Council Member Rigby. Obviously they have to be stewards of very, very precious tax dollars whether it be a dollar, $3,000 or $30,000 and obviously this is a temporary deal. Mayor Pro Tem Oliver stated he is confident in both the decisions and the direction they have made collectively in moving forward here soon with bringing that service in house. He hopes it will alleviate a lot of these concerns moving forward. He doesn't want to go too far off topic but Mr. Scarborough mentioned limited time and resources and he knows that Ms. Seay and her staff and others have dedicated tens of not hundreds of hours towards this subject and he thinks with the changes on July 1 and with more public involvement, he doesn't know that they are going to go away especially with a lot of the variables coming from the Governor's office. He commented that they are a town of 16 square miles and they have 80 special districts. He knows they are providing a great deal of emphasis on this subject but at some point, is there a discussion to be had about consolidating some of those districts into something that might be more maintainable. He is sure it is a herculean task; it is not going to happen in July perhaps not even next year but at the end of the day, a small town, he can't imagine that this is the norm and asked if there are any options available as a community to look at alternatives to make themselves more available and staff and also just for a better plan ahead.

City Attorney Brent Richardson responded to Mayor Pro Tem Oliver's question regarding consolidation. He stated so that they are aware of the process for consolidation of landscape maintenance districts essentially puts the same burden as if they were actually starting a new district. They are essentially getting an affirmative vote from individual homeowners. He stated that typically when these things are set up a lot of times they have one owner, in other words housing developments, that type of thing. Now they have individual owners so it is much more onerous task than even when they were set up originally. That is what they are looking at is essentially if they were to set it up from the get go, if they were to consolidate because all those people being consolidated have to basically have a vote on that. He added that it is complicated by the types of improvements and the various benefits associated with the different districts. He commented that it sounds good but probably an implementation is probably extremely, extremely difficult.

Mayor Pro Tem Oliver stated he is absolutely sure and he would just advise that maybe they look at other examples to see if other cities have done something similar. He stated that just with 80 districts, he can't understand that there is not a little bit more they can do and it is a herculean task just to get a Proposition 218 passing as it is so maybe there is something they look at down the line and see if there are any other opportunities in the future that might present itself.

Council Member Medellin stated to Council Member Rigby that his point is well taken. He totally agrees with him. When they are talking the general fund every dollar counts and they have to be good stewards of their money. His justification, personally, and it was brought up by the Mayor, he would like to show a good faith effort. They are talking about people's neighborhoods and homes and where you live and this has to be a 50-50 we are in this together. They are making decisions for 23 zones. They need that engagement and they need more people to come here and say what they are willing to pay or not pay. They have to go out and knock on doors and educate. He thinks the first item that went out was a little confusing. Legally they fulfilled their duty but he thinks they did not fulfill the duty of actually reaching out to say this is what this means and they are going to do that here shortly with these meetings. Personally his justification to say this is a good faith effort on the part of the City that they will do something in this one particular instance to reach out and offer some sort of maintenance at City's expense.

Council Member Medellin made a motion for Option 1. The motion was seconded by Council Member Holley.

Mayor Poythress stated this is more direction and asked the City Attorney if it should be in the form of a motion.

Mr. Richardson replied that certainly they can do it as a motion but typically when staff is requesting direction the trend for the Council has just been if there is consensus then staff has their direction.

Council Member Medellin stated that based on Ms. Seay's and Mr. Scarborough's comments that it is not growing like it is supposed to anyway with the lack of water and short weeds are better than tall weeds he guesses.

Mayor Poythress stated he thinks staff has direction.

Ms. Seay replied that she thinks she has direction. She reminded Council that they will be bringing an item to the May 20th agenda to do some administrative appropriation relative to this but they will get started right away.

Council Member Medellin thanked the folks of Zone 4 and Zone 12 for coming to the meetings. They all appreciate them coming here and their input. Like he said, they are in this together and thanked them for showing up.

E-2 Presentation of the Preliminary City of Madera General Fund Budgets for Fiscal Year 2015/2016 and Selection of a Date for the 2015/2016 Budget Workshop

Director of Financial Services Tim Przybyla stated this is the third of four preliminary budget presentations. They will have one more preliminary presentation at the next City Council meeting and the final budget should be presented to Council at the second meeting in June. They are hoping to have the Council set a time and date for the budget workshop to be held prior to that final budget presentation.

Mr. Przybyla advised that this budget proposal includes a slight increase of 0.5% to personnel expenses due primarily to changes to minimum wage change laws and the required provision of leave time for part time employees. He stated that the proposed maintenance and operations budgets overall have increased by approximately 10% from the 14/15 budget and the proposed capital outlay budgets have increased from $618,000 to $702,000 or 14% over last year's budget.

Mr. Przybyla stated that some of the factors that made last year's budget presentation difficult were a 3% cost of living increase, large increases to healthcare costs, increased CalPERS costs and losses of funding from certain grants. He commented that for this fiscal year the revenue picture has improved however CalPERS continues to increase and must be addressed in the collective bargaining process.

Mr. Przybyla advised that this preliminary general fund budget presentation includes approximately $32 million of proposed expenditures and about $31.7 million of projected revenues. He stated that summaries of revenues and expenses are included in the report as Exhibit A and detail of the revenues are attached as Exhibit B. He noted that the line item budgets are included in this presentation as Exhibit C and contain the various operational line items as well as the departmental revenue projections for those budgets. Mr. Przybyla stated that although he mentioned a PowerPoint presentation in the staff report, he and the City Manager have elected not to present a PowerPoint presentation because a lot of those issues that would have been addressed in the PowerPoint will be addressed in closed session tonight with Council and in interest of the length of this meeting and all the Council has yet to discuss this evening, he hopes Council is ok with that.

Mr. Przybyla noted that the purpose of this preliminary presentation is to help the Council become somewhat familiar with the budgets that they are working on at this time. He added that staff anticipates

having a draft budget of all funds prepared and delivered to the Council by May 22nd. He advised that it is a tight deadline but he will be working with his staff very hard and with the departments to get this completed. Mr. Przybyla commented that Council may choose to schedule a workshop anytime after that date and staff would like to propose that Council select from one of those suggested dates and times or select another date that works better for Council within the same approximate timeframe. He advised that the times that they are proposing are Wednesday, May 27th from 5:30 p.m. to 9:00 p.m.; Saturday, May 30th from 10:00 a.m. to 2:00 p.m.; Tuesday, June 2nd from 5:30 p.m. to 9:00 p.m.; or Thursday, June 4th from 5:30 p.m. to 9:00 p.m. Mr. Przybyla asked if Council has any questions or if they would like to discuss those dates at this time.

Mayor Poythress suggested June 2nd or June 4th. He noted that Wednesday, May 27th is right between two giant presentations on the LMZ's. He thinks they need to be right on their game for the LMZ discussion and he is not sure. He stated he loves Saturday meetings too but he knows others may not.

Council Member Rigby stated that June 4th is the high school graduation. He would have a conflict with that as a youth pastor. He will be in attendance there. He would prefer Tuesday, June 2nd.

Council agreed on June 2nd for the budget workshop.

Mr. Przybyla stated that unless the Council has questions regarding the plethora of information that is included in the report then he will take his seat and let them continue on.

Mayor Poythress thanked Mr. Przybyla for the presentation.

F. COUNCIL REPORTS

Council Member Robinson reported that he attended the Democratic Club on April 28th. He gave a speech on water and jobs and they enjoyed it.

Council Member Robinson reported that he went to Fresno State for the Meat Science presentation and Harris Beef Ranch donated all the steaks. They had 20 booths with different recipes and that was enjoyable.

Council Member Robinson reported that he attended a neighborhood block party with the Mayor. He thinks they outnumbered the residents.

Council Member Robinson reported that he attended the Groundwater Forum at the Madera Fairgrounds.

Council Member Rigby reported that he is looking forward to this Thursday to attending the Madera Unified School District Superintendents Executive Community Committee meeting.

Council Member Rigby stated he is also looking forward to beginning his day tomorrow at the Mayor's Prayer Breakfast.

Council Member Rigby stated he wanted to give kudos to their Malone Neighborhood Watch that became an official Neighborhood Watch last night. Unfortunately he was not able to make it. He was on baby duty but he did put a call in to their Neighborhood Watch Leader that morning. They are excited to work together to see that neighborhood not only reach her dreams but surpass them definitely.

Council Member Rigby stated he would also like to just put it in everyone's ear that on May 18th he will be joining several of his colleagues to discuss the Proposition 218 vote in the neighborhood.

Council Member Holley reported that he attended Relay for Life last Saturday. He commented that it was a nice turnout. He thinks they did a good job. He thanked the City Clerk for all the work she put in with Ms. Seay.

Council Member Holley reported that he attended a Cinco de Mayo Day at Sierra Vista on Friday. There was a good crowd out there for three hours and it was enjoyable.

Council Member Holley invited all to the McNally Park Jesse Owens Games on Saturday. He commented that it has been 28 years and this will be the last one. He invited all to come out and watch part of the games or the introduction. He commented that this is not an election year so he hopes to keep them a little longer. They can also come to see the final presentation that will be given to a lot of the kids and some of their staff that have been with them for the last 20 some years. The event starts at 10:00 a.m. and hopefully he can have them home about 3:00 p.m. They can come and go if they like.

Mayor Pro Tem Oliver thanked Mayor Poythress for allowing him to participate in Relay for Life event and proclaim May 2nd through May 3rd Relay for Life Weekend in Madera. He gave great kudos to the City of Madera team. He asked the City Clerk to share how much they ended up raising.

City Clerk Sonia Alvarez responded that the City team raised close to $3,300 and the overall community raised about $92,000.

Mayor Pro Tem Oliver stated it was a great event. There was unlimited display of strength and courage during that time. He will also say that it was an honor to be present to see their dear colleague and friend Mary Anne Seay walk the Survivor's Lap. He was very, very honored to be there in her presence during that special moment and certainly they are very proud of her. He thanked Mayor Poythress again for allowing him to take that one on. He is very proud of their City team and their community.

Mayor Poythress commented that there was a nice picture of Mayor Pro Tem Oliver in the paper today.

Mayor Poythress reported that this morning he along with Council Member Medellin attended the EDC meeting. He advised that those are always interesting.

Mayor Poythress stated he wants to share a letter to the Mayor from a young person. The letter stated he visited the park and he liked it. He asked that they build a monkey bar and that his grandma is writing this for him.

Mayor Poythress stated he looks forward to seeing everybody tomorrow at the Mayor's Prayer Breakfast.

G. CLOSED SESSION

G-1 Closed Session Announcement – City Attorney

City Attorney Brent Richardson announced that the Council will adjourn to closed session pursuant to Government Code Section 54957(a) to discuss conference with legal counsel and Chief of Police as described under item G-2; pursuant to Government Code Section 54956.8 to discuss conference with real property negotiators as described under item G-3; and pursuant to Government Code Section 54957.6 to discuss conference with labor negotiators as described under item G-4.

Mayor Poythress declared a conflict of interest on item G-3 and advised that he would excuse himself from that item.

The Council adjourned to closed session at 7:55 p.m.

G-2 CONFERENCE WITH LEGAL COUNSEL AND CHIEF OF POLICE - Pursuant to California Government Code Section 54957(a) pertaining to threat to the security of public buildings.

G-3 CONFERENCE WITH REAL PROPERTY NEGOTIATORS – Pursuant to Government Code Section 54956.8

PROPERTY: 1 PARCEL

Carmel Subdivision	APN: 012-460-001 & 012-460-006
Agency Negotiators:	Christopher Boyle, Mary Ann Seay, Les Jorgensen
Negotiating Parties:	Mike Pistoresi, DMP Development
Under Negotiation:	Price & Terms

G-4 CONFERENCE WITH LABOR NEGOTIATORS - Pursuant to California Government Code Section 54957.6

Agency Designated Representatives: David Tooley and Wendy Silva

Employee Organizations: General Bargaining Unit
Mid Management Group
Madera Police Officers' Association
Law Enforcement Mid Management Group
Management Employees

G-5 Closed Session Report – City Attorney

The Council returned from closed session at 9:00 p.m. with all members present.

City Attorney Brent Richardson announced that the Council met in closed session pursuant to Government Code Section 54957(a) to discuss conference with legal counsel and Chief of Police as described under item G-2, and reported that no reportable action was taken; pursuant to Government Code Section 54956.8 to discuss conference with real property negotiators as described under item G-3, and reported that Mayor Poythress conflicted out on that item due to business relationship with one of the parties and no reportable action was taken; and pursuant to Government Code Section 54957.6 to discuss conference with labor negotiators as described under item G-4 and reported that no reportable action was taken.

ADJOURNMENT

The meeting was adjourned by Mayor/Chairperson Poythress at 9:01 p.m.

CONSISTENCY WITH THE VISION MADERA 2025 PLAN

Approval of the minutes is not addressed in the vision or action plans; the requested action is also not in conflict with any of the actions or goals contained in that plan.

SONIA ALVAREZ, City Clerk/Secretary

ROBERT L. POYTHRESS, Mayor/Chairperson

Return to Agenda

City of Madera

Council Meeting Of September 2, 2015
Agenda Item No. B-2

Memorandum To: The Honorable Mayor,
City Council and City Administrator

From: Office of the Director of Finance

Subject: Listing of Warrants Issued

Date: 9/2/15

Attached, for your information, is the register of the warrants for the City of Madera covering obligations paid during the period of:

August 7, 2015 to August 20, 2015

Each demand has been audited and I hereby certify to their accuracy and that there were sufficient funds for their payment.

General Warrant:	200756-200919	$	783,114.53
Wire Transfer	Union Bank Payroll and Taxes	$	617,863.39
Wire Transfer	SDI	$	1,492.30
Wire Transfer	Cal Pers	$	136,696.80

Respectfully submitted,

Tim Przybyla
Financial Services Director

CITY OF MADERA
REGISTER OF AUDITED DEMANDS FOR BANK #1-UNION BANK GENERAL ACCOUNT
August 25, 2015

CHECK	PAY DATE	ISSUED TO	DESCRIPTION	AMOUNT
200756	8/13/2015	PURL'S SHEET METAL	CANCELLED PERMIT 20151121	89.55
200757	8/13/2015	AT&T	06/15 SVS 5596649018200	1,185.83
200758	8/13/2015	CENTRAL VALLEY PRESORT	ADVERTISING OF CURBSIDE CLEAN UP	1,554.35
200759	8/13/2015	DAHL-BECK ELECTRIC	INF PUMP NO. 1 REBUILD	31,202.30
200760	8/13/2015	DER MANOUEL INSURANCE & FINANCIAL SVCS.	HEALTH BROKER FEE JANUARY- MARCH 2015	9,924.31
200761	8/13/2015	FRESNO MADERA AREA AGENCY ON AGING	06/15 UNSERVED MEALS	129.30
200762	8/13/2015	GOLDEN STATE OVERNIGHT	OVERNIGHT SHIPPING	177.14
200763	8/13/2015	MADERA COUNTY	13TH PERIOD AMTRAK STATION 50% COSTS	274.02
200764	8/13/2015	MADERA COUNTY	MAP COPIES	3.10
200765	8/13/2015	VENTURI, GERALD OR SUSAN	CREDIT REFUND	100.31
200766	8/13/2015	TAG/AMS, INC.	DOT TESTING	486.00
200767	8/13/2015	US BANK CORPORATE PAYMENT SYSTEMS	06/15 CAL-CARD CHARGES FY 14/15	60,051.66
200768	8/13/2015	VEGA, JESSIE	ALCOHOL DEPOSIT REFUND	300.00
200769	8/13/2015	MCALISTER, WILBERT	PARK DEPOSIT REFUND	50.00
200770	8/13/2015	HERNANDEZ, KIMBERLEE	PARK DEPOSIT REFUND	100.00
200771	8/13/2015	PRECIADO, ANA	PARK DEPOSIT REFUND	50.00
200772	8/13/2015	THE BANK OF NEW YORK MELLON	ADMINISTRATION FEE 07/01/15- 06/30/16	2,284.30
200773	8/13/2015	ALL VALLEY ADMINISTRATORS	MEDICAL & CHILD CARE EXP 08/14/2015 PR	667.44
200774	8/13/2015	AVILA PLUMBING	SERVICE CALL	135.00
200775	8/13/2015	THE ARC FRESNO	USED OIL SERVICE JULY 2015	2,322.06
200776	8/13/2015	BSK ASSOCIATES	PROF CONSTRUCTN SVS ST 14-05 PROG PMT 1	2,930.00
200777	8/13/2015	CDW GOVERNMENT, INC	ANNUAL FIREWALL MAINTENANCE	4,385.98
200778	8/13/2015	CALIFORNIA DEPARTMENT OF JUSTICE	FINGERPRINT APPS	224.00
200779	8/13/2015	CENTRAL CAL COMMUNICATION	CITY HALL DATA CABLE PROJECT	24,444.42
200780	8/13/2015	CENTRAL VALLEY PRESORT	NEWSLETTER/FLYER	2,291.76
200781	8/13/2015	COLONIAL LIFE & ACCIDENT INSURANCE CO	E700482-3 FOR 08/14/2015 PAYROLL	1,042.48
200782	8/13/2015	COMCAST	AUGUST ADC INTERNET/TV	94.39
200783	8/13/2015	CONCENTRA MEDICAL CENTERS	PRE-EMPLOYMENT EXAMS	832.50
200784	8/13/2015	DELL COMPUTER CORPORATION	WATER SYSTEMS SCADA SERVER	2,343.00
200785	8/13/2015	DIAMOND COMMUNICATIONS	QUARTERLY ALARM MONITORING	457.00
200786	8/13/2015	DOWNTOWN FORD SALES	2015 FORD VAN	21,601.39
200787	8/13/2015	TACO BELL SSF ENTER	Utility Billing Deposit Refund	196.57
200788	8/13/2015	SCHLUMBOHM ROBERT AND KAREN	Utility Billing Deposit Refund	13.14
200789	8/13/2015	REYES PAULINO OR CITY OF MADERA AND CYNTHIA	Utility Billing Credit Refund	165.72
200790	8/13/2015	FERNANDEZ MARIA AND ROGELIO	Utility Billing Credit Refund	208.68
200791	8/13/2015	THIND JASWINDER S	Utility Billing Credit Refund	233.01
200792	8/13/2015	GARCIA JOE H	Utility Billing Credit Refund	221.99
200793	8/13/2015	RAMIREZ JOSE	Utility Billing Credit Refund	199.36
200794	8/13/2015	CASTELLANOS CONTRERAS GUADALUPE	Utility Billing Credit Refund	140.77
200795	8/13/2015	TORREZ ROBERT OR CITY OF MADERA AND ELIZABETH	Utility Billing Credit Refund	150.74
200796	8/13/2015	MORENO MARISOL OR CITY OF MADERA	Utility Billing Credit Refund	56.34
200797	8/13/2015	PRUDENTE SEBASTIAN I	Utility Billing Credit Refund	109.48
200798	8/13/2015	GLANTZ KATHARINA	Utility Billing Credit Refund	46.75
200799	8/13/2015	VALLEY VANGUARD	Utility Billing Deposit Refund	72.08
200800	8/13/2015	TOSCANO ELODIA	Utility Billing Credit Refund	148.73
200801	8/13/2015	INTELLIS CORPORATION	Utility Billing Credit Refund	149.93
200802	8/13/2015	AMBRIZ JOVITA	Utility Billing Credit Refund	49.77
200803	8/13/2015	BARRIGA LYDIA OR CITY OF MADERA	Utility Billing Credit Refund	150.34
200804	8/13/2015	FERIA JAIRO	Utility Billing Credit Refund	52.76
200805	8/13/2015	TRAN LAM	Utility Billing Credit Refund	7.54
200806	8/13/2015	MAHIL DAVINDAR	Utility Billing Credit Refund	150.01
200807	8/13/2015	ORIOLE HOMES INC	Utility Billing Deposit Refund	5.19
200808	8/13/2015	ESPINOZA SEWER SERVICE	TOILETS FOR JULY 4TH CELEBRATION	960.00
200809	8/13/2015	FRESNO NETWORKS, LLC	IT SERVICES	100.00
200810	8/13/2015	INFO-TECH RESEARCH GROUP INC.	RESEARCH SERVICES 06/30/15- 06/30/16	4,875.00
200811	8/13/2015	JONES, OVID C.	REIMB FOR EMERGENCY WATER LINE REPAIRS	25.90
200812	8/13/2015	CITY OF MADERA	AUGUST ADC WATER/TRASH 322 W 6TH ST	138.67
200813	8/13/2015	CITY OF MADERA	AUGUST NSP3 UTILITIES 1990 TANGERINE AVE	85.80
200814	8/13/2015	CITY OF MADERA	AUGUST PAN AM UTILITIES 703 SHERWOOD WAY	134.89
200815	8/13/2015	MADERA CLEANERS & LAUNDRY	YOUTH CENTER MAT SERVICE	64.60

200816	8/13/2015 MADERA COUNTY RECORDERS OFFICE	RECORDING OF FY15/16 LMD ENGINEERS RPT	948.50
200817	8/13/2015 MADERA TRIBUNE	PUBLIC HEARING NOTICE RIVERSIDE VILLAS	43.20
200818	8/13/2015 WILLDAN FINANCIAL SERVICES	ANNUAL DISTRICT ADMIN SVS JULY 2015	807.42
200819	8/13/2015 N.P.C.-ORCHARD TRUST COMPANY	PLAN #340227-01 FOR 08/14/2015 PAYROLL	5,891.78
200820	8/13/2015 N.P.C.-ORCHARD TRUST COMPANY	PLAN #340227-02 FOR 08/14/2015 PAYROLL	3,110.60
200821	8/13/2015 P G AND E	07/15 SVS 5225647713-5	9.53
200822	8/13/2015 PECK'S PRINTERY	WATER CITATIONS	1,136.92
200823	8/13/2015 GLASER, WILLIAM	REIMBURSEMENT OF EXAM APPLICATION FEE	100.00
200824	8/13/2015 IGLESIA DEL DIOS VIVO	ENTITLEMENT EXTENSION FULL REFUND	1,158.00
200825	8/13/2015 TRULL ELECTRIC	20151223 PERMIT REFUND REQUEST	77.50
200826	8/13/2015 RVD HEATING & AIR & SON	20150859 REFUND ON DOUBLE-PAYMENT	108.45
200827	8/13/2015 MORALES, LISA	PARK DEPOSIT REFUND	50.00
200828	8/13/2015 ROBBINS, KEVIN	PARK DEPOSIT REFUND	50.00
200829	8/13/2015 PRICE PAIGE AND COMPANY	PROF SVS FOR PERIOD ENDING 07/31/15	9,500.00
200830	8/13/2015 TAMARACK PEST CONTROL	PEST CONTROL WATER WELL #30	510.00
200831	8/13/2015 TESEI PETROLEUM, INC.	FUEL	504.36
200832	8/13/2015 TESEI PETROLEUM INC.	FUEL CHARGES 07/21/15- 07/30/15	17,100.29
200833	8/13/2015 US BANK CORPORATE PAYMENT SYSTEMS	06/15 CAL-CARD CHARGES FY 15/16	78,526.56
200834	8/13/2015 VANTAGEPOINT TRANSFER AGENTS-457	PLAN #302351 CONTRIBS FOR 08/14/2015 PR	20,375.94
200835	8/20/2015 GONZALES, PETRA	PARK DEPOSIT REFUND	50.00
200836	8/20/2015 ARREDONDO, DIANA	PARK DEPOSIT REFUND	50.00
200837	8/20/2015 AT&T	07/15 SVS 5596751429779	1,368.42
200838	8/20/2015 AT&T	07/15 SVS 5596742351543	1,344.59
200839	8/20/2015 AT&T	07/15 SVS 2343418240886	2,427.94
200840	8/20/2015 AT&T	07/15 SVS 5596618365089	1,459.80
200841	8/20/2015 ARAMARK UNIFORM SERVICES	07/15 UNIFORM SERVICES	3,015.89
200842	8/20/2015 BSK ASSOCIATES	PRETREATMENT COMPLIANCE	224.00
200843	8/20/2015 BEST TOURS AND TRAVEL	SOLVANG SENIOR TRIP	980.00
200844	8/20/2015 CALIFORNIA HIGHWAY PATROL	TRAFFIC CONTROL FR ELLIS PHASE 2 ST11-01	3,406.61
200845	8/20/2015 CALIFORNIA DEPT OF FISH AND WILDLIFE	EXTENSION REQUEST FEE	245.50
200846	8/20/2015 CANON FINANCIAL SERVICES	CONTRACT COPIERS JULY 2015	7,476.64
200847	8/20/2015 CENTRISYS CORP.	CENTRIFUGE MAINTENANCE	926.96
200848	8/20/2015 COOK'S COMMUNICATIONS	LED LIGHT BAR	2,163.53
200849	8/20/2015 DAVIDSON'S TRAINING	WATER DIST CERTIFICATION CLASS-BOTWRIGHT	1,250.00
200850	8/20/2015 ADMINISTRATIVE SOLUTIONS INC.	CITY PD RETIREE MED BILL SEPT- NOV 2015	5,539.00
200851	8/20/2015 LOMELI ALICIA OR CITY OF MADERA	Utility Billing Credit Refund	131.03
200852	8/20/2015 HUNT LYNN OR CITY OF MADERA	Utility Billing Credit Refund	209.56
200853	8/20/2015 MC CLELLAN JANET	Utility Billing Credit Refund	198.65
200854	8/20/2015 STAPLETON GARY	Utility Billing Credit Refund	234.98
200855	8/20/2015 NAVARRO JOSE OR CITY OF MADERA	Utility Billing Credit Refund	256.88
200856	8/20/2015 GIL ALBERTO	Utility Billing Credit Refund	86.36
200857	8/20/2015 MAGOS MICHAEL ANTHONY OR CITY OF MADERA	Utility Billing Credit Refund	150.61
200858	8/20/2015 GELENAW GREGORY T OR CITY OF MADERA	Utility Billing Credit Refund	150.52
200859	8/20/2015 HARVEY DONALD AND PATRICIA OR CITY OF MADERA	Utility Billing Credit Refund	150.48
200860	8/20/2015 GILL PARDEEP SINGH	Utility Billing Credit Refund	33.61
200861	8/20/2015 BAGARINO ROBERT C OR CITY OF MADERA	Utility Billing Credit Refund	150.36
200862	8/20/2015 NASH MICHELLE	Utility Billing Credit Refund	79.20
200863	8/20/2015 RAMIRIZ OSCAR	Utility Billing Credit Refund	48.01
200864	8/20/2015 BHANDAL CONSTRUCTION	Utility Billing Credit Refund	141.94
200865	8/20/2015 HIMAT INVESTMENT LLC C/O CHARANJIT SINGH	Utility Billing Deposit Refund	7.02
200866	8/20/2015 KHAN ABDUL HAMID	Utility Billing Credit Refund	139.99
200867	8/20/2015 ESPINOZA SEWER SERVICE	TOILET SERVICE	50.00
200868	8/20/2015 FIRE SAFETY SOLUTIONS, LLC	FIRE PROTECTION ENG SVS 08/01 -08/15/15	7,556.25
200869	8/20/2015 FRESNO COUNTY TREASURER	WATER SAMPLES	2,733.00
200870	8/20/2015 FRESNO COUNTY ECONOMIC OPPTY. COMMISSION	SR SITE KITCHEN SUPPLIES JULY 2015	81.36
200871	8/20/2015 GEIL ENTERPRISES, INC.	AUGUST 2015 JANITORIAL SVS	7,725.81
200872	8/20/2015 GRUBER TECHNICAL INC.	1 YEAR MAINTENANCE AGREEMENT	3,144.00
200873	8/20/2015 GUARDIAN WESTERN SWEEPING INC.	MONTHLY POWER SWEEPING	521.00
200874	8/20/2015 GUTKNECHT, JASON	PER DIEM FOR RECRUITING/INTERVIEWS	69.00
200875	8/20/2015 HALL, SONIA	GRANT ADMINISTRATOR SVS AUG 1- AUG 15	2,750.00
200876	8/20/2015 MADERA COUNTY	AUGUST UTILITIES 27322 PERKINS RD	75.00
200877	8/20/2015 MADERA COUNTY E D C	QUARTERLY CONTRIBUTION 1ST QUARTER	38,778.00
200878	8/20/2015 MADERA COUNTY HISTORICAL SOCIETY	BOOTH RENTAL AT MADERA CO OLD TIMERS DAY	25.00
200879	8/20/2015 SALAZAR, LUCY	PARK DEPOSIT REFUND	100.00
200880	8/20/2015 COLLIN, RANDY	PER DIEM FLEET TECHNOLOGY EXPO	106.50

200881	8/20/2015 MADERA TRIBUNE	PC NOTICE 08/11/15	172.80
200882	8/20/2015 MID VALLEY DISPOSAL INC.	WASTE DISPOSAL SVS AUGUST 2015	292,390.36
200883	8/20/2015 MOY & ASSOCIATES	JULY 2015 TRANSIT MANAGER	7,274.42
200884	8/20/2015 ORRICK, HERRINGTON & SUTCLIFFE LLP	BOND COUNCIL FEES	6,472.13
200885	8/20/2015 P G AND E	07/15 SVS 5207933925-6	123.52
200886	8/20/2015 PIMENTAL, EMMA	PARK DEPOSIT REFUND	50.00
200887	8/20/2015 REYES, PAULINO	PARK DEPOSIT REFUND	100.00
200888	8/20/2015 GONZALES, JOE	PARK DEPOSIT REFUND	100.00
200889	8/20/2015 VIELMA, KATHY	PARK DEPOSIT REFUND	50.00
200890	8/20/2015 BOWLAN, JEWELAN	PARK DEPOSIT REFUND	107.50
200891	8/20/2015 MORENO, CYNTHIA	PARK DEPOSIT REFUND	100.00
200892	8/20/2015 CARLSON, JENNIFER	CLASS CANCELLATION	40.00
200893	8/20/2015 MORENO, ROSA	PARK DEPOSIT REFUND	50.00
200894	8/20/2015 LOWERY, MICHELLE	PARK DEPOSIT REFUND	50.00
200895	8/20/2015 MIRELEZ, ANGELA	PARK DEPOSIT REFUND	50.00
200896	8/20/2015 RODRIGUEZ, FATIMA	FACILITY DEPOSIT REFUND	100.00
200897	8/20/2015 RUVALCABA, ANGELICA	FACILITY DEPOSIT REFUND	50.00
200898	8/20/2015 AGUILAR, ANA	PARK DEPOSIT REFUND	75.00
200899	8/20/2015 ROMAN, EVELYN	FACILITY DEPOSIT REFUND	50.00
200900	8/20/2015 VOYLES, ASHLEY	PARK DEPOSIT REFUND	100.00
200901	8/20/2015 EUFRACIO, ALICIA	FACILITY DEPOSIT REFUND	100.00
200902	8/20/2015 MARTINEZ, YOLANDA	PARK DEPOSIT REFUND	100.00
200903	8/20/2015 PURSELL, MONICA	PARK DEPOSIT REFUND	50.00
200904	8/20/2015 ENCINAS, LIZETH	PARK DEPOSIT REFUND	50.00
200905	8/20/2015 RUBIO, IDA	PARK DEPOSIT REFUND	100.00
200906	8/20/2015 SAAVEDRA, ADAN	PARK DEPOSIT REFUND	50.00
200907	8/20/2015 TUBBS, YESENIA	PARK DEPOSIT REFUND	100.00
200908	8/20/2015 ANGUIANO, MICHELLE	PARK DEPOSIT REFUND	50.00
200909	8/20/2015 IPM SERVICES	FIELD DEPOSIT REFUND	50.00
200910	8/20/2015 BARRERAS, ARTURO	PARK DEPOSIT REFUND	100.00
200911	8/20/2015 PETTY CASH - CITY CLERK	10/20 YOUTH ORCHESTRA VISIT- COOKIES	14.95
200912	8/20/2015 POLYDYNE INC.	BIOSOLIDS PROCESSING	5,365.44
200913	8/20/2015 RIDX PEST CONTROL	TERMITE INSPECTION NSP3	150.00
200914	8/20/2015 SJVAPCD	SETTLEMENT FEE FOR GENERATOR AT WELL 18	600.00
200915	8/20/2015 SELF-HELP ENTERTRISES	REIMB WATER MAIN COTTONWOOD CREEK PROJ	42,379.53
200916	8/20/2015 SMITH, JERRY	PER DIEM FOR RECRUITING/INTERVIEWS	69.00
200917	8/20/2015 SYNAGRO WEST, INC.	BIOSOLIDS DISPOSAL	7,145.15
200918	8/20/2015 TESEI PETROLEUM, INC.	FUEL	596.33
200919	8/20/2015 TRUKKI, MARK	PER DIEM FOR RECRUITING/INTERVIEWS	69.00
		Bank # 1 - Union Bank General Account Total	783,114.53

REPORT TO CITY COUNCIL

Return to Agenda

Approved by:

Department Director

City Administrator

Council Meeting of: 9/02/15

Agenda Number: B-3

SUBJECT: Proclamation Declaring October as Manufacturing Awareness and Appreciation Month

RECOMMENDATION: Informational only – No action requested. Upon formal issuance, the proclamation will be forwarded to the San Joaquin Valley Manufacturing Cluster for use in promoting October as Manufacturing Awareness and Appreciation Month and Manufacturing Day October 2, 2015.

SUMMARY: The San Joaquin Valley Manufacturing Cluster, a collaborative of the California Partnership of the San Joaquin Valley and administered by the Office of Community and Economic Development at Fresno State, is reaching out to agencies within the San Joaquin Valley Region to join them in increasing awareness of manufacturing careers by issuing a proclamation declaring October as Manufacturing Awareness and Appreciation Month. The proclamation also states the City's support of partnerships which promote manufacturing careers and opportunities locally and on a regional basis. Letter and proclamation attached.

FINANCIAL IMPACT: None.

CONSISTENCY WITH THE VISION MADERA 2025 PLAN: Issuance of this proclamation is not specifically addressed in the Vision and Action Plan however; it does support the Vision Statement of Good Jobs and Economic Opportunities.

San Joaquin Valley Manufacturing Cluster

California Partnership for the San Joaquin Valley

San Joaquin Valley Regional Industry Clusters Initiative

July 22, 2015

Good morning,

On behalf of the San Joaquin Valley Manufacturing Cluster and a growing list of partners, we would like to invite you to join us in our efforts to develop a vibrant economy and healthy communities in the San Joaquin Valley.

Central to our effort is building a strong manufacturing sector supported by a highly engaged industry cluster. In order to achieve this, we must help the public understand that 21st century manufacturing offers a wide range of quality jobs and outstanding careers; the jobs involve a wide range of skills and career pathways; and manufacturers today are committed to environmental protection and positive impacts on the communities in which they reside. Manufacturing is considered a primary industry—it supports jobs in every other sector.

There are some simple ways you can help. On October 2, our entire nation is stepping up to celebrate Manufacturing Day to raise awareness and offer hands-on experience as plant tours will be offered across the country. Enclosed is a Proclamation we ask you to adopt to demonstrate your support for this event and ongoing commitment to fostering awareness, opportunity and support for our manufacturing companies.

Alongside these efforts, we have partnered with educators at every level to raise awareness and prepare our children's success by offering the project-based learning, technical skills and personal development they will need to thrive in the evolving workplace.

We appreciate all you do to guide our community. We welcome your support and look forward to your involvement in activities that will bring a new level of shared prosperity to the communities of the San Joaquin Valley.

If you have an interest in learning more about:

- San Joaquin Valley Manufacturing Cluster Initiative, visit http://sjvrici.org/manufacturing/
- Manufacturing Day, visit www.mfgday.com
- Doing What MATTERS for Jobs and the Economy Initiative, visit: www.doingwhatmatters.cccco.edu

We appreciate your support!

Sincerely

Mike Betts

Mike Betts | Chairman & CEO
Betts Company
Chair, San Joaquin Valley Manufacturing Cluster

G Sangha

Gurminder Sangha
Deputy Sector Navigator

CALIFORNIA COMMUNITY COLLEGES
Doing What MATTERS™
FOR JOBS AND THE ECONOMY

5010 N Woodrow Ave.
2nd Floor, M/S WC 142
Fresno, California 93740
559.278.0721 P
559.294.6024 F
www.sjvpartnership.org

ADMINISTERED BY
FRESNO STATE
Community and Economic Development

Office of the Mayor

City of Madera
State of California

Proclamation

Manufacturing Awareness and Appreciation Month October 2015

WHEREAS, Manufacturing Day is celebrated nationally on the first Friday of the month of October to showcase manufacturers and increase awareness of manufacturing careers.

WHEREAS, manufacturing jobs are critical to the economy and provide living wages with long-term career opportunities.

WHEREAS, the manufacturing sector includes the processing of products such as food, milk, and nuts; the production of paper, plastic, and steel goods; the packaging of numerous products and goods; and serves as the backbone of the economy.

WHEREAS, increasing awareness amongst our youth, parents and the community at large about the local career opportunities within the manufacturing sector is essential to developing and maintaining a skilled workforce.

WHEREAS, partnerships between public, private, and non-profit organizations are necessary to collectively address the challenges of the skilled labor shortage by aligning and leveraging resources.

WHEREAS, by working together with manufacturers, school districts, the Workforce Investment Board, Economic Development Commission, Chamber of Commerce, and other public and private organizations, the skilled labor shortage for short term can be solved, and long term solutions can be developed.

WHEREAS, showcasing the regional commitment to manufacturing in the San Joaquin Valley will encourage local expansion and attraction from other markets.

Now, Therefore, I, Mayor Robert L. Poythress, on behalf of the Madera City Council, do hereby declare October as Manufacturing Awareness and Appreciation Month in the City of Madera and declare our community will work collaboratively alongside its manufacturers and the San Joaquin Valley Manufacturing Cluster in creating a world class Career Technical Education Ecosystem to support and grow the manufacturing sector.

Declared this 2nd day of September 2015.

CITY OF MADERA
INCORPORATED
March 27,
1907
CALIFORNIA

Mayor

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REPORT TO CITY COUNCIL

Approved By:

Department Director

City Administrator

Council Meeting of September 2, 2015

Agenda Item Number B-4

SUBJECT: **MINUTE ORDER – APPROVING ACCEPTANCE OF EXISTING WELL 18 REHABILITATION PROJECT NO. W12-01, RECORDING OF THE NOTICE OF COMPLETION, AND RELEASE OF RETENTION 35 DAYS AFTER RECORDING OF THE NOTICE OF COMPLETION**

RECOMMENDATION:

City Council approve Minute Order approving:

1. Acceptance of the Existing Well 18 Rehabilitation Project No. W 12-01.
2. The recording of the Notice of Completion.
3. The release of retention 35 days after recording of the Notice of Completion.

SUMMARY:

The City Council, at their March 19, 2014 meeting, awarded a contract to Steve Dovali Construction for the Rehabilitation of Existing Well 18. The Contractor has completed the project in accordance with the plans and specifications and as modified by approved change orders. Staff recommends that the City Council accept the project.

SITUATION:

A final project inspection was held by the Engineering Division. Affected divisions within the Public Works Department also participated in the final review of the project. All parties agree the project can be recommended for acceptance by the City Council and a "Notice of Completion" recorded.

Well 18 was developed and equipped in 1970 with a gas-driven motor. Due to restrictions by the Air District placed on gas motors, pumping was restricted to 24 hours per year. Well 18 is one of the City's better producers (1,900 gallons per minute) and

is the closest well to the City's above ground storage tank. The primary purpose for the Well 18 Rehabilitation Project was to replace the gas-driven motor to an electric driven motor to bring the well on-line full time. Additional upgrades included a motor control panel with a variable frequency drive for better efficiency.

Throughout the course of construction, the City Council was presented with consideration of changes to the project to improve the reliability and sustainability of this well. A summary of the changes is provided below:

- Change Order No. 1.....net increase of$94,776.00

  Consideration of Change Order No.1(CCO 1) was presented to and approved by City Council on June 18, 2014. CCO 1 eliminated furnishing and installation of the combination right angle gear drive and provided for the switch gear, pad and conduit and wiring for a new generator. CCO 1 also included purchase, installation and full integration of the City's first permanent standby generator at a well site.

- Change Order No. 2 (CCO 2).....net increase of $77,616.00

  Consideration of Change Order No. 2 (CCO 2) also included a budget amendment increasing the budget appropriation for the project; both were approved by City Council at the December 17, 2014 meeting. As part of the work for the rehabilitation of Well 18, the contractor pulled the pump, column pipe and bowl assembly during the week of December 1st to complete a 60-foot extension called for in the project. Staff recommended approval for the Contractor to make necessary investigations, repairs and replace certain components.

The original contract amount was $433,870. In total, three Contract Change Orders were processed for work added/deleted to the project as tabulated below.

CCO #	WORK DESCRIPTION	AMOUNT
1	Provide for New Generator	**$ 94,776.00**
2	Investigate existing well. Make repairs and Replace Certain Components	**$ 77,616.00**
3	Deduct: Bid item quantity adjustments based on actual improvements installed	**($ 810.18)**
	CCO/ Extra Work Total Amount >>>>>	**$ 171,581.82**
	Original Bid Contract Amount of Funding>>>>>	**$ 433,870.00**
	Revised Contract Amount Due to CCO/Extra Work>>>>	**$ 605,451.82**
	Increasing the Original Contract Amount by >>>>> (within 40% allowable contingencies authorized by City Council)	**39.5%**

The total amount of Change Orders results in an increase to the contract of $171,581.82 increasing the cost of the project 39.5% to $605,451.82. Contract allowable contingencies were increased to 26% by Minute Order at the June 28, 2014 City Council Meeting and again by Minute Order to 40% at the December 17, 2014 meeting.

FINANCIAL IMPACT:

Funding for Well 18 Rehabilitation was from Water Capital Reserves and programmed in Account 2905-5081.

Funding for construction of the project did not have an impact on the City's General Fund.

CONSISTENCY WITH THE VISION MADERA 2025 PLAN

Strategy 434 – Water Quality and Usage

RECORDING REQUESTED BY:
CITY OF MADERA

AND WHEN RECORDED MAIL TO:
CITY OF MADERA – CITY CLERK
205 W. 4TH STREET
MADERA, CA 93637

SPACE ABOVE THIS LINE FOR RECORDER'S USE

FEE WAIVED PER SECTION 27383 OF THE GOVERNMENT CODE - NO DOCUMENT TAX DUE $ -0-

NOTICE OF COMPLETION

Corporation

NOTICE IS HEREBY GIVEN THAT:

1. The undersigned is owner of the interest or estate stated below in the property hereinafter described,
2. The full name of the undersigned is **City of Madera**
3. The full address of the undersigned is **205 West 4th Street; Madera, CA 93637**
4. The nature of the title of the undersigned is: In fee **Public Improvements**
   (If other than fee, strike "In fee" and insert, for example, "purchaser under contract of purchase," or "lessee")
5. The full names and full addresses of all persons, if any, who hold title with the undersigned as joint tenants or as tenants in common are:

NAMES	ADDRESSES
N/A	

6. A work of improvement on the property hereinafter described was completed on **September 02, 2015**
7. The name of the original contractor, if any, for such work of improvement was **STEVEN DOVALI CONSTRUCTION, INC.**
   (If no contractor for work of improvements as a whole, insert "none".)
8. The full name(s) and address (es) of the transferor(s) of the undersigned is (are):

NAMES	ADDRESSES
N/A	

(Complete where undersigned is successor to owner who caused improvement to be constructed)

9. The property on which said work of improvement was competed is in the City of **Madera** County of **Madera**, State of California, and is described as follows:

EXISTING WELL 18 REHABILITATION PROJECT NO. W12-01

10. The street address of said property is Madera **City Limits**
    (If no street address has been officially assigned, insert "none".)

(Signature of Owner named In Paragraph 2)

Dated: _____

Keith Brent Helmuth, P.E
City Engineer

10. Continued .....

EXISTING WELL 18 REHABILITATION PROJECT NO. W12-01

The officer completing this certificate verifies only the identity of the individual who sign the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California
County of Madera

_____
Keith Brent Helmuth, P.E

Subscribed and sworn to (or affirmed) before me on this _____ day of _____. 2015, by Keith Brent Helmuth, proved to me on the basis of satisfactory evidence to be the person(s) who appeared before me.

_____
Date

_____
Sonia Alvarez, City Clerk

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CITY COUNCIL REPORT

Agenda Number B-5
Meeting Date September 2, 2015

City Administrator

SUBJECT: MINUTE ORDER – APPROVAL OF CITY ADMINISTRATOR TRAVEL TO LEAGUE OF CALIFORNIA CITIES ANNUAL CONFERENCE & EXPO, SEPTEMBER 30 – OCTOBER 2, 2015.

BACKGROUND

Consistent with past practice, City Administrator is seeking Council approval to travel to the League of California Cities 2015 Annual Conference & Expo.

SITUATION

The conference is scheduled in San Jose, CA beginning September 30 – October 2, 2015. A copy of the conference material is provided for Council's review.

RECOMMENDATION

Staff recommends approval of the request to attend the League of California Cities 2015 Annual Conference & Expo.

CONSISTENCY WITH THE VISION MADERA 2025 PLAN

Approval of the travel is not addressed in the vision or action plans; the requested action is also not in conflict with any of the actions or goals contained in that plan.

LEAGUE® OF CALIFORNIA CITIES



2015 Annual Conference & Expo

San Jose Convention Center

SEPTEMBER 30 – OCTOBER 2, 2015

Early Bird Registration Deadline: August 5 www.cacities.org/AC

2015 ANNUAL CONFERENCE & EXPO
LEAGUE OF CALIFORNIA CITIES
SAN JOSÉ SEPTEMBER 30 - OCTOBER 2

Welcome

Invitation to Attend



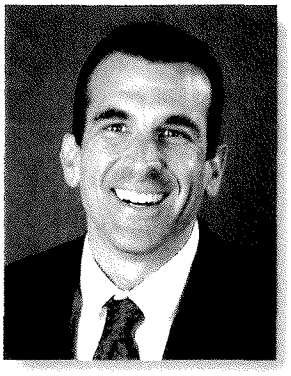
It is an honor to serve as your League of California Cities' President! The League's mission is to restore and preserve local control for our cities through education and advocacy. The League's 2015 Annual Conference and Expo is the largest gathering of city officials and a perfect opportunity to gain insight and expand your knowledge, while investing in yourself, your city, your state and renewing your energy for service to your community. The Annual Conference provides an opportunity to hear from leading experts and collaborate with your colleagues from throughout California, along with garnering resources to strengthen your city.

Please don't miss out on the Annual Conference's exceptional Expo that features a wide array of innovations that your city can explore and utilize to benefit delivery of services, enhance resources and strengthen your city.

It is my sincere pleasure to invite you to join us for the League of California Cities' 117th Annual Conference on September 30 to October 2 in San José! Looking forward to seeing you there.

Stephany E. Aguilar
2014-2015 League of California Cities President
Council Member, Scotts Valley

Welcome to the Capital of Silicon Valley!



It is truly my honor to welcome the League of California Cities Annual Conference to San José, the Capital of Silicon Valley.

I encourage you to explore our City. Stroll through Downtown San José, sample authentic Japanese cuisine in our historic Japantown, or take a peek at San José's Tech Museum of Innovation where innovation meets hands-on, interactive learning.

While you're in town, take in San José's diverse nightlife at San Pedro Square Market or stroll through the SoFA District to enjoy art galleries and salsa dancing. You'll enjoy the Host City Reception in our recently renovated McEnery Convention Center right at the heart of the South Bay's cultural epicenter. We are happy to host you in our wonderful city. On behalf of the residents of the City of San José, please enjoy your stay.

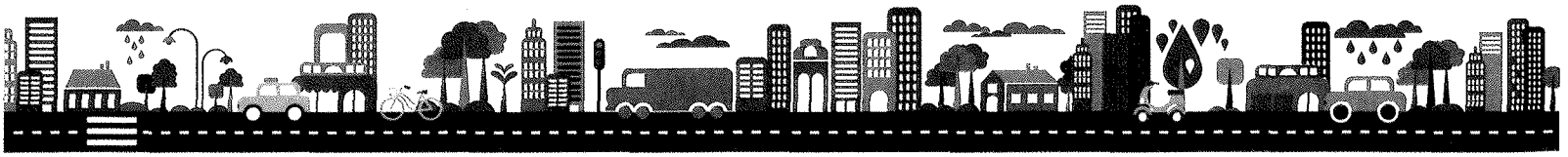
Sincerely,
Mayor Sam Liccardo
San José

Conference Location

The 2015 Annual Conference will be held at the San José Convention Center, located in downtown San José at 150 West San Carlos Street. All sessions will be held at the convention center unless otherwise noted. The convention center has its own parking, connected to two hotels and is within walking distance of the other conference hotels.

Parking and Public Transportation

Public transportation is easily accessible and includes Light Rail, Caltrain and free Downtown shuttles. Convention center garages can be accessed from Almaden Boulevard, Market Street or South Market/Viola streets. Parking rates are $1.00 per 20 minutes with a $20.00 maximum. Special rates as posted at facility may apply during special events. *(Subject to change without notice)*



Program at a Glance

(subject to change)

WEDNESDAY, SEPTEMBER 30

8:00 a.m. – 6:00 p.m. ..... Registration Open, San José Convention Center
9:00 – 10:30 a.m. ..... Thursday Policy Committees *(at hotel)*
10:30 a.m. – Noon ..... Friday Policy Committees *(at hotel)*
9:00 – 11:00 a.m. ..... AB 1234 Ethics Training
10:00 a.m. – 2:30 p.m. ..... City Clerks Workshop
10:30 – 11:45 a.m. ..... Education
11:45 a.m. – 1:15 p.m. ..... Regional Division Lunches *(optional)*
1:00 – 1:30 p.m. ..... First Time Attendee Orientation
1:30 – 2:45 p.m. ..... **Department Business Meetings**
3:00 – 5:00 p.m. ..... **Opening General Session** — Annual Report and Keynote Address
5:00 – 7:00 p.m. ..... **Grand Opening Expo Hall & Host City Reception**
(No competing events/receptions are permitted at this time)
7:00 – 11:00 p.m. ..... CitiPAC Neon Glow Casino Night

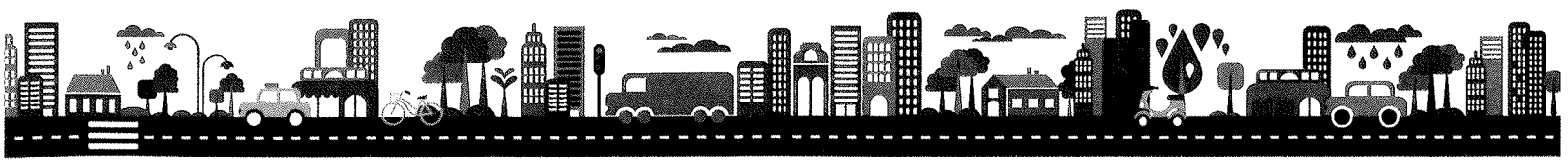
THURSDAY, OCTOBER 1

7:00 a.m. – 4:00 p.m. ..... Registration Open
8:00 – 9:30 a.m. ..... Education
9:00 a.m. – 4:00 p.m. ..... **Expo Open** *(with Lunch in Exhibit Hall)*
(No competing events 11:30 a.m. – 1:00 p.m.)
9:45 – 11:45 a.m. ..... **General Session** — Keynote Address
1:00 – 2:15 p.m. ..... General Resolutions Committee
1:00 – 2:15 p.m. ..... Education
2:45 – 4:00 p.m. ..... Education
4:15 – 5:30 p.m. ..... Education
4:15 – 5:30 p.m. ..... Board of Directors Meeting
Evening ..... Networking Receptions

FRIDAY, OCTOBER 2

7:30 – 10:00 a.m. ..... Registration Open
7:30 – 8:45 a.m. ..... Regional Division Breakfasts *(optional)*
9:00 – 10:15 a.m. ..... Education
10:30 – 11:45 a.m. ..... Education
Noon – 2:00 p.m. ..... **Closing Luncheon with Voting Delegates & General Assembly**
Install New Board of Directors
2:00 p.m. ..... Adjourn

NOTE: *Conference Registration is required to attend Department Meetings, Division Meetings, and General Assembly/Annual Business Meeting as an attendee and/or Voting Delegate.*



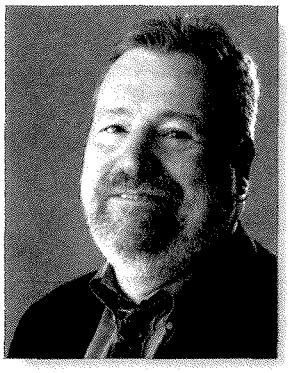
Conference Overview

Educational sessions at the annual conference offer professional development, focusing on workable solutions through current and timely topics. Targeting a broad audience, sessions address innovative, thought/discussion provoking, evidence based, trends, tools, and best practices. Connecting professional experience and collective understanding, these sessions aim to provide attendees the opportunity to gain practical skills and useful resources. Visit www.cacities.org/AC for additional details and late breaking sessions.

Keynotes

"If You Build It They Will Come – The Huge Civic Payoff of 21st Century Libraries"

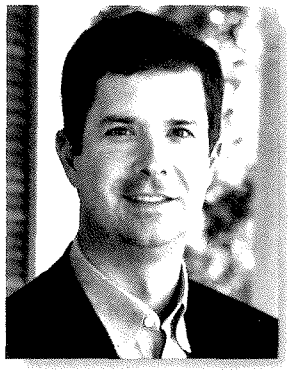
GREG LUCAS



Throughout history, cities have been the incubators of civic, cultural, educational, and economic innovation in California. City officials don't need to look any further than their local public library for a hotbed of innovation and a major catalyst for building a stronger city. Join former political reporter and now California State Librarian, Greg Lucas, as he takes you on a tour of the ways in which community libraries are engaging citizens, transforming the way we learn and grow, helping expand local economies, and providing vibrant and energetic urban places that attract entrepreneurs, families, potential employees, and tomorrow's leaders.

"A Workplace in Transition"

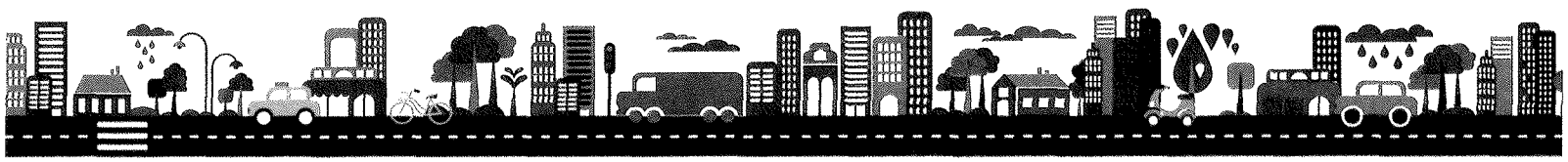
CAM MARSTON



Only yesterday, Generation X entered the workplace and managers were perplexed with their behavior. Today Gen X'ers are the managers and are struggling to accommodate and retain the Millennial generation (aka Gen Y). Millennials are the single largest generation in the workplace. Though fluent with technological communications (they don't prefer it, they mandate it), their ability to empathize in person has been stymied due to an increase in handheld technology. Still very relevant are the Boomers who are busier than they had ever thought they'd be at this point in their lives and careers. Learn the ins and outs of a workplace in transition. Get tips on working with, and for, each of the different generations and enjoy a humorous approach to mixing them all together.

Conference App

The League of California Cities mobile application is a great organization and conference tool. The app provides full access to the conference in the palm of your hand. You can see the schedule of events, build your own custom schedule, import your selected events into your calendar, access session materials, speaker bios, all exhibitor information, and the list goes on! There is no need to wait for the conference; the League's mobile app is available for download through your device's app store by searching "League of CA Cities", "League of California Cities", or "CACities."



Sessions

First Time Attendees

Special arrangements to welcome first-time attendees include an orientation on Wednesday, September 30, at 1:00 p.m.

Municipal Departments

Departments are essential to the League. They help form League policy, assist with conference program development, and are represented on the Board of Directors. Department business meetings will be held at 1:30 p.m. on Wednesday, September 30. Register your city's leadership to ensure their attendance at the conference as well as department events.

City Attorneys Track

The League City Attorneys' Department will present its municipal law track at the Annual Conference, providing Minimum Continuing Legal Education (MCLE) presentations for California attorneys. Legal updates will be offered in four municipal litigation subject areas: General Municipal Law, Torts & Civil Rights, Labor & Employment, and Land Use & CEQA. Additional and timely municipal law topics will be covered in depth. The Department's track will also include one hour of MCLE specialty credit. Elected officials and city staff are welcome to attend all City Attorneys' Department presentations of interest.

Understanding Public Service Ethics Laws and Principles (AB 1234 Training)

State law requires elected and appointed officials to receive two hours of training in specified ethics laws and principles every two years. Newly elected and appointed officials must receive this training within one year of becoming a public servant. This lively, example-laden, two hours will make this mandatory training more tolerable - if not outright enjoyable. *Sign-in begins at 8:30 a.m. and you must be present for the full two hours to receive the certification of attendance.*

Women's Caucus Session

According to a joint report released in April 2015 by California Women Lead and the League of California Cities' Women's Caucus titled "The Status of Women in California Elected Office", women continue to be underrepresented at every level of government. Join the League's Women's Caucus and California Women Lead for a discussion on the report that will include updated statistics on women serving on City Councils and how women seeking political office can talk, learn, and share strategies to increase the number of women in elected office.

CalPERS: What's New, What's Old and What's To Come

Receive an update from a CalPERS representative on the rate trends for CalPERS member agencies and its impact on labor negotiations from a perspective that elected officials will understand.

Sessions and speakers are subject to change.

City Clerk's Legislative Workshop

Additional registration $125 member city/$250 non-member city. (Business meeting 10:00 – 10:30 a.m. and a 4 hour workshop) CMC/MMC advanced education accreditation will be available.

Receive an update on key pieces of legislation related to open government, elections, public records, campaign finance and disclosures, and other relevant areas of interest to city clerks. Learn the status, trends, and background related to the legislation and how to ensure appropriate compliance in your agency.

Bullying/Peer Abuse Effects All

It has been proven that proactive and culturally appropriate policies combined with civic groups, public safety officers, and city staff, reduce peer abuse in the community. Non-discriminatory and anti-harassment policies are important tools for municipalities to communicate to the public in order to sustain public safety and community values. Examine municipal responsibilities in implementing state, federal, and local laws related to peer abuse and discriminatory practices within the general public.

Government's Crucial Employer Brand

Employer Brand has become increasingly more important as hiring practices have reemerged after workforces were depleted by layoffs and hiring freezes, as well as in preparation for the coming wave of public-sector retirements. The savviest leaders are increasingly considering the benefits of pursuing a more focused approach to strengthening their organization's employer brand as a magnet to entice and retain talent. Learn the nine specific touchstones that sum up Employer Brand.

Digital Strategies for Economic Development

Presentations will include perspectives how cities can use digital strategies to drive economic development while closing the Digital Divide. Includes the role city officials have in setting forth a vision for Digital Inclusion and forging alliances to foster economic prosperity. Explore the "how to" guides from SmartRiverside, OurCycle LA, and Lit San Leandro on designing and implementing programs to enhance economic competitiveness.

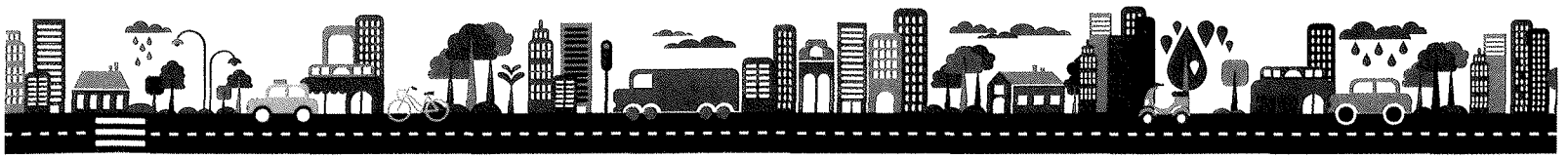
Understanding Your City's CVRA Options: 2015 Update

Learn how to ensure your city's compliance with the California Voting Rights Act. Subject matter experts will describe the various options to address potential liability including: district-based elections, cumulative voting, limited voting, and proportional representation. Receive an update on current legal issues and what the future outlook may be across California's electoral landscape.

Cap and Trade: What Cities Needs to Know

The 2014-15 State Budget included the first real appropriations of Cap and Trade Auction Revenues. Hear from some of the state agencies and departments on how your city can access this expanding funding source.

TRACK KEY: City Attorneys | Fire Leadership | Human Resources | League Partners | Police



Yes, Reducing Costs of Employee Benefits IS Possible!

Presenters will share their how-to and experience redesigning total compensation benefit packages for the City of South Lake Tahoe, Stockton, and other agencies while conforming to the Affordable Care Act, applicable laws, and policies. Examples will demonstrate reduced annual costs by 25 percent and unfunded liabilities by over 60 percent. Stockton discusses lessons learned and the applicability to other agencies from their bankruptcy proceedings. While the process of changing benefit packages can be lengthy and difficult, the fiscal benefits are worth the effort and can be replicated in other agencies.

Community Service Days: A Recipe for Success

Over the past decade, Pleasant Hill and Walnut Creek have sponsored annual Community Service Days, with more than 15,000 volunteers delivering tremendous community benefits. Prompted by this success, leaders from both cities will present an interactive session on how to implement a successful Community Service Day, including the "recipe" for: creating and organizing a committee, developing project plans and management systems, partnering with the community, securing financial support, and promoting the event.

Trends and Challenges in Public Records Requests

Hear an in-depth discussion of the myriad of challenges associated with public records requests ranging from the sources of requests, retention of records, legal issues, as well as advances in technology. Perspectives will be shared on effectively managing public records requests, responding and maintaining electronic records, and key trends in addressing these challenges. Learn what cities in California are doing in the face of the ever expanding California Public Records Act and hear about other key trends across the country.

The Future of Energy Efficiency in California

With Governor Brown calling for the doubling of energy efficiency and alternative energy resources by 2030, state and local leaders recognize these new ambitious goals require robust partnerships to create more efficient and sustainable communities. Learn three key aspects of the emerging state/local partnership: how local communities are pioneering effective energy partnerships; how the utility industry is designing new programs for local government and customers to finance and implement efficiencies; how new technologies are being employed to increase grid efficiency and offset the needs of new fossil fuel generation.

Maximizing Efficiencies in Your Fire Department

A combination of the economic downturn, shifting public expectations for service, and an increased public desire for highly accountable and transparent government has prompted local governments to validate the efficient and effective operations of their Fire/EMS departments. While each jurisdiction and agency is unique, critical themes emerge. Explore some of the economic and budgetary realities of fire department operations. Serious questions, and an open candid dialogue from the perspectives of both the City Manager as well as the Fire Chief will be discussed.

GoMentum Station - CV/AV Program Defining the Next Generation of Transportation

GoMentum Station, in Concord, is where CCTA lead and facilitate a collaborative partnership among multiple AMS, OEMs and Tier 1 and communications suppliers, technology companies, researchers, academia, public agencies, and other partners. These partners converge in research, development, testing validation and commercialization of Connected Vehicle (CV) applications and Autonomous Vehicles (AV) technologies to define the next generation of transportation network infrastructure. The 5000 acre Naval Weapons Station is perhaps the largest test facility in the world and will be the center of CV/AV.

Economic Development Project Funding in 2015 - "Sustainability" Replaces Redevelopment

Hear how cities can install new financing mechanisms and provide financial assistance for projects in a post-RDA world. With an improving economy and recent legislative changes in California, cities have new tools, mandates, and funding sources to promote sustainable economic development and infrastructure projects. Identify new tools, their ability to use/attract private investment, expedite project approvals, create sustainable public-private partnerships and projects transforming communities, and install needed local/regional infrastructure.

Contracting Fire Services: the Trials, Tribulations, Landmines, and Political Challenges

Participate in an interactive presentation providing Fire Chiefs, managers, and elected officials with information and hard hitting questions to consider when exploring alternatives to providing fire service for their community including contracting or consolidation.

Driving Ahead for Funding: What Will We do About Our Crumbling Transportation System?

The 2014 California Local Streets and Roads Needs Assessment showed that California's local transportation system continues to deteriorate. One-time funding from Prop 1B and the American Recovery and Reinvestment Act of 2009 are gone. The state system and transit systems are in a similar state of disrepair. Come hear about possible solutions including 2015 legislative actions and the state's efforts to implement a road usage charge.

How Cities Must Respond To The State's New Groundwater Law

The new Sustainable Groundwater Management Act impacts cities as groundwater users, public water suppliers, and land-use regulators. Starting in 2020, cities must contend with new regulatory plans imposing fees, pumping cuts, or other measures to stop over-pumping of groundwater. By 2017, those cities must decide whether to develop their own regulatory plans or be subject to plans approved by others. Absent or an inadequate, locally adopted plan, the state will impose local groundwater regulation. Learn how the Act impacts cities and strategies to protect their economies from potentially dramatic pumping cutbacks.

TRACK KEY: City Attorneys | Fire Leadership | Human Resources | League Partners | Police



Successfully Navigating Conflict of Interest Reporting

California rules require public officials to keep track and report gifts received throughout the year. Gifts need to be reported on their Statement of Economic Interest Form, also referred to as "Form 700." The gift limit and reporting requirements (including loans, gifts, and travel payments) are part of the Political Reform Act of 1974. Gain an understanding of California's Fair Political Practices Commission rules governing gifts and reporting.

Engaging Residents in the Digital Age

Due to the growth of social media and mobile apps, residents have increasingly higher expectations of engagement with government. Local jurisdictions need strategies that enable them to involve their communities with rapid feedback and interaction. Technical solutions abound, but many are untested and mistakes can be costly. This interactive session will begin by laying out a range of tech tool options to consider, explore directions of technology, and share real life examples of engaging residents in new ways.

How Cultural Districts Can Further California's Communities

Dozens of states have adopted official "cultural district" planning and designation processes to advance their state's economy and quality of life on both the local and regional level. California is the latest to explore establishing a formal program for Arts and Cultural Districts. Explore different approaches, current legislative proposals, and how an established Cultural District process can be utilized by cities.

Labor Relations: "A Policymaker's Perspective"

This Labor Relations 101 session is directed towards elected officials and will present PERB case studies and important "Do's and Don'ts" for those involved with labor negotiations. A panel of experts will review the basics of labor relations as governed by State Code.

Public-Private Partnership Success Story: Post Redevelopment

Former Marine Corps Air Station El Toro is transforming into the Orange County Great Park through changed circumstances and opportunities, including a key public-private partnership following the elimination of redevelopment. The Great Park, owned by the City of Irvine, attracts visitors, hosts international events, and is a cultural and sports recreational hub. The Irvine City Council approved a $200 million+ proposal from Five Point Communities Management, Inc. to develop 688 Great Park acres with parkland over five years, and expanded Five Point's development entitlement on its adjacent private land with new homes and non-residential, including a landmark Broadcom Corp. Campus.

Charter Cities Under Attack

The constitutional powers of charter cities continues to come under attack. The enactment of SB 7, a direct challenge to the authority of charter cities to control their municipal contracting process is just the latest effort to abridge cities' home rule powers. Hear the pros and cons of becoming a charter city, and explore the recent developments impacting them. Learn about strategies of charter cities, individually and collectively, employed to preserve their constitutional authority over essential municipal functions.

The What, Why, and How of Cities Addressing Electronic Smoking Devices and Vape Shops

Electronic smoking devices have hit California cities by storm. The devices aren't currently regulated by any federal agency, thus many jurisdictions have taken steps in the interest of public health to regulate the myriad of devices that includes e-cigarettes and vape pens as they do tobacco products. This quick talk will provide a brief overview of the devices, steps jurisdictions can take to regulate them and what to expect from the opposition.

Legislative and Regulatory Changes Affecting Fire Service Delivery of EMS

Panelists present information relating to various topics concerning emergency medical services (EMS) legislation, state approved EMS pilot programs, services fees update, and the California Attorney General's December 16, 2014 opinion response to Los Angeles County's questions on local pre-hospital care rights.

Managing Water Application in an Urban Environment

The City of Fontana has developed a creative system to manage irrigation water application in public landscaped areas. This system is based on water budgets and a CMMS/GIS based solution to monitor and compare water usage in compliance with AB 1881, the State's Model Water Efficient Landscape Ordinance as well as the City's Landscape Water Efficient Landscape Ordinance. This process can be used as a model for managing water application and can be scaled depending on the needs of the agency.

"Wildlife Watch" A Leadership Response to Urban Wildlife Conflict

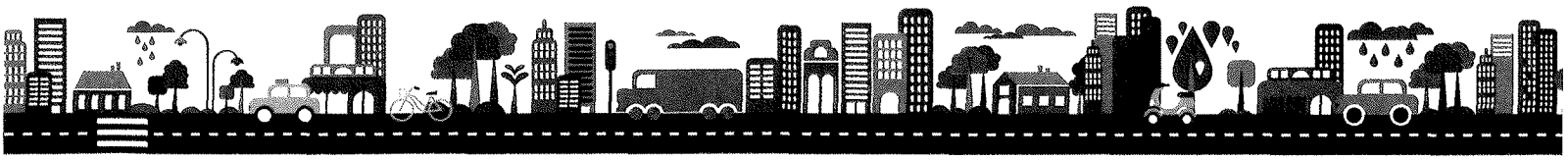
Receive an overview on developing agency and community partnerships in preparing for urban wildlife conflict utilizing conservation coaching skills. Learn the basics of setting up a Wildlife Watch program in your city which parallels a neighborhood watch program. The focus will be towards communications within the various agencies which are most impacted, including law enforcement, animal control, public works, legal department, sanitation, and parks and recreation.

Why Your Community Doesn't Know What You're Doing

The old way is not working. Small town USA is no longer a reality and residents are growing more disconnected with local government and their elected leaders. They don't know what's going on in their community or how their tax dollars are being spent. Yet, cities aren't moving into the new communication age. Explore the reasons cities aren't evolving to meet new information demands. Challenge wisdom about how and where to invest in communication tools, personnel, and what cities need now, to be ready to communicate tomorrow.

Shared Services: How Do You Get There?

Sometimes in an effort to utilize all available resources, cities merge with other agencies, and/or share personnel between agencies, such as the merging of two departments, or having one department head serve both agencies. Learn best practices and identify pitfalls associated with these arrangements.



The Changing Face of the Skatepark User

In an age of social media and technology, youth in our society are seeing action sports like never before. In the skatepark industry we are seeing new users coming to skateparks. Learn how to adapt to new users and provide the appropriate skatepark features that benefit the community. The action sports of skateboarding and BMX have seen large increases in participation in recent years. Hear about the types of skateparks available and help cities make the right choices to satisfy both the current and new users of skatepark facilities.

Emerging Issues in Policing, Implications for California Cities

Police Chiefs from several cities will discuss emerging issues facing law enforcement in the aftermath of national and local events affecting the public's faith and trust in law enforcement. Discussion will include body worn cameras, police legitimacy and procedural justice, public perception, and the 1033 program.

When CalPERS Pension Debt Hits Your Budget

2015 is the first year that Governmental Accounting Standards Board (GASB) 68 is in effect for government agency financial statements. Hear perspectives of both auditors and actuaries on the new statement, and understand: how the new GASB statement is changing city balance sheets and how users of these statements may view pensions as unfunded; how to translate your CalPERS report into your CAFR GASB disclosure; what is Pension Expense; timing considerations, including implementation for those who don't have a June 30 year-end; and the expected impact of the new GASB OPEB statement.

Attracting Foreign Direct Investment to Boost Local Prosperity!

Are you interested in infusing fresh capital into your city? Foreign Direct Investment (FDI) is fast becoming a mechanism that cities across the country are leveraging in order to close infrastructure and development project funding gaps. Learn from issue experts on how your city can attract and utilize FDI as a means for community rejuvenation and revenue generation. Hear about best practices, financial tools, and insightful knowledge of Federal programs (EB-5) and California (California Competes Tax Credit) to help your city harness this form of international economic development.

Enhancing Animal Services to Eliminate the Euthanasia of Adoptable Animals

Healthy and treatable animals are being abandoned in our communities. Too often, these animals must be euthanized due to a lack of space in animal shelters. In recognition of the importance of animals in thriving communities, the City of Chino Hills worked in collaboration with its animal services provider, local rescue groups, and animal welfare advocates to increase the live release rate of adoptable dogs through education, targeted programs, and legislation. Hear how Chino Hills and its partners assessed the problems and developed a strategic and sustainable framework for reducing animal euthanasia.

Hitchhiking Pests: How to Protect Your Community From Invasive Species

One of the biggest threats to residential and city owned trees are invasive pests that can hitchhike into your community on everyday goods. Learn about some emerging pests in agriculture and forestry with a focus on the economic and environmental impacts they have caused to municipalities. Hear about strategies, tools, and available programs at all levels of government for preventing the introduction of these invasive pests into your community.

Advancing Community Support for Affordable Housing By Promoting Housing Diversity

As one of the most expensive housing markets in the U.S. it's become increasingly clear that today's record high prices can make a county less attractive for new business and employment growth. The Building Industry Association of Orange County, in collaboration with public sector housing officials, has launched a comprehensive educational campaign to advance the importance of affordable housing in a community with the context of promoting housing diversity. As discussed by public and private sector panelists, this campaign could be a template to educate the public, including city officials and the business sector, on the importance of affordable housing to support economic and employment vitality.

Balancing the Scales: Fire Department Service and Community Expectations

There is growing pressure to balance the delivery of services by fire and emergency service agencies with the expectations of the communities they serve. Learn a number of processes that will help: provide a framework for comparing the performance of agencies to objective benchmarks; identify steps taken to continually ensure effective and efficient service delivery; define risks, hazards, and vulnerabilities and develop comprehensive plans to address them; create a response coverage model accurately measuring resource allocation and deployment. More resources are not always the best answers, instead industry best practices will be presented to help balance the scales.

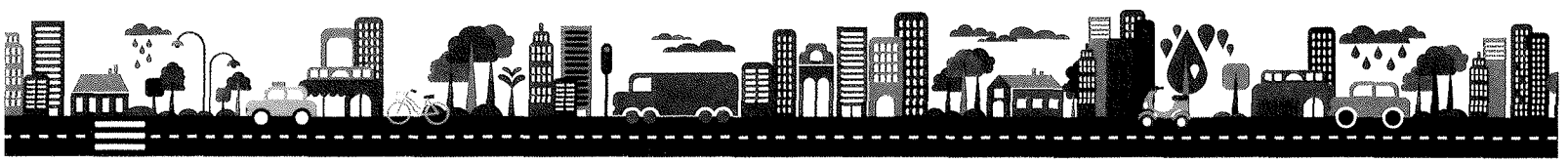
Effective Crisis Communication for City Leaders

Earthquakes, fires, floods, and hurricane force windstorms in California are inevitable. During emergencies, the importance of our coordinated communications systems becomes clear. City leaders have a significant role to play in both the planning and implementation of crisis communications and recovery. Explore the important roles city council members, senior staff, utilities, and other emergency planning personnel have in coordinating effective communications in times of both natural disaster and community crisis.

Who Moved My City's Revenue? Re-Capturing Rogue Revenue Streams

Legislative and technology trends are causing revenue streams in many cities to decline. Where has it gone? Learn about changes in regulation and citizen behavior that are moving dollars outside the scope of most cities' tax bases, and how jurisdictions can position themselves to recover lost revenue.

TRACK KEY: City Attorneys | Fire Leadership | Human Resources | League Partners | Police



LP Rethinking, Repositioning, & Reinventing Retail Centers

Shifting demographics, changes in purchasing habits, social networking, and the internet have dramatically impacted the retail environment from what it was just a few years ago. The multiple channel retail offerings are requiring cities to be more focused on market demographics and appropriate retail mix. A panel of experienced retail developers and government practitioners will review these new challenges and how to achieve effective results in this new and rapidly changing environment.

Community Wellness: Mayors & Council Members Creating Healthy and Vibrant Communities

Local leaders grapple with a variety of community development and public health challenges as they craft and approve policies impacting children and families. Mayors and council members are working with community partners to engage youth and families and develop healthier neighborhoods in California cities. Hear about city experiences with community wellness strategies and lessons learned in creating vibrant and healthy communities in which youth, adults and seniors want to live, work, learn and play. Leadership, promoting and prioritizing health, and the intentional alignment of services and supports will be featured.

Future of Economic Engines - Complete Park Systems

Parks, open spaces, biking and walking trails, and recreation programming are among the top five amenities potential home-buyers and renters seek when they are looking for a place to settle their families. Even businesses include well-maintained and accessible parks on their must-have list for potential communities in which to relocate. Learn about the resources HEAL Cities Campaign has put together to assist cities to guide the development of park infrastructure, services, and financing, just as a General Plan sets out the blueprint for a city's land use, real estate, and economic development.

Summer at City Hall: Winning Formula for Students and Staff

Learn how the City of Sacramento, in partnership with its four school districts and various community agencies, has taken a proactive role in developing tomorrow's engaged citizens and future public sector workforce. Through its 7-week Summer at City Hall program including class time, field trips and city department internships, 100 high school students gain civic knowledge, local government interest, and develop an advocacy platform to improve their neighborhoods. Learn how to replicate this program which not only engages students, but positively impacts the City and the employees working with the students.

LP Modernizing While Mitigating Utility Infrastructure Capital Needs

Modernization and financing of critical infrastructure systems is a League strategic goal. Water and wastewater operations are enablers of economic growth; however, deferred infrastructure upgrades are difficult with structural deficits in budgets and competition for capital dollars. Learn how others addressed one of the largest capital investments to accommodate economic development and regulatory changes. Hear about modernization strategies and available funding resulting from November 2014 passing of Proposition 1 Water Bond.

CV Link - An Innovative Transportation Corridor

While still in the planning stages, the CV Link is a unique infrastructure project in Coachella Valley. It is a 52-mile corridor for pedestrians, bicyclists, and low speed electric vehicles which will largely run down the Whitewater Wash connecting nine cities. Explore this innovative project, its development, presentation to the public, and the creative way it was financed.

Do-It Yourself Economy: New Tools for a New Economy

The nature of job creation is changing radically. From 2004 to 2010, the micro-business sector was responsible for over 90 percent of jobs created in the United States and self-employment is growing exponentially. This session will: explain the changing landscape of the labor market that necessitates new approaches; outline tools that will stimulate the economy based on locally-owned small businesses; and examine an Etsy project in Santa Cruz as a case study on how to use the platform as a development tool for a DIY economy.

Tomorrow-Land: Technology & The Future of Your City

Cities around the globe are in the midst of technological experiments to improve the quality of life for their citizens and environment. Allow us to inspire and show you how to take your city, regardless of size, economic means, and demographics into tomorrow-land. Listen to experts from Silicon Valley, hear from a city who is using technology to re-brand itself globally, and learn how state appointed partners are pushing the state forward and assisting local government keep up with the future.

Mastering the Five Foundations of Leading for Political Effectiveness

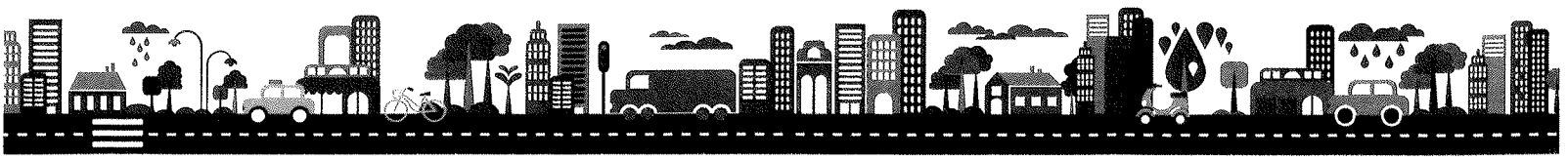
What is it like to be a political leader? Walk through thematic accounts of what elected's feel they need to be effective. Content is based on interviews with political leaders of varying demographics and juxtaposed with international political effectiveness leadership and authentic leadership literature, resulting in five foundations: master the internal, balance data, visualize and direct strategically, engage with integrity, and lead through change.

Tax Increment Financing is Back! Using the New EIFD Tool

Infrastructure Financing Districts provide cities and counties the ability to use tax increment revenues to finance the construction and acquisition of many different types of facilities. This panel will provide an outline of key items associated with the new EIFD legislation, discuss the formation process, provide an analysis of how the City of West Sacramento formed an EIFD within its Bridge District, and discuss potential financing techniques associated.

What Council Members Need to Know About Local Agency Formation Commissions (LAFCo)

Local Agency Formation Commissions (LAFCos) are local agencies mandated by the State legislature to: 1) Encourage the orderly formation of local governmental agencies, 2) to preserve agricultural land resources, and 3) to discourage urban sprawl. This session will provide participants with an overview on the LAFCos governance structure, the policy issues that LAFCos have jurisdiction over, and will add the differing roles of a city council member compared to a LAFCo Commissioner.



How to Participate in the League's

Annual Conference Resolutions Process

Policy development is a key part of the League's legislative effectiveness. The League's Annual Conference Resolutions process is one way that city officials can directly participate in the development of League policy. The 2015 Annual Conference Resolution Calendar of Events identifies the key points in the process.

Submission of Resolutions

Any elected or appointed city official, individual city, division, department, policy committee, or the board of directors may submit a resolution for consideration at the conference. Resolutions must be submitted to the League's Sacramento office no later than 60 days prior to the opening of the conference. Resolutions should focus on direct municipal issues of statewide importance.

Resolutions submitted to the General Assembly must be concurred by five cities or by city officials from at least five or more cities. Those submitting resolutions should be prepared to provide written documentation of concurrence by five cities or by city officials from at least five or more cities. This may be in the form of a letter from the city or the city official in support. For concurrence by a city official, the official's city and office held must be included in the letter. All concurrences must be submitted at the time the resolution is submitted by the deadline of midnight, August 1, 2015.

Consideration at the Conference

The League President refers resolutions to the League policy committees for review and recommendation at the Conference. Resolutions are next considered by the General Resolutions Committee (GRC), which consists of representatives from each division, department, policy committee, and individuals appointed by the League President. Resolutions approved by the policy committee and/or GRC are next considered by the General Assembly. Resolutions disapproved or referred by both the policy committee and GRC will not proceed to the General Assembly. Resolutions approved by the General Assembly become League policy. Other action on resolutions can be: refer back to a policy committee, amend, disapprove or no action.

Late-Breaking Issues

Resolutions to address late-breaking issues may be introduced by petition at the Annual Conference. To qualify, a petitioned resolution must be signed by 10 percent of the voting delegates and submitted at least 24 hours before the beginning of the Concluding General Assembly *(Deadline: noon, Thursday, October 1)*. All qualified petitioned resolutions are forwarded to the General Assembly for consideration, regardless of the action recommended by the GRC.

2015 Resolutions Calendar and Deadlines

BEFORE THE CONFERENCE

Friday, July 10: Deadline for submitting appointments to the General Resolutions Committee.

Saturday, August 1, Midnight: Deadline for submitting resolutions to the League office by regular mail, email or fax.

Mid-August: Resolutions distributed to city officials and posted on the League website.

AT THE CONFERENCE

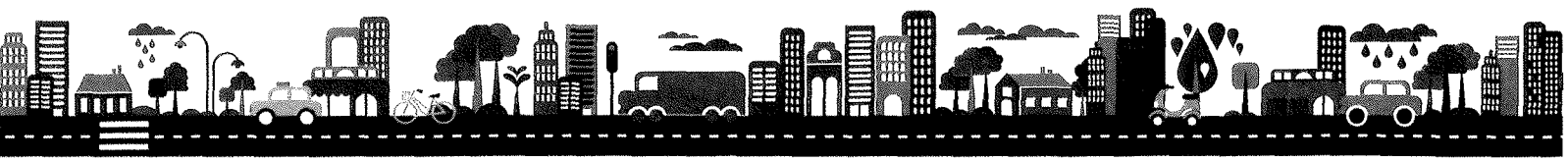
Wednesday, September 30

9:00 – 10:30 a.m. *(Thursday committees)*:
10:30 a.m. – 12:00 p.m. *(Friday committees)*:
Policy committees meet to review resolutions and make recommendations to the General Resolutions Committee on resolutions assigned to each committee.

Thursday, October 1, 12:00 p.m.: Deadline to submit signatures to qualify a petitioned resolution.

Thursday, October 1, 1:00 p.m.: General Resolutions Committee meets to consider and make recommendations on resolutions.

Friday, October 2, 12:00 p.m.: Consideration of resolutions by cities in the General Assembly at the Annual Business Meeting. *(Voting Delegates must be registered at the conference and must stay until conclusion of voting. They may register for Friday only.)*



Networking

CitiPAC – Neon Glow Casino Night

In conjunction with the hospitality reception hosted by Keenan & Associates, CitiPAC will present its Neon Glow Casino Night on Wednesday, September 30. Join the League Board of Directors for this colorful evening of entertainment featuring food, beverages, and casino style gaming in a bright neon decor.

Diversity Groups

The Board of Directors has recognized the following five diversity groups: African-American Caucus; Asian-Pacific Islander Caucus; the Gay, Lesbian, Bisexual & Transgender Local Officials Caucus; Latino Caucus; and Women's Caucus. Sign up to join one or more of the League's Caucuses. Each will host a networking event at the Annual Conference open to all attendees.

Host City Reception

The City of San José welcomes the delegates to the League of California Cities Annual Conference. Please join us at the opening night host reception and enjoy a selection of delicious hors d'oeuvres. The reception will take place from 5:00 – 7:00 p.m. on Wednesday, September 30, at the San José McEnery Convention Center. A registration badge is required to access the event and show floor.

Regional Divisions

Regional Divisions function as the League's grassroots advocacy teams. Divisions are staffed locally by public affairs managers to support League goals. Contact your local manager for more information and prices of onsite division networking events.

Brown Act and League Conferences

The Brown Act permits the attendance of a majority of the members of a legislative body at a conference or similar gathering open to the public that addresses issues of general interest to the public or to public agencies of the type represented by the legislative body. However, a majority of the members cannot discuss among themselves, other than as part of the scheduled program, business of a specific nature that is within the local agency's subject matter jurisdiction.

General Information

Helen Putnam Award for Excellence

This program, supported by the League Partners, recognizes outstanding cities that deliver the highest quality and level of service in the most effective manner possible. Visit the special displays by cities that won the 2015 prestigious awards program and learn what your city can adapt from their success.

Institute for Local Government

The Institute for Local Government is the 501(c)(3) research affiliate of the California State Association of Counties and the League of California Cities.

Mayors and Council Members Academy

A training certificate program that consists of specific educational programs and community activities that enhance knowledge and skills needed to be more effective in office. Three levels include Leadership, Advanced Leadership, and Leadership in Action. You may participate in all three levels at the same time.

Session Materials

Our goal is to provide exceptional educational experiences, networking opportunities, and innovative tools that will make attendees and their cities more successful. Presentation materials are an important element of the Annual Conference and will be available online at www.cacities.org/achandouts as well as on the League's mobile app You can download or print session materials in advance or after the conference for additional resources.



Exhibitor Listing*

A
AAA Flag & Banner
Accela
Access Products
A-G Sod Farms
Alliance Resource Consulting LLC
Ameresco
American Fidelity Assurance Company
Ameron Pole Products
ANP Lighting
Arborjet
Asphalt Zipper
Atkins
Avery Associates

B
Best Best & Krieger LLP
Best Friends Animal Society
Blais & Associates
Bob Murray & Associates
Borrego Solar Systems, Inc.
Burke, Williams & Sorensen, LLP

C
CAD Masters Inc.
CalBev
California Building Officials
California Clean Power
California Consulting, LLC
California Department of Water Resources
California Dept Housing & Community Development
California Fuel Cell Partnership
California Joint Powers Insurance Authority
California Product Stewardship Council
California Shopping Cart Retrieval Corp.
California Special Districts Association
California State Board of Equalization
CalPERS
CalRecycle
Careers In Government - CareersInGovernment.com
Carpenter/Robbins Commercial Real Estate, Inc.
Charles Abbott Associates
Chelsea Investment Corporation
Churchwell White LLP
Cigna
Citrus Pest & Disease Prevention Program
CityGovApp Inc
CleanStreet
Climatec BTG
Comcate, Inc.
Contour Sierra Aebi
Contractor Compliance and Monitoring, Inc.
Credit Bureau Associates
Crown Castle International, Inc.
CSG Consultants, Inc.

D
Dapeer, Rosenblit & Litvak, LLP
Dart Container
Davey Resource Group, Division of the Davey Tree
David Taussig & Associates, Inc.
Dekra-Lite
Digital Ally Inc.
DN Tanks
Dudek
Dynatest Consulting

E
Earth Systems
Easi File
eCivis
Emerald Data Solutions
Energy From Shale
Energy Upgrade California
Environmental Systems Research Institute
EZ Street Company

F
Fieldman, Rolapp & Associates, Inc.
FirstSouthwest
Forbo Flooring Systems
Fuelmaster/SYN-Tech Systems

G
Geostablization International
Golden Bear Insurance Company
Good Energy, L.P.
GovInvest
Grainger
Graphic Solutions
Green Charge Networks
Griffin Structures

H
HdL Companies
HEAL Cities Campaign
Honor Life Recognition
HR Green, Inc.

I
IBANK
International Institute of Municipal Clerks
Intl Municipal Signal Association Far West
International TreeScapes
ITEM, Ltd.

J
Jamboree Housing Corp
JD Franz Research, Inc.
Jefferies LLC
Jere Melo Foundation
Johnson Controls
Jones & Mayer

K
Kaiser Permanente
Kasdan Lippsmith Weber Turner LLP
Keenan & Associates
Keyser Marston Associates, Inc.
Kosmont Co., Auction.com & Lee & Assoc.

L
Laserfiche
LCPtracker Inc
Library Systems & Services
Liebert Cassidy Whitmore
Local Search Association
LPA, Inc.

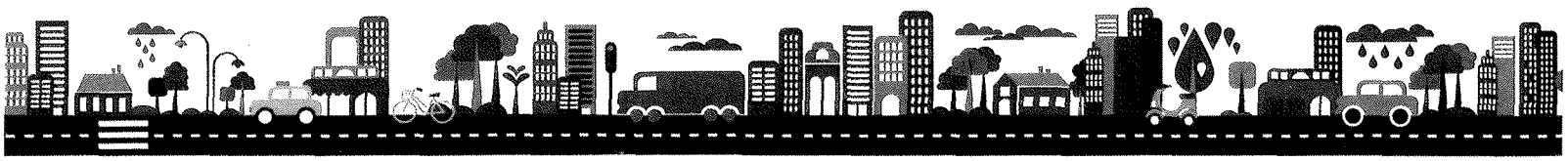
M
Matrix Consulting Group
Mattress Recycling Council
Meyers Nave
M-Group
Mohawk Group Floor Coverings & Solutions
MuniServices
MuniTemps

N
National ADA Accrediting and Consulting
NBS
Newport Pacific Capital Family of Companies
Next 10
Nexus eWater Inc.
Northern CA Carpenters Regional Council
NV5

O
Omni-Means, Ltd.
One Source Health & Wealth Management
OpenGov.com
OpTerra Energy Services
Otto Environmental Systems North America
Outpak Washout

P
Pacific Gas and Electric Company
PARS
PERC Water
Piper Jaffray
PowerFlare - PF Distribution Center, Inc.
Precision Concrete Cutting
Presidio Graduate School
Public Agency Risk Sharing Authority of CA
Public Financial Management Group
Public Restroom Company

Q
Quad Knopf



R
Radarsign, LLC
Ralph Andersen and Associates
Renewable Funding
Renne Sloan Holtzman Sakai LLP
Renovate America
Retail Strategies, LLC
RJM Design Group, Inc.
RKA Consulting Group
RSG, Inc.

S
Save Pensions. Inc.
Schaefer Systems International, Inc.
Schneider Electric
Security Lines US
SeeClickFix
Sensus
Servpro
Severn Trent Services
Siemens
SIGMAnet, Inc.
Silver & Wright LLP
SmartCitiesPrevail.org
Smartcover by Hadronex
Southern California Library Cooperative
Spohn Ranch Skateparks
Sportsplex USA
SSA Landscape Architects, Inc.
State of your City Presentations
State Water Resources Control Board
SVA Architects, Inc.
SWARCO Traffic Americas
SyTech Solutions

T
Tanko Lighting Inc
TBWB Strategies
The Gordian Group
The Retail Coach
TNT Fireworks
TractionSeal
Transtech Engineers, Inc.
Tribal Alliance of Sovereign Indian Nations

U
U.S. Communities
Union Pacific Railroad
USA Fleet Solutions
USA Properties Fund
Utility Service Co., Inc.

V
Vali Cooper & Associates, Inc.
Vanir Construction Management, Inc.
VenTek International
VOYA Financial

W
Websoft Developers
West Coast Arborists, Inc.
Western Emulsions, Inc.
Whelen Engineering Co Inc
Willdan
World Centric

*As of April 23, 2015 (For a current list, visit www.cacities.org/2015expo)
Note: 2015 League Partners are in **bold**

LEAGUE PARTNER

Speaker Theater

The expo session area will highlight successful examples of public/private partnerships. Explore case studies of innovative projects and programs that have worked in California cities. Gain insight from elected officials, city staff and industry experts that have discovered creative solutions to some of the challenging problems that cities face.

Expo Grand Prize

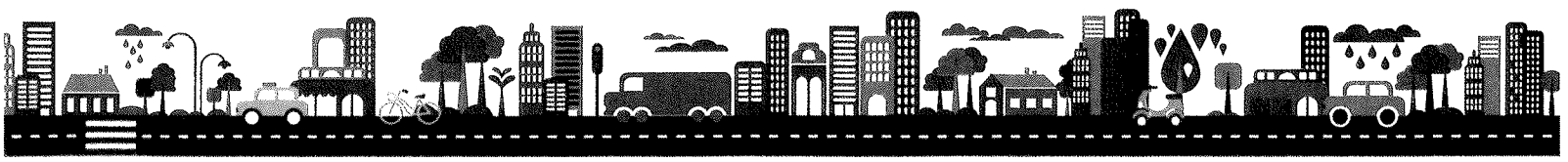
Win $3,000 to be used with any U.S. Communities supplier.

Solutions for Facilities, Office, Technology, Roads, Workforce, Corrections, First Responders and more!

U.S. COMMUNITIES™
GOVERNMENT PURCHASING ALLIANCE

Congratulations to the City of Cudahy, winner of the 2014 Grand Prize!

Must be present at the Closing General Assembly on Friday to win.



Registration

Registration Includes:

- Admission to educational sessions as well as networking events
- Wednesday host city reception and expo; Thursday lunch with exhibitors; Friday closing luncheon

Online Registration *(credit card)* – Visit **www.cacities.org/AC**

Mail-in Registration *(pay by check)* – contact mdunn@cacities.org to request a registration form.

After your registration for the conference is received and processed, a confirmation email will be sent containing the links for housing reservations.

Full Conference Registration Fees

	EARLY BIRD Before August 5	After August 5 and onsite
City Delegate		
Member City	$ 500	$ 550
Nonmember City	$ 1500	$ 1550
Public Official		
County/State	$ 575	$ 625
Partner/Exhibitor/All Others		
Company Representative	$ 675	$ 725

NOTE: *Conference registration is required to attend the Department business meeting and Annual Conference General Assembly and/or to be a Voting Delegate.*

One-Day Registration

Early bird rates are not available for one day registrations

City Delegate	
Member City	$ 275
Nonmember City	$ 1275
Public Official	
County/State	$ 325
Partner/Exhibitor/All Others	
Company Representative	$ 375

Optional Registration Add-ons

(non-refundable)

City Clerks Workshop - $125 member cities, $250 non-member cities

Guest Registration - $125

Guest rate is restricted to those who are not city/public officials, are not related to any Partner/Expo company, and would have no professional reason to attend for learning or business. Rate includes admission to the Expo and receptions only. Session seats are reserved for conference registrants. There is no refund for the cancellation of a guest registration. It is not advisable to use city funds to register a guest.

Onsite Badge Pick Up

2015 Annual Conference badges will be available at the registration desk in the San José Convention Center.

REGISTRATION HOURS:

Wednesday, September 30 – 8:00 a.m. – 6:00 p.m.

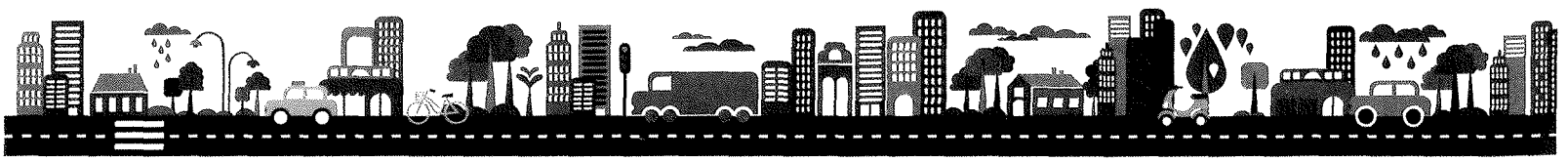
Thursday, October 1 – 7:00 a.m. – 4:00 p.m.

Friday, October 2 – 7:30 – 10:00 a.m.

Questions or special needs? Contact our conference registrar at **mdunn@cacities.org** before Tuesday, August 25.

Refund Policy

Advance registrants unable to attend will receive a refund of rate paid, **minus a $75 processing charge,** only when a written request is submitted to the League of California Cities, Conference Registration, 1400 K Street, Sacramento, CA, 95814 or **mdunn@cacities.org** and received before **5:00 p.m. on Tuesday, August 25**. Refunds will not be available after this date. If you are unable to attend, you may substitute a colleague for your entire registration. *Please note, sharing of registration is prohibited.*



housing@sanjose.org
408-792-4192 San Jose Housing Bureau Carla Gutierrez

Conference Hotels

*plus occupancy taxes and fees

Tues 29
Wed 30
Thu 01

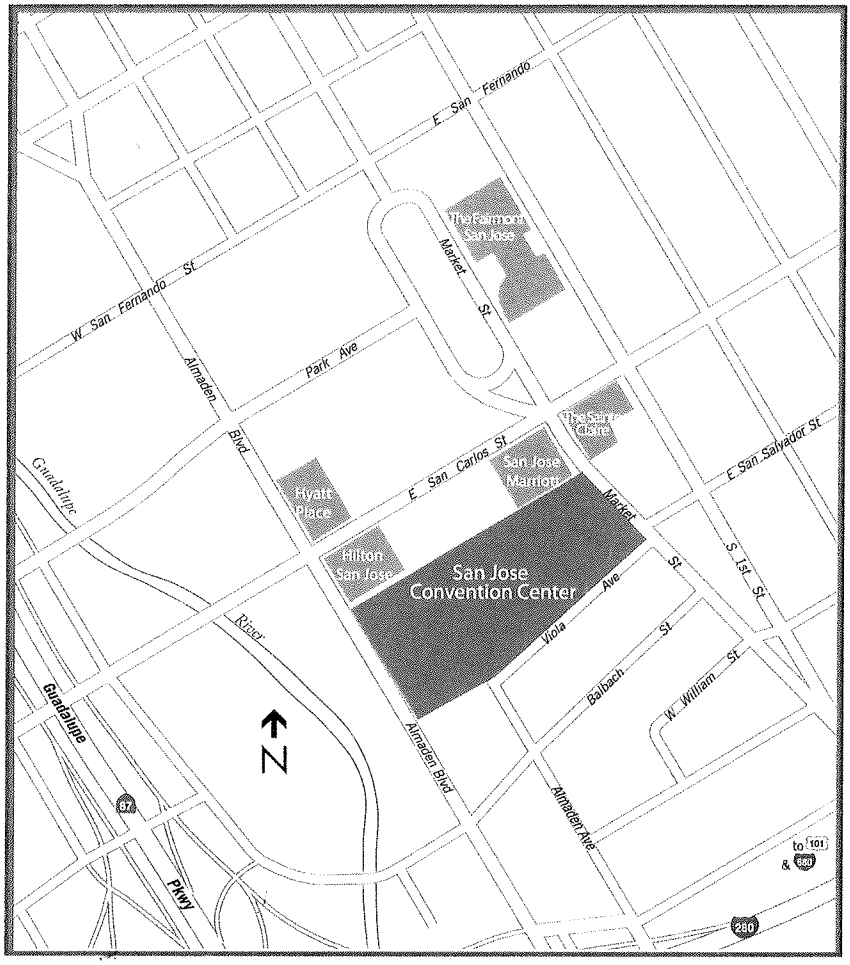
San José Marriott (2)
301 South Market Street
$189.00 single/double*

Hilton San José (1)
300 Almaden Boulevard
$185.00 single/double*

Fairmont San José (4)
170 South Market Street
$179.00 single/double*

Sainte Claire
302 South Market Street
$199.00 single/double*

Hyatt Place (3)
282 Almaden Boulevard
$179.00 single/double*



Reduced room rates are available for registered attendees at the 2015 Annual Conference. Reserve your hotel nights while space is available. Phone reservations will not be accepted. The discounted hotel rate cut-off is **Thursday, September 10** and the hotels are subject to sell out prior to the reservation deadline.

Predatory Housing Warning

Beware of unauthorized housing and hotel reservation services that may solicit your business. All legitimate communications regarding housing will come directly from the League of California Cities. If you receive a suspicious email or phone call asking to book your hotel room for the conference, please let us know immediately.

STEP ONE: Register for the Conference

STEP TWO: Book hotel room

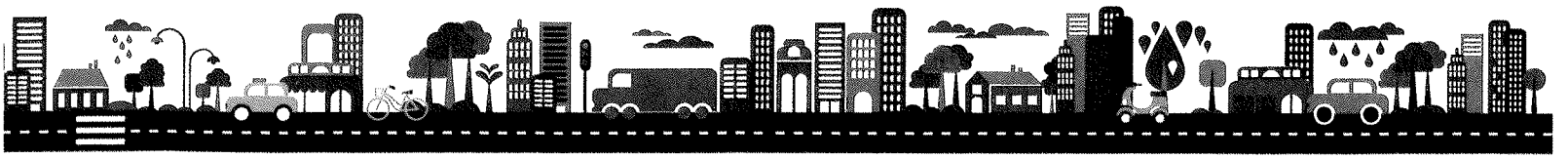
After your registration for the conference is received and processed, a confirmation email will be sent containing the links for housing reservations.

CAUTION! *Do not make a hotel reservation unless you are sure it is needed. Your city/company will be financially responsible for all cancellation/attrition fees. If you are making hotel reservations for others, please confirm with each individual, in advance, that they actually need hotel accommodations and intend to use them on the dates you are reserving.*

Hotel Changes or Hotel Cancellations

Hotel reservation changes, date modifications, early check-out, or cancellations made prior to Thursday, September 10 must be done through the online reservation link you received when registering for the conference. Use your confirmation/ acknowledgment number to access your reservation and make any necessary changes. Once the September 10 deadline has passed, please contact the hotel directly with any changes or cancellations. Please note that after the housing deadline has passed, you may incur a financial penalty and minimum one-night room charge or attrition fees.

PLEASE NOTE: *The information you provide to the League when registering for a League conference or meeting may be shared with the conference or meeting hotel(s). The hotel(s) will also share with the League the information you provide to the hotel(s) when you make your hotel reservation for the conference or meeting. The information shared between the League and the hotel(s) will be limited to your first name, last name and dates/length of stay in the hotel.*



Return to Agenda

REPORT TO CITY COUNCIL

Approved by:

Department Director

City Administrator

Council Meeting of: September 2, 2015

Agenda Number: B-6

SUBJECT: Resolution Approving an agreement with Thales Consulting Inc. for the preparation of the City's Financial Transactions Report, the Special District Report and the Annual Transit Report and authorizing the Mayor to execute the agreement.

RECOMMENDATION: Staff recommends adoption of the Resolution Approving an agreement with Thales Consulting Inc. for the preparation of the City's Financial Transactions Report, the Special District Report and the Annual Transit Report.

SUMMARY: Thales Consulting Inc. has been preparing the annual City Financial Transaction Report, the Special District Report, and the Annual Transit Report for the past several years. Staff has been happy with their services and would like to have Council approve the agreement so that we can utilize their services and have these reports completed in a timely manner.

DISCUSSION: All three reports are fairly long, complex and cumbersome to prepare and format. Thales Consulting Inc specializes in preparing the three reports and, as a result, can prepare them much more efficiently and accurately than anyone in the Finance Department. Cost for their services is $4,200 and includes the electronic filing of the reports on behalf of the City with the state controller's office.

FINANCIAL IMPACT: Approval of the contract document provides ongoing financial reporting support for the City. The contract amount was budgeted under the contracted services line item for the Finance Department.

CONSISTENCY WITH THE VISION MADERA 2025 PLAN: Approval of this agreement is not specifically addressed in the vision 2025 plan, but falls within the parameters to provide for A Well Planned City.

RESOLUTION NO. _____

RESOLUTION OF THE COUNCIL OF THE CITY OF MADERA, CALIFORNIA, APPROVING AN AGREEMENT FOR PREPARATION OF THE CITY OF MADERA FINANCIAL TRANSACTIONS REPORT, THE SPECIAL DISTRICT REPORT, AND THE ANNUAL TRANSIT REPORT AND AUTHORIZING THE MAYOR TO EXECUTE THE AGREEMENT.

WHEREAS, The City has a responsibility to have its financial transactions reported each fiscal year to the state controller's office; and

WHEREAS, it was deemed unnecessary to seek bids pursuant to the City purchasing guidelines; and

WHEREAS, the City has used the same consulting firm for several years.

NOW THEREFORE, THE CITY COUNCIL OF THE CITY OF MADERA HEREBY finds orders and resolves as follows:

1. The above recitals are true and correct.
2. The Agreement with Thales Consulting Inc., a copy of which is on file in the office of the City Clerk, is hereby approved.
3. The Mayor is authorized to execute the agreement on behalf of the City.
4. The resolution is effective immediately upon adoption.
5. A signed copy of this resolution shall be placed on file in the office of the Financial Services Director.

THALES CONSULTING INC.

Solutions for Government

Thales Consulting Inc.
980 Ninth Street
Sixteenth Floor, PMB 1604
Sacramento, CA 95814
(530) 979-1648

August 12, 2015

City of Madera
205 West 4th Street
Madera, CA 93637

Robert L. Poythress:

Effective August 12, 2015 this letter will serve as an agreement between The City of Madera ("City") and Thales Consulting Inc ("Consultant"). Both parties agree to the following:

Thales Consulting Inc. will prepare three State Controller Reports for the City of Madera. The City agrees to pay Thales Consulting Inc. a sum of four thousand two hundred US dollars ($4,200) upon transmission of the following June 30, 2015 reports to the State Controllers Office through ftp:

Cities Financial Transactions Report	$3,000*
Financing Authority Special District Report	$ 400
Annual Transit Report	$ 800

*A ten percent discount will be applied if complete information is provided to Thales Consulting Inc by September 14th 2015 (as stated in the information request)

The City will submit to Thales Consulting Inc. (at 980 Ninth Street, 16th Floor, PMB 1604, Sacramento, CA 95814) prior year's work papers (when applicable) and required current year data no later than two weeks before the said reports are due on October 19, 2015.

Assignment. Consultant agrees not to assign, convey or transfer its interest in this Agreement to any other entity without the prior written consent of The City , which consent shall not be unreasonably withheld.

Indemnification. Each party shall be responsible for its own acts and will be responsible for all damages, costs, fees and expenses which arise out of the performance of this agreement and which are due to that party's own negligence, tortuous acts and other unlawful conduct and the negligence, tortuous acts and other unlawful conduct of its respective agents, officers and employees.

Services and Materials to be Furnished by The City: Thales Consulting Inc. shall provide guidance to The City in determining the data required for the services hereunder. The City further agrees to provide all data specifically requested, including documentation and information to Thales Consulting Inc. in a timely manner. Thales Consulting Inc. shall assume all data so provided is correct. Thales Consulting Inc. shall make its best effort to file the reports in a timely manner.

Thales Consulting Inc. shall not be liable for reports that cannot be filed as a result of inadequate data or data provided in an untimely manner.

Third Parties: The City and Thales Consulting Inc. are the only parties to this Agreement and are the only parties entitled to enforce its terms. Nothing in this Agreement gives, is intended to give, or shall be construed to give or provide, any right or benefit, whether directly or indirectly or otherwise, to third persons.

Thales Consulting's Liability If Audited: Thales Consulting Inc. will assume without incurring liability therefore that all financial and statistical information provided by The City and its client's employees or representatives is accurate and complete. Any subsequent disallowance of funds paid to the respective local government under the claims for whatever reason is the sole responsibility of the local government.

Termination: Either party shall have the right to terminate this Agreement if the other party is in default of a material obligation hereunder and such default is not cured within thirty (30) days of receipt of a notice from the non-defaulting party specifying such default. Among other things and without limitation, timely payment of invoices shall be considered a material obligation hereunder. In the event this Agreement is terminated for any reason, The City shall pay Thales Consulting Inc. within thirty (30) days of termination for all work performed and expenses incurred up through the effective date of termination.

Insurance: Thales Consulting will comply with all insurance requirements of The City and provide a certificate as evidence of acceptable levels of coverage.

If you agree with the terms above, please sign below.

Thales Consulting Inc.



Joe Stimac

August 12, 2015

City of Madera

Robert L. Poythress

Return to Agenda

REPORT TO CITY COUNCIL

Approved By:

Department Director

City Administrator

Council Meeting of September 2, 2015
Agenda Item Number B-7

SUBJECT: CONSIDERATION OF A RESOLUTION APPROVING AN AGREEMENT WITH ADHARA SYSTEMS, INC. FOR PROFESSIONAL ENGINEERING AND TECHNICAL SERVICES TO THE CITY OF MADERA FOR PAVEMENT DISTRESS SURVEY AND ANALYSIS OF ARTERIAL AND COLLECTOR STREETS

RECOMMENDATION:

That the City Council approves Resolution No. 15-_____:

1. Approving the Agreement with Adhara Systems, Inc.
2. Authorizing the Mayor to execute the Agreement.

SUMMARY:

The Agreement with Adhara Systems, Inc. (Consultant) is for Professional Engineering and Technical services to include the collection of pavement distress conditions, downloading the data into the City Street Inventory Network and analyzing the results, preparation of Maintenance and Repair reports, Budget reports and training City staff. The agreement total amount is $41,000 that includes all the basic services outlined in the Scope of Work, and $15,000 for extra services that may arise during the course of the Consultant's work (additional length of City streets, additional modification to City Street Inventory, etc.), with approval of the City Engineer.

