



Orlando Fuentes, President
Jim Luttrell, Vice President
Gil Albiani, Director
Rod Brewer, Director
Jaclyn Moreno, Director

Joshua Green, General Manager
Michael McLaughlin, Fire Chief
Sigrid Asmundson, District Counsel
Nitish Sharma, Chief Administrative Officer
Paul Mewton, Chief of Planning,
Design and Construction

REGULAR BOARD OF DIRECTORS MEETING WEDNESDAY, OCTOBER 7, 2020

**EXECUTIVE SESSION – 5:00 P.M.
REGULAR MEETING – 6:30 P.M.**

**Live Broadcast
via livestream**

<https://www.yourcsd.com/AgendaCenter/Board-of-Directors-2>

CORONAVIRUS DISEASE (COVID-19) ADVISORY

UPDATE: On July 13, 2020 the California Governor announced the closure of indoor operations in certain sectors of the State. Pursuant to the Sacramento County Public Health Order, effective July 14, 2020 at 3:00 pm, most indoor gatherings are prohibited. For the health and safety of our Board, employees and the public, and to prevent the spread of COVID-19 in compliance with the new State and County Health Orders, the public will not be allowed to physically attend the Board meeting.

Consistent with Executive Order N-29-20, the meeting will be broadcast via livestream. In-person participation by the public will not be permitted and no physical location from which the public may observe the meeting will be available.

Public participation is available in the following ways:

- 1) Live Broadcast via livestream at: <https://www.yourcsd.com/896/Live-Board-Meeting>.
- 2) Email public comments to clerkoftheboard@yourcsd.com by 6:30 pm, Wednesday, October 7. Public comments received after this time might not be received in time to be read into the record but will be included in the written record. The Clerk will read the comments submitted via email out loud during public comment, subject to the customary 3-minute time limitation. If your comment concerns a specific agenda item, please note the item in the subject line of your email.
- 3) Leave a voice mail for the Clerk of the Board at 916-405-7169, and the item you wish to comment on and the Clerk will play the voice mail when the item is up for consideration. The customary 3-minute time limitation will be observed.

If you encounter difficulties submitting a public comment via email, please contact the Clerk's office at 916-405-7169 by the 6:30 pm deadline and leave a message. Your comment will be played during the meeting.

AGENDA

Note: All items submitted for the Agenda must be in writing. The deadline for submitting these items is 4:00 P.M. on the Monday one week prior to the meeting. The Secretary of the Board receives all such items.

EXECUTIVE SESSION – 5:00 P.M.

1. CALL TO ORDER
2. COMMUNICATIONS FROM THE PUBLIC
3. RECESS TO EXECUTIVE SESSION
 - a. CONFERENCE WITH LEGAL COUNSEL – ANTICIPATED LITIGATION
Pursuant to Government Code Section 54956.9(d)(2)
Significant exposure to litigation: 1 Case
 - b. PUBLIC EMPLOYMENT
Pursuant to Government Code Section 54957
Title: Fire Chief

REGULAR BOARD MEETING – 6:30 P.M.

A. CALL TO ORDER

1. Report Out of Executive Session
2. Session Roll Call
3. Pledge of Allegiance
4. Moment of Silence

B. ANNOUNCEMENTS/PRESENTATIONS

5. Hispanic Heritage Month – Kelly Gonzalez
6. Fire Prevention Week – Amber Anderson
7. Fire Chief of the Year – Joshua Green

C. COMMUNICATIONS FROM THE PUBLIC (Non-agendized items)

This is the time and place for the general public to address the Board of Directors. State law prohibits the Board from addressing any items not previously included on the Agenda. The Board of Directors may receive testimony and set the matter for a subsequent meeting. Comments are to be limited to three minutes per individual at the discretion of the President. Individuals representing a group or an organization shall be permitted five minutes. Comments relating to similar issues should be brief, concise and non-repetitious. Speakers should state their home or business address when commenting to the Board.

Note: Under the provisions of the California Government Code, the Board is prohibited from discussing or taking immediate action on any non-agendized item unless it can be demonstrated to be of an emergency nature or the need to take immediate action arose after the posting of the agenda.

D. CONSENT CALENDAR

The following Consent Calendar items are expected to be routine and non-controversial. They may be acted upon by the Board at one time without discussion. Any item may be removed by a Board Member for discussion or clarification. Members of the public wishing to comment on any Consent Calendar item may do so before Board action.

8. Approve the September 16, 2020, Regular Board Meeting Minutes.
9. Approve the September 30, 2020, Special Board Meeting Minutes.
10. Approve Updated Board Policy #4110 – Correspondence to the Board.
11. Adopt Resolution No. 2020-51 Approving Various District Policies.
12. Approve Agreement with Digital Billboard Operator for District Digital Billboard Project.
13. Adopt Resolution No. 2020-56, Rejecting Claim filed by Trina McDaniel.
14. Adopt Resolution No. 2020-47, Rejecting Claim filed by Karissa McDaniel.
15. Adopt Resolution No. 2020-48, Rejecting Claim filed by Christopher McDaniel.
16. Adopt Resolution No. 2020-49, Rejecting Claim filed by Dyanna Gutierrez-Hurd.
17. Adopt Resolution No. 2020-50, Rejecting Claim filed by Ashlee Gutierrez-Hurd.
18. Review and File Status Update on Community Workforce Training Agreement.
19. Approve Proclamation Recognizing October 12, 2020 as Indigenous People’s Day.

RECOMMENDATION: Approve the consent calendar as presented.

E. PUBLIC HEARINGS

20. **SUBJECT:** Annexation #28 – Community Facilities District No. 1 (Elk Grove Fire Protection) (CFD1). (J. Ebner)

RECOMMENDATIONS:

- 1) Open the public hearing and take testimony on the proposed annexation of properties into Community Facilities District No. 1 (Elk Grove Fire Protection) (CFD1);
- 2) Approve Resolution No. 2020-52 to annex territory to CFD1;
- 3) Approve Resolution No. 2020-53 calling a special election of the qualified electors of the territory to be annexed to CFD1; and
- 4) Approve Resolution No. 2020-54 declaring the results of Special Tax Election, determining validity of prior proceedings, and directing recording of notice of special tax lien.

F. STAFF REPORTS

The President will open the meeting for public input if the Board desires to take action on any item(s).

21. **SUBJECT:** Climate Action Plan / Sustainability Action Plan. (P. Mewton)

RECOMMENDATION:

- 1) Adopt and Climate Action Plan/Sustainability Action Plan

22. **SUBJECT:** Authorize Purchase of Asset Management / Computerized Maintenance Management System. (N. Sharma)

RECOMMENDATIONS:

- 1) Award a three-year license agreement with Azteca Systems, LLC for the Cityworks Online Asset Management System (AMS with an option to extend three additional one-year terms.
- 2) Award a contract with Timmons Group, Inc. for Professional Services to implement Cityworks Online AMS.
- 3) Authorize the General Manager to execute these agreement and any future addendums or amendments related to Cityworks Online Server AMS.

23. **SUBJECT:** Federal Emergency Management Agency (FEMA) 2019 Staffing for Adequate Fire and Emergency Response Grant (SAFER) Acceptance. (M. McLaughlin)

RECOMMENDATIONS:

- 1) Accept the Federal Emergency Management Agency (FEMA) 2019 Staffing for Adequate Fire and Emergency Response (SAFER) grant award as required by the granting agency; and,
- 2) Authorize the General Manager to execute any and all documents related to accepting the grant funding from FEMA.