DISCUSSION:

The Department of Public Works and Engineering Division are in the process of developing the City's Pavement Management System (PMS), with staff completing the City Street Network comprising of Arterial and Collector Streets using MicroPaver software.

A Pavement Management System (PMS) is a set of planning tools and methods that can assist staff in determining cost effective strategies for evaluating, maintaining and managing street pavements to be in serviceable condition for a City-defined period of time. PMS involves the creation of pavement inventory throughout the City street network, the collection of pavement distress conditions, and analysis of the pavement conditions in preparation for determining the best method and most cost effective strategies to perform maintenance and repair of City streets. In addition PMS can also be used to determine budgets, schedule and prioritize future pavement maintenance and repair work.

Pavement Management System is also required if the City of Madera desires to apply for some types of State and Federal funding to support Maintenance and Repair Project costs.

Two predominant work efforts required to maintain the PMS are completing and updating the street inventory, and performing the pavement distress survey and analysis to include alligator and block cracking, longitudinal and transverse cracking, rutting, and raveling. Field investigations can be performed manually, or with automated equipment, or a combination. These data collection effort is quite extensive and beyond the capabilities and availability of current staff.

A Request for Proposal (RFP), for Professional Engineering and Technical Services was sent to seven firms that provide Pavement Management System services. Out of the seven qualified firms four submitted proposals. Those firms who submitted proposals are Adhara Systems, Inc., Nichols Consulting Engineers (NCE), Pavement Engineering, Inc., and Fugro Consultants, Inc.

The Selection Committee consisting of three City Engineering staff reviewed, evaluated and ranked the proposals based on five criteria listed in the RFP that included Personnel experience related to PMS and PMS software, Personnel Experience related to Micro-PAVER (City-owned PMS software), Personnel Experience with regard to collection and interpretation of street pavement distress data, Work Plan/Schedule and Fee Proposal. Adhara Systems, Inc. received the highest ranking and is hereby recommended for council approval.

Expenditures for the Pavement Distress Survey and Analysis will be funded by the Local Transportation Fund (LTF). The project is included in the City's FY 2015/16 Budget.

FISCAL IMPACT:

There is no fiscal impact to the City's General Fund. The project is funded and included in the adopted City's FY 2015/16 CIP Budget.

The funding source for the Engineering and Technical Services base cost is in the City's allocation of Local Transportation Fund (LTF) with Account Number 5830-5039. Any additional funding required for additional lane mile is currently planned to be funded with LTF/Contingency-Admin bearing Account Number 5830-5096.

CONSISTENCY WITH THE VISION MADERA 2025 PLAN

Action 126 - This project supports this strategy for providing clean, attractive streets that are safe and aesthetically pleasing. The requested action is for improvement of infrastructure and is not in conflict with any of the actions or goals contained in the plan.

RESOLUTION NO. 15-___

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MADERA, CALIFORNIA, APPROVING AN AGREEMENT WITH ADHARA SYSTEMS, INC. FOR PROFESSIONAL ENGINEERING AND TECHNICAL SERVICES TO THE CITY OF MADERA FOR PAVEMENT DISTRESS SURVEY AND ANALYSIS AND AUTHORIZING THE MAYOR TO EXECUTE THE AGREEMENT

WHEREAS, the City of Madera has started the development of a Pavement Management System (PMS); and

WHEREAS, pavement survey distress and analysis is necessary to complete the Arterial and Collector portion of the Pavement Management System; and

WHEREAS, Adhara Systems, Inc. has the professional skills to perform the necessary services, and City desires to retain Adhara Systems, Inc.; and

WHEREAS, the Agreement with Adhara Systems, Inc. for such professional engineering and technical services is recommended for approval and a copy of such agreement is on file in the Office of the City Clerk.

NOW THEREFORE, THE COUNCIL OF THE CITY OF MADERA, HEREBY finds, orders and resolves as follows:

1. The above recitals are true and correct.
2. The Agreement with Adhara Systems, Inc. for professional engineering and technical services for an amount not to exceed $56,000, a copy of which is on file in the Office of the City Clerk and referred to for particulars, is hereby approved.
3. The Mayor is authorized to execute the Agreement.
4. This resolution is effective immediately upon adoption.

* * * * * * * *

AGREEMENT WITH ADHARA SYSTEMS, INC. FOR PROFESSIONAL ENGINEERING & TECHNICAL SERVICES TO THE CITY OF MADERA FOR PAVEMENT DISTRESS SURVEY AND ANALYSIS OF ARTERIAL AND COLLECTOR STREETS

This Agreement made and entered into this 2nd day of September 2015 between the City of Madera, a municipal corporation of the State of California, hereinafter called **"CITY"**, and Adhara Systems, Inc., located in San Jose, California, hereinafter called "**CONSULTANT**".

W I T N E S S E T H

WHEREAS, CITY is developing a Pavement Management System (PMS) to assist staff in determining cost-effective strategies for providing, evaluating, and maintaining pavements; and

WHEREAS, CITY needs professional Engineering and technical services to perform pavement distress survey and analysis; and

WHEREAS, CONSULTANT is qualified and licensed to provide the required professional Engineering and technical services and is knowledgeable of the methods and procedures for such purposes.

NOW THEREFORE:

The parties hereto mutually agree as follows:

1. SERVICES OF CONSULTANT:

CITY hereby hires CONSULTANT to provide pavement distress survey and analysis as set forth herein. Said work to be performed pursuant to this agreement is more particularly described in the Scope of Work section of this agreement.

2. SCOPE OF WORK:

CONSULTANT shall provide the professional Engineering and technical services set forth in the "The Scope of Work", EXHIBIT A, attached hereto and incorporated herein by reference. CONSULTANT accepts full responsibility for the scope of services provided by sub-consultants necessary for delivery of the project. CONSULTANT shall comply with all City of Madera standards and requirements.

3. PROGRESS MEETINGS:

CONSULTANT shall communicate and meet with CITY staff at project progress meetings at intervals mutually agreed to between CITY and CONSULTANT to verify, refine and complete the project requirements and review the progress of the project. Such meetings shall not exceed one per month during the course of CONSULTANT'S work or as specified in the Scope of Work. CONSULTANT shall prepare brief minutes of such meetings and submit them to CITY for review and approval.

4. CITY'S OBLIGATIONS

The CITY shall provide the consultant with the following:

a. Provide a Project Manager to work with CONSULTANT;

b. Review all submittals timely;

c. Pay all fees for permits;

d. Provide copy of City Street Network Inventory

5. COMPENSATION

The basic fee based on the Project-Manpower Schedule, EXHIBIT B, attached hereto and incorporated herein by reference, for the scope of work itemized in the Project Work Plan is Forty One Thousand Dollars and no cents ($41,000). CITY and CONSULTANT agree that the hourly rates in the HOURLY RATE SCHEDULE, Exhibit C, attached hereto and incorporated herein by reference, shall remain in full force and effect through December 31, 2016. It is understood and agreed by both parties that all expenses incidental to CONSULTANT'S performance of services, including travel expenses, are included in the basic fee.

The following payment schedule represents the maximum payable upon CONSULTANT'S submittal for the following work:

Engineering and Technical Services: Not to Exceed $41,000

Engineering and Technical Service as directed by the City Engineer for additional Residential as single lane Street, Arterial, and Collector Streets:

Not to Exceed $300 per Lane Mile

6. PAYMENT:

Payments for all undisputed portions of each invoice as provided for hereunder shall be made within 30 days of receipt and approval of CONSULTANT'S monthly invoices for the work performed specified herein. CONSULTANT'S invoice shall specify the billed hours and hourly rates for each employee classification. The sub-consultants work shall be included on CONSULTANT'S invoice with a copy of the sub-consultant's invoice attached. A report on summary of costs to date for each component of the work shall accompany the invoice. This summary shall also estimate the percentage of the work completed for each component and the balance remaining in each component.

7. EXTRA SERVICES:

CITY agrees to pay CONSULTANT for the engineering and technical services for additional Arterial, Collector and Residential streets, and other extra services not contemplated hereunder as set forth in the Project Work Plan or for such services as may be specifically requested by CITY such as additional streets survey in writing and agreed to by CONSULTANT for an agreed to fixed fee or hourly rate of compensation, provided, however, the City Engineer's authority is limited to expenditures not to exceed an additional amount of Fifteen Thousand Dollars ($15,000).

8. AUDITS AND INSPECTIONS ACCESS:

CONSULTANT shall, upon reasonable notice and at any time during regular business hours, and as often as CITY may deem necessary, make available to the CITY or its authorized representative for examination, all of its books, records and data with respect to matters covered by this Agreement. CONSULTANT shall permit CITY to audit and inspect all invoices, materials, payrolls, records of personnel, conditions of employment, and other data relating to matters covered by this Agreement.

9. LIABILITY INSURANCE:

ENGINEER shall procure and maintain for the duration of the contract insurance against claims for injuries to persons or damages to property which may arise from or in

connection with the performance of the work hereunder by the ENGINEER, his agents, representatives, or employees.

A. Minimum Scope of Insurance

Coverage shall be at least as broad as:

1. Insurance Services Office Commercial General Liability coverage (occurrence form CG0001).

2. Insurance Service Office form number CA 0001 (Ed. 10/01) covering Automobile Liability, Code 1 (any auto).

3. Workers' Compensation insurance as required by the State of California and Employer's Liability Insurance.

4. Errors and Omissions liability insurance appropriate to the consultant's profession. ENGINEER'S coverage is to be endorsed to include contractual liability.

B. Minimum Limits of Insurance

ENGINEER shall maintain limits no less than:

1. General Liability: $1,000,000 per occurrence for bodily injury, personal injury and property damage. If Commercial General Liability Insurance or other form with a general aggregate limit is used, either the general aggregate limit shall apply separately to this project/location or the general aggregate limit shall be twice the required occurrence limit.

2. Automobile Insurance: $1,000,000 per accident for bodily injury and property damage.

3. Employer's Liability: $1,000,000 per accident for bodily injury or disease.

4. Professional Liability (Errors & Omissions): $250,000 per claim and $1,000,000 aggregate with a deductible not to exceed $75,000, except that a higher deductible may be approved with appropriate documentation acceptable to the City's Risk Manager.

C. Deductibles and Self Insured Retentions

Any deductibles or self insured retentions must be declared to and approved by the CITY. At the option of the CITY, either: the insurer shall reduce or eliminate such deductibles or self insured retentions as respects the CITY, its officers, officials, employees, and designated volunteers; or the ENGINEER shall provide a financial guarantee satisfactory

to the CITY guaranteeing payment of losses and related investigations, claim administration and defense expense.

D. Other Insurance Provisions

The commercial general liability and automobile liability policies are to contain, or be endorsed to contain, the following provisions:

1. The City, its officers, officials, employees and designated volunteers are to be covered as additional insureds with respect to liability arising out of automobiles owned, leased, hired or borrowed by or on behalf of the ENGINEER, and with respect to liability arising out work or operations performed by or on behalf of the ENGINEER including materials, parts or equipment furnished in connection with such work or operations. General liability coverage can be provided with two endorsement forms: 1) in the form of an additional insured endorsement to the ENGINEER'S insurance, or as a separate owner's policy (CG 20 10 01 or its equivalent language) and 2) a CG 20 37 10 01 endorsement form or its equivalent language.

2. For any claims related to this project, the ENGINEER'S insurance coverage shall be primary insurance as respects the CITY, its officers, officials, employees and designated volunteers. Any insurance or self-insurance maintained by the CITY, its officers, officials, employees or designated volunteers shall be excess of the ENGINEER'S insurance and shall not contribute to it.

3. Each insurance policy required by this clause shall be endorsed to state that coverage shall not be cancelled by either party, except after thirty (30) days prior written notice by certified mail, return receipt requested, has been given to the CITY.

4. Coverage shall not extend to any indemnity coverage for the active negligence of the additional insured in any case where an agreement to indemnify the additional insured would be invalid under Subdivision (b) of Section 2782 of the Civil Code.

E. Acceptability of Insurers

ENGINEER shall furnish the CITY with original certificates and amendatory endorsements effecting coverage required by this clause. The endorsements should be on forms provided by the CITY or on other than the CITY'S forms provided those endorsements conform to CITY requirements. All certificates and endorsements are to be received and approved by the CITY before work commences. The CITY reserves the right to require

complete, certified copies of all required insurance policies, including endorsements affecting the coverage required by these specifications at any time.

F. SUBCONTRACTORS

ENGINEER shall include all subcontractors as insureds under its policies or shall furnish separate certificates and endorsements for each subcontractor. All coverage for subcontractors shall be subject to all of the requirements stated herein.

10. TIME OF COMPLETION:

A. Based on a Notice to Proceed date of September 3, 2015, CONSULTANT shall complete the work as shown in EXHIBIT B, Task Schedule with the following milestones:

Pavement Condition & Budget Analysis/Report	October 28, 2015
Training & Manuals	November 5, 2015
Technical Support (random)	December 31, 2016

The Time of Completion is subject to extension if additional lane mileage is added to the project. Should an extension be required, Pavement Condition and Preliminary Report for the added lane miles shall be provided to the City no later than October 28, 2015. The original 141 miles shall be deliverable to City no later than November 30, 2015.

The above schedule includes a one week review period by the CITY for Submittals, Reports and Deliverables.

B. CONSULTANT shall not be held responsible for delays caused by CITY review or by reasons beyond CONSULTANT'S control. Also, CONSULTANT shall not stop his work, including work unrelated to any extra services request, unless it can be shown that the project work cannot proceed while a claim or request for extra services is being evaluated.

C. Time is of the essence in the completion of the services covered by this Agreement. Failure of CONSULTANT to comply with the above time schedule by more than fourteen (14) calendar days, unless the delay is not attributable to CONSULTANT or is attributable to CITY, is sufficient cause to terminate this Agreement, at the option of CITY, in accordance with Section 13.

D. CONSULTANT shall complete all services required under this Agreement and this Agreement shall expire on December 31, 2016, unless extended in writing by mutual agreement.

11. TERMINATION OF AGREEMENT:

A. This agreement may be terminated at any time by either party upon fifteen (15) calendar days written notice. In the event the Agreement is terminated by either party, CONSULTANT shall be compensated for services performed to the date of termination based upon the compensation rates and subject to the maximum amounts payable agreed to together with such additional services performed after termination which are authorized by the CITY representative to wind up the work performed to date of termination.

B. CITY may immediately suspend or terminate this Agreement in whole or in part by written notice where, in the determination of CITY, there is:

1. An illegal use of funds by CONSULTANT;

2. A failure by CONSULTANT to comply with any material term of this Agreement;

3. A substantially incorrect or incomplete report submitted by CONSULTANT to CITY.

In no event shall any payment by CITY or acceptance by CONSULTANT constitute a waiver by such party of any breach of this Agreement or any default which may then exist on the part of either party. Neither shall such payment impair or prejudice any remedy available to either party with respect to such breach or default. CITY shall have the right to demand of CONSULTANT the repayment to CITY of any funds disbursed to CONSULTANT under this Agreement which, as determined by the appropriate court or arbitrator, were not expended in accordance with the terms of this Agreement.

12. APPROVAL:

CITY will give reasonably prompt consideration to all matters submitted by CONSULTANT for approval to the end that there will be no significant delays in CONSULTANT'S program of work. An approval, authorization or request to CONSULTANT given by CITY will only be binding upon CITY under the terms of this

Agreement if in writing and signed on behalf of CITY by a CITY representative or designee.

13. HOLD HARMLESS:

CONSULTANT shall defend and indemnify the CITY, its officers, officials, employees and designated volunteers for claims that arise out of, pertain to, or relate to the negligence, recklessness, or willful misconduct of the CONSULTANT, its officers, sub-consultants, agents, employees or contractors, in performing or failing to perform any work, services or functions under this Agreement.

14. RESPONSIBILITY FOR OTHERS:

CONSULTANT shall be responsible to CITY for its services and the services of its sub consultants. CONSULTANT shall not be responsible for the acts or omissions of other parties engaged by CITY nor for their construction means, methods, techniques, sequences, or procedures, or their health and safety precautions and programs.

15. PROFESSIONAL RESPONSIBILITY:

CONSULTANT shall be obligated to comply with applicable standards of professional care in the performance of the Services. CONSULTANT recognizes that opinions relating to environmental, geologic, and geotechnical conditions are based on limited data and that actual conditions may vary from those encountered at the times and locations where the data are obtained, despite the use of due professional care.

16. PARTIES BOUND BY AGREEMENT:

This Agreement shall be binding upon CITY, CONSULTANT, and their successors in interest, legal representatives, executors, administrators and assigns with respect to all covenants as set forth herein. CONSULTANT shall not subcontract, assign, or transfer any of the work except as otherwise provided for in this agreement.

17. COMPLETE AGREEMENT OF PARTIES:

This Agreement, including attachments incorporated herein by reference, represents the entire Agreement and understanding between the parties. Any

modifications of this Agreement shall be in writing and signed by authorized representatives of the parties. One or more waivers of any term, condition or covenant by either party shall not be construed as a waiver of any other term, condition or covenant.

18. ASSIGNMENT WITH APPROVAL:

It is understood that neither party shall assign, sublet, subcontract or transfer its rights or obligation under this Agreement without the prior express, written consent of the other party.

19. INDEPENDENT CONTRACTOR:

In performance of the work, duties and obligations assumed by CONSULTANT under this Agreement, it is mutually understood and agreed that CONSULTANT, including any and all of CONSULTANT'S officers, agents and employees will, at all times, be acting and performing as an independent contractor, and shall act in an independent capacity and not as an officer, agent, servant, employee, joint venture, partner or associate of CITY. Furthermore, CITY shall have no right to control or supervise or direct the manner or method by which CONSULTANT shall perform its work and function. However, CITY shall retain the right to administer this Agreement so as to verify that CONSULTANT is performing its obligations in accordance with the terms and conditions hereof. CONSULTANT and CITY shall comply with all applicable provisions of law and the rules and regulations, if any, of governmental authorities having jurisdiction over the subject matter hereof.

Because of its status as an independent contractor, CONSULTANT shall have absolutely no right to employment rights and benefits available to CITY employees. CONSULTANT shall be solely liable and responsible for providing to, or on behalf of, its employees all legally required employee to others unrelated to CITY or to this Agreement.

20. GOVERNING LAW:

Any controversy or claim arising out of, or relating to, this Agreement which cannot be amicably settled without court action shall be litigated either in the appropriate State court for Madera County, California, or as appropriate in the U. S. District Court for the Eastern District of California, located in Fresno County. The rights and obligations of the

parties and all interpretations and performance of this Agreement shall be governed in all respects by the laws of the State of California.

21. AMENDMENTS:

Any changes to this Agreement requested either by CITY or CONSULTANT may only be affected if mutually agreed upon in writing by duly authorized representatives of the parties hereto. This Agreement shall not be modified or amended or any rights of a party to it waived except by such in writing.

22. COMPLIANCE WITH LAWS AND WAGE RATES:

CONSULTANT shall comply with all Federal, State, and local laws, ordinances, regulations and provisions applicable in the performance of CONSULTANT'S services. CONSULTANT may use professional practices and standards regarding the interpretation of these laws.

Wherever reference is made in this Agreement to standards or codes in accordance with which work is to be performed or tested, the edition or revision of the standards or codes current on the effective date of this Agreement shall apply, unless otherwise expressly stated.

23. CONSULTANT'S LEGAL AUTHORITY:

Each individual executing or attesting this Agreement on behalf of CONSULTANT hereby covenants and represents: (i) that he or she is duly authorized to execute or attest and deliver this Agreement on behalf of such corporation in accordance with a duly adopted resolution of the corporation's board of directors and in accordance with such corporation's articles of incorporation or charter and by-laws; (ii) that this Agreement is binding upon such corporation; and (iii) that CONSULTANT is a duly organized and legally existing corporation in good standing in the State of California

24. NOTICES:

Any and all notices or other communications required or permitted by this Agreement or by law to be served on or given to either party to this Agreement by the other party shall be in writing, and shall be deemed duly served and given when personally

delivered to the party to whom it is directed or any managing employee or that party or, in lieu or personal service, when deposited in the United States mail, first class postage prepaid, addressed as follows:

CITY OF MADERA	**CONSULTANT**
Engineering Division	Adhara Systems, Inc.
205 W. 4th Street	2635 N. First St, Suite 252
Madera, CA 93637	San Jose, CA 95112
Attention: City ENGINEER	Attention: Ken Kim - President

25. SOLE AGREEMENT:

This instrument constitutes the sole and only agreement between CONSULTANT and CITY respecting the Project and correctly sets the obligations of the CONSULTANT and CITY to each other as of this date. Any agreements or representations respecting the above project, not expressly set forth in this instrument are null and void.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed as of the day and year first above written.

* * * * * * * * * * * *

CITY OF MADERA

By: _____
Robert L. Poythress, Mayor

ADHARA SYSTEMS, INC.

By: _____
Ken Kim, President

06-171 6396
Taxpayer I.D. Number

APPROVED AS TO FORM:

By: _____
Brent Richardson, City Attorney

ATTEST:

By: _____
Sonia Alvarez, City Clerk

EXHIBIT A
THE SCOPE OF WORK

The tasks that include Pavement Distress Survey and Analysis of the City's Arterial and Collector Street (approximately 141 lane miles) will be completed as follows:

TASK A: Kick-Off Meeting and Work Scope, Schedule and Budget ("WSB")

TASK A-1: Kick-off Meeting

- Adhara will conduct a kick-off meeting with staff members of the City to establish communication channels, define the work scope, schedule, and deliverables, gather available information, and obtain a thorough understanding of the goals for the project.

- We will discuss followings as a part of administrative matters:
  - Communication channel and encroachment permits, if needed
  - MicroPAVER access information and permission of use
  - WSB and technical support issue and deliverables
  - Maintenance and Rehabilitation ("M&R") practices, records and costs
  - GIS base-map, existing Pavement GIS and Orthophoto, if available
  - Public safety concerns, requirement and procedure
  - GIS implementation and non-pavement asset issue
  - City's requirements and other issues, if any

Deliverables for this task:
- Meeting agendas and minutes, with action items

TASK A-2: Provision and Approval of WSB

- Adhara will provide the City with a draft version of the WSB based on the kick-off meeting discussion. The WSB will include deliverables under each task. Upon the City's approval of the WSB, Task A-2 will be completed.

Deliverables for this task:
- Approved WSB

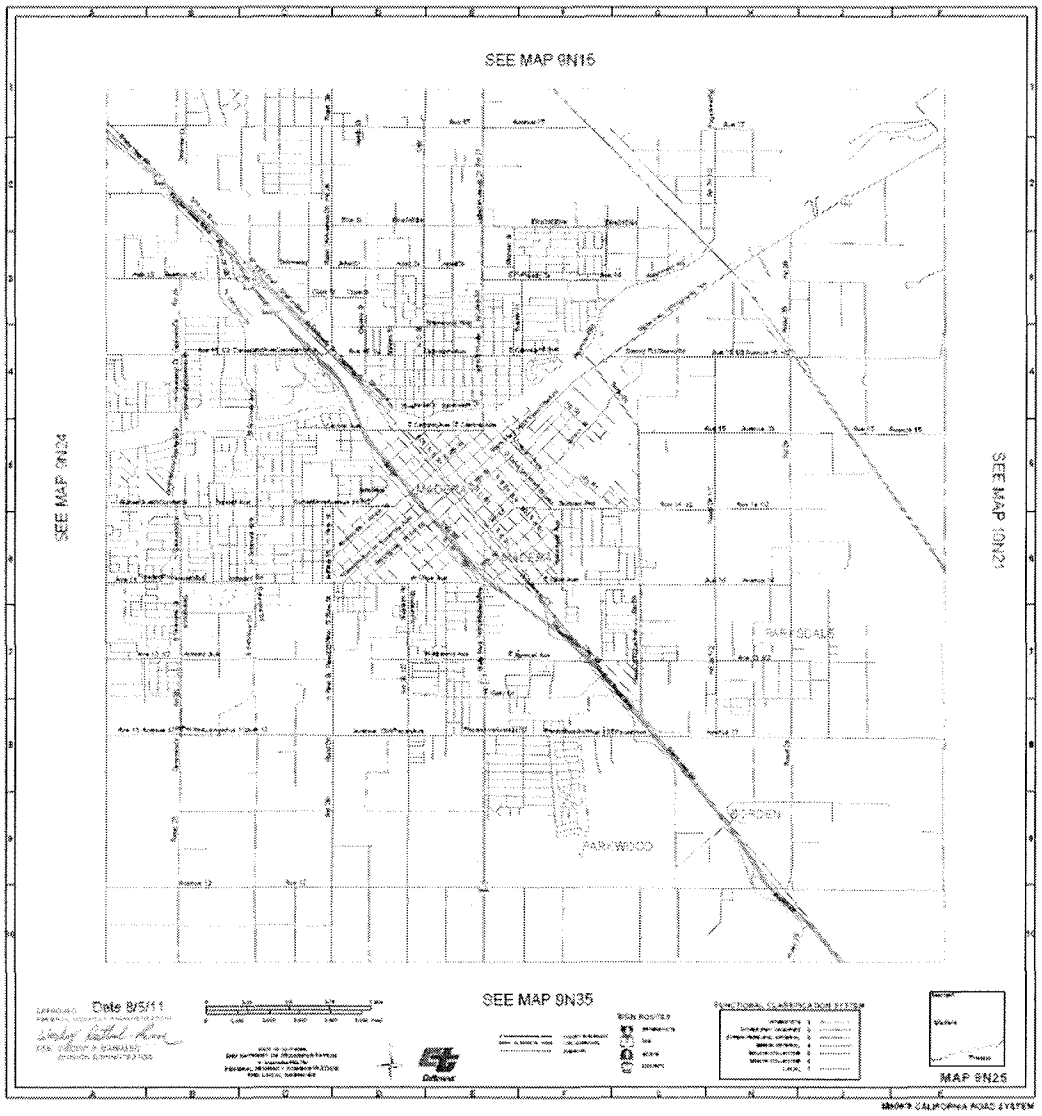
TASK B: Inventory Review and Updates

- Adhara will coordinate with the City to obtain all information needed to update the City's existing database inventory for use in the pavement management program (PMP). Any new streets accepted by the City or ones that exist but have been left out of the database shall be entered into the database to include them in the maintenance and rehabilitation (M&R) network.
- Adhara will change Road Classification to match California Road System(CRS)

- Adhara will review and audit a database inventory of the City's roadway network for accuracy (e.g. Functional class, surface type, length, width, and number of lanes).
- Adhara will review and check the updated database to detect for errors or unreliable information in the database and make any corrections deemed necessary. Adhara will update PMP database with a given M&R history.
- Adhara will obtain recent construction cost information from the City for recent projects that include similar work. Current unit costs for the various types of maintenance and repair work will be added to the database.
- A list of all maintenance and repair work completed after the last update to the PMS will be provided by the City, and Adhara will enter that information into the database.
- Final database updates will be done after the City staff's approval.
- After entry of all given M&Rs, the decision trees and survey section list will be finalized.

Deliverables for this task:

- Inventory change list
- Updated MicroPAVER database for inventory and recent M&Rs, and decision trees
- Final section list for inspection



TASK C: Pavement Condition Inspection and QC

TASK C-1: Condition Survey

The condition survey and determination of Pavement Condition Index (PCI) shall be performed and calculated using the method defined in the ASTM D 6433-11 Standard. Adhara will use their method to complete the automated survey and provide the inspection data in the format of distress type, severity, and quantity to PMP within the City's pavement management database. Adhara will follow the US Army Corps of Engineers published MicroPAVER Distress Identification Manual.

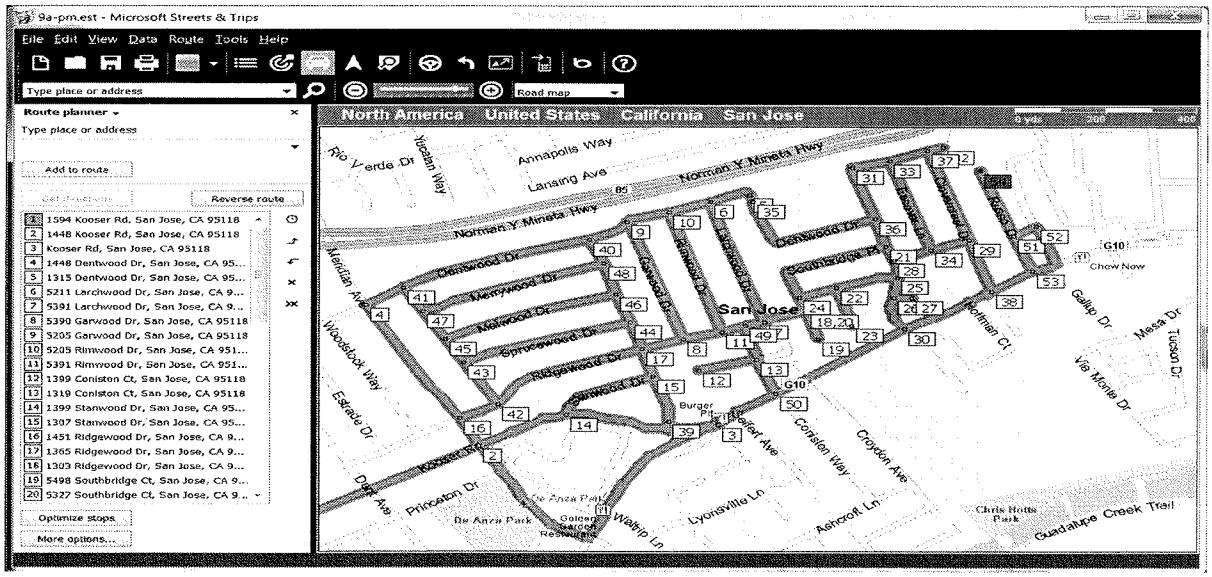
- Adhara will prepare field routing plan for all sections in the work scope.
- Adhara will migrate all section information to Adhara's data collection system.
- Adhara will perform field evaluation inspections on the City's streets by using its proprietary data collection system, uniSURVEY, and uniANALYZE software to digitally record and process pavement distresses.
- uniANALYZE will compute the quantity and severity of each distress type based on MicroPAVER manual of practices and procedures.
- The pavement inspector will directly enter non-pattern pavement distress data into uniSURVEY during the survey.
- Adhara will survey approximately a 100% pavement section area of each managed section.
- Adhara will coordinate with City staff to determine the exact management sections to be inspected.
- Adhara will implement a Quality Management Plan (QMP) by re-inspecting an additional random 10% of the total number of management pavement sections for the QC/QA procedure. At least 50% of additional test sections must be within 5 PCI points of the reference (or "ground truth") PCI values, and not more than 12% of additional test sections can be bigger than 15 PCI points of the reference (or "ground truth") PCI values.
- Adhara will perform data entry for all distresses found during pavement inspections into MicroPAVER. Adhara will then calculate PCI using MicroPAVER.
- PCI will be evaluated against the deterioration curve of the section if reference PCI is off unexpectedly.
- Adhara will compare traveled DMI length and length of section inventory and list up sections with length discrepancies.
- Adhara will coordinate with City staff to review the resulted PCI values and section length discrepancies for approval.
- Inventory updates will be finalized.

TASK C-2: Data Entry

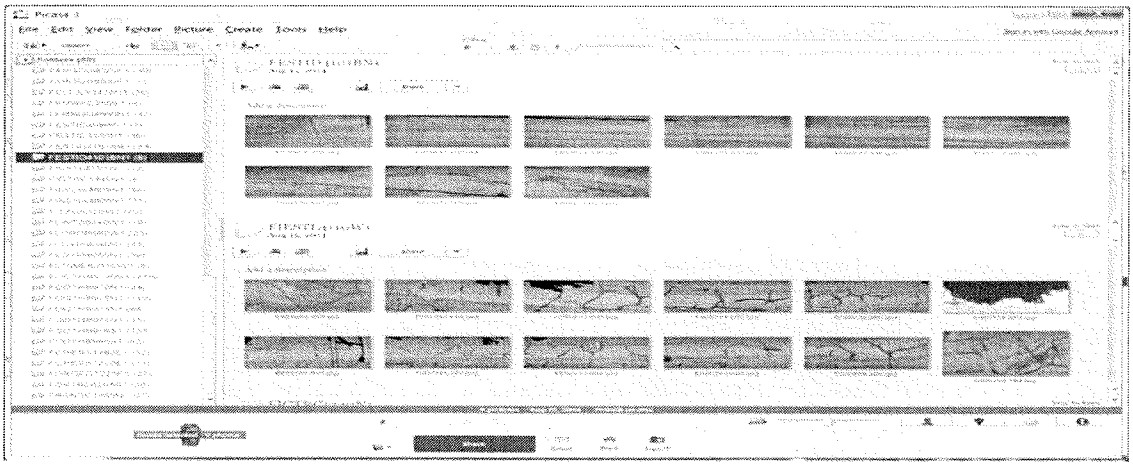
Adhara shall enter the condition inspection data into the PMP database. The database shall be reviewed for errors using exception reports and observations of the data tables. Adhara will correct any detected errors prior to performing final calculations.

Deliverables for these tasks:

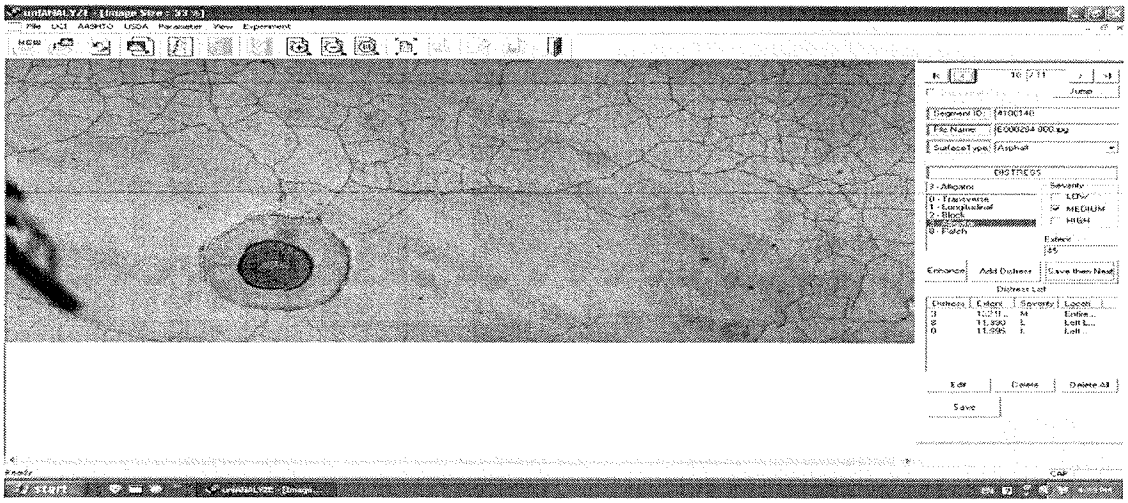
- Updated MicroPAVER database
- Exception Reports used to check data, and list of corrections, if any



Sample Screenshot of routing plan



Sample Screenshot of section images



Sample Screenshot of uniAnalyze

TASK D: Pavement Condition & Budget Analysis and Annual Report.

- Adhara will analyze the pavement condition of the City road network and provide the City with a draft copy of the Pavement Condition Report.
- Adhara will review M&R strategies with the City. This will include the recommendation and selection of appropriate treatments such as chip seals or overlays, and the determination of treatment unit costs.
- Reviewing/developing the M&R decision trees is a critical step in any PMP implementation as it has a direct and significant impact on the final work plan that is developed, as well as the budgeting consequences. Adhara's Project Manager will interview with the City staff to refine the City's treatment decision tree within MicroPAVER and determine appropriate unit cost. The M&R alternatives are used to determine effective treatments for each street section based upon criteria such as condition, pavement type, and branch use (functional class). A treatment unit cost will be determined for each alternative. These alternatives and costs will then be entered into the PMS database for budgetary analysis. Adhara will compare the recommended unit cost with the City's most recent bid summaries and update the treatments and unit costs.
- Adhara's Project Manager will also communicate with the City staff to define budget analysis settings. The City will provide interest rate and inflation rate assumptions to be used to project future costs. The City will also provide M&R costs for the past 5 years. Adhara will enter the funding scenarios into the PMP to evaluate the impact of current and desired funding levels on overall pavement condition and deferred maintenance costs over time.
- Adhara will generate a Budget Needs analysis (further explained below) that calculates the financial and work program effort needed to bring the City's network to an optimum preventive maintenance cycle. Graphs comparing the impact of each funding scenario (further explained below) will be compiled, and reports will be generated for the City.

Budget Needs

Adhara will perform a Budget Needs analysis covering the next 5 years based on a given inflation and interest rate. The Needs analysis identifies road sections that need treatment and applies the M&R decision trees to each section. The costs are then summed up for the entire period.

Budget Scenarios

The Budget Scenarios analysis uses a weighted effectiveness rating to prioritize sections for repair under constrained, realistic budgetary assumptions. The effectiveness rating is defined as the area under a pavement performance curve. The effectiveness rating is weighted to place a higher priority on certain streets, such as Arterials and Collectors. Adhara will exercise three budget and/or target-driven scenarios analyses. These multiple funding scenarios may be performed to answer "what-if" questions using the MicroPAVER Toolbox. The three scenarios analyses include: estimated future revenues based on historical data (trends), the "break-even" point for annual funding and multiple funding/rehabilitation scenarios, and maintaining the PCI at 75. Each budget scenario shall show the amount breakdown for rehabilitation, preventive maintenance, stopgap maintenance, and deferred maintenance.

In the case that shortfalls exist, Adhara will provide recommendations for how the City can employ better preventive maintenance or pavement preservation strategies, or it will provide recommendations for how the City can increase funding by proposing a preferred future budget level.

Adhara will also provide recommendations concerning funding scenarios, selected road sections for rehabilitation, and a multi-year work plan that includes recommended repairs on selected streets and corresponding funding required for implementation. Adhara will investigate both full and partial rehabilitation options meeting the funding requirement for capital improvement and provide recommendations for applications to specific street sections.

Adhara will prepare a draft pavement management database and Budget Options Report for review by the City staff. Once the review is complete, Adhara will make all necessary and appropriate revisions and submit the final Budget Options Report.

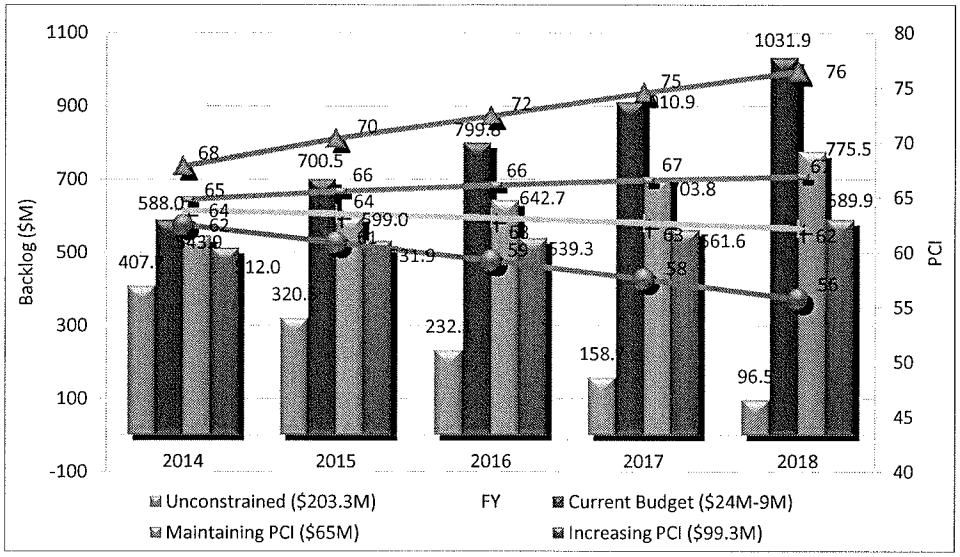
The Annual Report shall include the following:

1. Executive summary outlining completed project;
2. Methodologies used for field surveys and budget scenarios analyses;
3. Work history of completed street maintenance and rehabilitation;
4. Current pavement conditions in tabular format for all road classes and surface types;
5. Condition distribution by functional road classification;

6. Projected annual repair/rehabilitation programs for road maintenance for a multi-year (5-year) period;
7. An analysis allowing the City to measure and understand the impact of deferred maintenance on overall network condition;
8. Exhibit showing PCI limits, length, lanes, and type of pavement;
9. Project schedules and associated budgets (with inflation adjustments) for entire network as well as each road segment, for each fiscal year based on available funding over the given period of time (5 years); and GIS map exhibit showing existing PCI rating and a 5-year work program.

Deliverables for this task:

- Draft of the Data Collection and Pavement Condition Report (which includes the updated pavement management database), and Budget Options Report, which includes GIS files within three (3) months.

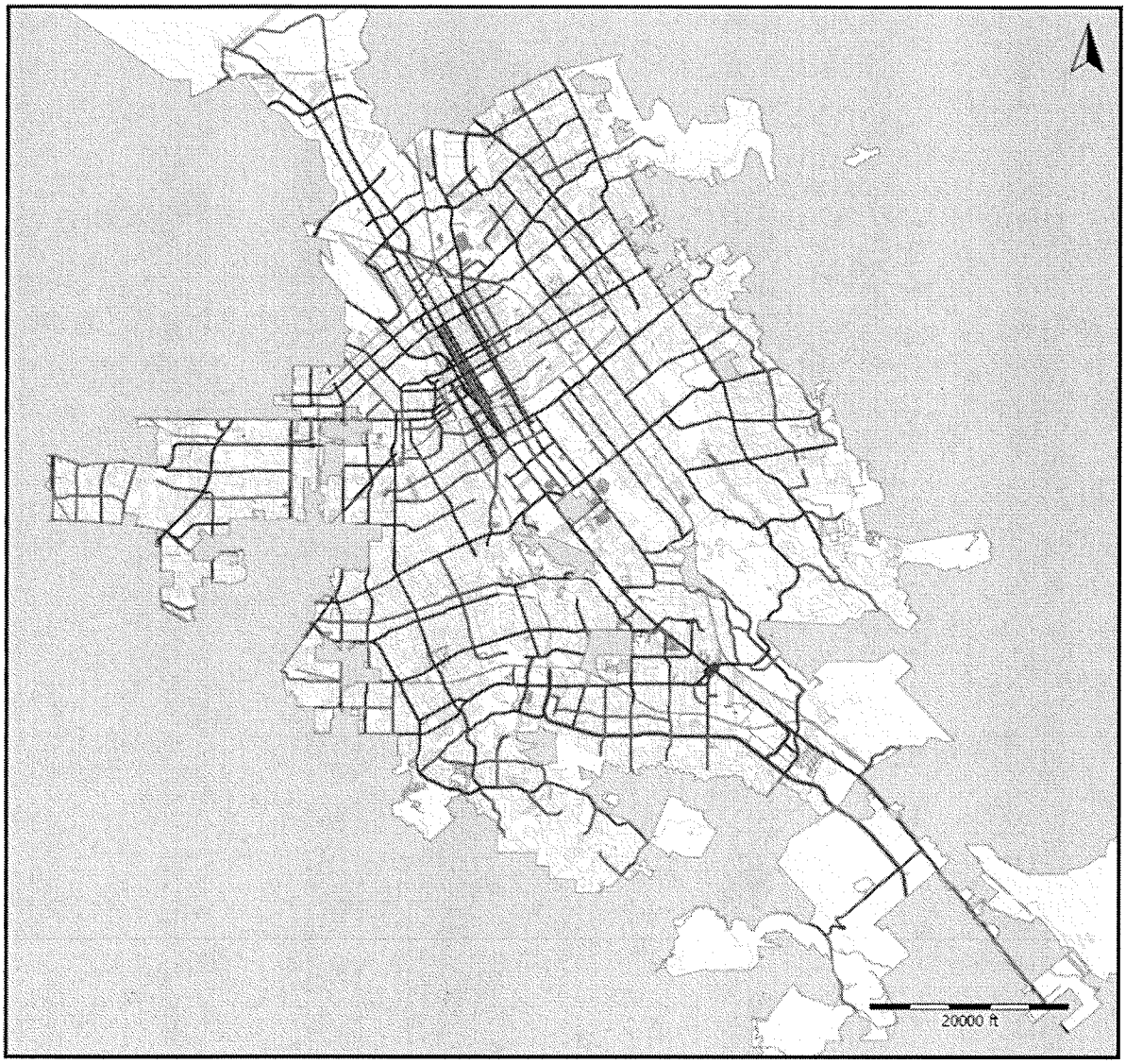


TASK E: Pavement GIS

GIS layer will be developed inside and outside of MicroPAVER. As a result, 100% of managed pavement sections in MicroPAVER will be mapped to this GIS layer. Adhara will establish full linkage of pavement data to GIS.

Deliverables for this task:

- Updated MicroPAVER GIS
- Final GIS Shapefiles compatible with ArcMap 10.1



TASK F: Close-out Meeting and Training

Adhara will conduct a project close-out meeting with City staff to brief the project and will train of City staff for query of data and reporting PMP and usage of Pavement GIS using ArcGIS.

Deliverables for this task:

- Updated database in PAVER 6.5.0(.e65) format , digital file and ArcGIS (full linkage of pavement data to GIS map through use of MicroPAVER GIS Toolbox on CD
- Requested number of bound final Data Collection and Pavement Condition Report and Budget Options Report
- A CD containing Budget Options Report & supplemental files (e.g. CD/DVD of final GIS Shape files compatible with ArcMap)
- Any other deliverable items defined in the kick-off meeting and includes the following:
    1. Ad hoc assistance to the City's staff for City Council presentations, as needed.
    2. One-on-one training or group training to City staff
    3. Annual Maintenance Agreement to provide 1-year post-implementation support as needed

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7.1 Arterial functional class 9

7.2 Collector functional class 10

7.3 Residential functional class 11

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APPENDIX A Inventory Update

APPENDIX B Network Summary Statistics

APPENDIX C Unmanaged Section List

APPENDIX D PCI Calculation Summary: Inspection

APPENDIX E Section PCI/RSL Listing

APPENDIX F Survey Methodology

EXHIBIT B
PROJECT-MANPOWER SCHEDULE

Task Name	Week #	1	2	3	4	5	6	7	8	9	10	11	12
A. Kick-Off Meeting and WSB		X											
B. Inventory Review and Updates													
C. Pavement Condition Inspection and QC													
D. Pavement Condition & Budget Analysis and Annual Report.													
E. Pavement GIS													
F. Close-out Meeting and training										X			

EXHIBIT C
HOURLY RATE SCHEDULE

(Approx. 141 lane miles)

Perform Project Tasks	Project Manager	Senior Engineer	Pavement & DB Engineer	Field Surveyor	Automated Data Collection System
A. Kick-Off Meeting and WSB	*8*	*8*			
B. Inventory Review and Updates		*12*	*16*		
C. Pavement Condition Inspection and QC	*16*	*27*	*32*	*96*	*80*
D. Pavement Condition & Budget Analysis and Annual Report.	*8*	*12*	*16*		
E. Pavement GIS		*8*	*23*		
F. Close-out Meeting and Training	*16*	*16*			
Total Hours	48	83	87	96	80
(Rate/Hour)	($150)	($130)	($110)	($90)	($60)
Total per person	$7,200	$10,790	$9,570	$8,640	$4,800

TOTAL LUMP SUM COST (NOT TO EXCEED): $41,000

Promissory/Other Considerations

- ✓ Adhara will provide assistant to City Staff with one year of telephone and email technical support.

Return to Agenda

REPORT TO CITY COUNCIL

Approved by:

Department Director

City Administrator

Council Meeting of: September 2, 2015

Agenda Number: B-8

SUBJECT: **CONSIDERATION OF A RESOLUTION APPROVING AMENDMENT NO. 1 TO THE AGREEMENT WITH PRICE PAIGE & COMPANY FOR PROFESSIONAL AUDITING SERVICES AND AUTHORIZING THE MAYOR AND CITY ADMINISTRATOR TO EXECUTE THE AMENDMENT.**

RECOMMENDATION: Staff recommends adoption of the Resolution Approving Amendment No. 1 to the Agreement with Price Paige & Company, Accountancy Corporation and authorizing the Mayor and City Administrator to execute the amendment to the Agreement.

SUMMARY: The agreement with Price Paige & Company was approved on July 17, 2013 for a total amount of $42,055 plus $3,250 for each additional major federal program above two. Amendment No. 1 is recommended for an additional charge of $2,750 which is a one-time fee for the implementation of the new GASB 68 pension standard. The additional cost for this GASB implementation will be covered by extra funds budgeted for this extra expense.

DISCUSSION: Item 2 on page 1 of the original agreement states as follows:

Compensation. As compensation for all services of Service Provider in performance of this Agreement, City shall pay Service Provider as described herein. For the services rendered pursuant to this Agreement, Service Provider shall be compensated and reimbursed, in accordance with the schedule of fees set forth in the Proposal Letter dated July 3, 2013.

A. Method of Payment. In any month in which Service Provider wishes to receive payment, Service Provider shall no later than the first working day of such month, submit to City in the form approved by City's Finance Director, an invoice for services rendered prior to the date of the invoice. Payments shall be based on the hourly rates as set forth in Exhibit "A" for authorized services performed. City shall pay Service Provider for all expenses stated thereon, which are approved by City consistent with this Agreement, within (30) days of receipt of Service Provider's invoice.

The amendment, which is detailed on page 5 of the new agreement from Price Paige & Company dated August 20, 2015, states as follows:

Our fees for the fiscal year ended June 30, 2015 are not expected to exceed $48,055. These fees are based on our understanding that the City will have only three major federal programs. Any additional major programs will require additional audit fee of $3,250 for each program and these will be discussed with the Finance Director for approval prior to commencing the work. In addition, this fee also includes a one-time only fee of $2,750 for the implementation of the new GASB 68 pension standard. Our fee estimate is based on anticipated cooperation from your personnel and the assumption that unexpected circumstances will not be encountered during the audit. If significant additional time is necessary, we will discuss it with you and arrive at a new fee estimate before we incur the additional costs. Our fees for these services will be billed at the hourly billing rates for the individual involved, plus out-of-pocket expenses. Our standard hourly rates vary according to the degree of responsibility involved and the experience level of the personnel assigned to your audit. Our billing rates are reviewed annually and, where appropriate, adjusted for any increases due to inflation and other factors. We will issue a monthly billing statement for the work completed in that month. Payments for services are due when rendered and interim billings may be submitted as work progresses and expenses are incurred.

The new GASB 68 pension standard is mandated to be implemented with the 2014/2015 Fiscal Year audit. Staff requires the professional assistance of Price Paige & Company in order to implement this standard and Price Paige & Company is required to perform additional audit work for compliance with this new standard.

FINANCIAL IMPACT: Approval of the contract document provides ongoing financial reporting support for the City. The contract amount was budgeted under the contracted services line item for the Central Administration Department.

CONSISTENCY WITH THE VISION MADERA 2025 PLAN: Approval of this agreement is not specifically addressed in the vision 2025 plan, but falls within the parameters to provide for A Well Planned City.

RESOLUTION NO. _____

RESOLUTION OF THE COUNCIL OF THE CITY OF MADERA, CALIFORNIA, APPROVING AMENDMENT NO. 1 TO THE AGREEMENT WITH PRICE PAIGE & COMPANY FOR PROFESSIONAL AUDITING SERVICES AND AUTHORIZING THE MAYOR AND CITY ADMINISTRATOR TO EXECUTE THE AMENDMENT.

WHEREAS, The City entered into an agreement with Price Paige & Company for professional auditing services on July 17, 2013 in the amount of $42,055 plus $3,250 for each additional major federal program; and

WHEREAS, due to the new GASB 68 pension standard, Price Paige & Company has amended their original agreement to include a one-time fee of $2,750 in order to implement that standard for the fiscal year 2014/2015 audit; and

WHEREAS, the City is required to have an annual external audit performed by a professional accounting firm.

NOW THEREFORE, THE CITY COUNCIL OF THE CITY OF MADERA HEREBY finds orders and resolves as follows:

1. The above recitals are true and correct.
2. The Amendment No. 1 to Agreement for professional accounting services as described above is necessary for the completion of the audit.
3. The Amendment No. 1 to Agreement in an additional amount of $2,750, a copy of which is on file in the office of the City Clerk and referred to for particulars, is approved.
4. The Mayor and City Administrator are authorized to execute Amendment No. 1 to agreement and any other documents necessary to effectuate the amendment.
5. The resolution is effective immediately upon adoption.
6. A signed copy of this resolution shall be placed on file in the office of the Financial Services Director.

AMENDMENT NO. 1 TO AGREEMENT WITH PRICE PAIGE & COMPANY FOR PROFESSIONAL AUDITING SERVICES

This Amendment No. 1 to the Agreement for Professional Accounting Services for the City of Madera's annual audit (hereinafter called "Agreement"), between the City of Madera (hereinafter called "CITY") and Price Paige & Company (hereinafter called "Auditor") is entered into this _____ day of August, 2015.

W I T N E S S E T H

WHEREAS, CITY and AUDITOR entered into an Agreement dated July 17, 2013 for professional accounting services to conduct annual audits; and

WHEREAS, CITY and AUDITOR required changes to the scope of work for the completion of the audit for the 2014/2015 fiscal year in order to be compliant with GASB 68; and

WHEREAS, Amendment No. 1 to Agreement is necessary to revise the Scope of Work and Compensation for the additional accounting services.

NOW THEREFORE:

The parties hereto mutually agree as follows:

A G R E E M E N T

In consideration of the recitals listed above and the mutual obligations of the parties herein, CITY and AUDITOR agree that the Agreement for Professional Accounting Services for the 2014/2015 fiscal year audit shall be amended as follows:

1. Section 2 Compensation is amended to read as follows:

Our fees for the fiscal year ended June 30, 2015 are not expected to exceed $48,055. These fees are based on our understanding that the City will have only three major federal programs. Any additional major programs will require additional audit fee of $3,250 for each program and these will be discussed with the Finance Director for approval prior to commencing the work. In addition, this fee also includes a one-time only fee of $2,750 for the implementation of the new GASB 68 pension standard. Our fee estimate is based on anticipated cooperation from your personnel and the assumption that unexpected circumstances will not be encountered during the audit. If significant additional time is necessary, we will discuss it with you and arrive at a new fee estimate before we incur the additional costs. Our fees for these services will be billed at the hourly billing rates for the individual involved, plus out-of-pocket expenses. Our standard hourly rates vary according to the degree of responsibility involved and the experience level of the personnel assigned to your audit. Our billing rates are reviewed annually and, where appropriate, adjusted for any increases due to inflation and other factors. We will issue a monthly billing statement for the work completed in that month. Payments for services are due when rendered and interim billings may be submitted as work progresses and expenses are incurred.

2. All other provisions not in conflict herewith shall remain in full force and effect.

In witness hereof, CITY and AUDITOR have executed this Amendment No. 1 to the Agreement on the date first written above.

PRICE PAIGE & COMPANY

ACCOUNTANCY CORPORATION

By: _____

Fausto Hinojosa, CPA, CFE
Audit Principal, Shareholder

CITY OF MADERA

By: _____

Robert L. Poythress, Mayor

APPROVED AS TO LEGAL FORM

By: _____

Brent Richardson, City Attorney

ATTEST:

By: _____

Sonia Alvarez, City Clerk

PRICE PAIGE & COMPANY
Accountancy Corporation

The Place to Be

August 20, 2015

Mayor Robert Poythress
City of Madera
205 W. Fourth Street
Madera, California 93637

Dear Mayor Poythress:

We are pleased to confirm our understanding of the services we are to provide to the City of Madera, California (the "City") for the year ended June 30, 2015. We will audit the financial statements of the governmental activities, the business-type activities, each major fund, and the aggregate remaining fund information, including the related notes to the financial statements, which collectively comprise the basic financial statements, of the City as of and for the year ended June 30, 2015. Accounting standards generally accepted in the United States of America provide for certain required supplementary information (RSI), such as management's discussion and analysis (MD&A), to supplement City's basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. As part of our engagement, we will apply certain limited procedures to the City's RSI in accordance with auditing standards generally accepted in the United States of America. These limited procedures will consist of inquiries of management regarding the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We will not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance. The following RSI is required by generally accepted accounting principles and will be subjected to certain limited procedures, but will not be audited:

1. Management's Discussion and Analysis
2. Budgetary Comparison Schedules
3. GASB-required supplementary pension information
4. Schedule of funding progress

We have also been engaged to report on supplementary information other than RSI that accompanies the City's financial statements. We will subject the following supplementary information to the auditing procedures applied in our audit of the financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the financial statements or to the financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America, and we will provide an opinion on it in relation to the financial statements as a whole in a report combined with our auditor's report on the financial statements.

1. Schedule of Expenditures of Federal Awards
2. Combining and Individual Fund Statements

677 Scott Avenue
Clovis, CA 93612

tel 559.299.9540
fax 559.299.2344

www.ppcpas.com

Audit Objectives

The objective of our audit is the expression of opinions as to whether your financial statements are fairly presented, in all material respects, in conformity with U.S. generally accepted accounting principles and to report on the fairness of the supplementary information referred to in the second paragraph when considered in relation to the financial statements as a whole. The objective also includes reporting on—

- Internal control related to the financial statements and compliance with the provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a material effect on the financial statements in accordance with *Government Auditing Standards.*

- Internal control related to major programs and an opinion (or disclaimer of opinion) on compliance with laws, regulations, and the provisions of contracts or grant agreements that could have a direct and material effect on each major program in accordance with the Single Audit Act Amendments of 1996 and OMB Circular A-133, *Audits of States, Local Governments, and Non-Profit Organizations.*

The *Government Auditing Standards* report on internal control over financial reporting and on compliance and other matters will include a paragraph that states that (1) the purpose of the report is solely to describe the scope of testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the City's internal control or on compliance, and (2) the report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the City's internal control and compliance. The OMB Circular A-133 report on internal control over compliance will include a paragraph that states that the purpose of the report on internal control over compliance is solely to describe the scope of testing of internal control over compliance and the results of that testing based on the requirements of OMB Circular A-133. Both reports will state that the report is not suitable for any other purpose.

Our audit will be conducted in accordance with auditing standards generally accepted in the United States of America; the standards for financial audits contained in *Government Auditing Standards,* issued by the Comptroller General of the United States; the Single Audit Act Amendments of 1996; and the provisions of OMB Circular A-133, and will include tests of accounting records, a determination of major program(s) in accordance with OMB Circular A-133, and other procedures we consider necessary to enable us to express such opinions. We will issue written reports upon completion of our Single Audit. Our reports will be addressed to the Honorable Mayor and City Council of the City. We cannot provide assurance that unmodified opinions will be expressed. Circumstances may arise in which it is necessary for us to modify our opinions or add emphasis-of-matter or other-matter paragraphs. If our opinions on the financial statements or the Single Audit compliance opinions are other than unmodified, we will discuss the reasons with you in advance. If, for any reason, we are unable to complete the audit or are unable to form or have not formed opinions, we may decline to express opinions or issue reports, or may withdraw from this engagement.

Audit Procedures—General

An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements; therefore, our audit will involve judgment about the number of transactions to be examined and the areas to be tested. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements. We will plan and perform the audit to obtain reasonable rather than absolute assurance about whether the financial statements are free of material misstatement, whether from (1) errors, (2) fraudulent financial reporting, (3) misappropriation of assets, or (4) violations of laws or governmental regulations that are attributable to the government or to acts by management or employees acting on behalf of the government. Because the determination of abuse is subjective, *Government Auditing Standards* do not expect auditors to provide reasonable assurance of detecting abuse.

Because of the inherent limitations of an audit, combined with the inherent limitations of internal control, and because we will not perform a detailed examination of all transactions, there is a risk that material misstatements or noncompliance may exist and not be detected by us, even though the audit is properly planned and performed in accordance with U.S. generally accepted auditing standards and *Government Auditing Standards.* In addition, an audit is not designed to detect immaterial misstatements or violations of laws or governmental regulations that do not have a direct and material effect on the financial statements or major programs. However, we will inform the appropriate level of management of any material errors, any fraudulent financial reporting, or misappropriation of assets that come to our attention. We will also inform the appropriate level of management of any violations of laws or governmental regulations that come to our attention, unless clearly inconsequential, and of any material abuse that

comes to our attention. We will include such matters in the reports required for a Single Audit. Our responsibility as auditors is limited to the period covered by our audit and does not extend to any later periods for which we are not engaged as auditors.

Our procedures will include tests of documentary evidence supporting the transactions recorded in the accounts, and may include tests of the physical existence of inventories, and direct confirmation of receivables and certain other assets and liabilities by correspondence with selected individuals, funding sources, creditors, and financial institutions. We will request written representations from your attorneys as part of the engagement, and they may bill you for responding to this inquiry. At the conclusion of our audit, we will require certain written representations from you about your responsibilities for the financial statements; schedule of expenditures of federal awards; federal award programs; compliance with laws, regulations, contracts, and grant agreements; and other responsibilities required by generally accepted auditing standards.

Audit Procedures—Internal Control

Our audit will include obtaining an understanding of the government and its environment, including internal control, sufficient to assess the risks of material misstatement of the financial statements and to design the nature, timing, and extent of further audit procedures. Tests of controls may be performed to test the effectiveness of certain controls that we consider relevant to preventing and detecting errors and fraud that are material to the financial statements and to preventing and detecting misstatements resulting from illegal acts and other noncompliance matters that have a direct and material effect on the financial statements. Our tests, if performed, will be less in scope than would be necessary to render an opinion on internal control and, accordingly, no opinion will be expressed in our report on internal control issued pursuant to *Government Auditing Standards.*

As required by OMB Circular A-133, we will perform tests of controls over compliance to evaluate the effectiveness of the design and operation of controls that we consider relevant to preventing or detecting material noncompliance with compliance requirements applicable to each major federal award program. However, our tests will be less in scope than would be necessary to render an opinion on those controls and, accordingly, no opinion will be expressed in our report on internal control issued pursuant to OMB Circular A-133.

An audit is not designed to provide assurance on internal control or to identify significant deficiencies or material weaknesses. However, during the audit, we will communicate to management and those charged with governance internal control related matters that are required to be communicated under AICPA professional standards, *Government Auditing Standards,* and OMB Circular A-133.

Audit Procedures—Compliance

As part of obtaining reasonable assurance about whether the financial statements are free of material misstatement, we will perform tests of the City's compliance with provisions of applicable laws, regulations, contracts, and agreements, including grant agreements. However, the objective of those procedures will not be to provide an opinion on overall compliance and we will not express such an opinion in our report on compliance issued pursuant to Government Auditing Standards.

OMB Circular A-133 requires that we also plan and perform the audit to obtain reasonable assurance about whether the auditee has complied with applicable laws and regulations and the provisions of contracts and grant agreements applicable to major programs. Our procedures will consist of tests of transactions and other applicable procedures described in the *OMB Circular A-133 Compliance Supplement* for the types of compliance requirements that could have a direct and material effect on each of the City's major programs. The purpose of these procedures will be to express an opinion on the City's compliance with requirements applicable to each of its major programs in our report on compliance issued pursuant to OMB Circular A-133.

Other Services

We will also assist in preparing the financial statements, schedule of expenditures of federal awards, and related notes of the City in conformity with U.S. generally accepted accounting principles and OMB Circular A-133 based on information provided by you. These nonaudit services do not constitute an audit under Government Auditing Standards and such services will not be conducted in accordance with Government Auditing Standards.

Management Responsibilities

Management is responsible for (1) establishing and maintaining effective internal controls, including internal controls over compliance, and for evaluating and monitoring ongoing activities, to help ensure that appropriate goals and objectives are met; (2) following laws and regulations; (3) ensuring that there is reasonable assurance that government programs are administered in compliance with compliance requirements; and (4) ensuring that management and financial information is reliable and properly reported. Management is also responsible for implementing systems designed to achieve compliance with applicable laws, regulations, contracts, and grant agreements. You are also responsible for the selection and application of accounting principles; for the preparation and fair presentation of the financial statements, schedule of expenditures of federal awards, and all accompanying information in conformity with U.S. generally accepted accounting principles; and for compliance with applicable laws and regulations and the provisions of contracts and grant agreements.

Management is also responsible for making all financial records and related information available to us and for the accuracy and completeness of that information. You are also responsible for providing us with (1) access to all information of which you are aware that is relevant to the preparation and fair presentation of the financial statements, (2) additional information that we may request for the purpose of the audit, and (3) unrestricted access to persons within the government from whom we determine it necessary to obtain audit evidence.

Your responsibilities also include identifying significant vendor relationships in which the vendor has responsibility for program compliance and for the accuracy and completeness of that information. Your responsibilities include adjusting the financial statements to correct material misstatements and confirming to us in the management representation letter that the effects of any uncorrected misstatements aggregated by us during the current engagement and pertaining to the latest period presented are immaterial, both individually and in the aggregate, to the financial statements taken as a whole.

You are responsible for the design and implementation of programs and controls to prevent and detect fraud, and for informing us about all known or suspected fraud affecting the government involving (1) management, (2) employees who have significant roles in internal control, and (3) others where the fraud could have a material effect on the financial statements. Your responsibilities include informing us of your knowledge of any allegations of fraud or suspected fraud affecting the government received in communications from employees, former employees, grantors, regulators, or others. In addition, you are responsible for identifying and ensuring that the government complies with applicable laws, regulations, contracts, agreements, and grants. Management is also responsible for taking timely and appropriate steps to remedy fraud and noncompliance with provisions of laws, regulations, contracts, and grant agreements, or abuse that we report. Additionally, as required by OMB Circular A-133, it is management's responsibility to follow up and take corrective action on reported audit findings and to prepare a summary schedule of prior audit findings and a corrective action plan.

You are responsible for identifying all federal awards received and understanding and complying with the compliance requirements and for the preparation of the schedule of expenditures of federal awards (including notes and noncash assistance received) in conformity with OMB Circular A-133. You agree to include our report on the schedule of expenditures of federal awards in any document that contains and indicates that we have reported on the schedule of expenditures of federal awards. You also agree to include the audited financial statements with any presentation of the schedule of expenditures of federal awards that includes our report thereon or make the audited financial statements readily available to intended users of the schedule of expenditures of federal awards no later than the date the schedule of expenditures of federal awards is issued with our report thereon. Your responsibilities include acknowledging to us in the written representation letter that (1) you are responsible for presentation of the schedule of expenditures of federal awards in accordance with OMB Circular A-133; (2) you believe the schedule of expenditures of federal awards, including its form and content, is fairly presented in accordance with OMB Circular A-133; (3) the methods of measurement or presentation have not changed from those used in the prior period (or, if they have changed, the reasons for such changes); and (4) you have disclosed to us any significant assumptions or interpretations underlying the measurement or presentation of the schedule of expenditures of federal awards.

You are also responsible for the preparation of the other supplementary information, which we have been engaged to report on, in conformity with U.S. generally accepted accounting principles. You agree to include our report on the supplementary information in any document that contains and indicates that we have reported on the supplementary information. You also agree to include the audited financial statements with any presentation of the supplementary information that includes our report thereon or make the audited financial statements readily available to users of the supplementary information no later than the date the supplementary information is issued with our report thereon. Your responsibilities include acknowledging to us in the written representation letter that (1) you are responsible for

presentation of the supplementary information in accordance with GAAP; (2) you believe the supplementary information, including its form and content, is fairly presented in accordance with GAAP; (3) the methods of measurement or presentation have not changed from those used in the prior period (or, if they have changed, the reasons for such changes); and (4) you have disclosed to us any significant assumptions or interpretations underlying the measurement or presentation of the supplementary information.

Management is responsible for establishing and maintaining a process for tracking the status of audit findings and recommendations. Management is also responsible for identifying and providing report copies of previous financial audits, attestation engagements, performance audits, or other studies related to the objectives discussed in the Audit Objectives section of this letter. This responsibility includes relaying to us corrective actions taken to address significant findings and recommendations resulting from those audits, attestation engagements, performance audits, or studies. You are also responsible for providing management's views on our current findings, conclusions, and recommendations, as well as your planned corrective actions, for the report, and for the timing and format for providing that information.

You agree to assume all management responsibilities relating to the financial statements, schedule of expenditures of federal awards, related notes, and any other nonaudit services we provide. You will be required to acknowledge in the management representation letter our assistance with preparation of the financial statements, schedule of expenditures of federal awards, and related notes and that you have reviewed and approved the financial statements, schedule of expenditures of federal awards, and related notes prior to their issuance and have accepted responsibility for them. Further, you agree to oversee the nonaudit services by designating an individual, preferably from senior management, with suitable skill, knowledge, or experience; evaluate the adequacy and results of those services; and accept responsibility for them.

Engagement Administration, Fees, and Other

We understand that your employees will prepare all cash, accounts receivable, or other confirmations we request and will locate any documents selected by us for testing.

At the conclusion of the engagement, we will complete the appropriate sections of the Data Collection Form that summarizes our audit findings. It is management's responsibility to submit the reporting package (including financial statements, schedule of expenditures of federal awards, summary schedule of prior audit findings, auditors' reports, and corrective action plan) along with the Data Collection Form to the federal audit clearinghouse. We will coordinate with you the electronic submission and certification. If applicable, we will provide copies of our report for you to include with the reporting package you will submit to pass-through entities. The Data Collection Form and the reporting package must be submitted within the earlier of 30 days after receipt of the auditors' reports or nine months after the end of the audit period, unless a longer period is agreed to in advance by the cognizant or oversight agency for audits.

The audit documentation for this engagement is the property of Price Paige & Company and constitutes confidential information. However, subject to applicable laws and regulations, audit documentation and appropriate individuals will be made available upon request and in a timely manner to your cognizant agency or its designee, a federal agency providing direct or indirect funding, or the U.S. Government Accountability Office for purposes of a quality review of the audit, to resolve audit findings, or to carry out oversight responsibilities. We will notify you of any such request. If requested, access to such audit documentation will be provided under the supervision of Price Paige & Company personnel. Furthermore, upon request, we may provide copies of selected audit documentation to the aforementioned parties. These parties may intend, or decide, to distribute the copies or information contained therein to others, including other governmental agencies.

The audit documentation for these engagements will be retained for a minimum of seven years after the report release date.

Our fees for the fiscal year ended June 30, 2015 are not expected to exceed $48,055. These fees are based on our understanding that the City will have only three major federal programs. Any additional major programs will require additional audit fee of $3,250 for each program and these will be discussed with the Finance Director for approval prior to commencing the work. In addition, this fee also includes a one-time only fee of $2,750 for the implementation of the new GASB 68 pension standard. Our fee estimate is based on anticipated cooperation from your personnel and the assumption that unexpected circumstances will not be encountered during the audit. If significant additional time is necessary, we will discuss it with you and arrive at a new fee estimate before we incur the additional costs. Our fees for these services will be billed at the hourly billing rates for the individual involved, plus out-of-pocket

expenses. Our standard hourly rates vary according to the degree of responsibility involved and the experience level of the personnel assigned to your audit. Our billing rates are reviewed annually and, where appropriate, adjusted for any increases due to inflation and other factors. We will issue a monthly billing statement for the work completed in that month. Payments for services are due when rendered and interim billings may be submitted as work progresses and expenses are incurred.

If any dispute pertaining to our work product arises among the parties hereto, the parties agree first to try in good faith to settle the dispute by mediation administered by the American Arbitration Association under its Rules for Professional Accounting and Related Services Disputes before resorting to litigation. The costs of any mediation proceeding shall be shared equally by all parties.

All work will be suspended if your account becomes 90 days past due. No work will be resumed until your account is fully paid. Client and accountant both agree that any dispute over fees charged by the accountant to the client will be submitted for resolution by arbitration in accordance with the Rules for Professional Accounting and Related Services Disputes of the American Arbitration Association. Such arbitration shall be binding and final. IN AGREEING TO ARBITRATION, WE BOTH ACKNOWLEDGE THAT, IN THE EVENT OF A DISPUTE OVER FEES CHARGED BY THE ACCOUNTANT, EACH OF US IS GIVING UP THE RIGHT TO HAVE THE DISPUTE DECIDED IN A COURT OF LAW BEFORE A JUDGE OR JURY AND INSTEAD WE ARE ACCEPTING THE USE OF ARBITRATION FOR RESOLUTION.

We appreciate the opportunity to be of service to you and believe this letter accurately summarizes the significant terms of our engagement. If you have any questions, please let us know. If you agree with the terms of our engagement as described in this letter, please sign the enclosed copy and return it to us.

Very truly yours,



Fausto Hinojosa, CPA, CFE
Price Paige & Company

RESPONSE:

This letter correctly sets forth the understanding of the City of Madera, California.

Management Signature	*Title*	*Date*

Governance Signature	*Title*	*Date*

Return to Agenda

REPORT TO THE CITY COUNCIL

COUNCIL MEETING OF:
September 2, 2015

AGENDA ITEM NUMBER:
B-9

Approved By:

COMMUNITY DEVELOPMENT DIRECTOR

CITY ADMINISTRATOR

SUBJECT: **CONSIDERATION OF A RESOLUTION APPROVING AMENDMENT NO. 2 TO AGREEMENT WITH LOVE'S TRAVEL STOPS AND COUNTRY STORES FOR THE FUNDING OF AN ENVIRONMENTAL IMPACT REPORT FOR THE LOVES TRAVEL CENTER**

RECOMMENDATION:

It is recommended that the Council adopt the resolution approving amendment number 2 to agreement with Love's Travel Stops and Country Stores.

DISCUSSION:

An agreement with Love's Travel Stops and Country Stores was approved by City Council on January 21, 2015 for funding the preparation of an environmental impact report. Amendment #1 to the agreement was approved on May 6, 2015. Love's is the applicant for the proposed Madera Travel Center, located at the southeast corner of Avenue 17 and Freeway 99. The original agreement was for $229,091. The first amendment to agreement increased the total consultant fees to $249,068. As a result of changes to the scope of work agreed to by the applicant, a second amendment to the agreement is proposed, bringing the total consultant compensation to $287,234.

The work required in conjunction with the second amendment is related to changes and clarifications in the project description, additional work required to analyze traffic impacts, and an expanded environmental alternatives analysis.

FISCAL IMPACT:
There is no fiscal impact to the City's General Fund. The cost of the preparation of the EIR document is fully funded by the project applicant.

CONSISTENCY WITH THE VISION MADERA 2025 PLAN
The recommended agreement is a required part of the review and approval process for a proposed commercial development project. As such, the approval of the agreement is consistent with the City's vision statement for "good jobs and economic opportunity".

RESOLUTION NO. 15-___

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MADERA, CALIFORNIA, APPROVING AMENDMENT NO. 2 TO AGREEMENT WITH LOVE'S TRAVEL STOPS AND COUNTRY STORES FOR FUNDING TO THE CITY OF MADERA FOR PREPARATION AN ENVIRONMENTAL IMPACT REPORT FOR THE LOVES TRAVEL CENTER

WHEREAS, the City of Madera (CITY), has previously entered into an agreement with Love's Travel Stops and Country Stores (APPLICANT) for funding the preparation of an environmental impact report for the proposed Love's Travel Center, hereinafter called "Project": and

WHEREAS, CITY selected Quad Knopf, Inc. and entered into an Agreement for environmental planning services to prepare the environmental impact report for the Project; and

WHEREAS, CITY entered into an agreement with APPLICANT to fund the preparation of the environmental impact report, dated January 21, 2015; and

WHEREAS, City entered in an Amendment No. 1 to Agreement with APPLICANT to fund additional services related to the preparation of the environmental impact report on May 6, 2015.

WHEREAS, an Amendment No. 2 to Agreement is necessary for additional environmental planning services for successful completion of the environmental impact report for the Project; and

WHEREAS, an Amendment No. 2 to Agreement with APPLICANT for additional funding for the preparation of the environmental impact report for the Project is recommended for approval and is on file with the City Clerk.

NOW THEREFORE, THE COUNCIL OF THE CITY OF MADERA, HEREBY, finds, orders and resolves as follows:

1. The above recitals are true and correct.
2. The Amendment No. 2 to Agreement with Love's Travel Stops and Country Stores for funding the preparation of the environmental impact report for the Project in the amount of $287,234, a copy of which is on file in the Office of the City Clerk and referred to for particulars, is approved.
3. The Mayor is authorized to execute Amendment to Agreement.
4. This resolution is effective immediately upon adoption.

* * * * * * * *

RESOLUTION NO. 15-___

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MADERA, CALIFORNIA, APPROVING AMENDMENT NO. 2 TO AGREEMENT WITH LOVE'S TRAVEL STOPS AND COUNTRY STORES FOR FUNDING TO THE CITY OF MADERA FOR PREPARATION OF AN ENVIRONMENTAL IMPACT REPORT FOR THE LOVES TRAVEL CENTER

WHEREAS, the City of Madera (CITY), has previously entered into an agreement with Love's Travel Stops and Country Stores (APPLICANT) for funding the preparation of an environmental impact report for the proposed Love's Travel Center, hereinafter called "Project": and

WHEREAS, CITY selected Quad Knopf, Inc. and entered into an Agreement for environmental planning services to prepare the environmental impact report for the Project; and

WHEREAS, CITY entered into an agreement with APPLICANT to fund the preparation of the environmental impact report, dated January 21, 2015; and

WHEREAS, City entered in an Amendment No. 1 to Agreement with APPLICANT to fund additional services related to the preparation of the environmental impact report on May 6, 2015.

WHEREAS, an Amendment No. 2 to Agreement is necessary for additional environmental planning services for successful completion of the environmental impact report for the Project; and

WHEREAS, an Amendment No. 2 to Agreement with APPLICANT for additional funding for the preparation of the environmental impact report for the Project is recommended for approval and is on file with the City Clerk.

NOW THEREFORE, THE COUNCIL OF THE CITY OF MADERA, HEREBY, finds, orders and resolves as follows:

1. The above recitals are true and correct.
2. The Amendment No. 2 to Agreement with Love's Travel Stops and Country Stores for funding the preparation of the environmental impact report for the Project in the amount of $287,234, a copy of which is on file in the Office of the City Clerk and referred to for particulars, is approved.
3. The Mayor is authorized to execute Amendment to Agreement.
4. This resolution is effective immediately upon adoption.

* * * * * * * *

AMENDMENT NO. 2 TO AGREEMENT WITH LOVES TRAVEL STOPS AND COUNTRY STORES FOR THE FUNDING OF AN ENVIRONMENTAL IMPACT REPORT FOR THE LOVES TRAVEL CENTER

This Amendment No. 2 to Agreement made and entered into this ___ day of _____, 2015 between the City of Madera, a municipal corporation of the State of California, hereinafter called "CITY" and Love's Travel Stops and Country Stores, hereinafter referred to as the "APPLICANT".

RECITALS

WHEREAS, CITY has required the preparation of an environmental impact report for the APPLICANT'S Love's Travel Center, hereinafter called "Project"; and

WHEREAS, CITY selected Quad Knopf, Inc and entered into an agreement for environmental planning services to prepare the environmental impact report for the Project; and

WHEREAS, City entered in an agreement with APPLICANT to fund the preparation of the environmental impact report on January 21, 2015.

WHEREAS, City entered in an Amendment No. 1 to Agreement with APPLICANT to fund the preparation of the environmental impact report May 6, 2015.

WHEREAS, an Amendment to Agreement is necessary to fund additional environmental planning services to allow for the successful completion of the environmental impact report.

AGREEMENT

NOW THEREFORE the parties hereto mutually agree as follows:

In consideration of the recitals listed above and the mutual obligations of the parties herein, CITY and APPLICANT agree that the Agreement For The Funding of An Environmental Impact Report for the Loves Travel Center, dated January 21, 2015 between "CITY" and "APPLICANT" shall be amended as follows:

ITEM NO. 1. SECTION 1. Consultant - of the agreement shall be amended to read as follows:

1. Consultant

CITY shall engage the firm of Quad Knopf, Inc., a California Corporation, identified herein as "EIR CONSULTANT," to perform the necessary work in the preparation of an EIR for the Project, pursuant to the terms of a contract entitled "AGREEMENT FOR ENVIRONMENTAL PLANNING SERVICES TO THE CITY OF MADERA IN PREPARATION OF AN ENVIRONMENTAL IMPACT REPORT FOR THE LOVE'S TRAVEL CENTER" (hereinafter, "Consultant Agreement"). The necessary work for the project is more particularly described in Exhibits "A", "B", and "C" which are attached hereto and incorporated herein by reference.

ITEM NO. 2. SECTION 3. Payments to CITY for CONSULTANT Services - of the agreement shall be amended to read as follows:

3. Payments to CITY for CONSULTANT Services

A. Under the terms of the Consultant Agreement, the EIR CONSULTANT will be paid a sum not to exceed TWO HUNDRED EIGHTY SEVEN THOUSAND TWO HUNDRED THIRTY FOUR DOLLARS ($287,234) for its services. APPLICANT shall deposit this amount with CITY within 5 days of the execution of this agreement. No increase in the above amount will be required except by a written modification to this Agreement, signed by the APPLICANT and the CITY as set forth in Paragraph 9 below. Any amount not paid to EIR CONSULTANT from this deposit shall be returned to APPLICANT upon completion of the EIR CONSULTANT'S scope of services or termination of Consultant Agreement, whichever comes first.

ITEM NO. 3. All other terms and conditions of the original Agreement For The Funding of An Environmental Impact Report for the Love's Travel Center executed by CITY and APPLICANT on January 21, 2015, except as modified herein, shall be in full force and effect as written and agreed to.

In witness hereof, CITY and APPLICANT have executed this Amendment No. 2 to Agreement as of the day, month and year first written above.

CITY OF MADERA

By: _____
Robert L. Poythress, Mayor

By: _____
Loves Travel Stops and Country Stores

Title: Real Estate Project Mgr

APPROVED AS TO FORM

By: _____
Brent Richardson, City Attorney

ATTEST:

By: _____
Sonia Alvarez, City Clerk

PROPOSAL

This proposal describes Quad Knopf's understanding of the proposed Project and approach to preparing a thorough and legally defensible EIR, including tasks, schedule, and budget. If accepted, this proposal would become an attachment to Quad Knopf's agreement for professional services with the City of Madera.

Also, as an Appendix to this proposal, we've included a statement of qualifications, including an overview description of the Quad Knopf team, teaming partners, and key personnel.

Project Understanding

The following is a preliminary description of the proposed Project. Additional details, including a site plan and formal City of Madera applications, are expected to be provided by the Project proponent before work on the EIR begins. The proposed Project is a travel center that is primarily intended to serve a wide range of travel needs of motorists travelling on State Route (SR) 99. It is assumed that a large percentage of the daily traffic will be semi-trucks (i.e., tractor trailers). It is also assumed that the travel center will operate 24 hours per day, seven days per week, and 365 days per year.

The undeveloped, proposed Project site consists of 49 acres (Assessor's Parcel 038-040-002) within the city limits of Madera. The site abuts SR 99 on the west and Avenue 17 on the north. Land north of Avenue 17 is undeveloped and designated for heavy commercial use. Land immediately to the east is developed with rural residential dwellings. Land to the south is undeveloped and designated for industrial use.

Project Components – Provided by Project Proponent

- Travel Center: Approximately 10,200 square feet in size, which consists of convenience store, restrooms, truck wash, and attached restaurant, on approximately 10 acres.
- Restaurant: Proposed tenant will be a Carl's Jr., with seating for approximately 50 people.
- Tire Care: Approximately 12,000 square feet with two bay doors and inside tire storage.
- Hotel: Proposed Sleep Inn with 80 rooms, on one acre.
- RV/Boat/Self storage: Approximately 50,000 square feet under roof, on five to seven acres.
- Estimated vehicles per day: 2,000 cars and 600 semi-trucks.

City Entitlements – Generated by City Based on Project Components

- Site Plan Review – Overall site.
- Truck Stop – Conditional Use Permit (This will include tire shop, truck wash, and related facilities).
- Hotel – Conditional Use Permit.

- Mini-Storage – Conditional Use Permit.
- Drive-through Restaurant – Conditional Use Permit (probable, not confirmed).
- Outdoor Seating – Conditional Use Permit (potentially, not confirmed).
- Alcohol Sales in Restaurant/Convenience Store – Conditional Use Permit (probable, not confirmed).
- Possible – Variance and Conditional Use Permit for sign that exceeds height and size limits.
- Probable – Development Agreement for overall development.

In conjunction with the formal submittal of applications, the City will confirm a precise set of entitlements that will be required to support Project components.

Project Approach

In 2007, Quad Knopf prepared an EIR for a project on this site, referred to as Gateway Galleria (SCH #2006061106). The Draft EIR is dated April 2007 and the Certified Final EIR is dated June 2007. The project description included prezoning in support of annexation to the City of Madera and a two-phase, retail and commercial development totaling 452,499 square feet. Due to the age of the previous EIR and the change in the project description, the proposed EIR will not be tiered from that document, and the impact analyses of the proposed Project will be entirely new.

While the proposed Project has changed, Quad Knopf proposes to use as much of the data and information from the previous 2007 EIR as possible, with the full understanding that certain background information and analyses will need to be revisited due to age, changes in the physical environment, changes in regulations, changes in the proposed land uses, or changes in the *CEQA Statutes* and/or *Guidelines*. By using as much of the existing information as possible, we can provide an efficient and cost effective method of achieving CEQA compliance.

We anticipate that a full-scope EIR will be warranted; however, certain environmental topics may be scoped out (i.e., dismissed from analysis) as a result of public scoping process described in Task 4.

The expedited schedule for completion of the EIR process contained in this proposal will require close coordination and commitment to schedule by Quad Knopf, the City of Madera staff and decision makers, and the Project proponent.

The following is a listing of the environmental topics that will be addressed in the EIR. As noted in the Scope of Work, some topics may not need to be discussed in detail in the EIR and may be dismissed from detailed analysis. The Scope of Work (Tasks 5 and 7) also describes how environmental studies conducted for the 2007 EIR will be used, where updates to previous studies can be used, and where entirely new studies are warranted due to one or more changed circumstances.

- Aesthetics
- Agricultural and Forestry Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Geology, Soils and Seismicity
- Greenhouse Gases

- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources *(potentially scoped out)*
- Noise
- Population and Housing *(potentially scoped out)*
- Public Services
- Recreation *(potentially scoped out)*
- Transportation, Traffic and Circulation
- Utilities and Service Systems

Scope of Work

Based on our knowledge of the City's requirements and the preliminary Project description provided to us, we have developed the following scope of work for completion of the EIR process. The tasks include completion of a public scoping process (Notice of Preparation and Scoping Meeting), Administrative and Draft Environmental Impact Reports, Administrative and Final Environmental Impact Reports, Mitigation Monitoring and Reporting Program, and Findings and Statement of Overriding Considerations.

Task 1 – Project Initiation

Quad Knopf will meet with City staff and the Project proponent to review the scope of work, details of the proposed Project, and the proposed schedule. Alternatives to the proposed Project, including alternative sites previously identified and rejected, may also be discussed. Lines of communication and communication protocols will be established and a detailed schedule developed.

Deliverables:

- *Project initiation meeting (1)*
- *Agenda (1)*
- *Action agenda from meeting (1)*

Task 2 – Field Reconnaissance and Review of Existing Information

Under this task, the Quad Knopf team will visit the site in order to observe existing site conditions (i.e., the baseline condition) and take photographs in order to gain a thorough understanding of the Project site, surrounding areas, and sensitive nearby land uses. Also, as part of this task, the Quad Knopf team will collect and review all available background materials, in order to become fully familiar with the Project and key issues.

Task 3 – Project Description and Project Objectives

Based on the results of the project initiation meeting and the Project description materials provided by the Project proponent, as well as the Quad Knopf team's review of other relevant information, we will prepare a draft Project description for the City staff and Project proponent review and approval. As specified in the State *CEQA Guidelines*, Section 15124, the EIR will include a detailed Project description using text and graphics inclusive of the City's regional and local setting and the Project's history, past ownerships and land uses. The Project description will also include the Project's objectives (from the perspectives of both the City and the Project proponent), characteristics, phasing, and important features. A single set of carefully crafted Project objectives reflecting both the City and Project proponent's interests will be instrumental in assessing alternatives to the proposed Project, as described at the end of Task 7.

Due to the importance of a complete, accurate, and stable project description, we will request that the City and Project proponent review and approve the Project description before impact analyses commences.

Task 4 – Public Scoping Process / Notice of Preparation

Quad Knopf will conduct the public scoping process and will prepare a Notice of Preparation (NOP), incorporating the finalized Project description and supporting graphics. The NOP will be noticed, published, and circulated to applicable local and State agencies pursuant to the *CEQA Guidelines*. Quad Knopf's Project manager will coordinate with City staff in conducting a Scoping Meeting, which will be held to solicit input as to the scope and content of the EIR. (Details are provided below.)

As permitted by the *CEQA Guidelines*, an Initial Study will not be prepared prior to preparation of the Draft EIR.

Subtask 4.1 Prepare Notice of Preparation

Quad Knopf will prepare a Notice of Preparation (NOP) consistent with the City's approved format. The NOP will contain all statutory requirements, including the Project description developed in Task 3 above.

Deliverables:

- *Notice of Preparation (10 hard copies + digital files + 15 hard copies hand delivered to State Clearinghouse)*

Subtask 4.2 Scoping Meeting

Quad Knopf will participate in a scoping meeting to be conducted during the 30-day NOP public review period. Quad Knopf will prepare appropriate graphics/visual displays (in PowerPoint format) and/or handouts, as directed by City staff. City staff will be responsible for coordinating the meeting setup and location. Quad Knopf's Project Manager will coordinate with City staff relative to details of running the meeting (presentation of the Project, preparing handouts, answering questions, etc.).

Deliverables:

- *PowerPoint slide presentation*
- *Board-mounted graphics*

Task 5 – Early Consultation and Technical Studies

Quad Knopf anticipates that the proposed Project will require the following technical studies, as further described below. Since most of these topics were addressed in studies prepared for the 2007 Gateway Galleria EIR, in many instances the work effort will be focused on simply updating the previously prepared reports to reflect changed conditions on the ground, changes in applicable regulations, and changes in the proposed Project description.

- Air Quality and Greenhouse Gas Report (OB-1 Air Analysis)
- Biological Survey Report (Quad Knopf)
- Cultural Resources Report (Ric Windmiller, Archaeologist)
- Health Risk Assessment (Vista Environmental)
- Noise Study (j.c. brennan & associates)
- Phase I Environmental Site Assessment (Geocon)
- Traffic Impact Study and Caltrans Consultation (VRPA Technologies)

The technical reports will be used to prepare the associated topic sections of the EIR further described in Task 7.

Subtask 5.1 Air Quality and Greenhouse Gas Report

Under contract to Quad Knopf, OB-1 Air Analyses (OB-1) will prepare an Air Quality and Greenhouse Gas (GHG) Study for the proposed Project including evaluation of construction emissions, off-site vehicle emissions, on-site mobile and stationary equipment emissions, and GHG emissions. The Study, which will support separate Air Quality and GHG sections of the EIR, will also analyze the off-site CO hotspots and odors and include, as needed, a preparation of viable air quality mitigation measures. The Study will comply with the latest Guide for Assessing and Mitigating Air Quality Impacts (GAMAQI). In addition OB-1 will provide environmental compliance services and coordination with the San Joaquin Valley Air Pollution

Control District (SJVAPCD) to comply with SJVAPCD Rule 9510 (ISR). Compliance with Rule 9510 will require the completion of an Air Impact Assessment (AIA) Application.

Air Quality and GHG Study

Collect Air Quality Setting Information: OB-1 will review the federal, State, and local rules and regulations regarding criteria pollutants and GHGs; local ambient air quality conditions; meteorological and topological influences of local climate; and existing nearby emission sources. OB-1 will analyze the Madera General Plan and other regional planning documents, rules, and legislation for goals and policies that may relate to the proposed Project. OB-1 will also briefly describe the global warming concept and the science that supports it. OB-1 will work closely with the traffic engineer, VRPA to ensure that the trip generation rate used in the analysis accurately accounts for efficiencies afforded the Project through design. The Study will also include descriptions of applicable federal and State climate change legislation.

Determine Emission Estimates: Construction and operational emissions will be estimated using emission factors and methodologies developed by the California Air Resources Board (CARB), SJVAPCD, the U.S. Environmental Protection Agency (EPA), and other agencies. The air quality analysis will assess construction and operational emission factors using the air quality model (CalEEMod™), which has been adopted by the SJVAPCD. Operational analyses will quantitatively or qualitatively account for Project design features that positively affect air quality.

GHGs primarily quantified will be carbon dioxide, methane, and nitrous oxides — other Kyoto Protocol GHGs will be primarily addressed qualitatively — and will be normalized to a consistent metric using appropriate global warming potential to produce all emissions in carbon dioxide equivalents. Primary sources that will be quantified will be vehicular; energy consumption (both direct and indirect) and energy used for water delivery. Estimated GHG reductions from the replacement of grid energy by solar power from the proposed Project will be evaluated. GHG gas pollutants will include all appropriate Kyoto Protocol gases: carbon dioxide, methane, nitrous oxide, chlorofluorocarbons, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. The regional impact assessment will calculate emissions associated with construction and long term operational activities for the proposed Project.

Cumulative Air Quality Impact Analysis: With respect to cumulative air quality impacts, the GAMAQI provides that any proposed Project that would individually have a significant air quality impact (i.e., exceed significance thresholds for pollutants such as ROG, NO_X, PM_{10}, or $PM_{2.5}$) would also be considered to have a significant cumulative impact. Although the GAMAQI does not provide guidance for evaluating cumulative air quality impacts in instances where Project-specific emissions of criteria pollutants do not exceed the air district's significance thresholds, it does state: "[a]ll but the largest individual sources emit ROG and NOx in amounts too small to have a measurable effect on ambient ozone concentrations by themselves."

Based on the above, for purposes of this Study, the proposed Project is considered to result in a cumulatively considerable air quality impact if the Project emissions exceed the SJVAPCD significance thresholds or the Project is not consistent with the regional clean air plan.

Determine Other Impacts: OB-1 will perform an odor analysis to determine if any sensitive receptors would potentially be affected my significant odor emissions. OB-1 will also provide a qualitative discussion of air toxics, including diesel particulate matter.

OB-1 will utilize Caltrans' CO Protocol and data supplied by the Traffic Study to determine the potential for exceedance of the CO ambient air quality standards. If preliminary screening indicates that potential exists for a CO hot spot, a minimum of three intersections will be evaluated. The intersections with the highest potential for congestion would be modeled using the California Department of Transportation CALINE4 model and EMFAC2011 emission factors.

Significance Determination: Construction and operational emission estimates will be compared with the SJVAPCD significance thresholds. If the proposed Project is determined to exceed the thresholds, the Study will propose mitigation measures for air quality impacts. Mitigation measures would be evaluated on the basis of emissions reductions and cost. Where quantification methodologies are available, mitigation measures will be quantified. The Study will then assess the impact significance after the application of mitigation.

For GHGs, OB-1 will assess the proposed Project's implementation of SJVAPCD best performance measures current California GHG emission reduction strategies, including applicable solutions contained in the latest State-issued documents. If necessary, design features and mitigation measures will be identified that would reduce GHG emissions.

Indirect Source Review Compliance

Identification of Mitigation Measures: OB-1 will consult with the Project proponent on measures and features being proposed for the Project and research the Project's design features and environmental setting to document measures that will reduce the Project's emissions.

Air Quality Analysis, Off-site Fee Estimate, and Fee Deferral Application: OB-1 will model construction, area, and operational emissions for the proposed Project using the current approved CalEEMod™. The results from the modeling will be used to generate off-site fee estimates using the SJVAPCD Fee Estimator Calculator. A Fee Deferral Application will be prepared, so that the Project proponent is not unnecessarily burdened by the entire mitigation costs up front. Payments for the construction and operational phases must be made prior to generating emissions for each phase. The Project proponent will provide a tentative construction/operation schedule and a schedule of fee payments (if applicable) for this task to be completed successfully.

Report Preparation: OB-1 will complete the SJVAPCD Air Impact Assessment Application Form and Supplemental Forms for mitigation credit being claimed. Appropriate documentation of the application contents, including relevant maps, City and County Bicycle Plans, City and County General Plan exhibits, emission modeling, and fee estimates will be supplied as needed for the AIA application.

Subtask 5.2 Biological Survey Report

Quad Knopf's biological resource specialists will prepare a biological report, as described below.

Database and Literature Search: The California Natural Diversity Database, California Native Plant Society Database, United States Fish and Wildlife Service lists, and California Department of Fish and Wildlife lists, and National Wetlands Inventory will be searched to identify special-status species, sensitive natural communities, and wetlands that are of local, regional, and national concern and which may impose constraints on the development potential of the Project site. Spatial data and maps of critical habitat for federally-listed species that may occur in the region will be obtained and reviewed. Relevant published and non-published literature, including Recovery Plans, Habitat Conservation Plans, General Plans, Specific Plans, and technical reports and studies will also be reviewed. The cumulative data set compiled from these sources will provide the basis of this investigation.

Reconnaissance-Level Site Survey: A reconnaissance-level site survey of the Project site will be conducted. Efforts will be focused on identifying areas that support, or potentially support, sensitive biological species or habitats. The distribution of vegetative communities will be identified, and the locations of unique or important biological resources will be mapped. Special-status species and/or their signs will be documented. An inventory of the plant and wildlife species observed during the survey will also be generated.

Data Analysis and Reporting: All information obtained during the database search and site survey will be analyzed to identify the presence and extent of important biological resources occurring, or potentially occurring, on the Project site; development constraints that may be imposed by biological resources; regulatory requirements that must be considered prior to proceeding with development; and additional studies that would be needed to meet regulatory requirements. These issues will be evaluated in the context of the California Environmental Quality Act (CEQA), and will be presented in a Biological Analysis Report that will include the methods used, results of database searches and field investigations, location maps, recommendations, and conclusions. This task includes peer review and QA/QC by a senior biologist.

Subtask 5.3 Cultural Resources Report

Quad Knopf's subconsultant, Ric Windmiller, Consulting Archaeologist, will prepare a cultural report for the Project, as described below.

Mr. Windmiller conducted an archaeological resources inventory of the subject property in 2005. The study included a records search by the Southern San Joaquin Valley Information Center, a sacred lands file search by the Native American Heritage Commission, contacts with the sole Native American listed by the commission, contact with the Madera County Historical Society, a field inspection and a technical report following California Office of Historic Preservation guidelines. At the time, the property was occupied by a heavy equipment supply business. Field inspection was hampered in the respect that an estimated 10 percent of the subject property was occupied by heavy equipment and parts inventory. The remainder was largely exposed ground, which was examined along transects 15-25 meters apart. No archaeological resources were identified during the study.

Nine years have elapsed since the above study was completed. Recent satellite imagery shows that a significant portion of stockpiled equipment and parts has been removed from the site exposing ground that could not be adequately inspected in 2005. The records search and Native American and Madera County Museum contacts are out of date.

This scope of work provides for an updated records search by the Southern San Joaquin Valley Information Center, an updated sacred lands file search and list of Native American contacts from the Native American Heritage Commission, renewed contact with Native Americans listed by the Commission and the Madera County Historical Society, and field inspection of areas formerly covered by equipment and parts. CEQA Guidelines, Appendix G checklist classifies unique paleontological resources as "cultural resources." Therefore, this scope of work includes a paleontological database search and analysis to determine if the subject property is sensitive for paleontological resources (fossils).

The technical report will draw from the 2005 study with updated information as a result of recent archaeological research, the updated records search and Native American file search, as well as contacts with Native Americans listed by the Commission and the local historical society. A cultural resources inventory also includes a search of the University of California Museum of Paleontology database search and report by a qualified professional paleontologist. A field inspection by a qualified professional archaeologist meeting the Secretary of the Interior's professional qualifications standards in prehistoric and historical archaeology will focus on those areas of the Project site not previously available for inspection due to the presence of equipment and parts stockpiles.

Subtask 5.4 Health Risk Assessment

Under contract to Quad Knopf, Vista Environmental will prepare a Health Risk Assessment for inclusion in the Air Quality section of the EIR, as described below. The HRA will analyze both: (1) the cancer and non-cancer (acute and chronic) health impacts from toxic air contaminants (TACs) created by the proposed project; and (2) the localized criteria pollutants that are not in attainment (PM10, PM2.5, and

the ozone precursors of VOC and NOx) concentrations at the nearby homes and associated health impacts. The localized criteria pollutant analysis has been included in order to address the additional analysis requirements detailed in *Sierra Club v. County of Fresno* (2014) (226 Cal.App.4th 704).

Preparation of Health Risk Assessment of Diesel Particulate Matter (DPM)

- Provide a description of the proposed project and detail the location of the proposed project.
- Identify applicable SJVAPCD rules and regulations.
- Identify health risk standards and acceptable cancer and non-cancer risk thresholds from diesel emissions.
- Obtain the proposed project's onsite truck trips from the applicant or traffic study. Calculate the emission rates for idling and truck travel for diesel particulate matter (DPM) and volatile organic compounds (VOC) emissions through use of the EMFAC2011 model.
- Obtain the estimated percentage of trucks that would have an operational transport refrigeration unit (TRU) from the applicant or from statewide averages. Calculate the DPM and VOC emissions rates from TRUs through use of the OFFROAD2007 model.
- Obtain the estimated percentage of truck that park onsite over night that would have operational auxiliary power system (APS) from the applicant. Calculate the DPM and VOC emissions rates from the APS through use of the OFFROAD2007 model. If the applicant is going to provide electrical hookups for each overnight truck parking space, then a qualitative analysis will be provided that details why APS would not be operated on the project site.
- Obtain the estimated gasoline and diesel throughput of the proposed gasoline and diesel dispensing facilities as well as the location and number of onsite fuel tanks from the applicant. Calculate the VOC emissions rates through use of the methodology provided in *Guidance for Air Dispersion Modeling San Joaquin Valley Air Pollution Control District,* (HRA Guidelines) and from *Gasoline Service Station Industrywide Risk Assessment Guidelines*, prepares by CAPCOA, November 1997.
- Calculate the DPM and VOC concentrations at the nearby sensitive receptors associated with the on-going operation of the proposed project through utilization of the AERMOD model, the emissions rates provided in the previous steps and the methodology described in HRA Guidelines.
- Utilize the prior task's calculated DPM and VOC concentrations, to calculate the cancer risk and the chronic and acute non-cancer health impacts at the nearby residential uses from the on-going operation of the proposed project.
- Prepare an HRA report documenting the results of the study. The report will summarize the results of the previous work tasks.

Preparation of Health Risk Assessment of PM10, PM2.5, VOC and NOx emissions

- Summarize the court opinion for *Sierra Club v. County of Fresno* (2014) and develop a strategy to analyze the potential health impacts at the nearby sensitive receptors from the proposed project's emissions of PM10, PM2.5, VOC, and NOx.
- Review the Air Quality Analysis prepared for the proposed project and reference the total PM10, PM2.5, VOC, and NOx emissions created from the proposed project as detailed in the Air Quality Analysis.
- Reference the most current concentrations of PM10, PM2.5, VOC, and NOx in the project study area as detailed in the Air Quality Analysis.

- Perform air quality modeling of the proposed project's total PM10, PM2.5, VOC, and NOx emissions through use of either the AERMOD, CMAQ, and/or BenMap Models.
- Document the technical approach, the model used and the results of the analysis.
- Incorporate the results of the previous work tasks into the HRA report.

Subtask 5.5 Noise Study

Under contract to Quad Knopf, j.c. brennan & associates will prepare a noise study, as described below.

Evaluation of Existing Noise Levels: Since the previous study was conducted nine years ago, j.c. brennan & associates, Inc. will conduct background noise level measurements on, and in the vicinity of the Project site. Their staff will conduct two sets of continuous 24-hour noise measurements and two sets of short-term noise measurements. The intent of the noise level measurements is to quantify existing background noise levels for comparison to the predicted Project noise levels. The comparison of the measured noise levels to the predicted noise levels will be critical to determine if the Project will create noise levels which will be discernable from the roadway traffic noise. The 24-hour measurements will also provide an accurate day/night traffic split for SR 99, and will be used as a direct input to the traffic noise modeling.

Analysis of Existing and Future Traffic Noise Levels: Based upon traffic data provided by the traffic consultant, j.c. brennan & associates will utilize the Federal Highway Administration (FHWA RD-77-108) traffic noise prediction model to determine existing and future traffic noise levels at the Project site and adjacent uses. Particular attention will be given to the truck traffic noise levels.

Analysis of On-Site Activities: On-site activities due to the Project are expected to include truck circulation, truck idling, truck wash facilities, and truck maintenance activities. j.c. brennan will collect noise level data associated with a current Love's Travel Center. Preliminary review indicates that the Love's Travel Center near Corning, California is similar in configuration to the proposed site.

Analysis of Construction Noise: j.c. brennan will evaluate construction noise impacts associated with the Project.

Report Preparation: A written report will be prepared which details our analytical approach and findings. The report will comply with the requirements of the Madera General Plan Noise Element and CEQA. The report will address all noise sources described above. In addition, mitigation measures will be proposed where required, and the resulting noise levels will be analyzed.

Subtask 5.6 Phase I Environmental Site Assessment

Under contract to Quad Knopf, Geocon will prepare a Phase I Environmental Site Assessment (ESA), as described below.

The requested ESA would be performed in general accordance with the American Society for Testing and Materials (ASTM) *Designation E 1527-13 Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*. The Phase I ESA would also be conducted in accordance with the requirements of 40 Code of Federal Regulations (CFR) Part 312 titled *Standards and Practices for All Appropriate Inquiries* (AAI), as required under Sections 101(35)(B)(ii) and (iii) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). The purpose of conducting an AAI-compliant investigation into the previous ownership and uses of a property is to meet the provisions necessary for the landowner, contiguous property owner, and/or bona fide prospective purchaser to qualify for certain landowner liability protections under CERCLA.

In order to perform the Phase I ESA in accordance with ASTM and AAI guidelines, we request that, if possible, the current site owner provide the following information:

- Permission to enter the site
- Names and telephone numbers of persons familiar with the site
- A description of the planned use of the site
- Any specialized knowledge regarding the site
- Any commonly known or reasonably ascertainable information regarding the site
- Any site-related documents
- An historical chain-of-title report from a title company (as an alternative, we can order an environmental lien report for an additional fee)

Based on the above information, Geocon will perform research to estimate the potential for hazardous substances or petroleum impacts (i.e., levels warranting regulatory cleanup action) to the site. For the purposes of this Phase I ESA, the "vicinity" of the site is defined as properties located within ¼ mile of the site.

The scope of services for the Phase I ESA is presented as follows:

- Perform a reconnaissance of the site to assess for the presence, or make visual observations of indicators of the potential existing presence, of hazardous materials, hazardous wastes, or soil and/or groundwater impacts on the site. These indicators include 55-gallon drums, underground and aboveground storage tanks, chemical containers, waste storage and disposal areas, industrial facilities, discolored surficial soils, electrical transformers that may contain polychlorinated biphenyls (PCBs), and areas conspicuously absent of vegetation. If access is unavailable to any portions of the site, our ability to complete the assessment described herein may be hindered. Provisions for a survey of wetlands delineation, asbestos, lead-based paint, lead in drinking water, radon and methane gas are not provided in the ESA scope of services.

- Perform a visual survey of the adjacent properties from the site and from public thoroughfares to observe general types of land use surrounding the site.

- Review the *Standard Environmental Records Sources: Federal and State* referenced in ASTM *Designation E 1527-05* and 40 CFR Part 312 to obtain information regarding the potential presence of hazardous substances/petroleum hydrocarbons on the site or on properties located within the approximate minimum search distance specified for each source. The records searched will include registries or publicly available lists of recorded engineering and institutional controls, and recorded land use restrictions that may impact the site.

- Review reasonably-ascertainable regulatory agency files for the site and/or properties in the vicinity of the site whose environmental conditions might potentially impact the Site. The sources for these files could include the Madera County Environmental Health Department, the California Regional Water Quality Control Board (RWQCB), and the California Department of Toxic Substances Control.

- Contact local public agencies by telephone or in writing to obtain readily-ascertainable information regarding underground storage tank permits, agriculture-related permits and violations, air emission permits and violations and electrical transformers. The information would be obtained for the site and adjacent properties. The agencies contacted may include the building department, air pollution control agency (i.e., SJVAPCD), agriculture department, and gas and/or electric utility companies.

- Review and interpret reasonably-ascertainable aerial photographs to obtain information concerning the historical use of the site and adjacent properties.

- Review EDR Sanborn, Inc. Fire Insurance Maps for the site (if available). The EDR Sanborn Fire Insurance Maps would be reviewed to obtain information concerning the historical uses of the site and the potential presence of underground storage tanks on the site.

- Review pertinent and reasonably ascertainable information sources to evaluate physiographic, geologic, and hydrogeologic conditions in the vicinity of the site.

- Review documents provided by the Client, at its discretion. Potentially useful documents may include geotechnical, geologic, and environmental reports, site plans, plot plans, and correspondence with regulatory agencies.

- Review United States Geological Survey (USGS) topographic maps to obtain information relative to the topography of the site and previous development and uses of the site and properties located in the vicinity of the site.

- Review the California Department of Conservation, Division of Oil, Gas, and Geothermal Resources (DOGGR) records to obtain information regarding the locations of potential oil and gas wells on the site and site vicinity.

- If requested, review recorded land title records for the site in accordance with the requirements identified in 40 CFR Part 312. The purpose of obtaining a chain-of-title report is to assess whether any requirements regarding engineering and institutional controls have been recorded for the site, and whether any land use restrictions and/or environmental cleanup liens are associated with the site. As an alternative, we can order an environmental lien report for the Site for an additional fee.