24. **SUBJECT:** Approval of Fire Chief Contract. (J. Green)

RECOMMENDATION:

- 1) Authorize the General Manager to execute an employment contract with Felipe Rodriguez for the position for Fire Chief.

G. INFORMATIONAL ITEMS

25. Note from the California Fire Chiefs Association thanking the District for hosting their Annual Business Meeting.
26. Note from patient thanking District paramedics for saving her life.

H. BOARD OF DIRECTOR'S BUSINESS

27. Miscellaneous Reports
28. Meeting/Event Approval
29. Meeting/Event Report

I. IDENTIFICATION OF ITEMS FOR FUTURE MEETING

This is the time for the Board of Directors to identify the items they wish to discuss at a future meeting. These items will not be discussed at this meeting, only identified for a future meeting. This is also the time for scheduling Board Workshops or special meetings.

J. ADJOURNMENT

Note: *Disabled Accommodations.*

The Cosumnes Community Services District will make reasonable accommodations for persons having special needs due to disabilities. Please contact Elenice Gomez, Assistant to the General Manager, at 8820 Elk Grove Blvd. Elk Grove, CA 95624, phone (916) 405-7169, at least 48 hours prior to the meeting, to allow time to provide for special accommodations.

Note: *Review and Copies of Agenda, Agenda Reports and Material.*

Prior to each Meeting, copies of the Agenda, Agenda Reports and other materials, as well as any public record relating to an open session agenda item that is distributed within 72 hours prior to the meeting, are available for public review at the Cosumnes Community Services District's Administrative Office during normal working hours. In addition, a limited supply will be available on a first come, first serve basis at the meeting.

Certificate of Posting of Agenda

I hereby declare that the foregoing Agenda for the October 7, 2020 Regular Meeting of the Cosumnes Community Services District Board of Directors was posted on October 2, 2020 at 8820 Elk Grove Blvd., Elk Grove, California, 95624, and was available for public review at that location.

Signed this 2nd day of October, 2020.

A handwritten signature in blue ink, appearing to be "E. Gomez", is written over a faint horizontal line.

**COSUMNES COMMUNITY SERVICES DISTRICT
EXECUTIVE SESSION – 5:00 PM
REGULAR BOARD MEETING – 6:30 PM
WEDNESDAY, SEPTEMBER 16, 2020
MINUTES**

EXECUTIVE SESSION – 5:00 PM

1. CALL TO ORDER

Vice President Luttrell called the meeting to order at 5:00 p.m.

2. COMMUNICATIONS FROM THE PUBLIC

None

3. RECESS TO EXECUTIVE SESSION

Vice President Luttrell recessed to Executive Session at 5:00 p.m.

- a. CONFERENCE WITH LEGAL COUNSEL – ANTICIPATED LITIGATION
Initiation of litigation pursuant to Government Code Section 54956.9(d)(4): 1 case
- b. CONFERENCE WITH REAL PROPERTY NEGOTIATORS
Pursuant to Government Code Section 54956.8
Property: 10651 E Stockton Blvd., Elk Grove, California 95624
Agency Negotiator: Nitish Sharma, Chief Administrative Officer
Negotiating Parties: OUTFRONT Media Incorporated and Clear Channel Outdoor
Under negotiation: price and terms of payment

REGULAR BOARD MEETING – 6:30 PM

ATTENDANCE

Directors present included Gil Albiani, Rod Brewer, Orlando Fuentes and Jim Luttrell. Director Moreno was absent and excused.

General Manager Joshua Green, Fire Chief Michael McLaughlin, Chief Administrative Officer Nitish Sharma, District Counsel Sigrid Asmundson and Chief of Planning Design and Construction Paul Mewton, were also present.

A. CALL TO ORDER/PLEDGE OF ALLEGIANCE

1. President Fuentes had nothing to report out of Executive Session
2. President Fuentes called the meeting to order at 6:40 p.m.
3. Fire Personnel who were deployed to the North Complex Fire, Battalion Chief Jason Scofield and Firefighter Paramedic Gilberto Gonzalez led the Pledge of Allegiance.
4. Senior Fire Chaplain of the Sacramento Fire Chaplaincy Kevin Snider Sr. did an invocation for fallen and injured firefighters and a moment of silence was observed in honor of local community leader Joel Broussard.

B. ANNOUNCEMENTS/PRESENTATION

None

C. DEPARTMENT REPORTS

The presentation of these items was waived with no objections.

5. Administrative Services Department Report
6. Parks and Recreation Department Report
7. Fire Department Report

D. COMMUNICATIONS FROM THE PUBLIC

None

E. CONSENT CALENDAR

8. Approve the September 2, 2020, Regular Board Meeting Minutes.
9. Approve Proclamation Endorsing October 4-10, 2020 as Fire Prevention Week and October as Fire Prevention Month.
10. Approve a Multi-year Agreement with All American Construction for Concrete Projects.
11. Approve Resolution No. 2020-46 Authorizing The General Manager to Execute Agreement with Sacramento County for COVID-19 Response Units.
12. Approve the Termination of Galt Redevelopment Agency Settlement Agreement.
13. Approve Proclamation Endorsing September 15 to October 15 as Hispanic Heritage Month.
14. Adopt Resolution No. 2020-45 Approving Section 2100 Financial Management District Policies.
15. Approve a Three-year Subscription Agreement with LexisNexis for Legal Research Server.

Director Brewer moved to approve consent items 8 through 15; seconded by Director Luttrell Vote was unanimous.

F. PUBLIC HEARINGS

None

Due to technical difficulties President Fuentes recessed the meeting at 6:50 pm. President Fuentes reconvened the meeting at 7:12 pm., and broadcasting also resumed.

G. STAFF REPORTS

16. **SUBJECT:** Professional Services Agreement with the Elk Grove Scholarship Foundation.

RECOMMENDATION:

- 1) Approve a Professional Services Agreement with Elk Grove Scholarship Foundation and authorize the General Manager to execute the Agreement and any future addendums or amendments.

Director of Business and Public Affairs Kelly Gonzalez presented the staff report.

Director Albiani moved to accept staff's recommendation; seconded by Director Luttrell, Vote was unanimous.

17. **SUBJECT:** Update on the District Long Term Financial Plan.

RECOMMENDATION:

- 1) Receive and file the report on the Cosumnes Community Service District Long-Term Finance Plan ("LTFP").

Chief Administrative Officer Nitish Sharma presented the staff report.
This was a receive and file report, no action was taken.

H. INFORMATIONAL ITEMS

18. Note from Mr. Wichert thanking staff for having a "genius" plan for making lap swimming available.
19. Note of appreciation from preschool parent thanking Preschool Teacher Mrs. Kelly for adjusting well to the adversities presented by the pandemic.

I. BOARD OF DIRECTORS BUSINESS

20. Miscellaneous Reports
21. Meeting/Event Approval
22. Meeting/Event Report

Fuentes – Firefighter Diversity Task Force held a community forum via Zoom to interested parties giving an overview on what it takes to become a firefighter. The meeting was well attended and reached participants capacity.