- Conduct interviews by telephone or in writing with present and past tenants/owners of the site to evaluate if present or past occupants have used, generated, stored, or disposed of hazardous materials/wastes onsite.

- Prepare a report summarizing the findings of the Phase I ESA and qualitatively describing the potential for environmental impairment of the site. If necessary, we will also provide recommendations for additional environmental services in the report.

Subtask 5.7 Traffic Impact Study

Under contract to Quad Knopf, VRPA Technologies, Inc. will prepare a traffic impact study (TIS) report that will identify the anticipated effect of the proposed development on the existing and planned road network and will recommend mitigations required to maintain City of Madera standards. Included is early consultation with Caltrans. Tasks required to complete the traffic report are described below.

Project Management/Kick-off Meeting: Meet with appropriate City staff and the Project team to discuss the scope of the TIS. The kick-off meeting will assist in confirming the Project description and any potential issues/concerns anticipated by the City and the Project team.

Caltrans Consultation: VRPA will prepare an Administrative Draft Assumptions Memo based upon a scope of work that includes more detail regarding analysis methodologies, parameters, and inputs. These will be based on VRPA's experience preparing traffic studies in the San Joaquin Valley, as well as standard engineering practice and guidelines. This Memo will be submitted to the City for review. VRPA will then prepare a Draft Assumptions Memo based on comments from the City which will again be submitted to the City and also to Caltrans.

VRPA will then meet with appropriate City and Caltrans staff to discuss the scope of the TIS and the Draft Assumptions Memo. Based upon additional comments received from the City and Caltrans, VRPA will finalize the Assumptions Memo and submit to the City and Caltrans for formal approval prior to development of the TIS. This task also assumes ongoing coordination with Caltrans for the duration of the Project.

Scoping Meeting: Meet with appropriate City staff and the Project team to discuss the scope of the TIS. The scoping meeting will set the stage for development of the TIS including an understanding of the Project and its components; the freeway, highway, street and road segments and intersections that should be included in the TIS; analyses conducted for the City of Madera; associated environmental documents; issues related to trip generation and distribution; near-term development projects in the Study Area that may affect opening day traffic volumes and level of service (LOS); future year forecasting methods including use of the Madera County Transportation Commission (MCTC) regional traffic model; and mitigation strategies. It would be most useful to conduct this meeting following the formal approval of the Assumptions Memo by the City and Caltrans.

Existing Conditions: Development and analysis of existing traffic/circulation conditions for the following list of intersections and street segments. Note: This list of segments and intersections may change following the completion of the above tasks.

Intersections:

- Avenue 17 WB to SR 99 SB On Ramp
- Avenue 17 EB to SR 99 SB On Ramp
- Avenue 17 / SR 99 SB Off Ramp
- Avenue 17 / SR 99 NB Ramps
- Avenue 17 / Walden Drive
- Avenue 17 / Airport Drive and Golden State Blvd
- Avenue 17 / Sharon Boulevard (future intersection)
- Sharon Boulevard / Access Driveway #1 (future intersection)
- Sharon Boulevard / Access Driveway #2 (future intersection)

Additional intersections and access driveways can be added to the TIS scope for an additional cost of $4,000 per location.

Roadway Segments: For all connecting roadway segments:

- Gather/Conduct Traffic Counts. Gather existing traffic counts (less than one year old) from the City of Madera and Caltrans, if available. Where such counts are not available, VRPA will conduct new traffic counts consistent with City and Caltrans District 6 Traffic Impact Study Guidelines.

- Identify Existing Traffic Impacts. Based upon data gathered, identify existing traffic impacts along each specified highway and street/road facility (segments) and at intersections specified above. Results of the analysis will provide LOS estimates considering existing traffic conditions. Existing LOS for each intersection will be determined using Synchro Software.

  The results of each of these technical analyses will include AM and PM peak hour intersection LOS estimates, and left turn pocket warrants along each segment and at each Study Area intersection, as appropriate.

  The Modified HCM LOS Tables will be applied for segment LOS to determine segment LOS along all connecting facility segments including Congestion Management Program (CMP) facilities. Signal warrants for each unsignalized intersection studied will be conducted using the California MUTCD methodology.

The results of each of these technical analyses will include AM and PM peak hour highway, street/road, and intersection LOS estimates, signal (if appropriate) and 4-way stop warrants, and left turn pocket warrants along each segment and at each Study Area intersection, as appropriate.

VRPA will also provide a quantitative assessment of pavement conditions using the Traffic Index (TI) calculations.

- Identify Short- and Long-term Improvement Projects. In consultation with the City of Madera, identify short- and long-term planned/programmed highway and street/road improvements along the facilities specified above referencing the General Plan, Circulation Element, and Capital Improvement Programs (CIPs). Short–term highway and street/road improvement projects are improvements that will be constructed within one to three (1-3) years of "opening day" of the Project. Such improvement projects may provide relief or enhance traffic impacts associated with the Project or other near-term or cumulative projects. Long-term highway and street/road improvement projects, such as those identified in the Madera Town Center Project, will be identified and considered during the future year impact analysis.

Estimate Project Trip Generation: Estimate AM and PM peak hour trip generation associated with the Project (passenger vehicle and truck trips) using information provided by the Project Applicant or City of Madera specific to the Project. If reliable information is unavailable, VRPA will estimate trip generation based on the ITE Trip Generation Manual, Fontana Truck Trip Generation Study, and available point-of-sales data for other similar travel centers.

Estimate Project Trip Distribution: Estimate Project trip distribution based on input provided by the City of Madera, Caltrans, the Project team, and VRPA's knowledge of the Study Area and trucking patterns.

Existing Plus Project Impacts: Identify existing conditions plus Project traffic impacts on the existing specified highway and street/road facilities, and intersections in the Study Area. LOS and other necessary evaluations will then be conducted considering methodologies specified.

Near-Term Impacts: Identify Existing plus Near-Term development Project traffic, plus identify other near-term cumulative traffic plus Project traffic impacts on the existing specified highway and street/road facilities and intersections in the Study Area. If there are no near-term projects in the vicinity, this task will include only existing traffic plus near-term cumulative traffic plus traffic generated by the Project.

Identify Near-term Development Project Trip Generation and Impacts. Estimate AM and PM peak hour trip generation associated with near-term projects plus near-term cumulative traffic plus Project traffic using the latest Institute of Traffic Engineers (ITE) Trip Generation Manual formula(s). Resulting trips will be distributed and added to existing traffic.

LOS and other necessary evaluations will then be conducted considering methodologies specified.

Cumulative 2040 No Project Impacts: Identify future year 2040 traffic impacts on the planned highway and street/road segments, as well as other major planned facilities that do not currently exist, if applicable.

Facilitate Future Traffic Modeling without Project and Identify Impacts. Review future year peak hour and ADT traffic projections from available sources including the MCTC Regional Traffic Model. Model projections are based upon the adopted Land Use and Circulation Elements of local agencies. The traffic

model will be applied to assign trips associated with future year growth and development to the street and highway network in the Study Area.

The results will identify AM and PM peak hour LOS estimates along each planned highway and street/road segment and intersection specified above, as appropriate, considering future year traffic without the Project.

Cumulative 2040 Plus Project Impacts: Identify future year 2040 traffic impacts with the Project on the planned highway and street/road system.

Facilitate Future Traffic Analysis with Project and Identify Impacts. Considering Project trips generated, either using the MCTC Regional Traffic Model or engineering judgment considering Project-specific travel characteristics, distribute AM and PM peak hour Project trips to the planned highway and street/road system.

It should be noted that Caltrans is in the process of redesigning the SR 99 interchange at Avenue 17. VRPA will consult with Caltrans to determine the protocol for analyzing the future configuration of the interchange. The SR 99 at Avenue 17 interchange intersections identified above covers the necessary analysis that will be required for the future interchange configuration.

The results will identify AM and PM peak hour LOS estimates, along each planned highway and street/road segment and intersection specified above, as appropriate, considering future year traffic with the Project.

Mitigation Measures: Where LOS estimates exceed minimum LOS standards, develop appropriate mitigation measures. Such measures may include, but are not limited to roadway/highway widening, traffic controls, turn pockets, alignment improvements, and any other improvements that would solve potential traffic problems. This task will include determining the required storage and deceleration length of intersection turn lanes.

This task will include determining the required storage length of intersection turn lanes and the required deceleration length based on Caltrans' Highway Design Manual Methodologies. Roadway configurations identified and approved for the Madera Town Center Project will be identified and incorporated into the development of appropriate mitigation measures.

For Caltrans intersections where mitigation is recommended, an Intersection Control Evaluation (ICE) analysis will be prepared. This will include a brief analysis to determine whether the most appropriate traffic control for the intersection is unsignalized, signalized, or a roundabout.

LOS Following Mitigation: Identify the resultant LOS for each intersection considering implementation of required mitigation measures to determine whether mitigation measure will be effective.

Implementation Program: Identify the cost associated with mitigation measures, appropriate methods to implement such measures, and implement phasing plan/schedule and development of a mitigation monitoring program. Development of this task would also include the identification of an alternative form of mitigation through development of a Trip End (TE) generated fee formula for the implementation of transportation control measures (TCMs) and other measures.

Preparation of Administrative Draft Traffic Study: Based on the analysis described above an Administrative Draft Traffic Study will be prepared and submitted to the Project team and City of Madera staff for review and comment.

Preparation of Draft Traffic Study: Revise the Administrative Draft Traffic analysis considering comments resulting from City and Project team, and prepare a Draft Traffic analysis. VRPA will provide the Draft to the Project team, City of Madera, and Caltrans staff for review and comment.

Preparation of Final Traffic Study: Revise the Draft Traffic analysis considering agency comments and prepare a Final Traffic analysis. The Final Traffic analysis will be provided to the Project team and City of Madera for incorporation into the Environmental Impact Report (EIR).

Qualitative Analysis of EIR Project Alternatives: VRPA will prepare a qualitative analysis of up to three (3) project alternatives.

Assistance with Response to Comments: Assist the Project team and the City of Madera in responding to comments received on the Draft EIR related to traffic/circulation, as necessary.

Task 6 – Graphics / GIS

Quad Knopf will prepare various maps and exhibits for the NOP, EIR, and technical studies. We will utilize GIS to create base maps from which to create the required maps. We will also obtain and adapt maps and plans obtained from the Project proponent and the City.

Task 7 – Administrative Draft EIR

Utilizing the approved Project description, technical studies, results of the Public Scoping process, and other sources, Quad Knopf will prepare the Administrative Draft EIR consistent with the requirements of CEQA, relevant case law, and specifications of the City of Madera. The Administrative and Draft EIRs will include the following information:

Project Objectives

A narrative will be provided describing the objectives of the proposed Project.

Executive Summary

Pursuant to Section 15123 of the *CEQA Guidelines*, Quad Knopf will prepare an Executive Summary of the Draft EIR including the following:

- Each significant effect with proposed mitigation measures and alternatives that would reduce or avoid that effect;
- Areas of controversy known to the Lead Agency, including issues raised by agencies and the public; and
- Issues to be resolved, including the choice among alternatives and whether or how to mitigate the significant effects.

Descriptions of Project alternatives and conclusions regarding the environmental superiority of alternatives will also be summarized.

Introduction

The Introduction chapter will provide the basic, non-technical explanation of the Draft EIR, as well as additional information relevant to the reading and understanding of the document.

Project Description

This chapter will be prepared using the Project description developed in Task 3. A list of the discretionary actions required by the City of Madera, other agency approvals required to proceed with implementation of the proposed Project, and a list of responsible and other agencies expected to use the EIR in their decision-making will also be included.

Environmental Setting, Impacts and Mitigation Measures

As required by §15125 of the *CEQA Guidelines*, the Environmental Setting portion of the EIR will contain a "description of the environment in the vicinity of the Project, as it exists before the commencement of the Project, from both the local and regional perspective." The setting discussions will also include a brief statement of the pertinent regulatory setting.

Impact evaluation criteria or thresholds for determining the significance of impacts will be described for each environmental impact topic. The significance of Project-related impacts will then be determined for each topical area. The analysis will focus on issues identified by responsible and trustee agencies, local agencies and other interested parties in response to the NOP. Impacts found to be less than significant will be described. Impacts that cannot be mitigated below the level of significance will be identified, and the extent to which those impacts could be mitigated through Project alternatives or changes will be demonstrated. Impacts will be quantified to the extent possible. Mitigation measures will be listed and numbered, and cross-referenced to applicable impacts.

Specific environmental topics to be addressed in the Environmental Setting, Impacts, and Mitigation Measures section of the EIR are listed and discussed further below. These topics are subject to modification following completion of the Public Scoping process.

- Aesthetics
- Agricultural and Forestry Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Geology, Soils and Seismicity
- Greenhouse Gases
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources *(potentially scoped out)*
- Noise
- Population and Housing *(potentially scoped out)*
- Public Services
- Recreation *(potentially scoped out)*
- Transportation, Traffic and Circulation
- Utilities and Service Systems

The environmental topics to be analyzed in the EIR are described below:

Aesthetics/Visual Resources

The potential aesthetics-related impacts of the proposed Project will be qualitatively evaluated using ground-level photographs taken at key vantage points by Quad Knopf staff and assessing any site plans, elevations, and renderings that may be provided by the Project proponent. If building elevations are not

available, we may take photos of a representative example of a travel center in operation elsewhere in order to assess potential visual impacts. Impacts will be assessed in terms of visibility of the proposed travel center, alteration of the visual setting by grading and structures, and sensitivity of viewpoints. We assume the travel center will be operated on a 24 hours a day/7 days a week basis. Accordingly, both the aesthetic and light and glare impacts will be assessed in terms of visibility of the Project and its components. Mitigation measures will be recommended, if necessary, to reduce any significant impacts. This analysis does not include the use of computer-based visual simulations beyond elevations and renderings provided by the Project proponent. If determined necessary, computer-based visual simulations can be prepared by Quad Knopf with an augmentation of the scope and budget.

Agricultural and Forestry Resources

The EIR will provide a discussion of important farmlands classifications (e.g., prime farmland, farmland of statewide importance, unique farmland) described in the NRCS website, the soil characteristics, the agricultural industry, the regional agricultural economy, Williamson Act contracts within the planning area, the agricultural character of the area, an impact analysis, and recommendations for mitigating potentially significant impacts. Forestry resources are not present in the Project vicinity.

Air Quality

The Air Quality technical report and HRA report prepared by OB-1 Air Analyses as part of Task 5 will be used to complete this section of the EIR.

Biological Resources

The project-level biological resources assessment prepared by Quad Knopf's biologists as part of Task 5 will be used to complete this section of the EIR.

Cultural Resources

The project-level cultural and paleontological resources assessment prepared by Ric Windmiller as part of Task 5 will be used to complete this section of the EIR.

Geology, Soils, and Seismicity

Quad Knopf will address impacts related to soils, geologic hazards, and seismic safety based on public literature. We will analyze effects associated with erosion, deposition, displacement, compaction or coverage of soils, alteration of topography, and geologic hazards. Potential impacts will be assessed and mitigation measures included if necessary.

Greenhouse Gases

The Greenhouse Gas technical report prepared OB-1 Air Analyses as part of Task 5 will be used to complete this section of the EIR.

Hazards and Hazardous Materials

This section will be completed based on a Phase I ESA prepared by Geocon as part of Task 5.

Hydrology and Water Quality

Quad Knopf will summarize existing hydrological conditions in the Project area watershed and groundwater basin using existing published documentation. Potential effects of Project development will

be described. The analysis will consider on-site runoff and the exposure of the Project site to potential flood hazards. The State Water Resources Control Board (SWRCB) and the RWQCB, Central Valley Region, have established water quality standards required by Section 303 of the Clean Water Act and the Porter-Cologne Water Quality Control Act. The hydrology and water quality analysis will address the Project's compliance with the State's construction stormwater regulations. Compliance with the requirements of the NPDES will also be addressed.

Land Use and Planning

While the Project site and lands to the north and west are zoned C-2 Heavy Commercial, land immediately to the east and south in unincorporated Madera County is zoned Rural Residential Single Family. As such, there is a potential for land use incompatibility issues to occur as a result of both Project design and operations. Many of these potential impacts, such as noise, lighting, traffic, air quality, will be addressed in other sections of the EIR. Quad Knopf will analyze the proposed Project's impacts in terms of compatibility with existing land uses and land use designations in the Madera Zoning Ordinance and General Plan.

Quad Knopf will determine whether the Project would physically divide an established community, result in conflicts with City policies adopted to reduce environmental effects, or would conflict with any adopted habitat conservation plans. Quad Knopf will also discuss potential policy conflicts between the proposed Project and proposed and existing developments.

Mineral Resources

The EIR will include an analysis of published documents, including the 2007 Gateway Galleria EIR, that address the potential for mineral resources, such as gravel, to be found at the Project site. This topic may be scoped out of the EIR (i.e., dismissed) during the Scoping Process.

Noise

The Noise technical report prepared by j.c. brennan & associates in Task 5 will be used to complete this section of the EIR.

Population and Housing

Quad Knopf will describe population and housing impacts of the proposed Project. The potential for the proposed Project to induce growth in the area will be assessed. This topic may be scoped out of the EIR (i.e., dismissed) during the Scoping Process.

Public Services

Quad Knopf will interview service providers and use the most recent data available to assess existing community services, including police and fire protection, and schools. The discussion regarding potential impacts to schools may be scoped out because the proposed project will not generate students that would attend area schools. We will provide a description of potential impacts to existing services resulting from the construction and operation of the proposed Project.

Recreation

This section of the EIR will address potential impacts to City recreation facilities as a result of the proposed Project. This will include an inventory of existing facilities and an analysis of the proposed projects impact on those facilities. This topic may be scoped out of the EIR (i.e., dismissed) during the Scoping Process.

Transportation, Traffic, and Circulation

The Traffic Impact Study prepared by VRPA Technologies as detailed in Task 5 will be used to complete this section of the EIR.

Utilities and Service Systems

This section of the EIR will address potential effects related to the availability and capacity of utilities and services, such as water, wastewater, electricity, natural gas, solid waste disposal, and telecommunications. This section will discuss whether any of these services or facilities is below adopted standards, or near or beyond its capacity to adequately serve the proposed Project. The analysis will be based on interviews with service providers and review of published reports. A water supply assessment, as described in Section 15155 of the *CEQA Guidelines*, is not warranted and is not proposed. However, in light of the prolonged drought conditions affecting the Central Valley, the analysis will provide a thorough description of Project water demand and available supply.

Cumulative Impacts

Quad Knopf will discuss the incremental contribution of the proposed Project to cumulative effects of other past, current, and planned or reasonably foreseeable projects in the vicinity. Quad Knopf will work with City planning staff to compile an updated list of cumulative projects.

Alternatives

An analysis of a reasonable range of alternatives to the proposed Project will be conducted according to Section 15126(f) of the *CEQA Guidelines*. A "No Project" alternative will be discussed per requirements of the *CEQA Guidelines*. Section 15126(f) limits the alternatives analysis to alternatives that will avoid or substantially lessen any of the significant effects of the proposed Project (i.e., preferred alternative). In addition to the No Project alternative, Quad Knopf proposes to evaluate three alternatives to the proposed Project. Currently, an off-site alternative is not anticipated in the primary analysis, but could be addressed in the discussion of "alternatives considered but rejected from further analysis".. These alternatives will be developed in close consultation with City staff and could include an alternative site that meets all or most of the Project objectives. Quad Knopf will develop reasonably detailed analyses of impacts associated with these alternatives, by topic, in comparison with the proposed Project.

As required by Section 15126(f), the Draft EIR will identify the environmentally superior alternative and, if that is the "No Project" alternative, the environmentally superior alternative among the remaining alternatives.

Other CEQA Sections

Quad Knopf will prepare the remaining CEQA-mandated sections (i.e., growth inducing impacts, energy, impacts that cannot be avoided, and mitigation monitoring program). With regard to the energy analysis required by Appendix F of the *CEQA Guidelines*, Quad Knopf will follow the guidance provided by the Third Appellate District Court in *California Clean Energy Committee vs. City of Woodland,* published April 1, 2014. The analysis will address electricity and natural gas use expected to occur during construction and operation of the Travel Center. The possible use of alternative energy (e.g., photovoltaic) will also be addressed. With regard to the analysis of vehicle fuel expected to be used during operation of the facility, it should be noted that the facility will attract vehicles currently traveling on SR 99, and is not expected to generate new trips, except for those involved in exiting and re-entering SR 99 after using the services at the Travel Center.

Quad Knopf will prepare and submit the Administrative Draft EIR to the City for review.

Deliverables:

- *Administrative Draft EIR to City (5 hard copies + digital files)*

Task 8 – Screencheck and Public Draft EIR

Upon receipt of comments from the City and Applicant, Quad Knopf will make necessary revisions and prepare the Screencheck and Public Draft EIR for submittal to the City. This scope of work assumes a maximum of one review cycle with compiled comments from City staff on the Administrative Draft EIR. Quad Knopf will prepare the Notice of Availability (NOA) and the State Clearinghouse (NOC) form. The City will be responsible for distribution of the NOA to any interested organizations or individuals, as well as an announcement of the public review period in a local newspaper, or mailings to property owners, or posting on and off site, as required under Section 15087 of CEQA. The period for public review must be at least 45 days. Quad Knopf will hand deliver the Draft EIR and NOC to the State Clearinghouse.

Deliverables:

- *Screencheck Draft EIR to City (5 hard copies)*
- *Draft EIR to City (20 hard copies + digital files)*
- *Draft EIR to State Clearinghouse (15 CDs)*
- *Notice of Completion to State Clearinghouse (1)*
- *Notice of Availability (1 digital file)*

Task 9 – Administrative and Final EIR

Pursuant to Section 15088 of the *CEQA Guidelines*, the Final EIR must respond in writing to each oral and written comment on the Draft EIR made by individuals, agencies, and organizations that review it. Additional research and analysis will be undertaken by Quad Knopf as necessary to effectively respond to comments. Comments regarding the sections or technical reports prepared by subconsultants will be routed to them for review and comment, with Quad Knopf responsible for final review for consistency and compilation of the final responses.

The document will incorporate written comments received and response to comments. Along with the comments and responses, a list will be compiled of all persons, organizations, and agencies commenting on the Draft EIR. The Final EIR will include revisions to the EIR text and summary table, as necessitated by comments. Comments, responses to comments, and the list of all persons, organizations, and agencies commenting on the Draft EIR will be included. Also included are errata and other information, which when combined with the Draft EIR, will constitute a Final EIR.

A cost estimate is provided herein which we believe will be adequate for the task. As a basis for cost estimating, Quad Knopf assumes that 100 individual responses (not letters) will be required for the EIR. In our experience, it takes an average of one hour to respond satisfactorily to each comment. We believe that this estimate will be adequate for the task. If the level of response exceeds the expectation described above, Quad Knopf will respond to those comments that are above and beyond the threshold for an additional fee on a time-and-materials basis, or another mutually agreeable formula.

The Final EIR will reflect direction received from City staff as contained in one set of unified comments.

Deliverables:

- *Administrative Final EIR (5 hard copies)*
- *Final EIR (30 hard copies + digital files)*

Task 10 – Mitigation Monitoring and Reporting Program (MMRP)

Quad Knopf will prepare the Mitigation Monitoring and Reporting Program (MMRP), formatted in accordance with City standards.

Deliverables:

- *Administrative MMRP (1 hard copy + digital file)*
- *Final MMRP (1 hard copy + digital file)*

Task 11 – Findings and Statement of Overriding Considerations

Using the analyses contained in the EIR, Quad Knopf will prepare draft Findings and Statement of Overriding Considerations (if warranted) for consideration and review by the City Attorney and the decision making body. The Findings will be formatted in accordance with City standards.

Deliverables:

- *Draft Findings and Statement of Overriding Considerations (1 hard copy + digital file)*
- *Final Findings and Statement of Overriding Considerations (1 hard copy + digital file)*

Task 12 – CEQA Notices

Quad Knopf will be responsible for preparing all required CEQA notices, including Notice of Completion, NOP, and Notice of Determination (NOD). Details of each notice are described in the relevant task sections. Quad Knopf will prepare and deliver the NOD to the County Clerk and State Clearinghouse within five (5) days of City Council approval of the Project. All filing fees that must accompany notices will be paid by the City.

Deliverables:

- *Notice of Determination (1 hard copy)*
- *See details of other CEQA notices (i.e., NOC and NOP) in relevant task descriptions.*

Task 13 – Meetings/Public Hearings/Project Management

Quad Knopf's Project Manager will attend public meetings, including the scoping meeting and two public hearings (one Planning Commission and one City Council) on the Draft EIR. Our Project Manager will respond to comments and questions, and make presentations, as requested by the City. Monthly status reporting via a combination of telephone conference calls and e-mails between the Quad Knopf's Project Manager and City staff are anticipated through the duration of the Project. This task also consists of those management activities that ensure Quad Knopf's ability to keep all work tasks running smoothly, on time, and within budget. As the liaison between the Quad Knopf team and the City's staff, our Project Manager will ensure information is distributed appropriately, comments regarding Project-related issues are communicated effectively and efficiently, and financial performance is tracked regularly. Additional meetings may be attended on a time-and-materials basis.

This task also includes Quad Knopf's critically important internal Quality Assurance/Quality Management process. This means that every product deliverable is subjected to a peer-level review before it is provided to the City.

Deliverables:

- *See details of meeting attendance in relevant task descriptions.*

Schedule

Task	Target Date/ Duration	Activity
Task 1 – PROJECT INITIATION		
	1/22/15	Contract executed/Notice to Proceed
	1/22/15	Project Proponent provides complete project description to QK **(All dates below are keyed to this date, except as noted.)**
Task 2 – FIELD RECONNAISSANCE AND REVIEW OF EXISTING INFORMATION		
	1/29/15 (7 days)	
Task 3 – PROJECT DESCRIPTION AND PROJECT OBJECTIVES		
	1/26/15 (4 days)	Complete and expanded project description completed
Task 4 – PUBLIC SCOPING / NOTICE OF PREPARATION		
	1/30/15 (8 days)	NOP Completed and Released
	Date TBD	Public scoping meeting at Madera City Hall
	3/2/15 (30 days)	30-day scoping period ends
Task 5 – EARLY CONSULTATION AND TECHNICAL STUDIES		
Subtask 5.1	3/9/15 (14 days)	Air Quality Report and HRA **(date follows receipt of traffic output data)**
Subtask 5.2	2/22/15 (30 days)	Biological Survey Report
Subtask 5.3	2/22/15 (30 days)	Cultural Resources Report
Subtask 5.4	3/5/15 (10 days)	Greenhouse Gas Report **(date follows receipt of traffic output data)**
Subtask 5.5	3/5/15 (10 days)	Health Risk Assessment **(date follows receipt of traffic output data)**
Subtask 5.6	3/5/15 (10 days)	Noise Study **(date follows receipt of traffic output data)**
Subtask 5.7	2/5/15 (14 days)	Phase I ESA
Subtask 5.8	2/23/15 (30 days) 3/5/15 (40 days)	Traffic Impact Study (output data, only) Traffic Impact Study (complete report)
Task 6 – GRAPHICS/GIS		
Task 7 – ADMINISTRATIVE DRAFT EIR		
	3/23/15 (8 weeks)	QK submits Admin Draft EIR to City for review
	3/30/15 (7 days)	City completes review of Admin Draft EIR
	4/6/15 (7 days)	QK makes revisions and submits Screencheck Draft
	4/13/15 (7 days)	City completes review of Screencheck Draft EIR
Task 8 – SCREENCHECK AND DRAFT EIR		
	4/14/15	QK submits Public Review Draft EIR to City and State Clearinghouse for start of 45-day public review
	5/28/15	End of 45-day public review period
Task 9 – ADMINISTRATIVE AND FINAL EIR		
	6/4/15 (7 days)	QK submits Admin Final EIR to City for review
	6/11/15 (7 days)	City completes review of Admin Final EIR
	6/18/15 (7 days)	QK makes revisions / Final EIR ready for Planning

Task	Target Date/ Duration	Activity
		Commission hearing
Task 10 – MITIGATION MONITORING AND REPORTING PROGRAM		
		MMRP provided in draft form to City
Task 11 – FINDINGS AND STATEMENT OF OVERRIDING CONSIDERATIONS		
		Findings and SOC provided in draft form to City
Task 12 – CEQA NOTICES		
		At various tasks.
Task 13 – MEETINGS / HEARINGS / PROJECT MANAGEMENT		
	Ongoing	Attendance at specified meetings and hearing; ongoing communications; ongoing project management
	7/2/15	Planning Commission hearing (10 days or later following distribution of Final EIR)
	7/8/15	City Council hearing

Schedule Assumptions:

1. The integrity of the timeline is maintained only if each event is accomplished without additional delays which could be caused by events such as the discovery of an issue or concern that warrants additional work, changes to the project, agency review time, etc.

2. A complete and stable project description is essential for this schedule to be maintained. Impact analyses will not begin until the City and Project proponent accept the project description.

3. The schedule for completion of the Final EIR will be determined in consultation with the City, depending on the volume of comments received.

4. Add dates are keyed to a Notice to Proceed date of January 22, 2015, except as noted otherwise.

5. All dates and durations are calendar days.

Cost Proposal

The fixed-fee cost estimate on the following page is preliminary and subject to change after review of additional project description information provided by the applicant and the City, completion of the Public Scoping process (Task 4), and further consultation with City of Madera staff.

Exhibit B

Quad Knopf

MEMO

Date: March 25, 2015 **Project No.:** 150045

To: David Merchen

From: Randy Chafin

Subject: Madera Travel Center EIR - Proposed Scope of Work and Budget Amendment

cc: Ginger White

The following describes proposed amendments to Quad Knopf's scope of work and budget to cover costs for additional cultural and biological services associated with a proposed 2,850-foot off-site water main extension to the north of the project site and a 1,700-foot wastewater main extension to the south. These off-site improvements were not included in the project description upon which our original scope of work and fee are based. If this is request is acceptable, we can provide a Contract Amendment for execution by the City.

BIOLOGICAL RESOURCES

Task 1 Supplemental Biological Reconnaissance Survey (Sewer Line and Water Line)

A Quad Knopf biologist will conduct a reconnaissance-level survey to evaluate areas where an off-site sewer line is to be installed. The site survey will focus on identifying areas that support, or potentially support, sensitive biological species or habitats. The distribution of vegetative communities will be identified, and the locations of unique or important biological resources will be mapped. Special-status species and/or their signs will be documented. An inventory of the plant and wildlife species observed during the survey will be generated.

Task 2 Preliminary Assessment for Fresno Kangaroo Rat

A qualified Quad Knopf biologist will conduct a preliminary assessment of the Project site and off-site sewer and water line corridors to provide information on the location and distribution of potential burrows of the Fresno kangaroo rat (*Dipodomys nitratoides exilis*) and other potential sign. This information would be needed prior to trap placement and the development of a trapping strategy. During this initial assessment, locations where traps would be placed will be recorded with a Global Positioning System (GPS) unit, and the number of traps needed at each location will be determined. Potential locations of trap placement include all burrows potentially occupied by the Fresno kangaroo rat and locations of other kangaroo rat sign including dust baths, runways, and pit caches.

Task 3 Small Mammal Trapping for Fresno Kangaroo Rat

A qualified and permitted Quad Knopf biologist, authorized by the United States Fish and Wildlife Service (USFWS) and the California Department of Fish and Wildlife (CDFW) to live-trap the Fresno kangaroo rat, will establish a trapping configuration according to the results of the pre-trapping

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preliminary assessment (Task 1). This trapping configuration will be modified as needed in consultation with the USFWS and CDFW.

Trapping will be conducted in accordance with the *Survey Protocol for Determining Presence of San Joaquin Kangaroo Rats* (USFWS, 2013). A team of two qualified biologists will conduct trapping on the site for a minimum of five consecutive nights, using a total maximum of 100 XLT (3.5 by 13 inch) Sherman live traps. Traps will be placed at burrow openings, along runways, at dust baths, and at other locations with diagnostic kangaroo rat sign. Each trap will be baited with a mixture of rolled oats, millet, and peanut butter. Traps will be set approximately one hour before sunset and checked one hour before sunrise the following morning. Traps may be checked and closed at earlier times, depending upon weather conditions and other factors (e.g., temperature, fog, precipitation) experienced at the time of trapping.

Task 4 Report Preparation for Small Mammal Trapping

Quad Knopf will compile a report at the end of the trapping effort that adheres to standard agency reporting requirements. A draft report will be prepared within 30 days of the final trapping night, and provided to the City for comment. All comments will be addressed and incorporated into the final report as warranted. The final report will be prepared and submitted to the City and the appropriate agencies within 90 days of the final night of trapping.

Schedule

The performance schedule provided below is based upon the assumption that a Notice to Proceed will be issued to Quad Knopf by March 11, 2015. We understand that Task 1 should be completed as soon as soon as possible to accommodate the aggressive CEQA documentation timeline. The small mammal trapping should not proceed prior to April 1, 2015, in accordance with protocol.

Task	Description	Estimated Start Date	Estimated Completion Date
	Notice to Proceed	3/11/2015	
1	Supplemental Biological Reconnaissance Surveys (Sewer Line and Water Line)	3/12/2015	3/13/2015
2	Preliminary Assessment for Fresno Kangaroo Rat	3/17/2015	3/19/2015
3	Small Mammal Trapping for Fresno Kangaroo Rat	4/6/2015	4/11/2015
4	Report Preparation for Small Mammal Trapping	4/13/2015	4/24/2015

Fee

Quad Knopf proposes to complete the tasks described in the scope of work above for a fee of **$18,310**. Our proposed cost is based on our knowledge of the project area and our expertise with conducting similar trapping studies for the Fresno kangaroo rat. Quad Knopf's services will be billed on a Time and Materials (T&M) basis. The table below provides a breakdown of costs by task.

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Task	Description	Fee
1	Supplemental Biological Reconnaissance Survey (Sewer Line and Water Line)	$1,600
2	Preliminary Assessment for Fresno Kangaroo Rat	$1,210
3	Small Mammal Trapping for Fresno Kangaroo Rat	$12,500
4	Report Preparation for Small Mammal Trapping	$3,000
	Total	**$18,310**

Should circumstances arise that are outside this scope of work (e.g., additional surveys, reports, employee training, project monitoring and/or assistance), a revised fee would be prepared for your approval.

CULTURAL RESOURCES

Our original scope of work and cost estimate for the updated cultural resources inventory encompassed only the project site (approximately 50 acres). However, the scope of work has been expanded to include an off-site water line to the north of the project site and wastewater/sewer line south of the project site.

It is the sub-consultant's understanding that most of the off-site water line route lies within the Madera Town Center project site north of Avenue 17. We conducted a cultural resources study of the Madera Town Center project area previously. However, our study did not include the Avenue 17 right-of-way where the water line would cross between the Town Center and Travel Center properties. Also, the planned off-site wastewater/sewer line south of the Travel Center property was not included in our scope of work or cost estimate for the Travel Center.

Therefore, to complete the field inspection for the project, we will need to conduct an on-the-ground inspection of the Avenue 17 right-of-way where the water line will cross as well as the off-site wastewater/sewer line south of the Travel Center property. The cost estimate to complete this work is outlined below.

Description	No. of Units	Cost per Unit	Cost
Archaeological field inspection (includes travel time) Registered Professional Archaeologist Mileage	 8.0 hrs 372 mi	 $125/hr $0.70/mi	 1,000.00 260.40
Subtotal			1,260.40
Administrative Cost (15 percent of subtotal)			189.06
Total (inc. 15% Quad Knopf administrative mark up)			**$1,667**

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GRAND TOTAL

The grand total for the above described additional work is **$19,977**.

RC

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EXHIBIT C

Quad Knopf

MEMO

Date: June 22, 2015 **Project No.:** 150045

To: Dave Merchen, Community Development Director

From: Randy Chafin, AICP

Subject: Madera Travel Center EIR - Proposed Scope of Work and Budget Amendment #2

cc: Ginger White

The following describes a recommended approach to the additional Project and Alternatives analyses requested for the EIR, as discussed at the meeting on June 4th.

REVISED PROJECT ANALYSES

The Administrative Draft EIR project description indicated that the freestanding restaurant would be 13,410 square feet in size. This is the size provided by the project architect. Various analyses in the EIR were based on that square footage. The applicant has now indicated that, as a result of market considerations, the size of one or more of the proposed restaurant facilities will be reduced in square footage and/or seating capacity. Restaurant size has a direct affect on the generation of vehicle trips, which therefore affects the generation of noise, air emissions, and greenhouse gas emissions. In addition, building size may also affect assumptions regarding water and energy consumption. Accordingly, the change in building square footage will require a re-assessment of impacts in the following topic areas: noise, air quality, greenhouse gases, water, and energy. Other sections of the EIR will also need to be updated. The revised traffic analysis is described separately below.

*Brennan (Noise) – $1,334**
*Vista (HRA) - $1,035**
*OB-1 (AQ/GHG) - $5,382**
Quad Knopf (project description and various topic sections) – $2,400
**Includes 15% administrative fee.*

REVISED TRAFFIC ANALYSES

VRPA Technologies, Inc. (VRPA) will revise the previously prepared administrative draft traffic impact analysis in accordance with changes to the Project description and site plan, as requested at the June 4th meeting. The revision of the traffic analysis will be divided into the following tasks:

Task 1 Trip Generation Review - VRPA will recalculate trips associated with a reduced-size restaurant in accordance with information provided by Project representatives. VRPA will also evaluate the use of the highest observed rates from the Love's Travel Center in the city of Ripon. Use of the highest observed rates ensures that Project trips associated

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with the Madera Travel Center will not be underestimated. The technical assumptions (PCE, internal capture, etc) will be reassessed and adjusted as necessary. VRPA will provide the revised trip generation to the City of Madera staff and Project representatives for approval.

Task 2 Project Trip Distribution - VRPA will utilize the trip distribution that was used in the Administrative Draft EIR, and which was approved by the City of Madera and Caltrans. VRPA will distribute Project trips, determined in Task 1, to the surrounding study area for purposes of developing the Existing Plus Project, Near-Term (Year 2016) Plus Project, and Cumulative Year 2036 Plus Project study scenarios.

Task 3 LOS Evaluation - Synchro 8 will be used to re-evaluate the LOS of the study intersections, which will then be compared to City of Madera and Caltrans LOS criteria.

Task 4 Mitigation Measures - Where LOS estimates exceed minimum LOS standards, VRPA will develop appropriate mitigation measures considering results of Task 3. Such measures may include, but are not limited to roadway/highway widening, traffic controls, turn pockets, alignment improvements, and any other improvements that would solve potential traffic problems. This task will include determining the required storage length of intersection turn lanes based on City of Madera and Caltrans' Highway Design Manual methodologies. Roadway configurations identified and approved for the Madera Town Center project will be identified and incorporated into the development of appropriate mitigation measures.

Task 5 Preparation of Draft Traffic Study - VRPA will revise the Administrative Draft Traffic analysis considering comments received on the administrative draft traffic analysis and the tasks identified above and prepare a Draft Traffic analysis. VRPA will provide the Draft to the Project Team and City of Madera for review and comment.

VRPA - $19,415 (includes administrative fee)

EXPANDED ALTERNATIVES ANALYSES

At the June 4th meeting, it was requested that the Alternatives analysis be revised to include the following:

- Quantification in order to better determine the impact each selected alternative would have on resources, as compared to impacts of the proposed project,
- Indication of whether potential impacts of an alternative would be less than significant or significant,
- Analysis and comparison of impact statement subcategories under each of the main resource topics to the proposed Project, and
- Modification of the tabular summary to include the results of this additional analysis.

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Since the above-listed additions constitute a level of analysis that is more involved than is required by CEQA, is non-standard, and is not included in Quad Knopf's scope of work, a scope amendment and budget augmentation are warranted.

The scope of work amendment would be sufficient to provide a level of quantification suitable for the EIR and would be responsive to the above-listed requests for additional analysis. As is contained in the Administrative Draft EIR, the following alternatives would continue to be analyzed, but with added quantification: No Project, Reduced Traffic Alternative (this was originally called "Reduced Intensity Alternative"), and Reduced Water Demand Alternative.

Quad Knopf - $2,500

Reduced Traffic Alternative – Quad Knopf's traffic consultant, VRPA, would identify the building square footage reduction required to achieve an acceptable LOS at the Avenue 17/SR 99 northbound ramps by reducing the building size in 1,000-square foot increments. The reduced trip generation data would be used to calculate the associated reduction in air emissions, greenhouse gases, and noise. All other impact topics would continue to be characterized in a qualitative manner.

Note: The Reduced Traffic Alternative description would be revised to address only traffic; all references to reduced water demand would be eliminated.

VRPA (Traffic) - $2,300
Brennan (Noise) - $750
Visata (HRA) - $650
OB-1 (AQ/GHG) - $1,150
**Includes 15% administrative fee.*

Reduced Water Demand Alternative – Unlike traffic there are no adopted thresholds, or targets, for reduced water consumption, other than those contained in the City's MWELO and the mandates contained in the Governor's April 2015 Executive Orders for severe drought conditions. This alternative is intended to achieve an even greater water savings than can be accomplished through those measures. The quantified analysis of this alternative would identify a variety of measures that, separately or in combinations, are sufficient to achieve a 10% reduction in water demand below what can be achieved through existing regulations. Wherever a correlation can be made, the 10% reduction in water usage would be used as a metric to qualitatively estimate impact reductions in other resource topic areas.

Quad Knopf - $1,250

GRAND TOTAL

The grand total for the above described additional work is **$38,166**.

RC

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Return to Agenda

REPORT TO THE CITY COUNCIL

COUNCIL MEETING OF:
September 2, 2015

AGENDA ITEM NUMBER:
B-10

Approved By:

COMMUNITY DEVELOPMENT DIRECTOR

CITY ADMINISTRATOR

SUBJECT: **CONSIDERATION OF A RESOLUTION APPROVING AMENDMENT NO. 2 TO AGREEMENT WITH QUAD KNOPF, INC. FOR ENVIRONMENTAL PLANNING SERVICES TO THE CITY OF MADERA IN PREPARATION OF AN ENVIRONMENTAL IMPACT REPORT FOR THE LOVE'S TRAVEL CENTER**

RECOMMENDATION:

It is recommended that the Council adopt the resolution approving Amendment No. 2 to Agreement with Quad Knopf, Inc.

DISCUSSION:

An Agreement with Quad Knopf was approved by City Council on January 21, 2015 for environmental planning services related to the preparation of an environmental impact report for the Love's Travel Center. Amendment #1 to the agreement was approved on May 6, 2015. The project is located at the southeast corner of Avenue 17 and Freeway 99. The original agreement was for $229,091. The first amendment to agreement increased the total consultant fees to $249,068. As a result of changes to the scope of work agreed to by the applicant, a second amendment to the agreement is proposed, bringing the total consultant compensation to $287,234.

The work required in conjunction with the second amendment is related to changes and clarifications in the project description, additional work required to analyze traffic impacts, and an expanded environmental alternatives analysis.

FISCAL IMPACT:
There is no fiscal impact to the City's General Fund. The cost of the preparation of the EIR document is fully funded by the project applicant.

CONSISTENCY WITH THE VISION MADERA 2025 PLAN
The recommended agreement is a required part of the review and approval process for a proposed commercial development project. As such, the approval of the agreement is consistent with the City's vision statement for "good jobs and economic opportunity".

RESOLUTION NO. 15-___

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MADERA, CALIFORNIA, APPROVING AMENDMENT NO. 2 TO AGREEMENT WITH QUAD KNOPF INC. FOR ENVIRONMENTAL PLANNING SERVICES TO THE CITY OF MADERA FOR THE LOVE'S TRAVEL CENTER AND AUTHORIZING THE MAYOR TO EXECUTE THE AMENDMENT TO AGREEMENT

WHEREAS, CITY has required the preparation of an environmental impact report for the proposed Love's Travel Center Project, hereinafter called "Project"; and

WHEREAS, CITY and CONSULTANT entered into an Agreement for professional environmental planning services dated January 21, 2015 to prepare an environmental impact report for the Project; and

WHEREAS, City entered in an Amendment No. 1 to Agreement with CONSULTANT to add services related to the preparation of the environmental impact report May 6, 2015.

WHEREAS, an Amendment No. 2 to Agreement is necessary for additional environmental planning services for successful completion of the environmental impact report for the Project; and

WHEREAS, Amendment No. 2 to Agreement with Consultant for additional environmental planning services is recommended for approval and is on file with the City Clerk.

NOW THEREFORE, THE COUNCIL OF THE CITY OF MADERA, HEREBY, finds, orders and resolves as follows:

1. The above recitals are true and correct.
2. Amendment No. 2 to Agreement with Quad Knopf, Inc. for professional environmental planning services related to the Project in the amount of $287,234, a copy of which is on file in the Office of the City Clerk and referred to for particulars, is approved.
3. The Mayor is authorized to execute Amendment to Agreement.
4. This resolution is effective immediately upon adoption.

* * * * * * * *

AMENDMENT NO. 2 TO AGREEMENT WITH QUAD KNOPF, INC. FOR ENVIRONMENTAL PLANNING SERVICES TO THE CITY OF MADERA IN PREPARATION OF AN ENVIRONMENTAL IMPACT REPORT FOR THE LOVE'S TRAVEL CENTER

This Amendment No. 2 to Agreement made and entered into this _____ day of _____, 2015 between the City of Madera, a municipal corporation of the State of California, hereinafter called "CITY" and Quad Knopf, Inc., hereinafter called "CONSULTANT".

RECITALS

WHEREAS, CITY has required the preparation of an environmental impact report for the proposed Love's Travel Center Project, hereinafter called "Project"; and

WHEREAS, CITY and CONSULTANT entered into an Agreement for professional environmental planning services dated January 21, 2015; and

WHEREAS, CITY and CONSULTANT entered into Amendment No.1 To Agreement for professional environmental planning services dated May 6, 2015; and

WHEREAS, a Second Amendment to Agreement is necessary for additional environmental planning services for the successful completion of the environmental impact report for the Project.

AGREEMENT

NOW THEREFORE the parties hereto mutually agree as follows:

In consideration of the recitals listed above and the mutual obligations of the parties herein, CITY and CONSULTANT agree that the Agreement For Environmental Planning Services to the City of Madera In Preparation of an Environmental Impact Report for Love's Travel Center, dated January 21, 2015 between "CITY" and "CONSULTANT" shall be amended as follows:

ITEM NO. 1 – SECTION 3.1 Fees - of the agreement shall be amended to read as follows:

3.1 Fees - For all the work and services, including supplies and equipment, pertaining to the Project and required to be furnished by the Consultant to the City, City agrees to pay to Consultant in accordance with the Line Item Budget as set forth in "Exhibit A", plus the additional amounts due for extra work as set forth in "Exhibit B" and "Exhibit C" in a total amount not to exceed TWO HUNDRED EIGHTY SEVEN THOUSAND TWO HUNDRED THIRTY FOUR DOLLARS ($287,234).

ITEM NO. 2. All other terms and conditions of the original Agreement For Environmental Planning Services to the City of Madera In Preparation of an Environmental Impact Report for the Love's Travel Center executed by CITY and CONSULTANT on January 21, 2015, except as modified herein, shall be in full force and effect as written and agreed to.

In witness hereof, CITY and CONSULTANT have executed this Amendment No. 2 to Agreement as of the day, month and year first written above.

CITY OF MADERA

By: _____
Robert L. Poythress, Mayor

QUAD KNOPF, INC.

By: _____

Title: CFO

APPROVED AS TO FORM

By: _____
Brent Richardson, City Attorney

ATTEST:

By: _____
Sonia Alvarez, City Clerk

PROPOSAL

This proposal describes Quad Knopf's understanding of the proposed Project and approach to preparing a thorough and legally defensible EIR, including tasks, schedule, and budget. If accepted, this proposal would become an attachment to Quad Knopf's agreement for professional services with the City of Madera.

Also, as an Appendix to this proposal, we've included a statement of qualifications, including an overview description of the Quad Knopf team, teaming partners, and key personnel.

Project Understanding

The following is a preliminary description of the proposed Project. Additional details, including a site plan and formal City of Madera applications, are expected to be provided by the Project proponent before work on the EIR begins. The proposed Project is a travel center that is primarily intended to serve a wide range of travel needs of motorists travelling on State Route (SR) 99. It is assumed that a large percentage of the daily traffic will be semi-trucks (i.e., tractor trailers). It is also assumed that the travel center will operate 24 hours per day, seven days per week, and 365 days per year.

The undeveloped, proposed Project site consists of 49 acres (Assessor's Parcel 038-040-002) within the city limits of Madera. The site abuts SR 99 on the west and Avenue 17 on the north. Land north of Avenue 17 is undeveloped and designated for heavy commercial use. Land immediately to the east is developed with rural residential dwellings. Land to the south is undeveloped and designated for industrial use.

Project Components – Provided by Project Proponent

- Travel Center: Approximately 10,200 square feet in size, which consists of convenience store, restrooms, truck wash, and attached restaurant, on approximately 10 acres.
- Restaurant: Proposed tenant will be a Carl's Jr., with seating for approximately 50 people.
- Tire Care: Approximately 12,000 square feet with two bay doors and inside tire storage.
- Hotel: Proposed Sleep Inn with 80 rooms, on one acre.
- RV/Boat/Self storage: Approximately 50,000 square feet under roof, on five to seven acres.
- Estimated vehicles per day: 2,000 cars and 600 semi-trucks.

City Entitlements – Generated by City Based on Project Components

- Site Plan Review – Overall site.
- Truck Stop – Conditional Use Permit (This will include tire shop, truck wash, and related facilities).
- Hotel – Conditional Use Permit.

- Mini-Storage – Conditional Use Permit.
- Drive-through Restaurant – Conditional Use Permit (probable, not confirmed).
- Outdoor Seating – Conditional Use Permit (potentially, not confirmed).
- Alcohol Sales in Restaurant/Convenience Store – Conditional Use Permit (probable, not confirmed).
- Possible – Variance and Conditional Use Permit for sign that exceeds height and size limits.
- Probable – Development Agreement for overall development.

In conjunction with the formal submittal of applications, the City will confirm a precise set of entitlements that will be required to support Project components.

Project Approach

In 2007, Quad Knopf prepared an EIR for a project on this site, referred to as Gateway Galleria (SCH #2006061106). The Draft EIR is dated April 2007 and the Certified Final EIR is dated June 2007. The project description included prezoning in support of annexation to the City of Madera and a two-phase, retail and commercial development totaling 452,499 square feet. Due to the age of the previous EIR and the change in the project description, the proposed EIR will not be tiered from that document, and the impact analyses of the proposed Project will be entirely new.

While the proposed Project has changed, Quad Knopf proposes to use as much of the data and information from the previous 2007 EIR as possible, with the full understanding that certain background information and analyses will need to be revisited due to age, changes in the physical environment, changes in regulations, changes in the proposed land uses, or changes in the *CEQA Statutes* and/or *Guidelines*. By using as much of the existing information as possible, we can provide an efficient and cost effective method of achieving CEQA compliance.

We anticipate that a full-scope EIR will be warranted; however, certain environmental topics may be scoped out (i.e., dismissed from analysis) as a result of public scoping process described in Task 4.

The expedited schedule for completion of the EIR process contained in this proposal will require close coordination and commitment to schedule by Quad Knopf, the City of Madera staff and decision makers, and the Project proponent.

The following is a listing of the environmental topics that will be addressed in the EIR. As noted in the Scope of Work, some topics may not need to be discussed in detail in the EIR and may be dismissed from detailed analysis. The Scope of Work (Tasks 5 and 7) also describes how environmental studies conducted for the 2007 EIR will be used, where updates to previous studies can be used, and where entirely new studies are warranted due to one or more changed circumstances.

- Aesthetics
- Agricultural and Forestry Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Geology, Soils and Seismicity
- Greenhouse Gases

- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources *(potentially scoped out)*
- Noise
- Population and Housing *(potentially scoped out)*
- Public Services
- Recreation *(potentially scoped out)*
- Transportation, Traffic and Circulation
- Utilities and Service Systems

Scope of Work

Based on our knowledge of the City's requirements and the preliminary Project description provided to us, we have developed the following scope of work for completion of the EIR process. The tasks include completion of a public scoping process (Notice of Preparation and Scoping Meeting), Administrative and Draft Environmental Impact Reports, Administrative and Final Environmental Impact Reports, Mitigation Monitoring and Reporting Program, and Findings and Statement of Overriding Considerations.

Task 1 – Project Initiation

Quad Knopf will meet with City staff and the Project proponent to review the scope of work, details of the proposed Project, and the proposed schedule. Alternatives to the proposed Project, including alternative sites previously identified and rejected, may also be discussed. Lines of communication and communication protocols will be established and a detailed schedule developed.

Deliverables:

- *Project initiation meeting (1)*
- *Agenda (1)*
- *Action agenda from meeting (1)*

Task 2 – Field Reconnaissance and Review of Existing Information

Under this task, the Quad Knopf team will visit the site in order to observe existing site conditions (i.e., the baseline condition) and take photographs in order to gain a thorough understanding of the Project site, surrounding areas, and sensitive nearby land uses. Also, as part of this task, the Quad Knopf team will collect and review all available background materials, in order to become fully familiar with the Project and key issues.

Task 3 – Project Description and Project Objectives

Based on the results of the project initiation meeting and the Project description materials provided by the Project proponent, as well as the Quad Knopf team's review of other relevant information, we will prepare a draft Project description for the City staff and Project proponent review and approval. As specified in the State *CEQA Guidelines*, Section 15124, the EIR will include a detailed Project description using text and graphics inclusive of the City's regional and local setting and the Project's history, past ownerships and land uses. The Project description will also include the Project's objectives (from the perspectives of both the City and the Project proponent), characteristics, phasing, and important features. A single set of carefully crafted Project objectives reflecting both the City and Project proponent's interests will be instrumental in assessing alternatives to the proposed Project, as described at the end of Task 7.

Due to the importance of a complete, accurate, and stable project description, we will request that the City and Project proponent review and approve the Project description before impact analyses commences.

Task 4 – Public Scoping Process / Notice of Preparation

Quad Knopf will conduct the public scoping process and will prepare a Notice of Preparation (NOP), incorporating the finalized Project description and supporting graphics. The NOP will be noticed, published, and circulated to applicable local and State agencies pursuant to the *CEQA Guidelines*. Quad Knopf's Project manager will coordinate with City staff in conducting a Scoping Meeting, which will be held to solicit input as to the scope and content of the EIR. (Details are provided below.)

As permitted by the *CEQA Guidelines*, an Initial Study will not be prepared prior to preparation of the Draft EIR.

Subtask 4.1 Prepare Notice of Preparation

Quad Knopf will prepare a Notice of Preparation (NOP) consistent with the City's approved format. The NOP will contain all statutory requirements, including the Project description developed in Task 3 above.

Deliverables:

- *Notice of Preparation (10 hard copies + digital files + 15 hard copies hand delivered to State Clearinghouse)*

Subtask 4.2 Scoping Meeting

Quad Knopf will participate in a scoping meeting to be conducted during the 30-day NOP public review period. Quad Knopf will prepare appropriate graphics/visual displays (in PowerPoint format) and/or handouts, as directed by City staff. City staff will be responsible for coordinating the meeting setup and location. Quad Knopf's Project Manager will coordinate with City staff relative to details of running the meeting (presentation of the Project, preparing handouts, answering questions, etc.).

Deliverables:

- *PowerPoint slide presentation*
- *Board-mounted graphics*

Task 5 – Early Consultation and Technical Studies

Quad Knopf anticipates that the proposed Project will require the following technical studies, as further described below. Since most of these topics were addressed in studies prepared for the 2007 Gateway Galleria EIR, in many instances the work effort will be focused on simply updating the previously prepared reports to reflect changed conditions on the ground, changes in applicable regulations, and changes in the proposed Project description.

- Air Quality and Greenhouse Gas Report (OB-1 Air Analysis)
- Biological Survey Report (Quad Knopf)
- Cultural Resources Report (Ric Windmiller, Archaeologist)
- Health Risk Assessment (Vista Environmental)
- Noise Study (j.c. brennan & associates)
- Phase I Environmental Site Assessment (Geocon)
- Traffic Impact Study and Caltrans Consultation (VRPA Technologies)

The technical reports will be used to prepare the associated topic sections of the EIR further described in Task 7.

Subtask 5.1 Air Quality and Greenhouse Gas Report

Under contract to Quad Knopf, OB-1 Air Analyses (OB-1) will prepare an Air Quality and Greenhouse Gas (GHG) Study for the proposed Project including evaluation of construction emissions, off-site vehicle emissions, on-site mobile and stationary equipment emissions, and GHG emissions. The Study, which will support separate Air Quality and GHG sections of the EIR, will also analyze the off-site CO hotspots and odors and include, as needed, a preparation of viable air quality mitigation measures. The Study will comply with the latest Guide for Assessing and Mitigating Air Quality Impacts (GAMAQI). In addition OB-1 will provide environmental compliance services and coordination with the San Joaquin Valley Air Pollution

Control District (SJVAPCD) to comply with SJVAPCD Rule 9510 (ISR). Compliance with Rule 9510 will require the completion of an Air Impact Assessment (AIA) Application.

Air Quality and GHG Study

Collect Air Quality Setting Information: OB-1 will review the federal, State, and local rules and regulations regarding criteria pollutants and GHGs; local ambient air quality conditions; meteorological and topological influences of local climate; and existing nearby emission sources. OB-1 will analyze the Madera General Plan and other regional planning documents, rules, and legislation for goals and policies that may relate to the proposed Project. OB-1 will also briefly describe the global warming concept and the science that supports it. OB-1 will work closely with the traffic engineer, VRPA to ensure that the trip generation rate used in the analysis accurately accounts for efficiencies afforded the Project through design. The Study will also include descriptions of applicable federal and State climate change legislation.

Determine Emission Estimates: Construction and operational emissions will be estimated using emission factors and methodologies developed by the California Air Resources Board (CARB), SJVAPCD, the U.S. Environmental Protection Agency (EPA), and other agencies. The air quality analysis will assess construction and operational emission factors using the air quality model (CalEEMod™), which has been adopted by the SJVAPCD. Operational analyses will quantitatively or qualitatively account for Project design features that positively affect air quality.

GHGs primarily quantified will be carbon dioxide, methane, and nitrous oxides — other Kyoto Protocol GHGs will be primarily addressed qualitatively — and will be normalized to a consistent metric using appropriate global warming potential to produce all emissions in carbon dioxide equivalents. Primary sources that will be quantified will be vehicular; energy consumption (both direct and indirect) and energy used for water delivery. Estimated GHG reductions from the replacement of grid energy by solar power from the proposed Project will be evaluated. GHG gas pollutants will include all appropriate Kyoto Protocol gases: carbon dioxide, methane, nitrous oxide, chlorofluorocarbons, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. The regional impact assessment will calculate emissions associated with construction and long term operational activities for the proposed Project.

Cumulative Air Quality Impact Analysis: With respect to cumulative air quality impacts, the GAMAQI provides that any proposed Project that would individually have a significant air quality impact (i.e., exceed significance thresholds for pollutants such as ROG, NO_X, PM_{10}, or $PM_{2.5}$) would also be considered to have a significant cumulative impact. Although the GAMAQI does not provide guidance for evaluating cumulative air quality impacts in instances where Project-specific emissions of criteria pollutants do not exceed the air district's significance thresholds, it does state: "[a]ll but the largest individual sources emit ROG and NOx in amounts too small to have a measurable effect on ambient ozone concentrations by themselves."

Based on the above, for purposes of this Study, the proposed Project is considered to result in a cumulatively considerable air quality impact if the Project emissions exceed the SJVAPCD significance thresholds or the Project is not consistent with the regional clean air plan.

Determine Other Impacts: OB-1 will perform an odor analysis to determine if any sensitive receptors would potentially be affected my significant odor emissions. OB-1 will also provide a qualitative discussion of air toxics, including diesel particulate matter.

OB-1 will utilize Caltrans' CO Protocol and data supplied by the Traffic Study to determine the potential for exceedance of the CO ambient air quality standards. If preliminary screening indicates that potential exists for a CO hot spot, a minimum of three intersections will be evaluated. The intersections with the highest potential for congestion would be modeled using the California Department of Transportation CALINE4 model and EMFAC2011 emission factors.

Significance Determination: Construction and operational emission estimates will be compared with the SJVAPCD significance thresholds. If the proposed Project is determined to exceed the thresholds, the Study will propose mitigation measures for air quality impacts. Mitigation measures would be evaluated on the basis of emissions reductions and cost. Where quantification methodologies are available, mitigation measures will be quantified. The Study will then assess the impact significance after the application of mitigation.

For GHGs, OB-1 will assess the proposed Project's implementation of SJVAPCD best performance measures current California GHG emission reduction strategies, including applicable solutions contained in the latest State-issued documents. If necessary, design features and mitigation measures will be identified that would reduce GHG emissions.

Indirect Source Review Compliance

Identification of Mitigation Measures: OB-1 will consult with the Project proponent on measures and features being proposed for the Project and research the Project's design features and environmental setting to document measures that will reduce the Project's emissions.

Air Quality Analysis, Off-site Fee Estimate, and Fee Deferral Application: OB-1 will model construction, area, and operational emissions for the proposed Project using the current approved CalEEMod™. The results from the modeling will be used to generate off-site fee estimates using the SJVAPCD Fee Estimator Calculator. A Fee Deferral Application will be prepared, so that the Project proponent is not unnecessarily burdened by the entire mitigation costs up front. Payments for the construction and operational phases must be made prior to generating emissions for each phase. The Project proponent will provide a tentative construction/operation schedule and a schedule of fee payments (if applicable) for this task to be completed successfully.

Report Preparation: OB-1 will complete the SJVAPCD Air Impact Assessment Application Form and Supplemental Forms for mitigation credit being claimed. Appropriate documentation of the application contents, including relevant maps, City and County Bicycle Plans, City and County General Plan exhibits, emission modeling, and fee estimates will be supplied as needed for the AIA application.

Subtask 5.2 Biological Survey Report

Quad Knopf's biological resource specialists will prepare a biological report, as described below.

Database and Literature Search: The California Natural Diversity Database, California Native Plant Society Database, United States Fish and Wildlife Service lists, and California Department of Fish and Wildlife lists, and National Wetlands Inventory will be searched to identify special-status species, sensitive natural communities, and wetlands that are of local, regional, and national concern and which may impose constraints on the development potential of the Project site. Spatial data and maps of critical habitat for federally-listed species that may occur in the region will be obtained and reviewed. Relevant published and non-published literature, including Recovery Plans, Habitat Conservation Plans, General Plans, Specific Plans, and technical reports and studies will also be reviewed. The cumulative data set compiled from these sources will provide the basis of this investigation.

Reconnaissance-Level Site Survey: A reconnaissance-level site survey of the Project site will be conducted. Efforts will be focused on identifying areas that support, or potentially support, sensitive biological species or habitats. The distribution of vegetative communities will be identified, and the locations of unique or important biological resources will be mapped. Special-status species and/or their signs will be documented. An inventory of the plant and wildlife species observed during the survey will also be generated.

Data Analysis and Reporting: All information obtained during the database search and site survey will be analyzed to identify the presence and extent of important biological resources occurring, or potentially occurring, on the Project site; development constraints that may be imposed by biological resources; regulatory requirements that must be considered prior to proceeding with development; and additional studies that would be needed to meet regulatory requirements. These issues will be evaluated in the context of the California Environmental Quality Act (CEQA), and will be presented in a Biological Analysis Report that will include the methods used, results of database searches and field investigations, location maps, recommendations, and conclusions. This task includes peer review and QA/QC by a senior biologist.

Subtask 5.3 Cultural Resources Report

Quad Knopf's subconsultant, Ric Windmiller, Consulting Archaeologist, will prepare a cultural report for the Project, as described below.

Mr. Windmiller conducted an archaeological resources inventory of the subject property in 2005. The study included a records search by the Southern San Joaquin Valley Information Center, a sacred lands file search by the Native American Heritage Commission, contacts with the sole Native American listed by the commission, contact with the Madera County Historical Society, a field inspection and a technical report following California Office of Historic Preservation guidelines. At the time, the property was occupied by a heavy equipment supply business. Field inspection was hampered in the respect that an estimated 10 percent of the subject property was occupied by heavy equipment and parts inventory. The remainder was largely exposed ground, which was examined along transects 15-25 meters apart. No archaeological resources were identified during the study.

Nine years have elapsed since the above study was completed. Recent satellite imagery shows that a significant portion of stockpiled equipment and parts has been removed from the site exposing ground that could not be adequately inspected in 2005. The records search and Native American and Madera County Museum contacts are out of date.

This scope of work provides for an updated records search by the Southern San Joaquin Valley Information Center, an updated sacred lands file search and list of Native American contacts from the Native American Heritage Commission, renewed contact with Native Americans listed by the Commission and the Madera County Historical Society, and field inspection of areas formerly covered by equipment and parts. CEQA Guidelines, Appendix G checklist classifies unique paleontological resources as "cultural resources." Therefore, this scope of work includes a paleontological database search and analysis to determine if the subject property is sensitive for paleontological resources (fossils).

The technical report will draw from the 2005 study with updated information as a result of recent archaeological research, the updated records search and Native American file search, as well as contacts with Native Americans listed by the Commission and the local historical society. A cultural resources inventory also includes a search of the University of California Museum of Paleontology database search and report by a qualified professional paleontologist. A field inspection by a qualified professional archaeologist meeting the Secretary of the Interior's professional qualifications standards in prehistoric and historical archaeology will focus on those areas of the Project site not previously available for inspection due to the presence of equipment and parts stockpiles.

Subtask 5.4 Health Risk Assessment

Under contract to Quad Knopf, Vista Environmental will prepare a Health Risk Assessment for inclusion in the Air Quality section of the EIR, as described below. The HRA will analyze both: (1) the cancer and non-cancer (acute and chronic) health impacts from toxic air contaminants (TACs) created by the proposed project; and (2) the localized criteria pollutants that are not in attainment (PM10, PM2.5, and

the ozone precursors of VOC and NOx) concentrations at the nearby homes and associated health impacts. The localized criteria pollutant analysis has been included in order to address the additional analysis requirements detailed in *Sierra Club v. County of Fresno* (2014) (226 Cal.App.4th 704).

Preparation of Health Risk Assessment of Diesel Particulate Matter (DPM)

- Provide a description of the proposed project and detail the location of the proposed project.
- Identify applicable SJVAPCD rules and regulations.
- Identify health risk standards and acceptable cancer and non-cancer risk thresholds from diesel emissions.
- Obtain the proposed project's onsite truck trips from the applicant or traffic study. Calculate the emission rates for idling and truck travel for diesel particulate matter (DPM) and volatile organic compounds (VOC) emissions through use of the EMFAC2011 model.
- Obtain the estimated percentage of trucks that would have an operational transport refrigeration unit (TRU) from the applicant or from statewide averages. Calculate the DPM and VOC emissions rates from TRUs through use of the OFFROAD2007 model.
- Obtain the estimated percentage of truck that park onsite over night that would have operational auxiliary power system (APS) from the applicant. Calculate the DPM and VOC emissions rates from the APS through use of the OFFROAD2007 model. If the applicant is going to provide electrical hookups for each overnight truck parking space, then a qualitative analysis will be provided that details why APS would not be operated on the project site.
- Obtain the estimated gasoline and diesel throughput of the proposed gasoline and diesel dispensing facilities as well as the location and number of onsite fuel tanks from the applicant. Calculate the VOC emissions rates through use of the methodology provided in *Guidance for Air Dispersion Modeling San Joaquin Valley Air Pollution Control District,* (HRA Guidelines) and from *Gasoline Service Station Industrywide Risk Assessment Guidelines*, prepares by CAPCOA, November 1997.
- Calculate the DPM and VOC concentrations at the nearby sensitive receptors associated with the on-going operation of the proposed project through utilization of the AERMOD model, the emissions rates provided in the previous steps and the methodology described in HRA Guidelines.
- Utilize the prior task's calculated DPM and VOC concentrations, to calculate the cancer risk and the chronic and acute non-cancer health impacts at the nearby residential uses from the on-going operation of the proposed project.
- Prepare an HRA report documenting the results of the study. The report will summarize the results of the previous work tasks.

Preparation of Health Risk Assessment of PM10, PM2.5, VOC and NOx emissions

- Summarize the court opinion for *Sierra Club v. County of Fresno* (2014) and develop a strategy to analyze the potential health impacts at the nearby sensitive receptors from the proposed project's emissions of PM10, PM2.5, VOC, and NOx.
- Review the Air Quality Analysis prepared for the proposed project and reference the total PM10, PM2.5, VOC, and NOx emissions created from the proposed project as detailed in the Air Quality Analysis.
- Reference the most current concentrations of PM10, PM2.5, VOC, and NOx in the project study area as detailed in the Air Quality Analysis.

- Perform air quality modeling of the proposed project's total PM10, PM2.5, VOC, and NOx emissions through use of either the AERMOD, CMAQ, and/or BenMap Models.
- Document the technical approach, the model used and the results of the analysis.
- Incorporate the results of the previous work tasks into the HRA report.

~~Subtask 5.5 Noise Study~~

Under contract to Quad Knopf, j.c. brennan & associates will prepare a noise study, as described below.

Evaluation of Existing Noise Levels: Since the previous study was conducted nine years ago, j.c. brennan & associates, Inc. will conduct background noise level measurements on, and in the vicinity of the Project site. Their staff will conduct two sets of continuous 24-hour noise measurements and two sets of short-term noise measurements. The intent of the noise level measurements is to quantify existing background noise levels for comparison to the predicted Project noise levels. The comparison of the measured noise levels to the predicted noise levels will be critical to determine if the Project will create noise levels which will be discernable from the roadway traffic noise. The 24-hour measurements will also provide an accurate day/night traffic split for SR 99, and will be used as a direct input to the traffic noise modeling.

Analysis of Existing and Future Traffic Noise Levels: Based upon traffic data provided by the traffic consultant, j.c. brennan & associates will utilize the Federal Highway Administration (FHWA RD-77-108) traffic noise prediction model to determine existing and future traffic noise levels at the Project site and adjacent uses. Particular attention will be given to the truck traffic noise levels.

Analysis of On-Site Activities: On-site activities due to the Project are expected to include truck circulation, truck idling, truck wash facilities, and truck maintenance activities. j.c. brennan will collect noise level data associated with a current Love's Travel Center. Preliminary review indicates that the Love's Travel Center near Corning, California is similar in configuration to the proposed site.

Analysis of Construction Noise: j.c. brennan will evaluate construction noise impacts associated with the Project.

Report Preparation: A written report will be prepared which details our analytical approach and findings. The report will comply with the requirements of the Madera General Plan Noise Element and CEQA. The report will address all noise sources described above. In addition, mitigation measures will be proposed where required, and the resulting noise levels will be analyzed.

Subtask 5.6 Phase I Environmental Site Assessment

Under contract to Quad Knopf, Geocon will prepare a Phase I Environmental Site Assessment (ESA), as described below.

The requested ESA would be performed in general accordance with the American Society for Testing and Materials (ASTM) *Designation E 1527-13 Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*. The Phase I ESA would also be conducted in accordance with the requirements of 40 Code of Federal Regulations (CFR) Part 312 titled *Standards and Practices for All Appropriate Inquiries* (AAI), as required under Sections 101(35)(B)(ii) and (iii) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). The purpose of conducting an AAI-compliant investigation into the previous ownership and uses of a property is to meet the provisions necessary for the landowner, contiguous property owner, and/or bona fide prospective purchaser to qualify for certain landowner liability protections under CERCLA.

In order to perform the Phase I ESA in accordance with ASTM and AAI guidelines, we request that, if possible, the current site owner provide the following information:

- Permission to enter the site
- Names and telephone numbers of persons familiar with the site
- A description of the planned use of the site
- Any specialized knowledge regarding the site
- Any commonly known or reasonably ascertainable information regarding the site
- Any site-related documents
- An historical chain-of-title report from a title company (as an alternative, we can order an environmental lien report for an additional fee)

Based on the above information, Geocon will perform research to estimate the potential for hazardous substances or petroleum impacts (i.e., levels warranting regulatory cleanup action) to the site. For the purposes of this Phase I ESA, the "vicinity" of the site is defined as properties located within ¼ mile of the site.

The scope of services for the Phase I ESA is presented as follows:

- Perform a reconnaissance of the site to assess for the presence, or make visual observations of indicators of the potential existing presence, of hazardous materials, hazardous wastes, or soil and/or groundwater impacts on the site. These indicators include 55-gallon drums, underground and aboveground storage tanks, chemical containers, waste storage and disposal areas, industrial facilities, discolored surficial soils, electrical transformers that may contain polychlorinated biphenyls (PCBs), and areas conspicuously absent of vegetation. If access is unavailable to any portions of the site, our ability to complete the assessment described herein may be hindered. Provisions for a survey of wetlands delineation, asbestos, lead-based paint, lead in drinking water, radon and methane gas are not provided in the ESA scope of services.

- Perform a visual survey of the adjacent properties from the site and from public thoroughfares to observe general types of land use surrounding the site.

- Review the *Standard Environmental Records Sources: Federal and State* referenced in ASTM *Designation E 1527-05* and 40 CFR Part 312 to obtain information regarding the potential presence of hazardous substances/petroleum hydrocarbons on the site or on properties located within the approximate minimum search distance specified for each source. The records searched will include registries or publicly available lists of recorded engineering and institutional controls, and recorded land use restrictions that may impact the site.

- Review reasonably-ascertainable regulatory agency files for the site and/or properties in the vicinity of the site whose environmental conditions might potentially impact the Site. The sources for these files could include the Madera County Environmental Health Department, the California Regional Water Quality Control Board (RWQCB), and the California Department of Toxic Substances Control.

- Contact local public agencies by telephone or in writing to obtain readily-ascertainable information regarding underground storage tank permits, agriculture-related permits and violations, air emission permits and violations and electrical transformers. The information would be obtained for the site and adjacent properties. The agencies contacted may include the building department, air pollution control agency (i.e., SJVAPCD), agriculture department, and gas and/or electric utility companies.

- Review and interpret reasonably-ascertainable aerial photographs to obtain information concerning the historical use of the site and adjacent properties.

- Review EDR Sanborn, Inc. Fire Insurance Maps for the site (if available). The EDR Sanborn Fire Insurance Maps would be reviewed to obtain information concerning the historical uses of the site and the potential presence of underground storage tanks on the site.

- Review pertinent and reasonably ascertainable information sources to evaluate physiographic, geologic, and hydrogeologic conditions in the vicinity of the site.

- Review documents provided by the Client, at its discretion. Potentially useful documents may include geotechnical, geologic, and environmental reports, site plans, plot plans, and correspondence with regulatory agencies.

- Review United States Geological Survey (USGS) topographic maps to obtain information relative to the topography of the site and previous development and uses of the site and properties located in the vicinity of the site.

- Review the California Department of Conservation, Division of Oil, Gas, and Geothermal Resources (DOGGR) records to obtain information regarding the locations of potential oil and gas wells on the site and site vicinity.

- If requested, review recorded land title records for the site in accordance with the requirements identified in 40 CFR Part 312. The purpose of obtaining a chain-of-title report is to assess whether any requirements regarding engineering and institutional controls have been recorded for the site, and whether any land use restrictions and/or environmental cleanup liens are associated with the site. As an alternative, we can order an environmental lien report for the Site for an additional fee.

- Conduct interviews by telephone or in writing with present and past tenants/owners of the site to evaluate if present or past occupants have used, generated, stored, or disposed of hazardous materials/wastes onsite.

- Prepare a report summarizing the findings of the Phase I ESA and qualitatively describing the potential for environmental impairment of the site. If necessary, we will also provide recommendations for additional environmental services in the report.

Subtask 5.7 Traffic Impact Study

Under contract to Quad Knopf, VRPA Technologies, Inc. will prepare a traffic impact study (TIS) report that will identify the anticipated effect of the proposed development on the existing and planned road network and will recommend mitigations required to maintain City of Madera standards. Included is early consultation with Caltrans. Tasks required to complete the traffic report are described below.

Project Management/Kick-off Meeting: Meet with appropriate City staff and the Project team to discuss the scope of the TIS. The kick-off meeting will assist in confirming the Project description and any potential issues/concerns anticipated by the City and the Project team.

Caltrans Consultation: VRPA will prepare an Administrative Draft Assumptions Memo based upon a scope of work that includes more detail regarding analysis methodologies, parameters, and inputs. These will be based on VRPA's experience preparing traffic studies in the San Joaquin Valley, as well as standard engineering practice and guidelines. This Memo will be submitted to the City for review. VRPA will then prepare a Draft Assumptions Memo based on comments from the City which will again be submitted to the City and also to Caltrans.

VRPA will then meet with appropriate City and Caltrans staff to discuss the scope of the TIS and the Draft Assumptions Memo. Based upon additional comments received from the City and Caltrans, VRPA will finalize the Assumptions Memo and submit to the City and Caltrans for formal approval prior to development of the TIS. This task also assumes ongoing coordination with Caltrans for the duration of the Project.

Scoping Meeting: Meet with appropriate City staff and the Project team to discuss the scope of the TIS. The scoping meeting will set the stage for development of the TIS including an understanding of the Project and its components; the freeway, highway, street and road segments and intersections that should be included in the TIS; analyses conducted for the City of Madera; associated environmental documents; issues related to trip generation and distribution; near-term development projects in the Study Area that may affect opening day traffic volumes and level of service (LOS); future year forecasting methods including use of the Madera County Transportation Commission (MCTC) regional traffic model; and mitigation strategies. It would be most useful to conduct this meeting following the formal approval of the Assumptions Memo by the City and Caltrans.

Existing Conditions: Development and analysis of existing traffic/circulation conditions for the following list of intersections and street segments. Note: This list of segments and intersections may change following the completion of the above tasks.

Intersections:

- Avenue 17 WB to SR 99 SB On Ramp
- Avenue 17 EB to SR 99 SB On Ramp
- Avenue 17 / SR 99 SB Off Ramp
- Avenue 17 / SR 99 NB Ramps
- Avenue 17 / Walden Drive
- Avenue 17 / Airport Drive and Golden State Blvd
- Avenue 17 / Sharon Boulevard (future intersection)
- Sharon Boulevard / Access Driveway #1 (future intersection)
- Sharon Boulevard / Access Driveway #2 (future intersection)

Additional intersections and access driveways can be added to the TIS scope for an additional cost of $4,000 per location.

Roadway Segments: For all connecting roadway segments:

- Gather/Conduct Traffic Counts. Gather existing traffic counts (less than one year old) from the City of Madera and Caltrans, if available. Where such counts are not available, VRPA will conduct new traffic counts consistent with City and Caltrans District 6 Traffic Impact Study Guidelines.

- Identify Existing Traffic Impacts. Based upon data gathered, identify existing traffic impacts along each specified highway and street/road facility (segments) and at intersections specified above. Results of the analysis will provide LOS estimates considering existing traffic conditions. Existing LOS for each intersection will be determined using Synchro Software.

  The results of each of these technical analyses will include AM and PM peak hour intersection LOS estimates, and left turn pocket warrants along each segment and at each Study Area intersection, as appropriate.

  The Modified HCM LOS Tables will be applied for segment LOS to determine segment LOS along all connecting facility segments including Congestion Management Program (CMP) facilities. Signal warrants for each unsignalized intersection studied will be conducted using the California MUTCD methodology.

The results of each of these technical analyses will include AM and PM peak hour highway, street/road, and intersection LOS estimates, signal (if appropriate) and 4-way stop warrants, and left turn pocket warrants along each segment and at each Study Area intersection, as appropriate.

VRPA will also provide a quantitative assessment of pavement conditions using the Traffic Index (TI) calculations.

- Identify Short- and Long-term Improvement Projects. In consultation with the City of Madera, identify short- and long-term planned/programmed highway and street/road improvements along the facilities specified above referencing the General Plan, Circulation Element, and Capital Improvement Programs (CIPs). Short–term highway and street/road improvement projects are improvements that will be constructed within one to three (1-3) years of "opening day" of the Project. Such improvement projects may provide relief or enhance traffic impacts associated with the Project or other near-term or cumulative projects. Long-term highway and street/road improvement projects, such as those identified in the Madera Town Center Project, will be identified and considered during the future year impact analysis.

Estimate Project Trip Generation: Estimate AM and PM peak hour trip generation associated with the Project (passenger vehicle and truck trips) using information provided by the Project Applicant or City of Madera specific to the Project. If reliable information is unavailable, VRPA will estimate trip generation based on the ITE Trip Generation Manual, Fontana Truck Trip Generation Study, and available point-of-sales data for other similar travel centers.

Estimate Project Trip Distribution: Estimate Project trip distribution based on input provided by the City of Madera, Caltrans, the Project team, and VRPA's knowledge of the Study Area and trucking patterns.

Existing Plus Project Impacts: Identify existing conditions plus Project traffic impacts on the existing specified highway and street/road facilities, and intersections in the Study Area. LOS and other necessary evaluations will then be conducted considering methodologies specified.

Near-Term Impacts: Identify Existing plus Near-Term development Project traffic, plus identify other near-term cumulative traffic plus Project traffic impacts on the existing specified highway and street/road facilities and intersections in the Study Area. If there are no near-term projects in the vicinity, this task will include only existing traffic plus near-term cumulative traffic plus traffic generated by the Project.

Identify Near-term Development Project Trip Generation and Impacts. Estimate AM and PM peak hour trip generation associated with near-term projects plus near-term cumulative traffic plus Project traffic using the latest Institute of Traffic Engineers (ITE) Trip Generation Manual formula(s). Resulting trips will be distributed and added to existing traffic.

LOS and other necessary evaluations will then be conducted considering methodologies specified.

Cumulative 2040 No Project Impacts: Identify future year 2040 traffic impacts on the planned highway and street/road segments, as well as other major planned facilities that do not currently exist, if applicable.

Facilitate Future Traffic Modeling without Project and Identify Impacts. Review future year peak hour and ADT traffic projections from available sources including the MCTC Regional Traffic Model. Model projections are based upon the adopted Land Use and Circulation Elements of local agencies. The traffic

model will be applied to assign trips associated with future year growth and development to the street and highway network in the Study Area.

The results will identify AM and PM peak hour LOS estimates along each planned highway and street/road segment and intersection specified above, as appropriate, considering future year traffic without the Project.

Cumulative 2040 Plus Project Impacts: Identify future year 2040 traffic impacts with the Project on the planned highway and street/road system.

Facilitate Future Traffic Analysis with Project and Identify Impacts. Considering Project trips generated, either using the MCTC Regional Traffic Model or engineering judgment considering Project-specific travel characteristics, distribute AM and PM peak hour Project trips to the planned highway and street/road system.

It should be noted that Caltrans is in the process of redesigning the SR 99 interchange at Avenue 17. VRPA will consult with Caltrans to determine the protocol for analyzing the future configuration of the interchange. The SR 99 at Avenue 17 interchange intersections identified above covers the necessary analysis that will be required for the future interchange configuration.

The results will identify AM and PM peak hour LOS estimates, along each planned highway and street/road segment and intersection specified above, as appropriate, considering future year traffic with the Project.

Mitigation Measures: Where LOS estimates exceed minimum LOS standards, develop appropriate mitigation measures. Such measures may include, but are not limited to roadway/highway widening, traffic controls, turn pockets, alignment improvements, and any other improvements that would solve potential traffic problems. This task will include determining the required storage and deceleration length of intersection turn lanes.

This task will include determining the required storage length of intersection turn lanes and the required deceleration length based on Caltrans' Highway Design Manual Methodologies. Roadway configurations identified and approved for the Madera Town Center Project will be identified and incorporated into the development of appropriate mitigation measures.

For Caltrans intersections where mitigation is recommended, an Intersection Control Evaluation (ICE) analysis will be prepared. This will include a brief analysis to determine whether the most appropriate traffic control for the intersection is unsignalized, signalized, or a roundabout.

LOS Following Mitigation: Identify the resultant LOS for each intersection considering implementation of required mitigation measures to determine whether mitigation measure will be effective.

Implementation Program: Identify the cost associated with mitigation measures, appropriate methods to implement such measures, and implement phasing plan/schedule and development of a mitigation monitoring program. Development of this task would also include the identification of an alternative form of mitigation through development of a Trip End (TE) generated fee formula for the implementation of transportation control measures (TCMs) and other measures.

Preparation of Administrative Draft Traffic Study: Based on the analysis described above an Administrative Draft Traffic Study will be prepared and submitted to the Project team and City of Madera staff for review and comment.

Preparation of Draft Traffic Study: Revise the Administrative Draft Traffic analysis considering comments resulting from City and Project team, and prepare a Draft Traffic analysis. VRPA will provide the Draft to the Project team, City of Madera, and Caltrans staff for review and comment.

Preparation of Final Traffic Study: Revise the Draft Traffic analysis considering agency comments and prepare a Final Traffic analysis. The Final Traffic analysis will be provided to the Project team and City of Madera for incorporation into the Environmental Impact Report (EIR).

Qualitative Analysis of EIR Project Alternatives: VRPA will prepare a qualitative analysis of up to three (3) project alternatives.

Assistance with Response to Comments: Assist the Project team and the City of Madera in responding to comments received on the Draft EIR related to traffic/circulation, as necessary.

Task 6 – Graphics / GIS

Quad Knopf will prepare various maps and exhibits for the NOP, EIR, and technical studies. We will utilize GIS to create base maps from which to create the required maps. We will also obtain and adapt maps and plans obtained from the Project proponent and the City.

Task 7 – Administrative Draft EIR

Utilizing the approved Project description, technical studies, results of the Public Scoping process, and other sources, Quad Knopf will prepare the Administrative Draft EIR consistent with the requirements of CEQA, relevant case law, and specifications of the City of Madera. The Administrative and Draft EIRs will include the following information:

Project Objectives

A narrative will be provided describing the objectives of the proposed Project.

Executive Summary

Pursuant to Section 15123 of the *CEQA Guidelines*, Quad Knopf will prepare an Executive Summary of the Draft EIR including the following:

- Each significant effect with proposed mitigation measures and alternatives that would reduce or avoid that effect;
- Areas of controversy known to the Lead Agency, including issues raised by agencies and the public; and
- Issues to be resolved, including the choice among alternatives and whether or how to mitigate the significant effects.

Descriptions of Project alternatives and conclusions regarding the environmental superiority of alternatives will also be summarized.

Introduction

The Introduction chapter will provide the basic, non-technical explanation of the Draft EIR, as well as additional information relevant to the reading and understanding of the document.

Project Description

This chapter will be prepared using the Project description developed in Task 3. A list of the discretionary actions required by the City of Madera, other agency approvals required to proceed with implementation of the proposed Project, and a list of responsible and other agencies expected to use the EIR in their decision-making will also be included.

Environmental Setting, Impacts and Mitigation Measures

As required by §15125 of the *CEQA Guidelines*, the Environmental Setting portion of the EIR will contain a "description of the environment in the vicinity of the Project, as it exists before the commencement of the Project, from both the local and regional perspective." The setting discussions will also include a brief statement of the pertinent regulatory setting.

Impact evaluation criteria or thresholds for determining the significance of impacts will be described for each environmental impact topic. The significance of Project-related impacts will then be determined for each topical area. The analysis will focus on issues identified by responsible and trustee agencies, local agencies and other interested parties in response to the NOP. Impacts found to be less than significant will be described. Impacts that cannot be mitigated below the level of significance will be identified, and the extent to which those impacts could be mitigated through Project alternatives or changes will be demonstrated. Impacts will be quantified to the extent possible. Mitigation measures will be listed and numbered, and cross-referenced to applicable impacts.

Specific environmental topics to be addressed in the Environmental Setting, Impacts, and Mitigation Measures section of the EIR are listed and discussed further below. These topics are subject to modification following completion of the Public Scoping process.

- Aesthetics
- Agricultural and Forestry Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Geology, Soils and Seismicity
- Greenhouse Gases
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources *(potentially scoped out)*
- Noise
- Population and Housing *(potentially scoped out)*
- Public Services
- Recreation *(potentially scoped out)*
- Transportation, Traffic and Circulation
- Utilities and Service Systems

The environmental topics to be analyzed in the EIR are described below:

Aesthetics/Visual Resources

The potential aesthetics-related impacts of the proposed Project will be qualitatively evaluated using ground-level photographs taken at key vantage points by Quad Knopf staff and assessing any site plans, elevations, and renderings that may be provided by the Project proponent. If building elevations are not

available, we may take photos of a representative example of a travel center in operation elsewhere in order to assess potential visual impacts. Impacts will be assessed in terms of visibility of the proposed travel center, alteration of the visual setting by grading and structures, and sensitivity of viewpoints. We assume the travel center will be operated on a 24 hours a day/7 days a week basis. Accordingly, both the aesthetic and light and glare impacts will be assessed in terms of visibility of the Project and its components. Mitigation measures will be recommended, if necessary, to reduce any significant impacts. This analysis does not include the use of computer-based visual simulations beyond elevations and renderings provided by the Project proponent. If determined necessary, computer-based visual simulations can be prepared by Quad Knopf with an augmentation of the scope and budget.

Agricultural and Forestry Resources

The EIR will provide a discussion of important farmlands classifications (e.g., prime farmland, farmland of statewide importance, unique farmland) described in the NRCS website, the soil characteristics, the agricultural industry, the regional agricultural economy, Williamson Act contracts within the planning area, the agricultural character of the area, an impact analysis, and recommendations for mitigating potentially significant impacts. Forestry resources are not present in the Project vicinity.

Air Quality

The Air Quality technical report and HRA report prepared by OB-1 Air Analyses as part of Task 5 will be used to complete this section of the EIR.

Biological Resources

The project-level biological resources assessment prepared by Quad Knopf's biologists as part of Task 5 will be used to complete this section of the EIR.

Cultural Resources

The project-level cultural and paleontological resources assessment prepared by Ric Windmiller as part of Task 5 will be used to complete this section of the EIR.

Geology, Soils, and Seismicity

Quad Knopf will address impacts related to soils, geologic hazards, and seismic safety based on public literature. We will analyze effects associated with erosion, deposition, displacement, compaction or coverage of soils, alteration of topography, and geologic hazards. Potential impacts will be assessed and mitigation measures included if necessary.

Greenhouse Gases

The Greenhouse Gas technical report prepared OB-1 Air Analyses as part of Task 5 will be used to complete this section of the EIR.

Hazards and Hazardous Materials

This section will be completed based on a Phase I ESA prepared by Geocon as part of Task 5.

Hydrology and Water Quality

Quad Knopf will summarize existing hydrological conditions in the Project area watershed and groundwater basin using existing published documentation. Potential effects of Project development will

be described. The analysis will consider on-site runoff and the exposure of the Project site to potential flood hazards. The State Water Resources Control Board (SWRCB) and the RWQCB, Central Valley Region, have established water quality standards required by Section 303 of the Clean Water Act and the Porter-Cologne Water Quality Control Act. The hydrology and water quality analysis will address the Project's compliance with the State's construction stormwater regulations. Compliance with the requirements of the NPDES will also be addressed.

Land Use and Planning

While the Project site and lands to the north and west are zoned C-2 Heavy Commercial, land immediately to the east and south in unincorporated Madera County is zoned Rural Residential Single Family. As such, there is a potential for land use incompatibility issues to occur as a result of both Project design and operations. Many of these potential impacts, such as noise, lighting, traffic, air quality, will be addressed in other sections of the EIR. Quad Knopf will analyze the proposed Project's impacts in terms of compatibility with existing land uses and land use designations in the Madera Zoning Ordinance and General Plan.

Quad Knopf will determine whether the Project would physically divide an established community, result in conflicts with City policies adopted to reduce environmental effects, or would conflict with any adopted habitat conservation plans. Quad Knopf will also discuss potential policy conflicts between the proposed Project and proposed and existing developments.

Mineral Resources

The EIR will include an analysis of published documents, including the 2007 Gateway Galleria EIR, that address the potential for mineral resources, such as gravel, to be found at the Project site. This topic may be scoped out of the EIR (i.e., dismissed) during the Scoping Process.

Noise

The Noise technical report prepared by j.c. brennan & associates in Task 5 will be used to complete this section of the EIR.

Population and Housing

Quad Knopf will describe population and housing impacts of the proposed Project. The potential for the proposed Project to induce growth in the area will be assessed. This topic may be scoped out of the EIR (i.e., dismissed) during the Scoping Process.

Public Services

Quad Knopf will interview service providers and use the most recent data available to assess existing community services, including police and fire protection, and schools. The discussion regarding potential impacts to schools may be scoped out because the proposed project will not generate students that would attend area schools. We will provide a description of potential impacts to existing services resulting from the construction and operation of the proposed Project.

Recreation

This section of the EIR will address potential impacts to City recreation facilities as a result of the proposed Project. This will include an inventory of existing facilities and an analysis of the proposed projects impact on those facilities. This topic may be scoped out of the EIR (i.e., dismissed) during the Scoping Process.

Transportation, Traffic, and Circulation

The Traffic Impact Study prepared by VRPA Technologies as detailed in Task 5 will be used to complete this section of the EIR.

Utilities and Service Systems

This section of the EIR will address potential effects related to the availability and capacity of utilities and services, such as water, wastewater, electricity, natural gas, solid waste disposal, and telecommunications. This section will discuss whether any of these services or facilities is below adopted standards, or near or beyond its capacity to adequately serve the proposed Project. The analysis will be based on interviews with service providers and review of published reports. A water supply assessment, as described in Section 15155 of the *CEQA Guidelines*, is not warranted and is not proposed. However, in light of the prolonged drought conditions affecting the Central Valley, the analysis will provide a thorough description of Project water demand and available supply.

Cumulative Impacts

Quad Knopf will discuss the incremental contribution of the proposed Project to cumulative effects of other past, current, and planned or reasonably foreseeable projects in the vicinity. Quad Knopf will work with City planning staff to compile an updated list of cumulative projects.

Alternatives

An analysis of a reasonable range of alternatives to the proposed Project will be conducted according to Section 15126(f) of the *CEQA Guidelines*. A "No Project" alternative will be discussed per requirements of the *CEQA Guidelines*. Section 15126(f) limits the alternatives analysis to alternatives that will avoid or substantially lessen any of the significant effects of the proposed Project (i.e., preferred alternative). In addition to the No Project alternative, Quad Knopf proposes to evaluate three alternatives to the proposed Project. Currently, an off-site alternative is not anticipated in the primary analysis, but could be addressed in the discussion of "alternatives considered but rejected from further analysis".. These alternatives will be developed in close consultation with City staff and could include an alternative site that meets all or most of the Project objectives. Quad Knopf will develop reasonably detailed analyses of impacts associated with these alternatives, by topic, in comparison with the proposed Project.

As required by Section 15126(f), the Draft EIR will identify the environmentally superior alternative and, if that is the "No Project" alternative, the environmentally superior alternative among the remaining alternatives.

Other CEQA Sections

Quad Knopf will prepare the remaining CEQA-mandated sections (i.e., growth inducing impacts, energy, impacts that cannot be avoided, and mitigation monitoring program). With regard to the energy analysis required by Appendix F of the *CEQA Guidelines*, Quad Knopf will follow the guidance provided by the Third Appellate District Court in *California Clean Energy Committee vs. City of Woodland,* published April 1, 2014. The analysis will address electricity and natural gas use expected to occur during construction and operation of the Travel Center. The possible use of alternative energy (e.g., photovoltaic) will also be addressed. With regard to the analysis of vehicle fuel expected to be used during operation of the facility, it should be noted that the facility will attract vehicles currently traveling on SR 99, and is not expected to generate new trips, except for those involved in exiting and re-entering SR 99 after using the services at the Travel Center.

Quad Knopf will prepare and submit the Administrative Draft EIR to the City for review.

Deliverables:

- *Administrative Draft EIR to City (5 hard copies + digital files)*

Task 8 – Screencheck and Public Draft EIR

Upon receipt of comments from the City and Applicant, Quad Knopf will make necessary revisions and prepare the Screencheck and Public Draft EIR for submittal to the City. This scope of work assumes a maximum of one review cycle with compiled comments from City staff on the Administrative Draft EIR. Quad Knopf will prepare the Notice of Availability (NOA) and the State Clearinghouse (NOC) form. The City will be responsible for distribution of the NOA to any interested organizations or individuals, as well as an announcement of the public review period in a local newspaper, or mailings to property owners, or posting on and off site, as required under Section 15087 of CEQA. The period for public review must be at least 45 days. Quad Knopf will hand deliver the Draft EIR and NOC to the State Clearinghouse.

Deliverables:

- *Screencheck Draft EIR to City (5 hard copies)*
- *Draft EIR to City (20 hard copies + digital files)*
- *Draft EIR to State Clearinghouse (15 CDs)*
- *Notice of Completion to State Clearinghouse (1)*
- *Notice of Availability (1 digital file)*

Task 9 – Administrative and Final EIR

Pursuant to Section 15088 of the *CEQA Guidelines*, the Final EIR must respond in writing to each oral and written comment on the Draft EIR made by individuals, agencies, and organizations that review it. Additional research and analysis will be undertaken by Quad Knopf as necessary to effectively respond to comments. Comments regarding the sections or technical reports prepared by subconsultants will be routed to them for review and comment, with Quad Knopf responsible for final review for consistency and compilation of the final responses.

The document will incorporate written comments received and response to comments. Along with the comments and responses, a list will be compiled of all persons, organizations, and agencies commenting on the Draft EIR. The Final EIR will include revisions to the EIR text and summary table, as necessitated by comments. Comments, responses to comments, and the list of all persons, organizations, and agencies commenting on the Draft EIR will be included. Also included are errata and other information, which when combined with the Draft EIR, will constitute a Final EIR.

A cost estimate is provided herein which we believe will be adequate for the task. As a basis for cost estimating, Quad Knopf assumes that 100 individual responses (not letters) will be required for the EIR. In our experience, it takes an average of one hour to respond satisfactorily to each comment. We believe that this estimate will be adequate for the task. If the level of response exceeds the expectation described above, Quad Knopf will respond to those comments that are above and beyond the threshold for an additional fee on a time-and-materials basis, or another mutually agreeable formula.

The Final EIR will reflect direction received from City staff as contained in one set of unified comments.

Deliverables:

- *Administrative Final EIR (5 hard copies)*
- *Final EIR (30 hard copies + digital files)*

Task 10 – Mitigation Monitoring and Reporting Program (MMRP)

Quad Knopf will prepare the Mitigation Monitoring and Reporting Program (MMRP), formatted in accordance with City standards.

Deliverables:

- *Administrative MMRP (1 hard copy + digital file)*
- *Final MMRP (1 hard copy + digital file)*

Task 11 – Findings and Statement of Overriding Considerations

Using the analyses contained in the EIR, Quad Knopf will prepare draft Findings and Statement of Overriding Considerations (if warranted) for consideration and review by the City Attorney and the decision making body. The Findings will be formatted in accordance with City standards.

Deliverables:

- *Draft Findings and Statement of Overriding Considerations (1 hard copy + digital file)*
- *Final Findings and Statement of Overriding Considerations (1 hard copy + digital file)*

Task 12 – CEQA Notices

Quad Knopf will be responsible for preparing all required CEQA notices, including Notice of Completion, NOP, and Notice of Determination (NOD). Details of each notice are described in the relevant task sections. Quad Knopf will prepare and deliver the NOD to the County Clerk and State Clearinghouse within five (5) days of City Council approval of the Project. All filing fees that must accompany notices will be paid by the City.

Deliverables:

- *Notice of Determination (1 hard copy)*
- *See details of other CEQA notices (i.e., NOC and NOP) in relevant task descriptions.*

Task 13 – Meetings/Public Hearings/Project Management

Quad Knopf's Project Manager will attend public meetings, including the scoping meeting and two public hearings (one Planning Commission and one City Council) on the Draft EIR. Our Project Manager will respond to comments and questions, and make presentations, as requested by the City. Monthly status reporting via a combination of telephone conference calls and e-mails between the Quad Knopf's Project Manager and City staff are anticipated through the duration of the Project. This task also consists of those management activities that ensure Quad Knopf's ability to keep all work tasks running smoothly, on time, and within budget. As the liaison between the Quad Knopf team and the City's staff, our Project Manager will ensure information is distributed appropriately, comments regarding Project-related issues are communicated effectively and efficiently, and financial performance is tracked regularly. Additional meetings may be attended on a time-and-materials basis.

This task also includes Quad Knopf's critically important internal Quality Assurance/Quality Management process. This means that every product deliverable is subjected to a peer-level review before it is provided to the City.

Deliverables:

- *See details of meeting attendance in relevant task descriptions.*

Schedule

Task	Target Date/ Duration	Activity
Task 1 – PROJECT INITIATION		
	1/22/15	Contract executed/Notice to Proceed
	1/22/15	Project Proponent provides complete project description to QK **(All dates below are keyed to this date, except as noted.)**
Task 2 – FIELD RECONNAISSANCE AND REVIEW OF EXISTING INFORMATION		
	1/29/15 (7 days)	
Task 3 – PROJECT DESCRIPTION AND PROJECT OBJECTIVES		
	1/26/15 (4 days)	Complete and expanded project description completed
Task 4 – PUBLIC SCOPING / NOTICE OF PREPARATION		
	1/30/15 (8 days)	NOP Completed and Released
	Date TBD	Public scoping meeting at Madera City Hall
	3/2/15 (30 days)	30-day scoping period ends
Task 5 – EARLY CONSULTATION AND TECHNICAL STUDIES		
Subtask 5.1	3/9/15 (14 days)	Air Quality Report and HRA **(date follows receipt of traffic output data)**
Subtask 5.2	2/22/15 (30 days)	Biological Survey Report
Subtask 5.3	2/22/15 (30 days)	Cultural Resources Report
Subtask 5.4	3/5/15 (10 days)	Greenhouse Gas Report **(date follows receipt of traffic output data)**
Subtask 5.5	3/5/15 (10 days)	Health Risk Assessment **(date follows receipt of traffic output data)**
Subtask 5.6	3/5/15 (10 days)	Noise Study **(date follows receipt of traffic output data)**
Subtask 5.7	2/5/15 (14 days)	Phase I ESA
Subtask 5.8	2/23/15 (30 days) 3/5/15 (40 days)	Traffic Impact Study (output data, only) Traffic Impact Study (complete report)
Task 6 – GRAPHICS/GIS		
Task 7 – ADMINISTRATIVE DRAFT EIR		
	3/23/15 (8 weeks)	QK submits Admin Draft EIR to City for review
	3/30/15 (7 days)	City completes review of Admin Draft EIR
	4/6/15 (7 days)	QK makes revisions and submits Screencheck Draft
	4/13/15 (7 days)	City completes review of Screencheck Draft EIR
Task 8 – SCREENCHECK AND DRAFT EIR		
	4/14/15	QK submits Public Review Draft EIR to City and State Clearinghouse for start of 45-day public review
	5/28/15	End of 45-day public review period
Task 9 – ADMINISTRATIVE AND FINAL EIR		
	6/4/15 (7 days)	QK submits Admin Final EIR to City for review
	6/11/15 (7 days)	City completes review of Admin Final EIR
	6/18/15 (7 days)	QK makes revisions / Final EIR ready for Planning

Task	Target Date/ Duration	Activity
		Commission hearing
Task 10 – MITIGATION MONITORING AND REPORTING PROGRAM		
		MMRP provided in draft form to City
Task 11 – FINDINGS AND STATEMENT OF OVERRIDING CONSIDERATIONS		
		Findings and SOC provided in draft form to City
Task 12 – CEQA NOTICES		
		At various tasks.
Task 13 – MEETINGS / HEARINGS / PROJECT MANAGEMENT		
	Ongoing	Attendance at specified meetings and hearing; ongoing communications; ongoing project management
	7/2/15	Planning Commission hearing (10 days or later following distribution of Final EIR)
	7/8/15	City Council hearing

Schedule Assumptions:

1. The integrity of the timeline is maintained only if each event is accomplished without additional delays which could be caused by events such as the discovery of an issue or concern that warrants additional work, changes to the project, agency review time, etc.

2. A complete and stable project description is essential for this schedule to be maintained. Impact analyses will not begin until the City and Project proponent accept the project description.

3. The schedule for completion of the Final EIR will be determined in consultation with the City, depending on the volume of comments received.

4. Add dates are keyed to a Notice to Proceed date of January 22, 2015, except as noted otherwise.

5. All dates and durations are calendar days.

Cost Proposal

The fixed-fee cost estimate on the following page is preliminary and subject to change after review of additional project description information provided by the applicant and the City, completion of the Public Scoping process (Task 4), and further consultation with City of Madera staff.

Exhibit B

Quad Knopf

MEMO

Date: March 25, 2015 **Project No.:** 150045

To: David Merchen

From: Randy Chafin

Subject: Madera Travel Center EIR - Proposed Scope of Work and Budget Amendment

cc: Ginger White

The following describes proposed amendments to Quad Knopf's scope of work and budget to cover costs for additional cultural and biological services associated with a proposed 2,850-foot off-site water main extension to the north of the project site and a 1,700-foot wastewater main extension to the south. These off-site improvements were not included in the project description upon which our original scope of work and fee are based. If this is request is acceptable, we can provide a Contract Amendment for execution by the City.

BIOLOGICAL RESOURCES

Task 1 Supplemental Biological Reconnaissance Survey (Sewer Line and Water Line)

A Quad Knopf biologist will conduct a reconnaissance-level survey to evaluate areas where an off-site sewer line is to be installed. The site survey will focus on identifying areas that support, or potentially support, sensitive biological species or habitats. The distribution of vegetative communities will be identified, and the locations of unique or important biological resources will be mapped. Special-status species and/or their signs will be documented. An inventory of the plant and wildlife species observed during the survey will be generated.

Task 2 Preliminary Assessment for Fresno Kangaroo Rat

A qualified Quad Knopf biologist will conduct a preliminary assessment of the Project site and off-site sewer and water line corridors to provide information on the location and distribution of potential burrows of the Fresno kangaroo rat (*Dipodomys nitratoides exilis*) and other potential sign. This information would be needed prior to trap placement and the development of a trapping strategy. During this initial assessment, locations where traps would be placed will be recorded with a Global Positioning System (GPS) unit, and the number of traps needed at each location will be determined. Potential locations of trap placement include all burrows potentially occupied by the Fresno kangaroo rat and locations of other kangaroo rat sign including dust baths, runways, and pit caches.

Task 3 Small Mammal Trapping for Fresno Kangaroo Rat

A qualified and permitted Quad Knopf biologist, authorized by the United States Fish and Wildlife Service (USFWS) and the California Department of Fish and Wildlife (CDFW) to live-trap the Fresno kangaroo rat, will establish a trapping configuration according to the results of the pre-trapping

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preliminary assessment (Task 1). This trapping configuration will be modified as needed in consultation with the USFWS and CDFW.

Trapping will be conducted in accordance with the *Survey Protocol for Determining Presence of San Joaquin Kangaroo Rats* (USFWS, 2013). A team of two qualified biologists will conduct trapping on the site for a minimum of five consecutive nights, using a total maximum of 100 XLT (3.5 by 13 inch) Sherman live traps. Traps will be placed at burrow openings, along runways, at dust baths, and at other locations with diagnostic kangaroo rat sign. Each trap will be baited with a mixture of rolled oats, millet, and peanut butter. Traps will be set approximately one hour before sunset and checked one hour before sunrise the following morning. Traps may be checked and closed at earlier times, depending upon weather conditions and other factors (e.g., temperature, fog, precipitation) experienced at the time of trapping.

Task 4 Report Preparation for Small Mammal Trapping

Quad Knopf will compile a report at the end of the trapping effort that adheres to standard agency reporting requirements. A draft report will be prepared within 30 days of the final trapping night, and provided to the City for comment. All comments will be addressed and incorporated into the final report as warranted. The final report will be prepared and submitted to the City and the appropriate agencies within 90 days of the final night of trapping.

Schedule

The performance schedule provided below is based upon the assumption that a Notice to Proceed will be issued to Quad Knopf by March 11, 2015. We understand that Task 1 should be completed as soon as soon as possible to accommodate the aggressive CEQA documentation timeline. The small mammal trapping should not proceed prior to April 1, 2015, in accordance with protocol.

Task	Description	Estimated Start Date	Estimated Completion Date
	Notice to Proceed	3/11/2015	
1	Supplemental Biological Reconnaissance Surveys (Sewer Line and Water Line)	3/12/2015	3/13/2015
2	Preliminary Assessment for Fresno Kangaroo Rat	3/17/2015	3/19/2015
3	Small Mammal Trapping for Fresno Kangaroo Rat	4/6/2015	4/11/2015
4	Report Preparation for Small Mammal Trapping	4/13/2015	4/24/2015

Fee

Quad Knopf proposes to complete the tasks described in the scope of work above for a fee of **$18,310**. Our proposed cost is based on our knowledge of the project area and our expertise with conducting similar trapping studies for the Fresno kangaroo rat. Quad Knopf's services will be billed on a Time and Materials (T&M) basis. The table below provides a breakdown of costs by task.

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Task	Description	Fee
1	Supplemental Biological Reconnaissance Survey (Sewer Line and Water Line)	$1,600
~~2~~	~~Preliminary Assessment for Fresno Kangaroo Rat~~	~~$1,210~~
3	Small Mammal Trapping for Fresno Kangaroo Rat	$12,500
4	Report Preparation for Small Mammal Trapping	$3,000
	Total	**$18,310**

Should circumstances arise that are outside this scope of work (e.g., additional surveys, reports, employee training, project monitoring and/or assistance), a revised fee would be prepared for your approval.

CULTURAL RESOURCES

Our original scope of work and cost estimate for the updated cultural resources inventory encompassed only the project site (approximately 50 acres). However, the scope of work has been expanded to include an off-site water line to the north of the project site and wastewater/sewer line south of the project site.