J. IDENTIFICATION OF ITEMS FOR FUTURE MEETING

Albiani – CPR Demonstrations at a future meeting.

K. ADJOURNMENT

With no further business, the meeting was adjourned at 8:06p.m.

Approved: _____
Board President

Attest: _____
Secretary to the Board

**COSUMNES COMMUNITY SERVICES DISTRICT
WEDNESDAY, SEPTEMBER 30, 2020
SPECIAL BOARD MEETING – 3:00 PM
MINUTES**

SPECIAL BOARD MEETING – 3:00 PM

ATTENDANCE

Directors present included Gil Albiani, Rod Brewer, Orlando Fuentes, Jim Luttrell and Jaclyn Moreno. General Manager Joshua Green and District Legal Counsel Sigrid Asmundson were also present.

1. CALL TO ORDER/ROLL CALL

President Fuentes called the meeting to order at 3:10 pm

2. COMMUNICATIONS FROM THE PUBLIC

None

3. EXECUTIVE SESSION:

A. RECESS TO EXECUTIVE SESSION

a. PUBLIC EMPLOYMENT

Pursuant to Government Code Section 54957

Title: Fire Chief

4. ADJOURNMENT:

President Fuentes had nothing to report out of Executive Session.

With no further business the meeting was adjourned at 4:00 p.m.

Approved: _____
Board President

Attest: _____
Secretary to the Board

STAFF REPORT

DATE: October 7, 2020
TO: Board of Directors
FROM: Joshua Green, General Manager
BY: Carolyn Baptista, Sr. Management Analyst
**SUBJECT: APPROVAL OF UPDATED BOARD POLICY #4110:
CORRESPONDENCE TO THE BOARD**



RECOMMENDATION

The Board of Directors (“Board”) approve updated Board Policy #4110 Correspondence to the Board.

BACKGROUND/ANALYSIS

The Board approved Board Policy #4110, Correspondence to the Board, on July 1, 2020. Per the application and process outlined in Board Policy #1000, Adoption and Amendment of Policies, Board policies may only be approved by the Board.

On September 18, 2020, Governor Gavin Newsom approved Assembly Bill (“AB”) 992 which amended Section 54952.2 of the California Government Code. This amended language defines the use of internet-based social media platforms for the engagement of separate conversations or communications with the public, including providing information or soliciting information, as long as a majority of the Board does not use the internet-based social media platform as a method to discuss legislative matters among themselves.

As a result of this amended section of the Government Code, staff has prepared for the Board’s review and approval, an updated version of Board Policy #4110 Correspondence to the Board. Attached is a track-change version and clean version of the policy; text in red on the track-change version reflects the updated language. Immediately upon Board approval, the updated policy will take effect.

FINANCIAL ANALYSIS

This report has no impact on District resources.

SUSTAINABILITY ANALYSIS

There is no impact to the District's sustainability practices as a result of this report.

Respectfully submitted,



Joshua Green
General Manager

Attachment: Redline Policy #4110 - Correspondence to the Board
Policy #4110 - Correspondence to the Board

Staff Report recommendation authorized by:



General Manager

Approved as to Form:



General Counsel

Attachment

CORRESPONDENCE TO THE BOARD

Policy # **4110**
Original Effective Date: 04/05/1994
Revision Date: ~~07/01/2020~~10/7/2020
Type of Policy: BOARD DISTRICT FIRE PARKS

POLICY

4110.1 Cosumnes Community Services District (“District”) Board of Directors (“Board”) shall receive information from the public through verbal, written or electronic correspondence.

PURPOSE AND SCOPE

4110.2 The Board recognizes the need to take adequate time to examine and evaluate public requests. The Board may not attempt to decide upon any question or issue before examining and evaluating the information any person or group requests the Board consider. The General Manager will be given responsibility to examine and evaluate all such information and recommend action to the Board at a future meeting.

4110.3 This policy applies to all District elected officials, executives, employees, interns, volunteers, contractors, vendors, suppliers, members of the public, and other persons who participate in District programs and services.

APPLICATION / PROCEDURE

4110.4 Definitions:

a. None

4110.5 All written correspondence addressed to the Board of Directors shall be sent to the District’s Administrative Office located at 8820 Elk Grove Blvd., Elk Grove, CA 95624. Board member’s mail will be opened by the Clerk of the Board and given to the Board member at the next scheduled Board meeting.

4110.6 Each Board Member shall have an email account set up for them through the District’s email server. Board Members should use the District email account and the District’s email system to send and receive emails pertaining to District business.

4110.7 The General Manager or designee may forward electronic correspondence to Board members. Should a Board member wish to ask a question or comment on an email; they should respond only to the person sending the email, never utilize the “reply all” function.

4110.8 Copies of written or electronic correspondence and written responses in reply thereto, if any, may be distributed to each Board member, together at the next regular Board meeting, depending upon date of receipt, response, or subject matter.

- 4110.9 Each Board member that utilizes social media should remain professional, courteous and respectful of other Board members, staff, and District business. To ensure that personal correspondence is not incorrectly classified as correspondence with a Director, which would make such correspondence subject to the Public Records Act, Directors are encouraged to deactivate instant messaging on any social media platforms created in their official capacity and use their assigned District email account as the method of electronic communication with the public.
- 4110.10 Written or electronic correspondence to the Board is part of public record.
- 4110.11 Board members are not permitted to use District resources for sending or receiving personal correspondence.
- 4110.12 A Board member may engage in separate conversations or communications on an internet-based social media platform to answer questions, provide information to the public, or solicit information from the public provided that a majority of the Board does not use the social media platform to discuss among themselves District business. Under the Brown Act, a Board member cannot respond directly to any communication on a social media platform that is made, posted, or shared by another Board member regarding District business.

REFERENCES

- 4100.13 [Government Code Section 54952.2](#)

CORRESPONDENCE TO THE BOARD

Policy # **4110**
Original Effective Date: 04/05/1994
Revision Date: 10/7/2020
Type of Policy: BOARD DISTRICT FIRE PARKS

POLICY

4110.1 Cosumnes Community Services District (“District”) Board of Directors (“Board”) shall receive information from the public through verbal, written or electronic correspondence.

PURPOSE AND SCOPE

- 4110.2 The Board recognizes the need to take adequate time to examine and evaluate public requests. The Board may not attempt to decide upon any question or issue before examining and evaluating the information any person or group requests the Board consider. The General Manager will be given responsibility to examine and evaluate all such information and recommend action to the Board at a future meeting.
- 4110.3 This policy applies to all District elected officials, executives, employees, interns, volunteers, contractors, vendors, suppliers, members of the public, and other persons who participate in District programs and services.

APPLICATION / PROCEDURE

- 4110.4 Definitions:
- a. None
- 4110.5 All written correspondence addressed to the Board of Directors shall be sent to the District’s Administrative Office located at 8820 Elk Grove Blvd., Elk Grove, CA 95624. Board member’s mail will be opened by the Clerk of the Board and given to the Board member at the next scheduled Board meeting.
- 4110.6 Each Board Member shall have an email account set up for them through the District’s email server. Board Members should use the District email account and the District’s email system to send and receive emails pertaining to District business.
- 4110.7 The General Manager or designee may forward electronic correspondence to Board members. Should a Board member wish to ask a question or comment on an email; they should respond only to the person sending the email, never utilize the “reply all” function.
- 4110.8 Copies of written or electronic correspondence and written responses in reply thereto, if any, may be distributed to each Board member, together at the next regular Board meeting, depending upon date of receipt, response, or subject matter.