It is the sub-consultant's understanding that most of the off-site water line route lies within the Madera Town Center project site north of Avenue 17. We conducted a cultural resources study of the Madera Town Center project area previously. However, our study did not include the Avenue 17 right-of-way where the water line would cross between the Town Center and Travel Center properties. Also, the planned off-site wastewater/sewer line south of the Travel Center property was not included in our scope of work or cost estimate for the Travel Center.

Therefore, to complete the field inspection for the project, we will need to conduct an on-the-ground inspection of the Avenue 17 right-of-way where the water line will cross as well as the off-site wastewater/sewer line south of the Travel Center property. The cost estimate to complete this work is outlined below.

Description	No. of Units	Cost per Unit	Cost
Archaeological field inspection (includes travel time) Registered Professional Archaeologist Mileage	 8.0 hrs 372 mi	 $125/hr $0.70/mi	 1,000.00 260.40
Subtotal			1,260.40
Administrative Cost (15 percent of subtotal)			189.06
Total (inc. 15% Quad Knopf administrative mark up)			**$1,667**

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GRAND TOTAL

The grand total for the above described additional work is **$19,977**.

RC

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EXHIBIT C

Quad Knopf

MEMO

Date: June 22, 2015 **Project No.:** 150045

To: Dave Merchen, Community Development Director

From: Randy Chafin, AICP

Subject: Madera Travel Center EIR - Proposed Scope of Work and Budget Amendment #2

cc: Ginger White

The following describes a recommended approach to the additional Project and Alternatives analyses requested for the EIR, as discussed at the meeting on June 4th.

REVISED PROJECT ANALYSES

The Administrative Draft EIR project description indicated that the freestanding restaurant would be 13,410 square feet in size. This is the size provided by the project architect. Various analyses in the EIR were based on that square footage. The applicant has now indicated that, as a result of market considerations, the size of one or more of the proposed restaurant facilities will be reduced in square footage and/or seating capacity. Restaurant size has a direct affect on the generation of vehicle trips, which therefore affects the generation of noise, air emissions, and greenhouse gas emissions. In addition, building size may also affect assumptions regarding water and energy consumption. Accordingly, the change in building square footage will require a re-assessment of impacts in the following topic areas: noise, air quality, greenhouse gases, water, and energy. Other sections of the EIR will also need to be updated. The revised traffic analysis is described separately below.

*Brennan (Noise) – $1,334**
*Vista (HRA) - $1,035**
*OB-1 (AQ/GHG) - $5,382**
Quad Knopf (project description and various topic sections) – $2,400
**Includes 15% administrative fee.*

REVISED TRAFFIC ANALYSES

VRPA Technologies, Inc. (VRPA) will revise the previously prepared administrative draft traffic impact analysis in accordance with changes to the Project description and site plan, as requested at the June 4th meeting. The revision of the traffic analysis will be divided into the following tasks:

Task 1 Trip Generation Review - VRPA will recalculate trips associated with a reduced-size restaurant in accordance with information provided by Project representatives. VRPA will also evaluate the use of the highest observed rates from the Love's Travel Center in the city of Ripon. Use of the highest observed rates ensures that Project trips associated

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with the Madera Travel Center will not be underestimated. The technical assumptions (PCE, internal capture, etc) will be reassessed and adjusted as necessary. VRPA will provide the revised trip generation to the City of Madera staff and Project representatives for approval.

Task 2 Project Trip Distribution - VRPA will utilize the trip distribution that was used in the Administrative Draft EIR, and which was approved by the City of Madera and Caltrans. VRPA will distribute Project trips, determined in Task 1, to the surrounding study area for purposes of developing the Existing Plus Project, Near-Term (Year 2016) Plus Project, and Cumulative Year 2036 Plus Project study scenarios.

Task 3 LOS Evaluation - Synchro 8 will be used to re-evaluate the LOS of the study intersections, which will then be compared to City of Madera and Caltrans LOS criteria.

Task 4 Mitigation Measures - Where LOS estimates exceed minimum LOS standards, VRPA will develop appropriate mitigation measures considering results of Task 3. Such measures may include, but are not limited to roadway/highway widening, traffic controls, turn pockets, alignment improvements, and any other improvements that would solve potential traffic problems. This task will include determining the required storage length of intersection turn lanes based on City of Madera and Caltrans' Highway Design Manual methodologies. Roadway configurations identified and approved for the Madera Town Center project will be identified and incorporated into the development of appropriate mitigation measures.

Task 5 Preparation of Draft Traffic Study - VRPA will revise the Administrative Draft Traffic analysis considering comments received on the administrative draft traffic analysis and the tasks identified above and prepare a Draft Traffic analysis. VRPA will provide the Draft to the Project Team and City of Madera for review and comment.

VRPA - $19,415 (includes administrative fee)

EXPANDED ALTERNATIVES ANALYSES

At the June 4th meeting, it was requested that the Alternatives analysis be revised to include the following:

- Quantification in order to better determine the impact each selected alternative would have on resources, as compared to impacts of the proposed project,
- Indication of whether potential impacts of an alternative would be less than significant or significant,
- Analysis and comparison of impact statement subcategories under each of the main resource topics to the proposed Project, and
- Modification of the tabular summary to include the results of this additional analysis.

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Since the above-listed additions constitute a level of analysis that is more involved than is required by CEQA, is non-standard, and is not included in Quad Knopf's scope of work, a scope amendment and budget augmentation are warranted.

The scope of work amendment would be sufficient to provide a level of quantification suitable for the EIR and would be responsive to the above-listed requests for additional analysis. As is contained in the Administrative Draft EIR, the following alternatives would continue to be analyzed, but with added quantification: No Project, Reduced Traffic Alternative (this was originally called "Reduced Intensity Alternative"), and Reduced Water Demand Alternative.

Quad Knopf - $2,500

Reduced Traffic Alternative – Quad Knopf's traffic consultant, VRPA, would identify the building square footage reduction required to achieve an acceptable LOS at the Avenue 17/SR 99 northbound ramps by reducing the building size in 1,000-square foot increments. The reduced trip generation data would be used to calculate the associated reduction in air emissions, greenhouse gases, and noise. All other impact topics would continue to be characterized in a qualitative manner.

Note: The Reduced Traffic Alternative description would be revised to address only traffic; all references to reduced water demand would be eliminated.

VRPA (Traffic) - $2,300
Brennan (Noise) - $750
Visata (HRA) - $650
OB-1 (AQ/GHG) - $1,150
**Includes 15% administrative fee.*

Reduced Water Demand Alternative – Unlike traffic there are no adopted thresholds, or targets, for reduced water consumption, other than those contained in the City's MWELO and the mandates contained in the Governor's April 2015 Executive Orders for severe drought conditions. This alternative is intended to achieve an even greater water savings than can be accomplished through those measures. The quantified analysis of this alternative would identify a variety of measures that, separately or in combinations, are sufficient to achieve a 10% reduction in water demand below what can be achieved through existing regulations. Wherever a correlation can be made, the 10% reduction in water usage would be used as a metric to qualitatively estimate impact reductions in other resource topic areas.

Quad Knopf - $1,250

GRAND TOTAL

The grand total for the above described additional work is **$38,166**.

RC

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REPORT TO THE CITY COUNCIL

COUNCIL MEETING OF:
September 2, 2015

AGENDA ITEM NUMBER:
B-11

Approved By:

COMMUNITY DEVELOPMENT DIRECTOR

CITY ADMINISTRATOR

SUBJECT: **CONSIDERATION OF A RESOLUTION AUTHORIZING THE CITY ADMINISTRATOR TO EXECUTE ALL DOCUMENTS REQUIRED TO COMPLETE A LOT LINE ADJUSTMENT AFFECTING PARCEL 11 WITHIN FREEDOM INDUSTRIAL PARK TO FACILITATE RAIL ACCESS WITHIN THE PARK**

RECOMMENDATION:

It is recommended that Council adopt the resolution authorizing the City Administrator to execute all documents required to complete a lot line adjustment affecting Parcel 11 within the Freedom Industrial Park.

DISCUSSION:

In 2014, six parcels within the Freedom Industrial Park were gifted to the City by the developer, BFP Partnership (Span Construction). A planned rail spur will traverse along the northern edge of one these gifted parcels (Parcel 11), which is the future home of the City's Transit and Public Works facilities. Recently, the developer and City staff came to the mutual conclusion that when Parcel 11 was created and gifted to the City, the new spur alignment was not adequately accounted for. While the rail alignment lies entirely within the current parcel boundary of Parcel 11, the developer has confirmed that this area should have been reserved for the rail line. Staff concurs. The City Attorney has reviewed the matter and determined that it is in the City's best interest to avoid, to the extent practical, the liability associated with owning the land under the new rail spur and any associated improvements that might be constructed within the right of way.

The developer and owner of the remaining properties has proposed the completion of a lot line adjustment to correct the oversight. The proposed adjustment would tie the rail spur alignment to Parcel #10, which is not owned by the City. Although this change would reduce the size of Parcel 11, the City's useable area would not be reduced, as this affected area has always been planned for the new rail spur. The total affected area includes a strip of land along the northern property line with a maximum depth of up to 100'.

CONSISTENCY WITH THE VISION MADERA 2025 PLAN:

The specific action regarding the lot line adjustment is not addressed in Vision Madera 2025. The action will facilitate rail access, however, enhancing the industrial development potential on the site consistent with the vision statements regarding Good Jobs and Economic Opportunities.

FISCAL IMPACTS

There are no substantive fiscal impacts associated with authorizing the lot line adjustments. The affected parcel owned by the City was gifted to the City, and adjustment will not reduce the size of the land useable for future development.

RESOLUTION NO. _____

RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MADERA, CALIFORNIA AUTHORIZING THE CITY ADMINISTRATOR TO EXECUTE ALL DOCUMENTS REQUIRED TO COMPLETE A LOT LINE ADJUSTMENT AFFECTING PARCEL 11 WITHIN FREEDOM INDUSTRIAL PARK TO FACILITATE RAIL ACCESS WITHIN THE PARK

WHEREAS, the City entered into a gifting agreement with BFP Partership on September 17, 2014 whereby six parcels totaling approximately 36.77 acres within the Freedom Industrial Park were gifted to the City; and

WHEREAS, title to the six gifted parcels in the City's name was recorded on or about October 30, 2014; and

WHEREAS, a planned rail spur or spurs are planned along the northern boundary of Parcel 11, which is one of the parcels gifted to the City; and

WHEREAS, BFP has determined, and City concurs, that an oversight occurred in the creation and gifting of Parcel 11 in that the planned rail spur alignment along the northern boundary of Parcel 11 was not reserved for said rail alignment; and

WHEREAS, City did not intend, and does not wish, to own property under which the new rail spur and related improvements are to be constructed; and

WHEREAS, City and BFP partnership wish to correct the oversight by completing a lot line adjustment to tie the rail spur alignment to a Parcel not owned by the City.

NOW THEREFORE BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF MADERA AS FOLLOWS:

1. The above recitals are true and correct.

2. The City Administrator is authorized to execute all documents required to complete a lot line adjustment affecting Parcel 11 within the Freedom Industrial Park to facilitate rail access within the park. The subject area of the adjustment as it relates to Parcel 11 shall not exceed a depth of 100 feet, measured north-south, and may extend along entire length of Parcel 11, measured east-west, as necessary to accommodate the planned rail spur configuration.

3. This resolution is effective immediately.

* * * * * *

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REPORT TO CITY COUNCIL

MEETING DATE: September 2, 2015

AGENDA ITEM NUMBER: C-1

Approved By:

PUBLIC WORKS DIRECTOR

CITY ADMINISTRATOR

SUBJECT: Consideration of a Resolution Approving The First Amendment to an Agreement with Mid Valley Disposal for the Collection, Transportation, and Recycling of Solid Waste Services and Authorizing the Mayor to Execute the Amendment on Behalf of the City.

RECOMMENDATION: Staff seeks a Council Resolution approving the proposed amendment to an agreement with Mid Valley Disposal for the collection, transportation, and recycling of solid waste services and authorizing the Mayor to execute the amendment on behalf of the City.

SUMMARY: The City and Mid Valley Disposal wish to enter into an amendment to the existing agreement addressing the collection, transportation, and recycling of solid waste services.

There are three requested changes being proposed in the amendment:

1. Agree to allow Mid Valley Disposal to become the exclusive hauler for Construction and Demolition Debris Recycling (C&D) in exchange for a consideration of a 10% administrative fee on all roll off bin services to be given by Mid Valley Disposal to the City of Madera; and

2. Eliminate language regarding the City receiving credit/revenue for the net value of all recyclables collected in the blue cans; and

3. Change the sharps collection by appointment program to a two sharps kiosk program paid for by Mid Valley Disposal with Kiosks located at the Police Station and at Fire Station No. 7 on Schnoor.

DISCUSSION:

Net Recycling Revenue The existing language which provides that the net value of recycling material collected from the Blue recycling cans be credited to the City of Madera by the Franchise Hauler has been problematic. The limited language in the agreement causes

considerable ambiguity in determining the net value of the recyclable materials. The City's experience auditing these revenues has shown that this ambiguity makes it impracticable to definitively calculate and unilaterally apply a value to be collected from the hauler. As reported in an August 2015 article from the ICMA[1], "Global *(Recycling)* commodity markets have more material than they can handle, and the price of oil is at an all-time low, so the value of recycled materials has dropped as well. Community demand for single-stream recycling makes contamination more likely which is costly for recyclers. As a result, recycling costs have become a drain on budgets for many jurisdictions with no end in sight." Hence, it is unlikely that the City would be able to receive any appreciable revenue, and even more unlikely that it would offset the cost of periodic audits.

It is recommended that this provision in the Agreement be eliminated in consideration of new revenues that the hauler is willing to provide from the proposed change to construction and demolition debris recycling hauling described below.

C&D Hauling The existing agreement between the City and the Franchise Hauler does not include an exclusive agreement for Construction and Demolition Debris hauling. The California Resources Code Section 40059 permits the Council to award our Franchise Hauler an exclusive right for construction and demolition debris recycling/hauling services within the City. Hence, by amending the existing contract, we will not require a new bid process to select a provider.

The code requires any project for construction or demolition that generates eight or more cubic yards of debris must be taken to a recycling center where 50% or more of the debris must be recycled. Businesses that own and operate their own trucks are exempt from using the hauler designated by the City, but must still comply with the recycling requirements. Any hauler that is under contract for a current project is also exempt for the remainder of the project. The amount of construction material that is diverted through recycling can materially impact the City's total solid waste diversion figures. The main difficulty with having hauling done by many haulers is the inconsistency of compliance with reporting the tonnages. A designated hauler will help reduce this issue.

For this exclusive right, the Franchise Hauler agrees to pay the City of Madera an Administrative Fee of 10% of the gross charges on all roll-off bin service and C&D services for the remaining term of the Agreement.

Sharps Collection The Agreement currently provides sharps to be collected from residents on an appointment basis. Both City and Franchise Hauler would like to provide a more effective sharps collection program through the provision of two sharps kiosks that will be used to collect the sharps from the public. The Cost for the Kiosks and their servicing will be paid Mid Valley Disposal. The Kiosks are anticipated to be located at the Police Station and the Fire Station on Schnoor Avenue, subject to approval by the Council. Mid Valley Disposal will provide an on-going informational campaign to introduce and sustain the program for the public using the usual media techniques of print and electronic sources.

[1] http://icma.org/en/Article/106132/7_Ideas_for_Adapting_to_the_New_Economics_of_Recycling

FINANCIAL IMPACT: There will be no financial impact to the General Fund. The City's Solid Waste Fund will receive additional revenue from the 10% administrative fee for roll-offs and C&D services. It is difficult to accurately project how much revenue this will generate, but the franchise hauler estimates that it should generate between $60,000 and $70,000.

MADERA VISION 2025: The proposed actions are consistent with the Madera Vision Plan, specifically Action 437: Recycling Programs: Promote recycling through multiple programs.

RESOLUTION NO. 15 - _____

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MADERA, CALIFORNIA, APPROVING THE FIRST AMENDMENT TO AN AGREEMENT WITH MID VALLEY DISPOSAL FOR THE COLLECTION, TRANSPORTATION, AND RECYCLING OF SOLID WASTE SERVICES AND AUTHORIZING THE MAYOR TO EXECUTE THE AMENDMENT ON BEHALF OF THE CITY

WHEREAS, the City entered into an Agreement with Mid Valley Disposal dated September 24, 2014 to provide collection, transportation, and recycling of solid waste services; and

WHEREAS, the purpose of the First Amendment is to amend the agreement in the particulars as found in Attachment "A" appended to the report to City Council;

NOW THEREFORE, THE CITY COUNCIL OF THE CITY OF MADERA HEREBY Finds orders and resolves as follows:

1. The above recitals are true and correct.

2. The First Amendment of the Agreement between the City and Mid Valley Disposal, a copy of which is on file with the City Clerk and referred to for particulars, is approved as submitted.

3. The Mayor is authorized to execute the amendment on behalf of the City.

4. This resolution is effective immediately upon adoption.

Attachment "A"

AMENDMENT TO AGREEMENT
FOR THE COLLECTION, TRANSPORT, AND RECYCLING SOLID WASTE SERVICES FOR THE CITY OF MADERA

This AMENDMENT TO AGREEMENT FOR THE COLLECTION, TRANSPORT, AND RECYCLING SOLD WASTE SERVICES is entered into this ____ day of _____, 2015, by and between City of Madera, hereinafter called "CITY" and MID VALLEY DISPOSAL hereinafter called, "FRANCHISE HAULER".

WITNESSETH:

WHEREAS, CITY AND FRANCHISE HAULER Sunset Waste Systems entered into an agreement dated April 18, 2012 to contract with FRANCHISE HAULER to provide collection and transport solid waste services (the "Agreement"); and

WHEREAS, on September 24, 2014 the CITY AND FRANCHISE HAULER Sunset Waste agreed to assign the AGREEMENT for solid waste services to Mid Valley Disposal; and

WHEREAS, CITY and FRANCHISE HAULER desire to amend said Agreement to modify the scope of work.

NOW THEREFORE, it is hereby agreed that the Agreement between the parties is amended in the following particulars only:

1. **Section B.B.** Recyclable Materials**,** is amended to read as follows:

"Recyclable Materials" means those non-hazardous residential or commercial business materials or by-products which are set aside, handled, packaged, or offered for Collection in a manner different from Solid Waste, for the purpose of being reused or processed and then returned to the economic mainstream, in the form of commodities. For the purposes of this Agreement, Recyclable Materials shall be those discarded materials that the City Municipal Code permits, directs and/or requires Waste Generator to set out in a Container, which is specifically designated for Recyclable Materials, for Collection for the purpose of Recycling. No discarded material shall be considered to be recyclable Material unless it is separated from Solid Waste. Recyclable Material may include, but is not limited to, newspaper, mixed paper, glass containers, metal and aluminum cans, plastic bottles, corrugated cardboard, and used motor oil.

2. **Section 2,** Exclusive Rights, is amended to add the following:

The CITY grants to FRANCHISE HAULER an exclusive right for the collection, transportation, and reporting of all construction and demolition debris (C&D) within the City of Madera as described in City Code 5-3.30, except where preempted by state provisions for self hauling. In consideration of assigning this exclusive right, the Franchise Hauler agrees to pay to the City an administrative fee of 10% of the gross charges for all hauling, processing, and services for disposal of C&D and for all roll-off refuse services provided within the City of Madera. The FRANCHISE HAULER further agrees and assures that a minimum of 50% all C&D material will be recycled and documented as required by the State of California and the City of Madera.

The rates for roll-off bin services and C&D services shall be set as listed below and are subject to annual increases at the first of each calendar year based on the CPI referred to in the original Agreement:

Delivery - $79.00 for delivery of a Roll-off bin
Haul Charges:
10 yard Roll-off bin - $131.50 each time the bin is hauled away
20 yard Roll-off bin - $147.25 each time the bin is hauled away
30 yard Roll-off bin - $163.25 each time the bin is hauled away
40 yard Roll-off bin - $179.00 each time the bin is hauled away
50 yard Roll-off bin - $194.75 each time the bin is hauled away

Composting - $200.00 shall be charged for green waste material in addition to hauling and delivery charges.

Solid Waste Disposal - $41.00/ton shall be charged for solid waste material in addition to hauling and delivery charges.

C&D Recycling - $48.00/ton shall be charged for processing C&D material in addition to Hauling and delivery charges.

The FRANCHISE HAULER shall provide a program of sharps collection using two sharps kiosks paid for by Mid Valley Disposal to be located at two sites designated by the Madera City Council. Franchise Hauler will also provide an on-going informational campaign on how the public can access the program; and will use all customary print and electronic forms of public outreach to promote the sharps collection program. Said program shall at a minimum include an annual flyer distributed independently to every residence within the City by mail or hand delivery. An alternative public outreach program may be used if approved by the City.

In the event of a conflict between this section and any contract documents, this section shall prevail.

3. All other provisions not in conflict herewith, shall remain in full force and effect.

IN WITNESS WHEREOF, the parties hereto have caused this Amendment to be executed by and through their respective offices duly authorized on the date first written above.

CITY OF MADERA

By: _____
Robert L. Poythress, Mayor

Date: _____

MID VALLEY DISPOSAL

By: _____

Date: 5-26-15

ATTEST:

By: _____
Sonia Alvarez, City Clerk

APPROVED AS TO LEGAL FORM:

_____
Brent Richardson, City Attorney

Date: _____

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REPORT TO THE CITY COUNCIL

COUNCIL MEETING OF:
September 2, 2015

AGENDA ITEM NUMBER:
C-2

Approved By:

COMMUNITY DEVELOPMENT DIRECTOR

CITY ADMINISTRATOR

SUBJECT: **PUBLIC HEARING AND CONSIDERATION OF A RESOLUTION ADOPTING A NEGATIVE DECLARATION FOR THE CITY OF MADERA CLIMATE ACTION PLAN AND APPROVING THE CLIMATE ACTION PLAN**
AND
CONSIDERATION OF A MINUTE ORDER DESIGNATING THE COMMUNITY DEVELOPMENT DIRECTOR AS CLIMATE ACTION PLAN COORDINATOR FOR THE CITY

RECOMMENDATION:

It is recommended that the Council conduct a public hearing and then adopt the resolution adopting a negative declaration for the City of Madera Climate Action Plan (CAP) and approving the CAP. It is also recommended that the City Council designate the Community Development Director as the City's CAP Coordinator.

SUMMARY:

The City of Madera Climate Action Plan is a long-range plan to reduce greenhouse gas (GHG) emissions from City government (municipal) and community-wide activities within the City of Madera and prepare for the anticipated effects of climate change. Implementation of the measures identified in the CAP will not only reduce GHG emissions, but also support local economic development and improve public health and quality of life.

DISCUSSION:

The City's CAP has been completed and made available for public review, and is now available for consideration and adoption by the City Council. In compliance with the California Environmental Quality Act (CEQA), a Negative Declaration for the Proposed CAP has also been prepared, and is included in this package for consideration and adoption.

Background

In 2009, the City of Madera completed a comprehensive update to its General Plan, which included a number of goals, policies and action items aimed at reducing GHG emissions from both City operations and the community as a whole. As part of its General Plan, the City specifically committed to preparing a GHG inventory and a CAP. This effort started and stopped during the first few years after the adoption of the General Plan, due to a

combination of factors mostly focusing on workload and funding availability. Eventually, the Council approved an agreement with Rincon Consultants to work with the City to prepare the CAP.

Purpose

The purpose of the City's Proposed CAP is to identify the sources and quantity of GHG emissions generated within Madera and to include strategies to reduce them in the future. In addition to reducing GHG emissions, implementation of a CAP will help achieve multiple community goals such as lowering energy costs, reducing air and water pollution, downtown revitalization, supporting local economic development, and improving public health and quality of life.

Greenhouse Gas Inventory

Key first steps in the preparation of the CAP include conducting an inventory of "existing' or baseline emissions, and setting targets for emissions reductions. In accordance with the the City's General Plan, the CAP utilizes 2007 data to calculate baseline emissions. In 2007, the Madera community as a whole emitted approximately 324,690 metric tons of carbon dioxide equivalent GHG emissions (MT CO_2e). The largest contributors of GHG emissions were the Transportation & Mobile Sources (58 percent), Residential Energy (20 percent), and Commercial/Industrial Energy (17 percent) sectors. The remainder of emissions resulted from the Solid Waste (4 percent), Water (one percent) and Wastewater (less than one percent) sectors.

Reduction Targets

The CAP establishes a reduction goal or target to achieve emissions levels 15 percent below 2007 levels by 2020 consistent with the State's GHG reduction goal established under Assembly Bill 32. The CAP also establishes a longer-term target of 20 percent below 2007 levels by 2030 to support California's larger effort to reduce statewide emissions under Executive Orders S-3-05 and B-30-15. These targets are consistent with the City's General Plan.

Reduction Measures

To achieve the GHG reduction targets of 15 percent below 2007 levels (275,987 MT CO_2e) by 2020 and 20 percent below 2007 levels (259,752 MT CO_2e) by 2030, the CAP identifies a comprehensive set of GHG reduction measures. These measures are organized into the following focus areas: Local Government, Energy, Transportation and Land Use, Solid Waste, Water and Wastewater, Urban Greening, and Adaptation. Measures were selected based on consideration of the emission reductions needed to achieve the targets, the distribution of emissions revealed in the GHG emissions inventory, goals and policies identified in City's 2009 General Plan Update, existing and ongoing efforts and priorities, and the potential costs and benefits of each measure.

Proposed reduction measures are described in detail in Chapter 3 of the CAP. Chapter 4 includes summaries of anticipated costs, benefits, and timing. In general terms, the majority of GHG reductions measures include the following categories of actions and programs:

- Measures already implemented, such as water and energy reducing measures implemented by the City since 2007.

- Continued implementation of existing policies and action items adopted with 2009 City General Plan, such as implementing the adopted land use plan and policies and emphasizing pedestrian and transit friendly environments.

- *Evaluating and considering* new or expanded activities and programs; seeking grant funding for those activities and programs; and implementing measures, projects and programs as funding is available. Examples include considering new solar projects and considering participation in PG&E's green energy program.

- Providing information and education, and promoting activities and programs which could reduce GHG emissions, such as energy reduction, water conservation, and vehicle trip reduction – at both the City and community-wide levels.

Reductions Achieved By Measures

Collectively, the measures identified in the CAP have the potential to reduce GHG emissions within Madera by 33,601 MT CO_2e by 2020 and 92,341 MT CO_2e by 2030. This would bring 2020 emissions to 272,140 MT CO_2e (equivalent to 16 percent below 2007 levels) and 2030 emissions to 256,087 MT CO_2e (equivalent to 21 percent below 2007 levels). These figures meet and slightly exceed the reductions necessary to meet the targets.

Future Monitoring

The key to long-term success in climate action planning is to periodically measure and track reductions associated with Madera's climate action measures. If the City is not getting the anticipated results, it can reevaluate strategies and decide whether alternative measures would get better results. An annual progress report will be prepared for the CAP which evaluates the measures described in the document and suggests adjustments as needed.

To evaluate the performance of the CAP as a whole, the document calls for an update of the community and municipal GHG inventories every five years using the most up-to-date calculation methods, data, and tools. Inventory updates provide the best indication of CAP effectiveness as they will allow for comparison to the 2007 baseline. If an update reveals that the plan is not making progress toward meeting the GHG reduction target, the City will adjust the measures as necessary.

A lead staff person, or CAP Coordinator, should be designated to oversee the implementation and monitoring process. Unless the Council has a preferred alternative, the Community Development Director may be designated for this role.

Negative Declaration – CEQA Compliance

In compliance with CEQA, an Initial Study was completed for the Proposed CAP to evaluate whether the CAP will result in environmental impacts, and if so, their significance. Based on the Initial Study, no potentially significant environmental impacts were identified. As such, staff recommends that the Negative Declaration be adopted. A copy of the Initial Study/Negative Declaration is included as an attachment to this staff report.

FISCAL IMPACT:

Estimated potential costs of the recommended GHG reduction measures are summarized in Chapter 4 of the CAP. However, the majority of projects and programs reflect existing projects or programs, or projects that would be accomplished at the staff level as part of regular workload. New projects or programs, for which there may be new cost, such as PG&E Green Energy programs, are presented as elements to be "considered or evaluated" or to be "implemented as funding is available". Based on these factors, staff does not anticipate a substantive near-term fiscal impact. Over-time, the City Council may elect to pursue new programs with defined costs, at which time a more detailed evaluation of funding sources and availability should be completed.

CONSISTENCY WITH THE VISION MADERA 2025 PLAN

The preparation and adoption of a GHG inventory and CAP is consistent with the Vision 2025 statement for a safe and healthy environment. The Vision Action Plan also calls for the development of a sustainable-community plan and includes actions related to the promotion and use of alternative energy.

RESOLUTION NO. 15-___

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MADERA, CALIFORNIA, ADOPTING A NEGATIVE DECLARATION FOR THE CITY OF MADERA CLIMATE ACTION PLAN AND APPROVING THE CLIMATE ACTION PLAN

WHEREAS, the City of Madera adopted a comprehensive update to its General Plan in October of 2009; and

WHEREAS, the City of Madera 2009 General Plan Update includes policies calling for the completion of a greenhouse gas inventory and climate action plan addressing City operations and the community as a whole (hereinafter referred to, together, as "the CAP"); and

WHEREAS, the City engaged Rincon Consultants in November of 2012 to assist the City in its preparation of the CAP; and

WHEREAS, during the course of preparing the CAP the public was invited to participate in the process through the City's web-site and through a noticed public workshop held on March 19, 2015; and

WHEREAS, City and Rincon Consultants completed a Draft CAP and made the Draft CAP available for review to the public through the City's website and through a public notice published in the Madera Tribune on July 28, 2015; and

WHEREAS, an Initial Study was completed for the Draft CAP in accordance with the California Environmental Quality Act; and

WHEREAS, the Initial Study failed to identify the potential for any significant impact to occur as the result of the CAP, and, as such, a negative declaration was deemed the appropriate environmental document for the CAP; and

WHEREAS, a public notice of the availability of the Initial Study/Negative Declaration was published in the Madera Tribune on July 28, 2015 and no comments were received regarding the environmental document or the CAP; and

WHEREAS, the City Council conducted a public hearing on September 2, 2015 to take public input regarding the Proposed CAP; and

WHEREAS, the City Council desires to adopt the negative declaration and approve the CAP.

NOW THEREFORE, THE COUNCIL OF THE CITY OF MADERA, HEREBY, finds, orders and resolves as follows:

1. The above recitals are true and correct.

2. Based upon the information included in the Initial Study and proposed Negative Declaration, the adoption of the Initial Study/Negative Declaration is in the best

interest of the City of Madera, and the City Council finds that in light of the whole record in this matter, there is no substantial evidence in the record that the project may have a significant effect on the environment. The Initial Study/Negative Declaration prepared for the CAP is the appropriate environmental document, and the decision is based upon the independent judgment of the City Council.

3. The Initial Study/Negative Declaration for the CAP, a copy of which is on file with the City Clerk, is hereby adopted.

4. The City of Madera Greenhouse Gas Inventory and Climate Action Plan, a copy of which is on file with the City Clerk, is hereby adopted.

5. This resolution is effective immediately upon adoption.

* * * * * * * *

City of Madera
Climate Action Plan

Draft
Initial Study and Negative Declaration

Prepared for:

City of Madera
205 W. 4th Street
Madera, Ca 93637

Attention: David Merchen

Prepared with the assistance of:

Rincon Consultants, Inc.
1530 Monterey Street, Suite D
San Luis Obispo, California 93401

July 24, 2015

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INTRODUCTION

LEGAL AUTHORITY

This Initial Study/Negative Declaration (IS/ND) has been prepared in accordance with the *California Environmental Quality Act (CEQA) Guidelines* and relevant provisions of CEQA of 1970, as amended.

Initial Study. Section 15063(c) of the *CEQA Guidelines* defines an Initial Study as the proper preliminary method of analyzing the potential environmental consequences of a project. The purposes of an Initial Study are:

1) To provide the Lead Agency with the necessary information to decide whether to prepare an Environmental Impact Report (EIR) or a Negative Declaration (ND);
2) To enable the Lead Agency to modify a project, mitigating adverse impacts, thus avoiding the need to prepare an EIR; and
3) To provide sufficient technical analysis of the environmental effects of a project to permit a judgment based on the record as a whole, that the environmental effects of a project have been adequately mitigated or require further in-depth study in an EIR.

Negative Declaration or Mitigated Negative Declaration. Section 15070 of the *CEQA Guidelines* states that a public agency shall prepare a negative declaration or mitigated negative declaration for a project subject to CEQA when:

1) The initial study shows that there is no substantial evidence, in light of the whole record before the agency, that the project may have a significant effect on the environment; or
2) The Initial Study identifies potentially significant effects but:
    a) Revisions in the project plans or proposals made by, or agreed to by the applicant before a proposed mitigated negative declaration and initial study are released for public review would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur; and
    b) There is no substantial evidence, in light of the whole record before the agency, that the project as revised may have a significant effect on the environment.

An IS/ND may be used to satisfy the requirements of CEQA when a proposed project would have no significant unmitigable effects on the environment. As discussed further in subsequent sections of this document, implementation of the proposed project would not result in any significant effects on the environment that cannot be reduced to below a level of significance.

IMPACT ANALYSIS AND SIGNIFICANCE CLASSIFICATION

The following sections of this IS/ND provide discussions of the possible environmental effects of adoption and implementation of the proposed project for specific issue areas that have been identified in the CEQA Initial Study Checklist. For each issue area, potential effects are evaluated.

A "significant effect" is defined by Section 15382 of the *CEQA Guidelines* as "a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by a project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance." According to the *CEQA Guidelines*, "an economic or social change by itself shall not be considered a significant effect on the environment, but may be considered in determining whether the physical change is significant."

INITIAL STUDY – NEGATIVE DECLARATION

1. PROJECT TITLE:

City of Madera Climate Action Plan (CAP)

2. LEAD AGENCY NAME AND ADDRESS:

City of Madera
205 W.4th Street
Madera, CA 93637

3. CONTACT PERSON AND PHONE NUMBER:

David J. Merchen
Director of Community Development
(559) 661-5430
dmerchen@cityofmadera.com

4. PROJECT LOCATION: City of Madera

5. PROJECT SPONSOR'S NAME AND ADDRESS:

City of Madera
205 W. 4th Street
Madera, Ca 93637

6. GENERAL PLAN DESIGNATION:

The plan would be implemented throughout the City and would occur in all General Plan designations.

7. ZONING:

The plan would be implemented throughout the City in all zoning designations.

8. DESCRIPTION OF PROJECT:

The CAP is a policy document that sets forth policies and programs (collectively referred to as "CAP measures" or "climate action measures") and implementation actions to help the City of Madera reduce its greenhouse gas (GHG) emissions and prepare for the anticipated effects of climate change. CEQA requires the analysis of physical impacts on the environment. As such, the impact analysis focuses on adoption of the CAP and implementation of the climate action measures and actions and whether they would result in physical environmental impacts. It

should be noted that the CAP does not propose any land use or zoning changes, nor does it include any site-specific development. Further, any future site-specific discretionary projects would be subject to additional environmental review pursuant to CEQA.

Project Background

The State of California considers GHG emissions and the impacts of global warming to be a serious threat to the public health, environment, economic well-being, and natural resources of California, and has taken an aggressive stance to mitigate the state's impact on climate change through the adoption of policies and legislation. In 2005, the Governor issued Executive Order S-3-05, which identifies statewide GHG emission reduction goals to achieve long-term climate stabilization as follows: reduce GHG emissions to 1990 levels by 2020, and to 80 percent below 1990 levels by 2050.[1] Assembly Bill (AB) 32, also known as the Global Warming Solutions Act of 2006, subsequently codified the 2020 target, requiring California to reduce statewide GHG emissions to 1990 levels by 2020. AB 32 also directed the California Air Resources Board to develop a plan to identify how the 2020 target would be met. That plan, called the Climate Change Scoping Plan (Scoping Plan) was approved in 2008 and contains the main strategies California will implement to achieve the target. The Scoping Plan identifies local governments as "essential partners" in achieving the goals of AB 32 since local governments have primary authority to plan, zone, approve, and permit how land is developed and used in their jurisdictions. The Scoping Plan encourages local governments to adopt a reduction target that parallels the State commitment to reduce GHG emissions by approximately 15 percent to achieve 1990 emissions levels by 2020.

Project Description

The CAP is a programmatic, long-range planning document to reduce GHG emissions from community-wide activities and City government operations within Madera to support the State's efforts under AB 32 and to mitigate Madera's climate-related impacts. Specifically, the CAP does the following:

- Summarizes the results of the City's GHG Emissions Inventory Update, which identifies the major sources and quantities of GHG emissions produced within Madera and forecasts how these emissions may change over time.
- Identifies the quantity of GHG emissions that Madera will need to reduce to meet its target of 15 percent below 2007 levels by the year 2020, consistent with AB 32 and General Plan Action Item CON-36.2 and a longer term target of 20 percent below 2007 levels by 2030.
- Sets forth City government and community-wide GHG reduction measures, including performance standards which, if implemented, would collectively achieve the specified emission reduction target.

[1] Executive orders are binding only on State agencies. Accordingly, Executive Order S-03-05 will guide State agencies' efforts to control and regulate GHG emissions, but have no direct binding effect on local government or private actions.

- Identifies proactive adaptation strategies that can be implemented to help Madera prepare for anticipated climate change impacts.
- Sets forth procedures to implement, monitor, and verify the effectiveness of the climate action measures and adapt efforts moving forward.

Pursuant to the City General Plan Action Item CON 36.2, the CAP utilizes 2007 as the baseline year and 2020 and 2030 as the target years for achieving reductions. The 2020 target year corresponds with the target year identified in AB 32.

GHG Emissions Inventory and Forecasts

According to the GHG Emissions Inventory, the Madera community-as-a-whole emitted approximately 324,690 metric tons of carbon dioxide equivalent GHG emissions (MT CO_2e) in 2007, as a result of activities that took place within the transportation, residential energy use, commercial and industrial energy use, off-road, solid waste, and wastewater sectors. The largest contributors of GHG emissions were the Transportation & Mobile Sources (58 percent), Residential Energy (20 percent), and Commercial/Industrial Energy (17 percent) sectors. The remainder of emissions resulted from the Solid Waste (4 percent), Water (one percent) and Wastewater (less than one percent) sectors.

The inventory also analyzed GHG emissions from City government operations and facilities. The City government operations inventory is a subset of, and included within, the community inventory. In 2007, City government operations generated approximately 8,464 MT CO_2e.

Under the business-as-usual scenario (a projection of how emissions will change in the future based on 2007 emissions levels and projected growth in population, jobs, and vehicle miles traveled), Madera's community-wide GHG emissions are projected to grow approximately 29 percent above 2007 GHG emissions levels by the year 2020 (from 324,690 MT CO_2e to 418,797 MT CO_2e). This figure increases to 58 percent (511,542 MT CO_2e) in 2030.

The AB 32 Scoping Plan identifies several State measures that are approved, programmed, and/or adopted and would reduce GHG emissions within Madera. These State measures require no additional local action. These measures were incorporated into the forecast and reduction assessment to create an "adjusted forecast scenario," which provides a more accurate picture of future emissions growth and the responsibility of the City.

Under the adjusted forecast scenario, GHG emissions are projected to decrease approximately 27 percent below the business-as-usual scenario by the year 2020 (from 418,797 MT CO2e to 305,741 MT CO2e), and approximately 32 percent below the business-as-usual scenario by the year 2030 (from 511,542 MT CO2e to 348,428 MT CO2e). The table below summarizes the reduction in local GHG emissions that would result from State measures compared to the business-as-usual forecast and the adjusted forecast.

Table 1: Summary of State Reductions and Adjusted Forecast

State Measure	2020 Emissions (MT CO_2e)	2030 Emissions (MT CO_2e)
Business-as-Usual Forecast	418,797	511,542
Total Reduction from State Measures	-113,056	-163,114
Adjusted Forecast	**305,741**	**348,428**

Target

The City of Madera is committed to reducing its GHG emissions by 15 percent below 2007 levels by 2020, consistent with AB 32. Based on this target, Madera's 2020 targeted GHG emissions would be 275,987 MT CO_2e. The City also has a longer term target of 20 percent below 2007 levels by 2030 (259,972 MT CO_2e).

Climate Action Measures

To achieve the GHG emissions reduction targets and prepare for the anticipated effects of climate change, the CAP identifies a comprehensive set of climate action measures. These CAP measures are organized into the following focus areas, or categories: Local Government, Energy, Transportation and Land Use, Solid Waste, Water and Wastewater, Urban Greening, and Adaptation. The measures were selected based on consideration of the emission reductions needed to achieve the targets, the distribution of emissions revealed in the GHG emissions inventory, goals and policies identified in City's 2009 General Plan Update, existing and ongoing efforts and priorities, and the potential costs and benefits of each measure.

Collectively, the measures identified in the CAP have the potential to reduce GHG emissions within Madera by 33,601 MT CO2e by 2020 and 92,341 MT CO2e by 2030. This would bring 2020 emissions to 272,140 MT CO2e (equivalent to 16 percent below 2007 levels) and 2030 emissions to 256,087 MT CO2e (equivalent to 21 percent below 2007 levels), which meets and slightly exceeds the reductions necessary to meet the targets.

Table 2: Summary of GHG Reductions by Measure

Local Government			
LG-1	Municipal Energy Efficiency and Conservation	74	148
LG-2	Municipal Renewable Energy	445	611
LG-3	Fuel Efficient and Low-Carbon Vehicle Fleet	58	105
LG-4	Employee Commute Alternatives	41	66
LG-5	Municipal Solid Waste Diversion	19	28
LG-6	Tree Planting on City Property	16	33
	Local Government	**653**	**991**
Energy			
E-1	Energy Efficiency and Conservation in Existing Buildings	10,707	30,163
E-2	Energy Efficient New Construction	531	7,670
E-3	On-Site Small-Scale Renewable Energy	1,813	3,014
	Energy Total	**13,051**	**40,847**
Transportation and Land Use			
T-1	Infill and Mixed-Use Development	5,613	21,292
T-2	Bicycle and Pedestrian Environment	1,053	3,454
T-3	Transit Travel	2,404	4,757
T-4	Commute Trip Reduction	1,188	1,977
T-5	Traffic Flow and Vehicle Idling	265	401
T-6	Low Carbon Fuel Vehicles and Infrastructure	4,255	11,061
T-7	Construction and Off-Road Equipment	135	584
	Transportation and Land Use	**14,913**	**43,526**
Water and Wastewater			
W-1	Exceed SB X7-7 Water Conservation Target	494	653
W-2	Recycled Water	68	165
W-3	Wastewater Treatment Plant Upgrades	158	170
	Water and Wastewater Total	**720**	**988**
Solid Waste			
S-1	Solid Waste Reduction and Recycling	4,230	5,921
	Solid Waste Total	**4,230**	**5,921**
Urban Greening			
U-1	Trees and Vegetation	34	68
	Urban Greening	**34**	**68**
	Total	**33,601**	**92,341**

Implementation and Monitoring

Implementation and monitoring are essential processes to ensure that Madera reduces its GHG emissions and meets its target. To facilitate this, each climate action measure is identified along with implementation actions, parties responsible for implementation and monitoring, cost and savings estimates, the GHG reduction potential (as applicable), performance indicators to monitor progress, and an implementation time frame (see Chapter 4, Implementation and Monitoring, of the CAP). Climate action measure implementation is separated into three phases: near-term (by 2017), mid-term (2018-2022), and long-term (2023-2030).

In order to ensure that the CAP measures and actions are implemented and their progress is monitored, the CAP includes several implementation and monitoring policies which direct the City to establish a CAP Implementation Team and conduct periodic measure evaluation and GHG inventory and CAP updates. Pursuant to these measures, the City will establish a CAP Coordinator who will provide essential CAP oversight and coordination of a multi-departmental CAP Implementation Team comprised of key staff in each selected department. The CAP Implementation Team will meet at least one time per year to assess the status of CAP efforts. The City's CAP Coordinator will be responsible for developing an annual progress report to the City Council that will: identify the implementation status of each climate action measure and action; evaluate achievement of, or progress toward performance criteria/indictors (located in Chapter 5, Table 5-1 Implementation Matrix, of the CAP); assess the effectiveness of the climate action measures included in the CAP; report on the State's implementation of state-level measures included in Chapter 2 of the CAP; and recommend adjustments to climate action measures or implementation actions, as needed. An implementation and monitoring tool will facilitate this process. To evaluate the performance of the CAP as a whole, the City will re-inventory community-wide and municipal GHG emissions every five years and compare them to the 2007 baseline GHG emissions inventory. If an update reveals that the plan is not making progress toward meeting the GHG reduction target, the City will adjust the measures as necessary.

9. SURROUNDING LAND USES AND SETTING:

Madera is located near the geographic center of California and in the center of the Central Valley. The City is located in Madera County, approximately halfway between the cities of Fresno and Chowchilla, about 18 miles northwest of Fresno's city limits. The land within the City and its surrounding planning area is relatively flat, with no major hills. Much of the historic native vegetation in the region has been converted to urban and agricultural uses. Nonetheless, riparian and wetland habitats persist within the Planning Area. The Fresno River, Cottonwood Creek, Schmidt Creek, and other minor watercourses bisect the City. Portions of the Planning Area are within floodplains.

The Planning Area is crossed by two state highways (SR 99 and SR 145). Two rail lines pass through the area; Amtrak provides rail service to and from the City on the easternmost line. Madera Airport, a general aviation airport, is located in the northwest portion of the Planning Area. The closest commercial airline service to Madera is available at Fresno Yosemite International Airport, located approximately 23 miles southeast of Madera.

10. OTHER PUBLIC AGENCIES WHOSE APPROVAL IS REQUIRED (e.g., PERMITS, FINANCING APPROVAL OR PARTICIPATION AGREEMENT):

None.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated on the following pages:

- □ Aesthetics
- □ Agriculture and Forestry Resources
- □ Air Quality
- □ Biological Resources
- □ Cultural Resources
- □ Geology / Soils
- □ Greenhouse Gas Emissions
- □ Hazards & Hazardous Materials
- □ Hydrology / Water Quality
- □ Land Use / Planning
- □ Mineral Resources
- □ Noise
- □ Population / Housing
- □ Public Services
- □ Recreation
- □ Transportation / Traffic
- □ Utilities / Service Systems
- □ Mandatory Findings of Significance

DETERMINATION

On the basis of this initial evaluation:

■ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

□ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

□ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

□ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

□ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

_____ _____

Signature Date

_____

Printed Name

INITIAL STUDY
ENVIRONMENTAL CHECKLIST

	Potentially Significant Impact	Less Than Significant w/ Mitigation Incorporated	Less Than Significant Impact	No Impact
I. **AESTHETICS --** *Would the project:*				
a) Have a substantial adverse effect on a scenic vista?	□	□	■	□
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	□	□	■	□
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	□	□	■	□
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	□	□	■	□

Environmental Setting

In general, the dominant visual features within the Planning Area are the urban and semi-urban land uses that characterize medium sized towns in Central California. Outside the primary urban form, agricultural land uses prevail. Various species of trees are present throughout the City. Because the entire region is relatively flat, views of these resources are available from roadways throughout the City's planning area. Streams and the Fresno River are among the most significant natural visual features in the Planning Area. Distant views of the Sierra Nevada and Coast Ranges are available under clear conditions.

The Fresno River is the predominant natural feature in the City. The river has riparian habitat that provides textures and colors not commonly found in the urban environment. The river is dry for much of the year. There are considerable public view points of the Fresno River. Views are primarily confined to those from the seven bridges in Madera that cross the river, including the bridge that carries State Route 99 over the river.

There are no designated scenic highways in the Planning Area. With regard to historic resources, there are three properties listed in the Office of Historic Preservation (OHP) Directory of Properties for Madera. One property, the Madera County Courthouse, is listed on the National Register of

Historic Places. Two other properties are in Madera – the Luther Burbank School and the Dixie Motel.

Discussion

a,c) The CAP is a policy document that does not include any site-specific development, designs, or proposals, nor does it grant any entitlements for development that would potentially degrade the aesthetic quality of the environment. As a policy document, the CAP would not directly affect scenic vistas or the visual character or quality of the area. Implementation of the climate action measures and actions would generally be associated with activities, such as encouraging energy efficiency and conservation and the use of small-scale on-site solar energy systems; incentivizing smart growth (infill, mixed-use, and higher density development near transit stops) consistent with the General Plan; encouraging walking, bicycling, ride-sharing, and use of existing public transit; facilitating the use of low- and zero-emissions vehicles; and increasing solid waste diversion. It is not anticipated that implementation of the CAP measures and actions would result in substantial effects on a scenic vista or substantially degrade the existing visual character or quality of the area because the climate action measures and actions would not significantly affect the height, bulk, or scale of development resulting in large structures that could block or highly modify the visual environment.

The CAP includes climate action measures to improve and expand the City's bicycle, pedestrian, and transit networks. Implementation of these measures could result in installation of minor structures, including bicycle racks, benches, covered transit stops, and other alternative transportation related facilities. However, it is not anticipated that these structures would result in substantial effects to visual resources because structures would be small in nature and would not significantly affect the height, bulk, or scale of development or block or highly modify the visual environment. As a policy-document, the CAP does not include any site-specific development, designs, or proposals for related structures. Alternative transportation structures would be located in and near existing urbanized areas, consistent with the General Plan and Bicycle Master Plan. Further, any future site-specific discretionary projects would be subject to City policies and regulations related to the protection of visual resources, as well as additional environmental review pursuant to CEQA.

The CAP also includes a measure to encourage smart growth (i.e., infill, mixed-use, and/or high-density) development within the community, in accordance with the existing General Plan. Smart growth incentivized by the CAP would be located in and near existing urbanized areas, consistent with the General Plan. Implementation of this measure could result in increased density in these areas; however, impacts associated with this type of development were analyzed during environmental review of the General Plan. Furthermore, the CAP does not recommend specific densities, building heights massing or design of any projects, and precise project-level analysis would be speculative at this time. Any future site-specific discretionary projects would be subject to City policies and regulations related to the protection of visual resources, as well as environmental review pursuant to CEQA.

The CAP includes climate action measures to pursue small-scale on-site solar photovoltaic systems at City buildings and facilities and to encourage their installation throughout the community. In 2011, the California Legislature signed Senate Bill 226 and created a statutory exemption (CEQA exemption 21080.35) for solar photovoltaic systems installed on rooftops or existing parking lots (and meeting specified conditions, such as not exceeding 10 kilowatts in size). These solar installations that are exempt from CEQA are the type of solar energy projects anticipated to result from implementation of the CAP measures. Large-scale substantial solar energy facilities, such as solar farms or large solar panel installations that could have visual impacts are not the types of solar installations that would be incentivized through the measure. Implementation actions for this measure were designed consistent with the *California Solar Permitting Guidebook* (Governor's Office of Planning and Research, 2012) which facilitates streamlined permitting for solar systems under 10 kilowatt in size. According to the Guidebook, "This 10-kilowatt threshold captures approximately 90 percent of the solar photovoltaic systems that are currently installed. Above this size threshold, a system's design considerations become more complex." Further, any future proposed solar systems that exceed 10 kW in size or do not meet the requirements of CEQA exemption 21080.35 would be subject to additional environmental review pursuant to CEQA.

The CAP also includes climate action measures to pursue energy efficiency and conservation at City buildings and facilities and to encourage energy efficiency improvements in new and existing buildings throughout the City. However, making buildings more energy efficient does not inherently involve any design features that would adversely affect the aesthetic quality of the environment.

Because CAP measures and actions would not generally be of a nature or scale to substantially affect a scenic vista or the existing visual character or quality of the area, and any future site-specific discretionary projects would be subject to further development review, impacts would be less than significant.

b) There are currently no designated state scenic highways or eligible state scenic highways within or adjacent to Madera (City of Madera General Plan – 2009). No impacts to scenic highways would occur.

d) Implementation of the CAP would not result in the development of new significant sources light or glare. Distributed installation of small-scale solar photovoltaic systems is encouraged to reduce community-wide GHG emissions within the community; however, solar photovoltaic panels are specifically designed to absorb, not reflect, sunlight.

The CAP includes several climate action measures where implementation may include replacing public street and parking lot lighting with energy efficient lighting; however, this would not create new sources of light and glare. Furthermore, energy efficient lighting such as light-emitting diodes (LEDs) are directional light sources, which emit light in a specific direction, unlike incandescent and compact fluorescent bulbs which emit light in all directions (Energy Star, 2013). For this reason, LED lighting is able to provide a higher quality light that can be directed more precisely to control for glare and light pollution. Impacts would be less than significant.

	Potentially Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	No Impact
II. AGRICULTURAL RESOURCES -- *In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and Forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:*				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	□	□	□	■
b) Conflict with existing zoning for agricultural use or a Williamson Act contract?	□	□	□	■
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	□	□	□	■
d) Result in the loss of forest land or conversion or forest land to non-forest use?	□	□	□	■

e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use? □ □ □ ■

Environmental Setting

Agriculture plays a significant role in the economy of Madera County and the City of Madera. Agricultural uses account for approximately 44,356 acres in the City's General Plan Planning Area, which extends well outside the City limits. Between 1000 and 1500 acres of agricultural land are located within the city limits. The agricultural land in the City and includes orchards and vineyards. Outside the City limits, grazing land, row crops, field crops, and dairies are added.

The table provided below describes the designation of agricultural land under the Department of Conservation's Farmland Mapping and Monitoring Program. The table includes data for the City limits, as well as for the sphere of influence and the much larger general plan planning area. No land within the City limits is subject to a Williamson Act contract.

IMPORTANT FARMLAND IN MADERA PLANNING AREA

Farmland Type	Important Farmland (acres)			Total Acres
	City Limits (2008) Only	SOI outside City	Planning Area outside SOI	
Prime Farmland	958	3,916	15,186	20,060
Farmland of Statewide Importance	318	1,187	5,387	6,892
Unique Farmland	393	956	10,402	11,751
Farmland of Local Importance	363	793	1,425	2,581
Grazing Land	383	559	5,616	6,558
Urban and Built-up Land	6,043	3,505	1,117	10,665
Other Land*	1,053	4,120	3,419	8,592
Water	0	0	306	306
Total	9,511	15,036	42,858	67,405

Discussion

a-e) The CAP is a policy-level document that does not propose any land use or zoning changes, nor does it include any site-specific development. As such, implementation of the CAP would not have the potential to substantially degrade agricultural resources or convert agricultural or forest land to non-agricultural or non-forest uses, nor would it conflict with existing zoning. No impacts to agricultural resources would occur.

	Potentially Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	No Impact
III . AIR QUALITY -- *Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:*				
a) Conflict with or obstruct implementation of the applicable air quality plan?	□	□	■	□
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	□	□	■	□
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	□	□	■	□
d) Expose sensitive receptors to substantial pollutant concentrations?	□	□	■	□
e) Create objectionable odors affecting a substantial number of people?	□	□	□	■

Environmental Setting

Madera is located within the central portion of the San Joaquin Valley Air Basin (SJVAB), which is under the jurisdiction of the San Joaquin Valley Unified Air Pollution Control District (APCD). The APCD is required to monitor air pollutant levels to ensure that air quality standards are met and, if they are not met, to develop strategies to meet the standards. Depending on whether the standards are met or exceeded, the local air basin is classified as being in "attainment" or "non-attainment." The Environmental Protection Agency (EPA) has designated the SJVAB in extreme nonattainment area under the federal 8-hour ozone standard and in nonattainment for Particulate Matter 2.5 microns or smaller (PM2.5). The California Air Resources Board (ARB) has designated the SJVAB in severe nonattainment under the 1-hour ozone designation, and in nonattainment for the State's 8-hour ozone, PM10, and PM2.5 standards. The SJVAB meets the federal and State standards or is unclassifiable for all other pollutants.

The State Implementation Plan for the State of California is administered by the California Air Resources Board, which has overall responsibility for statewide air quality maintenance and air pollution prevention. A State Implementation Plan is prepared by each state describing existing air quality conditions and measures that will be followed to attain and maintain National Ambient Air Quality Standards. The State Implementation Plan incorporates individual federal attainment plans for regional air districts. In the case of the City of Madera, that is the San Joaquin Valley Unified Air Pollution Control District. Federal attainment plans prepared by each air district are sent to California ARB to be approved and incorporated into the California State Implementation Plan. Federal attainment plans include the technical foundation for understanding air quality (e.g., emission inventories and air quality monitoring) control measures and strategies and enforcement mechanisms.

Discussion

a-d) The CAP itself does not create physical growth and will not impact air quality beyond what is anticipated in the existing General Plan. Projects that are consistent with the General Plan are also consistent with the Clean Air Plan, as the regional air quality impacts associated with the implementation of the General Plan were evaluated during development of the Clean Air Plan. Therefore, the CAP is consistent with the Clean Air Plan and would not conflict with or obstruct implementation of the plan. Furthermore, the purpose and intended effect of the CAP is to reduce GHG emissions within the City to help reduce the effects of climate change, which has the secondary benefit of also reducing criteria pollutant emissions.

CAP measures and implementation actions identified in the CAP aim to increase energy efficiency, reduce vehicle miles traveled, promote travel via low- and zero- emissions modes (i.e., walking, bicycling, transit, electric vehicles, and other alternatively fueled vehicles), reduce gasoline and diesel fuel use, reduce potable water use, increase renewable energy use, and improve waste management efficiency. Implementation of these CAP measures and actions would aid in reducing overall GHG emissions, as well as criteria pollutant emissions, help meet applicable air quality plan goals, and reduce sensitive receptor exposure to pollutant concentrations. Impacts related to air quality would be less than significant.

e) The CAP does not contain any climate action measures that would directly result in the creation of objectionable odors. The CAP would not facilitate any specific development projects that would create odors. No impact would occur.

	Potentially Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	No Impact
IV. BIOLOGICAL RESOURCES -- *Would the project:*				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any speciesidentified as a candidate, sensitive or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	□	□	■	□
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	□	□	■	□
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	□	□	■	□
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	□	□	■	□
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	□	□	■	□
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	□	□	■	□

Environmental Setting

The City of Madera is located in the northern San Joaquin Valley. Bounded on the east by the Sierra Nevada foothills and on the west by the Coast Ranges, the landscape of Madera is relatively flat, consisting of basins, plains, terraces, alluvial fans, and scattered hills or buttes. Prior to development, the natural vegetation within the vicinity of the City of Madera was characterized by vast stretches of savanna traversed by the riparian stands of the Fresno River and other waterways. The range of natural vegetation communities has been significantly reduced from historic levels as a result of conversion of these lands to urban and agricultural uses. Only scant disturbed remnants of these natural communities remain within the Planning Area.

Agricultural and suburban development has nearly eliminated most historic natural communities. Nonetheless, riparian and wetland habitats persist within the City's planning area, though much of this area is located outside the City limits. These habitats are considered sensitive by the California Department of Fish Game (CDFG) and have the potential to contain special-status species. Riparian habitat is found along the Fresno River, Schmidt Creek, Cottonwood Creek, and Dry Creek, as well as some of the smaller canals and drainages within the planning area. In addition, the annual grassland habitat within the grazing lands in the eastern portion of the Planning Area has potential to contain vernal pool and seasonal wetland complexes. Northern hardpan vernal pool habitat has been mapped and documented in CDFG's California Natural Diversity Database (CNDDB) as occurring just east of the Planning Area (CDFG).

The City is not directly affected by any adopted Habitat Conservation Plan, Natural Community Conservation Plan, or any adopted biological resources recovery or conservation plan of any federal or state agency. The City of Madera is within the boundaries of the Recovery Plan for Upland Species of the San Joaquin Valley (USFWS 1998). However, the development under the City's General Plan was found not to conflict with the Recovery Plan (City General Plan – 2009).

Discussion

a-d) The CAP is a policy-level document that does not include any site-specific development, designs, or proposals, nor does it grant any entitlements for development that would result in biological resource impacts. Infill development and smart growth incentivized by the CAP, and alternative transportation facilities would be located in and near existing urbanized areas, consistent with the General Plan and Bicycle Master Plan. Further, any future site-specific discretionary projects would be subject to additional environmental review pursuant to CEQA. Implementation of the CAP would not have a substantial adverse effect, either directly or indirectly through habitat modifications, on any species identified as a candidate, sensitive, special status species or wildlife movement. In addition, the CAP would not have a substantial adverse effect on any riparian habitat or sensitive natural community. Impacts would be less than significant.

e) The City's General Plan Conservation Element contains goals and policies to identify, protect, and enhance significant ecological and biological resources within Madera, and to ensure that special status plant and animal species, and their habitats, are protected in compliance with applicable laws and regulations. The CAP does not permit any specific development nor would it add or enable any new development that would conflict with these local goals or policies ordinances protecting biological resources. Impacts would be less than significant.

f) The CAP would not facilitate any specific development projects nor would it add or enable any new development that would conflict with an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. Impacts would be less than significant.

	Potentially Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	No Impact
V. CULTURAL RESOURCES -- *Would the project:*				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	□	□	■	□
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	□	□	■	□
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic features?	□	□	■	□
d) Disturb any human remains, including those interred outside of formal cemeteries?	□	□	■	□

Environmental Setting

Previous archaeological and historical investigations have covered only about 5 percent of the City of Madera Planning Area. These investigations identified 54 historic buildings/structures and a historic site (i.e., remnants of a building/structure). There are likely cultural artifacts that can be found along waterways in the Central Valley, including the City of Madera area, items left over from native tribes such as handmade fishing and food gathering tools. Places centered on waterways were used for fishing, hunting, and other food resources. In addition, the waterways historically were made useful as a mode of transportation between settlements. Three of the known historic buildings/structures within the Planning Area are either listed in or eligible for listing in the National Register of Historic Places (NRHP) (See table below).

Site Number	Site Identification	Year Built	Location	NRHP Eligibility Status
P-20-002516	Madera County Courthouse	1900	210 W. Yosemite Avenue	Listed
P-20-002497	Luther Burbank School	1925	328 Madera Avenue	Eligible
P-20-002494	Dixie Motel	1934	1100 S. Gateway Drive	Eligible

With regard to Paleontological resources, a search of the University of California Museum of Paleontology (UCMP) collections database identified 199 locations in Madera County where paleontological resources have been identified. The majority (192) of these were discovered at a single location 20 miles northeast of the City. Several thousand fossils have been found at the Fairmead Landfill which is approximately 20 miles northwest of the City. The database search did not identify any paleontological resources in the Planning Area, and the geography and geology of the area suggest that it most likely does not contain fossil resources.

Discussion

a-d) The Madera CAP is a policy-level document that does not include any site-specific development, designs, or proposals, nor does it grant any entitlements for development that will cause a substantial adverse change in the significance of a historical, cultural, or archaeological resource. Further, any future site-specific discretionary projects would be subject to additional environmental review wherein any site-specific cultural resource impacts would be addressed. Impacts would be less than significant.

	Potentially Significant Impact	Less Than Significant Unless Mitigated	Significant Impact	No Impact
VI. GEOLOGY AND SOILS -- *Would the project:*				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	□	□	■	□
ii) Strong seismic ground shaking?	□	□	■	□

iii) Seismic-related ground failure, including liquefaction?	□	□	■	□
iv) Landslides?	□	□	■	□
b) Result in substantial soil erosion or the loss of topsoil?	□	□	■	□
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on-or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	□	□	■	□
e) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	□	□	■	□
f) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	□	□	■	□

Environmental Setting

The City of Madera and the surrounding area are located in the Great Valley Geomorphic Province of California, more commonly referred to as the San Joaquin Valley. The San Joaquin Valley is made up largely of alluvial fans sourced from the Sierra Nevada Range to the east, the Coastal Range to the west, and to some degree the Tehachapi Mountains to the south. Weathering of these mountain ranges combined with surface water flows and flooding have resulted in accumulation of alluvial (river), lacustrine (lake), and marine (ocean) deposits throughout the San Joaquin Valley at extreme depths of many thousands of feet (Madera County, 1995). Alluvium depths in the vicinity of the City of Madera average 500 feet, with depths generally increasing from east to west.

The area is generally flat with some areas of undulating slopes. The City and surrounding environs contain the Fresno River and several smaller drainages, such as Schmidt and Cottonwood creeks, that have higher slopes in some locations along their length. Much of the topography along these banks has been heavily modified as a result of flood control and other efforts.

The City slopes generally downhill from northeast to southwest, with the highest elevations (about 315 feet above mean sea level (msl)) located in the vicinity of Lake Madera northeast of the City limits and the lowest elevations (about 210 feet above msl) located west of the wastewater treatment plant, southwest of the City limits.

Discussion

a-e) The CAP is a policy-level document that does not include any site-specific development, designs, or proposals, nor does it grant any entitlements for development that would directly impact or be impacted by geology and soils. The CAP does not propose any site specific development that would expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: rupture of a known earthquake fault, strong seismic ground shaking, seismic-related ground failure, including liquefaction, or landslides. Further, any future site-specific discretionary projects would be subject to additional environmental review wherein any site-specific impacts related to geology and soils would be addressed. Impacts would be less than significant.

	Potentially Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	No Impact
VII. GREENHOUSE GAS EMISSIONS – *Would the project:*				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	□	□	■	□
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	□	□	■	□

Environmental Setting

In 2009, the San Joaquin Valley Unified APCD adopted Policy providing direction regarding the assessment of the significance of project specific Greenhouse Gas (GHG) emissions impacts on global climate change GHG thresholds. The purpose of the Policy in order to help lead agencies assess the significance of GHG impacts of new projects subject to CEQA. The Policy established the following process for evaluating GHG significance:

- Projects determined to be exempt from the requirements of CEQA would be determined to have a less than significant individual and cumulative impact for GHG emissions and would not require further environmental review, including analysis of project specific GHG emissions. Projects exempt under CEQA would be evaluated consistent with established rules and regulations governing project approval and would not be required to implement BPS.

- Projects complying with an approved GHG emission reduction plan or GHG mitigation program which avoids or substantially reduces GHG emissions within the geographic area in which the project is located would be determined to have a less than significant individual and cumulative impact for GHG emissions. Such plans or programs must be specified in law or approved by the lead agency with jurisdiction over the affected resource and supported by

a CEQA compliant environmental review document adopted by the lead agency. Projects complying with an approved GHG emission reduction plan or GHG mitigation program would not be required to implement BPS.

- Projects implementing Best Performance Standards would not require quantification of project specific GHG emissions. Consistent with CEQA Guideline, such projects would be determined to have a less than significant individual and cumulative impact for GHG emissions.

- Projects not implementing Best Performance Standards would require quantification of project specific GHG emissions and demonstration that project specific GHG emissions would be reduced or mitigated by at least 29%, compared to BAU, including GHG emission reductions achieved since the 2002-2004 baseline period, consistent with GHG emission reduction targets established in ARB's AB 32 Scoping Plan. Projects achieving at least a 29% GHG emission reduction compared to BAU would be determined to have a less than significant individual and cumulative impact for GHG.

- Projects requiring preparation of an Environmental Impact Report would require quantification of project specific GHG emissions. Projects implementing BPS or achieving at least a 29% GHG emission reduction compared to BAU would be determined to have a less than significant individual and cumulative impact for GHG.

As identified in the APCD's Policy, if a project is consistent with an adopted Qualified GHG Reduction Strategy (i.e., a CAP) that addresses the project's GHG emissions, it can be presumed that the project will not have significant GHG emission impacts and the project would be considered less than significant. This approach is consistent with CEQA Guidelines Sections 15064(h)11 and 15183.5(b). The City's CAP was developed to be consistent with State CEQA Guidelines Section 15183.5 and APCD's CEQA Handbook to mitigate emissions and climate change impacts and will therefore serve as a Qualified GHG Reduction Strategy for the City of Madera.

Discussion

a) The CAP creates a comprehensive GHG emissions reduction strategy (consistent with Section 15183.5 of the CEQA Guidelines and the APCD CEQA Handbook) for the City of Madera. The CAP contains a series of climate action measures and actions to reduce cumulative GHG emissions by a minimum of 15 percent below 2007 levels by 2020 and 20 percent below 2007 levels by 2030. Impacts would be less than significant.

b) The CAP includes climate action measures and actions to reduce the City's GHG emissions by at least 15 percent below 2007 levels by 2020 in accordance with AB 32 (see Table 2 of this Initial Study). As stated in the project description, the purpose of the CAP is to reduce Madera's proportionate share of the statewide target set by AB 32. The CAP would not conflict with any applicable GHG reduction plan. Furthermore, the CAP is consistent with the APCD's CEQA Handbook and meets all of the criteria specified therein as it pertains to a Qualified Greenhouse Gas Reduction Strategy. Impacts would be less than significant.

	Potentially Potentially Significant Impact	Less Significant Unless Mitigated	Than Significant Impact	No Impact
VIII. HAZARDS AND HAZARDOUS MATERIALS -- Would *the project:*				
a) Create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials?	□	□	■	□
b) Create a significant hazard to the public or the environment through reasonable foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	□	□	■	□
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	□	□	■	□
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	□	□	■	□
e) For a project located within an airport land use plan, or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	□	□	■	□
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	□	□	■	□

g) Impair implementation of or physically Interfere with an adopted emergency response plan or emergency evacuation plan?	□	□	■	□
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	□	□	■	□

Environmental Setting

During the course of updating its General Plan in 2009, the City evaluated existing and potential hazards within the City limits and the general plan planning area. No unique conditions were identified and no significant exposure to new hazards was found. Existing and potential hazards in the City may be grouped into following categories:

- Transport of hazardous materials: hazardous materials, such as explosives, poisonous inhalation hazards, and radioactive materials, may be transported in and through the City via local streets, state highways, and the southern pacific rail line.
- Exposure to hazardous materials. Exposure to hazardous material may occur through contaminants entering the groundwater, including pesticides and materials used as part of local businesses.
- Airport operations hazards: hazards may occur in the form of accidents resulting from the operation of the Madera Airport.

In each instance, potential hazards are subject to federal, state, and local regulations and in most instances operations and handling of potential hazardous materials are subject to reporting at the federal and state level. Hazards may also result from any action which limits or interferes with the implementation of a local agency's emergency response plan. In the case of the City of Madera, an emergency response plan is in the process of being prepared.

Discussion

a-f, h) The CAP does not involve any site-specific development nor would it directly facilitate new development. Implementation of the proposed CAP measures would not involve the routine transport, use, or disposal of hazardous materials, and would not create reasonably foreseeable upset and/or accident conditions involving the release of hazardous materials into the environment. Therefore, no adverse impacts with regard to hazards to the public or environment, hazardous materials with ¼ mile of a school, development on a hazardous material site, or development near an airport or airstrip would occur. Further, the CAP would not expose people or structures to wildland fires. Impacts would be less than significant.

g) The CAP includes climate action measures to promote bicycle, pedestrian, and transit facilities, and would not impair implementation of an adopted emergency response plan. Furthermore, one of the adaptation measures supports emergency preparedness in response to anticipated effects of climate change by disseminating public preparedness and emergency response information, conducting training exercises, and identifying and focusing planning and outreach programs on particularly vulnerable populations. Impacts would be less than significant.

	Potentially Significant Impact	Less Than Significant Unless Mitigated	Less Than Significant Impact	No Impact
VIII. HYDROLOGY AND WATER QUALITY . *Would the project:*				
a) Violate any water quality standards or waste discharge requirements?	□	□	□	■
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of preexisting nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	□	□	■	□
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on-or off-site (e.g. downstream)?	□	□	■	□
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner, which would result in flooding on-or off-site?	□	□	■	□
e) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?	□	□	■	□
f) Otherwise substantially degrade water quality?	□	□	■	□
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	□	□	■	□

h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	□	□	■	□
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	□	□	■	□
j) Inundation by seiche, tsunami, or mudflow?	□	□	■	□

Environmental Setting

The climate in the region is mild in the winter and hot in the summer. According to the National Weather Service, the annual average precipitation for the area ranges from 4.7 to 20.7 inches (NWS, 2008). The Fresno River is the main hydrologic feature in the City. The river flows west from the Sierra Nevada through the City of Madera before entering the Chowchilla Bypass in western Madera County, eventually discharging into the San Joaquin River. The Fresno River is dry throughout much of the year, with flow depending mainly on water releases from upstream water agencies. Other surface hydrologic features in the Planning Area are Cottonwood Creek, Dry Creek, Schmidt Creek, and Madera Lake. Because of the lack of significant grade (slope), the predominant method of runoff disposal in the city is the use of retention basins that are excavated below ground level. Some areas, however, drain to the Fresno River or to Madera Irrigation District conveyance facilities. The Fresno River is typically dry within the city limits and usually flows only in the wettest years (City of Madera, 2004).

The Planning Area is located within the boundaries of the Madera Subbasin of the San Joaquin Valley Groundwater Basin. The subbasin is bounded on the south by the San Joaquin River, on the west by the eastern boundary of the Columbia Canal Service area, on the north by the southern boundary of the Chowchilla subbasin, and on the east by the crystalline bedrock of the Sierra Nevada foothills (DWR, 2004). Both the San Joaquin Valley Groundwater Basin and the Madera Subbasin have been in a state of overdraft for several years.

Aside from a small group of localized water quality issues, the quality of the groundwater available to the City of Madera is excellent and is, for the most part, usable for potable purposes without treatment. It is not anticipated that water quality issues associated with the groundwater in the area will have a significant impact on water service reliability in the near or long term. The City monitors the quality of all water produced from its wells and reports this data annually to the State and to its customers

Discussion

a) Implementation of the CAP measures would not violate water quality standards or waste discharge requirements. No impact would result.

b-f) The CAP is a policy document that does not include any site-specific development, designs, or proposals, nor does it grant any entitlements for development. As a result, no adverse impacts related to groundwater or surface water quality, groundwater resources, runoff, or sensitive areas would occur. Further, one of the climate adaptation measures identifies a strategy to seek funding to enhance flood control and improve water quality. Impacts would be less than significant.

g-i) The CAP is a policy-level document that does not propose any land use or zoning changes, nor does it include any site-specific development. As such, implementation of the CAP would neither directly or indirectly expose people or structures to potential flood hazards or impede or redirect flood flows. Further, one of the climate adaptation measures calls on the City to prepare for anticipated climate change effects on water and limit community exposure to threats such as flooding, which may have a beneficial effect. Impacts would be less than significant.

j) The CAP is a policy-level document that does not include any site-specific development, designs, or proposals, nor does it grant any entitlements for development that would expose people and structures to inundation by seiches, tsunamis, or mudflows.

	Potentially Potentially Significant Impact	Less Significant Unless Mitigated	Than Significant Impact	No Impact
X. LAND USE AND PLANNING – *Would the project:*				
a) Physically divide an established community?	□	□	■	□
a) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	□	□	■	□
b) Conflict with any applicable habitat conservation plan or natural community conservation plan?	□	□	■	□

Environmental Setting

The City of Madera adopted a comprehensive update to its General Plan in 2009. The 2009 update provided for an expanded urban form to accommodate potential growth well through the 20 year planning horizon. The urban form is defined through a growth boundary, which is serves as the limits to which urban infrastructure can be extended. An intentional green belt is included outside the urban growth boundary on the City's land use map, with the intent of strengthening the

separation between and urban and rural land use patterns. Undeveloped areas between the existing City limits and the urban growth boundary are primarily identified with an "urban-reserve" designation, requiring a master planning process prior to development. Policies consistent with these general themes are included throughout the City's General Plan, including policies directly related to transportation and infrastructure, conservation, housing, and sustainability.

Discussion

a) The CAP does not include any climate action measures or any specific development projects that would divide an established community. The CAP includes several climate action measures that would support pedestrian and bicycle circulation and improved transportation alternatives, which would improve connectivity throughout Madera. Impacts would be less than significant.

b) The CAP is a policy-level document that does not propose any land use or zoning changes, nor does it include any site-specific development; therefore it would not conflict with the City's General Plan or Zoning Ordinance. The CAP includes a climate action measure to facilitate mixed-use, higher density, and infill development near transit routes, in existing community centers/downtowns, and in other designated areas. Implementation of this measure would occur in areas currently designated for these uses in the General Plan and in a manner consistent with existing policies. Any future site-specific discretionary projects would be subject to additional environmental review. Impacts would be less than significant.

c) The CAP does not include any site-specific development, designs, or proposals, nor does it grant any entitlements for development that would potentially conflict with any applicable habitat conservation plan or natural community conservation plan. Any future site-specific discretionary projects would be subject to subsequent environmental review wherein any site-specific impacts would be addressed accordingly. Impacts would be less than significant.

	Potentially Significant Impact	Less Than Significant Unless Mitigated	Significant Impact	No Impact
XI. MINERAL RESOURCES -- *Would the project:*				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	□	□	□	■
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	□	□	□	■

Environmental Setting

Madera does not contain any areas identified by the California Department of Mines and Geology as having substantial mineral resources and has no operating mine or quarry operations (provide source information).

Discussion

a-b) The CAP would not directly facilitate any specific development projects and would not add or enable development that could result in the loss of mineral resources. No impact to mineral resources would occur.

	Potentially Significant Impact	Less Than Significant Unless Mitigated	Significant Impact	No Impact
XII. NOISE -- *Would the project result in:*				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	□	□	■	□
1) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	□	□	■	□
2) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	□	□	■	□
3) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	□	□	■	□
4) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	□	□	■	□

5) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	□	□	■	□

Environmental Setting

Several sources of noise have been identified within the City of Madera. These sources include noise generated from transportation and non-transportation sources. Examples of transportation-related noise include aircraft operations associated with the Madera Airport, railroad operations along the two rail lines traversing the city (BNSF and SPRR), and vehicle traffic on local roadways and state highways.

Discussion

a-d) Implementation of the CAP measures would not result in exposure of persons to noise in excess of established standards or groundborne vibration or noise, nor would it result in a temporary, periodic, or permanent increase in ambient noise levels above existing levels. Several of the CAP measures are designed to encourage a shift from single occupancy vehicle to walking and bicycling or from conventional fuels to electric vehicles which would reduce vehicular travel and noise. Therefore, future ambient noise levels should be similar or somewhat reduced from present levels. Further, any future site-specific discretionary projects would be subject to additional environmental review wherein any site-specific noise impacts would be addressed. Impacts would be less than significant.

e-f) The CAP does not propose any land use or zoning changes, nor does it include any site-specific development which would expose people to excessive noise levels. Impacts would be less than significant.

	Potentially Significant Impact	Less Than Significant Unless Mitigated	Significant Impact	No Impact
XIII. POPULATION AND HOUSING – *Would the project:*				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	□	□	□	■
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	□	□	□	■

c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere? □ □ □ ■

Environmental Setting

Population

The table below indicates the historic population trends for the city of Madera. As shown in the table, the largest amount of growth was in the 1940s. Recently population growth has slowed. Between 1990 and 2000, the city experienced a 48 percent population increase, an average annual change of 3.6 percent. In the next ten year period, between 2000 and 2010, the city population grew by 42 percent, an average annual change of 3.6 percent. However, the average annual change from 2010 to 2014 was 0.6 percent.

POPULATION

City of Madera
1910-2013

Year	Population	Change	Average Annual Change
1910	2,404	-	-
1920	3,444	1,040	3.7%
1930	4,665	1,221	3.1%
1940	6,457	1,792	3.3%
1950	10,497	4,040	5.0%
1960	14,430	3,933	3.2%
1970	16,044	1,614	1.1%
1980	21,732	5,688	3.1%
1990	29,281	7,549	3.0%
2000	43,207	13,926	4.0%
2010	61,416	18,209	3.6%
2014	63,008	1,592	0.6%

Source: HCD Pre-Approved Data Package; State of California, Department of Finance, E-4 Population Estimates for Cities, Counties, and the State, 2010-2014; U.S. Census, 1910-2010.

Employment

The table below illustrates the labor force data for both the county and city of Madera. The city of Madera represents an estimated 35 percent of the labor force of Madera County and has 50 percent of the total unemployed persons in the county. The 2013 unemployment rate at 16.1 percent for the city of Madera is higher than 11.4 percent countywide and 8.9 percent statewide.
In 2013 the county of Madera's unemployment rate was 10.7 percent, lower than 11.2 percent in California and slightly higher than 9.3 percent for the nation during the same period. Rising

unemployment trends are not unique to Madera, as the U.S and California are also experiencing a steady increase in unemployment rates.

LABOR FORCE INFORMATION
City of Madera and Madera County
2013

Area Name	Labor Force	Employment	Unemployment	
			Number	Rate
Madera County	69,400	61,500	7,900	11.4%
City of Madera	24,600	20,700	4,000	16.1%

Source: Employment Development Department, Labor Market Information Division, 2013.

Discussion

a-c) The CAP would not directly or indirectly result in an increase in population and would not accommodate growth beyond that anticipated by the City's adopted General Plan or induce additional population growth. Further, implementation of the CAP measures would not displace existing housing or people. Therefore, no impacts related to population and housing would result.

	Potentially Significant Impact	Less Than Significant Unless Mitigated	Significant Impact	No Impact

XIV. PUBLIC SERVICES --

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objective for any of the public services:				
Fire protection?	□	□	□	■
Police protection?	□	□	□	■
Schools?	□	□	□	■
Parks?	□	□	□	■

Other public facilities?	□	□	□	■

Environmental Setting

Fire Protection
Fire protection and emergency medical services are provided by the Madera City Fire Department, which is administered by the California Department of Forestry and Fire Protection (CalFire) through a cooperative fire protection agreement.

Law Enforcement
The Madera City Police Department provides law enforcement services to the City of Madera. The department has one police station located at 330 South C Street

Water
The City of Madera provides water service to its population of over 61,000 and relies solely on groundwater. The City's existing water system facilities include 19 groundwater wells, more than 150 miles of water distribution system pipelines, and a one million gallon elevated water storage tank. The wells are scattered throughout the city and have depths ranging from approximately 300 to 700 feet.

Wastewater Collection System
Wastewater is collected throughout the City of Madera via a network of sanitary sewer collection pipelines ranging from 8 to 42 inches in diameter. With the aid of five sewer lift stations, the influent is gravity fed to the wastewater treatment plant (WWTP) approximately 7 miles from the western boundary of the city limits.

Solid Waste Collection And Disposal
Solid waste disposal for the city is managed by the City of Madera Solid Waste and Recycling Department. The City provides all waste collection and transport services within the city limits under an agreement with a private hauler. The hauler is responsible for collecting and disposing of source separated municipal waste, recyclable material, and green waste for all accounts in the City.

Public Schools
Public schools in the Planning Area are administered by the Madera Unified School District (MUSD). MUSD consists of 17 elementary schools, 3 middle schools, 2 high schools, 1 alternative school, and 2 continuation schools.

Electricity, Natural Gas, And Other Infrastructure
Natural gas and electrical power in the City of Madera are supplied by Pacific Gas and Electric Company (PG&E). PG&E has numerous electric overhead and underground facilities in the Planning Area. Although still a small part of the energy supply, solar power is gaining acceptance as a source of power in the Madera area. Natural gas, telephone, cable, and broadband infrastructure is provided in the City's roadway right-of-way (typically collocated with other utilities in trenches) as well as in overhead lines.

Discussion

a) Implementation of the CAP would not facilitate additional growth beyond that anticipated by the General Plan. Therefore, it would not increase demand for public services or facilities or generate a need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objective for any of the public services. Therefore, no impact on public services causing the need for new governmental facilities is expected.

	Potentially Significant Impact	Less Than Significant Unless Mitigated	Significant Impact	No Impact
XV. **RECREATION --**				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	□	□	■	□
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	□	□	■	□

Environmental Setting

The City of Madera owns and maintains approximately 14 parkland facilities, totaling 320 acres, not including building grounds, landscape buffer areas, median islands, and park strips. Excluding the municipal golf course, there are 140 acres of City parklands. These 14 city parks include pocket, neighborhood, and community parks, trails, linear parks, and special use facilities.

Discussion

a-b) Implementation of the CAP would not directly or indirectly increase population or demand for park facilities. Therefore, the CAP would not result in physical deterioration of park facilities or require new park facilities, the construction of which could cause physical environmental impacts. Impacts would be less than significant.

	Potentially Significant Impact	Less Than Significant Unless Mitigated	Significant Impact	No Impact
XVI. TRANSPORTATION/TRAFFIC – *Would the project:*				
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	□	□	■	□
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	□	□	■	□
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	□	□	□	■
d) Substantially increase hazards due to a design feature (e.g. sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment)?	□	□	■	□
e) Result in inadequate emergency access?	□	□	■	□
c) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	□	□	■	□

Environmental Setting

The overall circulation system in the City of Madera includes surface streets and state highways, transit, airport facilities, pedestrian and pike facilities, and the rail lines that traverse the community.

Surface Streets

The City's General Plan Circulation Element provides for a grid of arterial and collector streets to carry traffic throughout the City. Local streets general provide direct property access.

Public Transit

The City of Madera is served by three different transit systems:

- Public transportation bus service is provided by Madera Area Express (MAX). MAX has a scheduled fixed route that operates within the Madera city limits;
- Dial-a-Ride and para-transit service extends throughout most of the City; and
- Regional transportation is operated by Madera County Connection, a fixed route bus service that connects Madera to Chowchilla, Fairmead, and communities in eastern Madera County.

Rail Transportation

Madera is served by two railroad lines running roughly parallel to SR 99. A major freight line and passenger train line, the Southern Pacific Railroad (SPRR) pass east of Madera and a railroad station stop is available. There is also a spur line that extends into the industrial area in southwest Madera, as well.

Airport Facilities

The nearest public airport facility is the Madera Municipal Airport, located one mile to the west of the Project site. The general aviation airport serves personal and business aircraft. The airport has two paved runways and averages 139 aircraft operations per day (AirNav, 2015). Madera Airport does not offer regular passenger service. The closest available passenger service is Fresno Yosemite International Airport, about 30 miles south of Madera.

Bicycle and Pedestrian Facilities

The City maintains a system of bike and pedestrian paths, lanes, or routes throughout the community. The majority of such facilities are part of street rights of way, although some off-street facilities, such as the Vern McCullough River Trail, are a part of the pedestrian/bicycle network.

Discussion

a-b) The CAP is a policy-level document that includes climate action measures to reduce GHG emissions. It does not propose any land use or zoning changes, nor does it include any site-specific development. Please note any future site-specific discretionary projects would be subject to additional environmental review pursuant to CEQA. Implementation of the CAP would not conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system or an applicable congestion management program. Implementation of the CAP measures would encourage alternatives to single occupancy vehicle travel (i.e., walking, bicycling, transit, carpooling, telecommuting, etc.) in order to reduce light duty vehicle trips and miles traveled (by approximately 1 percent in 2020 and 2 percent in 2030). This could reduce the number of vehicle trips, volume-to-capacity ratio, and intersection congestion within the City, thereby improving levels of service on local roads. This would provide a positive benefit in the performance of the circulation system. Impacts would be less than significant.

c) Implementation of the CAP would not result in a change in air traffic patterns. No impact related to air traffic or safety would occur.

d-e) The CAP would not directly facilitate any specific development projects nor would it add or enable development that would increase hazards or result in inadequate emergency access. Further, any future site-specific discretionary projects would be subject to additional environmental review wherein any site-specific impacts related to hazards or emergency access would be addressed. Impacts would be less than significant.

f) Implementation of the CAP would encourage alternatives to single-occupancy vehicle travel, consistent with adopted local and regional plans, policies, or programs regarding public transit, bicycle, and pedestrian facilities, and would not result in adverse effects on their safety or performance. Impacts would be less than significant.

	Potentially Significant Impact	Less Than Significant Unless Mitigated	Less Than Significant Impact	No Impact
XVII. UTILITIES AND SERVICE SYSTEMS – *Would the project:*				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	□	□	■	□
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	□	□	■	□

c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	□	□	■	□
c) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	□	□	■	□
d) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	□	□	■	□
e) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	□	□	■	□
f) Comply with federal, state, and local statutes and regulations related to solid waste?	□	□	■	□

Environmental Setting

See the discussion under Section XIV - Public Services.

Discussion

a-e) The CAP would not accommodate growth beyond that anticipated by the General Plan nor does it propose any specific development projects that would increase wastewater generation, water demand, or stormwater runoff. Further, the CAP includes a climate action measure that aims to reduce potable water consumption compared to business-as-usual, which would reduce wastewater generation and water demand. Impacts would be less than significant.

f-g) The CAP would not accommodate growth beyond that anticipated by the General Plan nor does it propose any specific development projects that would increase solid waste generation. Further, the CAP includes a measure that aims to reduce community-wide waste by 25 percent by 2020 and 35 percent in 2030. Impacts would be less than significant.

	Potentially Significant Impact	Less Than Significant Unless Mitigated	Significant Impact	No Impact
XVIII. MANDATORY FINDINGS OF SIGNIFICANCE --				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	□	□	■	□
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	□	□	■	□
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	□	□	■	□

a) The intent of the CAP is to reduce GHG emissions from City of Madera operations and within the City through implementation of GHG reduction measures. CAP measures encourage actions by residents, businesses, and the City to reduce energy, water, and fuel use and associated GHG emissions. The CAP would not directly facilitate any specific development plans or projects or have any climate action measures that would diminish wildlife habitats or eliminate important examples of the major periods of California history or prehistory. As discussed in Sections IV, *Biological Resources*, and V, *Cultural Resources,* impacts would be less than significant.

b) Implementation of the CAP would result in a cumulatively considerable beneficial reduction of GHG emissions and would not make a considerable contribution to any significant cumulative impacts. Impacts would be less than significant.

c) The CAP does not have any effects which would cause a direct or indirect adverse effect on human beings. Rather, the CAP would reduce GHG emissions as well as have many other secondary environmental benefits. These include: reduction in air pollution, reduction in transportation congestion, reduction in landfilled solid waste, energy efficiency, and water conservation. Therefore, CAP implementation would have less than significant impacts with respect to adverse effects on humans.

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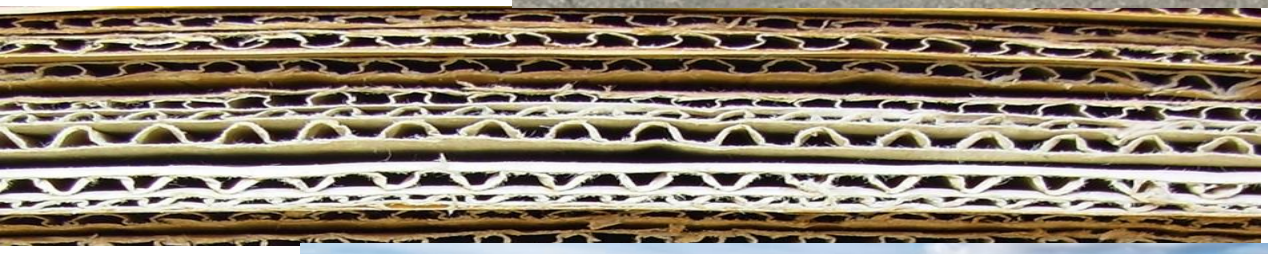
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City of Madera

Climate Action Plan







Draft
August 2015

CITY OF MADERA
CLIMATE ACTION PLAN

Draft

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August 2015

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APPENDICES

Appendix A: City of Madera Community-wide Greenhouse Gas Emissions Inventory
Appendix B: City of Madera Government Operations Greenhouse Gas Emissions Inventory
Appendix C: Technical Assumptions
Appendix D: Cost & Savings Analysis
Appendix E: CAP Consistency Worksheet

Acronyms

AB	Assembly Bill
CAFE	Corporate Average Fuel Economy
CAL FIRE	California Department of Forestry and Fire Protection
CALGreen	California Green Building Standards Code
Caltrans	California Department of Transportation
CAP	Climate Action Plan
CARB	California Air Resources Board
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CFL	Compact fluorescent light
CH_4	Methane
CO_2	Carbon dioxide
CO_2e	Carbon dioxide equivalent
CNG	Compressed natural gas
CREB	Clean renewable energy bonds
DOE	U.S. Department of Energy
EPA	Environmental Protection Agency
GHG	Greenhouse gas
HPS	High pressure sodium
IPCC	Intergovernmental Panel on Climate Change
kWh	Kilowatt hours
kW	Kilowatt
LED	Light-emitting diode
LEED	Leadership in Energy and Environmental Design
LEV	Low Emissions Vehicles
MCTC	Madera County Transportation Commission
MPG	Miles per gallon
MPO	Metropolitan planning organization
MT	Metric tons
PEV	Plug-in Electric Vehicle
PV	Photovoltaic
RTP	Regional Transportation Plan
SB	Senate Bill
SJVAPCD	San Joaquin Valley Air Pollution Control District
SCS	Sustainable Communities Strategy
TDA	Transportation Development Act
TDM	Transportation demand management
VMT	Vehicle miles traveled
QECB	Qualified energy conservation bonds
ZEV	Zero Emissions Vehicles



Executive Summary

The City of Madera Climate Action Plan (CAP) is a long-range plan to reduce greenhouse gas (GHG) emissions from City government (municipal) and community-wide activities within the City of Madera and prepare for the anticipated effects of climate change. Implementation of the measures will not only reduce GHG emissions, but also support local economic development and improve public health and quality of life. Specifically this CAP is designed to:

- Benchmark Madera's 2007 GHG emissions and 2020 and 2030 projected emissions.
- Establish GHG emissions targets for the years 2020 and 2030 to support California's larger effort to reduce statewide emissions under AB 32 and Executive Orders S-3-05 and B-30-15.
- Provide a roadmap for achieving the city's GHG emissions reduction targets.
- Fulfill City of Madera General Plan (2009) Action Item CON-36.2, which directs the City to prepare this CAP.
- Support the streamlining of the environmental review process for future projects within Madera in accordance with State California Environmental Quality Act (CEQA) Guidelines Sections 15152 and 15183.5.

Madera's GHG Emissions

The City of Madera Community-wide Greenhouse Gas Emissions Inventory (2014) (Community-wide Inventory) was prepared to identify the major sources and quantities of GHG emissions produced within the City of Madera's jurisdictional boundaries in 2007 and forecast how emissions may change over time. The Community-wide Inventory provides information on the scale of emissions from various sources and where the opportunities to reduce emissions lie. It also provides a baseline against which the city can measure its progress in reducing GHG emissions.

In 2007, the Madera community as a whole emitted approximately 324,690 metric tons of carbon dioxide equivalent GHG emissions (MT CO_2e) from the Residential Energy, Commercial/Industrial Energy,

Transportation & Mobile Sources, Solid Waste, Water, and Wastewater sectors. As shown in **Figure ES-1** and **Table ES-1**, the largest contributors of GHG emissions were the Transportation & Mobile Sources (58 percent), Residential Energy (20 percent), and Commercial/Industrial Energy (17 percent) sectors. The remainder of emissions resulted from the Solid Waste (4 percent), Water (one percent) and Wastewater (less than one percent) sectors.

FIGURE ES-1: COMMUNITY-WIDE GHG EMISSIONS BY SECTOR (2007)

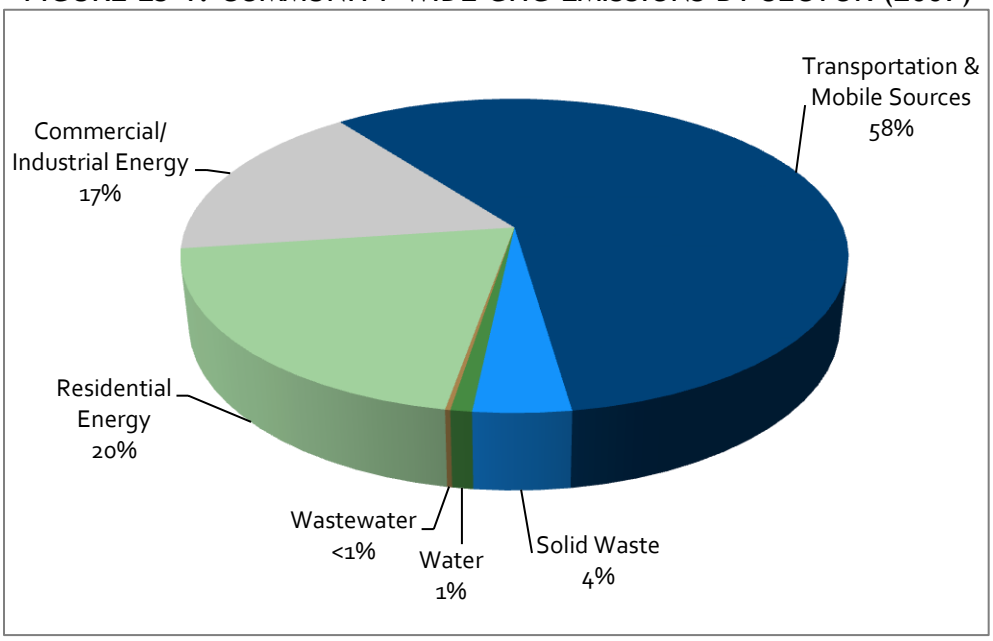


TABLE ES-1: COMMUNITY-WIDE GHG EMISSIONS BY SECTOR (2007)

Sector	Description	GHG Emissions (MT CO_2e)	Percent of Total
Residential Energy	Electricity and natural gas consumption in residential buildings	65,210	20%
Commercial/ Industrial Energy	Electricity and natural gas consumption in non-residential buildings	54,387	17%
Transportation & Mobile Sources	Vehicle miles travelled (VMT)* and fuel consumption in on-road vehicles and off-road equipment	188,585	58%
Solid Waste	Solid waste generated and sent to landfills	12,973	4%
Water	Electricity and natural gas used to convey and treat potable water	2,840	1%
Wastewater	Electricity used to convey and treat wastewater and wastewater treatment process emissions	695	<1%
Total		**324,690**	**100%**

***** Includes VMT from vehicle trips generated by land uses within the city. As such, these trips have an origin and/or destination within the City of Madera, and pass-through trips are not included in this total. Refer to **Appendix A** for details.

The City of Madera also prepared a Government Operations GHG Inventory (2012) (Government Operations Inventory) to identify emissions resulting from facilities that the City owns and/or operates. The Government Operations Inventory is mostly a subset of the Community-wide Inventory, meaning that the majority of GHG emissions from the City's facilities and operations are included in the Community-wide Inventory. For example, electricity and natural gas used in the City's buildings is accounted for in the Commercial Energy sector of the Community-wide Inventory, while government-generated solid waste is accounted for in the community-wide Solid Waste sector. As such, per the U.S. Community Protocol (2012) and Government Operations Protocol (2010), the Government Operations Inventory should not be added to the community analysis; rather, it should be looked at as a portion of the total community-wide emissions.

In 2007, GHG emissions from the City of Madera's government operations totaled 8,464 MT CO_2e.As shown in **Figure ES-2** and **Table ES-2**, the majority of these emissions resulted from Water and Stormwater Services (35 percent), Buildings and Other Facilities (20 percent) and Vehicle Fleet (13 percent). Emissions from Employee Commutes (10 percent) and Wastewater Treatment (10 percent) were also a significant source of emissions. Emissions from Public Lighting (eight percent), Transit Fleet (three percent), Solid Waste (one percent) and Airport Facilities (less than one percent) accounted for the remainder of the City's emissions.

FIGURE ES-2: GOVERNMENT OPERATIONS GHG EMISSIONS BY SECTOR (2007)

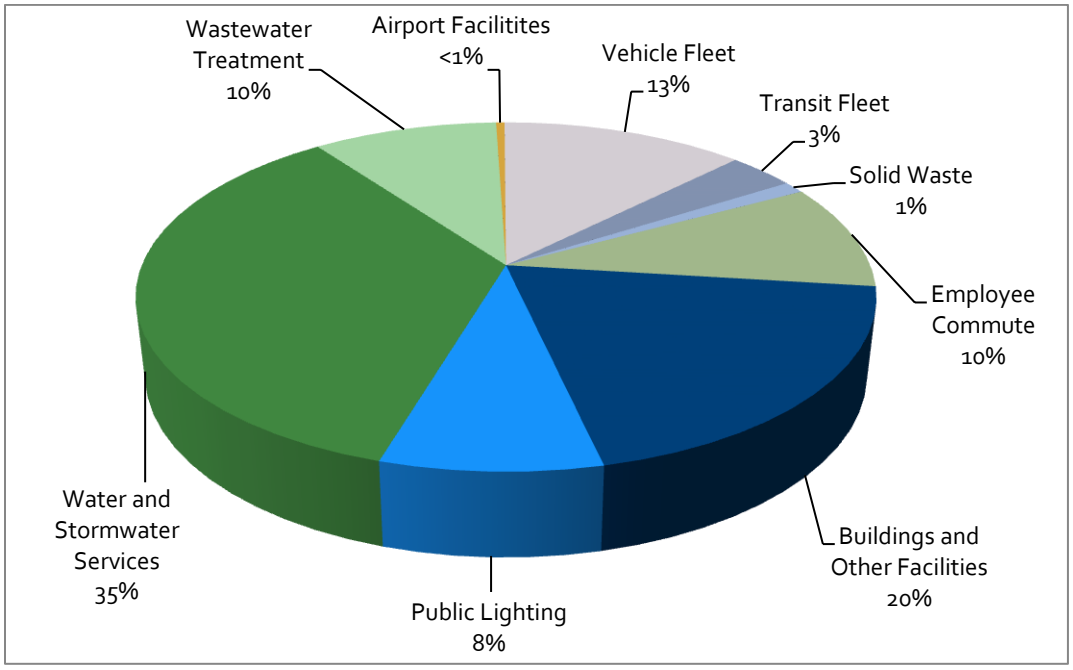


TABLE ES-2: GOVERNMENT OPERATIONS GHG EMISSIONS BY SECTOR (2007)

Sector	Description	GHG Emissions ($MT CO_2e$)	% of Total
Buildings and Other Facilities	Electricity, natural gas, propane, fuel oil, refrigerants, fire suppressants, and carbon dioxide used in City-owned or –operated buildings and facilities	1,651	20%
Public Lighting	Electricity used to power streetlights, traffic signal lights, and other outdoor public lighting	693	8%
Water and Stormwater Services	Electricity, natural gas, and propane used for the distribution or transport of water, including drinking water, sprinkler systems and irrigation	2,983	35%
Wastewater Treatment	Electricity used for wastewater transport; electricity, natural gas, and diesel used in the operation of the wastewater treatment facility; methane and nitrous oxide from wastewater treatment	813	10%
Airport Facilities	Electricity, natural gas, and diesel used in the operation of the City's airport facilities	37	<1%
Vehicle Fleet	Fuel consumption and mobile refrigerants for City fleet vehicles	1,072	13%
Transit Fleet	Fuel consumption and mobile refrigerants for City transit vehicles	294	3%
Solid Waste	Landfilled solid waste generated by City operations	93	1%
Employee Commute	Fuel consumption for City employee commutes	828	10%
Total		**8,464**	**100%**

The Community-wide Inventory report also includes a 2007 "business-as-usual" forecast to 2020 and 2030, estimating emissions that would occur if no new emissions reduction policies were implemented. The year 2020 was selected for the forecast in order to maintain consistency with California State AB 32.[1] The year 2030 was selected to maintain consistency with the City of Madera General Plan horizon year. Under a business-as-usual scenario, Madera's community-wide emissions will grow by approximately 29 percent by 2020 and 58 percent by 2030.

[1] AB 32 establishes a GHG emission target for the State of California to reduce statewide emissions to 1990 levels by the year 2020.

FIGURE ES-3: COMMUNITY-WIDE BUSINESS-AS-USUAL GHG EMISSIONS FORECAST FOR 2020 AND 2030

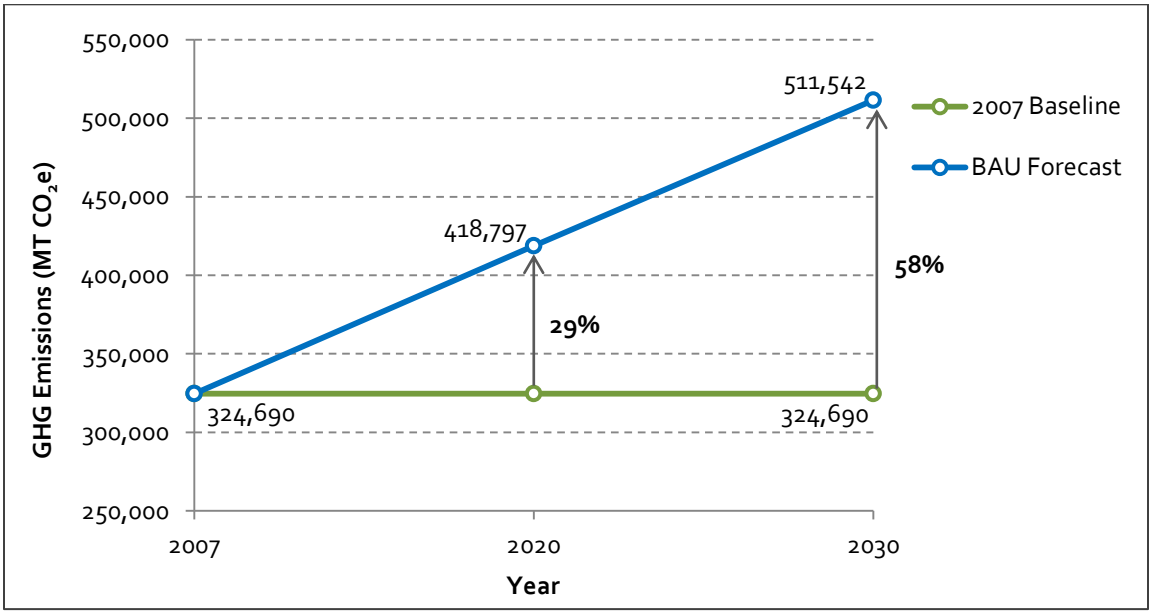


TABLE ES-3: COMMUNITY-WIDE BUSINESS-AS-USUAL GHG EMISSIONS FORECAST

Sector	2007 Emissions (MT CO_2e)	2020 Emissions (MT CO_2e)	2030 Emissions (MT CO_2e)
Residential Energy	65,210	85,042	102,855
Commercial/ Industrial Energy	54,387	79,891	98,230
Transportation & Mobile Sources	188,585	232,336	284,419
Solid Waste	12,973	16,918	20,462
Water	2,840	3,704	4,480
Wastewater	695	906	1,096
Total	**324,690**	**418,797**	**511,542**

Since 2007, a number of federal and state regulations been enacted that would reduce Madera's GHG emissions in 2020 and 2030. The impact of these regulations was quantified and incorporated into an "adjusted forecast" to provide a more accurate picture of future emissions growth and the responsibility of the City and community once state regulations to reduce GHG emissions have been implemented.

Under the adjusted forecast scenario, GHG emissions are projected to decrease approximately 27 percent below the business-as-usual scenario by the year 2020 (from 418,797 MT CO_2e to 305,741 MT CO_2e), and approximately 32 percent below the business-as-usual scenario by the year 2030 (from 511,542 MT CO_2e to 348,428 MT CO_2e). **Table ES-4** summarizes the reduction in local GHG emissions that would result from State measures and presents the adjusted forecast totals for 2020 and 2030.

TABLE ES-4 SUMMARY OF STATE REDUCTIONS AND ADJUSTED FORECAST

State Measure	2020 Emissions (MT CO_2e)	2030 Emissions (MT CO_2e)
Business-as-Usual Forecast	418,797	511,542
Total Reduction from State Measures	-113,056	-163,114
Adjusted Forecast	**305,741**	**348,428**

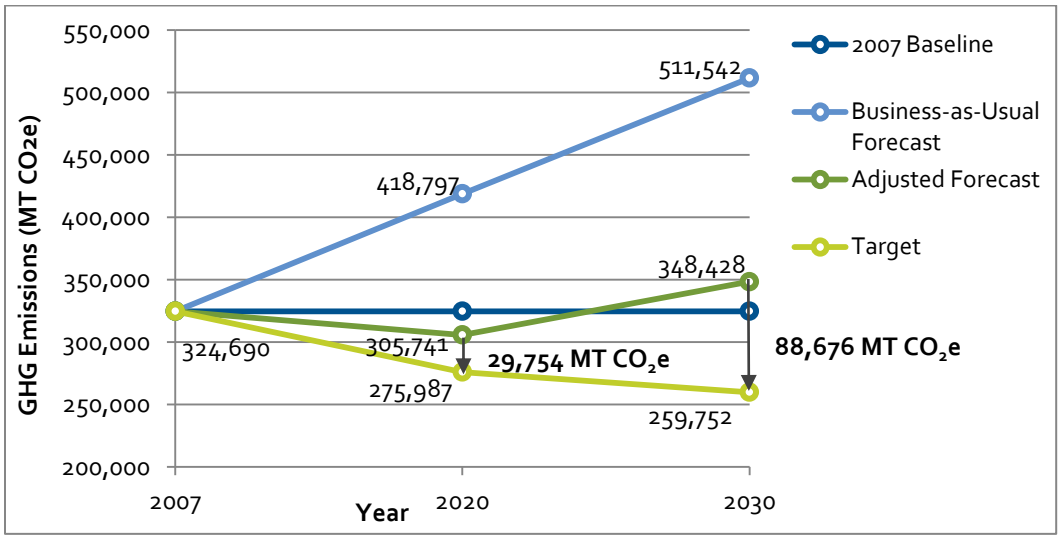
GHG Emissions Reduction Targets

This CAP establishes a reduction goal or target to achieve emissions levels 15 percent below 2007 levels by 2020 consistent with the AB 32 and General Plan Action Item CON-36.2. The CAP also establishes a longer-term target of 20 percent below 2007 levels by 2030 to support California's larger effort to reduce statewide emissions under Executive Orders S-3-05 and B-30-15. As shown in **Table ES-5** and **Figure ES-4**, Madera would need to reduce its GHG emissions by 29,754 MT CO_2e by 2020 and by 88,676 MT CO_2e by 2030 to meet these targets.