- 4110.9 Each Board member that utilizes social media should remain professional, courteous and respectful of other Board members, staff, and District business. To ensure that personal correspondence is not incorrectly classified as correspondence with a Director, which would make such correspondence subject to the Public Records Act, Directors are encouraged to deactivate instant messaging on any social media platforms created in their official capacity and use their assigned District email account as the method of electronic communication with the public.
- 4110.10 Written or electronic correspondence to the Board is part of public record.
- 4110.11 Board members are not permitted to use District resources for sending or receiving personal correspondence.
- 4110.12 A Board member may engage in separate conversations or communications on an internet-based social media platform to answer questions, provide information to the public, or solicit information from the public provided that a majority of the Board does not use the social media platform to discuss among themselves District business. Under the Brown Act, a Board member cannot respond directly to any communication on a social media platform that is made, posted, or shared by another Board member regarding District business.

REFERENCES

- 4100.13 Government Code Section 54952.2

STAFF REPORT

DATE: October 7, 2020
TO: Board of Directors
FROM: Joshua Green, General Manager
BY: Carolyn Baptista, Sr. Management Analyst
SUBJECT: APPROVAL OF DISTRICT POLICIES



RECOMMENDATION

The Board of Directors adopts Resolution No. 2020-51 (**Attachment A**) approving various District policies.

BACKGROUND/ANALYSIS

Throughout this year staff have been reviewing and restructuring policies and procedures per the application and process outlined in Board Policy #1000, Adoption and Amendment of Policies. The District's new policy structure categorizes policies into six sections, each defining the policy type (Board, District, Department), approval level, and subject matter. Due to the restructure of all Board and District policies, staff will request the Board review and approve both Board and District policies for this origination.

Before policies are presented to the Board for approval, they are taken through a comprehensive review process which includes the opportunity for staff to provide updates as required to improve effectiveness or clarity. Included as **Attachment A** are the newly created and/or updated policies. These policies have been through the review process and are now ready for adoption. It is the recommendation for the Board to adopt Resolution 2020-51 approving the District policies listed below:

- 2445 Flag Display Policy
- 3105 Employee Records
- 3110 Equal Employment Opportunity
- 3115 Types of Appointments
- 3118 Lactation Accommodation
- 3123 Employment of Minors
- 3125 Employment of Retirees
- 3127 Probationary Status
- 3205 Dress Code & Personal Standards
- 3225 Uniforms and Protective Clothing
- 3235 Gender Identity Non-Discrimination
- 3250 Smoking

FINANCIAL ANALYSIS

This report has no impact on District resources.

SUSTAINABILITY ANALYSIS

There is no impact to the District's sustainability practices as a result of this report.

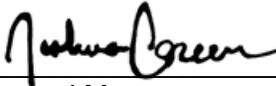
Respectfully submitted,



Joshua Green
General Manager

Attachment A: Resolution 2020-51 Adopting District Policies

Staff Report recommendation authorized by:



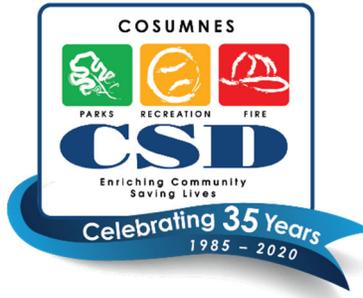
General Manager

Approved as to Form:



General Counsel

Attachment A



RESOLUTION NO. 2020-51

A RESOLUTION OF THE BOARD OF DIRECTORS OF THE COSUMNES COMMUNITY SERVICES DISTRICT ADOPTING VARIOUS DISTRICT POLICIES

WHEREAS, the Cosumnes Community Services District (“District”) is responsible for establishing policies and procedures to ensure the appropriate control and management of District functions; and

WHEREAS, the District must review, and if necessary, update policies and procedures to keep the District up to date with regulations, technology, and government best practices; and

WHEREAS, it has been determined by District Executive Staff that all Board and District policies and procedures must be updated and redeveloped in order to bring the District up to standards with organization, transparency, and accessibility of information; and

WHEREAS, the District will implement the following policy structure for Board, District, and Department policies:

- Section 1000: Administrative Rules (Board)
- Section 2000: Administration (District)
- Section 3000: Personnel (District)
- Section 4000: Board (Board)
- Section 5000: Fire Department (Department)
- Section 6000: Parks and Recreation Department (Department)

WHEREAS, due to the restructure of all Board and District policies, the Board will review and approve both Board and District policies upon this origination, and after the initial Board approval, future District policies will be reviewed and approved by the General Manager per Policy #1000 Adoption and Amendment of Policies.

NOW, THEREFORE, THE BOARD OF DIRECTORS OF THE COSUMNES COMMUNITY SERVICES DISTRICT DOES HERBY RESOLVE AS FOLLOWS:

Section 1. Item of Section. The Board of Directors hereby adopts various District Policies set forth in Exhibit “A” incorporated herein.

Section 2. Recitals. The Recitals set forth above are true and correct and are incorporated into this Resolution by this reference.

Section 3. Necessary Acts. The General Manager or designee is hereby authorized and directed to take all actions necessary to carry out the intent and purpose of this Resolution.

Section 4. Effective Date of Resolution. This Resolution shall take effect immediate upon its adoption.

PASSED AND ADOPTED by the Board of Directors of the Cosumnes Community Services District, this 7th day of October 2020, by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

Orlando Fuentes, President

ATTEST:

Joshua Green, Secretary

RESOLUTION NO. 2020-51

**A RESOLUTION OF THE BOARD OF DIRECTORS OF THE
COSUMNES COMMUNITY SERVICES DISTRICT
ADOPTING VARIOUS DISTRICT POLICIES**

EXHIBIT "A"

- 2445 Flag Display Policy
- 3105 Employee Records
- 3110 Equal Employment Opportunity
- 3115 Types of Appointments
- 3118 Lactation Accommodation
- 3123 Employment of Minors
- 3125 Employment of Retirees
- 3127 Probationary Status
- 3205 Dress Code & Personal Standards
- 3225 Uniforms and Protective Clothing
- 3235 Gender Identity Non-Discrimination
- 3250 Smoking

FLAG DISPLAY POLICY

Policy # **2445**
Original Effective Date: 10/07/2020
Revision Date:
Type of Policy: BOARD DISTRICT FIRE PARKS

POLICY

2445.1 Cosumnes Community Services District (“District”) will display flags at District facilities in conformance with Federal and State law, United States Code (U.S.C.A) Title 4 and Title 36, and the State of California Government Code Sections 430 – 439.

PURPOSE AND SCOPE

- 2445.2 The purpose of this policy is to maintain consistency and ensure proper respect, care, and display for flags. The display of flags shall present the District in a positive and professional manner.
- 2445.3 This policy applies to all flags identified herein that are flown at District facilities.