TABLE ES-5 MADERA'S GHG EMISSIONS, TARGETS, AND REDUCTION NECESSARY TO MEET TARGETS

	2020 Emissions (MT CO_2e)	2030 Emissions (MT CO_2e)
2007 Baseline Emissions	324,690	324,690
Adjusted Forecast	305,741	348,428
Targeted Future Emissions Level	275,987	259,752
Necessary Reduction from Adjusted Forecast to Meet Targets	**29,754**	**88,676**

FIGURE ES-4: MADERA'S GHG EMISSIONS, TARGETS, AND REDUCTIONS NECESSARY TO MEET TARGETS



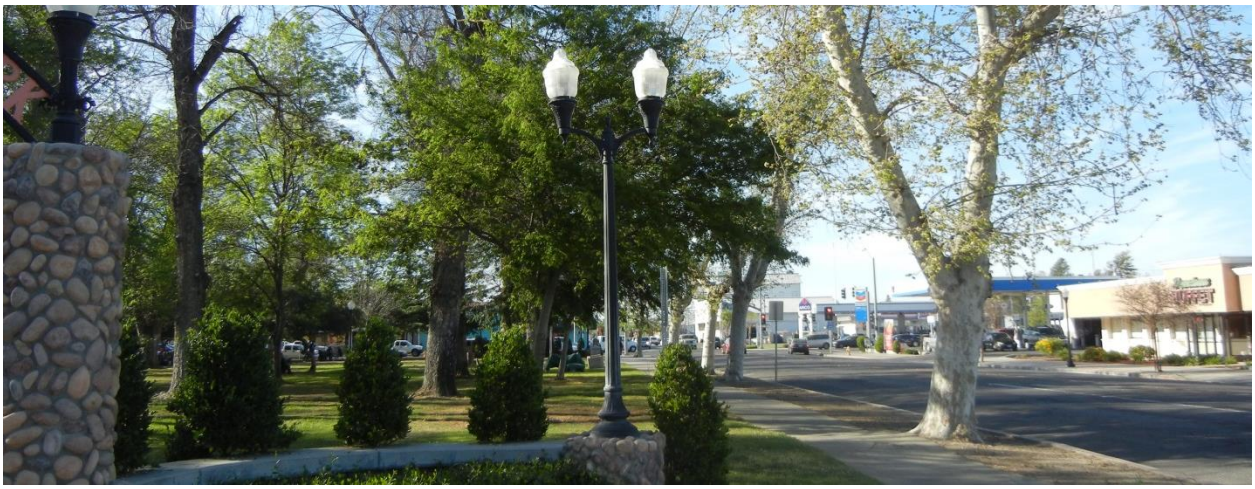
GHG Reduction Measures

To achieve the GHG reduction targets of 15 percent below 2007 levels (275,987 MT CO_2e) by 2020 and 20 percent below 2007 levels (259,752 MT CO_2e) by 2030, the CAP identifies a comprehensive set of GHG reduction measures. These measures are organized into the following focus areas: Local Government, Energy, Transportation and Land Use, Solid Waste, Water and Wastewater, Urban Greening, and Adaptation. The measures were selected based on consideration of the emission reductions needed to achieve the targets, the distribution of emissions revealed in the GHG emissions inventory, goals and policies identified in City's 2009 General Plan Update, existing and ongoing efforts and priorities, and the potential costs and benefits of each measure. Collectively, the measures identified in the CAP have the potential to reduce GHG emissions within Madera by 33,601 MT CO_2e by 2020 and 92,341 MT CO_2e by 2030. This would bring 2020 emissions to 272,140 MT CO_2e (equivalent to 16 percent below 2007 levels) and 2030 emissions to 256,087 MT CO_2e (equivalent to 21 percent below 2007 levels), which meets and slightly exceeds the reductions necessary to meet the targets.

Implementation and Monitoring

Implementation and monitoring are essential processes to ensure that Madera reduces its GHG emissions and meets its targets. To facilitate this, each GHG reduction measure is identified along with implementation actions, cost and savings estimates, the GHG reduction potential (as applicable), performance indicators to monitor progress, and an implementation time frame. Measure implementation is separated into three phases: near-term (by 2017), mid-term (2018-2022), and long-term (2023-2030).

In order to ensure that measures are implemented and their progress is monitored, upon adoption of the CAP the City will establish a CAP Coordinator who will provide essential CAP oversight and coordination. This may include, as applicable, organization of a multi-departmental CAP Implementation Team comprised of key staff in selected departments, which will meet at least one time per year to assess the status of CAP efforts. The CAP Coordinator will be responsible for developing an annual progress report to the City Council that identifies the implementation status of each measure, evaluates achievement of or progress toward performance indicators (where applicable), and recommends adjustments to measures or actions, as needed. To evaluate the performance of the CAP as a whole, Madera will update the GHG emissions inventory every five years, using the most up-to-date calculation methods, data, and tools.



Chapter 1.0
Introduction

Although climate change is a global issue, the State of California recognizes that it poses risks to the public health, environment, economic well-being, and natural resources of California, and has adopted legislations and policies to address climate change. In 2005, the governor issued Executive Order S-3-05 to reduce statewide greenhouse gas (GHG) emissions to 1990 levels by 2020 (approximately 15 percent below 2005 to 2008 levels) and to 80 percent below 1990 levels by 2050. Enactment of several related pieces of climate action legislation followed. These include AB 32 (the Global Warming Solutions Act of 2006), which codified the 2020 target, and SB 97 (the California Environmental Quality Act (CEQA) and GHG Emissions bill of 2007), which requires lead agencies to analyze GHG emissions and mitigate climate change impacts under CEQA. In April 2015, the governor issued Executive Order B-30-15 to establish a statewide mid-term GHG reduction target of 40 percent below 1990 levels by 2030. These laws together create a framework for GHG emissions reductions and identify local governments as having a vital role in assisting the State in meeting its targets. The AB 32 Scoping Plan, prepared by the California Air Resources Board (CARB) pursuant to AB 32, notes that local governments have broad influence and, in some cases, exclusive authority over activities that result in GHG emissions through their planning and permitting processes, local ordinances, outreach and education efforts, and municipal operations. In recognition of the important role that local governments will play in the successful implementation of AB 32 and in reaching the State's long term target, the AB 32 Scoping Plan recommends that local governments adopt a 2020 GHG emission reduction target of 15 percent below 2005 to 2008 levels to match the statewide reduction target.

Recognizing the important role and responsibility that local governments have in reducing GHG emissions and increasing resiliency to anticipated changes in climate, the City of Madera General Plan (2009) directs the City to prepare this climate action plan (CAP). This chapter describes the purpose, scope, and content of the CAP, and discusses its relationship to the General Plan. In addition, this chapter summarizes the scientific and regulatory framework under which this plan has been developed.

1.1 Purpose and Scope

The CAP is a long-range plan that outlines a course of action to reduce GHG emissions from community-wide activities and City government operations in order to support the State's efforts under AB 32 and Executive Orders S-3-05 and B-30-15 and adapt to anticipated changes in climate.

In 2009, the City of Madera completed a comprehensive update to its General Plan, which includes a number of goals, policies, and implementation programs that will reduce GHG emissions from both City operations and the community as a whole. As described further in Section 1.4 below, General Plan Action Item 36.2 directs the City to develop and implement this plan to address GHG emissions and climate change within the City of Madera. This CAP fulfills the requirements of this action item. Specifically, the CAP does the following:

- Summarizes the results of the City of Madera Community-wide Greenhouse Gas Emissions Inventory (2014) (Community-wide Inventor) and City of Madera Government Operations Greenhouse Gas Emissions Inventory (2012) (Government Operations Inventory), which identify the major sources and quantities of GHG emissions produced within the City of Madera and forecasts how these emissions may change over time.
- Establishes GHG emission reduction targets of 15 percent below 2007 levels by the year 2020 and 20 percent below 2007 levels by 2030.
- Sets forth climate action measures, including performance objectives which, if implemented and met, would collectively achieve the City's GHG emission reduction targets.
- Identifies proactive strategies that can be implemented to help the City of Madera prepare for anticipated climate change impacts.
- Identifies steps to implement, monitor, and verify the effectiveness of the climate action measures and adapt efforts moving forward.

In addition to reducing the City of Madera's GHG emissions, implementation of the CAP will result in implementation of many of the General Plan policies and action items. The CAP may also be used to streamline the analysis of GHG emissions from future development projects in the City of Madera pursuant to State CEQA Guidelines sections 15152, 15183, and 15183.5 (refer to Section 1.5, Relationship to CEQA).

1.2 Content

The CAP is organized into the following chapters:

1.0 Introduction – describes the purpose, scope, and content of the CAP. It also discusses the relationship of the CAP to the General Plan and CEQA. In addition, this chapter summarizes the scientific and regulatory framework under which this plan has been developed.

2.0 GHG Emissions and Reduction Targets – identifies the sources of GHG emissions in the City of Madera, quantifies emissions for a baseline year (2007), and forecasts how GHG emission levels would change through 2030. This chapter also identifies and quantifies GHG emissions reduction targets for the years 2020 and 2030.

3.0 Climate Action Measures – identifies the climate action measures, which are organized into the following categories: Local Government, Energy, Transportation and Land Use, Water and Wastewater, Solid Waste, Urban Greening, and Adaptation. Each measure is presented with performance objectives, implementation actions, estimated GHG reductions in 2020 and 2030, and estimated costs and future savings.

4.0 Implementation and Monitoring – identifies steps to implement and monitor the climate action measures, evaluate the CAP's overall performance, and update the plan over time as needed. It also identifies potential sources of funding to implement the CAP.

1.3 Background and Planning Process

Development of the CAP largely drew on the existing policies and implementation actions listed in the 2009 General Plan. City staff and its consultants worked with stakeholders from various community organizations to develop additional measures and implementation actions identified in the CAP. Nine stakeholders were identified and interviewed for their feedback on the draft climate action measures. City staff and its consultants also held one public workshop to gather public input on the draft climate action measures. In addition, there was a webpage on the City's website dedicated to the CAP which provided a survey for participants to indicate their level of support for various climate action measures and provided a space for any additional comments and/or suggestions. Feedback received from stakeholder interviews, the public workshop, and the online survey was incorporated into the Draft CAP as appropriate.

1.4 Relationship to the General Plan

The Madera General Plan, adopted in 2009, is a broad framework for planning the future of the City of Madera. It expresses the community's vision and provides the policy direction to guide private and public development in the city, as well as the City's own operations and decisions. It contains goals, policies, and action items that provide the City with guidance for long-range planning. The Conservation Element includes Goal CON-12, to meet or exceed all current and future state-mandated targets for reducing emissions of GHGs, and Policy CON-36, which directs the City to support local, regional, and statewide efforts to reduce GHG emissions linked to climate change. To help achieve Goal CON-12, Action Item CON-36.1 directs the City to prepare an inventory of GHG emissions generated from municipal operations and the community-as-a-whole. This inventory was separated into two separate documents –one for municipal GHG emissions and one for community-wide GHG emissions –which are located in **Appendix A** and **B** of this CAP. Action Item CON-36.2 specifically calls for the development of a CAP as follows:

- ***Action Item CON-36.2:*** *Within six months of the completion of the Greenhouse Gas Inventory if possible (but not later than one year after completion of the Inventory), the City will, in collaboration with stakeholders and the community, prepare a Climate Action Plan (CAP) that incorporates and/or addresses the following criteria:*
    - *The CAP will identify goals for reducing manmade GHG emissions from the community, municipal and business activities.*
    - *The CAP will establish resiliency and adaptation programs to prepare for potential impacts of climate change, and provide a phased implementation plan to achieve these goals.*
    - *The CAP will establish a greenhouse gas emissions reduction target of 15 percent below 2007 levels by 2020, consistent with California Assembly Bill 32, the Global Warming Solutions Act of*

2006 (AB 32) and the guidance provided in the associated California Air Resources Board Climate Change Scoping Plan approved in December 2008.

- *The CAP will also outline a strategy to achieve 1990 GHG levels by 2020 and an 80 percent reduction from 1990 GHG levels by 2050 in accordance with California State Executive Order S-3-05.*

In addition to fulfilling General Plan Action Item CON-36.2, this CAP incorporates and/or builds on the numerous General Plan policies and action items that would reduce Madera's GHG emissions. These policies and action items are listed under each applicable CAP measure in Chapter 3.

1.5 Relationship to CEQA

According to the California Natural Resources Agency (2009) and the State's Office of the Attorney General (2009), GHG emissions may be best analyzed and mitigated at a programmatic level (i.e., GHG reduction plan/CAP). In 2009, the California Natural Resources Agency amended the State CEQA Guidelines to add a new provision, Section 15183.5, which allows jurisdictions to analyze and mitigate the significant effects of GHG emissions at a programmatic level by adopting a plan for the reduction of GHG emissions (i.e., a CAP). Section 15183.5 states a plan for the reduction of GHG emissions should:

- Quantify GHG emissions, both existing and projected over a specified time period, resulting from activities within a defined geographic area;
- Establish a level, based on substantial evidence, below which the contribution to GHG emissions from activities covered by the plan would not be cumulatively considerable;
- Identify and analyze the GHGs emissions resulting from sources in the community;
- Identify a suite of specific, enforceable measures that, collectively, will achieve the emissions target;
- Establish a mechanism to monitor the plan's progress and to require amendment if the plan is falling short; and
- Be adopted in a public process following environmental review.

This CAP incorporates these elements consistent with State CEQA Guidelines Section 15183.5, which allows it to be used in the cumulative GHG emissions impacts analysis of later projects. The environmental document for each project must identify those requirements specified in the CAP that apply to the project, and if those requirements are not otherwise binding or enforceable, should be incorporated as mitigation measures applicable to the project (CEQA 15183.5b).To facilitate this process for future projects Appendix E lists CAP measures applicable to new development. If it is determined that the proposed project is not consistent with the CAP, further analysis would be required and the applicant would be required to demonstrate that the proposed project would not substantially interfere with implementation of the CAP.

1.6 Scientific Background

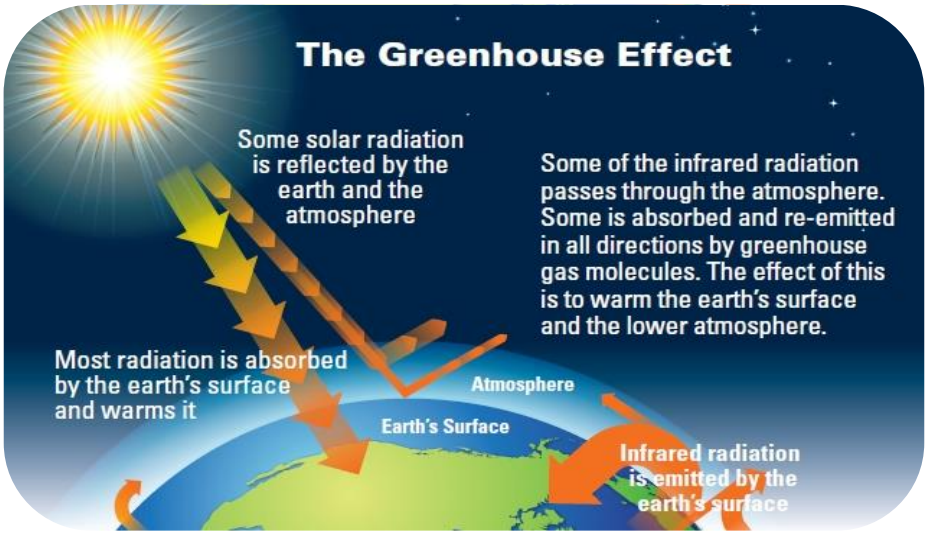
This section provides a brief overview of the scientific background under which this CAP was developed.

1.6.1 GHGs and Climate Change

Climate change refers to changes in the "average weather" or average climatic conditions that an area experiences over an extended period of time (typically decades or longer) and accounts for changes in temperature, wind patterns, precipitation, and storms.[1] Global climate change refers to a change in the climate of the Earth as a whole. Global warming, a related concept, is the observed increase in the average temperature of the Earth's surface and atmosphere caused by increased GHG emissions, which can contribute to changes in global climate patterns.

Energy from the Sun drives the Earth's weather and climate. The Earth absorbs energy from the Sun and also radiates energy back into space. A GHG is any gas (e.g., water vapor, carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons, perfluorocarbons, and ozone) that absorbs this energy in the Earth's atmosphere. This absorption traps heat within the atmosphere and warms the Earth, which is known as the "greenhouse effect" (refer to **Figure 1-1**).

FIGURE 1-1: THE GREENHOUSE EFFECT

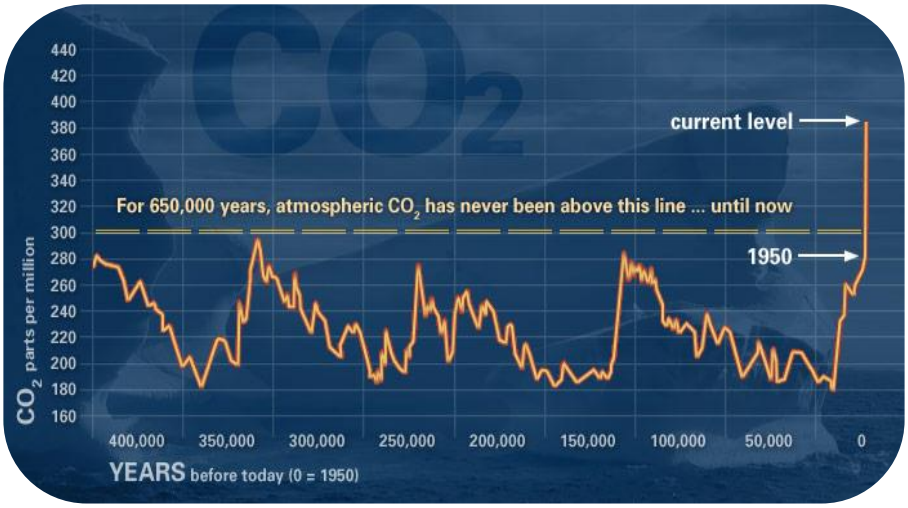


Source: National Oceanic & Atmospheric Administration (NOAA), 2009

GHGs are the result of both natural and anthropogenic activities. The consumption of fossil fuels for power generation and transportation, forest fires, decomposition of organic waste, and industrial processes are the primary sources of GHG emissions from human activities. Naturally, the Earth maintains an approximate long-term balance between the emission of GHGs into the atmosphere and its storage in oceans and terrestrial ecosystems. Following the industrial revolution, however, increased combustion of fossil fuels (e.g., gasoline, diesel, coal, etc.) and other industrial processes have contributed to a rapid increase in atmospheric levels of GHGs (refer to **Figure 1-2**) (NOAA, 2009).

[1] Weather is the short-term changes seen in temperature, clouds, precipitation, humidity, and wind in a region or a city. Climate is the "average weather" of an area measured over an extended period of time (typically decades or longer).

FIGURE 1-2: HISTORIC FLUCTUATIONS AND RECENT INCREASES IN ATMOSPHERIC CO_2



This graph, based on the comparison of atmospheric samples contained in ice cores and more recent direct measurements, provides evidence that atmospheric CO_2 has increased since the Industrial Revolution (National Aeronautics and Space Administration (NASA), 2011).

The principal GHGs that enter the atmosphere as a result of human activities are discussed below.

- **Carbon Dioxide (CO_2)** is released into the atmosphere through the burning of fossil fuels (oil, natural gas, and coal), solid waste, trees and wood products, and also as a result of other chemical reactions (e.g., cement production) and deforestation. CO_2 is also removed from the atmosphere (or "sequestered") when it is absorbed by plants as part of the biological carbon cycle.
- **Methane (CH_4)** is emitted during the production and transport of coal, natural gas, and oil. CH_4 emissions also result from agricultural practices, such as the raising of livestock, and by the decomposition of organic waste in landfills.
- **Nitrous oxide (N_2O)** is emitted during agricultural and industrial activities, as well as during the burning of fossil fuels and solid waste.
- **Fluorinated gases (i.e., hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride (SF6))** are synthetic GHGs that are emitted from a variety of industrial processes (e.g., aluminum production) and used in commercial, industrial, and consumer products (e.g., automobile air conditioners and refrigerants). These gases are typically emitted in smaller quantities, but because they are potent GHGs, they are sometimes referred to as "high intensity" or "high global warming potential" gases.

Each GHG differs in its ability to trap heat in the atmosphere, or in its intensity factor. For example, one pound of CH_4 has 21 times more heat capturing potential than one pound of CO_2. To simplify reporting and analysis of GHGs, GHG emissions are typically reported in terms of metric tons of CO_2 equivalent (MT CO_2e) units. When dealing with an array of emissions, the gases are converted to their CO_2 equivalents for comparison purposes. **Table 1-1** shows the intensity factor for the six most abundant GHGs.

TABLE 1-1: INTENSITY FACTOR OF GHGS

GHG	Global Warming Potential[1] (compared to CO_2)
Carbon Dioxide	1
Methane	21
Nitrous Oxide	310
Hydrofluorocarbons	140-11,700
Perflourocarbons	6,500-9,200
Sulfur Hexaflouride	23,900

[1] Each of the GHGs listed above differs in its ability to absorb heat in the atmosphere, or in its intensity factor/global warming potential over a 100-year period. The values presented above are based on the Intergovernmental Panel on Climate Change (IPCC) Second Assessment Report and United Nations Framework Convention on Climate Change reporting guidelines (IPCC, 1996). Although the IPCC Fourth Assessment Report presents different estimates, the current inventory standard relies on the Second Assessment Report's intensity factors to comply with reporting standards and consistency with regional and national inventories (U.S. EPA, 2010).

1.6.2 Climate Change Impacts

Increases in the globally averaged atmospheric concentration of GHGs will cause the lower atmosphere to warm, in turn inducing a myriad of changes to the global climate system. These large-scale changes will have unique and potentially severe impacts in the western United States, California, and Madera County. Current research efforts coordinated through CARB, California Energy Commission, California Environmental Protection Agency (EPA), University of California system, and other entities are examining the specific changes to California's climate that will occur as the Earth's surface warms.

In 2009, California adopted a statewide Climate Adaptation Strategy that summarizes climate change impacts and recommends adaptation strategies across seven sectors: Public Health, Biodiversity and Habitat, Oceans and Coastal Resources, Water, Agriculture, Forestry, and Transportation and Energy. The 2009 Climate Adaptation Strategy was the first of its kind in the use of downscaled climate models to more accurately assess statewide climate impacts as a basis for providing guidance for establishing actions that prepare, prevent, and respond to the anticipated effects of climate change. As discussed throughout the document, rising temperatures affect local and global climate patterns, and these changes are forecasted to manifest themselves in a number of ways, including:

- **Heat Waves** – more frequent, longer, and more-extreme heat waves, thereby increasing energy demand and bringing about public health threats in the process;
- **Air Quality** – increased production of air pollutants, especially ozone, due to higher air temperatures, which can exacerbate respiratory and cardiovascular diseases;
- **Wildfires** – increased wildfire frequency, intensity, and duration, thereby threatening public health and plant and animal species;
- **Water Supply** – decreased water supply, more frequent drought conditions, and increased demand with implications for the community and environment;
- **Infectious Disease** – increase risk of contracting infectious diseases from mosquitoes, ticks, and rodents, such as West Nile Virus and Hantavirus;

- **Biodiversity and Habitats** – loss of plant and animal species, and their habitats ;
- **Agriculture** – decreased production from crops sensitive to temperature increases and decreased water supply, and increase in various pests; and
- **Energy Supply** – more frequent power outages due to increased electricity demand (California Natural Resources Agency, 2009).

1.7 Regulatory Setting

This section summarizes the federal, state, and regional legislation, regulations, policies, and plans that have guided the preparation and development of this CAP.

1.7.1 Federal

Clean Air Act. The U.S. EPA is the federal agency responsible for implementing the Clean Air Act. The U.S. Supreme Court ruled in its decision in Massachusetts et al. v. U.S. EPA et al., issued on April 2, 2007, that CO_2 is an air pollutant as defined under the Clean Air Act and that the U.S. EPA has the authority to regulate emissions of GHGs as pollutants. In 2011, the U.S. EPA began regulating GHG emissions from new power plants and refineries through a set of New Source Performance Standards. These regulations are found in 40 Code of Federal Regulations (CFR) Part 60 and apply to new, modified and reconstructed affected facilities in specific source categories such as manufacturers of glass, cement, rubber tires and wool fiberglass.

Energy Independence and Security Act. The Energy Independence and Security Act of 2007 includes several provisions that will increase energy efficiency and the availability of renewable energy, which in turn will reduce GHG emissions. First, the Act sets a Renewable Fuel Standard that requires fuel producers to use at least 36 billion gallons of biofuel by 2022. Second, it increased Corporate Average Fuel Economy (CAFE) Standards to require a minimum average fuel economy of 35 miles per gallon (mpg) for the combined fleet of cars and light trucks by 2020. Third, it includes a variety of new standards for lighting and for residential and commercial appliance equipment, including residential refrigerators, freezers, refrigerator-freezers, metal halide lamps, and commercial walk-in coolers and freezers.

1.7.2 State of California

The State of California has been proactive in working to reduce emissions and has a long history of addressing energy and climate issues. In 1988, AB 4420 (Sher, Chapter 1506, Statutes of 1988) designated the California Energy Commission as the lead agency for climate change issues in California. Since that time, numerous initiatives in California have addressed climate change and energy efficiency, the majority of legislation passed since 2000. These initiatives have strengthened the ability of entities in California to engage in accurate data collection and have created targets and regulations that will directly lead to reductions in GHG emissions. These initiatives are described below.

Executive Order S-3-05. Executive Order S-3-05, issued in 2005, was the first state action to address climate change. It established ambitious GHG reduction targets for the State: reduce GHG emissions to 2000 levels by 2010, to 1990 levels by 2020 and to 80 percent below 1990 levels by 2050. Executive Order S-3-05 is important for two reasons. First, it obligates State agencies to implement GHG emission reduction strategies. Second, the signing of the Executive Order sent a signal to the Legislature about the framework and content for legislation to reduce GHG emissions as a necessary step toward climate stabilization.

Executive Order B-30-15. On April 29, 2015, Governor Brown issued an executive order to establish a statewide mid-term GHG reduction target of 40 percent below 1990 levels by 2030. According to CARB, reducing GHG emissions by 40 percent below 1990 levels in 2030 ensures that California will continue its efforts to reduce carbon pollution and help to achieve federal health-based air quality standards. Setting clear targets beyond 2020 also provides market certainty to foster investment and growth in a wide array of industries throughout the State, including clean technology and clean energy (CARB, 2015).

Assembly Bill 32 (California Global Warming Solutions Act of 2006). AB 32 codified the State's 2020 GHG emissions target and directed CARB to develop a policy plan to reduce California's statewide emissions to 1990 levels by 2020. The resulting AB 32 Scoping Plan was adopted by CARB in December 2008. Key elements of the plan for achieving the 2020 target include:

- Adopting and implementing measures pursuant to existing state laws and policies, including California's goods movement measures and the Low Carbon Fuel Standard
- Expanding energy efficiency programs and green building practices
- Reducing methane emissions at landfills
- Developing a California cap-and-trade program
- Establishing and seeking to achieve reduction targets for transportation-related GHG emissions
- Increasing waste diversion, composting, and commercial recycling toward zero-waste
- Strengthening water efficiency programs
- Preserving forests that sequester carbon dioxide

Although the AB 32 Scoping Plan does not identify specific reductions for local governments, it identifies overall reductions from local government operations and land use decisions as a strategy to meet the 2020 target. The AB 32 Scoping Plan states that land use planning and urban growth decisions will play an important role in the State's GHG reductions because local governments have primary authority to plan, zone, approve, and permit how land is developed to accommodate population growth and the changing needs of their jurisdictions. It further acknowledges that decisions on how land is used will have large impacts on the GHG emissions that will result from the transportation, housing, industry, forestry, water, agriculture, electricity, and natural gas emission sectors. However, the AB 32 Scoping Plan stopped short of identifying mandatory targets for local government compliance. Instead, it encourages local governments to adopt a target for City government and community-wide emissions that parallels the State's AB 32 target and reduces emissions by approximately 15 percent below "current" levels by 2020.[2]

In 2014, CARB published The First Update to the Climate Change Scoping Plan (2014). The update defines CARB's climate change priorities, sets the groundwork to reach post-2020 goals set forth in Executive Order S-3-05 and highlights California's progress toward meeting the "near-term" 2020 GHG emission reduction goals defined in the original Scoping Plan (2008). It also evaluates how to align the state's longer-term GHG reduction strategies with other state policy priorities, such as for water, waste, natural resources, clean energy, transportation, and land use. AB 32 requires CARB to convene an Environmental Justice Advisory Committee

[2] "Current" as it pertains to the AB 32 Scoping Plan is commonly understood as sometime between 2005 and 2008.

to advise it in developing the Scoping Plan and any other pertinent matters in implementing AB 32 (Health and Safety Code section 38591). The Committee's final recommendations for the Update included a call for a 2030 target of, at a minimum, 40 percent reduction from 1990 levels and a 2040 target, of at a minimum, 60 percent reduction from 1990 levels. Despite this recommendation, official statewide mid-term targets were not established as part of the Update. CARB is currently working to update the Scoping Plan to incorporate the recently issued 2030 target established by Executive Order B-30-15. The updated Scoping Plan will provide a framework for achieving the 2030 target and is expected to be completed and adopted by CARB in 2016 (CARB,2015).

Senate Bill 97. SB 97 (2007) established that GHG emissions and the effects of GHG emissions are appropriate subjects for CEQA analysis and required the Governor's Office of Planning and Research to revise the State CEQA Guidelines to include guidance for the analysis of GHG impacts under CEQA. The guidelines were adopted on December 31, 2009.

Assembly Bill 1493 (Pavley Regulations). AB 1493 (referred to as Pavley I) (2002) directed CARB to develop and adopt standards for vehicle manufacturers to reduce GHG emissions coming from passenger vehicles and light-duty trucks at a "maximum feasible and cost effective reduction" by January 1, 2005. Pavley I took effect for model years starting in 2009 to 2016 and Pavley II will cover 2017 to 2025. Fleet average emission standards would reach a 22 percent reduction by 2012 and 30 percent by 2016.

Executive Order S-1-07 (Low Carbon Fuel Standard). This 2007 order requires fuel providers to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020.

Senate Bill 375. SB 375 (2008) supports implementation of AB 32 by aligning regional transportation planning efforts with land use and housing allocations in order to reduce transportation-related GHG emissions. Specifically, SB 375 directed CARB to set regional GHG emissions targets for passenger vehicles and light trucks for the years 2020 and 2035 for each Metropolitan Planning Organization (MPO) region, which were adopted in February 2011. For Madera County Transportation Commission (MCTC), CARB issued a five percent per capita reduction target from 2005 levels by 2020 and a 10 percent per capita reduction target by 2035 (CARB, 2011). These targets apply to the MCTC region as a whole, and not to individual cities or sub-regions. In 2005, GHG emissions from passenger vehicles in the MCTC region were approximately 19.8 pounds CO_2e per capita. Therefore, MCTC must reduce emissions to at least 18.8 pounds CO_2e per capita by 2020 and to 17.8 pounds CO_2e per capita by 2035 to meet the targets (CARB, 2010). MCTC completed the 2014 Regional Transportation Plan and Sustainable Communities Strategy (RTP-SCS) in July 2014. The 2014 RTP-SCS was unable to demonstrate compliance with MCTC's SB 375 targets. As such, MCTC plans to prepare an alternative planning strategy in consultation with CARB that reflects strategies that would meet the targets.

Senate Bill 1078, Senate Bill 107, and Senate Bill 2X (Renewables Portfolio Standard). Established in 2002 under SB 1078, and accelerated in 2006 under SB 107, California's Renewables Portfolio Standard required investor-owned utilities, electric service providers, and community choice aggregators to increase procurement from eligible renewable energy resources by at least one percent of their retail sales annually, until they achieved 20 percent by 2010. SB 2X raises the target from the current 20 percent, requiring private and public utilities to obtain 33 percent of their electricity from renewable energy sources by 2020.

Assembly Bill 811. AB 811 (2008) authorizes California cities and counties to designate districts within which willing property owners may enter into contractual assessments to finance the installation of renewable energy generation and energy efficiency improvements that are permanently fixed to the property. These financing arrangements would allow property owners to finance renewable energy generation and energy efficiency improvements through low-interest loans that would be repaid as an item on the property owner's property tax bill.

California Green Building Code. The California Green Building Code (2008) (CALGreen) is the statewide green building code, which was developed to provide a consistent approach for green building within California. It lays out minimum requirements for newly constructed buildings in California, which will reduce GHG emissions through improved efficiency and process improvements. It requires builders to install plumbing that cuts indoor water use by as much as 20 percent, divert 50 percent of construction waste from landfills to recycling, and use low-pollutant paints, carpets, and floors.

California Code of Regulations Title 24, Part 6. Although it was not originally intended specifically to reduce GHG emissions, California Code of Regulations Title 24, Part 6: California's Energy Efficiency Standards for Residential and Nonresidential Buildings, was first adopted in 1978 in response to a legislative mandate to reduce California's energy consumption, which in turn reduces fossil fuel consumption and associated GHG emissions. The standards are updated periodically to allow consideration and possible incorporation of new energy-efficient technologies and methods. The California Energy Commission estimates that the 2008 standards reduce consumption by 10 percent for residential buildings and 5 percent for commercial buildings, relative to the previous standards. For projects implemented after January 1, 2014, the California Energy Commission estimates that the 2013 Title 24 energy efficiency standards will reduce consumption by 25 percent for residential buildings and 30 percent for commercial buildings, relative to the 2008 standards. These percentage savings relate to heating, cooling, lighting, and water heating only and do not include other appliances, outdoor lighting that is not attached to buildings, plug loads, or other energy uses.

Assembly Bill 341. AB 341 (2011) establishes a new policy goal of the State of California to divert at least 75 percent of solid waste generated by the year 2020 in an effort to reduce GHG emissions. It also provides for mandatory commercial and multi-family residential recycling, and requires cities and counties to add a commercial and multi-family residential recycling element to their existing resource reduction plans.

1.7.3 Regional

SAN JOAQUIN VALLEY AIR POLLUTION CONTROL DISTRICT (SJVAPCD)

The SJVAPCD has primary responsibility for the development and implementation of rules and regulations designed to attain the National Ambient Air Quality Standards and California Ambient Air Quality Standards, as well as the permitting of new or modified sources, development of air quality management plans, and adoption and enforcement of air pollution regulations within Madera County, which is located within the San Joaquin Valley Air Basin. The SJVAPCD regulates most air pollutant sources, except for mobile sources, which are regulated by the CARB or the California EPA. State and local government projects, as well as projects proposed by the private sector, are subject to SJVAPCD requirements if the sources are regulated by the SJVAPCD.

The AB 32 Scoping Plan does not provide an explicit role for local air districts in implementing AB 32, but states that the CARB will work actively with air districts in coordinating emissions reporting, encouraging and coordinating GHG reductions, and providing technical assistance in quantifying reductions. The ability of air districts to control emissions (both criteria pollutants and GHGs) is provided primarily through permitting as well as through their role as CEQA lead or commenting agency, the establishment of CEQA thresholds or guidance documents, and the development of analytical requirements for CEQA documents where SJVAPCD serves as lead agency for CEQA purposes. In December 2009, the SJVAPCD adopted a district policy document titled Addressing GHG Emission Impacts for Stationary Source Projects Under CEQA When Serving as the Lead Agency. It applies to projects for which the SJVAPCD has discretionary approval authority over the project and serves as the lead agency. The policy establishes the process used by SJVAPCD staff to evaluate the significance of project specific GHG emissions impacts for CEQA purposes. Based on the SJVAPCD policy, a project's GHG-related impact is considered to be less than significant pursuant to CEQA if it complies with an adopted statewide, regional, or local plan for reduction or mitigation of GHG emissions, complies with SJVAPCD approved Best Performance Standards, or achieves AB 32 targeted GHG emissions reductions (29 percent) compared to the business-as-usual scenario (SJVACPD, 2009).

MADERA COUNTY TRANSPORTATION COMMISSION (MCTC)

MCTC is the Regional Transportation Planning Agency and the designated MPO. MCTC's efforts address regional issues relating to transportation, land use and urban form, housing, environment, economic development, regional public facilities, and climate change. Plans and programs that MCTC has adopted or participates in that support GHG emissions reductions in Madera County are described below.

2014 Regional Transportation Plan and Sustainable Communities Strategy (RTP-SCS). The RTP is a long-range transportation plan providing a vision for regional transportation investments over at least a 20-year period. Using growth forecasts and socioeconomic trends, the RTP considers the role of transportation including economic factors, quality of life issues, and environmental factors. The RTP provides an opportunity to identify transportation strategies today that address our mobility needs for the future. The RTP is updated every four years to reflect changes in economic trends, state and federal project and funding requirements, progress made toward project implementation, and current socioeconomic trends. Transportation projects must be included in the RTP in order to qualify for federal and state funding.

The SCS is a new element of the RTP that demonstrates the integration of land use, transportation strategies, and transportation investments within the RTP. This new requirement was put in place by the passage of SB 375, with the goal of ensuring that the MCTC region can meet its regional GHG reduction targets set by the CARB. The 2014 RTP-SCS was adopted by MCTC's Policy Board in July 2014. As discussed in Section 1.7.2 above, the 2014 RTP-SCS was unable to demonstrate compliance with MCTC's SB 375 targets. As such, MCTC plans to prepare an alternative planning strategy in consultation with CARB that reflects strategies that would meet the targets.

San Joaquin Valley Blueprint. MCTC works with the seven Regional Transportation Agencies of the additional counties within the San Joaquin Valley to implement the San Joaquin Valley Blueprint planning process. The San Joaquin Valley Blueprint planning process is a unique opportunity to work together to convey a regional vision of land use and transportation that will be used to guide growth in the San Joaquin

Valley over the next 50 years. Through its public outreach and education component and technical data for local decision makers, the Blueprint provides a tangible opportunity to ensure the San Joaquin Valley remains a desirable place to live.

San Joaquin Valley Greenprint. The San Joaquin Valley Greenprint is a voluntary, stakeholder-driven project that provides agricultural, water, and environmental leaders with improved planning data and fosters regional collaboration on strategies that prioritize resource sustainability while enhancing economic prosperity. It focuses on the challenges and opportunities in non-urban land use planning, and how those rural decisions shape the region's economy and environment.

1.7.4 Local Government Rules and Responsibilities

The AB 32 Scoping Plan establishes a framework for achieving statewide GHG reductions required by AB 32. Specifically, it describes a list of measures that the State will undertake, and the anticipated GHG reductions associated with these measures by 2020. Because the State does not have jurisdictional control over all of the activities that produce GHG emissions in California, the AB 32 Scoping Plan articulates a unique role for local governments by identifying them as essential partners in achieving the State's GHG reduction goals. The AB 32 Scoping Plan states that local governments "have broad influence and, in some cases, exclusive authority over activities that contribute to significant direct and indirect GHG emissions through their planning and permitting processes, local ordinances, outreach and education efforts, and municipal operations". In addition, many of the plan's proposed measures to reduce GHG emissions rely on local government actions. Based on this role, the AB 32 Scoping Plan recommends that local governments reduce GHG emissions from both their municipal operations and community at large by 15 percent from baseline levels by 2020 to parallel the State's target.



Chapter 2.0
GHG Emissions and Reduction Targets

A GHG emissions inventory identifies the major sources and quantities of GHG emissions produced by community-wide and local government activities within a jurisdiction's boundaries for a given year. Estimating GHG emissions enables local governments to establish an emissions baseline, track emissions trends, identify the greatest sources of GHG emissions within their jurisdiction, set targets for future reductions, and create an informed mitigation strategy based on this information. This chapter summarizes the results of the City of Madera Community-wide and Government Operations GHG Emissions Inventories (refer to **Appendix A** and **B** for the complete reports). The documents include inventories of 2007 baseline GHG emissions resulting from local government facilities and operations and community-wide activities within the City of Madera. This chapter also presents the 2020 and 2030 business-as-usual forecast of how emissions in Madera would change if no further actions are implemented to reduce those emissions, and a 2020 and 2030 adjusted forecast to account for the impact of several State regulations that have been established since the 2007 baseline year that will reduce local emissions. In addition, this chapter identifies the City of Madera's GHG emissions reduction targets for the years 2020 and 2030.

2.1 2007 Baseline GHG Emissions

This section describes the methodologies used to complete the 2007 baseline inventory of GHG emissions from government operations and community-wide activities, and summarizes the results.

2.1.1 Methodology

The baseline inventories quantified the GHG emissions resulting from activities and sources within the City of Madera in the 2007 calendar year. The Community-Wide Inventory is divided into six sectors, or sources of emissions: Residential Energy, Commercial/Industrial Energy, Transportation & Mobile Sources, Solid Waste, Water, and Wastewater. The Government Operations Inventory provides a more detailed analysis of emissions resulting from City-owned or –operated buildings, airport facilities, lighting, fleet and transit vehicles; water and stormwater services, wastewater treatment; City-generated solid waste; and employee

commute travel. The Government Operations Inventory is mostly a subset of the Community-wide Inventory, meaning that the majority of GHG emissions from the City's facilities and operations are included in the Community-wide Inventory. For example, electricity and natural gas used in the City's buildings is accounted for in the Commercial Energy Sector of the Community-wide Inventory, while government-generated solid waste is accounted for in the community-wide Solid Waste sector. As such, per the U.S. Community Protocol (2012) and Local Government Operations Protocol (2010), the Government Operations Inventory should not be added to the community analysis; rather, it should be looked at as a portion of the total community-wide emissions.

The Government Operations Inventory followed the Local Government Operations Protocol (version 1.1), which was adopted in 2010 by CARB and serves as the national standard for quantifying and reporting GHG emissions from local government operations. The Community-wide Inventory followed the U.S. Community Protocol for Accounting and Reporting of Greenhouse Gas Emissions (2012). These protocols provide standard accounting principles, boundaries, quantification methods, and procedures for reporting GHG emissions. Like all emissions inventories, the inventory must rely on the best-available data and calculation methodologies, and, therefore, represents a best estimate of GHG emissions following standard protocol. As protocols are updated and better data and calculation methodologies become available, the inventory can be updated and improved. Nevertheless, the findings of this analysis provide a solid basis upon which Madera can begin planning and taking action to reduce its GHG emissions.

2.1.2 Government Operations Emissions

In 2007, GHG emissions from the City of Madera's government operations totaled 8,464 MT CO_2e. As shown in **Figure 2-1** and **Table 2-1**, the majority of these emissions resulted from Water and Stormwater Services (35 percent), Buildings and Other Facilities (20 percent) and Vehicle Fleet (13 percent). Emissions from Employee Commutes (10 percent) and Wastewater Treatment (10 percent) were also a significant source of emissions. Emissions from Public Lighting (eight percent), Transit Fleet (three percent), Solid Waste (one percent) and Airport Facilities (less than one percent) accounted for the remainder of the City's emissions.

FIGURE 2-1: GOVERNMENT OPERATIONS GHG EMISSIONS BY SECTOR (2007)

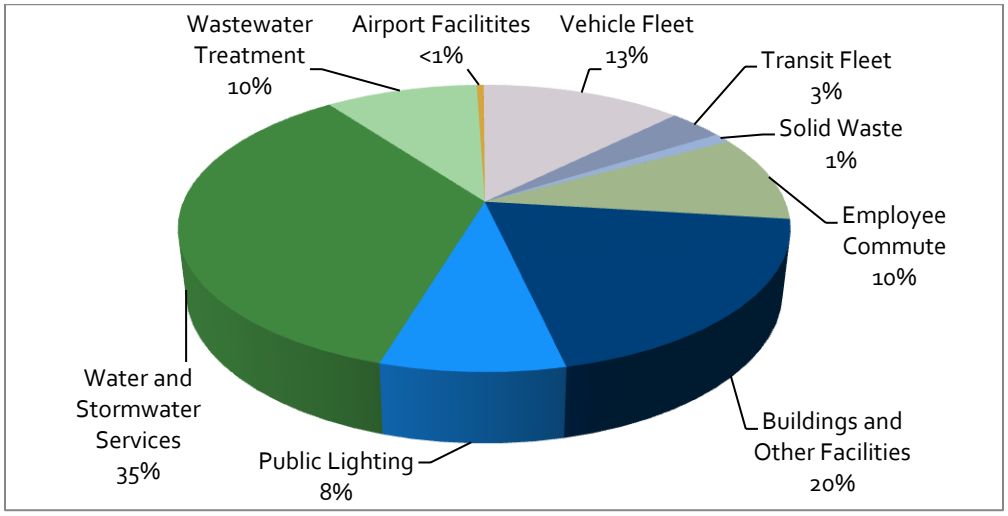


TABLE 2-1: GOVERNMENT OPERATIONS GHG EMISSIONS BY SECTOR (2007)

Sector	Description	GHG Emissions (MT CO_2e)	Percent of Total
Buildings and Other Facilities	Electricity, natural gas, propane, fuel oil, refrigerants, fire suppressants, and carbon dioxide used in City-owned or –operated buildings and facilities	1,651	20%
Public Lighting	Electricity used to power streetlights, traffic signal lights, and other outdoor public lighting	693	8%
Water and Stormwater Services	Electricity, natural gas, and propane used for the distribution or transport of water, including drinking water, sprinkler systems and irrigation	2,983	35%
Wastewater Treatment	Electricity used for wastewater transport; electricity, natural gas, and diesel used in the operation of the wastewater treatment facility; methane and nitrous oxide from wastewater treatment	813	10%
Airport Facilities	Electricity, natural gas, and diesel used in the operation of the City's airport facilities	37	<1%
Vehicle Fleet	Fuel consumption and mobile refrigerants for City fleet vehicles	1,072	13%
Transit Fleet	Fuel consumption and mobile refrigerants for City transit vehicles	294	3%
Solid Waste	Landfilled solid waste generated by City operations	93	1%
Employee Commute	Fuel consumption for City employee commutes	828	10%
Total		**8,464**	**100%**

2.1.3 Community-wide Emissions

In 2007, the Madera community as a whole emitted approximately 324,690 MT CO_2e from the Residential Energy, Commercial/Industrial Energy, Transportation & Mobile Sources, Solid Waste, Water, and Wastewater sectors. As shown in **Figure 2-2** and **Table 2-2**, the Transportation & Mobile Sources sector was the largest source of emissions, generating approximately 188,585 MT CO_2e, or 58 percent of total emissions in 2007. Transportation & Mobile Sources sector GHG emissions are the result of fuel combustion in on-road vehicles, which accounted for 86 percent (or 162,670 MT CO_2e) of the Transportation & Mobile Sources sector emissions, and off-road equipment, which accounted for 14 percent (or 25,915 MT CO_2e) of the Transportation & Mobile Sources sector emissions. The Residential Energy sector was the second largest source of 2007 emissions, generating 65,210 MT CO_2e, or 20 percent of total community-wide emissions, as a result of electricity and natural gas consumed in residential buildings. Madera's Commercial/Industrial Energy sector produced 54,387 MT CO_2e, or 17 percent of total community-wide emissions, as a result of electricity and natural gas consumption in non-residential buildings. The Solid Waste sector resulted in 12,973 MT CO_2e, or four percent of total GHG emissions, as a result of landfilled solid waste generated by the

community. The remainder of GHG emissions resulted from the Water sector (2,840 MT CO_2e or one percent) and Wastewater sector (695 MT CO_2e or less than one percent).

FIGURE 2-2: COMMUNITY-WIDE GHG EMISSIONS BY SECTOR (2007)

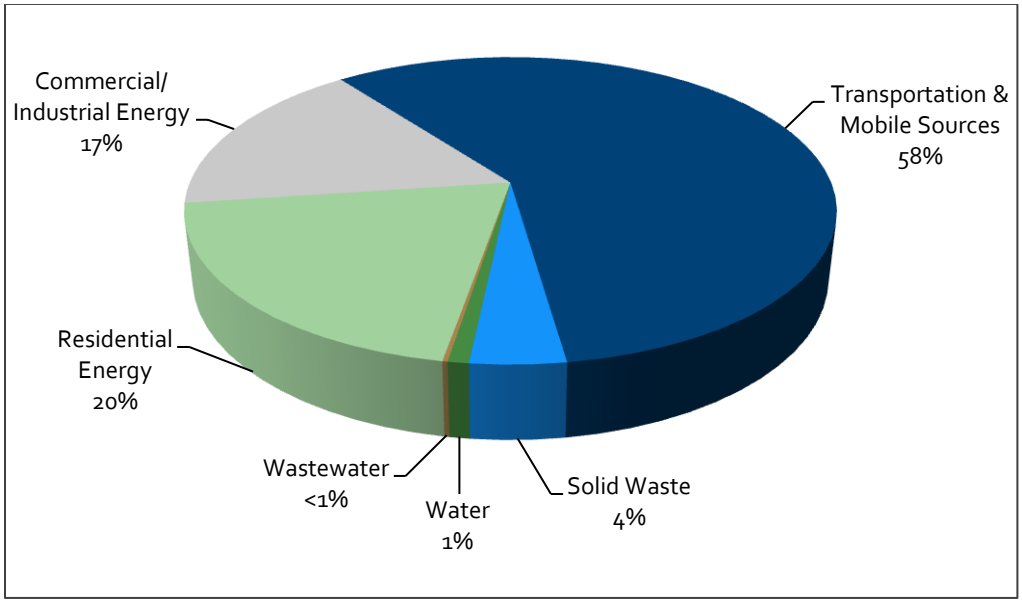


TABLE 2-2 COMMUNITY-WIDE GHG EMISSIONS BY SECTOR (2007)

Sector		GHG Emissions (MT CO_2e)	Percent of Total
Residential Energy	Electricity and natural gas consumption in residential buildings	65,210	20%
Commercial/ Industrial Energy	Electricity and natural gas consumption in non-residential buildings	54,387	17%
Transportation & Mobile Sources	Vehicle miles travelled (VMT)* and fuel consumption in on-road vehicles and off-road equipment	188,585	58%
Solid Waste	Solid waste generated and sent to landfills	12,973	4%
Water	Electricity and natural gas used to convey and treat potable water	2,840	1%
Wastewater	Electricity used to convey and treat wastewater and wastewater treatment process emissions	695	<1%
Total		**324,690**	**100.0%**

***** Includes VMT from vehicle trips generated by land uses within the city. As such, these trips have an origin and/or destination within the City of Madera, and pass-through trips are not included in this total. Refer to **Appendix A** for details.

2.2 2020 and 2030 Emissions Forecast

2.2.1 Methodology

The GHG emissions forecast provides a "business-as-usual estimate," or scenario, of how emissions will change in the years 2020 and 2030 if consumption trends and efficiency continue as they did in 2007, absent any new regulations or actions that would reduce emissions. The year 2020 was selected for the forecast in order to maintain consistency with AB 32 target year. The year 2030 was selected to maintain consistency with the City of Madera General Plan horizon year and to support California's larger effort to reduce statewide emissions under Executive Orders S-3-05 and B-30-15.

The forecast is based on projected growth trends in population, jobs, and VMT. The forecast relies on population and job projections provided by the City and VMT projections provided by Fehr & Peers using the MCTC travel model. The forecast is based on the assumption that the number of drivers, electricity and natural gas consumption, solid waste tonnage, water usage, and wastewater generation will increase over time in proportion to the growth in population, jobs, and VMT. As a business-as-usual projection, the forecast does not take into account legislation or regulations implemented after 2007, which are accounted for in the adjusted forecast (refer to Section 2.2.3).

The forecasting approach varies for each sector:

- Residential Energy, Solid Waste, Water, and Wastewater sector emissions are correlated with the City of Madera's forecasted population growth, which was provided by the City.
- Commercial/Industrial Energy sector emissions are correlated with forecasted with job growth in Madera, which was also provided by the City.
- On-road Transportation subsector emissions are based on projected growth in VMT provided by Fehr & Peers and were calculated using EMFAC2011.
- Off-road Equipment subsector emissions were calculated using OFFROAD2007.

Table 2-3 shows the growth projections used to determine the emissions growth for each emissions sector in 2020 and 2030.

TABLE 2-3: MADERA'S GROWTH PROJECTIONS

Growth Indicator	2007	2020	2030	Sector Applied to
Population	57,181	74,571	90,191	Residential Energy, Solid Waste, Water, Wastewater
Jobs	15,258	22,413	27,558	Commercial/Industrial Energy, Off-road Equipment
Annual VMT	256,504,829	333,100,731	410,301,822	On-road Transportation

Source: City of Madera, 2014; Fehr & Peers, 2014

2.2.2 Business-as-Usual Forecast

As shown in **Figure 2-3,** under the business-as-usual scenario Madera's GHG emissions are projected to grow by approximately 29 percent from 2007 levels by 2020 and 58 percent from 2007 levels by 2030. **Table 2-4** shows the results of the business-as-usual forecast scenario.

FIGURE 2-3: COMMUNITY-WIDE BUSINESS-AS-USUAL GHG EMISSIONS FORECAST FOR 2020 AND 2030

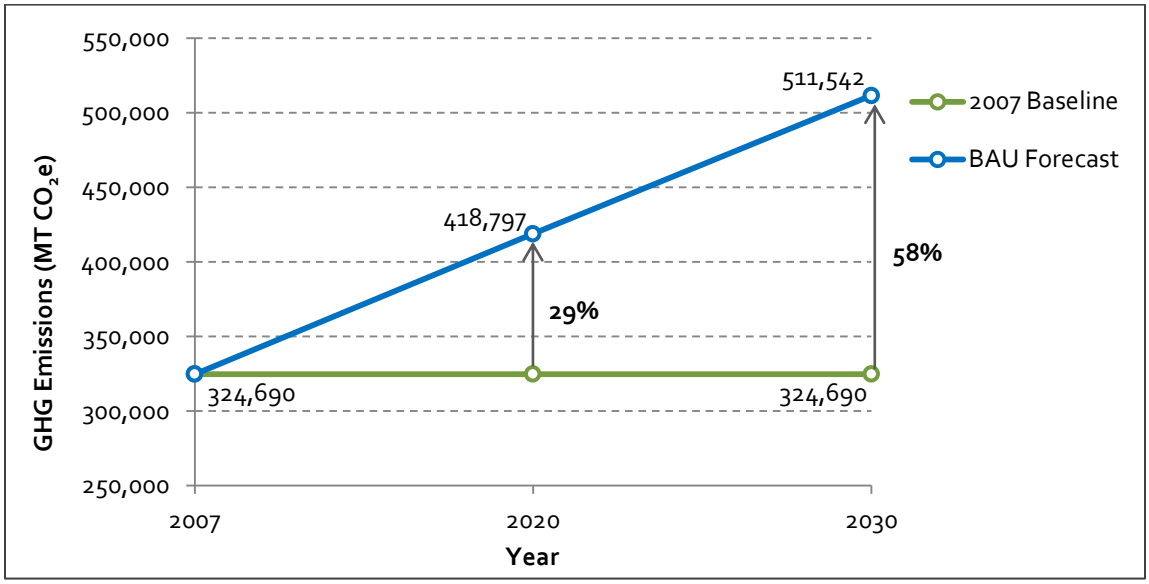


TABLE 2-4: COMMUNITY-WIDE BUSINESS-AS-USUAL GHG EMISSIONS FORECAST

Sector	2007 Emissions (MT CO_2e)	2020 Emissions (MT CO_2e)	2030 Emissions (MT CO_2e)
Residential Energy	65,210	85,042	102,855
Commercial/ Industrial Energy	54,387	79,891	98,230
Transportation & Mobile Sources	188,585	232,336	284,419
Solid Waste	12,973	16,918	20,462
Water	2,840	3,704	4,480
Wastewater	695	906	1,096
Total	**324,690**	**418,797**	**511,542**

2.2.3 Adjusted Forecast

Since 2007, a number of federal and state regulations been enacted that would reduce Madera's GHG emissions in 2020 and 2030. The impact of these regulations was quantified and incorporated into an "adjusted forecast" to provide a more accurate picture of future emissions growth and the responsibility of the City and community once state regulations to reduce GHG emissions have been implemented. A brief description of each of these regulations is provided below. **Table 2-5** summarizes the local reduction that will result from each state regulation. These state regulations will reduce Madera's business-as-usual GHG emissions by approximately 113,056 MT CO_2e in 2020 and 163,114 MT CO_2e in 2030.

Clean Car Standards, AB 1493 (Pavley I)

Signed into law in 2002, AB 1493 requires vehicle manufactures to reduce GHG emissions from new passenger cars and light trucks from 2009 through 2016. Regulations were adopted by the CARB in 2004 and took effect in 2009 when the USEPA issued a waiver confirming California's right to implement the bill. CARB anticipates that the Pavley I standards will reduce GHG emissions from new California passenger vehicles by about 22 percent in 2012 and about 30 percent in 2016, while simultaneously improving fuel efficiency and reducing motorists' costs.

Advanced Clean Cars Standards

The Advanced Clean Cars program (January 2012) coordinates the goals of the Low Emissions Vehicle (LEV), Zero Emissions Vehicle (ZEV), and Clean Fuels Outlet programs combining the control of smog, soot causing pollutants and GHG emissions into a single coordinated package of requirements for model years 2017 through 2025. By 2020, GHG emissions would be reduced by three percent and by 2025 emissions would be reduced approximately 12 percent from 2008 baseline levels. The reduction increases in 2035 to 27 percent reduction from baseline levels and even further in 2050 to 33 percent reduction.

Low Carbon Fuel Standard

The Low Carbon Fuel Standard is a flexible performance standard designed to accelerate the availability and diversity of low-carbon fuels by taking into consideration the full life-cycle of GHG emissions. As part of the AB 32 Scoping Plan, the Low Carbon Fuel Standard is expected to reduce the carbon intensity of gasoline and diesel fuels by 10 percent.

Renewable Portfolio Standard

Established in 2002 under SB 1078, and accelerated in 2006 under SB 107, California's Renewables Portfolio Standard required investor-owned utilities, electric service providers, and community choice aggregators to increase procurement from eligible renewable energy resources by at least one percent of their retail sales annually, until they achieved 20 percent by 2010. SB 2X raised the target from 20 percent, requiring private and public utilities to obtain 33 percent of their electricity from renewable energy sources by 2020.

California Code of Regulations Title 24, Part 6

Although it was not originally intended specifically to reduce GHG emissions, California Code of Regulations Title 24, Part 6: California's Energy Efficiency Standards for Residential and Nonresidential Buildings, was first adopted in 1978 in response to a legislative mandate to reduce California's energy consumption, which in turn reduces fossil fuel consumption and associated GHG emissions. The California Energy Commission estimates that the 2008 standards reduce consumption by 10 percent for residential buildings and 5 percent for commercial buildings, relative to the previous standards. For projects implemented after January 1, 2014, the California Energy Commission estimates that the 2013 Title 24 energy efficiency standards will reduce consumption by 25 percent for residential buildings and 30 percent for commercial buildings, relative to the 2008 standards.

TABLE 2-5: SUMMARY OF GHG EMISSIONS REDUCTIONS FROM STATE REGULATIONS IN 2020 AND 2030

State Regulations	2020 Reduction (MT CO_2e)	2030 Reduction (MT CO_2e)
Pavley I Clean Car Standards – AB 1493	-29,460	-44,015
Advanced Clean Cars	-3,408	-20,448
Low Carbon Fuel Standard – On-Road Transportation	-17,325	-19,319
Low Carbon Fuel Standard – Off-Road Vehicles	-2,622	-2,677
Title 24	-4,876	-11,870
Renewable Portfolio Standard	-55,365	-64,785
Total Reduction from State Regulations	**-113,056**	**-163,114**

2.3 GHG Emissions Reduction Targets

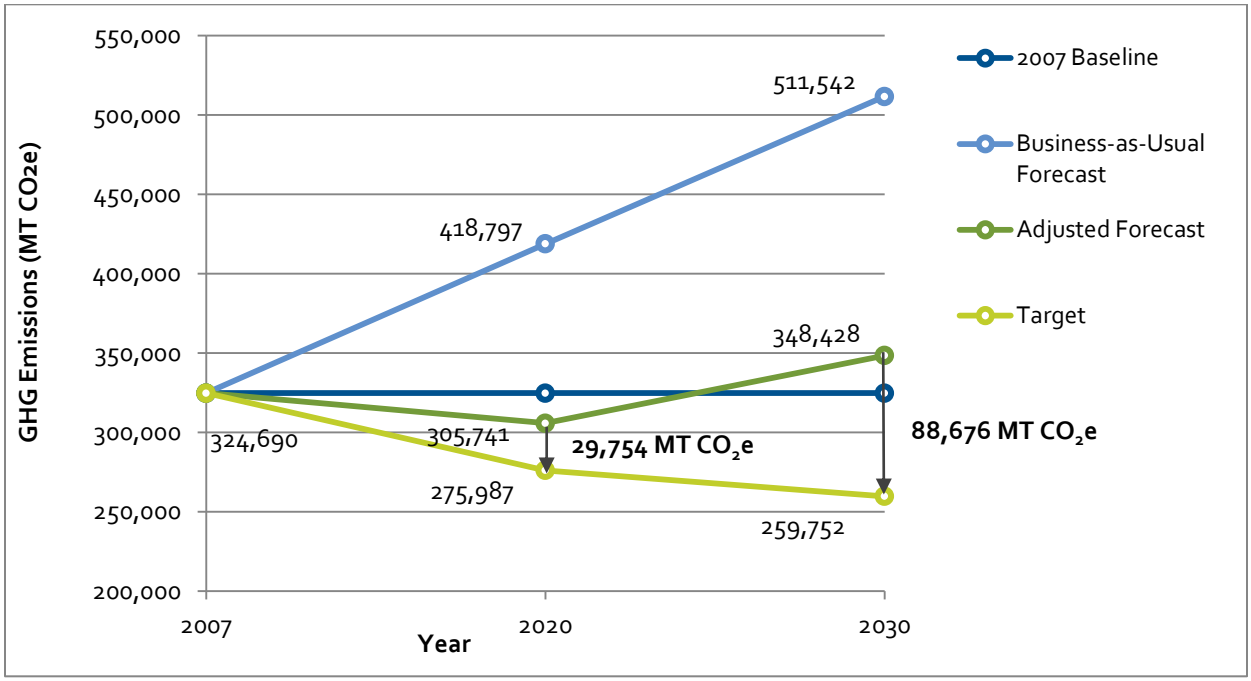
The City is committed to reducing Madera's GHG emissions consistent with AB 32 and working towards the goals of Executive Orders S-3-05 and B-30-15. The AB 32 Scoping Plan encourages local governments to establish a reduction target that parallels the State's commitment to reduce GHG emissions by approximately 15 percent from baseline levels by 2020. Therefore, this CAP establishes a reduction goal or target to achieve emissions levels 15 percent below 2007 levels by 2020 consistent with the AB 32 and General Plan Action Item CON-36.2. This CAP also establishes a longer-term target of 20 percent below 2007 levels by 2030, to support California's larger effort to reduce statewide emissions under Executive Orders S-3-05 and B-30-15.

The 2007 baseline GHG emissions inventory and 2020 and 2030 GHG emissions forecasts under the adjusted scenario provide the necessary background for the City to identify the reduction in emissions needed from local measures to meet these targets. As shown in **Table 2-6** and **Figure 2-4,** Madera would need to reduce its GHG emissions by an additional 29,754 MT CO_2e by 2020 and by 88,676 MT CO_2e by 2030 beyond reductions associated with State regulations to meet these targets.

TABLE 2-6: MADERA'S GHG EMISSIONS, TARGETS, AND REDUCTION NECESSARY TO MEET TARGETS

	2020 GHG Emissions (MT CO_2e)	2030 GHG Emissions (MT CO_2e)
2007 Baseline Emissions	324,690	324,690
Adjusted Forecast	305,741	348,428
Targeted Future Emissions Level	275,987	259,752
Necessary Reduction from Adjusted Forecast to Meet Targets	**29,754**	**88,676**

FIGURE 2-4: MADERA'S GHG EMISSIONS, TARGETS, AND REDUCTION NECESSARY TO MEET TARGETS





Chapter 3.0
Climate Action Measures

This chapter identifies the measures and actions that the City will implement to achieve the GHG emissions reduction targets of 15 percent below 2007 levels by 2020 and 20 percent below 2007 levels by 2030. These measures will also help the City prepare for the anticipated effects of climate change.

The City has identified the climate action measures and actions based on careful consideration of the reductions needed to achieve the targets, the sources and distribution of emissions revealed in the GHG emissions inventory, existing priorities and resources, and the potential costs and benefits of each measure. The climate action measures and actions incorporate and/or build on many of the goals and policies identified in the General Plan and strategies of neighboring jurisdictions and regional agencies. Detailed analyses of each measure's GHG reduction potential and estimated costs and savings are located in **Appendix C** and **D**.

The climate action measures, which represent ways to reduce GHG emissions or adapt to climate change, are organized into seven focus areas. These focus areas include:

- Local Government
- Energy
- Transportation and Land Use
- Water and Wastewater
- Solid Waste
- Urban Greening
- Adaptation

3.1 Chapter Organization

The climate action measures are organized into seven focus areas that represent the primary ways in which Madera will reduce GHG emissions and adapt to the anticipated effects of a changing climate. Each focus area begins with an introduction, followed by a summary table listing the measures within the focus area and the associated GHG reduction potential. Following the introduction to each focus area, the chapter presents each measure with the following information:

- **Measure:** Measures represent the ways to reduce GHG emissions or adapt to a changing climate.

- **Performance Objective:** The outcome necessary to achieve the measure's GHG emissions reduction potential
- **Existing and/or Completed Efforts:** A list of completed, programmed, or in progress efforts (since the 2007 baseline year) to implement the measure.
- **General Plan Policies and Action Items:** A list of General Plan policies and action items to accomplish the measure. Some policies and/or action items have been abbreviated. Where the full text of policies or action items is not included, it is denoted with "…". Please refer to the General Plan document for the complete text.
- **Additional Implementation Actions:** A list of additional actions to accomplish the measure. Additional implementation actions were developed from industry best practices and often build on the General Plan policies and action items.
- **GHG Reduction Potential:** The GHG reduction potential value identifies the estimated annual emission reductions anticipated in 2020 and 2030, measured in MT CO_2e per year. Supporting information pertaining to the reduction calculations is provided in **Appendix C**.
- **Costs and Savings:** For each measure, potential costs and savings to the City or community are categorized as none, very low, low, medium, high, and very high. **Table 3-1** summarizes these category definitions. Costs account for the expense that would occur beyond conducting business-as-usual (i.e., without implementation of the CAP). Supporting information is provided in **Appendix D**.

TABLE 3-1 MEASURE COST AND SAVINGS

Cost/Savings Type	Range	
City Cost/Savings	None: Very Low: Low: Medium: High: Very High:	$0 $1- $10,000 $10,001 - $50,000 $50,001 - $100,000 $100,001 - $200,000 $200,001 or greater
Private Cost/Savings	None: Very Low: Low: Medium: High: Very High:	$0 $1 - $1,000 $1,001 - $5,000 $5,001 - $10,000 $10,001 - $20,000 $20,001 or greater

Details to help the City implement each measure and monitor its progress are located in Chapter 4, Implementation and Monitoring. Details include responsible departments, implementation time frames, performance indicators to track progress, and potential funding resources.

3.2 Local Government Measures

The City has already taken a number of steps that have resulted in GHG emissions reductions and is committed to building on those efforts by increasing energy efficiency and conservation in municipal buildings, increasing its use of renewable energy, purchasing more efficient fleet vehicles, expanding commute options for City employees, reducing solid waste, and planting trees. This focus area identifies measures and actions that the City can implement to further reduce GHG emissions from City government operations and facilities. Although the GHG emissions that result from local government operations and facilities account for less than one percent of Madera's community-wide emissions, as an employer, property-owner, and regulatory entity, the City can set an example of GHG emissions reduction practices for the community and demonstrate additional benefits of the measures beyond reducing GHG emissions, such as cost savings in buildings and operations and improved operational efficiency. As shown in **Table 3-2**, local government measures have the potential to reduce Madera's GHG emissions by 653 MT CO_2e by 2020 and 991 MT CO_2e by 2030.

Co-Benefits of Local Government Measures

In addition to reducing GHG emissions, the local government measures described in this section have the potential to provide other important benefits to the community. These benefits include:

- Municipal leadership
- Reduced operating costs
- Lower maintenance costs and extended equipment lives
- Improved public health
- Improved air and water quality
- Improved infrastructure
- Resource conservation
- City beautification

TABLE 3-2 LOCAL GOVERNMENT GHG REDUCTIONS BY MEASURE

Measure Number	Measure	2020 GHG Reduction (MT CO_2e)	2030 GHG Reduction (MT CO_2e)
LG-1	Municipal Energy Efficiency and Conservation	74	148
LG-2	Municipal Renewable Energy	445	611
LG-3	Fuel Efficient and Low-Carbon Vehicle Fleet	58	105
LG-4	Employee Commute Alternatives	41	66
LG-5	Municipal Solid Waste Diversion	19	28
LG-6	Tree Planting on City Property	16	33
Local Government Operations Total		**653**	**991**

LG-1: Municipal Energy Efficiency and Conservation

Reduce non-renewable energy consumption in City buildings and facilities.

Objective: Reduce the amount of energy used at City buildings and facilities by five percent below 2007 levels by 2020 and 10 percent below 2007 levels by 2030.

2020 Reduction Potential:
74 MT CO_2e

2030 Reduction Potential:
148 MT CO_2e

Existing and/or Completed Efforts:

- Lighting retrofits: The City has replaced approximately 650 City-owned high pressure sodium (HPS) street lights, all traffic signal lights, and several "walk/don't walk" indicators with light-emitting diodes (LED), since 2007. The City has also replaced approximately 1,500 other indoor and outdoor lights with compact fluorescent lights (CFL) or other energy efficient lights.
- Street light standards: The City requires that all new street lights use LED technology and has engineering standards and specifications for their installation.
- Energy audits: All City buildings and facilities have been audited in regards to their energy consumption.
- Demand response programs: The City implements peak load management and demand response programs, which have resulted in an estimated electricity savings of 3,255 kilowatt hours per year (kWh/yr).
- Energy management systems: Occupancy sensors, which automatically turn off lights when areas are not in use, have been installed at a number of City facilities.
- Energy efficient equipment: As municipal appliances and technologies wear out, the City replaces them with ones that are energy efficient. Since 2007, the City has replaced numerous appliances, the water heater at Fire Station 6, installed low flow toilets, and energy efficient heating, ventilation, and air conditioning (HVAC) units with economizers. All water pumps have been audited for energy usage and as pumps are replaced, new highly efficient motors are utilized. Many of the irrigation controls have been upgraded at a number of City facilities, resulting in greater efficiency.
- Building retrofits: In 2008, the airport, Westside Activity Center, Millview Kitchen, Youth Hut, and engineering building, and City Hall finance building were retrofitted, resulting in electricity savings of39,764 kWh/yr. From 2010-2011, the Wastewater Treatment Plant, Fleet Shop, and Central Supply (Public Works) facilities were retrofitted, resulting in electricity savings of 37,901 kWh/yr.
- Utility coordination: The City regularly works with Pacific Gas and Electric Company (PG&E) to identify funding sources and mechanisms for building retrofit projects.

General Plan Policies and Actions:

- Policy CON-40: All public and private development—including homes, commercial, and industrial—should be designed to be energy-efficient.
    - Action Item CON-40.3: City buildings and facilities will be operated in the most energy-efficient manner without endangering public health and safety and without reducing public safety or service levels.

- Policy CON-45: The City supports the use of green building practices in the planning, design, construction, management, renovation, operations, and demolition of facilities constructed, owned, managed, or financed by the City. All new building projects (projects intended for human occupancy) involving the use of local public funds should incorporate green building practices. Except as dictated by unique circumstances associated with a given project, the typical standard for green building will be the equivalent of the "Leadership in Energy and Environmental Design (LEED) Silver Standard."
  - Action Item CON-45.1: Evaluate and update the City's procurement processes to provide incentives to bidders who propose the use of green building practices in the construction of City buildings and facilities.
  - Action Item CON-45.2: Require that any building constructed in whole or in part with local, public funding incorporate passive solar design features, such as daylighting and passive solar heating, where feasible.

Additional Implementation Actions:

LG-1.1: Track municipal energy consumption and performance over time using PG&E Portfolio Manager Web Services which automatically feeds key data into ENERGY STAR® Portfolio Manager.

LG-1.2: Establish a prioritized list of energy efficiency upgrade projects and implement as funding becomes available.

LG-1.3: Convert the remaining HPS street lights to LED.

LG-1.4: Identify staff positions or employees that could benefit from energy-related workshops and trainings.

LG-1.5: Continue to coordinate with PG&E and the Madera Energy Watch partnership to identify funding sources, tools, and other mechanisms to improve municipal energy efficiency.

City Cost	City Savings	Private Cost	Private Savings
Low – Medium	High – Very High	None	None

LG-2: Municipal Renewable Energy

Increase the amount of municipal energy derived from renewable sources.

Objective: By 2020, install 1,265 kilowatt (kW) of solar photovoltaics (PVs) (please note the City has already met this objective for the year 2020). By 2030, install an additional 162 kW of solar PVs (for a total of 1,427 kW of solar PVs by 2030). By 2020, procure 10 percent of municipal electricity from renewables by 2020 and 20 percent by 2030.

2020 Reduction Potential:
445 MT CO_2e

2030 Reduction Potential:
611 MT CO_2e

Existing and/or Completed Efforts:

- Since 2007, the City has installed a 1.15 megawatt (MW) PV system at the Wastewater Treatment Plant, a 75 kW PV system at the Youth Center, and a 40 kW PV system at the Police Department.

General Plan Policies and Actions:

- Action Item CON-40.4: To the extent practical, integrate appropriate renewable energy and clean generation technologies into existing City facilities, such as solar, wind, biofuel, cogeneration, and fuel cells to power City facilities.
- Policy CON-42: The City will promote and encourage co-generation projects for commercial, industrial, and municipal facilities, provided they meet all applicable air quality standards and provide a net reduction in GHG emissions associated with energy production.
- Policy CON-43: The City will install renewable energy systems at its facilities where feasible, including solar collection systems at municipal properties and waste-to-energy (methane recovery) systems at the waste water treatment plant.

Additional Implementation Actions:

LG-2.1: Conduct a feasibility study on the installation of renewable energy projects at select City facilities.

LG-2.2: Identify and secure funding (e.g., through grants, on-bill financing, loans, energy performance contracts, lease-purchase agreements, or other mechanisms) to install additional solar PV systems at City facilities.

LG-2.3: Consider participation in PG&E's green power option, which would allow the City to purchase up to 100 percent of its electricity from renewable energy sources.

City Cost	City Savings	Private Cost	Private Savings
Very Low	High – Very High	None	None

LG-3: Fuel Efficient and Low-Carbon Vehicle Fleet

Increase overall fuel efficiency and the use of low-carbon fuels in the City's vehicle fleet.

2020 Reduction Potential:
58 MT CO_2e

2030 Reduction Potential:
105 MT CO_2e

Objective: By 2020, replace 10 light duty vehicles with three hybrid or electric vehicles with combined average fuel economy of 55 mpg and seven compressed natural gas (CNG) fueled vehicles. Also replace 10 heavy-duty vehicles with CNG fueled vehicles by 2020. By 2030, replace an additional 12 light-duty vehicles with five hybrid or electric vehicles with combined average fuel economy of 55 mpg and seven CNG fueled vehicles. Also replace an additional six heavy-duty vehicles with CNG fueled vehicles by 2030. The City has already replaced six light-duty vehicles (with one hybrid and five CNG) and 10 heavy-duty vehicles with CNG since 2007.

Existing and/or Completed Efforts:

- City resolution 03-55 declares the City's desire to integrate zero emission and low emission vehicles into the City fleet.
- Since 2007, the City has purchased one hybrid vehicle and several vehicles fueled by CNG. The City has also reduced its fleet size across all equipment classes.
- The City regularly conducts vehicle maintenance, including tune-ups and maintenance checks at 3,000 miles or every four months, whichever comes first.
- Since 2008, the Madera Area Express system had added 10 CNG buses. The City's transit fleet consists entirely of CNG transit vehicles.
- Between 2011 and 2012, combined City/School District CNG fueling facilities were constructed.

General Plan Policies and Actions:

- Policy CON-32: Where feasible, the City's vehicle fleet should include clean fuel, hybrid, electric, or other fuel-efficient vehicles, so long as their utility, durability, and cost meets the City's needs.
    - Action Item CON-32.1: Update the City's procurement policies to include criteria for vehicle purchases that implement this policy.

Additional Implementation Actions:

LG-3.1: Update the City's procurement policies to include minimum fuel efficiency criteria in procurement specifications.

LG-3.2: Continue to identify and secure funding to help purchase alternative and fuel efficient fleet vehicles and equipment.

LG-3.3: Inform staff of fuel-efficient driving techniques (e.g., avoiding excessive, quick starts, speeding, etc.).

City Cost	City Savings	Private Cost	Private Savings
High	Low	None	None

LG-4: Employee Commute Alternatives

Promote alternatives to reduce annual VMT associated with City employee commutes.

Objective: Reduce annual VMT associated with employee commutes by five percent below 2007 levels by 2020 and eight percent below 2007 levels by 2030.

2020 Reduction Potential:
41 MT CO_2e

2030 Reduction Potential:
66 MT CO_2e

Existing and/or Completed Efforts:

- None at this time.

General Plan Policies and Actions:

- Policy CI-37: The City encourages the use of ridesharing and other Transportation Demand Management (TDM) tactics for reducing area traffic congestion and improving air quality.

Additional Implementation Actions:

LG-4.1: Provide City employees with incentives to use alternatives to single-occupant auto commuting, such as transit incentives, bicycle facilities, flexible schedules, ridesharing services and subsidies, and telecommuting.

LG-4.2: Participate in and promote annual commute trip reduction events.

City Cost	City Savings	Private Cost	Private Savings
Very Low	None	None	Varies

LG-5: Municipal Solid Waste Diversion

2020 Reduction Potential:
19 MT CO_2e

2030 Reduction Potential:
28 MT CO_2e

Reduce the amount of landfilled solid waste generated at City facilities.

Objective: Reduce City-generated solid waste by 20 percent below 2007 levels by 2020 and by 30 percent below 2007 levels by 2030.

Existing and/or Completed Efforts:

- The City provides recycling receptacles at meetings and has a policy to install recycling receptacles at municipal facilities.
- The City has a recycle and environmentally preferred products policy.
- The City participates in "grasscycling" by leaving clippings on the lawn after mowing.
- The City has established and implements an organic material recovery program for green waste from agency parks and facility landscaping.

General Plan Policies and Actions:

- Policy CI-63: The City itself will be a leader in promoting waste reduction and recycling through a variety of means when feasible, including:
    - Adopting requirements for the use of recycled base materials (e.g., recycled raw batch materials, rubberized asphalt from recycled tires, and other appropriate materials), if practicable, in requests for bids for public roadway construction projects.
    - Procurement policies and procedures which facilitate purchase of recycled, recyclable, or reusable products and materials where feasible.
    - Requiring contractors to provide products and services to the City, including printing services, demonstrating that they will comply with the City's recycled materials policies.

Additional Implementation Actions:

LG-5.1: Audit City facilities to identify opportunities to increase material recovery and beneficial use of organic material.

City Cost	City Savings	Private Cost	Private Savings
Very Low	None	None	None

LG-6: Tree Planting on City Property

2020 Reduction Potential:
16 MT CO_2e

2030 Reduction Potential:
33 MT CO_2e

Increase the quantity of drought-tolerant, low-maintenance native trees and vegetation on City-owned or -operated property.

Objective: Plant 100 trees and three acres of vegetation on City properties by 2020 and an additional 100 trees and three acres by 2030 (for a total of 200 trees and six acres of vegetation planted on City properties between 2007 and 2030). The City has already planted 85 trees and two acres of vegetation.

Existing and/or Completed Efforts:

- Since 2007, 10 trees were planted at Rotary Park, 35 trees were planted at the Sunrise Rotary Sports Complex, and 40 trees were planted in the Lake Street median islands (total of 85 trees).
- Since 2007, the City planted two acres of bare dirt with grass at the Sunrise Rotary Sports Complex.

General Plan Policies and Actions:

- Policy CON-9: The City will evaluate existing City-maintained landscaping and will, as feasible, install or replace vegetation with drought-tolerant, low-maintenance native species.
- Policy CON-10: The City will evaluate existing landscaping and options to convert reflective and impervious surfaces to landscaping, and will, as feasible, install or replace vegetation with drought-tolerant, low-maintenance native species that can also provide shade and reduce heat-island effects.

Additional Implementation Actions:

LG-6.1: Continue to identify and secure funding to plant additional drought-tolerant, native trees and vegetation on City properties.

City Cost	City Savings	Private Cost	Private Savings
Medium - High	Very Low	None	None

3.3 Energy Measures

Energy use accounted for 37 percent of Madera's total GHG emissions in 2007. These emissions result from the combustion of fossil fuel, primarily coal, oil, and natural gas, which is used to heat, cool, and provide power to residential, commercial, and industrial buildings and other facilities. Factors affecting energy-related emissions in buildings include building design and the efficiency of technology and electronics in buildings. GHG emissions reductions can be achieved by changes to both energy demand (e.g., improving energy efficiency and reducing consumption) and energy supply (e.g., switching from a high-carbon to a low- or zero-carbon technology or fuel). The energy measures listed in **Table 3-3** focus on these strategies and have the potential to reduce Madera's GHG emissions by 13,050 MT CO_2e by 2020 and by 40,847 MT CO_2e by 2030.

Co-Benefits of Energy Measures

In addition to reducing GHG emissions, the energy measures described in this section have the potential to provide other important benefits to the community, including:

- Reduced energy and operating costs
- Lower maintenance costs and extended equipment lives
- Increased building re-sale value
- Strengthened local economy
- Resource conservation
- Increased electricity reliability
- Improved air quality

TABLE 3-3 ENERGY GHG REDUCTIONS BY MEASURE

Measure Number	Measure	2020 GHG Reduction (MT CO_2e)	2030 GHG Reduction (MT CO_2e)
E-1	Energy Efficiency and Conservation in Existing Buildings	10,707	30,163
E-2	Energy Efficient New Construction	531	7,670
E-3	On-Site Small-Scale Renewable Energy	1,813	3,014
Energy Total		**13,051**	**40,847**

E-1: Energy Efficiency and Conservation in Existing Buildings

2020 Reduction Potential:
10,707 MT CO_2e

2030 Reduction Potential:
30,163 MT CO_2e

Increase energy efficiency and conservation within the community.

Objective: Reduce residential and commercial energy by 10 percent by 2020 and 15 percent by 2030.

Existing and/or Completed Efforts:

- The City works with PG&E to promote its home energy efficiency audit and retrofit programs.
- Several low-income units received weatherization in conjunction with grant funding related to owner-occupied rehab and with the Neighborhood Stabilization Program.

General Plan Policies and Actions:

- Action Item CON-40.1: Work with the local energy providers and developers on voluntary incentive based programs to encourage the use of energy efficient designs and equipment.
- Policy H-5.6: The City shall promote the use of energy conservation measures in residential units to conserve energy as well as reduce household utility costs.
    - Action Item H-5.6.1: The City shall encourage the continuation of energy conservation programs offered through PG&E, when available, including low interest financing of energy conservation measures.
    - Action Item H-5.6.2: The City shall continue to incorporate energy conservation measures into housing rehabilitation work, especially insulation and weather stripping.
    - Action Item H-5.6.3: The City shall continue to seek out and utilize available funds for weatherization and energy conservation work in homes.
    - Action Item H-5.6.4: The City shall consider the adoption of a program which requires all publicly funded residential projects involving new construction and major renovation to utilize and/or incorporate energy efficient appliances.
    - Action Item H-5.6.5: The City shall consider the adoption of a Voluntary Energy Independence Program which allows property owners to install solar equipment (or major energy efficient appliances/building systems) with up-front costs financed by public or private funding. Under this program, the costs of the equipment would be paid off by the property owner through a special tax attached to the property tax bill.

Additional Implementation Actions:

E-1.1: Continue to coordinate with PG&E to promote use of utility financial incentives to improve energy efficiency, such as by using on-bill financing, rebates and tax credits, building audit and retrofit programs, and demand management programs.

E-1.2: Conduct additional outreach and promotional activities, either individually or in collaboration with PG&E and/or local organizations, targeting specific groups within the community (e.g., homeowners, renters, businesses, income-qualified households, etc.).

E-1.3: Designate one week per year to conduct an energy efficiency outreach campaign. The campaign week may also be used to recognize and encourage programs and educational outreach conducted by industry organizations, non-government entities, government agencies, and other community groups.

E-1.4: Collaborate with PG&E to hold an educational workshop in Madera regarding measures that individuals can take to reduce energy usage.

E-1.5: Participate in and promote a residential and commercial energy efficiency financing program (e.g., through Energy Upgrade California, CaliforniaFIRST, a joint powers authority with other local agencies, or other mechanisms) allowing residential and commercial property owners to voluntarily invest in energy efficient upgrades for their buildings.

E-1.6: Promote existing income-qualified weatherization programs (e.g., Energy Upgrade California, PG&E's Middle Income Direct Install Program, etc.), either individually, or in collaboration with an existing organization, to income-qualified households using sources of data available to the local agency, (e.g., water bills, housing records, etc.).

City Cost	City Savings	Private Cost	Private Savings
Medium - High	None	None	Varies

E-2: Energy Efficient New Construction

2020 Reduction Potential:
531 MT CO_2e

2030 Reduction Potential:
7,670 MT CO_2e

Increase the efficient use of energy and conservation of available resources in the design and construction of new buildings.

Objective: By 2020, 10 percent of new residential and commercial development to exceed Title 24 by 20 percent. By 2030, 25 percent of new residential development to exceed Title 24 by 30 percent; all new commercial development after 2020 is net zero energy.

Existing and/or Completed Efforts:

- None at this time.

General Plan Policies and Actions:

- Policy CON-40: All public and private development—including homes, commercial, and industrial—should be designed to be energy-efficient.
    - Action Item CON-40.1: Work with the local energy providers and developers on voluntary incentive based programs to encourage the use of energy efficient designs and equipment.
    - Action Item CON-40.2: Promote enhanced energy conservation standards for new construction through informational handouts, outreach to the construction industry, or other methods.
- Policy CON-44: The City supports the use of green building practices in the planning, design, construction, management, renovation, operations, and demolition of all private buildings and projects, including: water conservation indoors and outdoors; selection of materials based on recyclability, durability and the amount of energy used to create the material; waste reduction, reuse and recycling during construction and throughout the life of the project; other new aspects of green design and construction included in LEED or other certification programs; control nighttime lighting to lower energy use…
    - Action Item CON-44.1: Develop a voluntary, market-driven Green Building Program that includes performance standards, guidelines, review criteria, incentives, and implementation schedules for private sector development, with criteria tailored to project types (i.e., residential, commercial, retail), size, and location.

  - Action Item CON-44.2: Identify, evaluate, and provide incentives to encourage projects that incorporate green building practices and site design, including the potential for certification through the City's Building Department.
  - Action Item CON-44.3: Facilitate the professional development and education of City staff to learn about green building practices and to have the tools to evaluate development proposals.
  - Action Item CON-44.4: Offer information, technical assistance, and training to promote green building to property owners, building, design, and planning professionals, school districts, and special districts.
- Policy CON-46: The City will identify and remove regulatory or procedural barriers to implementing green building practices within its jurisdiction, such as updating codes, guidelines, and zoning, and will ensure that all plan review and building inspection staff are trained in green building materials, practices, and techniques.

Additional Implementation Actions:

E-2.1: Provide support to and recognition of developers proposing projects that voluntarily exceed Title 24 Energy Efficiency Building Standards, meet the state's Green Building Standards voluntary tier levels, or are LEED Greenpoint, or ENERGY STAR rated.

City Cost	City Savings	Private Cost	Private Savings
Low	None	None	Varies

E-3: On-Site Small-Scale Renewable Energy

2020 Reduction Potential:
1,813 MT CO_2e

2030 Reduction Potential:
3,014 MT CO_2e

Facilitate the installation and use of on-site small-scale renewable energy systems, such as solar PV systems and solar water heaters.

Objective: Achieve installation of 4,000 kW of solar PV systems on existing residential property and 1,500 kW of solar PV systems on existing non-residential property by 2020, and an additional 2,720 kW of solar PV systems on existing residential property and 500 kW of solar PV systems on existing non-residential property by 2030. Achieve installation of 400 residential and 200 non-residential solar water heaters by 2020 and an additional 350 residential and 200 non-residential solar water heaters by 2030.

Existing and/or Completed Efforts:

- Between 2007 and the August 2014, 2,044 kW of solar PV systems were installed on residential buildings and 493 kW of solar PV systems were installed on non-residential buildings in Madera.[1]

[1] California Solar Initiative. Geographical Statistics. Available at: http://www.californiasolarstatistics.ca.gov/reports/locale_stats/

- The City provides information on its website about essential resources (e.g., local financing options and available incentives) for residential and commercial property owners that are considering solar PVs, as well as specific requirements and resources for solar installers and other industry professionals.
- The City participates in the Southwest Solar Transformation Initiative, an initiative that aims to make solar power more affordable for communities by improving approval processes and local solar market conditions, and has developed a customized Solar Roadmap for Madera.
- The City simplified its process for obtaining necessary permits to install solar energy systems and posted general permitting information on its website.
- The City provides links to solar information for new home builders on its website.

General Plan Policies and Actions:

- Policy CON-41: The City will allow renewable energy projects in areas zoned for open space, where significant environmental impacts can be avoided or mitigated to the greatest extent feasible, where consistent with all of the elements of this General Plan, and other uses and values.
    - Action Item CON-41.1: Update the City's Building and Zoning codes as needed to establish standards (such as, but not limited to, height and size) for renewable energy projects.
- Policy CON-42: The City will promote and encourage co-generation projects for commercial, industrial, and municipal facilities, provided they meet all applicable air quality standards and provide a net reduction in GHG emissions associated with energy production.

Additional Implementation Actions:

E-3.1: Expand education on and promotion of existing incentive, rebate, and financing programs for solar PV systems and solar hot water heaters, such as those offered through the California Solar Initiative and California Public Utilities Commissions, including the Single Family Affordable Solar Homes (SASH) Program and the Multifamily Affordable Solar Homes (MASH) Program. Target specific groups or sectors within the community.

City Cost	City Savings	Private Cost	Private Savings
Low - Medium	None	None	Varies

3.4 Transportation and Land Use Measures

Transportation-related emissions make up the largest portion (58 percent) of Madera's GHG emissions inventory, resulting in 188,585 MT CO_2e annually. Factors affecting GHG emission from transportation include the number of VMT, fuel economy, and the type of fuel used. The number of VMT is directly influenced by the geographic distribution of people and places, especially the density of development and zoning. Therefore, land use measures are included as reduction policies in this section.

The measures in this section focus on reducing GHG emissions from transportation fuel consumption by reducing VMT. This involves reducing automobile dependence by facilitating infill and mixed-use development patterns, promoting walking, bicycling, and public transit as viable travel options, and managing transportation demand. The transportation and land use measures listed in **Table 3-4** focus on these strategies and have the potential to reduce Madera's GHG emissions by 14,913 MT CO_2e by 2020 and by 43,526 MT CO_2e by 2030.

Co-Benefits of Transportation Measures

The transportation and land use measures in this section will not only help reduce GHG emissions, but also provide multiple benefits to the community. These include:

- Reduced transportation costs
- Reduced noise, air, and water pollution
- Reduced traffic congestion
- Improved public health
- Strengthened local economy
- Improved infrastructure
- Increased equity
- Increased community interaction
- Increased housing and travel options
- Resource conservation

TABLE 3-4 TRANSPORTATION AND LAND USE GHG REDUCTIONS BY MEASURE

Measure Number	Measure	2020 GHG Reduction (MT CO_2e)	2030 GHG Reduction (MT CO_2e)
T-1	Infill and Mixed-Use Development	5,613	21,292
T-2	Bicycle and Pedestrian Environment	1,053	3,454
T-3	Transit Travel	2,404	4,757
T-4	Commute Trip Reduction	1,188	1,977
T-5	Traffic Flow and Vehicle Idling	265	401
T-6	Low Carbon Fuel Vehicles and Infrastructure	4,255	11,061
T-7	Construction and Off-Road Equipment	135	584
Transportation and Land Use Total		**14,913**	**43,526**

T-1: Infill and Mixed-Use Development[2]

Facilitate mixed use, higher density, and infill development near transit stops, in existing community centers/ downtown, and in other designated areas.

Objective: Increase service population density within the city 30 percent by 2020 and 50 percent by 2030; 25 percent of new development located within two miles of shopping/transit/job centers by 2030; and 15 percent of new development with two or more land use types (e.g., residential and commercial) by 2030.

2020 Reduction Potential:
5,613 MT CO_2e

2030 Reduction Potential:
21,292 MT CO_2e

Existing and/or Completed Efforts:

- Since 2007, the City amended the municipal code to provide impact fee waivers for reconstruction of previously existing homes demolished within ten years.

General Plan Policies and Actions:

- Policy LU-10: The Growth Boundary is considered by the City to define the physical limits of development in Madera. The City shall direct all future growth in Madera and in the unincorporated area outside the city limits to occur inside the Growth Boundary shown on the Land Use Map in this General Plan. Within the City's Planning Area, the City encourages the County to assist the City in maintaining an agricultural greenbelt around the Growth Boundary by limiting the use of land designated for Agriculture on the City's General Plan Land Use map to agriculture…
- Policy LU-11: The City specifically envisions the establishment and maintenance of a greenbelt of agricultural and other open space lands around the urbanized portion of the Planning Area, outside the Growth Boundary, as shown on the Land Use Map…
- Policy LU-19: The following are the City's residential land use categories:…
    - Village Mixed Use: This category provides for a mix of uses generally corresponding to the Medium Density Residential, High Density Residential, and Commercial land use categories…
    - High Density Residential: Residential development at a range of 15.1 to 50 units per acre, with a Target Density of 22.5 units per acre…
- Policy LU-24: Mixed Use projects, in which residential and commercial uses are combined within one building or site, are permitted in commercially designated properties, provided that the uses are complementary to each other and integrated in a unified design (architecture, landscape and circulation).
    - Action Item LU-24.1: Incorporate provisions for mixed use projects into the zoning ordinance, providing for flexibility in applying development standards (such as floor area), where appropriate, based on the location, type, and size of the units and the design of the development.
    - Action Item LU-24.2: Seek funding to prepare master plans and/or specific plans and related environmental documents to facilitate mixed use development at selected sites.

[2] Mixed-use development integrates a mixture of commercial, residential, and office type uses that are often segregated into separate land use areas. Infill development is defined as new development that is sited on vacant or undeveloped land within an existing community, and that is enclosed by other types of development (Sustainable Cities Institute, 2013).

- Policy LU-33: Reflecting the community's desire for a more livable, walkable, and sustainable community, Madera's future growth shall be based on the Building Block concept of Neighborhoods, and Villages.[3] In addition, two Districts have been established for specific areas of Madera (the Downtown and the Airport North districts) which don't conform to typical neighborhood and village concepts, but do possess unique features that should make them the subject of future, more detailed planning efforts…
- Policy LU-40: The City will prioritize infill residential development inside the city limits as of December 31, 2008, and will seek to encourage the development community to build on vacant or under-utilized land within those limits.
    - Action Item LU-40.1: The City will develop and implement an infill development program to facilitate infill development…
    - Action Item LU-40.2: In conjunction with the program identified in Action Item LU-40.1 above, the City will consider the adoption of a fee requirement applied to new development that recognizes the additional cost necessary to serve non-infill development…
- Policy LU-43: The City supports jobs/housing balance programs at the local and regional scale intended to reduce the need for workers to commute outside their communities.
- Policy LU-44: The City supports the creation and retention of jobs that provide sustainable wages and benefits for Madera residents.
    - Action Item LU-44.1: Explore the use of financing incentives to encourage employment generating businesses to locate in Madera.
- Policy H-1.2: The City shall promote infill development and reuse of underutilized parcels, consistent with maintaining or enhancing the positive qualities of the surrounding neighborhoods…
    - Action Item H-1.2.1: The City shall identify potential infill sites including smaller (parcels less than one quarter of an acre) vacant and underutilized parcels. The City shall create an inventory of these sites and make the list available at the Planning and Building Department permit counter.
    - Action Item H-1.2.2: In cooperation with the Redevelopment Agency[4] and Housing Authority and its affiliated non-profit organization, the City shall work with interested for-profit and non-profit developers in consolidating infill parcels designated for multi-family residential development.
    - Action Item H-1.2.3: The City will explore the feasibility of establishing a housing fee program that would provide fiscal incentives for infill and affordable housing projects.
    - Action Item H-1.2.4: The City will ensure compliance with the State Density Bonus by amending its Zoning Ordinance to reflect amendments to State Density Bonus law.
- Policy H-1.3: Where appropriate, the City shall encourage developers/ builders to develop their projects at the maximum density allowed under the General Plan land use designations and zoning provisions.
    - Action Item H-1.3.1: The City shall review and potentially amend its Zoning Ordinance to include minimum densities in the medium and high density zones unless there are issues of site constraints or the affordability of the units would be compromised…
- Policy H-5.1: The City shall examine its processes and policies to ensure facilitation of opportunities for horizontal and vertical mixed-use development in suitable areas, including the Downtown District and Cores as specified in the Land Use Element of the General Plan…

[3] A "neighborhood" is defined as a compact, walkable residential area, generally $^1/_3$ to $^1/_2$ mile in radius, as this is the distance an average person would comfortably walk or bicycle. A "village" is defined as a collection of three to four neighborhoods.

[4] Redevelopment Agencies were officially dissolved as of February 1, 2012.

    - Action Item H-5.1.1: The City will continue to support innovative ways to incorporate mixed uses in new development. The program will also be supported by the creation of the Village Mixed Use designation in the General Plan update.
- Policy H-5.2: The City shall make the attraction of industrial, office, commercial, and industrial development a high priority in an effort to promote the creation of new jobs in the community, improve the financial resources of residents, and create a balanced community that is more resistant to economic downturns.
    - Action Item H-5.2.1: The City shall improve the jobs/housing balance through the development of housing in proximity to jobs and both in proximity to public transportation.
- Policy CD-10: Madera will seek to transition the density and intensity of uses from an urban to rural character while maintaining a clear City edge and establishing a sense of entry and arrival to the City. To implement this policy, the City will: encourage the County of Madera to preserve undeveloped lands outside of the Sphere of Influence; and apply and implement land use designations and open space preservation techniques to create a clearly identifiable edge to the city.
- Policy CD-37: The City shall encourage the on-going conservation, maintenance and upgrading of existing neighborhoods through enforcement of property maintenance codes, requirements of high quality infill development, programs for the rehabilitation of housing, and replacement of deteriorated infrastructure.
- Policy CD-40: The City shall encourage a combination of retail, office, civic, entertainment uses, (e.g. movie and performing arts theaters) in the downtown that serve the daily and occasional needs of all of Madera's residents.
- Policy CD-41: A vertical mix of uses with residential and office above retail is encouraged in the downtown.
- Policy CD-42: The City will focus its facilities Downtown and encourage other publicly oriented uses, such as post offices, governmental offices, meeting halls, community centers, libraries and medical facilities to remain or relocate Downtown.
- Policy CON-39: The City supports the goals of recently adopted Senate Bill 375 and will review this General Plan for consistency with the Sustainable Community Strategy (SCS) to be adopted by the MCTC. The City will consider amendments to the General Plan as it deems appropriate to implement the SCS.

Additional Implementation Actions:

T-1.1: Expand the promotion of incentives for new development and renovation of existing uses in identified infill areas.

T-1.2: Continue to work with MCTC in updates to the Madera County Blueprint to direct future growth to existing urbanized areas through implementation of smart growth principles and use of toolkit resources identified in the Blueprint.

T-1.3: Showcase infill and mixed-use projects on the City's website, in newsletters, or via other mechanisms.

City Cost	City Savings	Private Cost	Private Savings
Low - Medium	None	None	Varies

T-2: Bicycle and Pedestrian Environment

2020 Reduction Potential:
1,053 MT CO_2e

2030 Reduction Potential:
3,454 MT CO_2e

Continue to expand and improve the City's bicycle and pedestrian network.

Objective: Achieve a one percent reduction in light-duty VMT by 2020 and a three percent reduction in light-duty VMT by 2030 as a result of mode shift to bicycling and walking.

Existing and/or Completed Efforts:

- Since 2007, the City installed new bicycle parking at Town and Country Park, completed a bicycle/pedestrian undercrossing on the south bank of the Fresno River beneath Schnoor Avenue Bridge, and completed a bicycle/pedestrian trail from Westberry Avenue to Road 24 (0.45 miles).
- Since 2008, the City has secured four grants totaling $1,233,431 for sidewalk improvement projects.
- On March 16, 2011, the City readopted the Madera 2004 Regional Bicycle Transportation Plan by Resolution of the City Council.
- Between April 2007 and September 2027, the Measure "T" Program will allocate approximately $33,779,566 to the City of Madera for Safe Routes to School & Job Programs and $1,535,435 to the City of Madera for Environmental Enhancement Programs such as bicycle/pedestrian facilities.[5]
- The Vision Madera 2025 Plan includes a strategy to include provisions for expanded pedestrian access within Master Transportation Plan.

General Plan Policies and Actions:

- Policy CD-1: The City of Madera will require that all new development is well-planned and of the highest possible quality. The City will seek to build an image of Madera as a contemporary small city with vibrant, livable neighborhoods and walkable pedestrian- and bicycle- oriented development.
- Policy CD-2: All new development shall adhere to the basic principles of high-quality urban design, architecture and landscape architecture including, but not limited to, human-scaled design, pedestrian orientation, interconnectivity of street layout, siting buildings to hold corners, entryways, gathering points and landmarks.
    - Action Item CD-2.1: Adopt a set of comprehensive Design Guidelines to establish basic design standards and criteria for public and private development projects.
- Policy CD-4: Site layout and building design shall take into consideration Madera's warm, dry climate, by including trees, landscaping and architectural elements to provide shade.
- Policy CD-5: New development shall be approved only if it meets the design principles set forth in this Community Character Element and to any local, project specific, or citywide design guidelines.
- Policy CD-6: The City of Madera will take a leadership role in promoting design excellence by requiring that all City-sponsored projects reflect the highest standards of design.

[5] Measure "T" was approved by voters of Madera County on the November 7, 2006 ballot, allowing the Madera Transportation Authority to impose a ½ cent retail transaction and use the tax for the next 20 years (between April 1, 2007 and September 30, 2027) to provide funds for road improvements, public transit, and other transportation programs that improve mobility and air quality within the County and each of the cities. The Madera Transportation Authority is responsible for administering the Measure "T" Program in accordance with plans and programs outlined in the Measure T – ½ Cent Transportation Sales Tax Program 2013 Strategic Plan (June 19, 2013).

- Policy CD-7: All new development projects requiring site plan approval, shall establish landscape and façade maintenance programs for the first three years, ensuring that streetscapes and landscapes areas are installed and maintained as approved.
- Policy CD-8: In order to improve and protect the quality of neighborhoods and commercial districts, the City will enforce established building codes and community standards.
    - Action Item CD-8.1: Review and update building codes and inspection procedures, incorporating community maintenance standards and assistance programs as needed.
- Policy CD-15: Except where site conditions make it infeasible, new commercial development shall be designed to front or have a presence along all street frontages. The intent of this policy is to enhance the pedestrian scale of new development, and minimize the presence of parking, circulation, and loading areas as the primary visual features of development.
- Policy CD-19: Create streetscape designs with themes that are oriented toward and inviting to pedestrians and cyclists and that are unique in character to a district, corridor, or area within the City.
- Policy CD-21: Create safe, inviting, and functional pedestrian and cyclist environments in commercial, office, and mixed-use projects through a variety of techniques, including: planting trees to provide shade on pedestrian paths, sidewalks, and walkways; safe, separated pedestrian walkways; safe, visible bicycle parking; and wide sidewalks.
- Policy CD-22: Commercial developments should have public open space areas such as plazas, courtyards, expanded walkways, or other areas suitable for small gatherings. The facilities should be sized proportionate to the scale of the development.
    - Action Item CD-22.1: Amend the Zoning Code to include standards to implement Policy CD-22.
- Policy CD-24: Wherever possible, the City shall use public rights of way and other features (including the Fresno River, utility easements, and drainage ways) as part of a citywide system of off-street walking and bicycling trails. The City will also encourage other agencies to do the same.
- Policy CD-25: Sidewalks shall be provided on both sides of the street in commercial and residential areas, and where appropriate in industrial areas.
- Policy CD-27: Wherever possible, residential subdivisions shall provide vehicular and pedestrian connections to adjacent subdivisions. New residential subdivisions should not be designed as separated from other neighborhoods by walls or other features.
- Policy CD-28: New development projects should be designed on a traditional or curvilinear grid street system. Cul-de-sacs may only be used within the grid so long as the objective of pedestrian and bicycle connectivity is achieved.
- Policy CD-43: The following policies shall apply to all commercial development, and particularly in the Downtown: include human-scale details in the design of buildings such as windows on the street, awnings, and architectural features that create a visually interesting pedestrian environment; include areas designed to create spaces where people can interact and socialize, such as parks, plazas or open air seating in cafes and restaurants, as well as pedestrian amenities such as awnings, pedestrian-scaled lighting, benches and trash cans; street trees shall be incorporated into all development and street improvement projects…
- Policy CD-47: Commercial projects shall be designed to minimize the intrusion of parked vehicles on the streetscape. Parking areas, driveways, and drive-through lanes should not be located between buildings and the sidewalk.
- Policy CD-48: Buildings and building entrances shall be oriented to the pedestrian environment.
- Policy CD-49: Buildings shall include human-scale details such as windows facing the street, awnings, and architectural features that create a visually interesting pedestrian environment.
- Policy CD-50: Parking lots shall be landscaped, including shade trees, to create an attractive pedestrian environment and reduce the impact of heat islands.

- Policy CD-51: Safe and well-defined pedestrian connections from buildings to parking areas, from buildings to the adjoining street(s), and among buildings on the same site shall be provided. Pedestrian connections between commercial development and surrounding residential neighborhoods shall also be provided. Enhanced paving materials or other techniques shall be used to identify pedestrian connections.
- Policy CD-59: Parking for alternative modes of transportation, such as preferential parking for carpool/vanpool, motorcycles or alternative fuel vehicles and bicycles, should be incorporated into parking plans for all significant commercial development projects…
- Policy CI-24: The City shall seek to use a modified grid system for the roadway network, particularly in new development. The City defines a "modified grid" road system as follows…Residential blocks shall be designed to limit traffic speeds and encourage pedestrian and bicycle safety through the design of the roadways or the use traffic calming measures (such as narrower streets)…
- Policy CI-27: The City shall encourage pedestrian circulation and access around the City and at the neighborhood level through the design of roadways and pedestrian facilities.
    - Action Item CI-27.1: Expand the availability and visibility of bicycle infrastructure such as bike racks and bike storage facilities.
    - Action Item CI-27.2: Consider opportunities for lower-income individuals to have access to bicycles, through community-sponsored programs such as "bicycle sharing" or bicycle giveaways to children.
- Policy CI-28: New development areas shall include pedestrian and bicycle facilities and connections to public transit systems, commercial centers, schools, employment centers, community centers, parks, senior centers, and high-density residential areas.
    - Action Item CI-28.1: Establish a transit and/or multimodal impact fee to be applied to new development to fund public transit infrastructure and other multimodal accommodations.
- Policy CI-29: The City shall create a connected system of on- and off-street trails and paths for pedestrians and bicycles throughout Madera in both existing and new development areas, with a focus on on-street bike trails on collector roads, and off-street trails in parkways and along the Fresno River and other waterways.
- Policy CI-30: Where it deems appropriate, the City may require the dedication of additional right of way to accommodate pedestrian, bicycle, alternative transportation (transit), additional travel lanes, safety or efficiency-related improvements, or other similar uses.
- Policy CI-31: The City's roadway cross-sections shall incorporate "complete streets" concepts and be designed to safely accommodate vehicles, cyclists, pedestrians, diverse and disabled users, and transit. "Complete streets" are defined as streets that are designed for a variety of users rather than having a focus on the automobile.
    - Action Item CI-31.1: Develop "Complete Street" standards for new arterial, collector, and local street construction. Complete street" standards should include options for narrower travel way widths (on existing streets only, where needed to fit all uses into the existing right of way) and curb return radii, bike lanes, landscape strips, sidewalks that complement adjacent land uses, bus turnouts, and similar features.
- Policy CI-32: To maintain walkability and pedestrian safety, the City shall consider roadway width and roadway design features such as islands, pedestrian refuges, count down timers, and other such mechanisms. This policy applies to new roadway construction and existing roadways where pedestrian hazards may occur due to roadway design or width.
    - Action Item CI-32.1: Update the City's Standards and Specifications to include the items in Policy CI-32.
- Policy CI-33: The needs of pedestrians and bicyclists shall be routinely considered and, where practical, accommodated in all roadway construction and renovation projects.
- Policy CI-34: Where sufficient right-of-way is available, bicycle lanes should be added to City roadways when repaving or upgrading of the roadway occurs, provided that the bicycle facility

would implement the City's Bicycle Master Plan. The City shall encourage Caltrans to follow these same guidelines on state highways in Madera.
    - Action Item CI-34.1: The City shall implement the Bicycle Master Plan through repaving, restriping, providing additional paving for bicycle lanes, or other methods as appropriate.
- Policy CI-35: The City shall encourage grade-separated crossings or enhanced at grade crossings where Class I bicycle facilities intersect arterial roadways at key locations to maximize the safety and attractiveness of bicycling and walking routes. Underpasses are preferable to overpasses in new development areas.
- Policy CI-36: The City shall encourage an increase in bicycle ridership and pedestrian trips over automobile traffic, as a way to improve traffic safety, air quality and the health of Madera residents.
- Policy CI-41: Circulation planning for all modes of travel (vehicle, transit, bicycle, pedestrian, etc.) shall be coordinated with efforts to reduce air pollution and greenhouse gases.
- Policy CI-50: The City shall establish a transit and/or multimodal impact fee to be applied to new development to fund public transportation infrastructure and other multimodal accommodations.
- Policy SUS-2: The City shall work with the Madera Unified School District to coordinate the planning of future land use and school facilities and will encourage the District to identify school site locations and routes that are safe for children to walk or bike to school (also known as "Safe Routes to School").
    - Action Item SUS-2.1: Work with the Madera Unified School District to help the District identify and plan for the construction of all roads, sidewalk, and other infrastructure improvements needed for new schools, and that these improvements are in place at the time the school opens.