APPLICATION / PROCEDURE

- 2445.4 Definitions:
- a. Half-Staff: position of the flag when it is one-half the distance between the top and bottom of the staff.
- 2445.5 The Chief of Planning, Design, and Construction, or designee, will be responsible for ensuring the proper execution of this policy at all District facilities.
- 2445.6 The flag of the United States (“US Flag”) and the flag of the State of California (“State Flag”) shall be prominently displayed daily at major District facilities. Locations at which the flags are to be displayed include, but are not limited to:
- a. Administration Building
 - b. Bartholomew Sports Park
 - c. Emerald Lakes Golf Course
 - d. Fire Department Headquarters
 - e. Fire Stations
 - f. Gil Albiani Recreation Center
 - g. Laguna Town Hall

h. Wackford Community & Aquatic Complex

2445.7

Display of the Flags:

- a. The US Flag and State Flag shall be the same size.
- b. When the US Flag and State Flag are displayed with other flags, the US Flag shall be placed in the position of first honor at all times and the State Flag shall be placed in the position of second honor.
- c. Flags displayed on the same halyard shall have the US Flag at the peak, with the State Flag directly below the US Flag in such a manner as not to interfere with any part of the US Flag. All other flags shall be displayed at a position subordinate to the State Flag.
- d. When the US Flag and State Flag are displayed at the same time on separate flagpoles, the staffs shall be of equal height, the flags shall be of equal size, and the State Flag shall be positioned to the US Flag's own left (aka, the U.S. flag should always be placed on the left as it is most commonly observed). The US Flag shall be hoisted first and lowered last.
- e. No other flag shall be displayed above the US Flag.
- f. If the US Flag is displayed in a lobby area it must be displayed in the first position of honor. This position is on the left side of the lobby upon entrance.
- g. The US Flag and State Flag shall be the only Flags permanently displayed in the District Board Chambers. The US Flag shall be displayed in the first position of honor. This position is on the Board of Directors' ("Board") right as they face the audience. The State Flag shall be displayed in the second position of honor. This position is on the Board's left as they face the audience.
- h. When the US Flag is displayed alongside another flag on a separate pole, the US Flag shall be positioned to its own right of the other flag. The US flag shall be in the highest position unless the other flag is that of another nation in which case flags are flown at the same height in peace time. If the US Flag is flown as part of a group of flags of three or more, the US Flag shall be at the center and highest elevation.

2445.8

Time of Display

- a. The US Flag and State Flag should only be displayed outdoors from sunrise to sunset, unless the flags are properly illuminated during the hours of darkness.
- b. If the Flags are not illuminated then they shall be raised after sunrise and lowered prior to sunset from the flagpole daily.

- c. The US Flag and State Flag shall not be displayed on days when the weather is inclement, except when all-weather Flags are utilized.

2445.9 Days of Display

- a. The Flags should be displayed on all days.
- b. The US Flag and State Flag, and any other displayed flag adjacent to these, shall be flown at half-staff during any of the following circumstances:
 1. During a national day of mourning or remembrance as declared by the President of the United States. The period of time that the Flags remain at half-staff shall be determined by Presidential order, California Governor's order, or the US Flag Code.
 2. During a state day of mourning or remembrance as declared by the Governor of the State of California. The period of time that the Flags remain at half-staff shall be determined by gubernatorial order.
 3. On the following customary half-staff dates:
 - i. Peace Officers Memorial Day, May 15
 - ii. Memorial Day (flag shall be flown at half-staff only until noon and then raised to the top of the staff), the last Monday in May
 - iii. Patriot Day, September 11
 - iv. National Firefighters Memorial Day, traditionally the first Sunday in the Month of October.
 - v. Pearl Harbor Day, December 7
 4. When displayed at half-staff, the US Flag and State Flag shall be first hoisted to the peak for a moment and then lowered to the half-staff position. The Flags shall be again raised to the peak before they are lowered for the day. When displayed from adjacent staffs, the US Flag shall be raised and lowered first.
- c. When a District office is closed, and no staff is available to lower the flag to half-staff, then the flag should not be flown.
- d. The flying of flags at half-staff shall be coordinated among the District's facilities. The Chief of Planning, Design, and Construction, or designee, shall be responsible for coordinating. Except for the days listed in 2445.9 (b), approval shall otherwise be obtained from the General Manager prior to flying flags at half-staff. When a staff member is aware of a situation, which would seem to be appropriate to fly the flags at half-staff, they should advise the Chief

of Planning, Design, and Construction, or designee, and obtain direction.

- e. The State Flag or any other flag shall never be placed above the US Flag; thus, all other flags shall also fly at half-staff when the US Flag flies at half-staff or shall be removed.

2445.10 Care and removal of the flags:

- a. The flags should be hoisted briskly and lowered ceremoniously.
- b. Upon being removed from the flagpole, the US Flag should be properly folded into the shape of a triangle. It should be folded as follows:
 - 1. Begin by holding the flag so that its surface is parallel to the ground.
 - 2. Fold the flag in half twice, length-wise.
 - 3. Fold one corner into the opposite side of the flag, forming a triangle.
 - 4. Repeat this triangular folding until only a strip of the star field shows.
 - 5. Tuck the remaining strip into the triangle.
 - 6. When the flag is completely folded, only a triangular blue field of stars should be visible.
- c. The folding procedure identified in 2445.10(b) only applies to the US Flag, not the State Flag.
- d. When not on the flagpole, the flags should not be left unfolded, nor should they be allowed to touch or lie on the ground. Flags should be properly stored to ensure their safekeeping. Flag should never be stored in such a manner as to permit it to be easily torn, soiled, or damaged in any way.
- e. When the US Flag or State Flag, deteriorates to such a condition that it no longer serves as a fitting emblem of display, it shall be destroyed in a dignified manner, preferably by burning. District flags that are in such condition may be sent to Fire Logistics for proper disposal.
- f. The District maintains public flag disposal sites/containers at the Pavilion in Elk Grove Park and Laguna Town Hall.

2445.11 The District recognizes that any rule or custom pertaining to the display of the US Flag may be altered, modified, or repealed, or additional rules with respect thereto may be prescribed, by the Commander in Chief of the Armed Forces of the United States, whenever deemed to be appropriate or desirable. Any such alteration or additional rule shall take precedence over the practices set forth in this policy.

2445.12 The District's flagpoles are not a public forum. The District's flagpoles are to be used exclusively by the District, and no flag other than the US Flag, State Flag or District Flag shall be flown unless the Board of Directors approves or issues a proclamation or resolution authorizing the display of a commemorative flag that represents or aligns with the mission and vision of the District, as determined by the Board of Directors. The District will not display a commemorative flag based on a request from a third Party, nor will the District use its flagpoles to sponsor the expression of a third party.

REFERENCES

2445.13 United States Code (U.S.C.A) Title 4 and Title 36

2445.14 California Government Code Section 430 - 439

EMPLOYEE RECORDS

Policy # **3105**

Original Effective Date: 10/07/2020

Revision Date:

Type of Policy: BOARD DISTRICT FIRE PARKS

POLICY

3105.1 Cosumnes Community Services District ("District") requires all personnel files to be maintained in a secure and private location and to have all employees manage personnel information in that manner.

PURPOSE AND SCOPE

3105.2 The District retains personnel records concerning its employees and prospective employees. The official personnel file for the employee is maintained by the District's Human Resource Division. All employee personnel records are electronically maintained in a secure location with limited access. Managers are not allowed to maintain a duplicate personnel file.

3105.3 This policy applies to all District executives and employees, both active and inactive, as well as prospective employees.

APPLICATION / PROCEDURE

3105.4 Definitions:

- a. Personnel File: ordinarily include employment applications, resumes, verification of degree, insurance forms, payroll deduction authorizations, performance appraisals, certain pay records, transfer and promotion forms, records of disciplinary action, training records, termination records, awards and letters of recognition, and any certificates or credentials required for an employee's job.

3105.5 Employees shall have the right to include in their personnel file letters of commendation, training certifications, educational records, and other documents relevant to their employment.

3105.6 No information reflecting critically on an employee shall be placed in the employee's personnel file unless the employee is notified.

3105.7 Employees must notify the Director of Human Resources, or their designee, of any change in an employee's personal status and information, such as: changes of address, telephone number, marital status, military status, any birth or death in an employee's immediate family, any change in the name or telephone number of the person to be notified in case of

emergency, any change in insurance beneficiary, or any other information needed to maintain accurate records.

- a. These changes shall be provided to the Director of Human Resources, or their designee, within thirty (30) days of the change in an employee's personal status.
- b. Some changes, such as change of address, telephone number, and emergency contact may be updated by the employee within the District's HR Portal. These requested changes are reviewed by the Human Resources Division.
- c. Each employee is also responsible for providing the District with records concerning any licenses or certificates required in the performance of his or her job, as well as any documents showing that education or training relevant to employment has been completed.

3105.8 Medical records shall not be retained in the official personnel file, but in a confidential file, which is physically separate from the official personnel files.

3105.9 Documents may be removed from the employee's official personnel file only upon mutual agreement of the General Manager, in consultation with the Director of Human Resources and the employee or the employee's representative. Documents that are removed from the official personnel file, and their retention or storage, may be retained in a separate file by the Human Resources Division and/or dealt with in accordance with the public records law or other public policy requirements.

3105.10 The Human Resources Division has the responsibility of maintaining and securing any and all types of records, forms, and data relating to the selection, status, performance, salary, discipline, and training of employees. This includes responsibility for ensuring the confidentiality of those records designated as such.

Department Heads are responsible to ensure documents that need to be placed in the personnel file are sent to the Human Resources Division when they are created or received. All documents shall be kept with the Human Resource Division only.

All employee files will be retained in accordance with District Policies 2310 and 2312, as well as federal, state, and local laws.

3105.11 Release of Information. Personnel records are considered confidential. Confidential records shall only be disclosed within the District to aid in personnel administration. Employees shall have the right to inspect and obtain copies of their own personnel records within the prescribed guidelines of this rule to the extent provided by applicable law.

Employees requesting to see their official personnel file will be directed to contact the Human Resources Division. At no time during the examination of the employee's file shall the file be out of the direct supervision of the record keeper.

The employee's authorized representative may inspect and obtain copies of the employee's official personnel file, upon the employee's written release.

External inquiries regarding the record of an employee or a former employee shall be responded to in accordance with disclosure laws, in accordance with District Policy 3133.

REFERENCES

- 3105.12 District Policy, Public Records Information, Access, and Retention (2310)
- 3105.13 District Policy, Records Retention (2312)
- 3105.14 District Policy, Employment Verification and Letters of Recommendation (3133)

EQUAL EMPLOYMENT OPPORTUNITY

Policy # **3110**
Original Effective Date: 06/01/1993
Revision Date: 10/07/2020
Type of Policy: BOARD DISTRICT FIRE PARKS

POLICY

3110.1 Cosumnes Community Services District ("District") shall provide a working environment free from discrimination and harassment, providing all current and prospective employees with equal consideration, treatment, and opportunity for employment.

PURPOSE AND SCOPE

3110.2 The District is an equal opportunity employer and is committed to an active nondiscrimination program.

3110.3 This policy applies to all District executives, employees, interns, volunteers, contractors, vendors, and suppliers.

APPLICATION / PROCEDURE

3110.4 Definitions:

a. Discrimination includes, but is not limited to:

1. The unfair treatment of an employee or applicant in any aspect of employment, including discrimination based solely or in part on the employee's, or applicant's, protected category/status. Protected categories/status include: race, color, religion (religious creed), national origin, ancestry, age (40 and above), sex, pregnancy, childbirth, breastfeeding and/or related medical condition, disability (physical and/or mental), marital status, medical condition (cancer/genetic characteristics), gender, gender identity, and gender expression, military status and veteran status, genetic information, or sexual orientation.
2. Basing an employment decision affecting a job applicant or employee (e.g., decision to hire, promote, transfer, terminate, etc.) on one's protected status (e.g., race, color, religion, sex, etc.).
3. Treating an applicant or employee differently about any aspect of employment because of the employee's protected status.
4. Taking adverse employment action (i.e., demotion, transfer, discipline, termination) against an employee based on the employee opposing discrimination in the workplace, assisting, supporting, or associating with a

member of a protected category/status who complains about discrimination, or assisting in an investigation of discrimination.

5. Retaliation because the employee complained about job discrimination or assisted with a job discrimination investigation or legal action.

- 3110.5 All recruitment, hiring, placement, transfers, promotions, discharge, pay, fringe benefits, job training and other aspects of employment shall be based on the qualifications of the individual and free from discrimination.
- 3110.6 The District nondiscrimination program includes consideration for employment of individuals with disabilities and groups with a low participation rate of employment in the workforce. All decisions on employment and promotion must be made solely on the individual's qualifications (merit) and bona fide occupational qualifications for the job in question and the feasibility of any necessary job accommodations. Any accommodations made in accordance with the American Disabilities Act must be in writing.
- 3110.7 The District expects all employees to treat each other with respect, professionalism, and dignity. The District will enforce zero tolerance of discrimination and retaliation in the workplace as outlined in Board Policy, Prohibition Against Workplace Harassment, Discrimination and Retaliation (1105).
- 3110.8 Contractors, vendors, and suppliers doing business with the District are required to assure that equal employment opportunity be offered by their organization(s), and that they comply with appropriate sections of this policy and with applicable state and federal regulations.
- 3110.9 Retaliation against an individual who reports, files a complaint, opposes conduct they reasonably believes to be unlawful discrimination or retaliation, or participates in the investigation of a complaint, is prohibited.
- 3110.10 The District has an internal complaint procedure designed to address and resolve complaints of discrimination, including retaliation. Board Policy, Commitment to Diversity, Equity, and Inclusion (1015).

REFERENCES

- 3110.11 Board Policy, Commitment to Diversity, Equity, and Inclusion (1015)
- 3110.12 Board Policy, Prohibition Against Workplace Harassment, Discrimination and Retaliation (1105)
- 3110.13 Government Code Section 12926 (F)

TYPES OF APPOINTMENTS

Policy # **3115**

Original Effective Date: 10/07/2020

Revision Date:

Type of Policy: BOARD DISTRICT FIRE PARKS

POLICY

3115.1 Cosumnes Community Services District ("District") shall fill authorized vacancies and appoint newly hired, rehired, promoted, or appointed employees based on the status of their employment.

PURPOSE AND SCOPE

3115.2 Employees hired, rehired, promoted or appointed to a position within the District shall be assigned an appointment type based on the terms of their employees. An employee's appointment type defines the general terms of employment, which vary depending on the type of appointment held by the employee.