Additional Implementation Actions:

T-2.1: Continue to pursue public and private funding to expand and link the City's bicycle and pedestrian network in accordance with the General Plan and Bicycle Master Plan.

T-2.2: Develop policies and minimum design criteria for bicycle and pedestrian circulation in new residential development and implement through the development review process. Require the installation of adequate and secure bicycle parking at all new multi-family residential, commercial, governmental, and recreational locations throughout the City.

T-2.3: Collaborate with law enforcement, school officials, and private organizations to encourage public bicycle safety programs.

City Cost	City Savings	Private Cost	Private Savings
Low – Medium	None	None	Varies

T-3: Transit Travel

Continue to expand and improve the transit network and its accessibility within the City of Madera.

Objective: Achieve a two percent increase in service population transit ridership by 2020 and a four percent increase by 2030. This equates to an approximately two percent reduction in passenger vehicle VMT in 2020 and four percent reduction in 2030.

2020 Reduction Potential:
2,404 MT CO_2e

2030 Reduction Potential:
4,757 MT CO_2e

Existing and/or Completed Efforts in Support of Measure:

- During 2010, the City used grant funding from the CARB to fund the distribution of approximately 800 free monthly bus passes.
- In 2012, the City installed 40 new bus shelters.
- Between April 2007 and September 2027, the Measure "T" Program will allocate approximately $1,535,435 to the City of Madera for Transit Enhancement Programs including route expansions, night and weekend service, bus shelters and other capital improvements, safer access to public transit, carpools, and American Disabilities Act, senior and paratransit programs.

General Plan Policies and Actions:

- Policy CI-1: The City will implement this Circulation Master Plan through the policies contained in this and other Elements of the Madera General Plan.
    - Action Item CI-1.2: Prepare and adopt a comprehensive transit plan to complement the development of Village Centers and provide transit service throughout Madera. The plan should include: feasibility of BRT [bus rapid transit] facilities and guidelines for system development as appropriate; residential, retail and employment thresholds and service targets for BRT and pedestrian village cores; and Other transit use enhancements such as additional buses, new routes, longer hours, greater headways, real-time boarding information, bus turn out lanes, queue jump lanes, exclusive transit lane improvement alignment, mixed flow/exclusive lane use, and "Express Bus" service for commuters.
- Policy CI-28: New development areas shall include pedestrian and bicycle facilities and connections to public transit systems, commercial centers, schools, employment centers, community centers, parks, senior centers, and high-density residential areas.
    - Action Item CI-28.1: Establish a transit and/or multimodal impact fee to be applied to new development to fund public transit infrastructure and other multimodal accommodations.
- Policy CI-30: Where it deems appropriate, the City may require the dedication of additional right of way to accommodate pedestrian, bicycle, alternative transportation (transit), additional travel lanes, safety or efficiency-related improvements, or other similar uses.
- Policy CI-31: The City's roadway cross-sections shall incorporate "complete streets" concepts and be designed to safely accommodate vehicles, cyclists, pedestrians, diverse and disabled users, and transit. "Complete streets" are defined as streets that are designed for a variety of users rather than having a focus on the automobile.
    - Action Item CI-31.1: Develop "Complete Street" standards for new arterial, collector, and local street construction. Complete street" standards should include options for narrower travel way widths (on existing streets only, where needed to fit all uses into the existing right of way) and curb return radii, bike lanes, landscape strips, sidewalks that complement adjacent land uses, bus turnouts, and similar features.
- Policy CI-41: Circulation planning for all modes of travel (vehicle, transit, bicycle, pedestrian, etc.) shall be coordinated with efforts to reduce air pollution and greenhouse gases.
- Policy CI-50: The City shall establish a transit and/or multimodal impact fee to be applied to new development to fund public transportation infrastructure and other multimodal accommodations.
- Policy H-5.3: The City shall promote residential development patterns that protect and improve air quality through alternative modes of transportation…
    - Action Item H-5.3.1: The City shall enhance community livability by promoting:
        - Opportunities for transit use including improved bus access and enhanced walking and biking facilities.
        - Increased connectivity between residential and non-residential uses (i.e., commercial, industrial, and institutional uses). Encourage residential project sites to be designed to increase the convenience, safety, and comfort of people using

public transportation, walking, or cycling and coordinate with transit providers to ensure that transit routes are in proximity to high density housing sites.

- Policy CD-59: Parking for alternative modes of transportation, such as preferential parking for carpool/vanpool, motorcycles or alternative fuel vehicles and bicycles, should be incorporated into parking plans for all significant commercial development projects. Transit plazas may be required to be incorporated into significant projects.

Additional Implementation Actions:

T-3.1: Through the development review process, require new development to provide safe routes to adjacent transit stops, where applicable, and to finance and/or construct bus turnouts and shelters adjacent to new projects where transit demand warrants such improvements.

T-3.2: Promote and encourage businesses to provide public transit vouchers as a benefit of employment.

City Cost	City Savings	Private Cost	Private Savings
Low	None	None	Varies

T-4: Commute Trip Reduction

Facilitate programs that give commuters and employers resources and incentives to reduce their single-occupancy vehicle trips.

2020 Reduction Potential:
1,188 MT CO_2e

2030 Reduction Potential:
1,977 MT CO_2e

Objective: Achieve a five percent decrease in commute trip VMT by 2020 and an eight percent decrease in commute trip VMT by 2030.

Existing and/or Completed Efforts:

- Between April 2007 and September 2027, the Measure "T" Program will allocate approximately $1,535,435 to the City of Madera for Environmental Enhancement Programs such as car/van pools.

General Plan Policies and Actions:

- Policy CD-59: Parking for alternative modes of transportation, such as preferential parking for carpool/vanpool, motorcycles or alternative fuel vehicles and bicycles, should be incorporated into parking plans for all significant commercial development projects.
- Policy CI-37: The City encourages the use of ridesharing and other TDM tactics for reducing area traffic congestion and improving air quality.
- Policy CI-42: The City will facilitate employment opportunities that minimize the need for private vehicle trips, including:
    - Incorporating provisions for live/work sites and satellite work centers in appropriate locations in the Zoning Ordinance; and
    - Encouraging telecommuting options with new and existing employers through project review and incentives, as appropriate.
- Policy SUS-15: The City shall seek to promote, attract, and retain jobs that pay a living wage and reduce the need for residents to commute to work outside the City.

Additional Implementation Actions:

T-4.1: Provide targeted marketing and promotion of commute trip reduction programs to employers such as the SJVAPCD Vanpool Voucher Incentive.

T-4.2: Provide information on, and links to, vanpool programs and employer services available to local residents/ on the City's website.

T-4.3: Provide information on and promote existing employer based TDM programs as part of the business licensing and renewal process.

City Cost	City Savings	Private Cost	Private Savings
Low - Medium	None	None	Varies

T-5: Traffic Flow and Vehicle Idling

Implement improvements to smooth traffic flow, reduce idling, and eliminate bottlenecks within Madera.

Objective: Achieve a 10 percent reduction in vehicle idling in 2020 and a 13 percent reduction in 2030.

2020 Reduction Potential:
265 MT CO_2e

2030 Reduction Potential:
401 MT CO_2e

Existing and/or Completed Efforts:

- Since 2007, the City synchronized six traffic signals over a half mile in a high traffic area.

General Plan Policies and Actions:

- Policy CI-3: The following are general descriptions of the roadway types shown on the Circulation Master Plan:
  - Madera Loop: This is a system of arterial streets intended to provide for easy intra-city travel by providing links along the perimeter to the city to the Freeway 99 corridor. To help speed the flow of traffic and improve safety, direct access to the Madera Loop is more restricted than on other arterial roadways and interruptions such as signals will be reduced compared to other arterial roadways.
  - Arterials, Collectors, and Local/Branch Collectors: …To reduce traffic interruptions and improve safety, direct access via driveways is generally not permitted…
- Policy CI-19: The City may consider roundabouts as an alternative to stop-sign control or traffic signals where applicable.
- Policy CI-22: The City shall seek to maintain Level of Service (LOS) C at all times on all roadways and intersections in Madera.
  - Action Item CI-22.1: Consider, during the review of proposed development projects, how to shift travel demand away from the peak period, especially in those situations where peak traffic problems result from a few major generators (e.g. outlying employment locations).
  - Action Item CI-22.2: Perform routine, ongoing evaluation of the efficiency of the urban street traffic control system, with emphasis on traffic signal timing, phasing and coordination to optimize traffic flow along arterial corridors. Use traffic control systems to

balance arterial street utilization (e.g., timing and phasing for turn movements, peak period and off-peak signal timing plans).
    - Action Item CI-22.3: As funding allows, expand traffic signal timing and synchronization programs where emission reduction benefits can be demonstrated.
- Policy CI-24: The City shall seek to use a modified grid system for the roadway network, particularly in new development…

Additional Implementation Actions:

T-5.1: Continue to improve traffic flow and reduce vehicle idling through actions such as synchronized signals and other traffic flow management techniques.

City Cost	City Savings	Private Cost	Private Savings
None	None	None	Varies

T-6: Low Carbon Fuel Vehicles and Infrastructure

Increase the availability of alternative fuel infrastructure to increase the number of alternative fuel vehicles.

Objective: Achieve a two and a half percent reduction in light-duty vehicle emissions in 2020 and a six percent reduction in 2030. Achieve a switch of six percent of heavy-duty vehicles to alternative fuels (e.g., CNG) by 2020 and 15 percent switch to alternative fuels by 2030.

2020 Reduction Potential:
4,255 MT CO_2e

2030 Reduction Potential:
11,061 MT CO_2e

Existing and/or Completed Efforts:

- None at this time.

General Plan Policies and Actions:

- Policy CD-59: Parking for alternative modes of transportation, such as preferential parking for carpool/vanpool, motorcycles or alternative fuel vehicles and bicycles, should be incorporated into parking plans for all significant commercial development projects…
- Policy CON-33: The City shall encourage the development of fueling stations that distribute alternative fuels (such as methanol, ethanol, CNG, biodiesel) to support alternative fuel vehicles.
    - Action Item CON-33.1: Update the City's Building and Zoning Codes as needed to provide for fueling stations for alternative fuels as defined in Policy CON-33.
    - Action Item CON-33.2: Consider the adoption of an incentive program for fueling stations for alternative fuels as defined in Policy CON-33.

Additional Implementation Actions:

T-6.1: Implement key recommendations from the San Joaquin Valley Plug-in Electric Vehicle (PEV) Readiness Plan, as they pertain to Madera.

T-6.2: Develop an alternative fuel resources page on the City's website that provides information on and links to technical guides, funding opportunities, existing financial incentives, fueling station locations, permitting and siting.

T-6.3: Seek grant funding to install alternative fueling stations for public use.

City Cost	City Savings	Private Cost	Private Savings
Low – Medium	None	None	Varies

T-7: Construction and Off-Road Equipment

2020 Reduction Potential:
135 MT CO_2e

2030 Reduction Potential:
584 MT CO_2e

Reduce GHG emissions associated with construction equipment and off-road vehicles.

Objective: By 2020, five percent of construction vehicles/equipment utilizes new technologies (i.e., repowered engines, electric drive trains), CARB-approved low carbon fuel, or are electrically-powered. By 2030, 10 percent of construction vehicles/equipment utilizes new technologies, CARB-approved low carbon fuel, or are electrically-powered. Achieve a 15 percent reduction in lawn and garden equipment and associated GHG emissions in 2020 and 30 percent reduction in 2030 as a result of low-maintenance landscaping.

Existing and/or Completed Efforts:

- The City specifies that all construction equipment shall be tuned and maintained in accordance with the manufacturer's specifications and that work crews shall shut off construction equipment when not in use.

General Plan Policies and Actions:

- None.

Additional Implementation Actions:

T-7.1: Provide information on and promote existing financial incentives, such as those offered by the SJVAPCD, to replace or repower in-use, off-road vehicles and equipment.

T-7.2: Promote the installation of low-maintenance native landscaping, xeriscaping, and turf removal (e.g., via the City's website or through education workshops) to reduce landscape maintenance equipment usage.

City Cost	City Savings	Private Cost	Private Savings
Low	None	None	Varies

3.5 Water and Wastewater Measures

The conveyance, treatment, and distribution of water can result in significant GHG emissions depending on the water source, distances and topography traversed in conveyance, and the treatment processes that occur before and after the end-use phase. Water usage in Madera resulted in 2,840 MT CO_2e of emissions in 2007.

Emissions from wastewater are generated from the energy needed to convey and treat wastewater as well as emissions of methane and nitrous oxide generated during the process of wastewater treatment. Emissions from wastewater in Madera totaled 695 MT CO_2e in 2007.

Emissions from water and wastewater use can decrease by reducing overall water consumption and by improving wastewater treatment plant processes to reduce and capture GHG emissions. The water and wastewater measures listed in **Table 3-5** focus on these strategies and have the potential to reduce Madera's GHG emissions by 720 MT CO_2e by 2020 and by 988 MT CO_2e by 2030.

Co-Benefits of Water and Wastewater Measures

The water and wastewater measures in this section will not only help reduce GHG emissions, but also provide multiple benefits to the community. These include:

- Reduced costs
- Improved air quality
- Reduced water consumption
- Reduced energy consumption
- Improved public health

TABLE 3-5 WATER AND WASTEWATER GHG REDUCTIONS BY MEASURE

Measure Number	Measure	2020 GHG Reduction (MT CO_2e)	2030 GHG Reduction (MT CO_2e)
W-1	Exceed SB x7-7 Water Conservation Target	494	653
W-2	Recycled Water	68	165
W-3	Wastewater Treatment Plant Upgrades	158	170
Water and Wastewater Total		**720**	**988**

W-1: Exceed SB X7-7 Water Conservation Target

Adopt a water conservation target that exceeds the SB X7-7 (Water Conservation Act of 2009) target and identify and implement additional water efficiency and conservation measures to meet those targets by 2020 and 2030.

Objective: Exceed SBX7-7 water conservation target by five percent in 2020 and eight percent in 2030.

2020 Reduction Potential:
494 MT CO_2e

2030 Reduction Potential:
653 MT CO_2e

Existing and/or Completed Efforts:

- The City's Urban Water Management Plan (2010) outlines a number of water demand management programs that are currently being implemented, such as free water audits to residential customers to identify sources of water waste, educate customers, and suggest control measures; landscape irrigation programs; residential plumbing retrofits; education programs; and others. Since 2007, 900 water conservation kits were distributed at the City's Finance Department that contained low flow aerator shower heads, a toilet tummy bag (when installed, displaces water in the toilet's tank), and leak detection dye tablets.
- As part of the normal plan check process, the City reviews project plans and specifications to ensure that sound water conservation practices are considered as part of the designs.
- The City enforces water waste restrictions through its Conservation Water Patrols and a series of escalating penalties for violations.
- The City requires the installation of automated water meter reading (AMR) devices for all new service connections and is in the process of retrofitting all existing service connections within the city.
- The City updated its water and sewer rate structure to charge customers based on the actual amount of water used.
- The City Council approved a water conservation program focused on the installation of low flow toilets and low flow washing machines. Each utility customer received a $100 credit for each water-wasting toilet and washing machine replaced with a low flow toilet or washing machine. The program resulted in the installation of 54 low flow toilets and 24 low flow washing machines.
- The Vision Madera 2025 Plan includes action items to complete the following:
    - Increase water-usage monitoring through meter reading and water-patrol to increase conservation.
    - Encourage water conservation that develops and utilizes landscape and irrigation standards including programs such as: xeriscaping landscaping, mulching, "smart clocks", check valves, and micro-spray systems.

General Plan Policies and Actions:

- Policy CON-2: The City supports the consideration and implementation of a broad range of strategies to ensure the long-term sustainability of its water supply, including strategies related to conservation, reclamation, recharge, and diversification of supply.
- Policy CON-5: To reduce the need for groundwater, the City encourages water conservation and the use of reclaimed water.
    - Action Item CON-5.1: Establish a baseline of per-capita water use and continue to monitor use.
    - Action Item CON-5.2: Develop regulations and programs to encourage water conservation through means such as establishing tiered rate structures for water use, updating the

appropriate City codes to provide performance standards for irrigation equipment and water fixtures, establishing water-friendly landscaping requirements and watering limitations, etc. Continue to monitor the effectiveness of these regulations and programs and refine them as needed.
    - Action Item CON-5.3: Develop a program to accelerate the City's water meter installation program to reach the goal of installation of meters for all customers before the current 2025 deadline.
- Policy CON-44: The City supports the use of green building practices in the planning, design, construction, management, renovation, operations, and demolition of all private buildings and projects, including: water conservation indoors and outdoors; selection of materials based on recyclability, durability and the amount of energy used to create the material; waste reduction, reuse and recycling during construction and throughout the life of the project; other new aspects of green design and construction included in LEED or other certification programs; control nighttime lighting to lower energy use…
    - Action Item CON-44.1: Develop a voluntary, market-driven Green Building Program that includes performance standards, guidelines, review criteria, incentives, and implementation schedules for private sector development, with criteria tailored to project types (i.e., residential, commercial, retail), size, and location.
    - Action Item CON-44.2: Identify, evaluate, and provide incentives to encourage projects that incorporate green building practices and site design, including the potential for certification through the City's Building Department.
    - Action Item CON-44.3: Facilitate the professional development and education of City staff to learn about green building practices and to have the tools to evaluate development proposals.
    - Action Item CON-44.4: Offer information, technical assistance, and training to promote green building to property owners, building, design, and planning professionals, school districts, and special districts.

Additional Implementation Actions:

W-1.1: Develop, promote, and/or help implement additional water conservation and efficiency programs (e.g., water efficiency audits, point-of-sale replacement/retrofit programs, etc.).

W-1.2: Conduct additional outreach and promotional activities targeting specific groups within the community (e.g., homeowners, renters, businesses, income-qualified households, etc.).

W-1.3: Offer water efficiency classes or workshops where community members can learn techniques to incorporate water efficient retrofits and landscaping into homes and businesses.

W-1.4: Consider implementation of a tiered rate structure to encourage a reduction in community water usage.

City Cost	City Savings	Private Cost	Private Savings
Low - Medium	None	None	Varies

W-2: Recycled Water

2020 Reduction Potential:
68 MT CO_2e

2030 Reduction Potential:
165 MT CO_2e

Expand opportunities for the use of recycled water within the community.

Objective: Expand recycled water use in the community to five percent of total water usage by 2020 and 10 percent by 2030.

Existing and/or Completed Efforts:

- The Vision Madera 2025 Plan includes action items to complete the following:
  - Examine and implement technologies that recirculate and reuse existing water resources, such as planned reuse of 100 percent of the wastewater treatment plant output.

General Plan Policies and Actions:

- Policy CI-54: The City supports the use of reclaimed water for irrigation wherever feasible.
- Policy CON-2: The City supports the consideration and implementation of a broad range of strategies to ensure the long-term sustainability of its water supply, including strategies related to conservation, reclamation, recharge, and diversification of supply.
- Policy CON-5: To reduce the need for groundwater, the City encourages water conservation and the use of reclaimed water.
  - Action Item Con-5.4: Work with wastewater system operators and other potential partners to identify and implement programs for reuse of treated wastewater, particularly in landscaping, irrigation, parks, and public facilities.
- Policy CON-6: Where feasible, the installation of pipelines in new development to carry existing or future supplies of reclaimed water for irrigation and other uses shall be required.
  - Action Item CON-6.1: Consider adoption of standards and requirements for the installation of plumbing systems for recycled water (e.g., "purple pipe").
- Policy CON-7: The City encourages the use of gray water systems, and other water re-use methods in new development and renovation projects as consistent with state and local water quality regulations.
  - Action Item CON-7.1: Establish criteria and standards to permit the safe and effective use of gray water (on-site water recycling) that do not compromise public health and safety, and revise existing city codes that may unnecessarily inhibit the use of gray water systems.

Additional Implementation Actions:

W-2.1: Promote financial incentives, such as very low interest financing for water recycling projects offered by the State Water Board's Division of Financial Assistance, to encourage private water recycling.

W-2.2: Provide and promote technical assistance and guidelines for water reuse.

W-2.3: Educate the community on graywater and rainwater recycling for irrigation.

City Cost	City Savings	Private Cost	Private Savings
Low - Medium	None	None	Varies

W-3: Wastewater Treatment Plant Upgrades

Increase methane capture and reduce nitrous oxide emissions associated with wastewater treatment.

Objective: Achieve a 50 percent reduction in methane and nitrous oxide emissions and 10 percent reduction in energy use associated with emissions from treatment of the City's wastewater.

2020 Reduction Potential:
158 MT CO_2e

2030 Reduction Potential:
170 MT CO_2e

Existing and/or Completed Efforts:

- In 2007, the Wastewater Treatment Plant was upgraded with the installation of three oxidation ditches and four secondary clarifiers, which replaced the original trickling filters.
- In 2011, the influent mechanical screens at the headworks were replaced.

General Plan Policies and Actions:

- Policy CON-43: The City will install renewable energy systems at its facilities where feasible, including solar collection systems at municipal properties and waste-to-energy (methane recovery) systems at the waste water treatment plant.

Additional Implementation Actions:

W-3.1: Continue to install solar systems at the wastewater treatment plant to provide a mean for running blowers and other equipment at maximum effectiveness for reducing nitrous oxide emissions, without generating more carbon emissions.

W-3.2: Closely manage flow rates to identify ways to enable the process to function more efficiently, lowering the production of nitrous oxide.

City Cost	City Savings	Private Cost	Private Savings
Very Low	Low	None	None

3.6 Solid Waste Measure

As solid waste decomposes in landfills, it releases methane, a GHG 21 times more potent than carbon dioxide. In 2007, the solid waste sector generated approximately 12,973 MT CO_2e.

Waste management is an important action that the community can take to reduce GHG emissions. Waste management can be achieved by reducing the amount of trash and other waste that is discarded; reusing containers, products, and building materials; and recycling as many materials as possible, including green waste and construction materials. The solid waste measure listed in **Table 3-6** focuses on waste management and has the potential to reduce Madera's GHG emissions by 4,230 MT CO_2e by 2020 and by 5,921 MT CO_2e by 2030.

Co-Benefits of Solid Waste Measure

In addition to reducing GHG emissions, the solid waste measure described in this section has the potential to provide other important benefits to the community. These include:

- Cost savings
- Improved air quality
- Reduced solid waste generation
- Resource conservation

TABLE 3-6 SOLID WASTE GHG REDUCTIONS BY MEASURE

Measure Number	Measure	2020 GHG Reduction (MT CO_2e)	2030 GHG Reduction (MT CO_2e)
S-1	Solid Waste Reduction and Recycling	4,230	5,921
Solid Waste Total		**4,230**	**5,921**

S-1: Solid Waste Reduction and Recycling

Increase recycling, composting, source reduction, and education efforts in Madera to reduce the amount of solid waste sent to landfills.

2020 Reduction Potential:
4,230 MT CO_2e

2030 Reduction Potential:
5,921 MT CO_2e

Objective: Reduce community solid waste by 25 percent in 2020 and 35 percent in 2030. This is equivalent to landfilling no more than 48,115 tons of solid waste in 2020 and 55,139 tons in 2030. Please note, the Madera community generated 49,194 tons of solid waste in 2007; this amount declined to 42,308 tons in 2013.

Existing and/or Completed Efforts:

- In 2008, the City launched a "blue can" curbside recycling system, making it easier for residents to recycle paper, bottles, cans, and other recyclables.
- The City provides blue containers for residential curbside weekly collection of recyclable items at no charge.
- Businesses that generate four cubic yards or more of commercial solid waste per week must institute a recycling program per AB 341.
- The City has a Construction and Demolition Recycling Ordinance that requires construction or demolition projects that will generate eight or more cubic yards of material by volume to recycle a minimum of 50 percent of the debris from the project site. Project applicants must submit a Debris Management Report form to the Solid Waste Department to demonstrate compliance.
- In 2013, the City's Solid Waste Contractor added food waste composting to the existing green waste composting process.
- The City provides information about solid waste reduction programs, tips, and opportunities on its website.
- The City conducts random audits and tracks additional containers.
- E-waste programs are in place for recycling electronic waste. The City worked with Madera County to develop a receiving facility at the County landfill for electronic waste.
- The Madera Recycling Market Development Zone (RMDZ) program provides attractive loans, tax incentives, fast tract permitting and site review, technical assistance and free product marketing to businesses that use materials from the waste stream for their manufacturing.

General Plan Policies and Actions:

- Policy CI-62: The City will promote solid waste source reduction, reuse, recycling, composting and environmentally-safe transformation of waste. The City will seek to comply with the requirements of AB 939 with regard to meeting state-mandated targets for reductions in the amount of solid waste generated in Madera.
    - Action Item CI-62.1: The City shall provide information to businesses and residents on available options to implement waste reduction targets. Other actions may include: actively promoting a comprehensive, consistent, and effective recycled materials procurement effort among other governmental agencies and local businesses; and encouraging all companies that do business in Madera to recycle and reuse construction scraps, demolition materials, concrete, industrial waste, and green waste.
- Policy CI-64: The City supports efforts to provide solid waste resource recovery facilities and household hazardous waste collection facilities convenient to residences, businesses, and industries.

- Policy CI-65: The City will promote waste diversion and material recycling in private development, business and operations, and will encourage businesses or nonprofit entities to provide source reduction services.
- Policy CON-44: The City supports the use of green building practices in the planning, design, construction, management, renovation, operations, and demolition of all private buildings and projects, including: water conservation indoors and outdoors; selection of materials based on recyclability, durability and the amount of energy used to create the material; waste reduction, reuse and recycling during construction and throughout the life of the project; other new aspects of green design and construction included in LEED or other certification programs; control nighttime lighting to lower energy use…
    - Action Item CON-44.1: Develop a voluntary, market-driven Green Building Program that includes performance standards, guidelines, review criteria, incentives, and implementation schedules for private sector development, with criteria tailored to project types (i.e., residential, commercial, retail), size, and location.
    - Action Item CON-44.2: Identify, evaluate, and provide incentives to encourage projects that incorporate green building practices and site design, including the potential for certification through the City's Building Department.
    - Action Item CON-44.3: Facilitate the professional development and education of City staff to learn about green building practices and to have the tools to evaluate development proposals.
    - Action Item CON-44.4: Offer information, technical assistance, and training to promote green building to property owners, building, design, and planning professionals, school districts, and special districts.

Additional Implementation Actions:

S-1.1: Continue to enhance community understanding of resource recovery and waste management programs.

City Cost	City Savings	Private Cost	Private Savings
Very Low – Low	None	None	None

3.7 Urban Greening Measure

Trees and other vegetation absorb and capture the GHG carbon dioxide from the atmosphere in a process called carbon sequestration. By maintaining a healthy urban forest, prolonging the life of trees, and continually increasing the number of trees, Madera can increase its net carbon storage over the long term. Trees and other vegetation also reduce local air and surface temperatures by shading buildings, streets, and sidewalks.

The urban greening measure listed in Table 3-7 has the potential to reduce Madera's GHG emissions by 34 MT CO_2e by 2020 and by 68 MT CO_2e by 2030.

Co-Benefits of Urban Greening Measure

In addition to reducing GHG emissions, the urban greening measure described in this section has the potential to provide other important benefits to the community. These include:

- City beautification
- Increased property values
- Improved air quality
- Improved water quality
- Improved public health
- Reduced surface and air temperatures
- Reduced energy usage and associated costs
- Reduced noise pollution

TABLE 3-7 URBAN GREENING GHG REDUCTIONS BY MEASURE

Measure Number	Measure	2020 GHG Reduction (MT CO_2e)	2030 GHG Reduction (MT CO_2e)
U-1	Trees and Vegetation	34	68
Urban Greening Total		**34**	**68**

U-1: Trees and Vegetation

Facilitate planting of drought-tolerant, low-maintenance native trees and vegetation in Madera.

Objective: Plant 600 new trees and three new acres of vegetated land in the community by 2020 and an additional 600 trees and three acres of vegetated land by 2030 (total of 1,200 trees and six acres vegetated land by 2030).

2020 Reduction Potential:
34 MT CO_2e

2030 Reduction Potential:
68 MT CO_2e

Existing and/or Completed Efforts:

- The City has an Approved Tree List which is published on its website.
- The Madera Vision 2025 Plan includes action items to:
    - Develop Master Tree Plan to include City-Approved Tree List. Master Tree Plan to provide inventory of City Forest including tree type, condition and size.
    - Integrate the Tree Master Plan as an element of streetscape maintenance.
    - Consider the establishment of Tree Canopy Standards and shading requirements.
- In addition to perimeter landscape areas, the City requires five percent of all parking areas to be landscaped.
- The City requires all landscape areas in new development to be planted so as to have at least 75 percent vegetative coverage within three years of planting.
- The City has applied for and received a number of grants to plant trees within the community.
- In 2010, a tree planting event was held in conjunction with the national "Make a Difference Day" using trees and materials from the CommuniTrees planting grant project.

General Plan Policies and Actions:

- Policy CD-26: Street trees shall be planted in a parkway strip on all residential streets.
- Policy CD-43: The following policies shall apply to all commercial development, and particularly in the Downtown…street trees shall be incorporated into all development and street improvement projects…
- Policy CD-50: Parking lots shall be landscaped, including shade trees, to create an attractive pedestrian environment and reduce the impact of heat islands.
- Policy CON-10: The City will evaluate existing landscaping and options to convert reflective and impervious surfaces to landscaping, and will, as feasible, install or replace vegetation with drought-tolerant, low-maintenance native species that can also provide shade and reduce heat-island effects.
- Policy CON-31: The City seeks to reduce the urban heat island effect in the City, which causes increased temperatures and increases in ground level ozone formation through methods such as: increasing the amount of tree coverage in the city…
    - Action Item CON-31.1: Develop and adopt a tree ordinance that protects existing trees in the public right of way and promotes the establishment of new tree resources in public areas, including the placement of trees in parkway strips to allow shading of streets. The tree ordinance could establish a City-approved tree-planting list and provide for the creation of a Master Tree Plan that would include an inventory of trees in public areas, including tree type, condition and size.
- Policy CD-4: Site layout and building design shall take into consideration Madera's warm, dry climate, by including trees, landscaping and architectural elements to provide shade.

- Policy CD-7: All new development projects requiring site plan approval, shall establish landscape and façade maintenance programs for the first three years, ensuring that streetscapes and landscapes areas are installed and maintained as approved.
- Policy CI-26: Projects providing significantly more than the required amount of parking shall be allowed only when the City determines that there is a demonstrated need for additional parking.
    - Action Item CI-26.1: Amend parking and other standards in the Zoning Code to reflect a balance between the need for parking and the desire of the City to achieve its goals regarding efficient land utilization, walkability, and increased opportunities to create additional space for landscaping and other amenities.

Additional Implementation Actions:

U-1.1: Continue to identify and secure funding to enhance the urban forest within Madera.

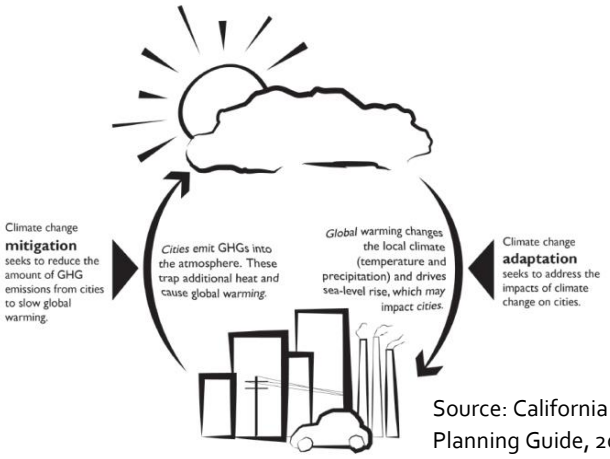
U-1.2: Develop a program to facilitate voluntary tree planting and inventorying within the community, working with non-profit organizations and/or community partners.

U-1.3: Amend parking standards to limit over-parking and balance parking needs against other City goals, including creating additional space for landscaping to reduce the impact of heat islands.

City Cost	City Savings	Private Cost	Private Savings
Very Low	None	None	Varies

3.8 Adaptation Measures

Two types of responses to climate change are available: mitigation and adaptation. The previous focus areas have primarily addressed reducing GHG emissions to help limit future climate change. This section addresses adaptation, or preparing for and managing risk associated with climate change effects.



Source: California Adaptation Planning Guide, 2012

Chapter 1.0, Introduction, describes the potential climate change effects that Madera could expect based on current science and understanding, which include an increase in average annual temperature and heat waves, a decrease in the consistent supply of fresh water, increased risk of wildfires, negative impacts on biodiversity, and an increased risk to public health. The adaptation measures provide a basic framework for integrating climate change risk assessment and management into current planning processes. Where appropriate, the adaptation measures also highlight GHG reductions measures from other sections of the CAP that also contribute to adaptation.

How is climate adaptation related to hazard mitigation planning?

Natural hazard impacts are only one area that may be affected by climate change. Other areas that may be affected include agricultural, forestry, and fisheries productivity; ecosystem structure and function; and public health. Planning in all of these areas should be done in light of potential climate change impacts. For local hazard mitigation plan development, climate change should be incorporated into the assessment of hazards risk. Ideally, measures identified in the hazard mitigation plan would address both current hazards needs and future climate-change affected hazards.

TABLE 3-8 IMPACTS OF CLIMATE CHANGE

Primary Impact	Associated Secondary Impacts
Changed temperature and/or precipitation patterns	Changed seasonal patterns, intense rainstorms
Increased temperature	Heat wave
Wildfire	Landslide
Increased temperature/reduced precipitation	Heat wave, drought, wildfire, reduced snowpack

Source: California Adaption Planning Guide, 2012

A-1: Climate Change Vulnerability

Identify and periodically reassess regional climate change vulnerabilities.

Existing and/or Completed Efforts:

- None at this time.

General Plan Policies and Actions:

- CON-38: The City shall partner with local agencies and organizations to coordinate outreach and education regarding the effects of GHG emissions and climate change.

Additional Implementation Actions:

A-1.1: Participate in inter-agency and or inter-jurisdictional meeting and planning activities to periodically reassess projected climate change impacts and vulnerabilities.

A-1.2: Incorporate discussions of anticipated climate change impacts, risks, and adaptation strategies into relevant City plans.

City Cost	City Savings	Private Cost	Private Savings
Very Low	None	None	None

A-2: Public Health and Safety

Prepare for the anticipated climate change effects on public health and populations that may bear a disproportionate burden of anticipated climate change effects.

Existing and/or Completed Efforts:

- See existing and/or completed efforts listed under Measure U-1: Trees and Vegetation.
- In 2014, the City received funding from PG&E for cooling centers, which are free-to-use sites that provide residents a safe place indoors where they can cool off when temperatures exceed 100 degrees.

General Plan Policies and Actions:

- Policy CON-10: The City will evaluate existing landscaping and options to convert reflective and impervious surfaces to landscaping, and will, as feasible, install or replace vegetation with drought-tolerant, low-maintenance native species that can also provide shade and reduce heat-island effects.
- Policy CON-31: The City seeks to reduce the urban heat island effect in the City, which causes increased temperatures and increases in ground level ozone formation through methods such as: increasing the amount of tree coverage in the city; green roofs and rooftop gardens; the use of reflective treatments on roofs (such as those which qualify for the EPA/DOE's Energy Star rating); the use of cool pavements such as permeable and light colored and reflective pavements.
    - Action Item CON-31.1: Develop and adopt a tree ordinance that protects existing trees in the public right of way and promotes the establishment of new tree resources in public areas, including the placement of trees in parkway strips to allow shading of streets. The tree ordinance could establish a City-approved tree-planting list and provide for the

creation of a Master Tree Plan that would include an inventory of trees in public areas, including tree type, condition and size.
    - Action Item CON-31.2: Update or amend the City's zoning and building codes, and provide training to the City's Community Development Department staff, to incorporate features which will have the effect of reducing exterior heat gain, such as: allowances for the construction of green roofs; standards for surface shading of paved areas; standards for the use of paving materials with an enhanced solar reflective index (SRI); standards that provide for pervious pavement options.
- Policy CON-38: The City shall partner with local agencies and organizations to coordinate outreach and education regarding the effects of GHG emissions and climate change.
- Policy HS-4: The City should promote greater public awareness of issues related to health and community well-being through the City's newsletter and other City-sponsored programs.
- Policy HS-5: The City will continually endeavor to improve access in the community for people with disabilities.
    - Action Item HS-5.1: Ensure that all City-owned and City-operated buildings are in compliance with requirements of the Americans with Disabilities Act.
    - Action Item HS-5.2: Continue to implement the City's program to make public sidewalks accessible for persons with disabilities.
- Policy HS-6: The City will work with the Madera County Public Health Department, the Madera County Environmental Health Department, Madera County Behavioral Health Services, and the Community Action Partnership of Madera County in their efforts to promote and facilitate their respective programs and services.
- Policy HS-33: The City shall ensure the safety and protection of Madera and its community members by providing adequate first response capabilities to emergencies and by maintaining sufficient resources to expand protection as the community grows.
- Policy HS-34: The City shall continue to maintain and update emergency service plans, including the Madera City Fire Department Emergency Operations Plan and the Hazardous Material Spills Emergency Response Plan.
    - Action Item HS-34.1: Continue to cooperate with Madera County and other agencies in pre-disaster planning, training and exercise activities.
- Policy HS-35: The City shall ensure the safety and protection of Madera and its community members by providing appropriate first response to emergencies and ensure that sufficient resources are available to expand protection as the community grows.
    - Action Item HS-35.1: Collaborate with existing agencies to review existing interoperable communication and prepare a communications plan as needed.
- Policy HS-36: The City will maintain and enhance community safety through coordinated regional emergency, law-enforcement and protective services systems.
- Policy HS-37: The City will seek to maintain and enhance communications between community residents and the police through regular meetings and a visible community policing program.
- Policy SUS-6: The City shall not approve developments or programs that will create significant inequities in service provision across economic segments of the community.
- Policy SUS-9: The City is committed to providing open, inclusive, and participatory planning processes that include full consideration of the values, opinions, and needs of all segments of the community.
- Policy CD-4: Site layout and building design shall take into consideration Madera's warm, dry climate, by including trees, landscaping and architectural elements to provide shade.
- Policy CD-21: Create safe, inviting, and functional pedestrian and cyclist environments in commercial, office, and mixed-use projects through a variety of techniques, including: planting trees to provide shade on pedestrian paths, sidewalks, and walkways….

- Policy CD-50: Parking lots shall be landscaped, including shade trees, to create an attractive pedestrian environment and reduce the impact of heat islands.

Additional Implementation Actions:

A-2.1: Identify and address potential heat health risks posed by climate change in the City's local hazard mitigation plan (e.g., improve heat alerts, cooling centers, etc.).

A-2.2: Collaborate with community-based organizations (such as health care providers, public health advocates, etc.) to increase heat wave preparedness and disseminate public preparedness information, particularly targeting vulnerable populations.

A-2.3: Work with the Madera County Public Health Department, the Madera County Environmental Health Department, Madera County Behavioral Health Services, and the Community Action Partnership of Madera County to link climate change adaptation strategies with social equity and public health strategies.

City Cost	City Savings	Private Cost	Private Savings
Very Low	None	None	None

A-3: Water Management

Prepare for the anticipated climate change effects on water resources, including altered timing and amount of precipitation and increased temperatures that influence the availability of water supply, and limit community exposure to threats, such as flooding and drought.

Existing and/or Completed Efforts:

- See existing efforts under Measures W-1 and W-2.

General Plan Policies and Actions:

- Policy HS-19: The City shall not permit new development projects to result in new or increased flooding impacts on adjoining parcels in either upstream or downstream areas.
- Policy HS-20: The City's first priority in preventing risks to life and property resulting from flooding shall be to designate appropriate land uses in areas subject to flooding…
- Policy HS-21: The City shall require any development on land subject to a 100-year flood event, based on Federal Emergency Management Agency (FEMA) or on other updated mapping acceptable to the City, to conform to NFIP (National Flood Improvement Program) standards.
- Policy HS-22: Creation of lots whose access will be inundated by flows resulting from a 10-year or greater storm shall not be allowed. Bridges or similar structures may be used to provide flood-free access.
- Policy HS-26: The City shall require all new urban development projects to incorporate runoff control measures to minimize peak flows of runoff and/or assist in financing or otherwise implementing comprehensive drainage plans. All such control measures will consider potential affects to adjacent property owners.
- Policy HS-27: Upon adoption of the Central Valley Flood Protection Plan, and this General Plan, the City shall review the consistencies of City flood-related planning documents for consistency with the current General Plan with the provisions of Central Valley Flood Protection Plan and the policies of the General Plan.

  - Action Item HS-27.1: Consider adoption of a local plan of flood protection under Water Code sections 8201 et seq.
  - Action Item HS-27.2: Work collaboratively with other appropriate agencies to identify those areas subject to flooding and to prepare flood emergency plans and flood mitigation programs, as provided for by Water Code Sections 9621 through 9623.
  - Action Item HS-27.3: Review the flood hazard provisions of the Land Use, Conservation, and Health and Safety Elements of the General Plan for consistency with the Central Valley Flood Protection Plan, upon its adoption.
- Policy HS-28: The City shall continue to cooperate with Madera County and other agencies in pre-disaster planning activities for potential dam breach and similar potential disasters.
- Policy HS-35: The City shall ensure the safety and protection of Madera and its community members by providing appropriate first response to emergencies and ensure that sufficient resources are available to expand protection as the community grows.
- Policy HS-36: The City will maintain and enhance community safety through coordinated regional emergency, law-enforcement and protective services systems.
- Policy CON-1: The City will coordinate with local, regional, and state water suppliers and water resource managers to identify water management strategies and issues that ensure a clean and sustainable water supply.
- Policy CON-2: The City supports the consideration and implementation of a broad range of strategies to ensure the long-term sustainability of its water supply, including strategies related to conservation, reclamation, recharge, and diversification of supply.
  - Action Item CON-2.1: Consider a broad range of strategies to address the City's water supply needs as part of the preparation of the Urban Water Management Plan and other planning documents, including the feasibility of obtaining and treating surface water.
- Policy CON-3: The City supports natural groundwater recharge and new groundwater recharge opportunities through means such as: Developing a comprehensive groundwater recharge program to be applied in conjunction with new development; Increasing the area on developed sites into which rainwater can percolate; Providing areas where rainwater and other water can collect and percolate into the ground; Providing for groundwater recharge in storm drainage facilities; The use of reclaimed water to recharge the groundwater table.
  - Action Item CON-3.1: Prepare a groundwater recharge program which identifies specific recharge strategies and projects, and consider the establishment of a fee-based system for new development to implement these strategies to offset the water demand created by such development.
- Policy CON-4: The City will coordinate water resource management planning with other conservation planning efforts, such as those related to open space, parkland, and agricultural preservation.
- Policy CON-5: To reduce the need for groundwater, the City encourages water conservation and the use of reclaimed water.
  - Action Item CON-5.1: Establish a baseline of per-capita water use and continue to monitor use.
  - Action Item CON-5.2: Develop regulations and programs to encourage water conservation through means such as establishing tiered rate structures for water use, updating the appropriate City codes to provide performance standards for irrigation equipment and water fixtures, establishing water-friendly landscaping requirements and watering limitations, etc. Continue to monitor the effectiveness of these regulations and programs and refine them as needed.
  - Action Item CON-5.3: Develop a program to accelerate the City's water meter installation program to reach the goal of installation of meters for all customers before the current 2025 deadline.

    - Action Item Con-5.4: Work with wastewater system operators and other potential partners to identify and implement programs for reuse of treated wastewater, particularly in landscaping, irrigation, parks, and public facilities.
- Policy CON-6: Where feasible, the installation of pipelines in new development to carry existing or future supplies of reclaimed water for irrigation and other uses shall be required.
    - Action Item CON-6.1: Consider adoption of standards and requirements for the installation of plumbing systems for recycled water (e.g., "purple pipe").
- Policy CON-7: The City encourages the use of gray water systems, and other water re-use methods in new development and renovation projects as consistent with state and local water quality regulations.
    - Action Item CON-7.1: Establish criteria and standards to permit the safe and effective use of gray water (on-site water recycling) that do not compromise public health and safety, and revise existing city codes that may unnecessarily inhibit the use of gray water systems.
- Policy CON-8: The City encourages Low Impact Development practices in all residential, commercial, office, and mixed-use discretionary projects and land division projects to reduce, treat, infiltrate, and manage runoff flows caused by storms, urban runoff, and impervious surfaces…
- Policy CON-9: The City will evaluate existing city maintained landscaping, and will, as feasible, install or replace vegetation with drought-tolerant, low-maintenance native species.
- Policy CON-10: The City will evaluate existing landscaping and options to convert reflective and impervious surfaces to landscaping, and will, as feasible, install or replace vegetation with drought-tolerant, low-maintenance native species that can also provide shade and reduce heat-island effects.
- Policy CON-14: The relocation of natural stream courses is discouraged. Where flood protection is a necessity, the City supports leaving existing natural stream courses and adjoining land in a natural state and creating new storm drainage capacity in parallel above- or below-ground facilities.
- Policy CON-44: The City supports the use of green building practices in the planning, design, construction, management, renovation, operations, and demolition of all private buildings and projects, including…water conservation indoors and outdoors…
- Policy CI-53: Water supply and delivery systems shall be available in time to meet the demand created by new development, or shall be assured through the use of bonds or other sureties to the City's satisfaction.
    - Action Item CI-53.1: The following shall be required for all development projects, excluding subdivisions:
        - An assured water supply and delivery system shall be available at the time of project approval. If a choice of alternative methods of supply and/or delivery is selected, each shall be capable individually of providing water to the project.
        - All required water infrastructure for the project shall be in place at the time of project approval, or shall be assured through the use of bonds or other sureties to the City's satisfaction. Water infrastructure may be phased to coincide with the phased development of large-scale projects.
    - Action Item CI-53.2: The following shall be required for all subdivisions to the extent permitted by state law:
        - Proposed water supply and delivery systems shall be identified at the time of tentative map approval to the satisfaction of the City. Alternative methods of supply and/or delivery may be proposed, provided that each is capable individually of providing water to the project.
        - Prior to the approval of a final map by the City, sufficient capacity shall be available to accommodate the subdivision plus existing development, and other approved projects in the same service area, and other projects which have received commitments for water service.

    - Offsite and onsite water infrastructure sufficient to provide adequate water to the subdivision shall be in place prior to the approval of a final map or their financing shall be assured to the satisfaction of the City, consistent with the requirements of the Subdivision Map Act.
  - Policy CI-54: The City supports the use of reclaimed water for irrigation wherever feasible.
  - Policy CI-55: The City shall seek to protect the quality and quantity of groundwater resources, including those which serve households and businesses which rely on private wells.
  - Policy CI-56: The City shall require that water flow and pressure be provided at sufficient levels to meet domestic, commercial, industrial, and firefighting needs.

Additional Implementation Actions:

A-3.1: Continue to seek grants and other sources of funding to enhance flood control.
A-3.2: Implement the CAP measures that facilitate water conservation and use of recycled water.

City Cost	City Savings	Private Cost	Private Savings
None	None	None	None

A-4: Biodiversity and Habitat

Protect biodiversity and habitats by carefully managing open space and creating connections between areas of undeveloped land.

Existing and/or Completed Efforts:

- None at this time.

General Plan Policies and Actions:

- Policy CON-23: The City shall seek to conserve and improve native wildlife and plant habitat in cooperation with governmental agencies, private associations and individuals in Madera.
- Policy CON-24: Residential, commercial, industrial and recreational projects shall avoid impacts to native wildlife and plant habitat to the extent feasible.
- Policy CON-25: The City encourages the preservation of habitat areas needed for the ongoing viability of native species, and habitat connectivity through the use of conservation easements or other methods.
- Policy CON-26: To offset possible additional losses of native wildlife and plant habitat due to development projects, developers shall be responsible for mitigation. Such mitigation measures may include providing and permanently maintaining similar quality and quantity of replacement habitat, enhancing existing habitat areas or paying in-lieu funds to an approved wildlife habitat improvement and acquisition fund. Replacement habitat may occur either on site or at approved offsite locations, but preference shall be given to on-site replacement.

Additional Implementation Actions:

A-4.1: Continue to identify and protect locations where native species may shift or lose habitat due to climate change impacts (e.g., warmer temperatures, drought).

A-4.2: Collaborate with agencies managing public land to identify or maintain corridors and linkages between undeveloped areas.

City Cost	City Savings	Private Cost	Private Savings
Very Low	None	None	None

A-5: Infrastructure

Work to improve the resilience of transportation, energy, and other infrastructure critical to community function.

Existing and/or Completed Efforts:

- None at this time.

General Plan Policies and Actions:

- Policy H-1.5: The City shall seek implementation of all public service master plans to facilitate construction of infrastructure improvements to serve developing areas.
- Policy LU-13: The City shall support the annexation of property to its boundaries for the purpose of new development only when it determines that the following conditions exist: (1) sufficient public infrastructure, facilities, and services are available or will be provided in conjunction with new development; and (2) demands on public infrastructure, facilities and services created by the new development will not result in reductions in capacity that is necessary to serve the existing city limits (including demand created by potential infill development), reductions in existing service levels within the city limits, or the creation of detrimental fiscal impacts on the City.
    - Action Item LU-13.1: Maintain and periodically update a set of Facility Master Plans for major municipal infrastructure and public facilities, including, at a minimum, wastewater, water, storm drainage, and parks and recreation facilities.
    - Action Item LU-13.3: Monitor levels-of-service for streets, roads, and other features of the circulation system based on the level of criteria included in this general plan as a tool to assess the ability of the City to service growth.
    - Action Item LU-13.4: Conduct an ongoing Development Monitoring Program focused on new development activity and related infrastructure and public facility construction to determine adherence to adopted level of service standards and criteria and compliance with and other City policies and programs.
- Policy CD-37: The City shall encourage the on-going conservation, maintenance and upgrading of existing neighborhoods through enforcement of property maintenance codes, requirements of high quality infill development, programs for the rehabilitation of housing, and replacement of deteriorated infrastructure.
- Policy CI-51: Except when prohibited by state law, the City shall require that sufficient capacity in all public services and facilities will be available on time to maintain desired service levels and avoid capacity shortages, traffic congestion, or other negative effects on safety and quality of life.

Additional Implementation Actions:

A-5.1: Incorporate information on projected climate change impacts into the City's utility master plans and service delivery plans, as appropriate.

A-5.2: Implement the CAP measures that facilitate energy and water conservation and the use of recycled water and renewable energy.

City Cost	City Savings	Private Cost	Private Savings
Very Low	None	None	None

A-6: Agriculture

Provide information to and assist farmers in adapting to climate change.

Existing and/or Completed Efforts:

- None at this time.

General Plan Policies and Actions:

- Policy CON-4: The City will coordinate water resource management planning with other conservation planning efforts, such as those related to open space, parkland, and agricultural preservation.
- Policy CON-16: The City will facilitate and support agricultural conservation easements, farmland security zone contracts, and land conservation programs when used to preserve agricultural lands and resources.
    - Action Item CON-16.1: Pursue partnerships with private non-profit conservation organizations to preserve Madera's agricultural lands.
- Policy CON-20: The City supports the marketing of local agricultural products to local residents, vendors and restaurants through year-round public farmers' markets and other direct farm-to-table sales.
- Policy CON-21: The City encourages organic and sustainable agricultural practices and crop diversification.

Additional Implementation Actions:

A-6.1: Work with entities such as resource conservation districts, cooperative extensions, and other agricultural organizations to introduce adaptation techniques and shorten the time it takes for new scientific findings and adaptive approaches to reach farmers.

City Cost	City Savings	Private Cost	Private Savings
Very Low	None	None	None

3.9 GHG Reduction Summary

As discussed in Section 2.3 of Chapter 2, GHG Emissions and Reduction Targets, Madera will need to reduce its emissions by 29,754 MT CO_2e by 2020 and by 88,676 MT CO_2e by 2030 to meet its targets. The GHG reduction measures in this CAP are estimated to reduce Madera's GHG emissions by 33,601 MT CO_2e by 2020 and by 92,341 MT CO_2e by 2030, as summarized in **Table 3-9**. Therefore, implementation of the measures identified in this chapter would enable Madera to meet its reduction targets by 2020 and 2030.

TABLE 3-9 SUMMARY OF GHG REDUCTIONS BY MEASURE

Measure Number	Measure	2020 GHG Reduction (MT CO_2e)	2030 GHG Reduction (MT CO_2e)
Local Government			
LG-1	Municipal Energy Efficiency and Conservation	74	148
LG-2	Municipal Renewable Energy	445	611
LG-3	Fuel Efficient and Low-Carbon Vehicle Fleet	58	105
LG-4	Employee Commute Alternatives	41	66
LG-5	Municipal Solid Waste Diversion	19	28
LG-6	Tree Planting on City Property	16	33
	Local Government Total	**653**	**991**
Energy			
E-1	Energy Efficiency and Conservation in Existing Buildings	10,707	30,163
E-2	Energy Efficient New Construction	531	7,670
E-3	On-Site Small-Scale Renewable Energy	1,813	3,014
	Energy Total	**13,051**	**40,847**
Transportation and Land Use			
T-1	Infill and Mixed-Use Development	5,613	21,292
T-2	Bicycle and Pedestrian Environment	1,053	3,454
T-3	Transit Travel	2,404	4,757
T-4	Commute Trip Reduction	1,188	1,977
T-5	Traffic Flow and Vehicle Idling	265	401
T-6	Low Carbon Fuel Vehicles and Infrastructure	4,255	11,061
T-7	Construction and Off-Road Equipment	135	584
	Transportation and Land Use Total	**14,913**	**43,526**
Water and Wastewater			
W-1	Exceed SB X7-7 Water Conservation Target	494	653
W-2	Recycled Water	68	165
W-3	Wastewater Treatment Plant Upgrades	158	170
	Water and Wastewater Total	**720**	**988**
Solid Waste			
S-1	Solid Waste Reduction and Recycling	4,230	5,921
	Solid Waste Total	**4,230**	**5,921**
Urban Greening			
U-1	Trees and Vegetation	34	68
	Urban Greening	**34**	**68**
	Total	**33,601**	**92,341**



Chapter 4.0
Implementation & Monitoring

Implementation and monitoring are essential elements of the CAP to ensure that Madera reduces its GHG emissions and achieves its emissions reduction targets. To achieve the GHG reductions described in the CAP, the measures and implementation actions must translate from policy language into on-the-ground results that can be measured. This chapter describes how the City will implement the CAP measures, monitor the CAP's performance, and if necessary, alter or amend the plan to ensure that the plan remains effective and on track toward meeting its targets.

4.1 Implementation

Ensuring that the CAP measures translate into measurable reductions in GHG emissions is critical to the success of the CAP. To facilitate this, each measure and its corresponding implementation actions identified in Chapter 3, Climate Action Measures, is listed in the implementation matrix in **Table 4-1** along with the following items:

- **Responsible Parties(s):** the City department or division that will be primarily responsible for implementing, monitoring, and reporting on the progress of the measure and corresponding actions.
- **Implementation Timeframe:** the phase in which measure implementation should begin. Timeframes include:
    - Near-Term – By 2017
    - Mid-Term – 2018-2022
    - Long-Term – 2023-2030
- **City Cost and Savings Estimates:** for each measure, potential costs and savings to the City are identified. Additional information on costs and savings is provided in **Appendix D**.

- **GHG Reduction Potential:** the GHG reduction potential value identifies the estimated annual GHG emissions reductions anticipated by 2020 and 2030, measured in MT CO_2e per year. Supporting information pertaining to the reduction potential calculations is provided in **Appendix C**.
- **Performance Indicators:** performance indicators enable the City to generally monitor measure progress.

Upon adoption of the CAP, the City will establish a CAP Coordinator who will provide essential CAP oversight and a multi-departmental CAP Implementation Team comprised of key staff in each department. These individuals will facilitate and oversee the implementation and monitoring of measures for which their department is responsible. The CAP Implementation Team will meet at least one time per year to assess the status of City efforts. Some actions will require interdepartmental or inter-agency cooperation and appropriate partnerships will need to be established accordingly.

TABLE 4-1 IMPLEMENTATION MATRIX

Measure	Actions	Responsible Parties(s)	Potential Cost (Aggregated)	Potential Savings (Annual)	GHG Reduction Potential (MT CO_2e)	Performance Indicator	Implementation Timeframe
Local Government Operations Measures							
LG-1 Municipal Energy Efficiency and Conservation: Reduce non-renewable energy consumption in City buildings and facilities.	**LG-1.1:** Track municipal energy consumption and performance over time using PG&E Portfolio Manager Web Services which automatically feeds key data into ENERGY STAR® Portfolio Manager. **LG-1.2:** Establish a prioritized list of energy efficiency upgrade projects and implement as funding becomes available. **LG-1.3:** Convert the remaining HPS street lights to LED. **LG-1.4:** Identify staff positions or employees that could benefit from energy-related workshops and trainings. **LG-1.5:** Continue to coordinate with PG&E and the Madera Energy Watch partnership to identify funding sources, tools, and other mechanisms to improve municipal energy efficiency.	Administrative Services, Community Development – Public Works & Planning	$36,000 – $72,000	$237,252	**2020:** 74 MT CO_2e **2030:** 148 MT CO_2e	Reduce the amount of energy used at City buildings and facilities by 5% below 2007 levels by 2020 and 10% below 2007 levels by 2030.	Near-Term
LG-2 Municipal Renewable Energy: Increase the amount of municipal energy derived from	**LG-2.1:** Conduct a feasibility study on the installation of renewable energy projects at select City facilities. **LG-2.2:** Identify and secure funding (e.g., through grants, on-bill financing, loans, energy performance contracts, lease-	Administrative Services, Community Development – Public Works & Planning	$5,000 - $10,000	$459,673	**2020:** 445 MT CO_2e **2030:** 611 MT CO_2e	By 2020, install 1,265 kW of solar PVs (the City has already met this objective for the year 2020). By	Near-Term

Measure	Actions	Responsible Parties(s)	Potential Cost (Aggregated)	Potential Savings (Annual)	GHG Reduction Potential (MT CO_2e)	Performance Indicator	Implementation Timeframe
renewable sources.	purchase agreements, or other mechanisms) to install additional solar PV systems at City facilities. **LG-2.3:** Consider participation in PG&E's green power option, which would allow the City to purchase up to 100 percent of its electricity from renewable energy sources.					2030, install an additional 162 kW of solar PVs (for a total of 1,427 kW of solar PVs by 2030). By 2020, procure 10% of municipal electricity from renewables by 2020 and 20% by 2030.	
LG-3 Fuel Efficient and Low Carbon Vehicle Fleet: Increase overall fuel efficiency and the use of low-carbon fuels in the City's vehicle fleet.	**LG-3.1:** Update the City's procurement policies to include minimum fuel efficiency criteria in procurement specifications. **LG-3.2:** Continue to identify and secure funding to help purchase alternative and fuel efficient fleet vehicles and equipment. **LG-3.3:** Inform staff of fuel-efficient driving techniques (e.g., avoiding excessive, quick starts, speeding, etc.).	Administrative Services, Community Development – Planning	$147,965 - $151,965	$22,232	**2020:** 58 MT CO_2e **2030**: 105 MT CO_2e	By 2020, replace 10 light duty vehicles with 3 hybrid or electric vehicles with combined average fuel economy of 55 mpg and 7 CNG fueled vehicles. Also replace 10 heavy-duty vehicles with CNG fueled vehicles by 2020. By 2030, replace an additional 12 light-duty	Mid-Term

Measure	Actions	Responsible Parties(s)	Potential Cost (Aggregated)	Potential Savings (Annual)	GHG Reduction Potential (MT CO_2e)	Performance Indicator	Implementation Timeframe
						vehicles with 5 hybrid or electric vehicles with combined average fuel economy of 55 mpg and 7 CNG fueled vehicles. Also replace an additional 6 heavy-duty vehicles with CNG fueled vehicles by 2030. The City has already replaced 6 light-duty vehicles (with 1 hybrid and 5 CNG) and 10 heavy-duty vehicles with CNG since 2007.	
LG-4 Employee Commute Alternatives: Promote alternatives to reduce annual VMT associated with City	**LG-4.1:** Provide City employees with incentives to use alternatives to single-occupant auto commuting, such as transit incentives, bicycle facilities, flexible schedules, ridesharing services and subsidies, and telecommuting. **LG-4.2:** Participate in and promote	Administrative Services, Community Development – Planning	$4,000 - $8,000	None	**2020:** 41 MT CO_2e **2030:** 66 MT CO_2e	Reduce annual VMT associated with employee commutes by 5% below 2007 levels by 2020 and 8% below	Mid-Term

Measure	Actions	Responsible Parties(s)	Potential Cost (Aggregated)	Potential Savings (Annual)	GHG Reduction Potential (MT CO_2e)	Performance Indicator	Implementation Timeframe
employee commutes.	annual commute trip reduction events.					2007 levels by 2030.	
LG-5 Municipal Solid Waste Diversion: Reduce the amount of landfilled solid waste generated at City facilities.	**LG-5.1:** Audit City facilities to identify opportunities to increase material recovery and beneficial use of organic material.	Administrative Services, Community Development – Public Works & Planning	$2,000-$4,000	None	**2020:** 19 MT CO_2e **2030:** 28 MT CO_2e	Reduce City-generated solid waste by 20% below 2007 levels by 2020 and by 30% below 2007 levels by 2030.	Mid-Term
LG-6 Tree Planting on City Property: Increase the quantity of drought-tolerant, low-maintenance native trees and vegetation on City-owned or -operated property.	**LG-6.1:** Continue to identify and secure funding to plant additional drought-tolerant, native trees and vegetation on City properties.	Administrative Services, Community Development – Public Works & Planning, Parks & Community Services	$64,625-$160,875	$840 - $2,520	**2020:** 16 MT CO_2e **2030:** 33 MT CO_2e	Plant 100 trees and 3 acres of vegetation on City properties by 2020 and an additional 100 trees and 3 acres by 2030 (for a total of 200 trees and 6 acres of vegetation planted on City properties between 2007 and 2030). The City has already planted 85 trees and 2 acres of vegetation.	Mid-Term

Measure	Actions	Responsible Parties(s)	Potential Cost (Aggregated)	Potential Savings (Annual)	GHG Reduction Potential (MT CO_2e)	Performance Indicator	Implementation Timeframe
Energy							
E-1 Energy Efficiency and Conservation in Existing Buildings: Increase energy efficiency and conservation within the community.	**E-1.1:** Continue to coordinate with PG&E to promote use of utility financial incentives to improve energy efficiency, such as rebates and tax credits, building audit and retrofit programs, and demand management programs. **E-1.2:** Conduct additional outreach and promotional activities, either individually or in collaboration with PG&E and/or local organizations, targeting specific groups within the community (e.g., homeowners, renters, businesses, income-qualified households, etc.). **E-1.3:** Designate one week per year to conduct an energy efficiency outreach campaign. The campaign week may also be used to recognize and encourage programs and educational outreach conducted by industry organizations, non-government entities, government agencies, and other community groups. **E-1.4:** Collaborate with PG&E to hold an educational workshop in Madera regarding measures that individuals can take to reduce energy usage. **E-1.5:** Participate in and promote a residential and commercial energy efficiency financing program (e.g.,	Administrative Services, Community Development – Planning	$60,000 - $120,000	None	**2020:** 10,707 MT CO_2e **2030:** 30,163 MT CO_2e	Reduce residential and commercial energy by 10% by 2020 and 15% by 2030.	Near-Term

Measure	Actions	Responsible Parties(s)	Potential Cost (Aggregated)	Potential Savings (Annual)	GHG Reduction Potential (MT CO_2e)	Performance Indicator	Implementation Timeframe
	through Energy Upgrade California, CaliforniaFIRST, a joint powers authority with other local agencies, or other mechanisms) allowing residential and commercial property owners to voluntarily invest in efficient upgrades for their buildings. **E-1.6:** Promote existing income-qualified weatherization programs (e.g., Energy Upgrade California, PG&E's Middle Income Direct Install Program, etc.), either individually, or in collaboration with an existing organization, to income-qualified households using sources of data available to the local agency, (e.g., water bills, housing records, etc.).						
E-2 Energy Efficient New Construction: Increase the efficient use of energy and conservation of available resources in the design and construction of new buildings.	**E-2.1:** Provide support to and recognition of developers proposing projects that voluntarily exceed Title 24 Energy Efficiency Building Standards, meet the state's Green Building Standards voluntary tier levels, or are LEED Greenpoint, or ENERGY STAR rated.	Administrative Services, Community Development – Planning & Building	$15,000-$30,000	None	**2020:** 531 MT CO_2e **2030:** 7,670 MT CO_2e	By 2020, 10% of new residential and commercial development to exceed Title 24 by 20%. By 2030, 25% of new residential development to exceed Title 24 by 30%; all new commercial development	Near-Term

Measure	Actions	Responsible Parties(s)	Potential Cost (Aggregated)	Potential Savings (Annual)	GHG Reduction Potential (MT CO_2e)	Performance Indicator	Implementation Timeframe
						after 2020 is net zero energy.	
E-3 On-Site Small-Scale Renewable Energy: Facilitate the installation and use of on-site small-scale renewable energy systems, such as solar PV systems and solar water heaters.	**E-3.1:** Expand education on and promotion of existing incentive, rebate, and financing programs for solar PV systems and solar hot water heaters, such as those offered through the California Solar Initiative and California Public Utilities Commissions, including the Single Family Affordable Solar Homes (SASH) Program and the Multifamily Affordable Solar Homes (MASH) Program. Target specific groups or sectors within the community.	Administrative Services, Community Development – Planning & Building	$45,000 - $90,000	None	**2020:** 1,813 MT CO_2e **2030:** 3,014 MT CO_2e	Achieve installation of 4,000 kW of solar PV systems on existing residential property and 1,500 kW of solar PV systems on existing non-residential property by 2020, and an additional 2,720 kW of solar PV systems on existing residential property and 500 kW of solar PV systems on existing non-residential property by 2030. Achieve installation of 400 residential and 200 non-	Mid-Term

Measure	Actions	Responsible Parties(s)	Potential Cost (Aggregated)	Potential Savings (Annual)	GHG Reduction Potential (MT CO_2e)	Performance Indicator	Implementation Timeframe
						residential solar water heaters by 2020 and an additional 350 residential and 200 non-residential solar water heaters by 2030.	
Transportation and Land Use							
T-1 Infill and Mixed-Use Development: Facilitate mixed use, higher density, and infill development near transit stops, in existing community centers/ downtown, and in other designated areas.	**T-1.1:** Expand the promotion of incentives for new development and renovation of existing uses in identified infill areas. **T-1.2:** Continue to work with MCTC in updates to the Madera County Blueprint to direct future growth to existing urbanized areas through implementation of smart growth principles and use of toolkit resources identified in the Blueprint. **T-1.3:** Showcase infill and mixed-use projects on the City's website, in newsletters, or via other mechanisms.	Administrative Services, Community Development – Planning & Building	$45,000 - $90,000	None	**2020:** 5,613 MT CO_2e **2030:** 21,292 MT CO_2e	Increase service population density within the city 30% by 2020 and 50% by 2030; 25% of new development located within 2 miles of shopping/transit/ job centers by 2030; and 15% of new development with 2 or more land use types (e.g., residential and commercial) by 2030.	Mid-Term

Measure	Actions	Responsible Parties(s)	Potential Cost (Aggregated)	Potential Savings (Annual)	GHG Reduction Potential (MT CO_2e)	Performance Indicator	Implementation Timeframe
T-2 Bicycle and Pedestrian Environment: Continue to expand and improve the City's bicycle and pedestrian network.	**T-2.1:** Continue to pursue public and private funding to expand and link the City's bicycle and pedestrian network in accordance with the General Plan and Bicycle Master Plan. **T-2.2:** Develop policies and minimum design criteria for bicycle and pedestrian circulation in new residential development and implement through the development review process. Require the installation of adequate and secure bicycle parking at all new multi-family residential, commercial, governmental, and recreational locations throughout the City. **T-2.3:** Collaborate with law enforcement, school officials, and private organizations to encourage public bicycle safety programs.	Administrative Services, Community Development – Planning & Public Works, Parks & Community Services	$30,000-$60,000	None	**2020:** 1,053 MT CO_2e **2030:** 3,454 MT CO_2e	Achieve a 1% reduction in light-duty VMT by 2020 and a 3% reduction in light-duty VMT by 2030 as a result of mode shift to bicycling and walking.	Near-Term
T-3 Transit Travel: Continue to expand and improve the transit network and its accessibility within the City of Madera.	**T-3.1:** Through the development review process, require new development to provide safe routes to adjacent transit stops, where applicable, and to finance and/or construct bus turnouts and shelters adjacent to new projects where transit demand warrants such improvements. **T-3.2:** Promote and encourage businesses to provide public transit vouchers as a benefit of employment.	Administrative Services, Community Development – Planning	$22,500 - $45,000	None	**2020:** 2,404 MT CO_2e **2030:** 4,757 MT CO_2e	Achieve a 2% increase in service population transit ridership by 2020 and a 4% increase by 2030. This equates to an approximately 2% reduction in	Near-Term

Measure	Actions	Responsible Parties(s)	Potential Cost (Aggregated)	Potential Savings (Annual)	GHG Reduction Potential (MT CO_2e)	Performance Indicator	Implementation Timeframe
						passenger vehicle VMT in 2020 and 4% reduction in 2030.	
T-4 Commute Trip Reduction: Facilitate programs that give commuters and employers resources and incentives to reduce their single-occupancy vehicle trips.	**T-4.1:** Provide targeted marketing and promotion of commute trip reduction programs to employers such as the SJVAPCD Vanpool Voucher Incentive. **T-4.2:** Provide information on, and links to, vanpool programs and employer services available to local residents/ on the City's website. **T-4.3:** Provide information on and promote existing employer based TDM programs as part of the business licensing and renewal process.	Administrative Services, Community Development – Planning	$45,000 - $90,000	None	**2020:** 1,188 MT CO_2e **2030:** 1,977 MT CO_2e	Achieve a 5% decrease in commute trip VMT by 2020 and an 8% decrease in commute trip VMT by 2030.	Mid-Term
T-5 Traffic Flow and Light-Duty Passenger Vehicle Idling: Implement improvements to smooth traffic flow, reduce idling, and eliminate bottlenecks within Madera.	**T-5.1:** Continue to improve traffic flow and reduce vehicle idling through actions such as synchronized signals and other traffic flow management techniques.	Administrative Services, Community Development – Planning & Public Works	None	None	**2020:** 265 MT CO_2e **2030:** 401 MT CO_2e	Achieve a 10% reduction in vehicle idling in 2020 and a 13% reduction in 2030.	Mid-Term
T-6 Low Carbon Fuel Vehicles and Infrastructure:	**T-6.1:** Implement key recommendations from the San Joaquin Valley PEV Readiness Plan, as they pertain to	Administrative Services, Community	$25,500 - $51,000	None	**2020:** 4,255 MT CO_2e	Achieve a 2.5% reduction in light-duty	Long-Term

Measure	Actions	Responsible Parties(s)	Potential Cost (Aggregated)	Potential Savings (Annual)	GHG Reduction Potential (MT CO_2e)	Performance Indicator	Implementation Timeframe
Increase the availability of alternative fuel infrastructure to increase the number of alternative fuel vehicles.	Madera. **T-6.2:** Develop an alternative fuel resources page on the City's website that provides information on and links to technical guides, funding opportunities, existing financial incentives, fueling station locations, permitting and siting. **T-6.3:** Seek grant funding to install alternative fueling stations for public use.	Development – Planning			**2030:** 11,061 MT CO_2e	vehicle emissions in 2020 and a 6% reduction in 2030. Achieve a switch of 6% of heavy-duty vehicles to alternative fuels (e.g., compressed natural gas) by 2020 and 15% switch to alternative fuels by 2030.	
T-7 Construction and Off-Road Equipment: Reduce GHG emissions associated with construction equipment and off-road vehicles.	**T-7.1:** Provide information on and promote existing financial incentives, such as those offered by the SJVAPCD, to replace or repower in-use, off-road vehicles and equipment. **T-7.2:** Promote the installation of low-maintenance native landscaping, xeriscaping, and turf removal (e.g., via the City's website or through education workshops) to reduce landscape maintenance equipment usage.	Administrative Services, Community Development – Planning, Building & Engineering, Public Works, Parks & Community Services	$22,500 - $45,000	None	**2020:** 135 MT CO_2e **2030:** 584 MT CO_2e	By 2020, 5% of construction vehicles/equipment utilizes new technologies (i.e., repowered engines, electric drive trains), CARB-approved low carbon fuel, or are electrically-powered. By 2030, 10% of	Mid-Term

Measure	Actions	Responsible Parties(s)	Potential Cost (Aggregated)	Potential Savings (Annual)	GHG Reduction Potential (MT CO_2e)	Performance Indicator	Implementation Timeframe
						construction vehicles/equipment utilizes new technologies (i.e., repowered engines, electric drive trains), CARB-approved low carbon fuel, or are electrically-powered. Achieve a 15% reduction in lawn and garden equipment and associated GHG emissions in 2020 and 30% reduction in 2030 as a result of low-maintenance landscaping.	

Measure	Actions	Responsible Parties(s)	Potential Cost (Aggregated)	Potential Savings (Annual)	GHG Reduction Potential (MT CO_2e)	Performance Indicator	Implementation Timeframe
Water and Wastewater							
W-1 Exceed SB X7-7 Water Conservation Target: Adopt a water conservation target that exceeds the SB X7-7 (Water Conservation Act of 2009) target and identify and implement additional water efficiency and conservation measures to meet those targets by 2020 and 2030.	**W-1.1:** Develop, promote, and/or help implement additional water conservation and efficiency programs (e.g., water efficiency audits, point-of-sale replacement/retrofit programs, etc.). **W-1.2:** Conduct additional outreach and promotional activities targeting specific groups within the community (e.g., homeowners, renters, businesses, income-qualified households, etc.). **W-1.3:** Offer water efficiency classes or workshops where community members can learn techniques to incorporate water efficient retrofits and landscaping into homes and businesses. **W-1.4:** Consider implementation of a tiered rate structure to encourage a reduction in community water usage.	Administrative Services, Community Development – Planning & Public Works, Parks & Community Services	$45,000 - $90,000	None	**2020:** 494 MT CO_2e **2030:** 653 MT CO_2e	Exceed SBX7-7 water conservation target by 5% in 2020 and 8% in 2030.	Near-Term
W-2 Recycled Water: Expand opportunities for the use of recycled water within the community.	**W-2.1:** Promote financial incentives, such as very low interest financing for water recycling projects offered by the State Water Board's Division of Financial Assistance, to encourage private water recycling. **W-2.2:** Provide and promote technical assistance and guidelines for water reuse.	Administrative Services, Community Development – Planning & Public Works	$30,000 - $60,000	None	**2020:** 68 MT CO_2e **2030:** 165 MT CO_2e	Expand recycled water use in the community to 5% of total water usage by 2020 and 10% by 2030.	Mid-Term

Measure	Actions	Responsible Parties(s)	Potential Cost (Aggregated)	Potential Savings (Annual)	GHG Reduction Potential (MT CO_2e)	Performance Indicator	Implementation Timeframe
	W-2.3: Educate the community on graywater and rainwater recycling for irrigation.						
W-3 Wastewater Treatment Plant Upgrades: Increase methane capture and reduce nitrous oxide emissions associated with wastewater treatment.	**W-3.1:** Continue to install solar systems at the wastewater treatment plant to provide a mean for running blowers and other equipment at maximum effectiveness for reducing nitrous oxide emissions, without generating more carbon emissions. **W-3.2:** Closely manage flow rates to identify ways to enable the process to function more efficiently, lowering the production of nitrous oxide.	Administrative Services, Community Development – Planning & Public Works	$4,000 - $8,000	$22,4211	**2020:** 158 MT CO_2e **2030:** 170 MT CO_2e	Achieve a 50% reduction in methane and nitrous oxide emissions and 10% reduction in energy use associated with emissions from treatment of the City's wastewater.	Long-Term
Solid Waste							
S-1 Solid Waste Reduction and Recycling: Increase recycling, composting, source reduction, and education efforts in Madera to reduce the amount of solid waste sent to landfills.	**S-1.1:** Continue to enhance community understanding of resource recovery and waste management programs.	Administrative Services, Community Development – Planning & Public Works	$7,500 - $15,000	None	**2020:** 4,230 MT CO_2e **2030:** 5,921 MT CO_2e	Reduce community solid waste by 25% in 2020 and 35% in 2030. This is equivalent to landfilling no more than 48,115 tons of solid waste in 2020 and 55,139 tons in 2030. The Madera	Mid-Term

Measure	Actions	Responsible Parties(s)	Potential Cost (Aggregated)	Potential Savings (Annual)	GHG Reduction Potential (MT CO_2e)	Performance Indicator	Implementation Timeframe
						community generated 49,194 tons of solid waste in 2007; this amount declined to 42,308 tons in 2013.	
Urban Greening							
U-1 Trees and Vegetation: Facilitate planting of drought-tolerant, low-maintenance native trees and vegetation in Madera.	**U-1.1:** Continue to identify and secure funding to enhance the urban forest within Madera. **U-1.2:** Develop a program to facilitate voluntary tree planting and inventorying within the community, working with non-profit organizations and/or community partners. **U-1.3:** Amend parking standards to limit over-parking and balance parking needs against other City goals, including creating additional space for landscaping to reduce the impact of heat islands.	Administrative Services, Community Development – Planning & Public Works, Parks & Community Services	$4,000 - $8,000	None	**2020:** 34 MT CO_2e **2030:** 68 MT CO_2e	600 new trees and 3 new acres of vegetated land planted in the community by 2020 and an additional 600 trees and 3 acres of vegetated land planted by 2030 (total of 1,200 trees and 6 acres vegetated land by 2030).	Mid-Term

Measure	Actions	Responsible Parties(s)	Potential Cost (Aggregated)	Potential Savings (Annual)	GHG Reduction Potential (MT CO_2e)	Performance Indicator	Implementation Timeframe
Adaptation							
A-1 Climate Change Vulnerability: Identify and periodically reassess regional climate change vulnerabilities.	**A-1.1:** Participate in inter-agency and or inter-jurisdictional meeting and planning activities to periodically reassess projected climate change impacts and vulnerabilities. **A-1.2:** Incorporate discussions of anticipated climate change impacts, risks, and adaptation strategies into relevant City plans.	Administrative Services, Community Development – Planning	$2,000 - $4,000	None	**2020:** N/A **2030:** N/A	N/A	Mid-Term
A-2 Public Health and Safety: Prepare for the anticipated climate change effects on public health and populations that may bear a disproportionate burden of anticipated climate change effects.	**A-2.1:** Identify and address potential heat health risks posed by climate change in the City's local hazard mitigation plan (e.g., improve heat alerts, cooling centers, etc.). **A-2.2:** Collaborate with community-based organizations (such as health care providers, public health advocates, etc.) to increase heat wave preparedness and disseminate public preparedness information, particularly targeting vulnerable populations. **A-2.3:** Work with the Madera County Public Health Department, the Madera County Environmental Health Department, Madera County Behavioral Health Services, and the Community Action Partnership of Madera County to link climate change adaptation	Administrative Services, Public Safety (Fire Department and Police Department), Community Development – Planning	$1,000 - $2,000	None	**2020:** N/A **2030:** N/A	N/A	Mid-Term

Measure	Actions	Responsible Parties(s)	Potential Cost (Aggregated)	Potential Savings (Annual)	GHG Reduction Potential (MT CO_2e)	Performance Indicator	Implementation Timeframe
	strategies with social equity and public health strategies.						
A-3 Water Management: Prepare for the anticipated climate change effects on water resources, including altered timing and amount of precipitation and increased temperatures that influence the availability of water supply, and limit community exposure to threats, such as flooding and drought.	**A-3.1:** Continue to seek grants and other sources of funding to enhance flood control. **A-3.2:** Implement the CAP measures that facilitate water conservation and use of recycled water.	Administrative Services, Community Development – Planning & Public Works	None	None	**2020:** N/A **2030:** N/A	N/A	Mid-Term
A-4 Biodiversity and Habitat: Protect biodiversity and habitats by carefully managing open space and creating connections between areas of undeveloped land.	**A-4.1:** Continue to identify and protect locations where native species may shift or lose habitat due to climate change impacts (e.g., warmer temperatures, drought). **A-4.2:** Collaborate with agencies managing public land to identify or maintain corridors and linkages between undeveloped areas.	Administrative Services, Community Development – Planning	$1,000 - $2,000	None	**2020:** N/A **2030:** N/A	N/A	Long-Term

Measure	Actions	Responsible Parties(s)	Potential Cost (Aggregated)	Potential Savings (Annual)	GHG Reduction Potential (MT CO_2e)	Performance Indicator	Implementation Timeframe
A-5 Infrastructure: Work to improve the resilience of transportation, energy, and other infrastructure critical to community function.	**A-5.1:** Incorporate information on projected climate change impacts into the City's utility master plans and service delivery plans, as appropriate. **A-5.2:** Implement the CAP measures that facilitate energy and water conservation and the use of recycled water and renewable energy.	Administrative Services, Community Development – Planning & Public Works	$2,000 - $4,000	None	**2020:** N/A **2030:** N/A	N/A	Long-Term
A-6 Agriculture: Provide information to and assist farmers in adapting to climate change.	**A-6.1:** Work with entities such as resource conservation districts, cooperative extensions, and other agricultural organizations to introduce adaptation techniques and shorten the time it takes for new scientific findings and adaptive approaches to reach farmers.	Administrative Services, Community Development – Planning	$2,000 - $4,000	None	**2020:** N/A **2030:** N/A	N/A	Long-Term

4.2 Monitoring

The primary goal for implementing climate action measures is to reduce GHG emissions. However, it may be difficult to determine whether the actions being implemented are actually reducing emissions. The key to long-term success in climate action planning is to periodically measure and track reductions associated with Madera's climate action measures. By doing so, the City can ensure that it is getting results. If the City is not getting the anticipated results, then it can reevaluate strategies and decide whether alternative measures would get better results. This section describes the two ways to monitor and track progress: evaluation of the individual measures and evaluation of the plan as a whole.

4.2.1 Measure Evaluation

The City CAP Coordinator, in coordination with the CAP Implementation Team, will be responsible for developing an annual progress report to the City Council regarding measure implementation. This evaluation may be submitted to the City Council in conjunction with the General Plan status report for that year as required by State Government Code Section 65400. The progress report will:

- Identify the implementation status of each measure (including how new development projects have been implementing CAP measures)
- Evaluate achievement of, or progress toward performance criteria
- Assess the effectiveness of measures included in the CAP
- Report on the State's implementation of state-level measures included in the CAP
- Recommend adjustments to actions or tactics, as needed.

The performance indicators, provided for each quantified measure, identify the level of participation or performance required to achieve the estimated level of GHG emissions reductions by 2020 and 2030. The City should track performance indicators for each measure annually. While a full GHG emissions inventory is necessary to assess community-wide and local government progress toward the 2020 goal, tracking performance indicators can provide an indication of progress between inventories and provide insight on the effectiveness of specific actions. By evaluating whether the implementation of a measure is on track to achieve its performance criteria, the City can identify successful measures, and re-evaluate or replace under-performing measures.

4.2.2 Plan Evaluation

Careful tracking of progress of the CAP as a whole is important to ensure that the plan is implemented effectively and to determine the success of GHG mitigation efforts. To evaluate the performance of the CAP as a whole, the City will update the community and municipal GHG inventories every five years using the most up-to-date calculation methods, data, and tools. Inventory updates provide the best indication of CAP effectiveness as they will allow for comparison to the 2007 baseline. If an update reveals that the plan is not making progress toward meeting the GHG reduction target, the City will adjust the measures as necessary.

The City CAP Coordinator, in coordination with the CAP Implementation Team, will be responsible for initiating the inventory updates as well as reporting on the results and progress toward the targets in the annual report to the City Council for that year. In addition, the report will include an assessment of the

State's implementation of state-level measures included in the CAP to determine whether adjustments to the CAP should be made to account for any shortfalls in their implementation.

At this time, the State has not created a mandate for further reductions beyond the 2020 target. It has identified a long-term goal of reducing emissions to 80 percent below 1990 emissions levels by 2050 (in Executive Order S-3-05), and a mid-term target of reducing emissions to 40 percent below 1990 emissions levels by 2030 (in Executive Order B-30-15), but has not adopted the target and does not plan for meeting this goal. According to the Association of Environmental Professionals (2012), "With statewide emissions reductions making up perhaps two-thirds to three-quarters of the reductions that most local climate action plans currently rely upon to meet 2020 goals, after 2020, it will be highly difficult and likely infeasible for a local jurisdiction to achieve substantial reductions on its own…" (p. 9-12). As such, not all climate action plans have targets for years beyond 2020, and of those that do (typically in the context of a general plan update), many include targets lower than Executive Order S-3-05 goals for later years to reflect the lack of state or federal measures beyond AB 32. Furthermore, having a feasible and legally defensible reduction target is important to the success of the plan. Executive Order B-30-15 was issued on April 29, 2015 and CARB is currently working to update the Scoping Plan. The updated Scoping Plan will provide a framework for achieving the 2030 target and is expected to be completed and adopted by CARB in 2016 (CARB 2015). As the year 2020 approaches, and the Scoping Plan is updated with the 2030 target established under Executive Order B-30-15, Madera will re-evaluate its 2030 target for consistency with the Scoping Plan update.

4.3 Funding Resources and Financing/Incentive Programs

One of the main barriers to an implementation and monitoring plan is lack of available funds. There are multiple grant and loan programs through state, federal, and regional sources to reduce GHG emissions. This section identifies potential funding sources that Madera could pursue to offset the financial cost of implementing the CAP measures.

The spectrum of public and private funding options for the measures outlined in this CAP is ever evolving. The programs listed below represent the current (2015) status of those options that are most relevant to the CAP. These funding sources could quickly become out-of-date; therefore, it is important to evaluate the status of a given program before seeking funding, as availability and application processes are updated periodically.

To reduce costs and improve the CAP's effectiveness, actions should be pursued concurrently whenever possible. Which funding sources the City decides to pursue will be addressed as implementation occurs.
The City can, in part, provide funding for various measures outlined in this CAP. This can be accomplished through the City's annual budgeting and Capital Improvement Program process, which provides an opportunity for citizen input and guides decision-makers while helping them set priorities. The City can also partner with SJVAPCD, MCTC, PG&E, Madera County, community-based organizations, and private companies for joint programs.

ENERGY-RELATED FUNDING SOURCES AND FINANCING/INCENTIVE PROGRAMS

Clean Renewable Energy Bonds (CREBs)
U.S. Internal Revenue Service (IRS)

Clean renewable energy bonds (CREB) may be used by certain entities -- primarily in the public sector -- to finance renewable energy projects. The list of qualifying technologies is generally the same as that used for the federal renewable energy production tax credit. CREBs may be issued by electric cooperatives, government entities (states, cities, counties, territories, Indian tribal governments or any political subdivision thereof), and by certain lenders. The bondholder receives federal tax credits in lieu of a portion of the traditional bond interest, resulting in a lower effective interest rate for the borrower. The issuer remains responsible for repaying the principal on the bond.

The Energy Improvement and Extension Act of 2008 (Div. A, Sec. 107) allocated $800 million for new CREBs. In February 2009, the American Recovery and Reinvestment Act of 2009 (Div. B, Sec. 1111) allocated an additional $1.6 billion for New CREBs, for a total New CREB allocation of $2.4 billion. The IRS recently announced the availability of close to $1.4 billion in remaining volume cap for New CREBs. On March 5, 2015, the IRS opened the rolling volume-cap application window for governmental bodies and cooperative utilities, as well as a closed-end application period for public power providers.

Qualified Energy Conservation Bonds (QECBs)

U.S. Internal Revenue Service

The Energy Improvement and Extension Act of 2008, enacted in October 2008, authorized the issuance of Qualified energy conservation bonds (QECB) that may be used by state, local and tribal governments to finance certain types of energy projects. QECBs are qualified tax credit bonds, and in this respect are similar to new CREBs. In contrast to CREBs, QECBs are not subject to a U.S. Department of Treasury application and approval process. Bond volume is instead allocated to each state based on the state's percentage of the U.S. population as of July 1, 2008. Implementing allocations and reallocations most often, but not always, takes place through State Energy Offices.

The definition of "qualified energy conservation projects" is fairly broad and contains elements relating to energy efficiency capital expenditures in public buildings that reduce energy consumption by at least 20%; green community programs (including loans and grants to implement such programs); renewable energy production; various research and development applications; mass commuting facilities that reduce energy consumption; several types of energy related demonstration projects; and public energy efficiency education campaigns. In July 2012 the IRS issued Notice 2012-44 clarifying the meaning of "capital expenditures" and "green community program", and providing guidance on meeting the 20% energy consumption reduction requirement for energy -efficiency related capital expenditures in publicly-owned buildings (see 26 USC § 54D and IRS Notice 2012-44 for additional details). Renewable energy facilities that are eligible for CREBs are also eligible for QECBs.

Business Energy Investment Tax Credit

U.S. Internal Revenue Service

The federal business energy investment tax credit is available to Commercial, Industrial, Investor-Owned Utility, Municipal Utilities, Cooperative Utilities, and Agricultural sectors for solar, fuel cells, small wind turbines, geothermal systems, microturbines, combined heat and power. In general, the original use of the equipment must begin with the taxpayer, or the system must be constructed by the taxpayer. The equipment must also meet any performance and quality standards in effect at the time the equipment is acquired. The energy property must be operational in the year in which the credit is first taken.

Residential Renewable Energy Tax Credit
U.S. Internal Revenue Service

The federal tax credit for residential energy property applies to solar-electric systems, solar water heating systems, fuel cells, small wind-energy systems and geothermal heat pumps. A taxpayer may claim a credit of 30 percent of qualified expenditures for a system that serves a dwelling unit located in the United States that is owned and used as a residence by the taxpayer. Expenditures with respect to the equipment are treated as made when the installation is completed. If the installation is at a new home, the "placed in service" date is the date of occupancy by the homeowner. Expenditures include labor costs for on-site preparation, assembly or original system installation, and for piping or wiring to interconnect a system to the home. If the federal tax credit exceeds tax liability, the excess amount may be carried forward to the succeeding taxable year. The excess credit may be carried forward until 2016, but it is unclear whether the unused tax credit can be carried forward after then.

Residential Energy Conservation Subsidy Exclusion
U.S. Internal Revenue Service

This is a personal tax exemption for energy conservation measures implemented in private residences. The term "energy conservation measure" includes installations or modifications primarily designed to reduce consumption of electricity or natural gas, or to improve the management of energy demand. Eligible dwelling units include houses, apartments, condominiums, mobile homes, boats and similar properties. If a building or structure contains both dwelling units and other units, any subsidy must be properly allocated.

Rural Energy for America Program (REAP) Energy Audit and Renewable Energy Development Assistance (EA/REDA) Program
U.S. Department of Agriculture

The Renewable Energy for America Program (REAP) Energy Audit and Renewable Energy Development Assistance Program (EA/REDA) provides assistance to agricultural producers and rural small businesses for energy audits and renewable energy technical assistance including renewable energy site assessments. Applicants must submit separate applications for assistance, limited to one energy audit and one REDA per fiscal year. The maximum aggregate amount of an energy audit and REDA grant in a Federal fiscal year is $100,000. In 2015, $2 Million in EA/REDA grant funding is available.

Eligible project costs for eligible applicants includes salaries directly related to the project, travel expenses directly related to conducting energy audits or renewable energy development assistance, office supplies (e.g., paper, pens, file folders), administrative expenses, up to a maximum of 5 percent of the grant, which include but are not limited to utilities, office space, operation expenses of office and other project related equipment.

Loan Guarantee Program
U.S. Department of Energy

Under Section 1703, DOE is authorized to issue loan guarantees for projects with high technology risks that "avoid, reduce or sequester air pollutants or anthropogenic emissions of GHGs; and employ new or significantly improved technologies as compared to commercial technologies in service in the United States at the time the guarantee is issued." Loan guarantees are intended to encourage early commercial use of

new or significantly improved technologies in energy projects. The loan guarantee program generally does not support research and development projects.
Loan guarantees are provided in response to open solicitations. A solicitation for Renewable Energy Projects and Energy Efficiency Projects was issued in July 2014, with a final Part I application due date of December 2, 2015. Up to $2.5 billion is available for projects in renewable energy, efficient end-use, and efficient generation, transmission, and distribution technologies.

Weatherization Assistance Program
U.S. Department of Energy

Through the Weatherization Assistance Program (WAP), the U.S. Department of Energy (DOE) issues grants to states, territories, and some Indian tribes to improve the energy efficiency of low-income homes in their jurisdictions. The DOE and state governments do not directly issue grants to low-income families or perform the retrofits. Instead, states, territories and Indian governments contract with local governments and nonprofit agencies who provide the weatherization services. Low-income homes that qualify for the program will receive free weatherization services based on the needs of the home, and the rules established by the state. Interested low-income families will need to apply for assistance through their state weatherization agency. Each state establishes its own income requirements based on DOE guidelines.

Weatherization as defined by the WAP includes a wide variety of energy efficiency measures that encompass the building envelope, its heating and cooling systems, its electrical system, and electricity consuming appliances. WAP serves low-income homes free of charge and limits the amount of money that can be spent on any single residence as determined by federal rules. The adjusted average expenditure limit for program year 2015 is $7,105.

Low Income Home Energy Assistance Program (LIHEAP)
U.S. Department of Health and Human Services

The Low Income Home Energy Assistance Program (LIHEAP) provides resources to assist families with energy costs. This federally funded assistance helps in managing costs associated with home energy bills, energy crises, and weatherization and energy-related minor home repairs. The LIHEAP program may require households to meet additional eligibility criteria to receive LIHEAP assistance.

PowerSaver Loan Program
Federal Housing Administration

Federal Housing Administration PowerSaver loans provide three financing options for homeowners to make home energy efficiency and renewable energy upgrades or improvements. Eligible home energy upgrades include, but are not necessarily limited to, the following:

- A whole home upgrade through Home Performance with ENERGY STAR
- Insulation and air sealing
- Replacing doors and windows
- Upgrading heating, ventilation, and air-conditioning systems and hot water systems
- Home automations systems and controls (e.g., smart thermostats)

- Installing solar photovoltaic (PV) systems, solar thermal hot water systems, small wind power, or geothermal heat pumps

Sustainable Energy Bond Program
California Statewide Communities Development Authority & Foundation for Renewable Energy and Environment

California Statewide Communities Development Authority and the Foundation for Renewable Energy and Environment are teaming together to provide public agencies and nonprofit organizations throughout California with access to tax exempt financing for critical sustainable energy investments. Under the Sustainable Energy Bond Program, participating entities and organizations will contract with an energy service company to complete energy and water conservation measures. Improvements could include street lighting, building lighting, pumps, HVAC, system controls, boilers, chillers, ducting, windows, partial roofing, toilets and others. The program participants will receive substantial utility cost savings, including a contractual guarantee sufficient to cover the full cost of all retrofit work. All projects are financed through tax exempt bonds.

Multi-Family Residential Energy Efficiency Rebate Program
PG&E

PG&E offers prescriptive rebates for owners and managers of multi-family properties of two or more units. Appliances, boilers, water heating, HVAC, and lighting improvements are among the eligible products for rebates. All equipment must meet program requirements listed on the PG&E program website or application forms. Owners or managers can receive rebates for singular improvements or a range of upgrades implemented. Maximum total incentive amounts may apply:

- Clothes Washers (inside tenant dwelling): $50
- Clothes Washers (in common area laundry room): $175
- Refrigerator: $75/unit
- Water Heaters: $200 - $500
- Boilers: $1,500/system
- Replacement Multiple-Speed or Variable-Speed Motors (VSM): $50
- Furnaces: $150 - $300
- Lighting: Varies by type
- Variable-Speed Pool Pumps: $100/Unit
- Commercial Pool Heater: $2/MBtu/h

California Inventor Owned Utilities (IOUs) Programs
PG&E

California IOU's, such as PG&E, are required by the California Public Utilities Commission to offer energy efficiency programs to their customers. Each IOU program is unique; generally the programs offer rebates, financing assistance, design and building benchmarking assistance, educational seminars, and other forms of assistance. Rebates are typically a set amount of financial assistance for a specific energy efficiency technology, although PG&E also offers custom rebate programs that are more flexible.

In conjunction with its rebates and incentives programs, PG&E offers On-Bill Financing. On-Bill Financing provides interest-free, unsecured financing to qualified commercial and government-funded customers for the installation of energy-efficient upgrades. Financed equipment must qualify for a rebate or incentive from PG&E's rebate/incentive program(s). The program for local governments, such as the City of Madera, includes: zero-percent financing on qualifying measures for up to ten years; offsets to energy-efficient upgrade costs after rebates and incentives through PG&E; loan amounts that range from a minimum of $5,000 up to $250,000 per meter; and loan installments that are added to monthly PG&E bills. Website: www.pge.com/en/mybusiness/save/rebates/bybusiness/govt_local.page

Local Government Renewable Energy Self-Generation Bill Credit Transfer Program (RES-BCT)
PG&E

The RES-BCT program (formerly AB 2466) was established by the Legislature effective January 1, 2009 and is codified in Section 2830 of the Public Utilities Code. It allows a local government with one or more eligible renewable generating facilities to export energy to the grid and receive generation credits to benefitting accounts of the same Local Government (AB 1031 expanded applicability to universities). AB 512, signed into law in 2011 and effective on January 1, 2012, further modified this program to increase the generator size limit to 5 MW per generation account. Website: www.pge.com/en/mybusiness/services/nonpge/generateownpower/tranferpgm.page

California Solar Initiative – Solar Thermal Program
PG&E

Originally restricted to just solar water heaters, the program was expanded by California Public Utilities Commission Decision 13-02-018 in February 2013 to include other solar thermal technologies, including solar process heating, solar cooling, and non-residential solar pool heating. There are different incentive levels depending on whether the solar water heating system displaces electricity, natural gas, or propane. Incentives for systems with a capacity of 250 kW-thermal or less will be paid upfront based on the OG-300 estimated first year energy savings. Larger systems will receive 70 percent of the incentive upfront, with the remaining 30 percent paid after 12 consecutive months, based on actual metered energy savings. Similar to the PV incentives offered through the California Solar Initiative, the incentives offered through this program will step down four times as installation milestones are met. Steps will decline separately in each service territory and for the four general customer classes.

Self-Generation Incentive Program
California Public Utilities Commission

The Self-Generation Incentive Program (SGIP) offers incentives to customers who produce electricity with wind turbines, fuel cells, various forms of combined heat and power (CHP) and advanced energy storage. Beginning in May 2012, all technologies previously eligible for the expired Emerging Renewables Program are now eligible for the SGIP program. Systems less than 30 kW will receive their full incentive upfront. Systems with a capacity of 30 kW or greater will receive half the incentive upfront, and the other half will be paid over the following five years based on the actual performance. PG&E administers the SGIP program in its service territories. Incentive amounts are as follows:

- Wind: $1.07/W

- Waste Heat to Power: $1.07/W
- Pressure Reduction Turbine: $1.07/W
- Internal Combustion Engine (CHP): $0.44/W
- Microturbine (CHP): $0.44/W
- Gas Turbine (CHP): $0.44/W
- Advanced Energy Storage: $1.46/W
- Biogas: $1.46/W
- Fuel Cell (CHP or Electric Only): $1.65/W

Energy Efficiency Financing Program
California Energy Commission

The California Energy Commission offers low-interest loans (one percent) to help local jurisdictions finance energy efficiency and renewable energy projects in their buildings and facilities. Projects with proven energy and/or capacity savings are eligible, provided that they meet the eligibility requirements. Examples of projects include: lighting system upgrades, pumps and motors, streetlights and LED traffic signals, energy management systems and equipment controls, building insulation, renewable energy generation and combined heat and power projects, load shifting projects such as thermal energy storage, HVAC equipment, and waste water treatment equipment. There is no minimum loan amount, but the maximum loan amount per application is $3 million. Website: http://www.energy.ca.gov/efficiency/financing/index.html

TRANSPORTATION-RELATED FUNDING SOURCES AND FINANCING/INCENTIVE PROGRAMS

Many federal, state, and regional grant programs are available to fund transportation and infrastructure improvements. The programs listed below represent the current status of the most relevant of these programs.

Livability Grant Program
U.S. Department of Transportation, Federal Transit Administration

The Federal Transportation Authority provides resources on sustainable communities and transit oriented development. This includes access to transit oriented development resources and training free of charge to local government employees. The Federal Transportation Authority's Livable and Sustainable Communities program supports initiatives that demonstrate ways to improve the link between public transit and communities. The Federal Transportation Authority offers a broad selection of Livability Grant Programs that fund projects for accessible, livable, and sustainable communities. In particular, the Bus and Bus Facilities Discretionary Program provides capital assistance for new buses and intermodal transit centers. The Bus Livability Discretionary Grants program provides unallocated Section 5309 Bus and Bus Facilities money to projects that increase transportation options, provide access to jobs and affordable housing, encourage economic development, and improve accessibility to transportation for the public. The program funds capital expenses for projects ranging from intermodal facilities, to sustainability oriented buses, to bicycle infrastructure and more. The Intercity Bus Program supports transit access to residents in non-urbanized areas. Additionally, the Rural Transit Assistance Program provides a source of funding to assist in the design and implementation of training and technical assistance projects and other support services tailored to meet the needs of transit operators in non-urbanized areas. While there are no current notices of

funding availability posted on the Department's website, additional funding may become available in the future.

Alternative and Renewable Fuel and Vehicle Technology Program
California Energy Commission

Assembly Bill 118 created the Alternative and Renewable Fuel and Vehicle Technology Program, within the California Energy Commission. The statute authorizes the Energy Commission to develop and deploy alternative and renewable fuels and advanced transportation technologies to help attain the state's GHG reduction goals and reduce our dependence on foreign oil. The statute allows the Energy Commission to use grants, loans, loan guarantees, revolving loans, and other appropriate measures. Eligible recipients include: public agencies, private businesses, public-private partnerships, vehicle and technology consortia, workforce training partnerships and collaboratives, fleet owners, consumers, recreational boaters, and academic institutions. The Energy Commission must prepare and adopt an Investment Plan and convene an Advisory Committee to assist in preparing the Investment Plan. The Energy Commission has an annual program budget of approximately $100 million.

Sustainable Transportation Planning Grant Program
Caltrans

The Sustainable Transportation Planning Grant Program was created to support Caltrans' current Mission: *Provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability.* The Grant Program's current goals emphasize transportation planning efforts that promote sustainability and support the following overarching objectives: sustainability, preservation, mobility, safety, innovation, economy, health, and equity. Caltrans recently awarded $9.8 million in funding for the Fiscal Year 2015-2016 awards. Additional funding may be available for Fiscal Year 2016-2017.

Infrastructure State Revolving Fund Program
California Infrastructure and Economic Development Bank

The Infrastructure State Revolving Fund Program provides low-cost financing to public agencies for a wide variety of infrastructure projects. Program funding is available in amounts ranging from $250,000 to $10 million, with loan terms of up to 30 years. Eligible project categories include city streets, county highways, state highways, drainage, water supply and flood control, educational facilities, environmental mitigation measures, parks and recreational facilities, port facilities, public transit, sewage collection and treatment, solid waste collection and disposal, water treatment and distribution, defense conversion, public safety facilities, and power and communications facilities.

SJVAPCD Grants & Incentives
San Joaquin Valley Air Pollution Control District

The SJVAPCD Grants & Incentive team develops, implements and administers the District's numerous grants and incentive programs. These highly successful programs are voluntary and reduce emissions, favorably impacting air quality in the San Joaquin Valley.

The SJVAPCD currently offers funding for the following programs for public agencies:

- **Bike Paths** – Provides funds to establish bicycle infrastructure such as Class I or Class II bicycle paths.
- **E-Mobility Commerce** – Provides funds to develop or expand electronic telecommunications services.
- **School Bus Programs** – Provides funds to retrofit existing school buses with ARB verified Level-3 diesel emission control systems, or replace existing high-polluting buses with new, low-emission buses.
- **Public Transportation Subsidy and Park & Ride Lots*** – Provides funds to subsidize transportation passes for bus, shuttle and commuter rail services. Funds are also available for the construction of park and ride lots.
- **Alternate Fuel Mechanic Training*** – Provides funds for mechanic education or training in alternative-fuel vehicles and infrastructure.
- **Public Benefit** – Provides funds to purchase new, alternative-fuel vehicles and infrastructure and develop advanced transit and transportation systems.
- **Heavy Duty Waste Haulers*** – Provides incentives for cleaner heavy-duty waste haulers to solid waste transportation companies and owner/operators hauling from waste transfer stations to landfills and waste facilities within the District boundaries.

The District currently offers funding for the following programs for local residents:

- **Polluting Automobile Scrap & Salvage** – Provides free auto emission evaluation and repair vouchers to residents.
- **Burn Cleaner** – Provides incentives to change out open hearth and older, polluting wood-burning devices for cleaner, wood- and gas-burning devices.
- **Vanpool Voucher** – Provides incentives to encourage vanpooling to reduce single occupant vehicle commutes.
- **Drive Clean*** – Provides rebates towards the purchase of eligible new, clean-air vehicles.
- **Clean Green Yard Machines** – Provides incentives to replace gas-fueled lawn and garden equipment for new zero-emission electric equipment.

The District currently offers funding for the following programs for local businesses:

- **Hybrid Voucher Program** – Provides incentives to vehicle owners to purchase new hybrid and electric trucks and buses.
- **Forklift Program** – Provides incentives for new electric forklifts.
- **Tractor Replacement Program** – Provides incentive to replace in-use, off-road tractors and mobile equipment used in agricultural operations.
- **Off-Road Mobile Equipment Repowers** – Provides incentives to repower in-use, heavy-duty, off-road equipment.
- **Off-Road Replacement** – Provides incentives to replace mobile in-use, off-road, heavy-duty equipment used in construction and other non-agricultural operations.

- **Ag Pump Replacement** – Provides incentives to repower or replace irrigation pump engines/motors used in agricultural operations.
- **Truck Voucher Program** – Provides incentives to small business truck owners, located in the San Joaquin Valley, to replace or retrofit heavy-duty, on-road diesel trucks through a streamlined process.
- **Trucks: Prop 1B** – Provides incentives to truck owners for truck replacement for heavy-duty on-road trucks involved in goods movement.
- **Locomotive Program** – Provides incentives to railroads to purchase new, lower-emission locomotives.

*Programs indicated with an asterisk above are also available to local businesses.

OTHER FUNDING SOURCES AND FINANCING/INCENTIVE PROGRAMS

Beverage Container Recycling Grant and Payment Programs
California Department of Resources Recycling and Recovery (CalRecycle)

CalRecycle administers funding programs to assist organizations with establishing convenient beverage container recycling and litter abatement projects, and to encourage market development and expansion activities for beverage container materials. The Beverage Container Recycling Grant provides funding to local governments, businesses, individuals, and non-profit organizations for projects that implement new programs or enhance existing programs to provide convenient beverage container recycling opportunities in various locations statewide. Eligible projects include, but are not limited to, the following locations: parks and recreational areas, sporting complexes, community events, office buildings, multifamily dwellings, restaurants, and schools and colleges. CalRecycle issues up to $1.5 million annually for this program. The City/County Payment Program provides a total of $10.5 million in grant funds annually to eligible cities and counties for beverage container recycling and litter abatement activities. Each city is eligible to receive a minimum of $5,000 or an amount calculated by the Department based on per capita, whichever is greater.

Water-Energy Grant Program
Department of Water Resources

The Water-Energy Grant Program provides funds to implement water efficiency programs or projects that reduce GHG emissions, and reduce water and energy use. The funding for this program was approved by the Governor on March 1, 2014 through Senate Bill 103, Section 11, which appropriated funds from the GHG Reduction Fund to the California Department of Water Resources to establish a grant program. A total of $19,000,000 of funding is available to local agencies, joint powers authorities, and nonprofit organizations to fund residential water efficiency, commercial water efficiency, institutional water efficiency programs, or projects that reduce GHG, reduce water and reduce energy use. On March 30, 2015, DWR released the draft funding recommendations and evaluation forms for public comment, which are available on the Department's website: www.water.ca.gov/waterenergygrant/index.cfm

Urban and Community Greenhouse Gas Reduction Fund Grants
California Department of Forestry and Fire Protection (CAL FIRE)

The mission of the California Department of Forestry and Fire Protection's Urban Forestry Program is to lead the effort to advance the development of sustainable urban and community forests in California. Through

the Urban and Community Forestry Program CAL FIRE offers grants to eligible applicants on an annual basis as funding permits. Funding for the grant programs varies from year to year and is based on the availability of state and federal funding sources and approval of budgets for each fiscal year. These grants are designed to assist environmental justice communities to create or implement multi-benefit projects with a focus on reducing GHG emissions. Application deadlines have closed for the 2014/2015 grant period which included grants for the following project types: "Green Trees for The Golden State", Urban Forest Management for GHG Reduction, Urban Wood and Biomass Utilization, "Woods in the Neighborhood", and "Green Innovations" Projects. CAL FIRE has been identified to receive funding in the FY 2015/16 Governor's Budget. There will be no certainty on receiving this funding until the budget is signed. All information on future funding opportunities will be on CAL FIRE's Grant website: www.fire.ca.gov/grants/grants.php.

Environmental Enhancement and Mitigation (EEM) Program
California Natural Resources Agency

The EEM Program was established by the Legislature in 1989 and amended on September 26, 2013. It offers $7 million each fiscal year for grants to state, local, federal and nonprofit organizations. Applications for the 2014-2015 grant cycle must be postmarked by July 13, 2015. Eligible projects must be directly or indirectly related to the environmental impact of the modification of an existing transportation facility or construction of a new transportation facility (CA Constitution, Art.XIX, Sec.1). The EEM Program encourages projects that produce multiple benefits which reduce GHG emissions, increase water use efficiency, reduce risks from climate change impacts, and demonstrate collaboration with local, state and community entities. Grants are awarded in the following categories:

- **Urban Forestry Projects** are designed to offset vehicular emissions of carbon dioxide through the planting of trees and other suitable plants.
- **Resource Lands Projects** are for the acquisition, restoration, or enhancement of resource lands (watersheds, wildlife habitat, wetlands, forests, or other significant natural areas) to mitigate the loss of or detriment to such lands within or near the right of way for transportation improvements.
- **Mitigation Projects Beyond the Scope of the Lead Agency** responsible for assessing the environmental impact of the proposed transportation improvement.

Partnerships with Other Jurisdictions and Community Organizations
Partnering with neighboring jurisdictions and community organizations is a key implementation strategy supporting the CAP. Various jurisdictions and organizations within the County could serve as potential partners in implementing the CAP strategies. The City should seek to partner with appropriate local and regional agencies or organizations, as identified within CAP measures.



Chapter 5.0
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Appendix A

City of Madera Community-wide Greenhouse Gas Emissions Inventory

City of Madera Community-wide Greenhouse Gas Emissions Inventory

August 2014

Prepared for:

City of Madera
205 W. 4th Street
Madera, CA 93637

Prepared by:

Rincon Consultants, Inc.
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EXECUTIVE SUMMARY

The City of Madera Community-wide Greenhouse Gas (GHG) Emissions Inventory identifies the sources and quantities of GHG emissions from community-wide activities within the City of Madera's jurisdictional boundaries. It includes a baseline inventory for the 2007 calendar year and a business-as-usual forecast (i.e., under existing conditions without new GHG emissions reduction measures) for the years 2020 and 2030.

The information presented in this document provides critical insights into the categories of activities, or sectors, that emit GHGs, establishes a baseline from which the City can set reduction targets and monitor changes in future emissions, and indicates where the greatest opportunities to reduce emissions lie. In addition, the forecasts provide understanding as to how future emissions may change based on projected growth in the community.

The inventory was developed following State-recommended methodologies detailed in the U.S. Community Protocol for Accounting and Reporting of Greenhouse Gas Emissions (U.S. Community Protocol) (October 2012) and using the Statewide Energy Efficiency Collaborative ClearPath tool. It quantifies community-wide GHG emissions for six categories of activities, or sectors, within the City of Madera's jurisdictional boundary, which are described in **Table ES.1**.

What are Greenhouse Gas Emissions (GHGs)?

Gases that trap heat in the Earth's atmosphere are called greenhouse gases, or GHGs. GHGs include carbon dioxide, methane, nitrous oxide, and fluorinated gases. While many of these gases occur naturally in the atmosphere, modern human activity has led to a steep increase in the amount of GHGs released into the atmosphere over the last 100 years. Collectively, these gases intensify the natural greenhouse effect, thus causing global average surface temperatures to rise, which in turn affects global climate patterns. GHGs are often quantified in terms of carbon dioxide (CO_2) equivalent, or CO_2e, a unit of measurement that equalizes the potency of GHGs (Intergovernmental Panel on Climate Change [IPCC], 2007).

Table ES.1 GHG Emissions Sectors Included in Community-wide GHG Inventory

Sector	Source/Activity
Residential Energy	Fuel (electricity and natural gas) consumption in residential buildings
Commercial/Industrial Energy	Fuel (electricity and natural gas) consumption in commercial, industrial, and public facilities
Transportation & Mobile Sources	On-road vehicle miles travelled (VMT)*
	Fuel consumption (gasoline, diesel, and compressed natural gas [CNG]) in off-road equipment
Solid Waste	Decomposition of waste generated by the community and sent to landfills
Water	Fuel (electricity and natural gas) used to distribute and transport potable water
Wastewater	Electricity consumption from the operation of wastewater treatment facilities
	Process emissions from wastewater treatment facility

*Includes VMT from vehicle trips generated by land uses within the city. As such, these trips have an origin and/or destination within the City of Madera, and pass-through trips are not included in this total. See Section 3.3.1.

2007 Baseline Inventory

In 2007, the Madera community as a whole emitted approximately 324,690 metric tons of carbon dioxide equivalent GHG emissions (MT CO_2e) from the Residential Energy, Commercial/Industrial Energy, Transportation & Mobile Sources, Solid Waste, Water, and Wastewater sectors. As shown in **Figure ES.1** and **Table ES.2**, the Transportation & Mobile Sources sector was the largest source of emissions, generating approximately 188,585 MT CO_2e, or 58.1% of total emissions in 2007. Transportation & Mobile Sources sector GHG emissions are the result of fuel combustion in on-road vehicles and off-road equipment in Madera. The Residential Energy sector was the second largest source of 2007 emissions, generating 65,210 MT CO_2e, or 20.1% of total community-wide emissions, as a result of electricity and natural gas consumed in residential buildings. Madera's Commercial/Industrial Energy sector produced 54,387 MT CO_2e, or 16.7% of total community-wide emissions, as a result of electricity and natural gas consumption in non-residential buildings. The Solid Waste sector resulted in 12,973 MT CO_2e, or 4.0% of total GHG emissions, as a result of landfilled solid waste generated by the community. The remainder of GHG emissions resulted from the Water sector (2,840 MT CO_2e or 0.9%) and Wastewater sector (695 MT CO_2e or 0.2%).

Figure ES.1 Community-wide GHG Emissions by Sector (2007)

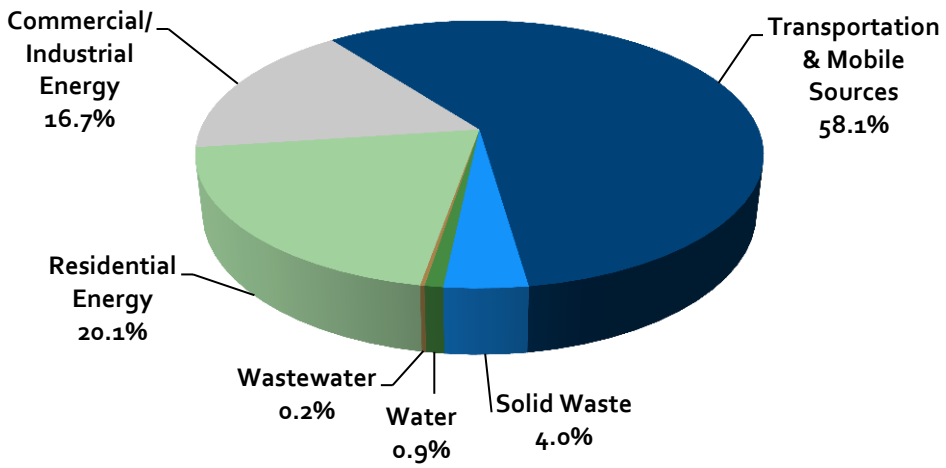


Table ES.2 Community-wide GHG Emissions by Sector (2007)

Sector	GHG Emissions (MT CO_2e)	% of Total
Residential Energy	65,210	20.1%
Commercial/ Industrial Energy	54,387	16.7%
Transportation & Mobile Sources	188,585	58.1%
Solid Waste	12,973	4.0%
Water	2,840	0.9%
Wastewater	695	0.2%
Total	**324,690**	**100.0%**

2020 and 2030 Emissions Forecast

The GHG emissions forecast provides a 2007 "business-as-usual" estimate of how community-wide GHG emissions would change in the years 2020 and 2030 if consumption trends continue as they did in 2007, absent any new federal, state, regional, or local policies or actions that would reduce GHG emissions. The year 2020 was selected for the forecast in order to maintain consistency with California State Assembly Bill (AB) 32.[1] The year 2030 was selected to maintain consistency with the City of Madera General Plan horizon year.

As shown in **Figure ES.2** and **Table ES.3**, if consumption trends continue the pattern observed in 2007 and accounting for projected growth in population, jobs, and VMT, community-wide emissions will reach 418,797 MT CO_2e in 2020 and 511,542 MT CO_2e in 2030. This represents a 29% increase in emissions over 2007 baseline levels by 2020 and 58% increase in emissions over 2007 baseline levels by 2030.

Figure ES.2 2020 and 2030 Community-wide GHG Emissions Forecast

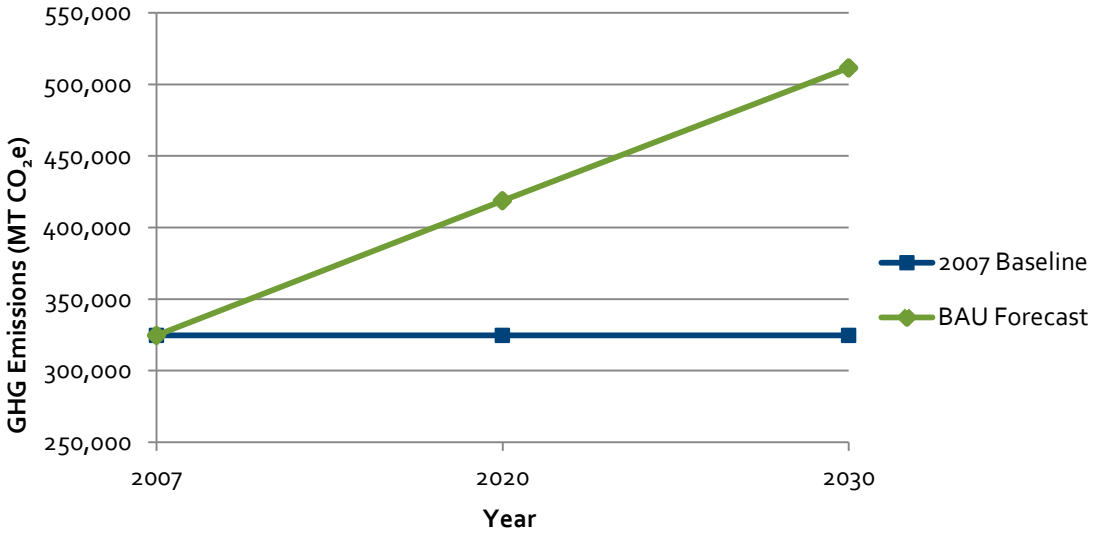


Table ES.3 2020 and 2030 Community-wide GHG Emissions Forecast Summary

Sector	2007 Emissions (MT CO_2e)	2020 Emissions (MT CO_2e)	2030 Emissions (MT CO_2e)	% Change from 2007 to 2020	% Change from 2007 to 2030
Residential Energy	65,210	85,042	102,855	30%	58%
Commercial/ Industrial Energy	54,387	79,891	98,230	47%	81%
Transportation & Mobile Sources	188,585	232,336	284,419	23%	51%
Solid Waste	12,973	16,918	20,462	30%	58%
Water	2,840	3,704	4,480	30%	58%
Wastewater	695	906	1,096	30%	58%
Total	**324,690**	**418,797**	**511,542**	**29%**	**58%**

[1] AB 32 establishes a GHG emission target for the State of California to reduce statewide emissions to 1990 levels by the year 2020.

1.0 INTRODUCTION

A community-wide GHG emissions inventory estimates the quantity of GHG emissions associated with community sources and activities taking place during a specific analysis year. It provides information on the activities that cause emissions and background on the methods used to make the calculations. Policy makers use GHG emissions inventories to track emission trends, develop strategies to reduce GHG emissions, and assess progress toward meeting reduction goals or targets.

The purpose of the City of Madera Community-Wide GHG Emissions Inventory is to identify the sources and quantities of GHG emissions from community-wide activities within the City's jurisdictional boundaries. The document includes a baseline inventory of GHG emissions for the 2007 calendar year and a business-as-usual forecast for the years 2020 and 2030.

2.0 METHODOLOGY

This section describes the methodology used to conduct the baseline inventory and forecast of GHG emissions within the City of Madera. The community-wide inventory was developed following methodologies detailed in the U.S. Community Protocol and using the Statewide Energy Efficiency Collaborative ClearPath tool, which are supported by the State of California.

2.1 Community-wide vs. Local Government Operations Inventory

In September 2012, the City of Madera completed a Local Government Operations GHG Emissions Inventory (Local Government Operations Inventory) with a 2007 baseline year. The Local Government Operations Inventory is provided in a separate report and includes emissions resulting from facilities that the City owns and/or operates. In 2007, GHG emissions from the City of Madera's local government operations totaled 8,464 MT CO_2e.

The community-wide inventory is the focus of this report and accounts for all GHG emissions associated with activities occurring within the City's jurisdictional boundary (i.e., the area over which the local government has jurisdictional authority or influence). The Local Government Operations Inventory is mostly a subset of the community-wide inventory, meaning that the majority of GHG emissions from the City's facilities and operations are included in this community-wide inventory. For example, electricity and natural gas used in City's buildings is accounted for in the Commercial Energy sector of this community-wide inventory, while government-generated solid waste is accounted for in the community-wide Solid Waste sector. As such, per the U.S. Community Protocol and Local Government Operations Protocol (2010), the government operations inventory should not be added to the community analysis; rather, it should be looked at as a portion of the total community-wide emissions.

2.2 Inventory Scope

This community-wide inventory accounts for GHG emissions resulting from activities and sources within the City of Madera in the 2007 calendar year.[2] GHG emissions forecasts were prepared for the 2020 and 2030 calendar years for consistency with the AB 32 target year[3] and the General Plan horizon year respectively.

Table 2.1 lists the sectors that were included in the GHG emissions inventory, as well as the emission sources and activities, or subsectors, within each sector. These sectors include the sources of GHG emissions significant at the local level for which quantifiable data and reasonable methodologies were available.

Table 2.1 GHG Emissions Sectors and Subsectors

Sector	Subsector
Residential Energy	Electricity consumption in residential buildings
	Natural gas consumption in residential buildings
Commercial/Industrial Energy	Electricity consumption in commercial, industrial, and public facilities
	Natural gas consumption in commercial, industrial, and public facilities
Transportation & Mobile Sources	On-road VMT*
	Fuel consumption (gasoline, diesel, and CNG) in off-road equipment
Solid Waste	Decomposition of waste generated by the community and sent to landfills
Water	Electricity used to distribute and transport potable water
	Natural gas used to distribute and transport potable water
Wastewater	Electricity consumption from the operation of wastewater treatment facilities
	Process emissions from wastewater treatment

*Includes VMT from vehicle trips generated by land uses within the city. As such, these trips have an origin and/or destination within the City of Madera, and pass-through trips are not included in this total. See Section 3.3.1.

2.3 Data Parameters

This inventory was developed with the best-available tools, data, and methodology; however, as with any GHG inventory, there are limitations to representing all sources of emissions in a local jurisdiction. The main factors that limit GHG inventories include: (1) data availability, (2) privacy laws, (3) deficient methodology, and (4) lack of jurisdictional control. It is estimated that sources not included in the inventory comprise less

[2] Action item CON-36.1 of the City of Madera General Plan (2009) states that the City shall establish a baseline inventory of emissions for community-wide sources for the year 2007.

[3] AB 32 establishes a statewide GHG emission reduction target for reaching 1990 GHG emissions levels by the year 2020.

than 5% of total emissions in the community and are therefore anticipated to have a minimal impact. These sources are described below.

- Propane Use: Propane is essentially an unregulated fuel in California (except for storage and safety issues, which are regulated). Because it is an unregulated commodity, no data is collected by the State on propane sales or usage. Madera is an urbanized community with a readily available natural gas system. As such, propane is not anticipated to be widely used and is likely to contribute minimally to community-wide emissions.
- Ozone Depleting Substances (e.g., Leaked Refrigerants and Fire Suppressants): Similar to propane, above, the amount of fugitive refrigerants and fire suppressants cannot be calculated because sales are not tracked.
- Industrial Processes: According to the U.S. Community Protocol, industrial process emissions are likely to be outside the influence of the local government or community at large.
- Agriculture (Enteric Fermentation, Manure Management and Fertilizer Application): No major livestock activities occur within the City of Madera. As such, agriculture sector emissions from enteric fermentation and manure management are considered "de minimis"[4] or insignificant. In addition, the U.S. Community Protocol does not include a method for calculating GHG emissions from fertilizer application, as there is currently no reliable method to calculate those emissions at the local level.
- Air Travel: Aircraft emissions, including the usage of Avgas and jet fuel, are regulated by the Federal Aircraft Administration and are not under the control of the local government. In addition, the Madera Municipal Airport is a general aviation airport which does not provide commercial passenger air travel services.

2.4 Calculating Emissions

2.4.1 Greenhouse Gases

According to the U.S. Community Protocol, local governments should assess emissions of the six internationally recognized GHGs, which are listed in **Table 2.2** below.[5] Each of the GHGs listed differs in its ability to absorb heat in the atmosphere, or in its intensity factor. GHGs are compared in terms of their respective intensity factor per molecule given an atmospheric lifetime of 100 years. The IPCC defines the intensity factor of various GHG emissions on a normalized scale that recasts all GHG emissions in terms of CO_2e, which compares the gas in question to that of the same mass of carbon dioxide (carbon dioxide has an intensity factor of one by definition). **Table 2.2** shows the intensity factor for the six most abundant GHGs.

[4] De minimis is defined as emissions from one or more sources, for one or more gases which, when summed, equal less than 5% of an organization's total emissions (U.S. Community Protocol, p. 53).

[5] Carbon dioxide, methane, and nitrous oxide were the only gases emitted from the community-wide GHG emission sectors identified in Section 2.2 above.

Table 2.2 Intensity Factor of GHGs for a 100-Year Period

GHG	Activity	Intensity Factor (CO_2e)[1]
Carbon Dioxide (CO_2)	Combustion	1
Methane (CH_4)	Anaerobic Decomposition of Organic Waste (Landfills, Wastewater), Fuel Handling	21
Nitrous Oxide (N_2O)	Combustion, Wastewater Treatment	310
Hydrofluorocarbons	Leaking Refrigerants, Fire Suppressants	12-11,700
Perfluorocarbons	Aluminum Production, Semiconductor Manufacturing, HVAC Equipment Manufacturing	6,500-9,200
Sulfur Hexafluoride (SF_6)	Transmission and Distribution of Power	23,900

[1] Values are based on the IPCC Second Assessment Report and United Nations Framework Convention on Climate Change reporting guidelines (IPCC, 1996). Although the IPCC Fourth Assessment Report presents different estimates, the current inventory standard relies on the Second Assessment Report's intensity factors to comply with reporting standards and consistency with regional and national inventories (USEPA, 2011).

2.4.2 Activity Data and Emission Factors

GHG emissions are generally calculated by multiplying activity data by a specific emissions factor, as shown in the basic equation below:

Activity Data x Emission Factor = Emissions

Activity data refer to the relevant measurement of GHG-generating processes such as electricity consumption (kWh), fuel consumed (gallons of diesel, gasoline, or other fuel), etc. An emissions factor is a fraction that conveys the quantity of emissions resulting from a specific use and a given amount of activity data. Two examples of emissions factors are carbon dioxide emissions/kWh generated by an electric utility and carbon dioxide emissions/gallon of fuel used in a particular vehicle. After emissions are calculated, all emissions are then converted to MT CO_2e per the international convention of using intensity factors (refer to Section 2.4.1 above). Specific methods, assumptions, and data sources used to calculate emissions for each sector are detailed in the following sections. The activity data and emission factors used in the inventory are listed by sector in **Table 2.3** and **Table 2.4** below.

Table 2.3 Community-wide Activity Data (2007)

Sector	Subsector	2007 Activity Data	Data Source
Residential Energy	Electricity Consumption	114,603,809 kWh	Pacific Gas and Electric (PG&E)
	Natural Gas Consumption	6,014,954 therms	PG&E
Commercial/ Industrial Energy	Electricity Consumption	135,883,414 kWh	PG&E
	Direct Access Electricity Consumption	99,999 kWh	PG&E
	Natural Gas Consumption	2,809,906 therms	PG&E
Transportation & Mobile Sources	On-Road Transportation	256,504,829 VMT	Madera County Transportation Commission Travel Demand Model, Fehr & Peers
	Off-Road Equipment	923,633 gallons gasoline 10,151,400 gallons diesel 232,700 gallons CNG	California Air Resources Board OFFROAD2007
Solid Waste	Waste Generation	49,194 wet short tons	City, CalRecycle, U.S. Community Protocol
Water	Electricity Use	9,689,542 kWh	Local Government Operations Inventory
	Natural Gas Use	566 therms	Local Government Operations Inventory
Wastewater	Wastewater Treatment Process	Population served: 57,181 0.0000013 kg nitrogen/day 40,000 cubic ft./day digester gas Digester Gas Composition: 70% CH_4	City, Local Government Operations Inventory
	Wastewater - Energy Use	1,714,043 kWh	Local Government Operations Inventory

Table 2.4 GHG Emission Factors

Sector	Subsector	2007 Emission Factors	Data Source
Residential Energy	Electricity Consumption	CO_2: 635.67 lbs./MWh CH_4: 29 lbs./GWh N_2O: 10 lbs./GWh	U.S. Community Protocol (Tables B.8 [PG&E] and B.9)
	Natural Gas Consumption	CO_2: 53.06 kg/MMBtu CH_4: 5 g/MMBtu N_2O: 0.1 g/MMBtu	U.S. Community Protocol (Tables B.1 and B.3)
Commercial/ Industrial Energy	Electricity Consumption	CO_2: 635.67 lbs./MWh CH_4: 29 lbs./GWh N_2O: 10 lbs./GWh	U.S. Community Protocol (Tables B.8 [PG&E] and B.9)
	Direct Access Electricity Consumption	CO_2: 919.64 lbs./MWh CH_4: 29 lbs./GWh N_2O: 10 lbs./GWh	U.S. Community Protocol (Table B.9)
	Natural Gas Consumption	CO_2: 53.06 kg/MMBtu CH_4: 5 g/MMBtu N_2O: 0.1 g/MMBtu	U.S. Community Protocol (Tables B.1 and B.3)
Transportation & Mobile Sources	On-Road Transportation	EMFAC2011 for Madera County	California Air Resources Board EMFAC2011
	Off-Road Equipment	Emissions were obtained directly from the OFFROAD2007 model which has built-in region-specific coefficient sets	California Air Resources Board OFFROAD2007
Solid Waste	Waste Generation	Newspaper: 0.043 MT CH_4/wet short ton Paper: 0.203 0.043 MT CH_4/wet short ton Cardboard: 0.120 0.043 MT CH_4/wet short ton Magazines: 0.049 0.043 MT CH_4/wet short ton Food Scraps: 0.078 0.043 MT CH_4/wet short ton Grass: 0.038 0.043 MT CH_4/wet short ton Leaves: 0.013 0.043 MT CH_4/wet short ton Lumber: 0.062 0.043 MT CH_4/wet short ton	U.S. Community Protocol (Table SW.5)
Water	Electricity Use	CO_2: 635.67 lbs./MWh CH_4: 29 lbs./GWh N_2O: 10 lbs./GWh	U.S. Community Protocol (Tables B.8 [PG&E] and B.9)
	Natural Gas Use	CO_2: 53.06 kg/MMBtu CH_4: 5 g/MMBtu N_2O: 0.1 g/MMBtu	Local Government Operations Protocol (Tables G1 and G3)
Wastewater	Wastewater Treatment Process	N/A	N/A
	Wastewater - Energy Use	CO_2: 635.67 lbs./MWh CH_4: 29 lbs./GWh N_2O: 10 lbs./GWh	U.S. Community Protocol (Tables B.8 [PG&E] and B.9)

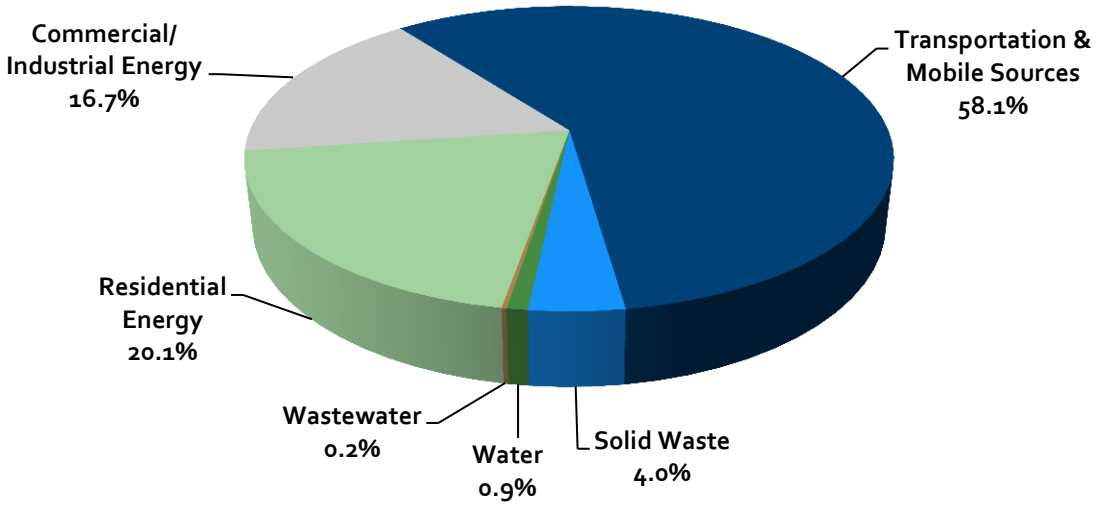
3.0 COMMUNITY–WIDE INVENTORY RESULTS

In 2007, the Madera community as a whole emitted approximately 324,690 MT CO_2e from the Residential Energy, Commercial/Industrial Energy, Transportation & Mobile Sources, Solid Waste, Water, and Wastewater sectors. **Figure 3.1** and **Table 3.1** show the breakdown of GHG emissions by sector and subsector.

Table 3.1 Community-wide GHG Emissions by Sector and Subsector (2007)

Sector	Subsector	GHG Emissions (MT CO_2e)	% of Total
Residential Energy	Electricity Consumption	33,237	51.0%
	Natural Gas Consumption	31,973	49.0%
	Residential Energy Subtotal	**65,210**	**20.1%**
Commercial/ Industrial Energy	Electricity Consumption	39,409	72.5%
	Direct Access Electricity Consumption	42	0.1%
	Natural Gas Consumption	14,936	27.4%
	Commercial/Industrial Energy Subtotal	**54,387**	**16.7%**
Transportation & Mobile Sources	On-Road Transportation	162,670	86.3%
	Off-Road Equipment	25,915	13.7%
	Transportation & Mobile Sources Subtotal	**188,585**	**58.1%**
Solid Waste	Landfilled waste	12,973	100.0%
	Solid Waste Subtotal	**12,973**	**4.0%**
Water	Water - Energy Use	2,840	100.0%
	Water Subtotal	**2,840**	**0.9%**
Wastewater	Wastewater Treatment Process	198	28.5%
	Wastewater - Energy Use	497	71.5%
	Wastewater Subtotal	**695**	**0.2%**
Total		**324,690**	**100.0%**

Figure 3.1 Community-wide GHG Emissions by Sector (2007)



3.1 Residential Energy

The Residential Energy sector includes GHG emissions from electricity and natural gas consumed in residential buildings. In 2007, Madera's Residential Energy sector consumed 114,603,809 kWh of electricity and 6,014,954 therms of natural gas, producing 65,210 MT CO_2e. As shown in **Table 3.1** above, approximately 51% of total residential emissions (33,237 MT CO_2e) were the result of electricity consumption and 49% (31,973 MT CO_2e) were the result of natural gas use.

3.2 Commercial/Industrial Energy

The Commercial/Industrial Energy sector includes GHG emissions from electricity and natural gas consumed in commercial and industrial buildings and public facilities. Electricity and natural gas sold to commercial and industrial customers as bundled service (both energy generation and transmission/distribution) and direct access electricity usage was provided by PG&E.

Madera's Commercial/Industrial Energy sector consumed 135,975,414 kWh of bundled service electricity, 99,999 kWh of direct access electricity, and 2,809,906 therms of natural gas, producing 54,387 MT CO_2e. Approximately 73% of total Commercial/Industrial Sector emissions (39,451 MT CO_2e) were the result of electricity consumption and 27% (14,936 MT CO_2e) were the result of natural gas use.

3.3 Transportation & Mobile Sources

The Transportation & Mobile Sources sector includes GHG emissions from on-road transportation and off-road equipment. In 2007, Transportation & Mobile Sources sector emissions totaled 188,585 MT CO_2e (see **Table 3.2**). This represents approximately 58.1% of Madera's total community-wide GHG emissions. On-road transportation resulted in 86.3% of Transportation & Mobiles Sources sector emissions, which off-road

equipment resulted in the remaining 13.7% of these emissions (see sections 3.3.1 and 3.3.2 for details on these sources).

Table 3.2 Transportation & Mobile Sources GHG Emissions by Source

Source	GHG Emissions (MT CO_2e)	% of Total
On-Road Transportation	162,670	86.3%
Off-Road Equipment	25,915	13.7%
Total	**188,585**	**100.0%**

3.3.1 On-Road Transportation

On-road transportation emissions were derived from community VMT data and regional vehicle and travel characteristics. Community-wide VMT for 2007 was calculated by Fehr & Peers using the Madera County Transportation Commission travel demand model. The VMT for Madera captures vehicle trips generated by land uses within the city. As such, these trips originated and/or terminated within the city limits, and pass-through trips were not included.[6] EMFAC2011 was used to calculate emissions from the VMT. EMFAC defaults for Madera County include regionally-specific information on the mix of vehicle classes and model years, as well as ambient conditions and travel speeds that determine fuel efficiency. Types of emissions accounted for include: running exhaust, idle exhaust, and starting exhaust. On-road transportation emissions totaled 162,670 MT CO_2e in 2007.

3.3.2 Off-Road Equipment

Off-road equipment emissions resulted from the combustion of gasoline, diesel, and CNG used to power off-road equipment within the city. Off-road equipment accounted for in this inventory includes agriculture equipment, lawn and garden equipment, construction vehicles and equipment, light commercial equipment, and industrial equipment. Emissions were obtained directly from the OFFROAD2007 model developed by the California Air Resources Board. The OFFROAD2007 model has built-in coefficient sets based on a region-specific mix of vehicle classes/years, speed, temperature, relative humidity, and associated fuel efficiency. The OFFROAD2007 model provides emissions data for county-wide off-road equipment usage. County-wide emissions were scaled to the local jurisdiction level based on indicators identified in **Table 3.3**.

[6] Per standard practice, 100% of internal-internal vehicle trips (having an origin and destination within the city), 50% of internal-external/external-internal vehicle trips (having an ending or beginning in the city), and 0% of external-external vehicle trips (that pass through the city without beginning or ending in the city) were included in the VMT calculation.

Table 3.3 Equipment Type Indicators

Equipment Type	Allocation Indicator	Source
Agricultural Equipment	Agricultural jobs	U.S. Census Bureau, Center for Economic Studies, On the Map Tool
Construction and Mining Equipment	Construction and mining jobs	U.S. Census Bureau, Center for Economic Studies, On the Map Tool
Industrial Equipment	Manufacturing jobs	U.S. Census Bureau, Center for Economic Studies, On the Map Tool
Lawn and Garden Equipment	Households	California Department of Finance
Light Commercial Equipment	Commercial jobs[1]	U.S. Census Bureau, Center for Economic Studies, On the Map Tool
Recreational Equipment	Population	California Department of Finance

[1] Commercial jobs include the following NAICS industry sectors: utilities, wholesale trade, retail trade, transportation and warehousing, and accommodation and food services.

As shown in **Table 3.4** below, approximately 67% of off-road equipment emissions in 2007 came from agricultural equipment, while 20% were the result of construction and mining equipment. The remaining off-road equipment activities included in this inventory include industrial equipment, lawn and garden equipment, light commercial equipment, and recreational equipment, making up the remaining 13% of emissions collectively. Total emissions from off-road equipment for 2007 are estimated to be approximately 25,915 MT CO_2e. Of the total emissions in the off-road sector, approximately 90% were due to diesel consumption, with the remaining 10% coming from gasoline and CNG use.

Table 3.4 Off-Road Emissions by Source

Source	GHG Emissions (MT CO_2e)	% of Total
Agricultural Equipment	17,395	67%
Construction and Mining Equipment	5,114	20%
Industrial Equipment	1,301	5%
Lawn and Garden Equipment	490	2%
Light Commercial Equipment	1,005	4%
Recreational Equipment	610	2%
Total	**25,915**	**100%**

3.4 Solid Waste

Emissions from the waste sector are an estimate of the methane generation from the decomposition of solid waste sent to landfills in the base year (2007). In 2007, the community generated 49,194 tons of solid waste that was sent to landfills. The U.S. Community Protocol describes the standard waste composition for the State of California by year. Identifying the different types of waste in the general mix is necessary because during decomposition various materials generate methane within the anaerobic environment of landfills at

differing rates. About 75% of landfill methane emissions are captured through landfill gas collection systems, but the remaining 25% escape into the atmosphere.[7] The solid waste sector comprised 4% of total community-wide emissions in 2007 with 12,973 MT CO_2e.

3.5 Water

This sector includes emissions from electricity and natural gas used for the distribution or transport of water. The City of Madera operates a range of water transport equipment, including water delivery pumps and storm water management pumps. Data relating to electricity consumption and natural gas use by this equipment was provided by PG&E. Emissions from water transport totaled approximately 2,840 MT CO_2e in 2007, representing 0.9% of total community-wide emissions.

3.6 Wastewater

Wastewater generated by the community is rich in organic matter and has a high concentration of carbon and nitrogen (along with other organic elements). As wastewater is collected, treated, and discharged, chemical processes in anaerobic conditions lead to the creation and emission of two GHGs: methane and nitrous oxide. Wastewater sector emissions therefore account for these process emissions, as well as emissions resulting from the electricity used to treat and transport the community's wastewater.

In 2007, the Wastewater sector generated 695 MT CO_2e, constituting 0.2% of total community-wide. Approximately 72% (497 MT CO_2e) of these emissions resulted from energy use associated with wastewater collection, treatment, and distribution. The remaining 28% of emissions (198 MT CO_2e) resulted from methane and nitrous oxide generated in the wastewater treatment process.

4.0 2020 AND 2030 EMISSIONS FORECAST

This inventory includes a 2007 "business-as-usual" forecast to 2020 and 2030, estimating emissions that would occur if no new emissions reduction policies were implemented. The year 2020 was selected for the forecast in order to maintain consistency with California State Assembly Bill (AB) 32.[8] The year 2030 was selected to maintain consistency with the City of Madera General Plan horizon year.

[7] US EPA AP 42.

[8] AB 32 establishes a GHG emission target for the State of California to reduce statewide emissions to 1990 levels by the year 2020.

4.1 Methodology

The forecast is based on projected growth trends in population, jobs, and VMT. The forecast relies on population and job projections provided by the City and VMT projections provided by Fehr & Peers using the Madera County Transportation Commission travel model. The forecast is based on the assumption that the number of drivers, electricity and natural gas consumption, solid waste tonnage, water usage, and wastewater generation will increase over time in proportion to the growth in population, jobs, and VMT. As a business-as-usual projection, the forecast does not take into account legislation or regulation implemented after 2007, which will later be accounted for in the city's Climate Action Plan.

The forecasting approach varies for each sector:

- Residential Energy, Solid Waste, Water, and Wastewater sector emissions are correlated with the City of Madera's forecasted population growth, which was provided by the City.
- Commercial/Industrial Energy sector emissions are correlated with forecasted with job growth in Madera, which was also provided by the City.
- On-road Transportation subsector emissions are based on projected growth in VMT provided by Fehr & Peers and were calculated using EMFAC2011.
- Off-road Equipment subsector emissions were calculated using OFFROAD2007.

Table 4.1 Madera's Growth Projections

Growth Indicator	2007	2020	2030	Sector Applied to
Population	57,181	74,571	90,191	Residential Energy, Solid Waste, Water, Wastewater
Jobs	15,258	22,413	27,558	Commercial/Industrial Energy
Annual VMT	256,504,829	333,100,731	410,301,822	On-road Transportation

4.2 Community-wide Emissions Forecast

Under a business-as-usual scenario, Madera's community-wide emissions will grow by approximately 29% by 2020 and 58% by 2030. **Figure 4.1** and **Table 4.2** show the results of the forecast.

Figure 4.1 Community-wide GHG Emissions Forecast for 2020 and 2030

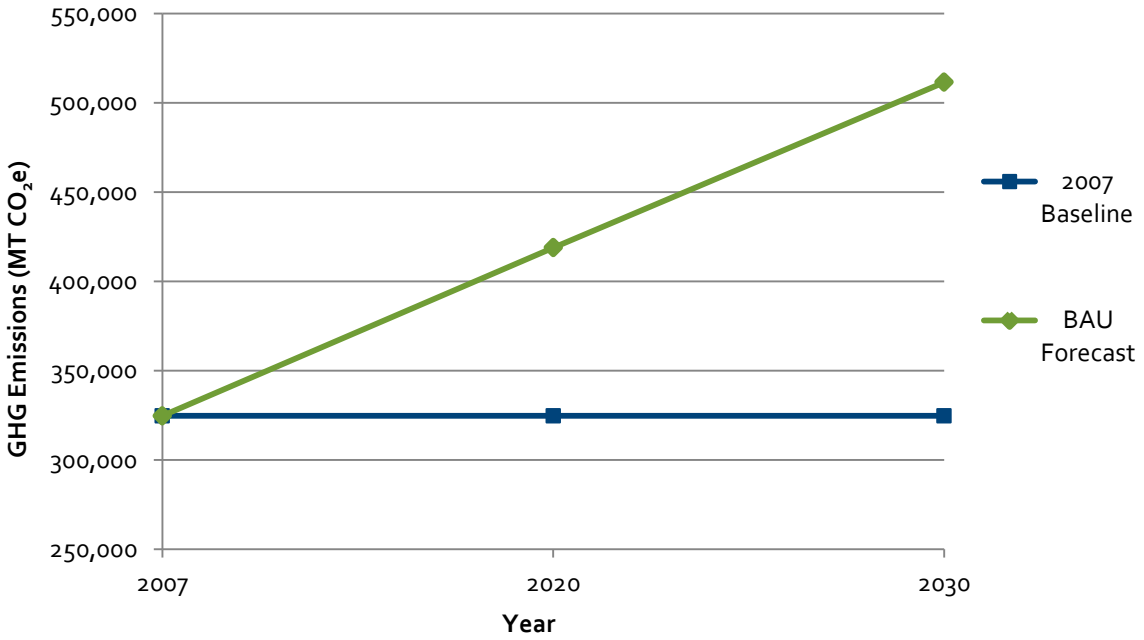


Table 4.2 Community-wide GHG Emissions Forecast for 2020 and 2030

Sector	2007 Emissions (MT CO2e)	2020 Emissions (MT CO2e)	2030 Emissions (MT CO2e)	% Change from 2007 to 2020	% Change from 2007 to 2030
Residential Energy	65,210	85,042	102,855	30%	58%
Commercial/ Industrial Energy	54,387	79,891	98,230	47%	81%
Transportation & Mobile Sources	188,585	232,336	284,419	23%	51%
Solid Waste	12,973	16,918	20,462	30%	58%
Water	2,840	3,704	4,480	30%	58%
Wastewater	695	906	1,096	30%	58%
Total	**324,690**	**418,797**	**511,542**	**29%**	**58%**

5.0 CONCLUSION

This inventory will assist decision makers and stakeholders in identifying opportunities to reduce GHG emissions throughout the City of Madera. It also provides an emissions baseline that the City can use to set future emissions reduction targets. As the City develops its Climate Action Plan, it will use information in this inventory to determine which GHG emissions reduction efforts will be most effective and efficient in achieving the City's GHG emissions target.

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6.2 List of Preparers

This GHG Inventory was prepared by Rincon Consultants, Inc. under contract to the City of Madera. VMT data was provided by Fehr & Peers. Persons involved in research, analysis, report preparation, project management, and quality control include:

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Appendix B

City of Madera Government Operations Greenhouse Gas Emissions Inventory

City of Madera

Government Operations

Greenhouse Gas Emissions Inventory



2007 Baseline Year Narrative Report

Supported by Pacific Gas and Electric Company
In Collaboration with the Economic Development Corporation serving Fresno County, the City of Fresno, and ICLEI-Local Governments for Sustainability USA

September 28, 2012

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Executive Summary

City of Madera Profile

The City of Madera covers over 15.8 square miles and ranges from Fairmead to the north and the City of Fresno to the south. The City of Madera had an estimated population of 55,780 on January 1, 2007 and 56,710 on January 1, 2008. With 200 City employees in the year 2005, there was a ratio of approximately 3.52 employees per one thousand residents. The City of Madera's total budget was $ 115,800 for fiscal year 2007-2008.

The City of Madera is located within Climate Zone 13,[1] according to the U.S. Department of Energy, and is characterized by Dry Semi-Arid environments. The City of Madera records approximately 3,600 heating degree days[2] and 1,100 cooling degree days per year.[3]

The Purpose of Conducting an Inventory

The City of Madera recognizes that the State of California has made greenhouse gas reductions a priority through the passage of AB 32, the Global Warming Solutions Act of 2006. It directed the California Air Resources Board, (ARB) to begin developing discrete early actions to reduce greenhouse gases statewide to 1990 emission levels. The state-created scoping plan indicates how these emission reductions will be achieved from significant greenhouse gas sources via regulations, market mechanisms, and other actions.

Each day, local governments operate buildings, vehicle fleets, streetlights, traffic signals, water systems, and wastewater treatment plants; local government employees consume resources commuting to work and generate solid waste which is sent for disposal. All of these activities directly or indirectly cause the release of carbon dioxide and other greenhouse gases into the atmosphere. This report presents the findings and methodology of a local government operations (LGO) greenhouse-gas emissions inventory for the City of Madera. The inventory measures the greenhouse gas emissions resulting specifically from the City of Madera's government operations, arranged by sector to facilitate detailed analysis of emissions sources. The inventory addresses where and what quantity of emissions are generated through various local government activities. Through analysis of a local government's emissions profile, the City of Madera can tailor strategies to achieve the most effective greenhouse gas emission reductions.

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[1] Pacific Energy Center's Guide to: California Climate Zones, retrieved from http://www.pge.com/includes/docs/pdfs/about/edusafety/training/pec/toolbox/arch/climate/california_climate_zones_01-16.pdf

[2] Heating and Cooling Degree Days are a measurement designed to reflect demand for energy needed to heat or cool a facility, and are calculated as the difference between the average daily temperature for a region and a baseline temperature (usually 65° or 80° F). HDD value is the summation of degrees of the average temperature per day below 65° F for the year. CDD is the summation of degrees of the average temperature per day above 80° F for the year.

[3] NNDC Climate Data, retrieved from http://www7.ncdc.noaa.gov/CDO/CDODivisionalSelect.jsp

These emission-reduction strategies include promoting energy conservation and energy efficiency in buildings and operations, utilizing renewable energy sources where appropriate, recycling and waste reduction, and supporting alternative modes and types of transportation for employees. The benefits of these actions include lower energy bills, improved air quality, more efficient government operations, in addition to the mitigation of climate change impacts.

By conducting this inventory, the City of Madera is developing its capacity to understand and comply with future regulations and requirements around climate change, and is working to improve government services in a smart and targeted way that will benefit all of Jurisdiction's residents.

Inventory Results

Local governments provide different services to their citizens, and the scale of the services (and thus the emissions) is highly dependent upon the size and purview of the local government. For these reasons, comparisons between local government totals should not be made without keen analysis of the basis for figures and the services provided.

The following figures summarize the results of the LGO greenhouse gas emissions inventory for the City of Madera, by sector and source. As illustrated in Figure 1, the sector producing the most greenhouse gas emissions in the City of Madera is the Water and Stormwater Services sector at 35.2%, followed by the Buildings and Facilities sector at 19.5%. As shown in Figure 2, purchased electricity and gasoline are the sources with the greatest percentage of emissions (54.3% and 19.5% respectively). Table 1 delineates the different types of greenhouse gases (CO_2, CH_4, N_2O, etc.), which are assigned a standard metric of carbon dioxide equivalent (CO_2 e), and then combined to describe total emissions of the City.

Figure 1: 2007 Government Operations CO_2e Emissions by Sector

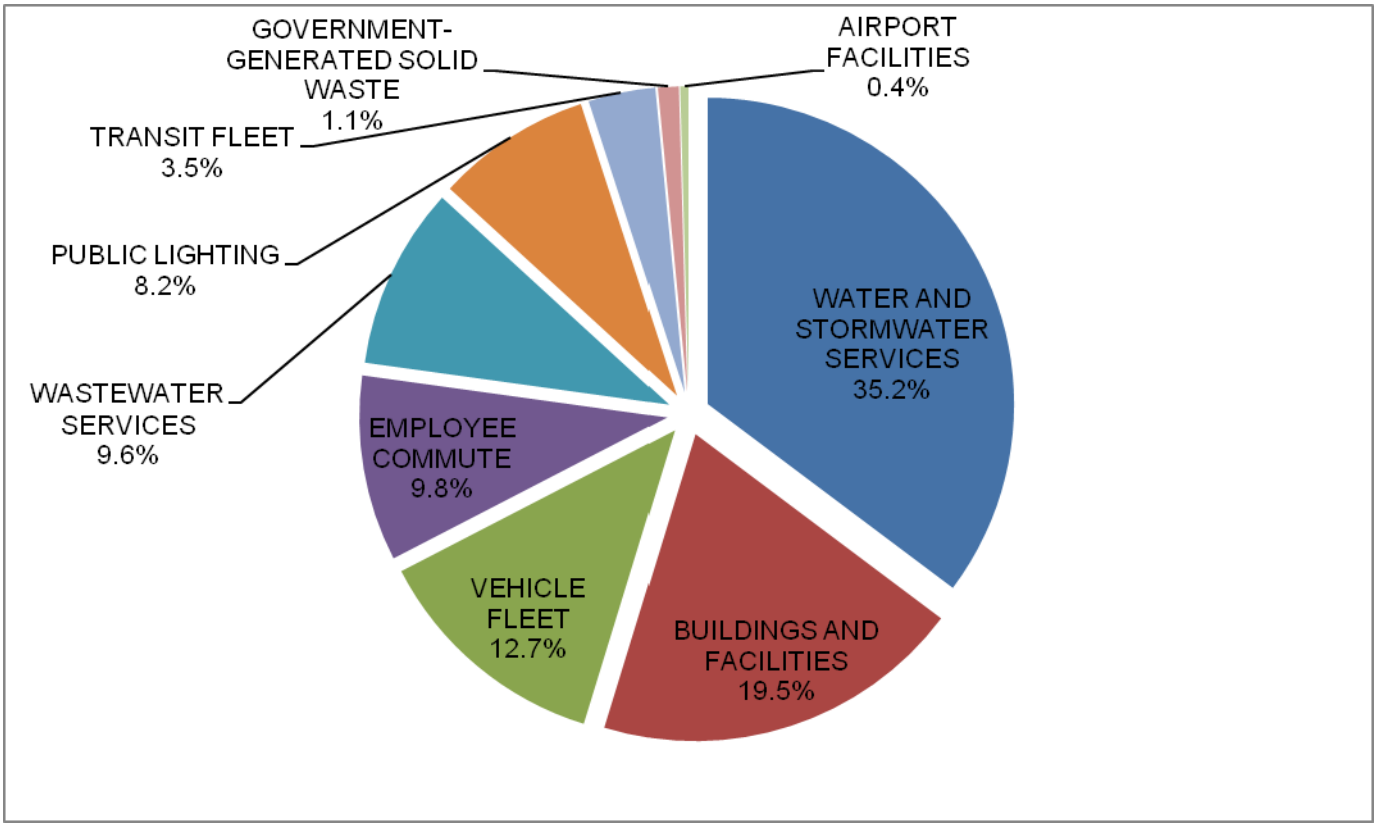


Figure 2: 2007 Government Operations CO_2e Emissions by Source

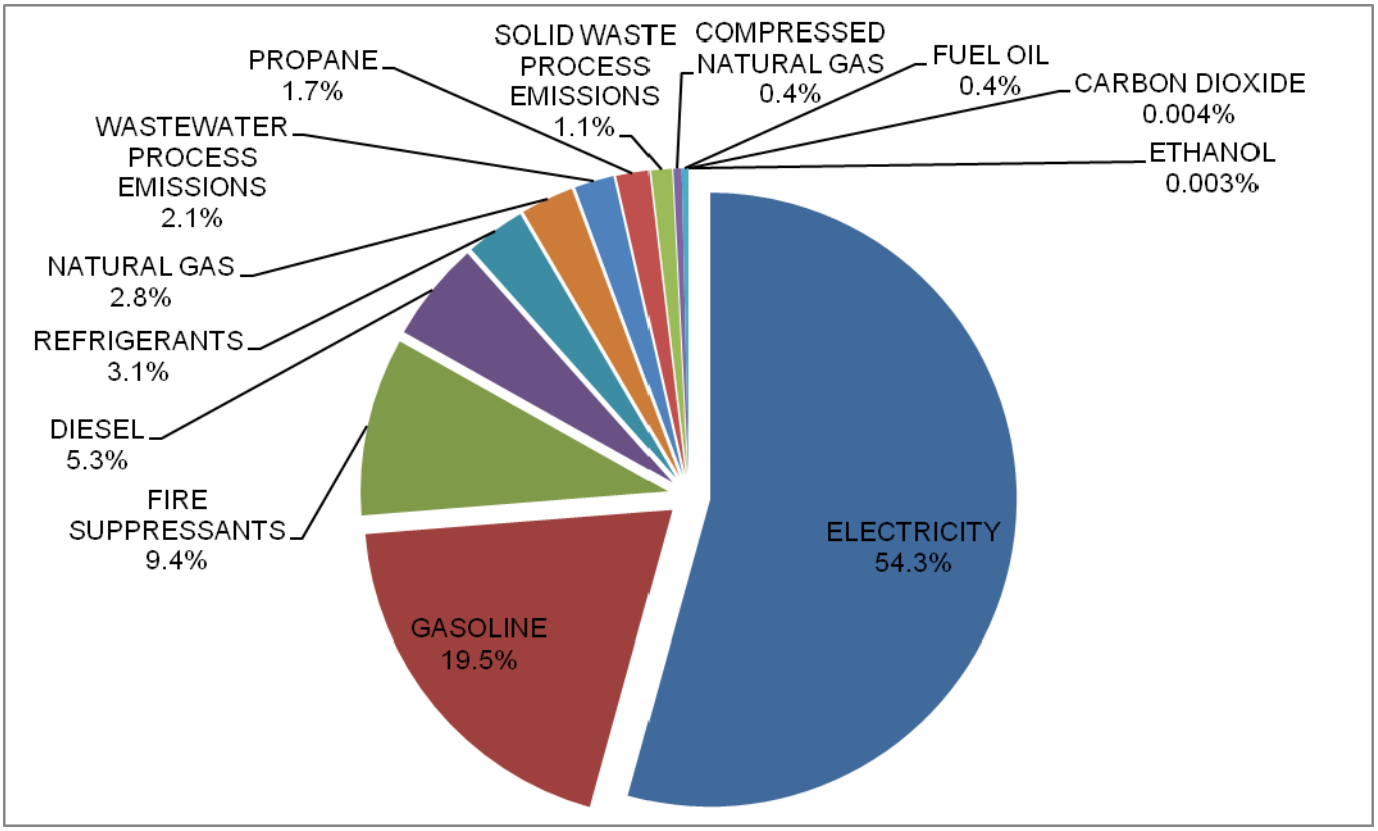


Table 1: Overall Emissions by Scope

Total Emissions	CO_2e	CO_2	CH_4	N_2O	HFC-134A	HFC-236FA	HFC-227EA	R-410A
Scope 1	2,948.70	1,654.02	2.80	0.56	0.04	0.01	0.25	0.12
Scope 2	4,594.65	4,567.99	0.21	0.07	0.00	0.00	0.00	0.00
Scope 3	920.46	818.84	4.46	0.03	0.00	0.00	0.00	0.00

For more detail on the concepts of scopes, sources, and sectors, and to review more granular data produced through the inventory study, please refer to the full report on the following pages.

Regional and Local Context

Climate Change Mitigation Activities in California

Since 2005, the State of California has responded to growing concerns over the effects of climate change by adopting a comprehensive approach to addressing emissions in the public and private sectors. This approach was officially initiated with the passage of the Global Warming Solutions Act of 2006 (AB 32), which requires the state to reduce its greenhouse gas emissions to 1990 levels by 2020. The AB 32 Scoping Plan was developed to identify strategies for meeting the AB 32 goal, and was adopted by ARB in December 2008. Among many other strategies, it encourages local governments to reduce emissions in their jurisdictions by 15 percent below current levels by 2020. In addition, it identifies the following strategies that will impact local governance:

- Develop a California cap-and-trade program
- Expand energy efficiency programs
- Establish and seek to achieve reduction targets for transportation-related related greenhouse gas (GHG) emissions
- Expand the use of green building practices
- Increase waste diversion, composting, and commercial recycling toward zero-waste
- Continue water efficiency programs and use cleaner energy sources to move and treat water
- Reduce methane emissions at landfills
- Preserve forests that sequester carbon dioxide

Other measures taken by the state include mandating stronger vehicle emissions standards (AB 1493, 2002), establishing a low-carbon fuel standard (EO # S-01-07, 2007), mandating a climate adaptation plan for the state (S-EO # 13-08, 2008), establishing a Green Collar Job Council, and establishing a renewable energy portfolio standard for power

generation or purchase in the state. The state also has made a number of legislative and regulatory changes that have significant implications for local governments:

- SB 97 (2007) required the Office of Planning and Research to create greenhouse gas planning guidelines for the California Environmental Quality Act (CEQA). In addition, ARB is tasked with creating energy-use and transportation thresholds in CEQA reviews, which may require local governments to account for greenhouse gas emissions when reviewing project applications.
- AB 811 (2007) authorizes all local governments in California to establish special districts that can be used to finance solar or other renewable energy improvements to homes and businesses in their jurisdiction.
- SB 375 (2008) revises the process of regional transportation planning by metropolitan planning organizations (MPOs), which are governed by elected officials from local jurisdictions. The statute calls on ARB to establish regional transportation-related GHG targets and requires the large MPOs to develop regional "Sustainable Communities Strategies" of land use, housing and transportation policies that will move the region towards its GHG target. The statute stipulates that transportation investments must be consistent with the Sustainable Communities Strategy and provides CEQA streamlining for local development projects that are consistent with the Strategy.

Pacific Gas and Electric Company Supported Inventory Project

With the administrative support of Pacific Gas and Electric Company (PG&E) and funding from California utility customers under the auspices of the California Public Utilities Commission, ICLEI - Local Governments for Sustainability ("ICLEI") was contracted to work with the EDC serving Fresno County and the City of Fresno to assist in the quantification of greenhouse gas emissions in the City of Madera and the following other participating communities: the County of Fresno, the cities of Chowchilla, Clovis, Coalinga, Dinuba, Firebaugh, Fowler, Fresno, Huron, Kerman, Kingsburg, Madera, Mendota, Orange Cove, Parlier, Reedley, Sanger, San Joaquin, and Selma. ICLEI is a nonprofit association of local governments that provides information, delivers training resources, organizes conferences, facilitates networking and city-to-city exchanges, carries out research and pilot projects, and offers technical services and consultancy related to climate planning. Throughout 2012, ICLEI provided training and technical assistance to participating regional organizations, interns, and local government staff and facilitated the completion of this report.

Climate Change Mitigation Activities in the City of Madera

The City of Madera has already begun the process of emissions mitigation within City operations, which is also intended to result in higher energy efficiency and, therefore greater savings.


Welcome to
Downtown
Madera

Introduction

General Methodology

Local Government Operations Protocol

A national standard called the Local Government Operations Protocol (LGO Protocol) has been developed and adopted by the ARB in conjunction with ICLEI, the California Climate Action Registry, and The Climate Registry. This standard provides accounting principles, boundaries, quantification methods, and procedures for reporting greenhouse gas emissions from local government operations. The LGO Protocol forms the basis of ICLEI's Clean Air & Climate Protection Software (CACP 2009), which allows local governments to compile data and perform the emissions calculations using standardized methods.

Greenhouse Gases and Carbon Dioxide Equivalent

In accordance with LGO Protocol recommendations, CACP 2009 calculates and reports all six internationally recognized greenhouse gases regulated under the Kyoto Protocol (Carbon Dioxide, Methane, Nitrous Oxide, Hydrofluorocarbons, Perfluorocarbons, and Sulfur Hexafluoride). Emissions summaries found throughout this report also use CACP 2009's ability to combine emissions from the various greenhouse gases into carbon dioxide equivalent, CO_2e. Since equal quantities of each greenhouse gas have more or less influence on the greenhouse effect, converting all emissions to a standard metric, CO_2e, allows apples-to-apples comparisons amongst quantities of all six emissions types. Greenhouse gas emissions are reported in this inventory as metric tons of CO_2e ($MTCO_2e$).

Table 2 exhibits the greenhouse gases and their global warming potential (GWP), a measure of the amount of warming a greenhouse gas may cause compared to the amount of warming caused by carbon dioxide.

Table 2: Greenhouse Gases

Gas	Chemical Formula	Activity	Global Warming Potential (CO_2e)
Carbon Dioxide	CO_2	Combustion	1
Methane	CH_4	Combustion, Anaerobic Decomposition of Organic Waste (Landfills, Wastewater), Fuel Handling	21
Nitrous Oxide	N_2O	Combustion, Wastewater Treatment	310
Hydrofluorocarbons	Various	Leaked Refrigerants, Fire Suppressants	12–11,700
Perfluorocarbons	Various	Aluminum Production, Semiconductor Manufacturing, HVAC Equipment Manufacturing	6,500–9,200
Sulfur Hexafluoride	SF_6	Transmission and Distribution of Power	23,900

Calculating Emissions

In general, emissions can be quantified in two ways:

1. Measurement-based methodologies refer to the direct measurement of greenhouse gas emissions from a monitoring system. Emissions measured this way may include those emitted from a flue of a power plant, wastewater treatment plant, landfill, or industrial facility. This method is the most accurate way of inventorying emissions from a given source, but is generally available for only a few sources of emissions.

2. Calculation-based methodologies refer to an estimate of emissions calculated based upon measurable ***activity data*** and ***emission factors***. Table 3 provides examples of common emissions calculations.

Table 3: Basic Emissions Calculations

Activity Data x	Emissions Factor =	Emissions
Electricity Consumption (kilowatt hours)	CO_2 emitted/kWh	CO_2 emitted
Natural Gas Consumption (therms)	CO_2 emitted/therm	CO_2 emitted
Gasoline/Diesel Consumption (gallons)	CO_2 emitted /gallon	CO_2 emitted
Waste Generated by Government Operations (tons)	CH_4 emitted/ton of waste	CH_4 emitted

The Scopes Framework

This inventory reports greenhouse gas emissions by sector and additionally by "scope", in line with the LGO Protocol and World Resources Institute (WRI) and World Business Council for Sustainable Development (WBCSD) Greenhouse Gas Emissions Protocol Corporate Standard.

Scope 1: Direct emissions from sources within a local government's operations that it owns and/or controls, with the exception of direct CO_2 emissions from biogenic sources. This includes stationary combustion to produce electricity, steam, heat, and power equipment; mobile combustion of fuels; process emissions from physical or chemical processing; fugitive emissions that result from production, processing, transmission, storage and use of fuels; leaked refrigerants; and other sources.

Scope 2: Indirect emissions associated with the consumption of purchased or acquired electricity, steam, heating, or cooling.

Scope 3: All other emissions sources that hold policy relevance to the local government that can be measured and reported. This includes all indirect emissions not covered in Scope 2 that occur as a result of activities within the operations of the local government. Scope 3 emission sources include (but are not limited to) tailpipe emissions from employee commutes, employee business travel, and emissions resulting from the decomposition of government-generated solid waste.

ICLEI and the LGO Protocol provide standard methodologies for calculating emissions from the sources shown in the following table. Other sources of emissions, such as those associated with the production of consumed products do not yet have standard calculation methodologies and are thus excluded from this inventory.

Table 4: Inventoried Emissions Sources by Scope

Scope 1	Scope 2	Scope 3
Fuel consumed at facilities	Purchased electricity consumed by facilities	Solid waste generated by government operations
Fuel consumed by vehicle fleet and mobile equipment	Purchased electricity consumed by electric vehicles	Fuel consumed by vehicles during employee commuting
Fuel consumed to generate electricity	Purchased steam	
Leaked refrigerants from facilities and vehicles	Purchased cooling (chilled water)	
Leaked / deployed fire suppressants		
Solid waste in government landfills		
Wastewater decomposition and treatment at a municipal wastewater treatment plant		

Organizational Boundaries

The organizational boundary for the inventory determines which aspects of operations are included in the emissions inventory, and which are not. Under the LGO Protocol, two control approaches are used for reporting emissions: operational control or financial control. A local government has operational control over an operation if it has full authority to introduce and implement policies that impact the operation. A local government has financial control if the operation is fully consolidated in financial accounts. If a local government has joint control over an operation, the contractual agreement will have to be examined to see who has authority over operating policies and implementation, and thus the responsibility to report emissions under operational control.

LGO Protocol strongly encourages local governments to utilize operational control as the organization boundary for a government operations emissions inventory. Operational control is believed to most accurately represent the emissions sources that local governments can most directly influence, and this boundary is consistent with other environmental and air quality reporting program requirements. For this reason, this inventory was conducted according to the operational control framework.

Types of Emissions

As described in the LGO Protocol, emissions from each of the greenhouse gases can come in a number of forms:

Stationary or mobile combustion: These are emissions resulting from on-site combustion of fuels (natural gas, diesel, gasoline, etc.) to generate heat, electricity, or to power vehicles and mobile equipment.

Purchased electricity: These are emissions produced by the generation of power from utilities outside of the jurisdiction.

Fugitive emissions: Emissions that result from the unintentional release of greenhouse gases into the atmosphere (e.g., leaked refrigerants, methane from waste decomposition, etc.).

Process emissions: Emissions from physical or chemical processing of a material (e.g., wastewater treatment).

Significance Thresholds

Within any local government's own operations there will be emission sources that fall within Scope 1 and Scope 2 that are minimal in magnitude and difficult to accurately measure. Within the context of local government operations, emissions from leaked refrigerants and backup generators may be common sources of these types of emissions. For these less significant emissions sources, LGO Protocol specifies that up to 5 percent of total emissions can be reported using methodologies that deviate from the recommended methodologies in LGO Protocol. In the context of registering emissions with an independent registry (such as the California Climate Action Registry), emissions that fall under the significance threshold are called ***de minimis***.

In this report, some emissions were calculated using methods that deviate from the methods recommended in the LGO Protocol. However, the LGO Protocol identifies several alternative methods that still meet emission calculation standards. For the following areas, alternative methods were used to calculate emissions:

- Scope 1 fugitive emissions from the leakage of refrigerants from vehicles

In addition, emissions data from the following sources could not be obtained for this report and therefore emissions from these sources are not included in this inventory:

- Scope 1 fugitive emissions from the leakage of refrigerants from stationary heating, air conditioning, and refrigeration units—with the exception of some units that had up-to-date service records.
- Scope 3 emissions from Cal Fire, which is the contracted Fire Department service for the City of Madera

Information Items

Information items are emissions sources that are not included as Scope 1, 2, or 3 emissions in the inventory, but are reported here separately in order to provide a more complete picture of emissions from the City of Madera's government operations.

A common emission that is categorized as an information item is carbon dioxide emitted in the combustion of biogenic fuels. Local governments will often burn fuels that are of biogenic origin (wood, landfill gas, organic solid waste, biofuels, etc.) to generate power. Common sources of biogenic emissions are the combustion of landfill gas from landfills or biogas from wastewater treatment plants, as well as the incineration of organic municipal solid waste at incinerators.

Carbon dioxide emissions from the combustion of biogenic fuels are not included in Scope 1 based on established international principles. Methane and nitrous oxide emissions from biogenic fuels are considered Scope 1 stationary combustion emissions and are included in the stationary combustion sections for the appropriate facilities. These principles indicate that biogenic fuels (e.g., wood, biodiesel), if left to decompose in the natural environment, would release CO_2 into the atmosphere, where it would then enter back into the natural carbon cycle. Therefore, when wood or another biogenic fuel is combusted, the resulting CO_2 emissions are akin to natural emissions and should therefore not be considered as human activity-generated emissions. The CH_4 and N_2O emissions, however, would not have occurred naturally and are therefore included as Scope 1 emissions.

Understanding Totals

It is important to realize that the totals and sub-totals listed in the tables and discussed in this report are intended to represent all-inclusive, complete totals for the City of Madera's operations. However, these totals are only a summation of inventoried emissions using available estimation methods. Each inventoried sector may have additional emissions sources associated with them that were unaccounted for, such as Scope 3 sources that could not be estimated.

Also, local governments provide different services to their citizens, and the scale of the services (and thus the emissions) is highly dependent upon the size and purview of the local government. For these reasons, comparisons between local government totals should not be made without keen analysis of the basis for figures and the services provided.

It is important to understand that in the case where a local government operates a municipal utility that generates electricity for government facilities, the associated emissions should be considered Scope 1 emissions within the Power Generation Facilities sector, and not Scope 2 emissions within each of the other facilities sectors, when calculating a total. This is advised by the LGO Protocol and done to avoid reporting the same emissions twice, also known as double counting.



Inventory Results

Emissions Total

In 2007, the City of Madera's greenhouse gas emissions from government operations totaled 8,463.80 metric tons of CO_2e. This number represents a roll-up of emissions. While the roll-up is a valuable figure, information on the breakdown of emissions from local government operations by scopes, sources, and sectors allows the comparative analysis and insight needed for effective decision-making on target setting, developing GHG reduction measures, or monitoring. The LGO Protocol and ICLEI identify reporting by scopes, sources, and sectors as the strongly preferred form of reporting a greenhouse gas inventory. For more details on the breakdown of the City of Madera's emissions by scopes, sources, and sectors, refer to subsequent sections within Inventory Results in this report.

Buildings and Other Facilities

Facility operations contribute to greenhouse gas emissions in two major ways. First, facilities consume electricity and fuels such as natural gas. This consumption is associated with the majority of greenhouse gas emissions from facilities. In addition, fire suppression, air conditioning, and refrigeration equipment in buildings can emit hydrofluorocarbons (HFCs) and other greenhouse gases when these systems leak refrigerants or fire suppressants. Refrigerants and fire suppressants are very potent greenhouse gases and have Global Warming Potential (GWP) of up to many thousand times that of CO_2. For example, HFC-134a, a very common refrigerant, has a GWP of 1300, or 1300 times that of CO_2. Therefore, even small amounts of leaked refrigerants can have a significant effect on greenhouse gas emissions.

The City of Madera operates approximately 37 facilities ranging from City offices and the police headquarters, to a wastewater treatment plant. For the purpose of reporting emissions, these facilities were grouped by department when possible. Facilities that where unknown or previously uncategorized were included in this section of the inventory and were assigned to a category called "Other." Data relating to natural gas consumption were obtained from PG&E. Data relating to electricity consumption were also obtained from PG&E. Data relating to backup generators and fuel consumption were obtained from Tony Frede, the City's Electrical and Facilities Operations Manager and Zelda Leon, Administrative Assistant in the Planning Department (who had previous gathered much of the baseline year's fuel consumption data).

The Buildings and Facilities sector produced the second-largest amount of emissions by sector. Overall, these facilities produced 1,650.51 metric tons of CO_2e (19.5% of total emissions). As illustrated in Figure 3, the facility group producing the most greenhouse gas emissions in the City of Madera is the Public Works facility at 35.8%. The second largest contributor is the Administration facility at 22.6%.

As illustrated in Figure 4, the source producing the most greenhouse gas emissions in the Buildings and Facilities sector is fire suppressants at 40.6%, followed by purchased electricity at 33.8%.

Figure 3: Buildings and Other Facilities Emissions by Department

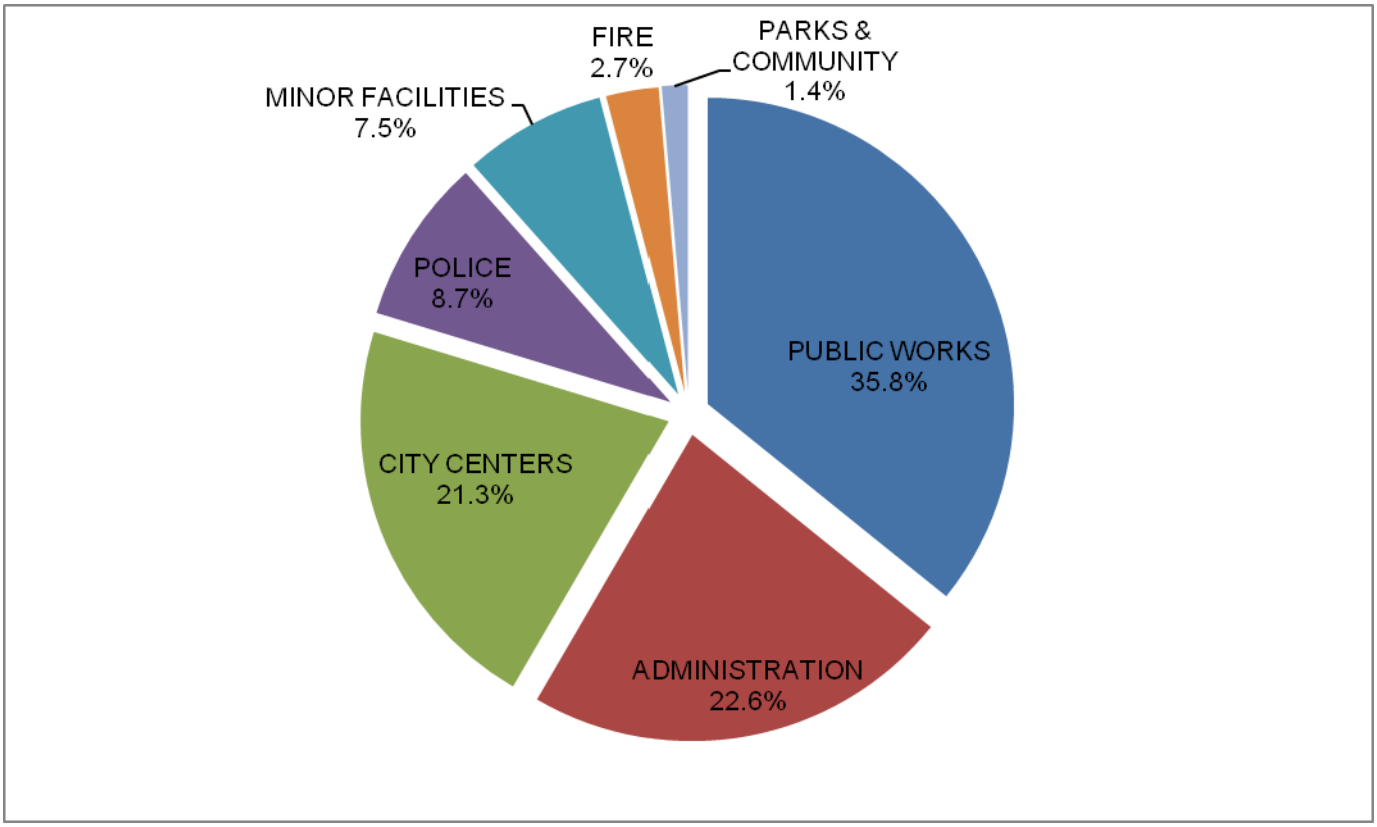


Table 5: Buildings and Other Facilities Emissions by Department

Department	metric tons CO_2e
Public Works	590.82
Administration	373.05
City Centers	351.78
Police	144.08
Minor Facilities	123.57
Fire	44.69
Parks & Community	22.52
Totals	1,650.51

Figure 4: Buildings and Other Facilities Emissions by Source

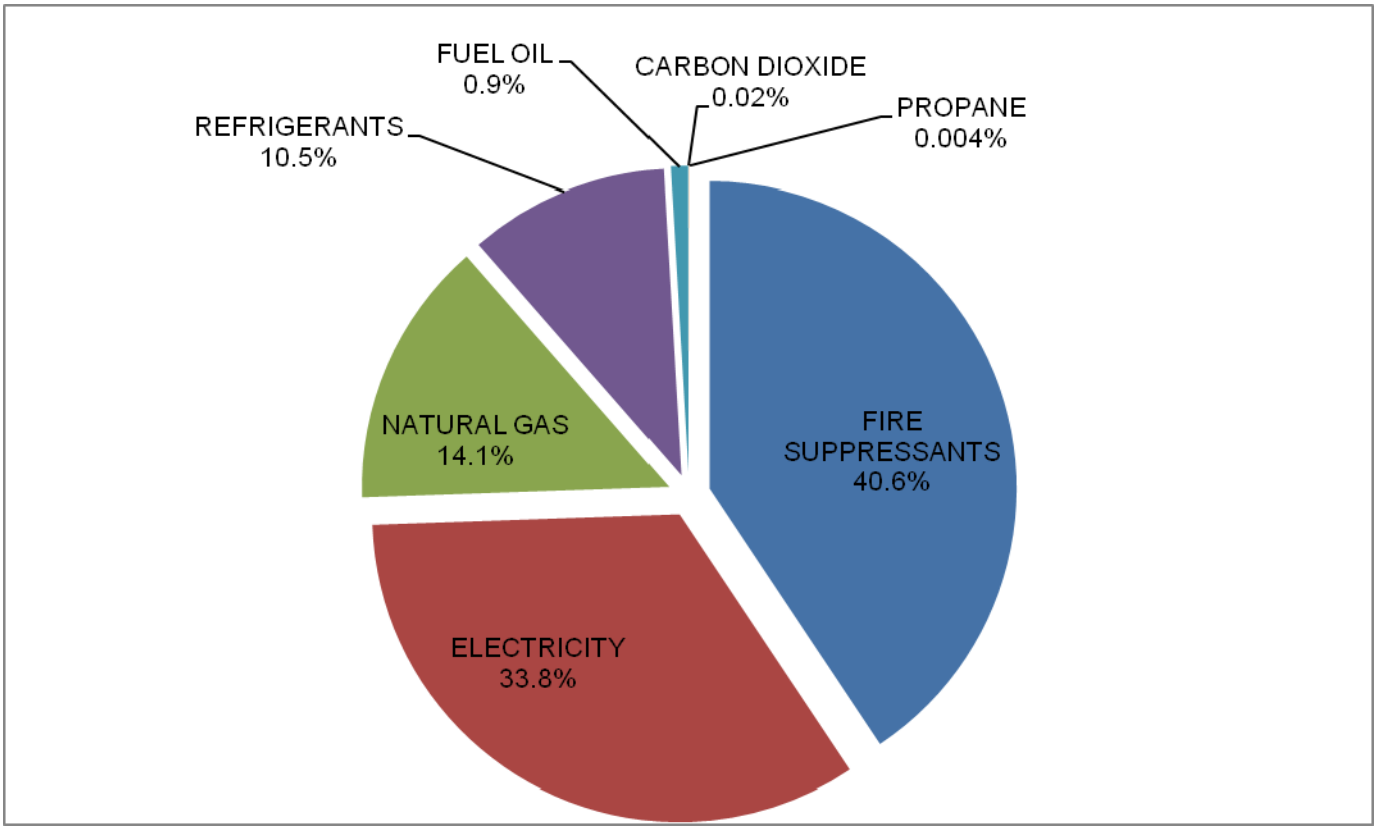


Table 6: Buildings and Other Facilities Emissions by Source

Source	metric tons CO_2e
Fire Suppressants	670.75
Electricity	558.19
Natural Gas	232.86
Refrigerants	173.52
Fuel Oil	14.83
Carbon Dioxide	0.30
Propane	0.06
Totals	1,650.51

Table 7: Buildings Sector Emissions by Scope and Emission Type

Scope	Emission Type	Greenhouse Gas Emissions (metric tons)							
SCOPE 1		CO_2e	CO_2	CH_4	N_2O	HFC-134A	HFC-236FA	HFC-227EA	R-410A
	Stationary Combustion	247.75	247.06	0.02	0.00	0.00	0.00	0.00	0.00
	Fugitive Emissions	844.57	0.30	0.00	0.00	0.00	0.01	0.23	0.06
	Total Direct Emissions	1,092.32	247.36	0.02	0.00	0.00	0.01	0.23	0.06
SCOPE 2		CO_2e	CO_2	CH_4	N_2O				
	Purchased Electricity	558.19	554.96	0.03	0.01				
	Total Indirect Emissions	558.19	554.96	0.03	0.01				

Streetlights, Traffic Signals, and Other Public Lighting

Like most local governments, the City of Madera operates a range of public lighting including traffic signals, parking lighting, streetlights, etc. The majority of emissions associated with the operation of this infrastructure are due to electricity consumption. Data relating to electricity consumption for public lighting was obtained from PG&E.

While many of the streetlights located within the City of Madera are owned and operated by the City, some are owned and operated directly by PG&E. Since the City of Madera does not have operational or financial control over these lights, the emissions resulting from their operation are classified as Scope 3.

The Public Lighting sector produced the sixth-largest amount of emissions of all sectors overall. Overall, these facilities produced 692.79 metric tons of CO_2e (8.2% of total emissions). As illustrated in Figure 5 and Table 8, the subsector producing the most greenhouse gas emissions in the Public Lighting sector is Streetlights at 83.1%, followed by Park Lighting at 8.2%.

Figure 5: Public Lighting Emissions by Subsector

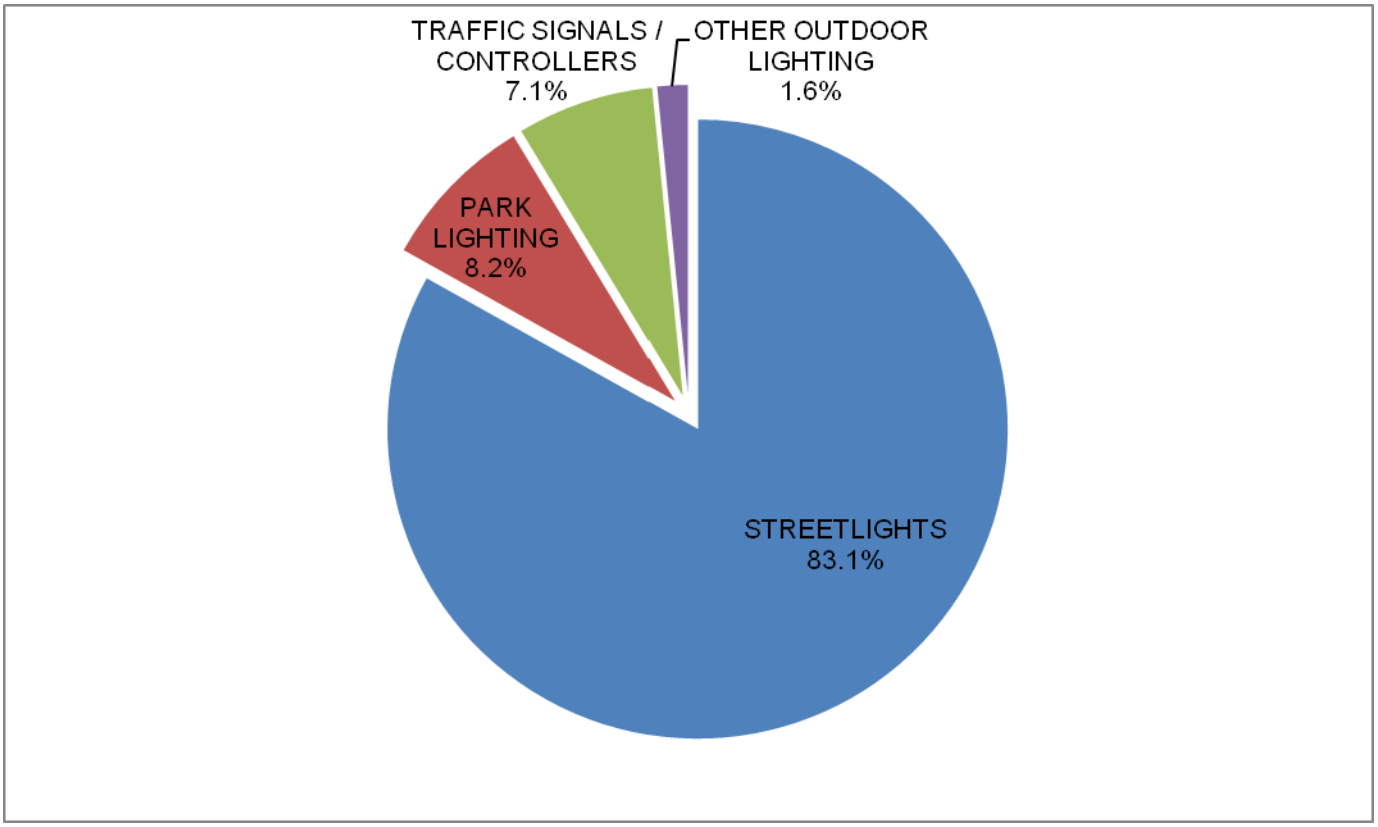


Table 8: Public Lighting Emissions by Subsector

Subsector (Light Type)	metric tons CO_2e	% of Sector Emissions	Electricity Use (kWh)	Cost ($)
Streetlights	575.69	83%	1,985,011	$344,359
Park Lighting	57.02	8%	196,613	$27,562
Traffic Signals / Controllers	49.09	7%	169,259	$27,120
Other Outdoor Lighting	10.99	2%	37,895	$5,186
Totals	692.79	100%	2,388,778	$404,227

Table 9: Public Lighting Emissions by Scope and Emission Type

Scope	Emission Type	Greenhouse Gas Emissions (metric tons)			
SCOPE 2		CO_2e	CO_2	CH_4	N_2O
	Purchased Electricity	692.79	688.77	0.03	0.01
	Total Indirect Emissions	692.79	688.77	0.03	0.01

Water and Stormwater Services

This sector includes emissions from equipment used for the distribution or transport of water, including drinking water, sprinkler systems and irrigation. The City of Madera operates a range of water transport equipment, including water delivery pumps, sprinkler and irrigation controllers, storm water management pumps, and other water infrastructure such as sewer lift pumps. Electricity consumption and the on-site combustion of fuels such as natural gas are significant sources of greenhouse gas emissions from the operation of the City of Madera's water transport equipment. Data relating to electricity consumption was obtained from PG&E. Data relating to backup generators and fuel consumption were obtained from Tony Frede, the City of Madera's Electrical and Facilities Operations Manager.

Please also note that this sector of the inventory does not include those park sprinkler controls which could not be disaggregated from multipurpose park light and sprinkler control records.

The Water and Stormwater Services sector produced the largest amount of emissions overall, with 2,982.82 metric tons of CO_2e (35.2% of total emissions). As illustrated in Figure 6 and Table 10, the subsector producing the most greenhouse gas emissions in the Water and Stormwater Services sector is Water Delivery Pumps (Electricity) at 90.2%, followed by Water Delivery Pumps (Propane) at 4.7%.

Figure 6: Water and Stormwater Services Emissions by Subsector

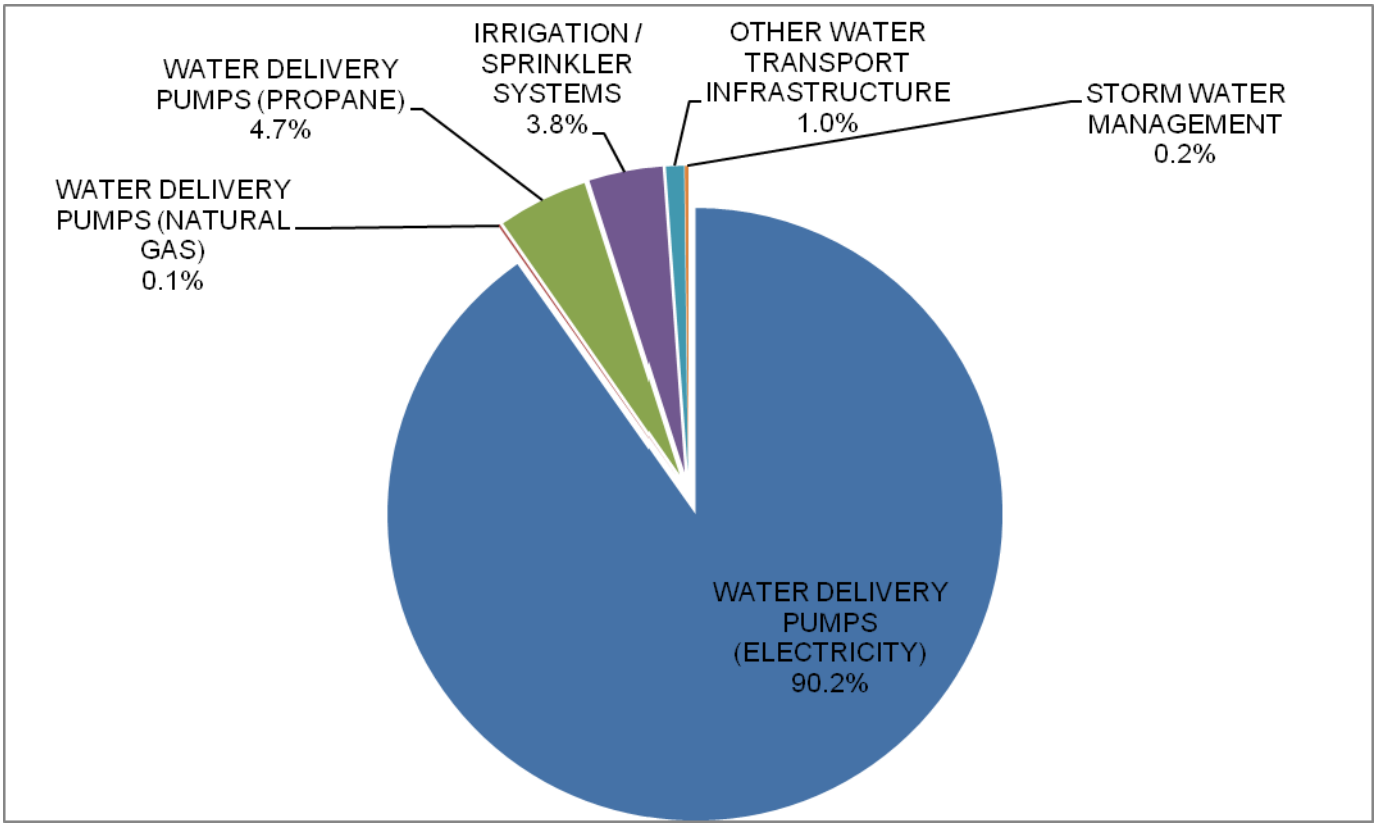


Table 10: Water and Stormwater Services Emissions by Subsector

Subsector (Equipment Type)	metric tons CO_2e	% of Sector Emissions	Source / Unit	Source / Quantity	Cost ($)
Water Delivery Pumps (Electricity)	2,690.51	90%	Electricity / kWh	9,277,059	$1,200,293
Water Delivery Pumps (Natural Gas)	2.96	0%	Natural Gas / Therms	556	$1,173
Water Delivery Pumps (Propane)	141.38	5%	Propane / Gallons	25,045	$1,508
Irrigation / Sprinkler Systems	113.63	4%	Electricity / kWh	391,820	$57,586
Other Water Transport Infrastructure	28.35	1%	Electricity / kWh	97,763	$14,251
Storm Water Management	5.99	0%	Electricity / kWh	20,663	$5,700
Totals	2,982.82	100%		9,812,906	$1,280,511

Table 11: Water and Stormwater Services Emissions by Scope and Emission Type

Scope / Emission Type	Greenhouse Gas Emissions (metric tons)			
SCOPE 1	CO_2e	CO_2	CH_4	N_2O
Stationary Combustion	144.33	143.02	0.03	0.00
Fugitive Emissions	0.00	0.00	0.00	0.00
Total Direct Emissions	144.33	143.02	0.03	0.00
SCOPE 2	CO_2e	CO_2	CH_4	N_2O
Purchased Electricity	2,838.49	2,822.02	0.13	0.04
Total Indirect Emissions	2,838.49	2,822.02	0.13	0.04

Wastewater Treatment Facilities

Wastewater coming from homes and businesses is rich in organic matter and has a high concentration of carbon and nitrogen (along with other organic elements). As wastewater is collected, treated, and discharged, chemical processes in aerobic and anaerobic conditions lead to the creation and emission of two greenhouse gases: methane and nitrous oxide. Local governments that operate wastewater treatment facilities, including treatment plants, septic systems, collection lagoons, and other facilities, must therefore account for the emission of these gases.

Electricity consumption and the on-site combustion of fuels such as natural gas and diesel are also significant sources of greenhouse gas emissions from the operation of wastewater treatment facilities. Data relating to electricity consumption was obtained from PG&E. Data relating to backup generators and fuel consumption were obtained from Wayne Clay, the City of Madera's Wastewater Treatment Plant Operations Manager.

The City of Madera has operated the wastewater treatment plant at 13048 Road 21 ½ since 1972, and had a plant expansion and upgrade completed in 2007. The treatment plant covers approximately 320 acres and has a design capacity of 10.1 million gallons per day. The City of Madera Wastewater Treatment Plant is the regional facility for disposal of wastewater. The treatment plant handles wastewater and sewage from approximately 10,000 residential, commercial and industrial accounts. The primary goal of the Wastewater Treatment Division is protection of public health and safety in addition to complying with many State and Federal discharge and laboratory testing requirements.

The City of Madera Waste Water Treatment Facility, originally constructed in 1972, provides primary and secondary treatment. A plant expansion and upgrade was completed in 2007 with current technology to provide a treatment capacity of 10.1 M.G.D. (Million Gallons per Day). The treatment process consists of screening, grit removal, sedimentation, oxidation ditches (activated sludge), and final clarification. Also included in the plant expansion were an odor control and a water reclamation system to provide water for plant purposes. In addition, the Division is charged with preventative maintenance and upkeep of all mechanical equipment and facilities, maintaining energy efficient plant operations, pretreatment program administration, ground water monitoring, septic waste management, and maintenance of grounds, landscaping and effluent disposal fields. The plant has 320 acres of land for effluent percolation and evaporation[4]. In 2007, these facilities served approximately 55,780 people, including residents and businesses throughout the area.

The Wastewater Treatment sector produced the fifth-largest amount of emissions in this inventory. Overall, these facilities produced 813.34 metric tons of CO_2e (9.6% of total emissions). As illustrated in Figure 7 and Table 12, the subsector producing the most greenhouse gas emissions in the Wastewater Treatment sector is Facility Energy Use at 57.6%, followed by Nitrification/Denitrification at 16.7%.

[4] http://www.cityofmadera.org/web/guest/waste-water-treatment

Figure 7: Wastewater Treatment Facilities Emissions by Subsector

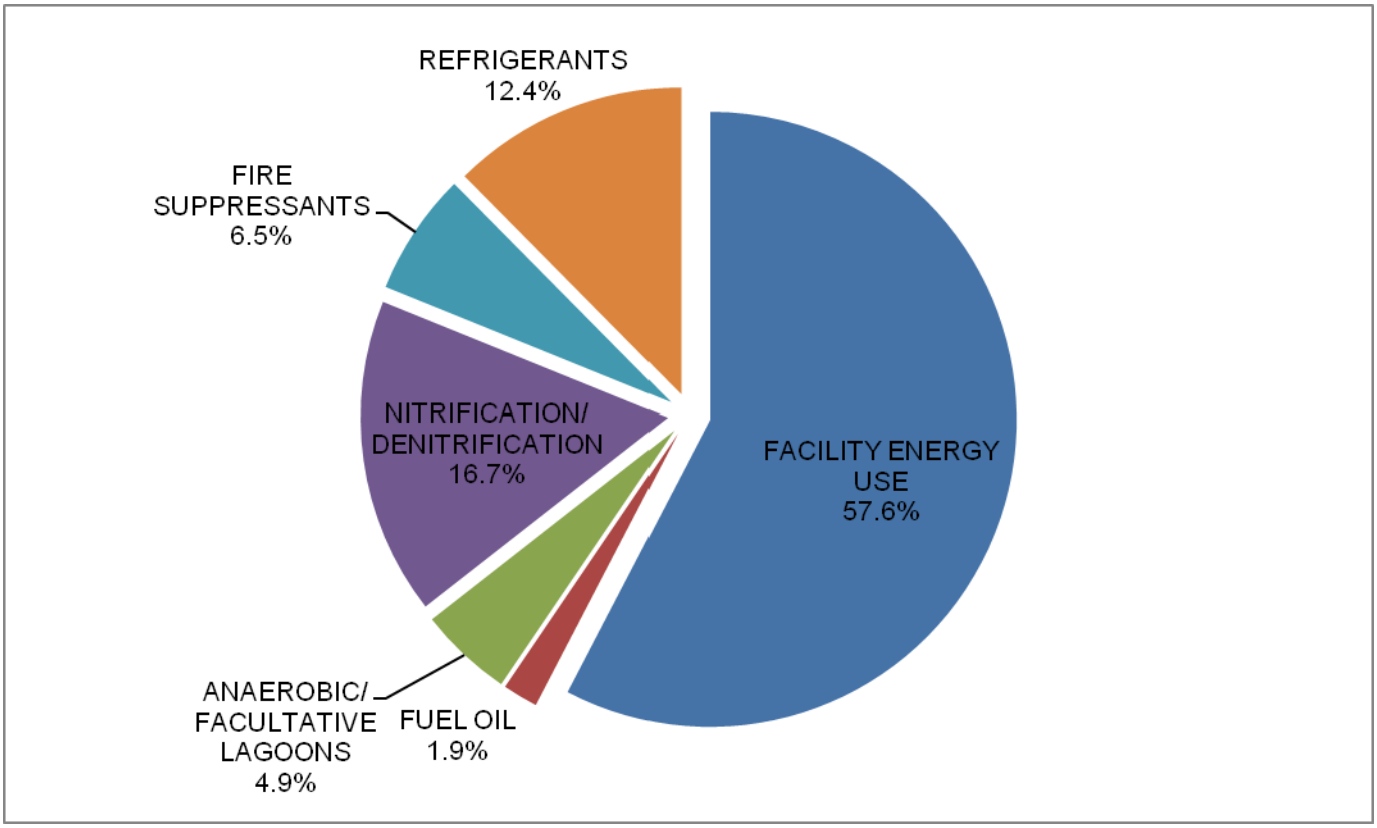


Table 12: Wastewater Treatment Facilities Emissions by Subsector

Subsector	metric tons CO_2e
Facility Energy Use	468.75
Fuel Oil	15.17
Anaerobic/ Facultative Lagoons	40.24
Nitrification/ Denitrification	135.63
Fire Suppressants	52.61
Refrigerants	100.95
Totals	813.34

Table 13: Wastewater Treatment Facilities Emissions by Scope and Emission Type

Scope	Emission Type	Greenhouse Gas Emissions (metric tons)							
SCOPE 1		CO_2e	CO_2	CH_4	N_2O	HFC-134A	HFC-236 FA	HFC-227EA	R-410A
	Stationary Combustion	15.17	15.07	0.00	0.00	0.00	0.00	0.00	0.00
	Fugitive Emissions	153.56	0.00	0.00	0.00	0.00	0.00	0.02	0.06
	Process Emissions	175.86	0.00	1.92	0.44	0.00	0.00	0.00	0.00
	Total Direct Emissions	344.59	0.00	1.92	0.44	0.00	0.00	0.02	0.06
SCOPE 2		CO_2e	CO_2	CH_4	N_2O				
	Purchased Electricity	468.75	466.03	0.02	0.01				
	Total Indirect Emissions	**468.75**	**466.03**	**0.02**	**0.01**				

Airport Facilities

Electricity consumption and the on-site combustion of fuels such as natural gas and diesel are significant sources of greenhouse gas emissions from the operation of the City of Madera's Airport Facilities. Data relating to electricity consumption was obtained from PG&E. Data relating to backup generators and fuel consumption were obtained from Zelda Leon, the City of Madera's Planning Department's Administrative Assistant.

The Airport Facilities sector produced the least amount of emissions in this inventory. Overall, these facilities produced 37.19 metric tons of CO_2e (0.4% of total emissions). As illustrated in Table 14, the emission type producing the most greenhouse gas emissions in the Airport Facilities sector was Scope 2 Purchased Electricity with 36.43 metric tons of CO_2e, followed by Scope 1 Stationary Combustion with 0.73 metric tons of CO_2e.

Table 14: Airport Facilities Emissions by Scope and Emission Type

Scope	Emission Type	Greenhouse Gas Emissions (metric tons)				
SCOPE 1		CO_2e	CO_2	CH_4	N_2O	HFC-134A
	Stationary Combustion	0.73	0.73	0.00	0.00	0.00
	Fugitive Emissions	0.04	0.00	0.00	0.00	0.00
	Total Direct Emissions	0.76	0.73	0.00	0.00	0.00
SCOPE 2		CO_2e	CO_2	CH_4	N_2O	
	Purchased Electricity	36.43	36.22	0.00	0.00	
	Total Indirect Emissions	36.43	36.22	0.00	0.00	

Vehicle Fleet and Mobile Equipment

The vehicles and mobile equipment used in the City of Madera's daily operations include: heavy and light trucks used for landscape and maintenance tasks; passenger cars, light trucks, and sport utility vehicles (SUVs) driven on a variety of site visits, including building inspections; and other vehicles as noted. Most vehicles consume gasoline, some consume diesel, some consume compressed natural gas (CNG), and each results in greenhouse gas emissions. Gasoline and diesel-powered maintenance equipment contributes to greenhouse gas emissions as well and has been noted in this report. In addition, vehicles with air conditioning or refrigeration equipment use refrigerants that can leak from the vehicle.

In 2007, the City of Madera operated a vehicle fleet with 300 vehicles and approximately 30 pieces of equipment. The largest group of vehicles in the fleet (25%) were used in the Police Department. Other vehicles, as well as those associated with the Police Department, were shared across a variety of divisions (e.g. Water, Streets, Park Maintenance, etc.). Other vehicles were used by the Water Department, Fire Department, and Streets Department, among others.

The emissions resulting from the consumption of fossil fuels by the City of Madera's contracted waste hauler were reported within this sector as Scope 3 emissions. As to better ascertain emissions in the future, vehicle fuel consumption from Allied Waste could be configured. This is due to the fact that the City of Madera does not have operational or financial control over this particular vehicle fleet *(refer to Organizational Boundaries)*. However, the LGO Protocol recommends that, if available, this Scope 3 emission be reported for the sake of transparency and policy relevance.

While refrigerants are estimated to have contributed 56.55 metric tons of CO_2e (5.3% of total emissions), it should be noted that the default emission rates method was used to estimate emissions from leaked refrigerants. While this method can significantly overestimate the actual amount of leaked refrigerant, this method is in line with LGO Protocol methods. The figure generated here is a conservative amount in lieu of exact amounts, which were not available. Once again, the default method and other methods will be discussed in greater detail in the "Inventory Methodologies" section. Emissions from ozone depleting chemicals used as refrigerants in vehicles produced before 1995 (e.g. R-12) were included as an information item in this inventory since these chemicals are regulated by the Montreal Protocol and are currently being phased out of use.

The Vehicle Fleet sector produced the third-largest amount of emissions in this inventory. Overall, this sector produced 1,072.29 metric tons of CO_2e (12.7% of total emissions). As illustrated in Figure 8 and Table 15, the source producing the most greenhouse gas emissions in the Vehicle Fleet sector was gasoline at 76.4%, followed by diesel at 15.3%. Emissions from vehicle fleet use by department are illustrated in Figure 9.

Figure 8: Vehicle Fleet Emissions by Source

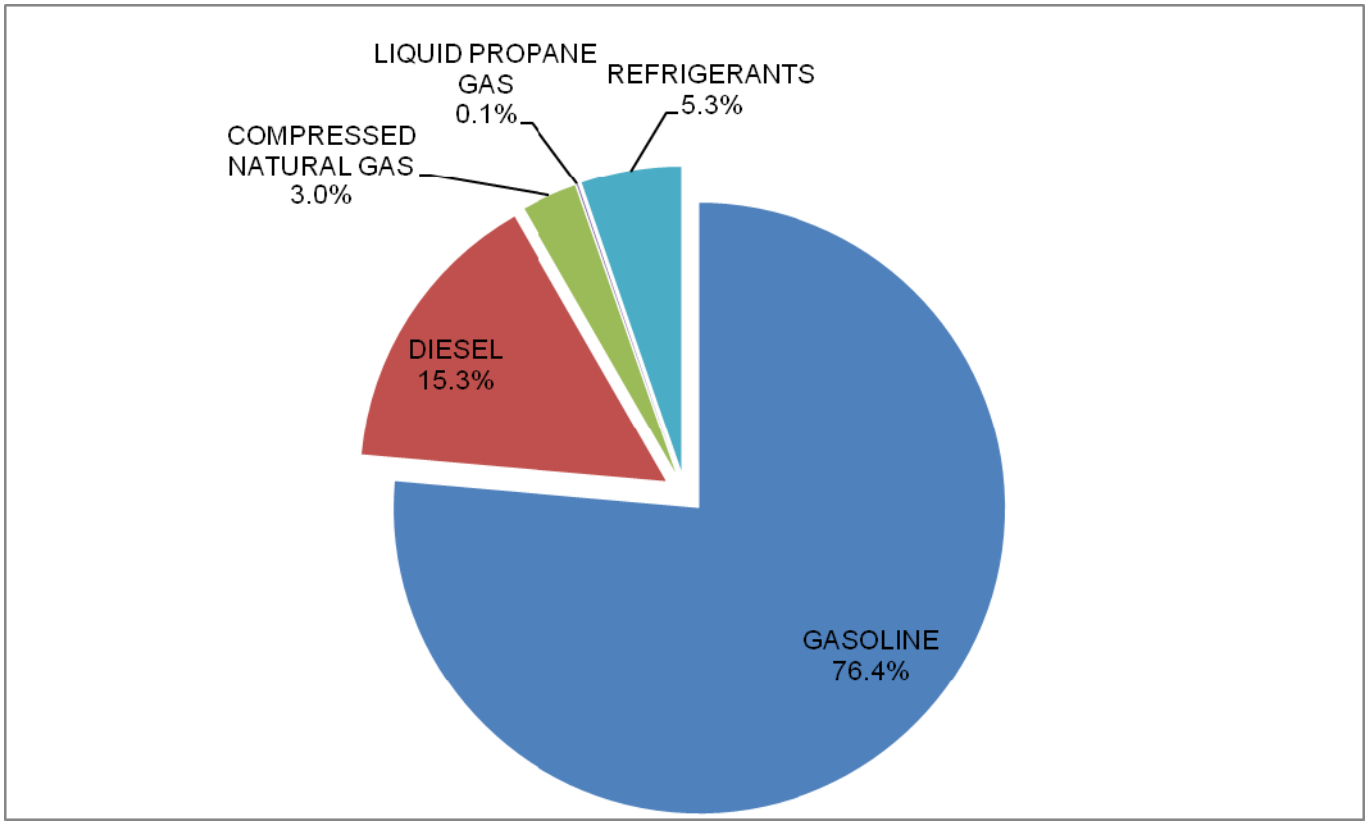


Table 15: Vehicle Fleet Emissions by Source

Source	metric tons CO_2e	Consumption Quantity	Consumption Units	Cost ($)
Gasoline	819.21	1,697,968.33	Gallons	$235,728
Diesel	164.19	203,968.65	Gallons	41,131.49
Compressed Natural Gas	31.68	637,023.10	Gallons	64,712.81
Liquid Propane Gas	0.65	112.84	Gallons	278.95
Refrigerants	56.55	0.04	Tonnes	0.00
Totals	1,072.29			$341,851

Figure 9: Vehicle Fleet Emissions by Department

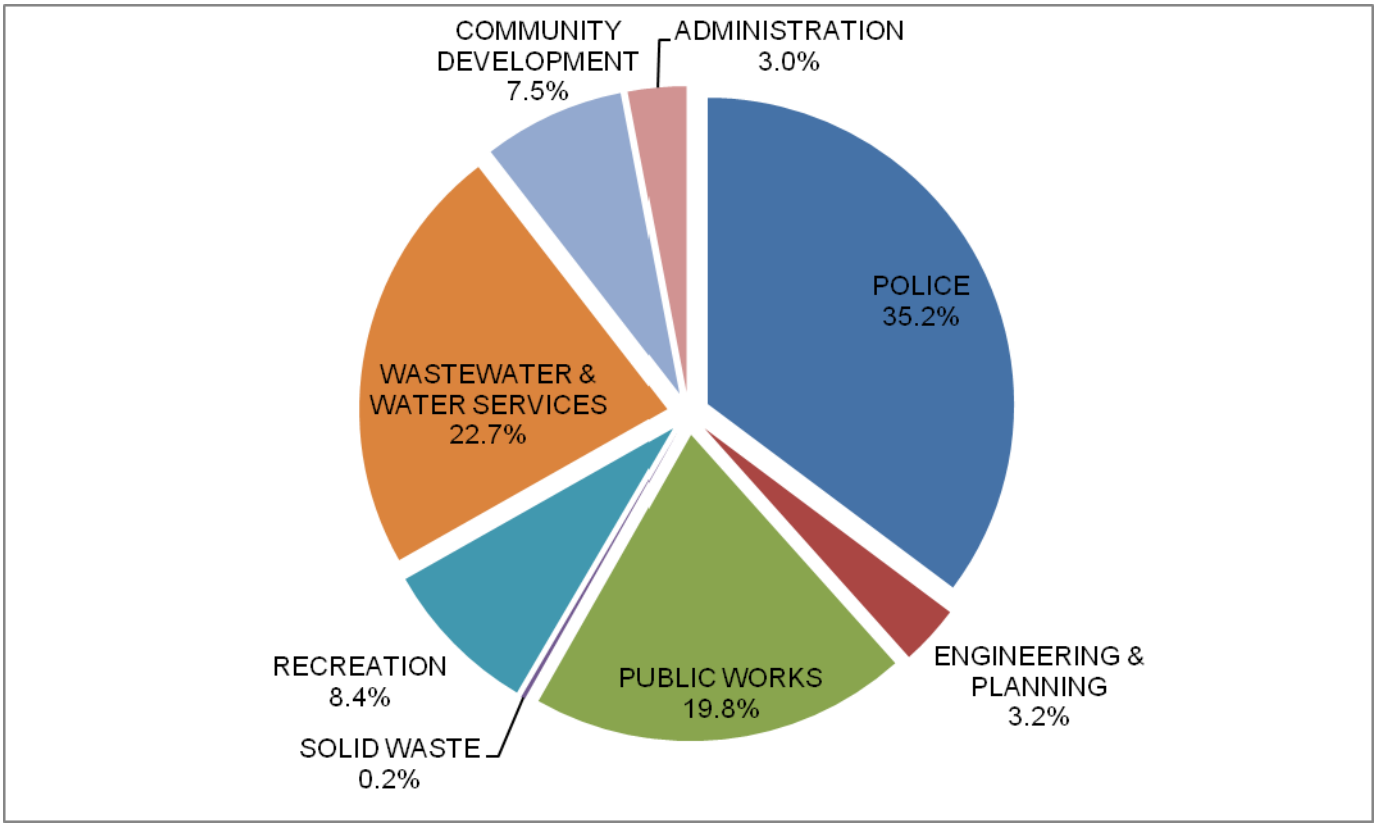


Table 16: Vehicle Fleet Emissions by Scope and Emission Type

Scope	Emission Type	Greenhouse Gas Emissions (metric tons)				
SCOPE 1		CO_2e	CO_2	CH_4	N_2O	HFC-134A
	Mobile Combustion	1,015.74	965.89	0.74	0.11	0.00
	Fugitive Emissions	56.55	0.00	0.00	0.00	0.04
	Total Direct Emissions	1,072.29	965.89	0.74	0.11	0.04

Transit Fleet

The vehicles and mobile equipment used in the City of Madera's public transportation operations, including buses, shuttles, and others, burn diesel and compressed natural gas, resulting in greenhouse gas emissions. In addition, vehicles with air conditioning or refrigeration equipment use refrigerants that can leak from the vehicle.

The Transit Fleet sector produced the seventh-largest amount of emissions in this inventory. Overall, this sector produced 294.4 metric tons of CO_2e (3.5% of total emissions). As illustrated in Figure 10 and Table 17, the source producing the most greenhouse gas emissions in the Transit Fleet sector was compressed natural gas at 95.9%, followed by refrigerants at 2.5%.