3115.3 This policy applies to all District executives and employees.

APPLICATION / PROCEDURE

3115.4 Definitions:

- a. Regular Full-time: employees who have successfully completed the probationary period and are regularly scheduled to work forty (40) hours per week or an agreed upon schedule resulting in 2,080 hours per year. A full-time employee may be considered exempt or non-exempt.
- b. Probationary Period: a new, rehired, or promoted employee who is performing work for 12 continuous months with close supervision and evaluation to assess the employee's performance of the required job duties. Employees in the probationary period are regularly scheduled to work forty (40) hours per week or an agreed upon schedule resulting in 2,080 hours per year, and are at-will and may be terminated by the District at any time during the probationary period for any reason. See District Policy, Probationary Status (3127) for more information.

The Director of Human Resources, in conjunction with the Department Head, may elect to extend the probationary period.

- c. Part-time: employees who are hired to work less than forty (40) hours a week but no more than 1,500 hours per fiscal year, and whose employment status is at-will. Part-time employees may be hired as either:

1. Regular: hired to work consistently in a year-round schedule **more than** nine (9) months in a year. Regular part-time employees receive California Public Employees Retirement System (“CalPERS”) membership but shall not work more than 1,500 hours in a fiscal year; or
 2. Extra Help/Seasonal: hired to work in any job classification, but whose position works **less than** nine (9) months in a calendar year and is not regular in nature. An Extra Help/Seasonal employee shall not work more than 1,000 hours in a fiscal year.
- d. Exempt: employees who are full-time (probationary or regular) who are exempt from the overtime provisions of the Fair Labor Standards Act (“FLSA”), based on their position. To be considered exempt, an employee must work in a bona fide executive, administrative, or professional capacity and be paid on a salary basis as required by FLSA. These employees are not eligible to receive overtime or compensatory time off (“CTO”).
 - e. Non-Exempt: employees (probationary or regular) who are subject to the overtime provision of the FLSA. Employees classified as non-exempt are eligible to receive overtime or CTO for hours physically worked in excess of 40 hours per week.
 - f. At-Will: employees whose employment with the District is on an at-will basis and can be terminated at any time by the employee or the District for any reason. All part-time, temporary, and extra help/seasonal employees are at-will.
 - g. Extended Leave of Absences: 30 or more consecutive days away from work.

3115.5

Appointment Types: An appointment is the approval of an applicant or employee to perform duties and responsibilities of an established position in the selection and appointment of all personnel.

- a. Permanent Appointments: Employees who have been hired into a regular, full-time position without a predetermined time limit. Permanent appointments are attained after the completion of the probationary period.
 1. Limits: There are no predetermined time limits on permanent appointments.
 2. Compensation: Permanent appointments receive compensation in accordance with District Policy, Compensation (3330).
 3. Eligibility of Benefits: Employees receive vacation and sick leave, holiday pay, service credit, and retirement and health benefits in accordance with District Policy, Benefits General (3305) and District Policy, Holidays, Vacations, and Other Leaves (3310).

b. Probationary Appointments: Employees receiving initial appointments, promoted or rehired to a full-time position must serve a probationary period. The probationary period is an extension of the selection process, and provides the time the new employee needs to achieve performance at or above the expectations of the job or to be separated if performance does not meet acceptable standards.

1. Limits: The probationary period shall be twelve (12) months of full-time employment from the actual date of employment, reemployment, or promotion. Extended leave of absences with or without pay will extend the beyond twelve (12) months.

The Director of Human Resources, in conjunction with the Department Head, may elect to extend the probationary period.

2. Compensation: Probationary appointments receive compensation in accordance with District Policy, Compensation (3330).
 3. Eligibility of Benefits: Employees receive vacation and sick leave, holiday pay, service credit, and retirement and health benefits in accordance with District Policy, Benefits General (3305) and District Policy, Holidays, Vacations, and Other Leaves (3310).
 4. See District Policy, Probationary Status (3127) for more information.
- c. Temporary Appointments: Temporary appointments are at-will employees who are hired to fill short-term, temporary appointments that the District reasonably expects there will be no permanent need for and do not occur or reoccur periodically or regularly. The appointment applies to either full-time or part-time employees.

Temporary appointments may be used under one of the following conditions:

1. To fill a short-term workload need that is not expected to last longer than one (1) year; or
2. To meet an employment need that is scheduled to terminate within a specified period of time that is not longer than one (1) year; or
3. To fill a position on a temporary basis in an emergency to prevent delay or injury to the public.
 - i. Limits: Temporary employees do not serve a probationary period and are not eligible for reclassification, promotion, reassignment or transfer to other jobs, unless successfully achieved through the recruitment process identified in District Policy, Recruitment and Section (3117). No temporary appointment shall exceed one (1) year, unless extended by the Director of Human Resources.

- ii. Compensation: Temporary employees are placed at the same salary step as an employee who was hired on a permanent basis. Temporary employees are eligible for step increases.
 - iii. Eligibility of Benefits: Following a 30-day waiting period, full-time temporary employees receive vacation, sick leave, and health benefits and are also eligible for holiday pay. Benefits are effective the first of the month following the completion of the 30-day waiting period. New hires or an employee who previously held a part-time appointment must complete the applicable waiting period before becoming eligible to use vacation or sick leave accruals.
 - i. Part-time temporary appointments are not eligible for vacation, health benefits or holiday pay. Employees in a part-time temporary appointment shall be entitled to the same benefits as all other employees in a part-time status (in accordance with state and federal laws).
- d. Casual Appointments: Casual appointments are used for positions that occur, terminate, and recur periodically or regularly. Casual employees serve at-will, do not accrue status in the class to which they have been hired, and have no appeal rights upon demotion, suspension, or termination from employment. The employment status is typically part-time.
 - 1. Limits: Casual appointments may be made for an indefinite or limited duration. Casual appointments are limited to either less than 1,000 hours or less than 1,500 hours depending on the employment status.
 - 2. Compensation: Casual appointment employees receive compensation in accordance with District Policy, Compensation (3330).
 - 3. Eligibility of Benefits: Casual appointment employees do not receive vacation or holiday pay.

Casual appointment employees accrue sick leave as required by state law and in accordance with District Policy, Holidays, Vacations, and Other Leaves (3310).

In accordance with CalPERS guidelines, casual appointment employees may qualify for retirement benefits if they work more than 1,000 hours in a fiscal year, are hired into a position that is scheduled to work an average of 20 hours or more a week for more than nine (9) months of the year, or have membership from prior employment with a CalPERS or reciprocal agency.

Casual appointment employees may also qualify for medical coverage under the federal Affordable Health Care Act (ACA).

- e. Double-Fill Appointments: A double-fill appointment may be used to fill a budgeted position with two employees at the same time. Positions may be double-filled for a short period of time to:
1. Fill in for an employee on extended leave; or
 2. To permit a training period when replacing a key employee who is leaving a position and has given written advance notice; or
 3. To provide for increased staffing levels in the event of a natural disaster, local or regional emergency, or other extenuating circumstances as approved by the Director of Human Resources.

Employees appointed to double-fill a position shall not be given a permanent appointment unless the purpose of the appointment is to replace an employee who has given advanced written notice of leaving.