Figure 10: Transit Fleet Emissions by Source

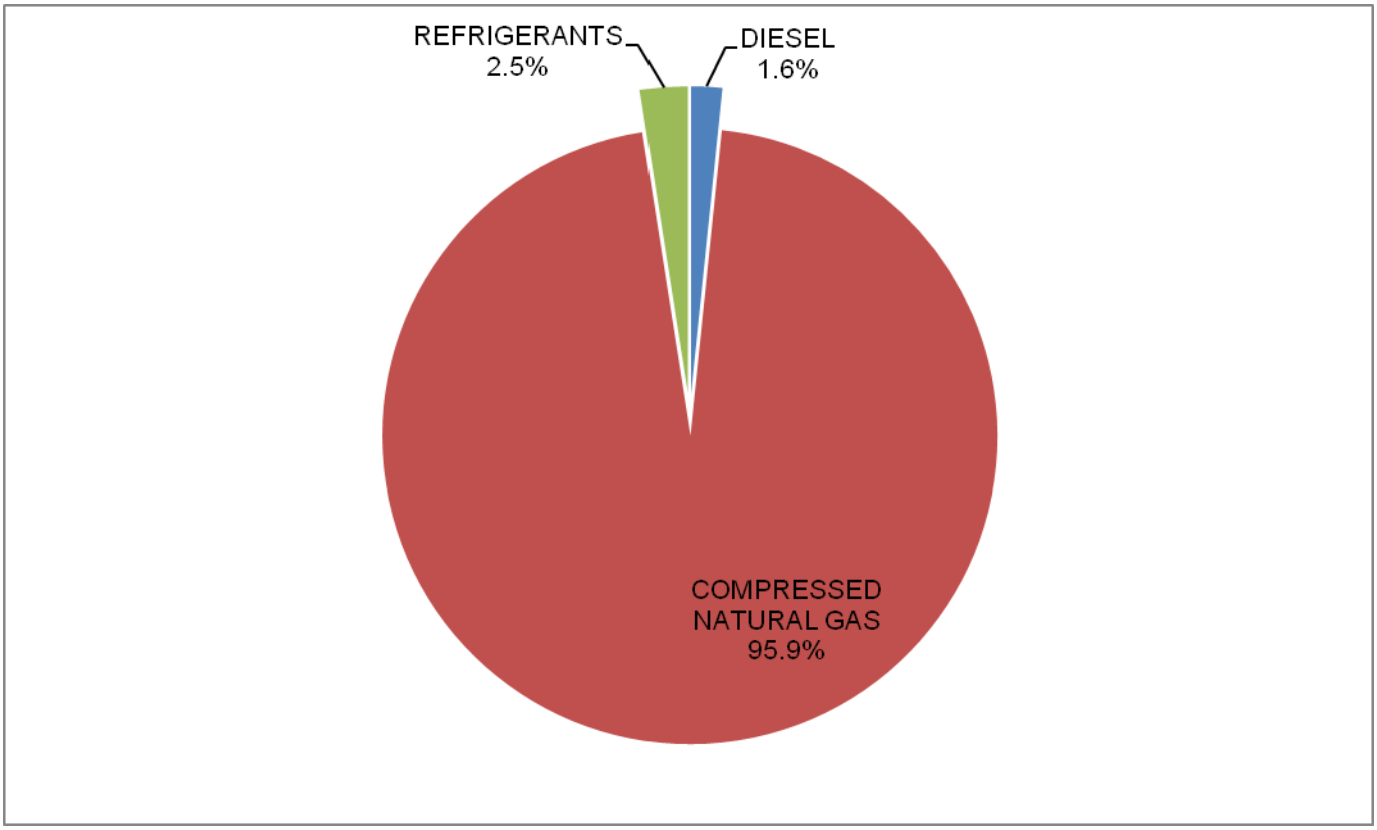


Table 17: Transit Fleet Emissions by Source

Source	metric tons CO_2e	Consumption Quantity	Consumption Units	Cost ($)
Diesel	4.79	54,786.43	Gallons	$6,931
Compressed Natural Gas	282.36	310,451.40	Gallons	$68,367
Refrigerants	7.25	0.00	Tonnes	$0
Totals	294.40			$75,297

Table 18: Transit Fleet Emissions by Scope and Emission Type

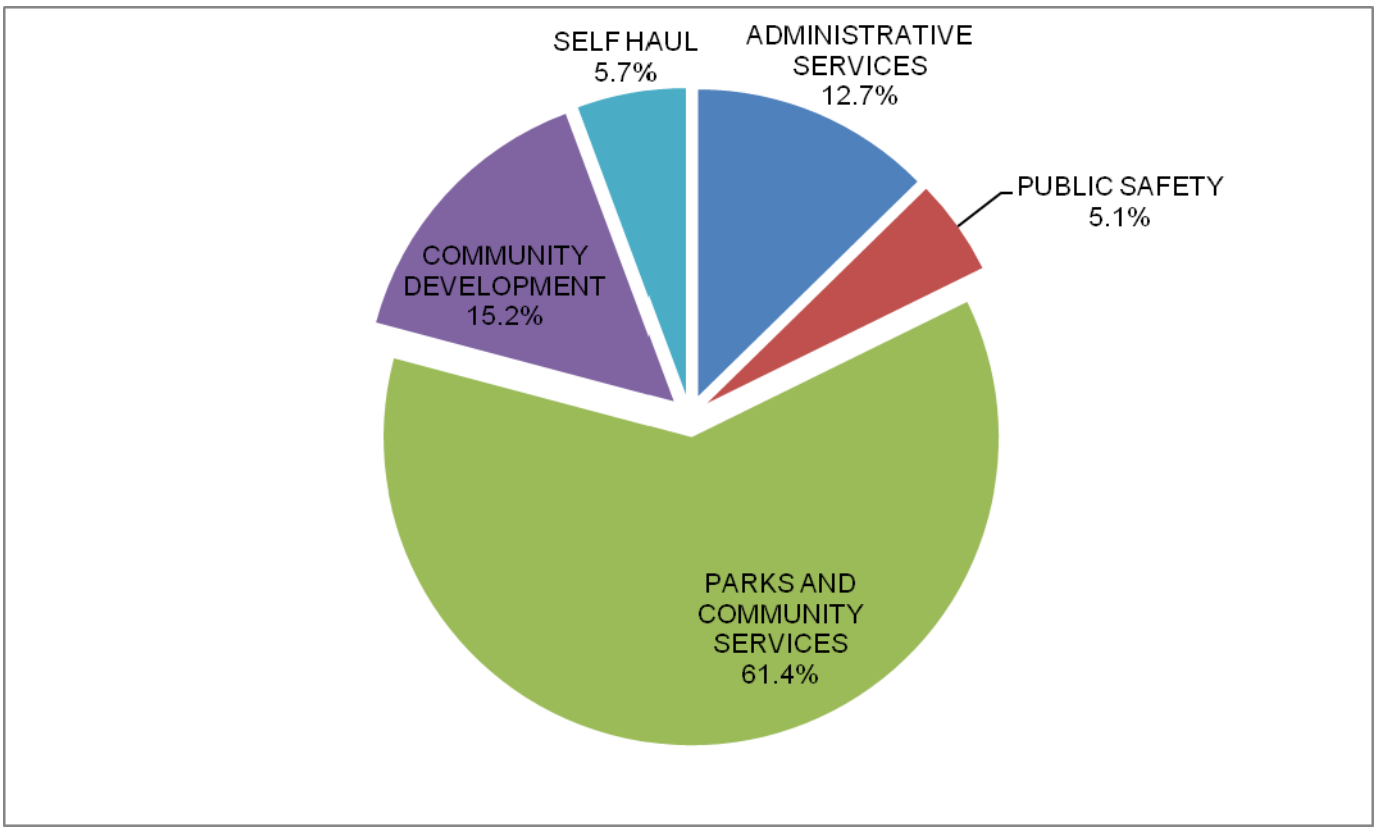
Scope / Emission Type	Greenhouse Gas Emissions (metric tons)				
SCOPE 1	CO_2e	CO_2	CH_4	N_2O	HFC-134A
Stationary Combustion	287.16	281.95	0.10	0.01	0.000
Fugitive Emissions	7.25	0.00	0.00	0.00	0.004
Total Direct Emissions	294.40	281.95	0.10	0.01	0.004

Government-Generated Solid Waste

Many local government operations generate solid waste, much of which is eventually sent to a landfill. Typical sources of waste in local government operations include paper and food waste from offices and facilities, construction waste from public works, and plant debris from parks departments. Organic materials in government-generated solid waste (including paper, food scraps, plant debris, textiles, wood waste, etc.) generate methane as they decay in the anaerobic environment of a landfill. Emissions from the waste sector are an estimate of methane generation that will result from the anaerobic decomposition of all organic waste sent to landfill in the base year. It is important to note that although these emissions are attributed to the inventory year in which the waste is generated, the emissions themselves will occur over the 100+ year timeframe that the waste will decompose.

The Solid Waste sector produced the eighth-largest amount of emissions in this inventory. Overall, this sector produced 92.69 metric tons of CO_2e (1.1% of total emissions). Data was sufficient to determine departmental shares of waste generation, and it was possible to disaggregate the data according to type of waste. This method relied on default proportions defined by the California Integrated Waste Management Board's (CIWMB) 1999 Waste Characterization Study – Public Administration Group,[5] and were bundled and reported to fit the waste categories defined in CACP 2009. According to this categorization, the type of waste producing the most emissions in the Solid Waste sector is paper products at 39.4%, followed by plant debris at 17.0%, food waste at 9.8%, and wood/textiles at 6.7%.

Figure 11: Government Waste Emissions by Subsector



[5] Report available at: http://www.calrecycle.ca.gov/WasteChar/BizGrpCp.asp

Table 19: Government Waste Emissions by Subsector

Department	metric tons CO_2e
Administrative Services	11.74
Public Safety	4.69
Parks and Community Services	56.93
Community Development	14.09
Self Haul	5.25
Totals	92.69

Table 20: Government Waste Emissions by Scope and Emission Type

Scope	Emission Type	Greenhouse Gas Emissions (metric tons)
SCOPE 3		CO_2e
	Waste All Facilities	92.69
INDICATORS		
	Short tons of solid waste	365.49

Employee Commute

Emissions in the Employee Commute sector are due to combustion of fuels in vehicles used by government employees for commuting to work at the City of Madera. Results from a survey designed by ICLEI and administered by the City of Madera are shown below. Current full-time City staff members were surveyed and 170 responses were collected, resulting in a sample of approximately 57% of employees at 2007 staff levels. The survey was used to collect the data needed to calculate emissions and also capture other information that will help the City of Madera set effective policy addressing this sector.

The Employee Commute sector produced the fourth-largest amount of emissions in this inventory. Overall, this sector produced 827.77 metric tons of CO_2e (9.8% of total emissions). As illustrated in Figure 12 and Table 21, the vehicle class producing the most greenhouse gas emissions in the sector is the Passenger Car category at 52%, followed by Light Truck/SUV/Pickup/Van at 47 %. Nearly all vehicles are fueled by gasoline, with only a few using ethanol.

Tables 23 through 25 present summary information from preference-based questions included in the survey. This information is intended to inform the City of Madera about potential transportation options to increase convenience and productivity while reducing the City's impact on the environment.

Figure 12: Employee Commute Emissions by Vehicle Class

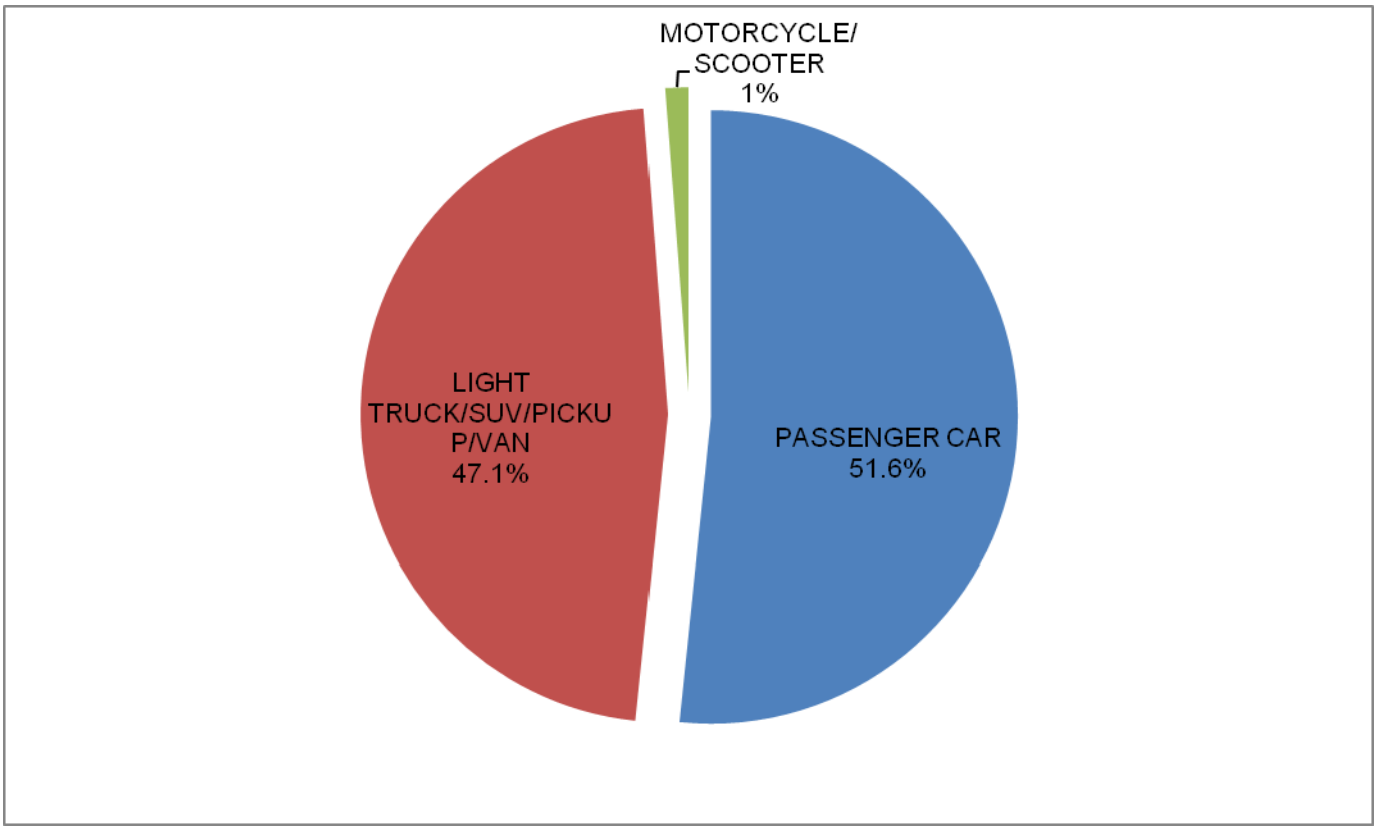


Table 21: Employee Commute Emissions by Vehicle Class

Vehicle Class	metric tons CO2e
Passenger Car	427.45
Light Truck/SUV/Pickup/Van	390.21
Motorcycle/Scooter	10.10
Totals	827.77

Table 22: Employee Commute Emissions by Scope and Emission Type

Scope	Emission Type	Greenhouse Gas Emissions (metric tons)
SCOPE 3		CO_2e
	Waste All Facilities	827.77
INDICATORS		
	Vehicle miles traveled	1,921,944
	Number of vehicles	170

Table 23: Employee Commute - Travel Mode Data

Mode	Percentage
Drive Alone	88%
Carpooling/Vanpooling	11%
Public Transportation	0%
Bicycling	1%
Walking	1%
Telecommute/Other	0%
Split Modes	0%

Table 24: Employee Commute - Miles from Work Data

Miles	Percentage
0-5	35%
6-10	20%
11-15	12%
15-20	7%
21-25	7%
26-30	7%
31-35	7%
36-40	1%
41-45	3%
46-50	1%
51-75	1%
76-100	1%
Over 100	0%

Table 25: Employee Commute - Time to Work Data

Time (Minutes)	Percentage
Less than 5	32%
6 to 15	31%
16 to 25	11%
26 to 35	18%
36 to 45	4%
Over 45	4%



Next Steps

ICLEI's Five Milestone Process

While the City of Madera has already begun to reduce greenhouse gas emissions through its actions, this inventory represents the first step in a systematic approach to reducing Madera's emissions. This system, developed by ICLEI, is called the Five Milestones for Climate Mitigation. This Five Milestone process involves the following steps:

Milestone One: Conduct a baseline emissions inventory and forecast

Milestone Two: Adopt an emissions reduction target for the forecast year

Milestone Three: Develop a local climate action plan

Milestone Four: Implement the climate action plan

Milestone Five: Monitor progress and report results

Figure 13: ICLEI's Five Milestones for Climate Mitigation



ICLEI staff are available to local governments who are members and should be contacted to discuss the full range of resources available at each stage of the Milestone process. The following sections provide a glimpse at next steps and help capture the lessons learned in conducting this inventory.

Setting Emissions Reduction Targets

This inventory provides an emissions baseline that can be used to inform Milestone Two of ICLEI's Five-Milestone process—setting emissions reduction targets for the City of Madera's municipal operations. The greenhouse gas emissions reduction target is a goal to reduce emissions to a certain percentage below base year levels by a chosen planning horizon year. An example target might be a 30 percent reduction in emissions below 2007 levels by 2020. A target provides an objective toward which to strive and against which to measure progress. It allows a local government to quantify its commitment to fighting global warming—demonstrating that the jurisdiction is serious about its commitment and systematic in its approach.

In selecting a target, it is important to strike a balance between scientific necessity, ambition, and what is realistically achievable. The City of Madera should give itself enough time to implement chosen emissions reduction measures—noting that the farther out the target year is, the more the City of Madera should pledge to reduce. ICLEI recommends that regardless of the chosen long-term emissions reduction target (e.g., 15-year, 40-year), the City of Madera should establish linear interim targets for every two- to three-year period. Near-term targets facilitate additional support and accountability, and linear goals help to ensure continued momentum around local climate protection efforts. To monitor the effectiveness of its programs, the City of Madera should plan to re-inventory its emissions on a regular basis; many jurisdictions are electing to perform annual inventories. ICLEI recommends conducting an emissions inventory every three to five years.

The Long-Term Goal

ICLEI recommends that near-term climate work should be guided by the long-term goal of reducing its emissions by 80 percent to 95 percent below the 2007 baseline level by the year 2050. By referencing a long-term goal that is in accordance with current scientific understanding, the City of Madera can demonstrate that it intends to do its part towards addressing greenhouse gas emissions from its internal operations.

It is important to keep in mind that it will be next to impossible for local governments to reduce emissions by 80 to 95 percent without the assistance of state and federal policy changes that create new incentives and new sources of funding for emissions reduction projects and programs. However, in the next 15 years, there is much that local governments can do to reduce emissions independently. It is also important that the City of Madera works to reduce its emissions sooner, rather than later: the sooner a stable level of greenhouse gases in the atmosphere is achieved, the less likely it is that some of the most dire climate change scenarios will be realized. Additionally, if cost saving projects can be undertaken now – why wait to increase the quality of local government service and operations, while reducing taxpayer costs?

State of California Targets and Guidance

An integral component of the State of California's climate protection approach has been the creation of three core emissions reduction targets at the community level. While these targets are specific to the community-scale, they can be

used to inform emissions targets for government operations as well. On June 1, 2005, California Governor Schwarzenegger signed Executive Order S-3-05 establishing climate change emission reductions targets for the State of California. The California targets are an example of near-, mid- and long-term targets:

- Reduce emissions to 2000 levels by 2010
- Reduce emissions to 1990 levels by 2020
- Reduce emissions to 80 percent below 1990 levels by 2050

The AB 32 Scoping Plan also provides further guidance on establishing targets for local governments; specifically the Plan suggests creating an emissions reduction goal of 15 percent below "current" levels by 2020. This target has informed many local government's emission reduction targets for municipal operations—most local governments in California with adopted targets have targets of 15 to 25 percent reductions under 2007 levels by 2020.

Departmental Targets

If possible, ICLEI recommends that the City of Madera consider department-specific targets for each of the departments that generate emissions within its operations. This allows the City of Madera staff to do a more in-depth analysis of what is achievable in each sector in the near, mid and long-term, and also encourages department leaders to consider their department's impact on the climate and institute a climate-conscious culture within their operations.

Creating an Emissions Reduction Strategy

This inventory identifies the major sources of emissions from the City of Madera's operations and, therefore, where policymakers will need to target emissions reductions activities if they are to make significant progress toward adopted targets. For example, since Water and Stormwater Services was a major source of emissions from the City of Madera's operations, it is possible that the City of Madera could meet near-term targets by implementing a few major actions within the Water and Stormwater Services sector. Medium-term targets could be met by focusing emissions reduction actions on Buildings and Facilities, the Vehicle Fleet, and other major sectors, and the long term (2050) target will not be achievable without major reductions in all of these sectors.

Please note that, whenever possible, reduction strategies should include cost-saving projects that both reduce costs (such as energy bills) while reducing greenhouse gas emissions. These "low hanging fruit" are important because they frequently represent win-win situations in which there is no downside to implementation. Selecting these projects in the order of largest to smallest benefit ensures that solid, predictable returns can be realized locally. These projects lower recurring expenditures, save taxpayer dollars, create local jobs, and benefit the community environmentally.

Given the results of the inventory, ICLEI recommends that the City of Madera focus on the following tasks in order to significantly reduce emissions from its government operations:

General:

- Participate in Phase II of Green Communities: Community-Wide Inventories, in order to gather necessary data to develop effective policies which result in extensive reductions through implementation of a Climate Action Plan for the larger community[6];
- Promote training, education, rewards, incentives, encouragement and support for emissions reductions across the board;

Buildings and Facilities:

- Change procurement policy to specify energy star compliant HVAC systems and refrigerators;
- Comprehensive municipal retrofit of existing buildings including lighting, insulation, windows and HVAC systems for improved energy efficiency, cost savings, and building performance;
- Develop an equipment database to help with the reuse of old furniture and fixtures;
- Install smart lighting fixtures with occupancy sensors;
- Perform a comprehensive energy retrofit of existing buildings, especially the older buildings;
- Procure solar or other low-carbon based electricity;
- Review feasibility of alternative energy production at City facilities;
- Switch to refrigerants that have a lower GWP (global warming potential);

Public Lighting:

- Analyze reduction potential for streetlights and other public lighting;
- Analyze reduction potential for the LS-1 designated streetlights;
- Switch traffic signals and public lighting from incandescent bulbs to Light Emitting Diodes (LEDs);

Wastewater Sector:

- Additional treatment to effluent water to reduce process methane emissions;

Government Generated Waste:

- Change procurement policy to recommend recycled, reusable and recyclable materials, including office supplies (e.g. paper, cardboard, cans, toner cartridges);
- Comprehensive analysis of waste stream;
- Implement paper and toner reduction strategies to reduce excess paper and toner usage, e.g. double-sided printing and fonts that use less ink (i.e., Century Gothic, Times New Roman and Calibri);
- Increase office reuse and recycling (e.g. paper, cardboard, cans, toner cartridges);

[6] The City's General Plan includes an Action Item calling for the preparation of a Climate Action Plan (CAP), and reduction targets are specified.

Vehicle Fleet:

- Exploration of biofuels to replace vehicle fleet fuel usage;
- Explore implementing a no-idling policy for fleet vehicles;
- Reduce usage of city-owned vehicles, replace those which are not fuel efficient, and change procurement policy to specify high fuel efficiency for each vehicle class;
- Promote procurement of plug-in hybrids where practical, which can reduce vehicle emissions by up to 50% in PG&E territory;
- Specify high fuel efficiency during procurement for new vehicles of all classes;

Employee Commute:

- Encourage and incentivize telecommuting to reduce emissions from employee commute;
- Encourage employees to use alternative modes of transportation by offering enhanced commuter benefits;
- Explore various policies to encourage walking and biking in good weather by employees that live within 5 miles, and to encourage carpooling by all employees;
    - Give incentives for employees to use the transit system or carpool;
    - Implement a Commute Trip Reduction (CTR) program (e.g. carpooling and biking incentives) (http://www.vtpi.org/tdm/tdm9.htm);
- Implement employee commute programs aimed at reducing greenhouse gas emissions;
- Recommend and incentivize carpooling to reduce emissions from employee commute.

Using these strategies as a basis for a more detailed overall emissions reductions strategy, or climate action plan, the City of Madera should be able to reduce its impact on global warming. In the process, it may also be able to improve the quality of its services, reduce costs, stimulate local economic development, and inspire local residents and businesses to redouble their own efforts to combat climate change.

Appendix A: Inventory Methodologies

ICLEI's Clean Air & Climate Protection Software (CACP 2009) software made it possible to calculate greenhouse gas emissions for the following greenhouse gases: Carbon Dioxide, Methane, Nitrous Oxide, Hydrofluorocarbons, Perfluorocarbons, and Sulfur Hexafluoride. Activity data was collected for a number of operations through a number of methods. Activity data was stored in Master Data Workbook (MDWB), which serves as a tool for organizing and conditioning data, and, in some cases, calculating emissions. Data collection methods range from LGO Protocol-recommended, to LGO Protocol-alternative and non-LGO Protocol (but ICLEI-approved) alternatives. The methods used depend on the availability and format of data. Inputting activity data into CACP 2009, along with the correct emission factor, resulted in the calculation of greenhouse gas emissions for the City of Madera's 2007 government operations.

Activity Data

The data that was used for the baseline 2007 year for the City of Madera's Carbon Emissions Report, comes from many sources, including the Accounts Payable Department, Plan Operations Managers, and even the routine of checking the types and sizes of fire extinguishers within the City's facilities. In the end, most of the data had a paper trail that was traceable and applicable to the 2007 baseline year.

The Accounts Payable Department had receipts that covered a vast majority of the items to be accounted for. However, due to the lack in records for vehicles that were recharged and/or equipment replaced, this list is not complete. What are accounted for are items considered to be of "one-time-use", such as materials purchased from companies like Praxair, for welding and facilities equipment.

Several items should be noted, as they were not accounted for in this baseline year's report. These include several Scope 3 items from Cal Fire, which supplies the City's contracted fire department services, and Allied Waste, which is the City of Madera's waste hauler. Also, to go with notes on Allied Waste, the transportation, fuel consumption, and disposal processes were not included in this 2007 baseline report. In order to perform more accurate calculations of emissions for future reports, it is advised that this information be accounted for as part of contractor services.

Emissions Factors

The emissions factors used for the City of Madera are duly noted within each individual table and tab of the Master Data Workbook. Further reference can be found in ICLEI's "LGO Inventory Instructions for Data Gathering', as referenced on pages 35-38, pages 45, 47, and 51-52, of the LGO Inventory Instructions. It should also be noted here that line items for Scope 3 emissions in the form of Fleet Vehicle coolants were done through the default process as also outlined by ICLEI in the LGO Inventor Instructions. The City's vehicles were looked up by type and coolant requirement given through the Department of Motor Vehicles.

As noted, the baseline year for the City of Madera consisted of items and facilities from the year 2007, with Government-Generated Waste having a proxy year of 2011. Issues that arose during the data collection stage and report periods consisted of minor issues with logs for the City's emergency generators, as well as lack of availability or knowledge relating to data for fire suppressing materials used in the base year and coolants supplied and recharged in the Fleet Vehicles. One of the largest challenges came in the form of missing information due to the destruction of documents more than five years old. This made it difficult to collect data on the suppressing materials and coolants, but ultimately supplied information about the Scope 3 industrial items purchased and used in the 2007 baseline year.

Calculation

Once the data had been gathering into the Master Data Workbook, ICLEI's CACP (2009) program was used to surmise the total emissions for the City of Madera. The input data was broken down from the Summary Tab, which gave the total therms, kWh, and costs attributed to each sector and scope. Input was then broken down by Scope 1, Scope 2, and Scope 3 emissions. Therefore, each facility had an input tab in the CACP for Scope 1 consumption and combustion of fuel and Scope 2 consumption of electricity as supplied by PG&E. Finally, the data was exported into a Microsoft Excel Spreadsheet where it was tallied once again by sector, use, cost and consumption to generate the tables and charts used in this 2007 baseline report.

Buildings and Other Facilities

When it came to obtaining information about the City's facilities, including the number of emergency power generators, Mr. Tony Frede, the City's Electrical and Facilities Operations Manager, was able to supply the majority of the information. Included in this were details about how long, approximately, the emergency generators ran during the baseline year, why they were ran, and any maintenance/service attributes to HVAC systems at the City's facilities.

Facilities that have notations of electricity consumed, as well as natural gas that may have been supplied to the facility, have records of such that were provided by John Joseph, PG&E's Rate Data Analyst, in spreadsheet form. These data

were organized and summarized by facility and/or action item (i.e. sewage lift pumps and other water transportation infrastructure).

Streetlights, Traffic Signals, and Other Public Lighting

Public lighting, traffic signals, and other lightning information was supplied to the data collector and report organizer from John Joseph, PG&E's Rate Data Analyst. These data came in spreadsheet form. These data were organized and summarized by facility and/or action item, sometimes associated with City parks, and then formatted for selected Master Data Workbook tabs. There was slight variability in these data as the format often came as a combination of two items (i.e. traffic signal controller combined with a particular intersection string of traffic lights). This formatting followed the same as most other sectors and was then listed under various designated titles in the CACP data input and carbon output.

Water and Stormwater Services

Data related to the City of Madera Water and Stormwater Services also came in a spreadsheet format that was generated by John Joseph of PG&E. The formatting and data input for Master Data Workbook and CACP input was the same as all other sectors. There were several categorized items that could have been listed under the Wastewater Treatment Plant tabs; these included Scope 2 electricity consumption for water lift pumps that were directly associated with wastewater treatment and transportation. In future emission inventories, it is encouraged that these items be listed under the WWTP energy consumption tabs, among the working, raw, and final data tabs of Master Data Workbook.

Wastewater Treatment Facilities

Wastewater Treatment Facility information was provided by John Joseph of PG&E as well as Mr. Wayne Clay, the City of Madera's Wastewater Treatment Plant Operations Manager. Such data were used in the spreadsheet supplied by PG&E and combined with the informational items listed in the Master Data Workbook. In the end, these items were populated in the CACP program, resulting in a carbon emissions report and count for this summary report and detailed in each particular chart or table generated for visual comprehension.

Airport Facilities

Airport Facilities items and consumption were collected via John Joseph of PG&E, as well as Tony Frede, the City of Madera's Electrical and Facilities Operations Manager. These data items were logged in the raw information tab of the Master Data Workbook designated for the Airport Facilities. These data items were then processed as all other items in

the inventory count and summarized in the CACP program for a carbon emissions count as displayed in this summary report.

Vehicle Fleet and Mobile Equipment

Most of the data had a paper trail that was traceable and applicable to the 2007 baseline year. Zelda Leon, the Administrative Assistant in the Planning Department, had already gathered a great deal of the Vehicle Fleet Data. Her efforts had brought in several nearly complete spreadsheets that held records from Tesi Petroleum (now Madera Petroleum). The data only required some sorting, as well as correlation of the unit numbers to the department in which they belonged. Overall, the Vehicle Fleet data had the needed gallons used per vehicle (unit) and the total vehicle miles traveled for the baseline year.

Transit Fleet

The Transit Fleet items hold their own category, but really have had very few transit fleet vehicles that attributed to emissions for the 2007 baseline year. The transit vehicles use CNG for combustion, ultimately lowering the emissions count for this sector. The information was supplied to the data collector and report organizer in receipt form from the Accounts Payable Department. Tesi Petroleum (now Madera Petroleum) supplied the fuel for the transit vehicles and each vehicle had a monthly consumption in gallons as well as the monthly cost per vehicle listed on the receipt. These receipts were tallied and used to bring a full view on the amount of fuel consumed and the cost therein.

Government-Generated Solid Waste

Government-generated solid waste was generated from a spreadsheet collected from Annette Kwock, the City's Solid Waste and Recycling Coordinator. Such data came in the form of total tonnage hauled, the number of containers at each City facility, and the cost associated with the hauling throughout the year. This information was information that was proxy for the 2007 baseline year. The proxy year was 2011. Further emissions could be recorded in the future by contacting Allied Waste, the City of Madera's solid waste contract hauler. This then could generate data for the amount (tonnage) that was taken to a landfill, as well as the Scope 1 and Scope 2 emissions involved in the overall process.

Employee Commute

Employee Commute data was gathered from a shortened version of the ICELI Employee Commute Survey. Mr. David Merchen, Director of Community Development, City of Madera, took the shortened survey that had already been adapted by the data collector and modified it. The survey was structured to collect informational items in the form of

distance an employee travels to work, type of vehicle the employee drives (passenger car, light truck, heavy truck or SUV), and the employee interest in carpooling—if the employee does not already do so.

The returned surveys were tallied by the data collector. The data was loaded into a working Microsoft Excel Spreadsheet and then loaded in the Master Data Workbook, under the "EC-Working Data Tab". Primary raw data that came from the returned surveys were not listed in the Master Data Workbook as the survey results and edition varied from the one used and commonly recorded by ICLEI.

Other Process and Fugitive Emissions from Government Operated Industry

As the City of Madera contains no power generation facilities within its meets and bounds, no data were collected concerning power generated by the City for community or industrial use. On the other hand, various receipts were received from the Accounts Payable Department that allowed the data collector and emissions reporter to log fire repressing items, HVAC systems and other coolants (such as used by the Fleet Vehicle sector). Most of the items listed come from industrial companies for industrial use (i.e. welding and maintenance shop materials). These items are also one-time-use items that did not have a log for materials recovered. Most often, this returned canisters that were emptied upon full use. New materials were then purchased and the used canister was returned.

The information gained through the Accounts Payable Department displays how many canisters were used throughout the 2007 baseline year, the cost for each canister, and the materials that were contained in each canister; ultimately leading to the data collector's determination of what items generated and counted as Scope 3 items for emission.

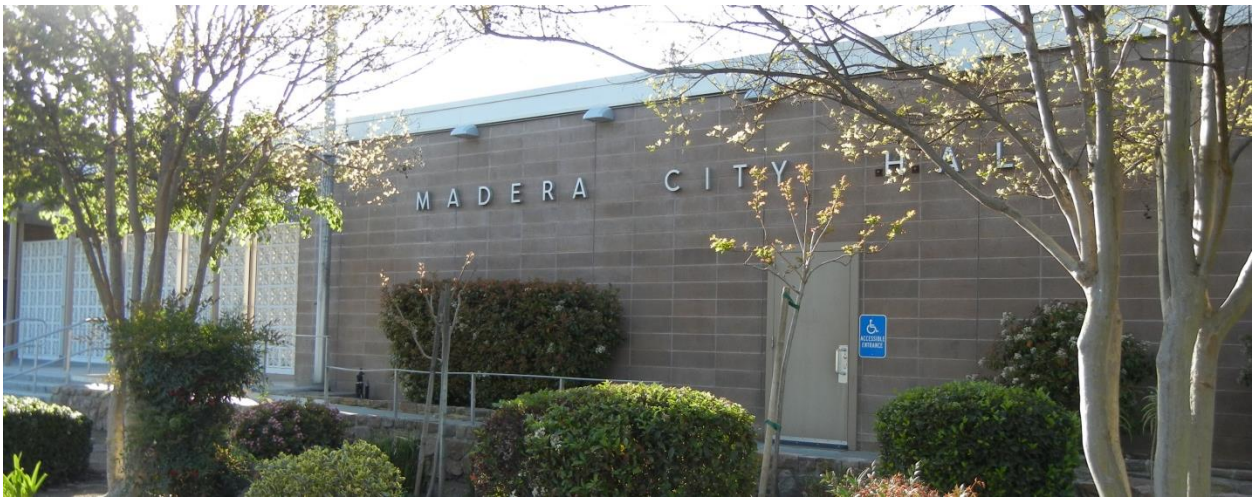
Appendix B: Project Resources

ICLEI created various tools for the City of Madera to use to assist with greenhouse gas emissions inventories. These tools are designed to work in conjunction with LGO Protocol, which is the primary reference document for conducting an emissions inventory. The following tools should be saved as resources and supplemental information to this report:

- The "Master Data Workbook", an Excel-based tool that contains most or all of the raw data (including emails), data sources, emissions, notes on inclusions and exclusions, and reporting tools;
- The "Data Gathering Instructions", an instructions guide on the types of emissions and data collection methodology for each inventory sector;
- The "Quality Control Checklist for Master Data Workbook", a checklist which provides a list of items to review in the Master Data Workbook to ensure information was entered correctly;
- The "CACP 2009 Data Entry Instructions", an instructions guide on how to enter data collected in the Master Data Workbook into the Clean Air and Climate Protection Software (CACP 2009), ICLEI's greenhouse gas emissions calculator;
- The CACP 2009 "Backup" files, a group of files which contain the calculations of emissions based on inputs from the Master Data Workbook into CACP 2009. The CACP 2009 software is required to open the Backup files;
- The "Checklist for Reviewing the Government Analysis Inputs/Outputs, Details Export" a checklist which provides a list of items to review in this CACP 2009 export file to ensure information was entered correctly;
- CACP 2009 "Government Analysis Inputs/Outputs, Summary with Notes Export", an Excel-based export file which contains a summary report of all calculated emissions, with explanatory notes included;
- CACP 2009 "Government Analysis Inputs/Outputs, Details Export", an Excel-based export file which contains a detailed report of all calculated emissions;
- The "Completing the Inventory Report", an instructions guide from ICLEI on how to report greenhouse gas emissions according to the LGO Protocol;
- The "Charts and Tables Data Conditioning Sheet", an Excel-based tool created by ICLEI and completed by the author to aid in creating the charts and tables within the Master Data Workbook;
- A presentation with slides completed by the author to summarize findings from the greenhouse gas inventory.

Appendix C

Technical Assumptions



Appendix C
Technical Assumptions

This appendix outlines the assumptions, data sources, and performance criteria used to estimate the GHG emissions reduction potential for each measure identified in Chapter 3 and the State-level regulations identified in Chapter 2. The quantification of GHG reductions was based primarily on calculation methods detailed in the California Air Pollution Control Officers Association's (CAPCOA) report, Quantifying Greenhouse Gas Mitigation Measures (August 2010). The calculations utilize emissions factors and results from the City of Madera Community-wide GHG Emissions Inventory (2014) and City of Madera Government Operations GHG Emissions Inventory (2012), and assumptions made about the degree of implementation in the years 2020 and 2030.

TABLE C-1: TECHNICAL ASSUMPTIONS FOR GHG REDUCTIONS FROM LOCAL MEASURES

Measure	2020 GHG Reduction (MT CO_2e)	2030 GHG Reduction (MT CO_2e)	Assumptions
LG-1: Municipal Energy Efficiency and Conservation	74	148	In 2007, the City's buildings and facilities used a total of 1,924,688 kWh of electricity and 43,806 therms of natural gas, producing approximately 1,651 MT CO_2e. The City's street and traffic signal lights used a total of 2,388,778 kWh of electricity, producing approximately 693 MT CO_2e. This measure assumes that energy consumption in City buildings and facilitates and public lighting would be reduced by 5% by 2020 and 10% by 2030, which would correspond to a 5% reduction in associated emissions by 2020 and a 10% reduction by 2030. (City of Madera Government Operation GHG Inventory [Government Operations GHG Inventory], 2012; CAPCOA, 2010)
LG-2: Municipal	445	611	This measure assumes a total of 1,265 kW of municipal

Renewable Energy			solar PVs would be installed by 2020 and 1,427 kW of municipal solar PVs would be installed by 203. Please note, the City has already met this objective for 2020, installing 1,265 kW of solar between 2007 and 2014. This measure also assumes that in addition to the solar PV installation objectives, the City will procure 10% of its electricity from renewable sources by 2020 and 20% of its electricity from renewable sources by 2030. (City of Madera, 2014)
LG-3: Fuel Efficient and Low-Carbon Vehicle Fleet	58	105	This measure assumes a total of 10 light duty vehicles are replaced with 3 hybrid or electric vehicles with a combined average fuel economy of 55 mpg and 7 CNG fueled vehicles between 2007 and 2020. The City already replaced 6 traditional light-duty vehicles with one hybrid vehicle and 5 CNG vehicles between 2007 and 2014. This measure also assumes an additional 12 light-duty vehicles are replaced with 5 hybrid or electric vehicles with combined average fuel economy of 55 mpg and 7 CNG fueled vehicles. This measure also assumes a total of 10 heavy-duty vehicles are replaced with CNG fueled vehicles by 2020 and an additional 6 heavy-duty vehicles are replaced with CNG vehicles by 2030. The City already replaced 10 heavy-duty vehicles with CNG vehicles between 2007 and 2014. The reduction in GHG emissions varies depending on vehicle type, year, and associated fuel economy. The following assumptions were made based on a review of baseline data provided in the GHG Emissions Inventory: average annual light-duty VMT is 9,472; average annual heavy-duty VMT is 7,489;average fuel economy of replaced light-duty vehicles is 17 mpg; average fuel economy of replaced heavy-duty vehicles is 12 mpg; average fuel economy of light-duty hybrid replacement vehicles is 55 mpg; average fuel economy of light-duty CNG replacement vehicles is 33 mpg; average fuel economy of heavy-duty CNG replacement vehicles is 18 mpg. (Government Operations GHG Emissions Inventory, 2012; City of Madera, 2014; CAPCOA, 2010, Measure VT-3)
LG-4: City Employee Commute Alternatives	41	66	In 2007, emissions from City employee commutes totaled 828 MT CO_2e (approximately 1,921,944 average annual VMT). A 5% reduction would bring employee commute VMT to 1,825,847 by 2020 and an 8% reduction would bring employee commute VMT to 1,768,188 by 2030, which would proportionately reduce associated emissions. (Government Operations GHG Emissions Inventory, 2012; City of Madera, 2014)
LG-5: Municipal Solid Waste Diversion	19	28	In 2007, municipal facilities and operations landfilled 366 tons of solid waste. A 20% reduction would bring municipal landfilled solid waste to 293 tons in 2020 and

			a 30% reduction would bring municipal landfilled solid waste to 256 tons in 2030, which would proportionately reduce associated emissions. (Government Operation GHG Emissions Inventory, 2012; CAPCOA, 2010, Measure SW-1)
LG-6: Tree Planting on City Property	16	33	This measure assumes that 100 trees will be planted between 2007 and 2020 and 100 more will be planted by 2030 (for a total of 200 trees planted on municipal properties between 2007 and 2030). Please note, the City has already planted 85 trees on City property, and therefore, must plant an additional 15 trees by 2020 and an additional 100 trees by 2030. This measure also assumes that 3 acres of vegetation will be planted on City properties by 2020 and an additional 3 acres of vegetation will be planted by 2030. Please note, the City has already planted 2 acres of vegetation, and therefore, must plant an additional one acre by 2020 and an additional 3 acres by 2030. Average carbon sequestration rate: 0.0354 MT CO_2e per tree, 4.31 per acre grassland. (City of Madera, 2014; CAPCOA, 2010, Measure V-1)
E-1: Energy Efficiency and Conservation in Existing Buildings	10,707	30,163	This measure assumes that residential and commercial energy usage is reduced by 10% by 2020 and by 15%by 2030 as a result of participation in energy efficient upgrade and retrofit programs. (Community-wide GHG Emissions Inventory, 2014)
E-2: Energy Efficient New Construction	531	7,670	The 2020 and 2030 forecast assumes that the growth in emissions from natural gas and electricity in the residential and commercial/industrial sectors is from new construction. This calculation assumes that all new non-residential buildings built after 2030 will achieve net zero energy. It also assumes that by 2020, 10% of new residential and commercial development will exceed Title 24 standards by 20% and that by 2030, 25% of new residential development will exceed Title 24 standards by 30%. (Community-wide GHG Emissions Inventory, 2014)
E-3: On-Site Small-Scale Renewable Energy	1,813	3,014	Assumes that 4,000 kW of residential solar and 1,500 kW of non-residential solar will be installed on existing buildings by 2020 and an additional 2,720 kW of residential solar and 500 kW of non-residential solar will be installed by 2030 (for a total of 2,000 kW of residential solar and 6,720 kW solar installed between 2007 and 2030). Assumes 400 residential solar water heaters and 200 non-residential solar water heaters installed on existing buildings by 2020 and an additional 350 residential solar water heaters and 200 non-residential solar water heaters installed by 2030 (for a total of 750 residential solar water heaters and 400 commercial solar water heaters installed between 2007 and 2030). Assumes

			10% electric and 90% natural gas. Average expected solar water heater savings: 2,945 kWh/yr; 139 therms/yr. This calculation does not double-count with reductions from E-1. (California Solar Initiative, 2012)
T-1: Infill and Mixed Use Development	5,613	21,292	Assumes a 4% reduction in VMT by 2020 as a result of a 30% increase in density within the City. Also assumes a combined 12% reduction in VMT by 2030 as a result of smart growth development (increased service population density to 50%, diversity of land uses, and destination accessibility) within the City. Conservative VMT reduction estimates were used based on the following ranges presented in CAPCOA: increase density (0.8-30%), diversity of land use (9-30%), destination accessibility (6.7%-20%), combined total reduction not to exceed: compact infill = 30%; suburban center = 10%; suburban = 5%. (City of Madera, 2014; Community-wide GHG Emissions Inventory, 2014; CAPCOA, 2010)
T-2: Bicycle and Pedestrian Environment	1,053	3,454	As a rule of thumb, the Center for Clean Air Policy (CCAP) Guidebook attributes a 1% to 5% reduction associated with comprehensive bicycle programs. Assume low-middle range of CCAP reduction estimates: 1% reduction by 2020 and 3% reduction by 2030 (to account for both bicycle and pedestrian trips). (CCAP Guidebook, 2005; Community-wide GHG Emissions Inventory, 2014; CAPCOA, 2010)
T-3: Transit Travel	2,404	4,757	Assumes an increase in transit ridership to 2% of the city's service population by 2020 and 4% of the service population by 2030. Average round-trip transit trip: 14 miles in 2020, 12 miles in 2020. This equates to a 2% reduction in light-duty VMT by 2020 and a 4% reduction in light-duty VMT by 2030. (Fehr & Peers, 2014; CAPCOA, 2010)
T-4: Commute Trip Reduction	1,188	1,977	VMT reductions from TDM programs range from 5.2% to 19% depending on the level of support provided and the density of the area in which the TDM is implemented. Conservatively assumes low range estimates for voluntary TDM (5.2% reduction in commute VMT in 2020 and 8% reduction in 2030). Also assumes 19.41% of 2020 VMT from commute trips and 19.17% 2030 VMT from commute trips. (Fehr & Peers, 2014; CAPCOA, 2010)
T-5: Traffic Flow and Vehicle Idling	265	401	Traffic Signalization: According to the Federal Highway Administration, there is evidence of a 4-13% reduction in fuel consumption for signal coordination projects. This calculation assumes 10% reduction from reduced idling in 2020 and 13% reduction in 2030. (FHWA, 2011; CAPCOA, 2010)
T-6: Low Carbon Fuel Vehicles and Infrastructure	4,255	11,061	Assumes 2.5% increase in purchase of electric vehicles above Advanced Clean Cars in 2020 and 6% increase in 2030. Assumes 6% of heavy-duty vehicles switch to a

			CARB-approved low carbon fuel (CNG was used for the purposes of this calculation) by 2020 and 15% switch by 2030. (CARB, 2010)
T-7: Construction and Off-Road Equipment	135	584	This measure includes two components, which separately reduce emissions: • Alternative Fuels: Assumes 5% of off-road equipment switches to electric or alternative fuels by 2020 and 10% switch by 2030 (assumes 10% electric and 90% alternative fuels). • Xeriscaping: As a result of xeriscaping, which reduces the need for landscaping maintenance, this measure assumes 15% reduction in lawn and garden equipment and associated GHG emissions in 2020 and 30% reduction in 2030 as a result of low-maintenance landscaping. (Community-wide GHG Emissions Inventory, 2014; CAPCOA, 2010)
W-1: Exceed SB X7-7 Water Conservation Target	494	653	Assumes 5% reduction in per capita water use beyond SB X7-7 in 2020; 10% reduction in per capita water use beyond SB X7-7 in 2030. Reduced water use also results in reduced wastewater and associated GHG emissions. (Community-wide GHG Emissions Inventory, 2014)
W-2: Recycled Water	68	165	Assumes 5% of the city's water use will come from recycled water in 2020 and 10% will come from recycled water in 2030. Recycled water use in Northern California can result in up to 40% reduction in MT CO_2e if 100% reclaimed water. Reduced water use due to use of recycled water similarly results in reductions in wastewater-related emissions. (Community-wide GHG Emissions Inventory, 2014; CAPCOA, 2010)
W-3: Wastewater Treatment Plant Upgrades	158	170	This measure assumes that methane and nitrous oxide emissions will be reduced by 50% by 2030 as a result of process efficiency improvements. This measure also assumes that energy use will be reduced by 10% by 2030 as a result of cogeneration. (Community-wide GHG Emissions Inventory, 2014)
S-1: Solid Waste Reduction and Recycling	4,230	5,921	Assumes 25% increase in diversion of solid waste by 2020; 35% increase by 2030. This is equivalent to landfilling no more than 48,115 tons of solid waste in 2020 and 55,139 tons in 2030. Please note, the Madera community generated 49,194 tons of solid waste in 2007; this amount declined to 42,308 tons in 2013. (Community-wide GHG Emissions Inventory, 2014).
U-1: Trees and Vegetation	34	68	This measure assumes that 600 trees will be planted between 2007 and 2020 and 600 more will be planted by 2030 (for a total of 1,200 trees planted between 2007 and 2030). This measure also assumes that 3 acres of vegetation will be planted in the community by 2020

			and an additional 3 acres of vegetation will be planted by 2030. Average carbon sequestration rate: 0.0354 MT CO_2e per tree, 4.31 per acre grassland. (CAPCOA, 2010, Measure V-1)
A-1: Climate Change Vulnerability	NA	NA	This measure would not reduce GHG emissions.
A-2: Public Health and Safety	NA	NA	This measure would not reduce GHG emissions.
A-3: Water Management	NA	NA	This measure would not reduce GHG emissions.
A-4: Biodiversity and Habitat	NA	NA	This measure would not reduce GHG emissions.
A-5: Infrastructure	NA	NA	This measure would not reduce GHG emissions.
A-6: Agriculture	NA	NA	This measure would not reduce GHG emissions.

TABLE C-2: TECHNICAL ASSUMPTIONS FOR GHG REDUCTIONS FROM STATE REGULATIONS

State Regulation	2020 GHG Reduction (MT CO_2e)	2030 GHG Reduction (MT CO_2e)	Assumptions
Pavley Clean Car Standard (AB 1493)	29,460	44,015	CARB anticipates that the Pavley I standard will reduce GHG emissions from new California passenger vehicles by about 22 percent in 2012 and about 30 percent in 2016. Reductions in GHG emissions from the Pavley I standard were calculated using CARB's EMFAC2011 model for Madera County. To account for this standard, EMFAC2011 integrates the reductions into the mobile source emissions portion of its model. (CARB EMFAC2011 Model)
Advanced Clean Cars	3,408	20,448	CARB anticipates that by 2020, Advanced Clean Cars will reduce CO_2e emissions by 3 percent and by 2025, CO_2e emissions would be reduced approximately 12 percent from 2008 baseline levels. The reduction increases to a 27 percent reduction from 2008 baseline levels in 2035 and even further to a 33 percent reduction in 2050. Reductions in GHG emissions from the Advanced Clean Cars program were calculated by taking 3 percent reduction from 2008 baseline transportation emissions from light-duty vehicles in 2020 and 18 percent reduction in 2030. The 18 percent reduction in 2030 was interpolated between 2025 and 2035 reduction estimates from the CARB.

Low Carbon Fuel Standard	19,947	21,996	The Low Carbon Fuel Standard (LCFS) requires a reduction of at least 10 percent in the carbon intensity of California's transportation fuels by 2020. Reductions in GHG emissions from the LCFS standard were calculated for on-road and off-road vehicles by taking a 10 percent reduction of total business-as-usual emissions for each sector. For on-road transportation, the 10 percent reduction was taken after applying Pavley I and Advanced Clean Cars in order to account for the combined effectiveness of the three regulations. LCFS would reduce emissions from on-road transportation by approximately 17,325 MT CO_2e in 2020 and 19,319 MT CO_2e in 2030. LCFS would reduce emissions from off-road vehicles by approximately 2,622 MT CO_2e in 2020 and 2,677 MT CO_2e in 2030. (CARB EMFAC2011 Model)
Title 24 Energy Efficiency Building Standards	4,876	11,870	The California Energy Commission (CEC) estimates that the 2008 standards reduce consumption by 10 percent for residential buildings and 5 percent for commercial buildings, relative to the previous standards. For projects implemented after January 1, 2014, the CEC estimates that the 2013 Title 24 energy efficiency standards will reduce consumption by 25 percent for residential buildings and 30 percent for commercial buildings, relative to the 2008 standards. These percentage savings relate to heating, cooling, lighting, and water heating only and do not include other appliances, outdoor lighting that is not attached to buildings, plug loads, or other energy uses. Therefore, these percentage savings were applied to the percentage of energy use covered by Title 24. The calculations and 2020 GHG emissions forecast assume that all growth in the residential and commercial/industrial sectors is from new construction. (CEC, 2008; Statewide Energy Efficiency Collaborative [SEEC], 2011)
Renewable Portfolio Standard	55,365	64,785	PG&E must have a renewable portfolio of 33% by 2020. In order to calculate future emissions that take into account the Renewable Portfolio Standard, the projected 2020 emissions factor for PG&E was applied to projected bundled electricity usage and the CEC's 2020 grid

			average emissions factor was applied to direct access electricity. PG&E and CEC grid average emissions factors were retrieved from PG&E and the Statewide Energy Efficiency Collaborative report, Greenhouse Gas Forecasting Assistant (October 2011).

Appendix D

Cost & Savings Analysis



Appendix D
Cost & Savings Analysis

This appendix details the methodology, sources, and assumptions for the cost and savings estimates included in the CAP (see **Table D-2**). Estimates are based on market research and represent the best available information at the time this CAP was developed. Costs associated with each measure are presented as the aggregated total for the measure, and are also broken out by the type of cost (i.e., capital cost, staff time, etc.) and how often it would occur (i.e., one time or annually). Costs account for the expense that would occur beyond the cost of conducting business-as-usual (i.e., without implementation of the CAP).All existing and/or completed efforts and General Plan policies and action items identified in Chapter 3 are considered costs associated with conducting business-as-usual. Costs presented in **Table D-2** are costs for implementation of additional implementation actions. Savings are generally presented as the amount that would occur annually upon completion of the measure. For each measure, potential costs and savings are estimated for the City and the community (private costs/savings). Private costs/savings include costs/savings to the general public, businesses, and private developers where applicable. Costs and savings are categorized as none, very low, low, medium, high, and very high. These categories correspond to a range, as shown in **Table D-1** below, as costs for each measure are highly variable.

TABLE D-1: MEASURE COSTS AND SAVINGS

City Cost/Savings		Private Cost/Savings	
None:	$0	None:	$0
Very Low:	$1 - $10,000	Very Low:	$1 - $1,000
Low:	$10,001 - $50,000	Low:	$1,001 - $5,000
Medium:	$50,001 - $100,000	Medium:	$5,001 - $10,000
High:	$100,001 - $200,000	High:	$10,001 - $20,000
Very High:	$200,001 or greater	Very High:	$20,001 or greater

TABLE D-2: MEASURE COST AND SAVINGS ANALYSIS

Measure	City Cost	City Savings	City Cost/Savings Discussion*	Private Cost	Private Savings	Private Cost/Savings Discussion
Local Government						
LG-1 Municipal Energy Efficiency and Conservation	Low - Medium	High - Very High	**City Costs:** Upfront costs include staff time to establish a prioritized list of projects, identify staff that could benefit from additional training, and to obtain funding (approximately 60 hours, at $50-$100/hour = $3,000-$6,000). It is assumed that the upgrades would be funded through a grant, utility program, energy performance contract, or other mechanism. Annual costs include staff time to track municipal energy consumption through the PG&E Portfolio Manager and to attend energy-related training events (approximately 40 hours per year, at $50-$100/hour = $2,000-$4,000). Aggregated cost (over lifetime of plan, 15 years): $33,000-$66,000. Costs to coordinate with PG&E and the Madera Energy Watch partnership are costs associated with business-as-usual. **City Savings:** Based on an average electricity cost of $0.21/kWh and a total reduction of 1,129,771 kWh by 2030, the City would save an estimated $237,252 annually upon completion (PG&E, 2015). In addition, many actions to improve energy efficiency will generate costs savings through the	None	None	**Private Costs:** None **Private Savings:** None

			reduced need for operations & maintenance.			
LG-2 Municipal Renewable Energy	Very Low	Very High	**City Costs:** Upfront costs include staff time to obtain funding and conduct feasibility study (approximately 100 hours, at $50-$100/hour = 5,000-$10,000). It is assumed that solar PVs would be funded through a grant, utility program, energy performance contract, or other mechanism. **City Savings:** Based on an average electricity cost of $0.21/kWh and a total of 2,188,920 kWh provided by renewable energy sources by 2030, the City would save an estimated $459,673annually upon completion.	None	None	**Private Costs:** None **Private Savings:** None
LG-3 Fuel Efficient and Low-Carbon Vehicle Fleet	High	Low	**City Costs:** One-time upfront costs include staff time to update the City's procurement policies, to obtain funding, and to conduct staff training (approximately 80 hours, at $50-$100/hour = $4,000-$8,000). It is assumed that funding would be received to help purchase alternative and fuel efficient vehicles and equipment. However, the difference in purchase price between standard and fuel efficient vehicles was estimated for informational purposes. Based on an average difference in purchase price for a hybrid Honda Civic above a standard Honda Civic of $6,445, and a total of 7 additional vehicles replaced by 2030, the new hybrid vehicles would cost the	None	None	**Private Costs:** None **Private Savings:** None

			City an estimated $45,115 more than purchasing 7 new gasoline vehicles (USDOE, 2015). Based on an average difference in purchase price for a natural gas Honda Civic above a standard Honda Civic of $8,450, and a total of 9 additional vehicles replaced by 2030, the new natural gas vehicles would cost the City an estimated $76,050 more than purchasing 9 new gasoline vehicles (USDOE, 2015). For heavy-duty vehicles, the cost of the CNG conversion in the F-650s is $14,800, or $3,800 more than for a diesel F-650 (Berg, 2014). The 6 new CNG heavy-duty vehicles would cost the City an estimated $22,800.No staff time needed above that required for purchasing standard vehicles. Note: costs will decrease as the price of hybrid and compressed natural gas vehicles decrease. Aggregated cost of staff time plus purchase cost: $147,965-$151,965. **City Savings:** Based on current fuel prices and an average annual mileage of 7,601, the City would save approximately $1,109 in annual fuel costs per hybrid vehicle or $7,763 for all 7 new hybrid vehicles annually upon replacement, $985 in annual fuel costs per light-duty CNG vehicle or and $8,865 for all 9 new CNG vehicles annually upon replacement. Based on			

			an average annual heavy-duty VMT of 7,248, the City would save approximately $934 in annual fuel costs per heavy-duty CNG vehicle or $5,604 for all 6 new CNG vehicles annually upon replacement. In addition, savings for the 9 new light-duty CNG vehicles and 6 new heavy-duty CNG vehicles would be achieved through lower maintenance costs from reduced wear and tear of the engine and less frequent oil changes and tune-ups. Some fleet operators have reduced maintenance costs by as much as 40 percent by converting their vehicles to CNG (Agee, 2015). Please note that the amount saved will change as fuel prices change. Aggregated annual savings: $22,232.			
LG-4 Employee Commute Alternatives	Very Low	None	**City Costs:** First year costs would include City staff time to develop and implement incentives to use transportation alternatives and to facilitate outreach and community events (approximately 20 hours at $50-$100/hour = $1,000-$2,000). Annual costs would include City staff time to promote program (approximately 4 hours at $50-$100/hour = $200-$400). Aggregated cost (over life of the plan, 15 years) = $4,000-$8,000. **City Savings:** No direct savings for the City, although participating employees would save on commute costs, and	None	None	**Private Costs:** None **Private Savings:** None

			potential benefits through the program, such as transit pass discounts or reduced travel costs.			
LG-5 Municipal Solid Waste Diversion	Very Low	None	**City Costs:** This measure would require approximately 40 hours of staff time to conduct an audit to identify opportunities to increase material recovery (at $50-$100/hour = $2,000-$4,000). **City Savings:** No added savings.	None	None	**Private Costs:** None **Private Savings:** None
LG-6 Tree Planting on City Property	Medium - High	Very Low	**City Costs:** This measure assumes an average cost of $250/15-gallon tree and an average annual maintenance cost of $15-$65/tree (including pruning, administration, inspection, etc.)(Peters Brothers Nursery, 2015; McPherson et al., 2005).This measure also assumes an installation cost of $2,000 to $4,000 per acre for seeding native prairie grasses and forbs (USEPA, 2012). Please note that grants and private funding have the potential to cover a portion of the cost associated with this measure. Planting of 115 trees at $250 per tree is estimated to cost approximately $28,750.Annual maintenance of 115 trees over the lifetime of the plan (15 years) is estimated to cost $25,875-112,125. Seeding 4 acres at $2,000-$4,000 per acre is estimated to cost approximately $8,000-$16,000. Upfront costs would also include City staff time to obtain funding	None	None	**Private Costs:** None **Private Savings:** None

			(approximately 40 hours at $50-$100/hour = $2,000-$4,000). Aggregated cost (over life of the plan, 15 years) =$64,625-$160,875 **City Savings:** Although the benefits of urban forestry can vary considerably by community and tree species, a study of urban forestry programs in five U.S. cities showed that the benefits (from energy savings due to shading of buildings) are almost always higher than the costs. The study found that, on a per-tree basis, cities accrued benefits ranging from about $1.50-$3 for every dollar invested. These cities spent roughly $15-$65 annually per tree, with net annual benefits ranging from approximately $30-$90 per shade tree (McPherson et al., 2005). For this measure, it is assumed that 25 percent of the trees would be planted to shade buildings. Annual savings for planting 28 shade trees is approximately $840-$2,520.			
Energy						
E-1: Energy Efficiency and Conservation in Existing Buildings	Medium - High	None	**City Costs:** Annual costs are associated with City staff time needed to collaborate with PG&E and conduct outreach and promotional activities (approximately 80 hours at $50-$100/hour = $4,000-$8,000/year). Over the lifetime of the plan (15 years) this would total $60,000-$120,000. **City Savings:** None	None	Varies	**Private Costs:** No mandatory costs, as implementation would be voluntary. For participating residents and businesses, costs would vary based on the degree of implementation, available rebates and other financial incentives. For informational purposes, the typical price to hire a home energy auditor

						costs between $646 and $942 (Home Advisor, 2015). However, low-cost or free audits are often offered by local utilities. Energy efficient windows (including installation) can cost between $270-$800 per/window (Houselogic, 2015). Installing batt wall insulation can cost about $1.18-$1.58 per square foot (Homewyse, 2014. Attic insulation can cost about $0.70.-$3 per square foot depending on the type of insulation installed (Choice Roofing Group, 2015). PG&E currently offers up to $1,500 in rebates to upgrade heating or cooling systems, up to $1,500 in rebates for window upgrades, and up to $2,000 for attic upgrades (PG&E, 2015). ENERGY STAR washers range from $550-$1,000 and ENERGY STAR refrigerators range from $540-$1,600 (The Home Depot, 2015).There are also several energy savings projects that can be completed for under $50 including: energy-efficient lighting ($3-$15/bulb), power strip ($12-$35), water heater blanket ($25), foam pipe insulation ($4-$5 for 6-foot length), programmable thermostat (starting at $25), door sweep ($3.50-$20), clothesline ($10),

						timers for lights ($7-$13) (Pahl, 2012). **Private Savings:** Savings to participating residents and business owners varies based on total reduction in kWh of electricity. Average electricity cost is $0.20/kWh (PG&E, 2015). Upgrading to ENERGY STAR qualified windows can reduce annual household energy bills by 7-15 percent, or roughly $71-$501 annually, depending on your geographic location and the type of window being replaced (USDOE, 2010). ENERGY STAR-qualified clothes washers and refrigerators are 20-35 percent more energy efficient than standard models (USEPA, 2013). Overall, making energy efficiency upgrades identified in an energy audit could result in a 5-30 percent reduction on your energy bill (USDOE, 2013).
E-2: Energy Efficient New Construction	Low	None	**City Costs:** Annual costs are associated with City staff time needed to provide support to and recognition of developers (approximately 20 hours at $50-$100/hour = $1,000-$2,000/year). Over the lifetime of the plan (15 years) this would total $15,000-$30,000. **City Savings:** None	None	Varies	**Private Costs:** No mandatory costs, as implementation would be voluntary. For participating developers, upfront construction costs would be 4-6 percent higher for ultra-energy efficient homes over standard homes (Lozanova, 2014). **Private Savings:** Savings to residents or tenants residing in

						energy efficient buildings varies based on total reduction in kWh of electricity. Average electricity cost is $0.20/kWh (PG&E, 2015). Drawing on national data for 100 green buildings and an in-depth review of several hundred existing studies, one study found that green buildings are a cost-effective investment. The report concluded that minimal increases in upfront costs of about 2-5 percent to support green design would, on average, result in life cycle savings of 20 percent of total construction costs — more than ten times the initial investment (Rutgers, 2013).
E-3: On-Site Small-Scale Renewable Energy	Low - Medium	None	**City Costs:** Annual costs are associated with City staff time needed to conduct outreach and promotional activities (approximately 60 hours at $50-$100/hour = $3,000-$6,000/year). Over the lifetime of the plan (15 years) this would total $45,000-$90,000. **City Savings:** None	None	Varies	**Private Costs:** No mandatory costs, as implementation would be voluntary. For participating residents, businesses, and developers costs vary based total kW installed. The current average installed cost for a residential solar electric system in California is between $4-$7/watt, while larger commercial and institutional systems typically cost $3-$7/watt (cost estimate does not include subsidies or financial assistance) (Center for Sustainable Energy, 2015). The initial cost to install a solar water heating system generally ranges between $6,000-

						10,000. The net cost of installing a solar water heater (accounting for tax credits and rebates) ranges from approximately $1,800 to $5,000 depending on both the rebates available and whether or not the homeowner was going to replace their water heater regardless (Fast Water Heater Company, 2015). The California Solar Initiative Program offers cash rebates for solar water heating systems and for solar installations on homes and businesses. The federal government also offers tax rebates for solar installations. **Private Savings:** Savings for participating residents, businesses, and developers varies based on total kW installed and overall reduction in kWh of electricity. Average electricity cost is $0.20/kWh (PG&E, 2015).On average, solar water heater installation results in a 50–80 percent drop in water heating bills (USDOE, 2012).
Transportation and Land Use						
T-1: Infill and Mixed-Use Development	Low - Medium	None	**City Costs:** Annual costs are associated with City staff time needed to conduct outreach and promotional activities and to showcase infill and mixed-use projects (approximately 60 hours at $50-$100/hour = $3,000-$6,000/year).	None	Varies	**Private Costs:** No mandatory costs, as implementation would be voluntary. For participating developers, costs of infill and mixed-use development would not increase over business-as-usual.

			Over the lifetime of the plan (15 years) this would total $45,000-$90,000. Costs associated with coordinating with MCTC are costs associated with business-as-usual. **City Savings:** None			**Private Savings:** Private savings to residences and employees occupying the infill and mixed-use development would vary depending on the individual reduction in VMT. Savings for participating developers would vary based on incentives provided. Reductions in per capita vehicle travel would reduce direct and indirect transportation costs.
T-2: Bicycle and Pedestrian Environment	Low - Medium	None	**City Costs:** Pursuing funds to expand the City's bicycle and pedestrian network is a cost associated with doing business-as-usual as City staff regularly does this. There would be annual costs associated with City staff time needed to establish design criteria for pedestrian and bicycle circulation and to conduct outreach and promotional activities (approximately 40 hours at $50-$100/hour = $2,000-$4,000/year). Over the lifetime of the plan (15 years) this would total $30,000-$60,000. **City Savings:** None	None	Varies	**Private Costs:** No mandatory costs, as implementation would be voluntary. For participating developers, costs associated with incorporating bicycle and pedestrian infrastructure into new development are costs associated with doing business-as-usual. **Private Savings:** Private savings to participating community members would vary depending on the individual reduction in VMT. Switching from single-occupant vehicle to walking or biking reduces fuel and vehicle costs. The average cost to own and operate a sedan in the US is 59.2 cents per mile, or $8,876 per year, based upon 15,000 miles of annual driving (AAA, 2014).
T-3: Transit Travel	Low	None	**City Costs:** Annual costs are associated with City staff time needed to conduct outreach and promotional activities (approximately 30 hours at $50-$100/hour = $1,500-$3,000/year). Over	None	Varies	**Private Costs:** No mandatory costs, as implementation would be voluntary. For participating developers, costs associated with providing safe routes to adjacent

			the lifetime of the plan (15 years) this would total $22,500-$45,000. In addition, this measure would require minimal additional City staff time needed for project review and approval processing; this cost would be absorbed through development/permitting fees. **City Savings:** None			transit stops and constructing bus turnouts and shelters are costs associated with doing business-as-usual. For participating businesses, costs would vary based on the level of incentives provided (e.g., public transit vouchers). **Private Savings:** Private savings to participating community members would vary depending on the individual reduction in VMT. The measure would encourage people to utilize public transportation and would reduce VMT and associated fuel and vehicle costs to community members. The average cost to own and operate a sedan in the US is 59.2 cents per mile, or $8,876 per year, based upon 15,000 miles of annual driving (AAA, 2014).
T-4: Commute Trip Reduction	Low - Medium	None	**City Costs:** Annual costs are associated with City staff time needed to conduct outreach and promotional activities (approximately 60 hours at $50-$100/hour = $3,000-$6,000/year). Over the lifetime of the plan (15 years) this would total $45,000-$90,000. **City Savings:** None	None	Varies	**Private Costs:** No mandatory costs, as implementation would be voluntary. For participating businesses, costs would vary based on the level of incentives provided (e.g., employer-based TDM programs). **Private Savings:** Private savings to participating community members would vary depending on the individual reduction in VMT. This measure would encourage people to commute via modes other than single occupancy automobiles. This

						would reduce fuel and vehicle costs for community members. The average cost to own and operate a sedan in the US is 59.2 cents per mile, or $8,876 per year, based upon 15,000 miles of annual driving (AAA, 2014).
T-5: Traffic Flow and Light-Duty Passenger Vehicle Idling	None	None	**City Costs:** Costs associated with coordinating traffic signals and intersection improvements are costs associated with doing business-as-usual as these are policies and programs in the General Plan. **City Savings:** None	None	Varies	**Private Costs:** None **Private Savings:** Private savings to community members would vary based on the type of vehicle being driven, delay time, and travel distance. Traffic signal synchronization and other traffic flow management techniques result in reduced travel time and fuel consumption, which can result in monetary savings. On average, avoiding idling can reduce fuel costs from $0.01-$0.02/min and participating in efficient driving techniques can reduce fuel costs from $0.11-$0.71/gallon (USDOE, 2015).
T-6: Low Carbon Fuel Vehicles and Infrastructure	Low - Medium	None	**City Costs:** Upfront costs include staff time to obtain funding (approximately 60 hours, at $50-$100/hour = $3,000-$6,000). It is assumed that the fueling stations would be funded through a grant. Annual costs are associated with City staff time needed to develop an alternative fuel resources page and conduct outreach and promotional activities (approximately 30 hours at	None	Varies	**Private Costs:** No mandatory costs, as implementation would be voluntary. For participating home owners, home charging equipment can cost between $500 and $1,100; however, this is expected to decline over time, with higher volume production. Home installation costs range from a few hundred dollars to over $2,000 depending on the age

			$50-$100/hour = $1,500-$3,000/year). Aggregated cost over the lifetime of the plan (15 years) = $25,500-$51,000. **City Savings:** None			of the home, the home's total electrical capacity and existing electrical loads (Drive Clean, 2015). For participating businesses, public DC fast charging stations can cost more than $10,000, and installations of a single unit can cost up to $50,000 (SJVAPCD, 2014).The cost of a compressed natural gas fueling station depends on the size, capacity, and type of compressed natural gas it dispenses. Average costs to install a natural gas charging station range from $5,500 for a one vehicle time-fill fueling station to $1.8 million for large fast-fill station (USDOE, 2014). Private costs for participating community members may also voluntarily result from purchase of low carbon and alternatively fueled vehicles. The difference in purchase price for hybrid Honda Civic above a standard Honda Civic is about $6,445 (USDOE, 2015). The difference in purchase price for a CNG Honda Civic above a standard Honda Civic is about $8,450 (USDOE, 2015). **Private Savings:** Private savings to participating community members would vary depending on the individual reduction in fuel purchases. Savings associated with

						low carbon/alternative fuel vehicle use include savings from reduced fuel consumption. The difference in operating costs between a standard Honda Civic and a hybrid Honda Civic is $0.02/mile (USDOE, 2015). On average the difference in fuel costs between gasoline vehicles and electric vehicles is currently $1.30/ (e)gallon (AAA, 2015; USDOE, 2013). At the current time, CNG does not provide a cost reduction over current gasoline prices. However, savings associated with CNG vehicles would be achieved through lower maintenance costs from reduced wear and tear of the engine and less frequent oil changes and tune-ups. Some fleet operators have reduced maintenance costs by as much as 40 percent by converting their vehicles to CNG (Agee, 201 5). Please note that the amount saved will change as fuel prices change.
T-7: Construction and Off-Road Equipment	Low	None	**City Costs:** Annual costs are associated with City staff time needed to conduct outreach and promotional activities (approximately 30 hours at $50-$100/hour = $1,500-$3,000/year). Aggregated cost over the lifetime of the plan (15 years) = $22,500-$45,000. **City Savings:** None	None	Varies	**Private Costs:** No mandatory costs, as implementation would be voluntary. Costs to participating businesses and residents would vary depending on the vehicle/ equipment replacement type. **Private Savings:** Private savings to participating businesses and residents would vary based on

						vehicle/equipment replacement type and frequency of maintenance. Private savings associated with electrically-powered or CNG-fuelled off-road equipment include savings from reduced fuel prices. Private savings would also result from reduced fuel usage in lawn and garden equipment. Savings would vary based on type of equipment and frequency of maintenance.
Water and Wastewater						
W-1: Exceed SB X7-7 Water Conservation Target	Low - Medium	None	**City Costs:** Annual costs are associated with City staff time needed to develop water conservation programs and conduct outreach and promotional activities (approximately 60 hours at $50-$100/hour = $3,000-$6,000/year). Aggregated cost over the lifetime of the plan (15 years) = $45,000-$90,000. **City Savings:** None	None	Varies	**Private Costs:** No mandatory costs, as implementation in homes and businesses would be voluntary. For participating businesses and residents, costs would vary based on degree of implementation and total reduced water consumption. **Private Savings:** Private savings to participating businesses and residents would be those associated with reduced water bills. Savings would vary depending on water rates and water usage.
W-2: Recycled Water	Low - Medium	None	**City Costs:** Annual costs are associated with City staff time needed to provide technical assistance and conduct outreach and promotional activities (approximately 40 hours at $50-$100/hour = $2,000-$4,000/year). Aggregated cost over the lifetime of the plan (15 years) = $30,000-$60,000	None	Varies	**Private Costs:** No mandatory costs, as implementation in homes and business would be voluntary. For participating businesses and residents, costs would vary based on degree of implementation and total reduced water consumption. **Private Savings:** Private savings to

			City Savings: None			participating businesses and residents would be those associated with reduced water bills. Savings would vary depending on water rates and water usage.
W-3: Wastewater Treatment Plant Upgrades	Very Low	Low	**City Costs:** Upfront costs include staff time to obtain funding for solar PV installation, and to manage flow rates to identify ways to enable process efficiency (approximately 80 hours, at $50-$100/hour = 4,000-$8,000). It is assumed that solar PVs would be funded through a grant, utility program, energy performance contract, or other mechanism. **City Savings:** Based on an average electricity cost of $0.21/kWh and a total of 106,767 kWh provided by renewable sources by 2030, the City would save an estimated $22,421 annually upon completion.	None	None	**Private Costs:** None **Private Savings:** None
Solid Waste						
S-1: Solid Waste Reduction and Recycling	Very Low - Low	None	**City Costs:** Annual costs are associated with City staff time needed to conduct outreach activities (approximately 10 hours at $50-$100/hour = $500-$1,000/year). Aggregated cost over the lifetime of the plan (15 years) = $7,500-$15,000 **City Savings:** None	None	None	**Private Costs:** None **Private Savings:** None
Urban Greening						
U-1: Trees and Vegetation	Very Low	None	**City Costs:** Upfront costs are associated with City staff time needed to obtain funding and develop a tree	None	Varies	**Private Costs:** No mandatory costs, as implementation would be voluntary. For participating

			planting program (approximately 80 hours at $50-$100/hour = $4,000-$8,000). **City Savings:** None			community members, the average cost of 15-gallon tree is $250/tree and average annual maintenance costs range from $15-$65/tree (Peters Brothers Nursery, 2015; McPherson et al., 2005). **Private Savings:** Private savings to participating residents would result from energy savings due to shading of buildings. Indirect savings would be the same as for the City, with net annual benefits ranging from approximately $30-$90 per shade tree (McPherson et al., 2005).
Adaptation						
A-1: Climate Change Vulnerability	Very Low	None	**City Costs:** This measure would result in costs associated with City staff time to participate in meetings and planning activities and incorporate new adaptation measures into City documents as appropriate (approximately 40 hours, or $2,000-$4,000). **City Savings:** None	None	None	**Private Costs:** None **Private Savings:** None
A-2: Public Health and Safety	Very Low	None	**City Costs:** This measure would result in costs associated with staff time to coordinate with other agencies and community-based organizations (approximately 20 hours, or $1,000-$2,000) **City Savings:** None	None	None	**Private Costs:** None **Private Savings:** None
A-3: Water Management	None	None	**City Costs:** There are no costs associated with this measure as it is a continuation of business-as-usual.	None	None	**Private Costs:** None **Private Savings:** None

			City Savings: None			
A-4: Biodiversity and Habitat	Very Low	None	**City Costs:** This measure would result in costs associated with staff time to identify location for native species and coordinate with other agencies (approximately 20 hours, or $1,000-$2,000). **City Savings:** None	None	None	**Private Costs:** None **Private Savings:** None
A-5: Infrastructure	Very Low	None	**City Costs:** This measure would result in costs associated with staff time to incorporate climate change consideration in infrastructure planning (approximately 40 hours, or $2,000-$4,000). **City Savings:** None	None	None	**Private Costs:** None **Private Savings:** None
A-6: Agriculture	Very Low	None	**City Costs:** This measure would result in costs associated with staff time to collaborate with resource conservation districts, cooperative extensions, and other agricultural organizations (approximately 40 hours, or $2,000-$4,000). **City Savings:** None	None	None	**Private Costs:** None **Private Savings:** None

*Cost of City staff time assumed to range from $50-$100/hour

Appendix E

CAP Consistency Worksheet



Appendix E
CAP Consistency Worksheet

This appendix sets forth a CAP consistency worksheet that future project applicants may use to help demonstrate project compliance with the CAP. The worksheet is designed to help the City determine if a project is consistent with the CAP but does not define which measures would need to be implemented for the consistency determination, as requirements may vary by project type. This worksheet should be filled out for each new project, subject to discretionary review of the City of Madera.

The applicant should complete Sections A and B below, providing project-level details in the space provided. Generally, only projects that are consistent with the General Plan land use designations and population and employment projections, upon which the GHG emissions modeling and CAP is based, can apply for a determination of consistency with the CAP. If an action is not applicable to the proposed project, please identify and explain.

If the project cannot meet one or more of the requirements (as defined by the City), substitutions may be allowed if the applicant can demonstrate how substituted actions would achieve equivalent reductions to the City's satisfaction. The applicant would also be required to demonstrate that the project would not substantially interfere with implementation of the CAP. If it is determined that the proposed project is not consistent with the CAP, further CEQA analysis would be required.

A: PROJECT INFORMATION

Date:	
Project Name:	
Project Address:	
Project Type:	
Project Size:	
Land Use Designation(s):	
Zoning Designation(s):	
Project Service Population (Residents + Employees):	
Brief Project Description:	
Compliance Worksheet Prepared By:	

B: CAP COMPLIANCE WORKSHEET

Measure Name	Project Actions	Project Compliance (Yes/No/NA)	Description/Details*
E-2 Energy Efficient New Construction	Is the project consistent with applicable policies of the Conservation Element of the General Plan?		
	Does the project exceed Title 24 Energy Efficiency Building Standards, meet the state's Green Building Standards voluntary tier levels, or is LEED Greenpoint, or ENERGY STAR rated?		
E-3 On-Site Small-Scale Renewable Energy	Does the project include solar PV systems or solar hot water heaters?		
T-1: Infill and Mixed-Use Development	Is the project consistent with the land use designation(s) shown on the General Plan Land Use Map and with the applicable polies of the Land Use Element of the General Plan policies?		
	Is the project consistent with the Madera County Blueprint?		
	Does the project include mixed-use, higher density (22.5 to 50 units per acre), or infill development?		
	Is the project located within 1/4 mile of transit stops or in existing community centers/downtown?		
T-2 Bicycle and Pedestrian Environment	Is the project consistent with applicable policies of the Community Design and Circulation Elements of the General Plan?		
	Is the project consistent with the Bicycle Master Plan?		
	Does the project meet minimum design criteria for bicycle and pedestrian circulation?		
	Does the project provide adequate and secure bicycle		

	parking?		
T-3 Transit Travel	Is the project consistent with applicable policies of the Circulation and Community Development Elements of the General Plan?		
	Does the project provide safe routes to adjacent transit stops, where applicable?		
	Does the project finance and/or construct bus turnouts and shelters where transit demand warrants such improvements?		
	Does the project provide public transit vouchers to its employees?		
T-4 Commute Trip Reduction	Is the project consistent with applicable policies of the Community Development Element of the General Plan?		
	Does the project include and/or promote TDM programs?		
T-5 Traffic Flow and Vehicle Idling	Does the project include measures to improve traffic flow?		
T-6 Low Carbon Fuel Vehicles and Infrastructure	Is the project consistent with applicable policies of the Community Development Element of the General Plan?		
	Is the project consistent with the San Joaquin Valley Plug-in Electric Vehicle (PEV) Readiness Plan?		
	Does the project include alternative fueling stations or EV charging stations?		
T-7 Construction and Off-Road Equipment	Would construction of the project use alternatively fueled construction vehicles/equipment (i.e., repowered engines, electric drive trains, CARB-approved low carbon fuel, electrically-powered)?		
	Would the project include low-maintenance native landscaping or xeriscaping?		
W-1 Exceed SB	Does the project incorporate		

X7-7 Water Conservation Target	water efficiency and water conservation measures?		
W-2 Recycled Water	Is the project consistent with applicable policies of the Conservation Element of the General Plan?		
	Does the project incorporate recycled/reclaimed water?		
U-1 Trees and Vegetation	Is the project consistent with applicable policies of the Community Design Element of the General Plan?		
	Does the project include the planting of new trees or new acres of vegetated land?		

*Please attach additional pages as needed to complete the description and provide project details.

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REPORT TO THE CITY COUNCIL

COUNCIL MEETING OF September 2, 2015

AGENDA ITEM NUMBER D-1

APPROVED BY

Steve Fraziér

DEPARTMENT HEAD

CITY ADMINISTRATOR

SUBJECT: **CONSIDERATION OF A WRITTEN REQUEST BY THE MADERA SOUTH HIGH SCHOOL SEEKING COUNCIL APPROVAL TO WAIVE PERMIT FEES AND COVER THE COST OF POLICE AND PUBLIC WORKS EFFORTS IN ASSOCIATION WITH THEIR HOMECOMING PARADE AND REQUEST FOR THE CITY TO PAY $1,200 TOWARDS THE RENTAL OF BARRICADES**

RECOMMENDATION:

It is the recommendation of staff that Council approve the participation of Police and Public Works for traffic and clean-up at no cost to Madera South High School (MSHS) and agrees to pay $1,200 towards the rental of barricades and waive the $25 permit fee.

SUMMARY:

Madera South High School is sponsoring its annual Homecoming Parade on Friday, September 25, 2015. Approximately 900 students will take part in the parade, including the Band, pep and cheer, Varsity and Junior Varsity football teams, and class and club floats. All purple pyramid elementary and junior high schools will be bused to the campus to watch the parade.

It has been the practice of the Council to recognize this function as a community event and help defray some of the costs associated with putting on the activity.

DISCUSSION:

Mrs. Julie Larrivee, Director of Student Activities, has requested the City Council waive the fees for permit, and is asking the council to cover the cost for police and public works services associated with the event. As is City policy, insurance binders (Special Events Insurance) to transfer liability and property damage claims from the City to parade sponsors, are to be provided by Madera South High School. Further, Madera South High School requests the City of Madera

to pay, $1,200 toward the cost of barricades. Last year Council approved this request out of the Community Promotion/Employee recognition line item (1885-3145).

FINANCIAL IMPACT:

The cost of providing City services to assist with traffic and crowd control and cleanup is estimated at about $1,765 to pay for overtime and straight time for about two and a half hours of work. The sponsors request this amount of money be covered by the City and additionally is seeking $1,200 for assistance in barricade rental.

CONSISTENCY WITH THE VISION MADERA 2025 PLAN:

City participation in the annual Homecoming Parade supports the following Vision 2025 strategies:

- Strategy 317: "Develop and encourage festival, gatherings, and events . . . ".
- Strategy 332: "Expand comprehensive services for Madera's youth . . ."
- Strategy 313: "Provide year-round programs fostering community pride. . .".

MADERA SOUTH HIGH SCHOOL

"Stallion Pride – Madera Wide"

705 West Pecan Avenue
Madera, CA 93637
(559) 675-4450
Fax (559) 675-9985

August 18, 2015

Mayor Robert L. Poythress and Members of the City Council,

For the last four years, our school's Homecoming festivities have featured a community parade thanks to your contribution and support. We are beyond thrilled to continue the traditional of promoting our student body and celebrating Stallion Pride once again this year. Please consider this letter as our request to be put on the agenda for your next meeting. The item for consideration is our 5th annual Madera South High Homecoming Parade on Friday, September 25th. This parade has been a goal from the very first year we opened as a brand new high school and an event that we wish to continue to showcase our students and creating a strong Stallion Alumni.

Approximately 900 high school students will take part in the parade, including the band, pep and cheer, all football teams, class and club floats. This is our second year we are collaborating with our feeder elementary and middle schools to be part of the celebration. Each school has the opportunity to have a float in the parade which will increase our parade participation to over 1,000 involved. We also invite all of the purple pyramid elementary and middle schools to attend and pay for them to be bussed over to our campus to watch the parade. Last year we had over 4,000 students and spectators lined on the parade route.

We understand that an event of this magnitude will incur many costs for all parties involved. We make sure to inform all Madera residents who reside on the parade route to make sure they are aware of the closure of the streets. We ask that the City of Madera would continue to support this event that is truly meaningful not only for our students, but the community of Madera by waiving the permits, police and public work fees that are associated with the events. We also ask to continue the agreement that was made last year that the City of Madera will pay, not to exceed, $1, 200 toward the cost of the rental of the safety barricades through the company, Alert O Lite. We have paid the remaining balance of the barricades which is usually an additional $400-$500.

We are looking forward to another spirited community pride event!
Thank you for your consideration of this matter.

Julie Larrivee
Director of Student Activities
675-4450 ext. 1083 cell 974-1404
julielarrivee@maderausd.org

Oracio Rodriguez – Principal
Vice Principal Agricultural, Science & Engineering – Matthew Toews
Vice Principal Health Science – Scott Ferguson
Vice Principal Humanities –Prince Marshal
Vice Principal Business/Human Services – Carry Gassett
Director of Athletics – Andrea Devine
Director of Activities – Julie Larrivee

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REPORT TO CITY COUNCIL

COUNCIL MEETING OF September 2, 2015

AGENDA ITEM NUMBER E-1

APPROVED BY:

DEPARTMENT DIRECTOR

CITY ADMINISTRATOR

Subject

Informational Report and Request for Direction Regarding Citizen Relationship Management and Communication Service Delivery

Discussion

At its meeting held on July 1, 2015 the City Council requested a report outlining what the full implementation of a citizen relationship management and communications service delivery plan might look like. This report is provided in response to that request.

"Full implementation" is driven in substantial measure by which components of a citizen relationship management and communication plan are selected for use. Keeping in mind that decisions made at the start of a service delivery plan often define and/or limit what can be accomplished over the life of that plan, staff strongly recommends the City begin the process with a defined business plan. That plan may change over time but importantly it will help to avoid decisions that limit or make cost prohibitive the City's ability to implement additional components as the program grows.

A citizen relationship management and communication plan might be described as having the following elements:

- Use of two off the shelf software applications to get started. The first application would provide citizens an online means to view their water usage and utility bills, and to contact staff with water related issues (Approximately $15,000.00 to $130,000.00 first year cost with annual cost of $13,000.00 to $100,000.00 in subsequent years. A product sufficient to meet the City's needs can probably be found at the lower end of the range provided). The second application would be a Citizen Relationship Management (CRM) product which could be used to report a water line break, a street pothole that needs to be fixed, or a code enforcement violation (approximately $5,000.00 to $20,000.00 first year cost with annual cost of $10,000.00 to $20,000.00 in subsequent years). Providing technology that makes reporting service needs easier has significant value. Ease of reporting, however, also creates an expectation of quick service

delivery. Councilmember Rigby correctly points out that a 24 hour turnaround/resolution is often an expectation of online complaint systems. For both legal and practical reasons there will be instances in which the City's response will take far, far longer. This can be mitigated to some degree by adding a community response professional to the City staff who will coordinate activity from the impacted city department and provide a personal response to the individual making a complaint. At least initially expectations are managed with personal service. Ultimately, however, use of technology will create a defined need for faster response from the City, which may include additional personnel resources at the field level.

- A second level of citizen relationship management is using technology to push information out to the public. Examples include community events, water use restrictions, council meeting agendas, neighborhood meetings, national night out, etc. A great deal of this kind of information will be contained and accessible on the City's new website when complete. Many citizens never choose, however, to visit the City web site. Many of the CRM applications can be used to push information via other online tools – Facebook, Twitter, YouTube and countless new platforms that citizens migrate to over time. It will be imperative that these additional tools integrate seamlessly with the City web site; ideally messages must be consistent both in content and appearance. Some cities place a premium on "branding" their product. From a business plan perspective, is this a centralized function at the City level or decentralized to allow each department the opportunity to create something unique and trust they will collaborate when important? There is as of yet no dominant business model inasmuch as use of technology in citizen relationship management is an emerging practice in government. Back office costs of implementation can be expected to increase $10,000.00 to $25,000.00 at this stage of project development to ensure the products are fully integrated with City systems. At this time the City may also need to add new staff to those departments who are most impacted by the full utilization of the software applications.
- Finally and perhaps most importantly it must be determined when and how the City will begin making use of the information received from citizens who use technology to connect with city government. Quick resolution of a pothole or water leak complaint is only part of that discussion. Clearly, citizens will want to push information back to the City and expect it to be acted upon timely. *Communication, engagement, and* ***change*** will be citizen expectations. When the City conducted its *Vision 2025* process one of the outcomes was a desire for election by district. There was opposition from Council to the change. Why ask citizens what they want if the City is not prepared to discuss and potentially implement change? Election by district became a mandate. So in like manner when feedback is received about dark streets and a fear of crime, how will the City make use of that information? Is the use of that information limited to a neighborhood meeting, and perhaps a greater emphasis on neighborhood watch, or does that information become part of a strategic discussion during budget development, where the Council chooses to allocate funds for street

lighting over additional police officers? Connecting with the neighborhood begins to lose value if there is a failure to act and address feedback. Realistically that will lead to additional staff dedicated to the engagement process. This again raises the question of business model; is it a strong central model that keeps the organization on task and on message, is it a decentralized service delivery plan that relies on collaboration, or is it some hybrid of the two? Regardless of choice, personnel expenses increase significantly when this level of citizen relationship management and communication begins.

Recommendation

The staff recommendation is driven by two primary considerations. First, as discussed at our last Council meeting, our ability to implement new technology will be limited over the next 24 months. The implementation of the enterprise operating/reporting system to replace MAIS will consume a huge amount of organizational resources, including the time of the Information Services Manager, who will act as project manager. Second, a full scale roll out of a citizen relationship management and communication system will require significant resources not included in the current financial plan. For these reasons, staff recommends the following in the interim:

- A limited roll out of technology dedicated to citizen management. This will include a specialized water portal and application where citizens can check on their own use of water, view their bills, easily contact the city on water issues, provide staff with tools to analyze water use for trends and easily find potential leaks to proactively assist our citizens.
- In addition the City will acquire an off-the-shelf product (CRM software) which will allow citizens to report problems. Staff will implement only a portion of the system capability at first as this will allow us to learn as we go in making use of the first element of citizen management relationship technology. An example of what we may do is only implement reporting street problems or street light outages to start. Staff will also pursue the addition of a new full-time employee to manage the public expectations and additional activities created by the new software. A budget amendment will be provided at mid-year to cover these costs.
- Third staff recommends engagement of a consultant to assist in developing a strategic business plan that ties together the capabilities of an improved web site, other technology tools, and a back end service delivery plan for engagement. This may be a component of the 2016-2017 budget cycle.
- And finally, understanding Councils' interest in accelerating use of technology, staff will prepare a defined number of public service videos for distribution. Examples might include how to participate in the City's water conservation incentive program, how to register your child for the next session of T-ball, and current success stories from the City's neighborhood revitalization program.

Staff hopes that this report has provided sufficient information to Council and is prepared to move forward with direction from Council.

Fiscal Impact

If Council approves moving forward with the outlined projects, staff anticipates application implementation costs in the range of $20,000.00 to $150,000.00 with on-going costs in the range of $25,000.00 to $120,000.00. Staff anticipates one additional full-time employee with annual salary and benefits costs to be determined. The project will also require funding for a consultant to assist in the creation of a business plan with the cost to be determined.

Consistency with the Vision Madera 2025 Plan

The online communication tools outlined in this report were not available when the Vision 2025 Plan was created. However nearly all of the strategies in the plan call for increased communication with our public. A water portal, CRM software, and a strategic plan could be valuable tools for meeting the communication goals in the Vision Plan.

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REPORT TO THE CITY COUNCIL

COUNCIL MEETING OF:
September 2, 2015

AGENDA ITEM NUMBER:
E-2

Approved By:

Department Director

City Administrator

SUBJECT: UPDATE ON THE STATUS OF THE LAUREL STREET BIKE PATH SUNSET AVENUE TO FRESNO RIVER TRAIL AND REQUEST FOR DIRECTION REGARDING THE INSTALLATION OF TRAIL LIGHTING

RECOMMENDATION:

Request for direction regarding installation of trail lighting.

SUMMARY:

The City of Madera is in the process of constructing the Laurel Street Trail. This project will result in a trail that runs along the east side of Laurel Street from Sunset Avenue heading north and terminating into the Vern McCullough River Trail. Originally a Madera Redevelopment Agency (RDA) project, the future amenity has been planned for more than a decade with the goal of improving the walkability of the community by connecting a major arterial with the very popular River Trail.

After construction began, City Staff from Parks and Engineering received a few complaints and concerns about the project from adjacent property owners. This agenda item serves two purposes; it:

1) Communicates to Council the feedback Staff has received, and
2) Gives Council an opportunity to weigh in on whether the City should amend its current direction and seek funding for trail lighting.

DISCUSSION:

Original planning for this project began in approximately 2006. With both Parks & Community Services and Engineering serving in advisory capacities, the RDA began planning for a community amenity to connect Sunset Avenue to the River Trail using the Laurel corridor atop the Madera Irrigation District's property. Available records indicate a successful application for funding using Congestion Mitigation and Air Quality (CMAQ) was first secured in 2008.

Design commenced in 2009 with funding provided by the RDA following a joint RDA and City Council Public Hearing on October 14, 2009 in which it was determined that the project:

1) Benefited the Project Area,
2) No other reasonable means of fully financing the project was available,
3) The project would assist in the elimination of one or more blighting conditions and result in property appreciation in the area, and
4) The project was consistent with the Redevelopment Plan.

It remained an active project with the RDA until sometime in late 2012 when management of the nearly completed plans for the project was transferred to the Engineering and Parks and Community Services Departments. This transfer occurred as the RDA's ability to fund and manage the capital project was ultimately decimated by the dissolution of RDAs across the state.

The project itself, as originally envisioned, included amenities such as 10-foot wide concrete walkway, full width landscaping of the Madera Irrigation District right-of-way, and entry features at the Sunset and Riverview intersections. The addition of lighting along the trail corridor was discussed at this time, but due to funding constraints this amenity was never included as part of the formal design. As discussed in an application for a Remove II funding grant, the trail would provide improved access/accessibility to a number of facilities that included adjacent residential properties, schools, retail developments, the now existing river trail improvements, etc.

With the loss of RDA funding, staff struggled to keep the project alive. Additional funding was sought and many of the original amenities were modified, reduced or removed entirely. Engineering, Grants and Parks worked to accumulate resources from the following sources: CMAQ ($392,000), Local Transportation Funds (LTF) ($64,374), and Measure T ($159,585), and REMOVE II grants ($37,000). As some of these funding sources have time limits, the Engineering Department sought bids for the project following revisions to the plans that compensated for the loss of RDA funding and the existing drought. The low bid was awarded the contract at the July 1, 2015 Council Meeting and construction commenced shortly thereafter.

Property Owner Concerns

During construction, the property owner of adjacent apartment complexes expressed several concerns. The first was that he and some neighbors did not receive advanced notice about the trail project. Second, a few residents living on Venturi Court and Lighthouse Court objected to access to the trail from their Courts. Both cul-de-sacs, were planned to be adjoined to the trail. Three different home-owners in those two cul-de-sacs perceive that the addition of the amenity, if adjoined to the end of their cul-de-sac, would lower the value of their home and would invite crime into the neighborhood. One resident also objected to the trail itself being constructed. Third, the apartment complex owner perceives that security for his property will be jeopardized by construction of the trail unless lighting is installed.

Venturi Court and Lighthouse Court Access

Providing connections between neighborhoods and trails, and enhancing access between adjacent neighborhoods, are key steps to achieving the pedestrian friendly community called for in Vision Madera 2025 and the City's General Plan. However, due to the particular location and characteristics of these connections, the connections offer limited benefit. As such, staff anticipates directing the contractor to eliminate them from this particular project. This should

not be viewed as an indication that the City should not prioritize the incorporation of trail connections as the City plans and develops new trails and neighborhoods in the future.

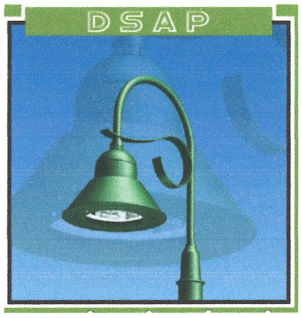
If direct trail access is not provided as described above, the cul-de-sacs will still abut the MID right of way and the existing 3' tall fence. This fence was constructed by the original developer in compliance with and as required by City code and would have been required in recognition of the existing open land on the opposite side of the cul-de-sac. Staff does not recommend a modification to the existing fence.

Trail Lighting

As stated above, the property owner at the north end of the project has expressed an objection to construction of the trail without associated lighting that would serve to illuminate the trail adjacent to his holdings that include two apartment complexes on the east side of the trail. He indicates that fences were previously installed by the City at his request to restrict access to portions of the Madera Irrigation District (MID) property. The fences were installed to prevent unlawful activity that might impact his property north of West Park Drive.

The MID property existed without lighting and security fences prior to purchase and development of parcels on either side. Fences were indeed installed and no party from the City or MID can confirm who installed them, though again, the property owner maintains the City installed the fences. City staff is not aware of any historical requirements to maintain the fences or provide other security features such as lighting beyond what the one property owner expressed as the land is not owned by the City. Nor, did MID or the Bureau of Reclamation indicate any requirements to provide security measures as part of the Laurel Trail project. Construction of the trail essentially reverts the land to its unsecured original state, access wise, while providing a much needed pedestrian and bicycle trail.

The existing River Trail is not lighted. In addition to the added initial capital expense and on-going maintenance costs, the Parks Department considers the amenity as a dawn to dusk recreation feature. While lighting was once envisioned as a possible project amenity for the Laurel project, the construction drawings prepared by the consultant for the former RDA did not include a design for lighting prior to their being removed from consideration due to cost concerns. Cost estimates prepared in 2010 show the cost of lighting as approximately $167,000. The fixture option presented to City staff for consideration (shown to the right) would provide for night use of the trail which includes pedestrian safety while enhancing the character and aesthetics of the trail. The type of pedestrian scale (short pole) lights being considered would not provide much lighting beyond the trail itself.



While an expansion of lighting coverage to include large areas in addition to the trail is not believed to be consistent with typical trail construction, there is no practical limit to such a decision beyond the ability to fund and maintain such improvements. To bathe the entire MID property in sufficient light to represent a security enhancement to adjacent properties would require a different lighting concept that might include multiple tall street light type poles with 2 or more fixtures. Placing such a system in the middle of the MID property could cost $100,000 or more. Decorative lights would be substantially more expensive. Because such a layout has the potential to throw light on windows of adjacent residential properties, a more expensive layout

would probably be necessary. This option would place lights along the edge of the property that would throw light toward the trail. Such an option might increase the cost of the basic street light pole and fixture by 50 to 100% before considering architecturally enhanced lighting fixtures.

Installation of lighting would require additional approvals by MID and the Bureau of Reclamation, an amendment to the previous engineering contract, review of lighting concepts, design and ultimately award to a new contractor. It is anticipated it would take at least 9 months beyond completion of the trail before lighting could be installed. The construction cost of the trail is $576,000 not including inspection and Project Management. Should Council direct the installation of any form of trail lighting or other enhancements to the current design, further funding would be required. Additionally, other capital projects may be delayed indefinitely.

Summary and Recommendation

It is staff's recommendation that lighting not be installed on the Laurel Trail. This recommendation is based on and supported by the following key factors:

- Lighting does not exist on the River Trail
- The trail system is viewed primarily as a dawn to dusk amenity
- Installation of lighting would directly impact the ability to deliver other projects such as soccer field lighting at the Sunrise Rotary Sports Complex at Tozer and Clinton on the eastern edge of the City.
- Future maintenance costs of the lighting

If lighting is considered by Council, consideration would typically begin with standard trail lighting intended for pedestrian safety. Expanding lighting to include property security would then need to incorporate some discussion and review of that type of lighting versus the desire for aesthetically pleasing lighting fixtures and the cost of meeting one or both objectives.

FISCAL IMPACT:

Depending on the direction provided by City Council, a number of projects and/or funding sources including the General Fund and/or Parks Development Impact Fee (DIF) could be impacted as are discussed in the body of this report.

CONSISTENCY WITH THE VISION MADERA 2025 PLAN:

Strategy 121 – Multi-modal transportation: Develop a city-wide multi-modal transportation plan to ensure safe, affordable and convenient transportation modes for residents and businesses with Madera.

Strategy 132 – Neighborhood Connectivity: Connect Madera's neighborhoods through streets, trails and walkways that promote community interaction.

Strategy 401 – Walkable Community: Develop and promote Madera as a walkable community with an emphasis on improving the quality of the natural resources.

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REPORT TO CITY COUNCIL

MEETING DATE: September 2, 2015

AGENDA ITEM NUMBER: E-3

Approved By:

Jason Rogers for Dave Randall
PUBLIC WORKS DIRECTOR

CITY ADMINISTRATOR

SUBJECT:

Weekly Water Conservation Reports

RECOMMENDATION:

Staff recommends that the Council review the attached weekly report of water conservation activities and progress in reducing residential water consumption.

SUMMARY/ DISCUSSION:

The attached weekly report for August 17th – 23rd is being presented to the Council in order to keep everyone informed of ongoing efforts and resulting reductions in residential consumption. The report for the following week will be distributed via email. The information is intended to illustrate:

- Week's reduction of water consumption in comparison to the same week in 2013
- Cumulative progress, starting from June 1st, in meeting the States 28% reduction mandate
- Comparison of current temperatures and precipitation to conditions in 2013
- Description of public informational activities
- Summary of public service requests related to water
- Summary of water restriction enforcement activities
- Chart of day by day comparisons of 2015, and target consumption data

FINANCIAL IMPACT:

The expenses for implementing and administering these water conservation activities occur within the Water Fund and does not impact the General Fund.

CONSISTENCY WITH THE VISION MADERA 2025 PLAN:

The proposed action is not specifically addressed as part of the Plan, but is not in conflict with it and is sympathetic of the underlying principals of the 2025 Plan.

City of Madera

Weekly Water Conservation Report August 17 – August 23, 2015

Week's Conservation Avg. 25%	**Today's High 100° 10 day forecast Avg. High 95°**
Aug. Conservation Avg. 26%	**Week's Avg. High 98° from 2013 Avg. High**

General Water Conservation News:

This is the second week that we have fallen below the water conservation goal of 28%. Since mid July when we saw a high savings of 38% there has been a steadily declining trend to where we are today. We have averaged 31% overall since June when the State 28% mandate began. We have surpassed all of our surround neighbors, many of who have not made their State mandated goals. Generally it is thought that it will be more difficult to make water reductions in the fall as we move into cooler weather, as irrigation typically would be reduced in these seasons. Hopefully the recent increase in our rebate programs and elevation of water patrols and enforcement will help stem this trend.

The rebate programs were advertised in the Utility Billing News Letter and are available on the City's web site. There is an increasing number of calls regarding rebates, and the recently announced State Funding for turf replacement rebate of $2.00 a square foot will be adding to the level of interest in the rebates (The City's turf rebate can be added to the State's).

Public Service Requests:

Approximate 45 calls were received this week reporting water wasting (not leak calls)

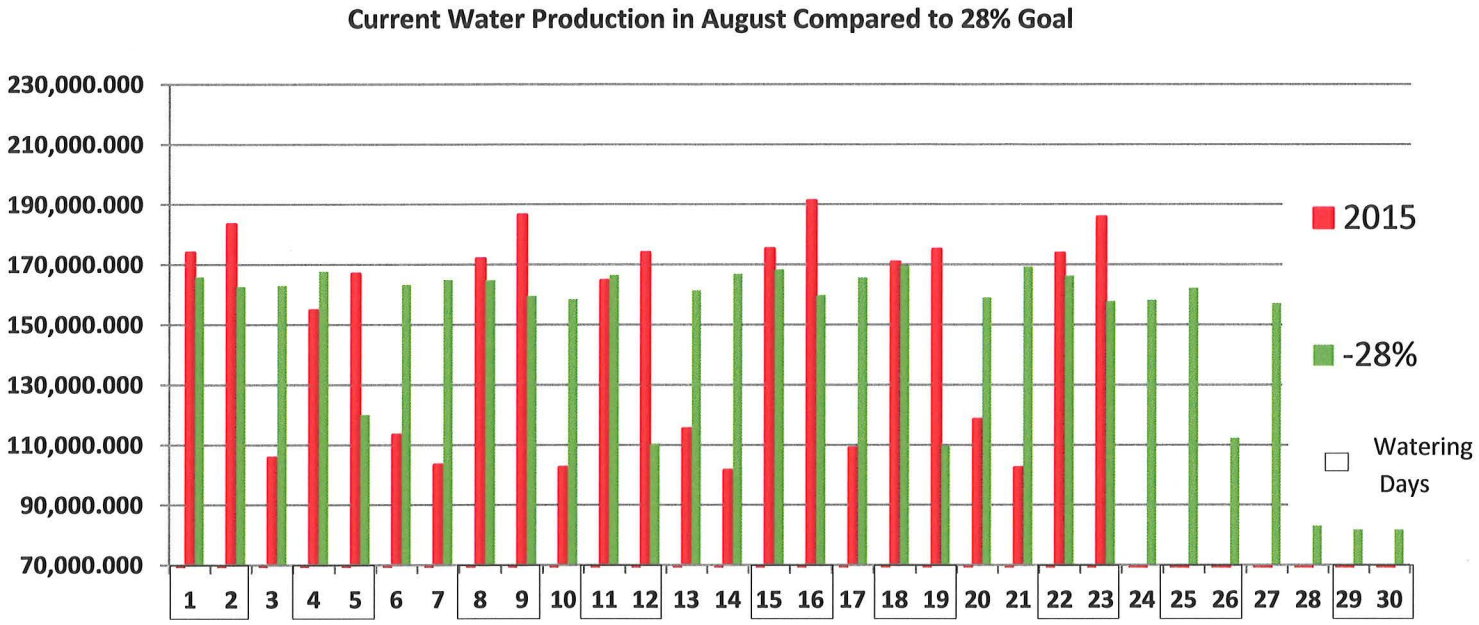
- 5 Calls were received regarding water and City facilities
- 9 Leaks were reported:
  - 6 repaired in less than 3 business days of being reported (No underground excavation)
  - 3 repaired within 3 business days of being reported
  - 0 repaired within 4 business days of being reported
  - 0 repaired within more than 4 business days of being reported

An estimated 56 calls were received this week requesting information regarding water issues. There were 5 customer inquiries regarding consumption which resulted in leak discovery at 1 property, and suggested sprinkler timer adjustments due to high usage for irrigation. Internal evaluations resulted in repairs of meters and resolution of various meter related issues at 24 properties. We had 7 customer contacts regarding rebate opportunities and received 2 rebate applications for Turf Replacement.

Water Conservation team activities:

- 22 Contacts with the Public to educate and provide advice
- 0 Verbal warnings issued
- 81 Citations issued:
  - 73 1st offenses ($75)
  - 6 2nd offenses ($250)

2 3rd or more offense ($500)



*Adjusted to alighn days of week

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REPORT TO CITY COUNCIL

Approved by:

Sonia Alvarez
Department Director

City Administrator

Council Meeting of: 9/02/15

Agenda Number: F-1

SUBJECT: Request for Direction Council Participation in Old Timers' Day Parade

RECOMMENDATION: Staff requests direction on Council participation in the Old Timers' Day Parade scheduled Saturday, September 26, 2015; transportation suggestions; and participation count.

DISCUSSION: The City Council has traditionally participated in the Old Timer's Day Parade. The Old Timers' Day Parade is a popular community event which draws City and County residents alike to downtown Madera. The Old Timers' Day is celebrating its 84th anniversary this year.

Staff requests Council direction on Council participation in the parade. Staff also seeks suggestions on preferred transportation, and number of Council Members participating.

City fleet vehicles available are listed below. Participation will require use of two to three vehicles to accommodate group.

Police Department Ford Explorers (2)
Fire Engine
Honda CNG
Ford F250 Crew cab

FINANCIAL IMPACT: The parade entry fee is included in the adopted budget.

CONSISTENCY WITH THE VISION MADERA 2025 PLAN: While this action is not specifically identified in the Vision and Action Plan; it is closely aligned with Strategy 317.4, develop and encourage gatherings, festivals, and events.