Double-filling a position must be approved in writing by the Director of Human Resources prior to the appointment and meet the following criteria:

- i. The employee appointed must be assigned work appropriate to the classification of the position unless otherwise approved by the Director of Human Resources.
 - ii. The employee must be appointed to the classification to which the budgeted position has been allocated unless otherwise approved by the Director of Human Resources.
 - iii. The double-fill of the position must not exceed a six (6) month time period.
4. Limits: Double-fill positions must not exceed six (6) months or the time period specified in the approval.
 5. Compensation: Double-fill appointments receive compensation in accordance with District Policy, Compensation (3330). Employees in a position that is double-filled are not eligible for step increases.
 6. Eligibility of Benefits: Full-time double-fill appointments receive vacation, sick leave, and health benefits and are also eligible for holiday pay, providing they were appointed more than two weeks prior to the holiday. New hires into a position that is double-filled must complete the applicable waiting period before becoming eligible to use vacation and sick leave accruals.

REFERENCES

3115.6 District Policy, Probationary Status (3127)



- 3115.7 District Policy, Benefits General (3305)
- 3115.8 District Policy, Holidays, Vacations, and Other Leaves (3310)
- 3115.9 District Policy, Compensation (3330)

LACTATION ACCOMMODATION

Policy # **3118**
Original Effective Date: 12/18/2019
Revision Date: 10/07/2020
Type of Policy: BOARD DISTRICT FIRE PARKS

POLICY

3118.1 Cosumnes Community Services District (“District”) shall comply with and be guided by applicable state laws and regulations that allow a nursing mother the right to request a lactation accommodation each time there is a need to express breast milk and must be provided a reasonable amount of break time to express breast milk.

PURPOSE AND SCOPE

3118.2 The purpose of this policy is to establish guidelines and procedures for employees who need to express breast milk while in the workplace. Additionally, this policy will establish and promote a work environment that encourages and supports continued lactation upon the employee’s return to work.

In accordance with California law, this policy shall be disseminated to all newly hired employees and existing employees, per Labor Code Section 1034(c), inquiring about or requesting parental leave.

3118.3 This policy applies to all District elected officials, executives, employees, interns, volunteers, and contractors.

APPLICATION / PROCEDURE

3118.4 Definitions:

- a. None

3118.5 The District shall promote an atmosphere of tolerance regarding lactation in the workplace. Lactation shall not be a source of discrimination in employment or in access to employment. It is prohibited under this policy to harass a lactating employee or exercise any conduct that creates an intimidating, hostile or offensive work environment. Any incident of harassment of a lactating employee will be addressed in accordance with District policies and procedures for discrimination and harassment.

3118.6 Lactation Accommodation Request:

- a. Per Labor Code Section 1034(a)(1), all employees have the right to request lactation accommodation. An employee who has need for a lactation accommodation shall notify their supervisor, manager, or Human Resources.

- b. The District shall respond to any request for a lactation accommodation as soon as reasonably possible and in a manner consistent with the procedures outlined in this policy.
- c. Supervisors and/or managers who receive a lactation accommodation request shall prepare to provide appropriate nearby space and break time.
- d. If the workplace does not have a designated lactation area, the supervisor and/or manager, in coordination with Human Resources, shall evaluate appropriate available spaces.
- e. Employees who feel they have been denied appropriate lactation accommodations are encouraged to contact Human Resources; however, employees have the right to file a complaint with the Labor Commissioner for any violation of the law.

3118.7

Lactation Areas: California law requires employers to provide employees, who need to express milk, a space in close proximity to the employee's work area that is shielded from view and free from intrusion while the employee is lactating.

- a. Human Resources, in coordination with the Division Head, will be responsible for designating lactation areas. The designated lactation space shall:
 - 1. Be safe, clean, and free of toxic and hazardous materials.
 - 2. Contain a surface where the employee may place a breast pump and personal items.
 - 3. Contain a place to sit and be comfortable.
 - 4. Provide access to electricity or alternative devices needed to operate an electric or battery powered breast pump.
 - 5. Be private and free from intrusion while the employee expresses breast milk.
- b. If a designated lactation area is not available, vacant offices or conference rooms are possible options. The lactation area should be secure, equipped with an electrical outlet, be in close proximity to the employee's work area and contain comfortable seating with a table or other flat surface to hold a breast pump. Windows should be covered.
- c. The employee must have access to a sink with running water for hand washing and cleaning of equipment, along with a refrigerator suitable for storing of breast milk. If a refrigerator is not available near the employee's workspace, the manager or supervisor shall work with Human Resources to provide a suitable alternative cooling device.
- d. A restroom is not an acceptable designated lactation area.

3118.8 Unusual Circumstances: The District recognizes that some remote or smaller workplaces may not have adequate areas to accommodate a lactating employee. In such circumstances, Human Resources will work with the employee and District management to ensure reasonable accommodations are made. Managers and supervisors shall respond to any request for lactation accommodation in a manner consistent with the procedures outlined in this policy.

3118.9 Scheduling of Time for Lactation: Employees who make a lactation accommodation request will be provided reasonable break times to express breast milk. When possible, the lactation break time shall run concurrent with the employee's regular break time.

If possible, and approved by the supervisor, employees may be allowed a flexible schedule for pumping breast milk. The time allowed may exceed a normal lunch or break period. Any time in excess of the normal lunch or break period will not be paid as regular work time.

3118.10 Maintenance of Lactation Area: Breastfeeding employees are responsible for cleaning milk expression areas and, when applicable, using antibacterial wipes to clean the area. Employees are also responsible for keeping the general lactation area clean for the next user. The responsibility extends to both designated lactation areas, as well as other areas where expressing milk will occur.

Employees should label all milk expressed with their name and date collected so it is not inadvertently confused with another employee's milk. Each employee is responsible for proper storage of their own milk.

REFERENCES

- 3118.11 Board Policy, Prohibition Against Harassment Discrimination and Retaliation (1105)
- 3118.12 Pregnant Department Members (Fire SOP ADMIN 013.00)
- 3118.13 California Labor Code 1030

EMPLOYMENT OF MINORS

Policy # **3123**

Original Effective Date: 10/07/2020

Revision Date:

Type of Policy: BOARD DISTRICT FIRE PARKS

POLICY

3123.1 The Cosumnes Community Services District ("District") employs minors who are age 15 and older. Certain employment restrictions apply to minors; staff shall adhere to state and federal laws as it pertains to the employment of minors.

PURPOSE AND SCOPE

3123.2 The District may hire minors under the age of 18 to perform work. Supervisors, Human Resources Division and District management must ensure strict compliance with all regulations regarding their employment.

3123.3 This policy applies to all District executives, employees, interns, contractors, vendors, suppliers, and other persons who participate in District programs and services.

APPLICATION / PROCEDURE

3123.4 Definitions:

- a. Minor: any person under the age of 18 years who is required to attend school.
- b. Summer: June 1 through Labor Day.

3123.5 A valid work permit for all minors age 17 or under must be received prior to their first scheduled workday.

3123.6 A work permit is required of all minors age 17 or under, except for high school graduates or minors who have been awarded a Certificate of Proficiency.

The permit to employ must contain:

- a. The name, age, birth date, address, and phone number of the minor.
- b. The place and hours of required school attendance for the minor, or if applicable, a statement of exemption.
- c. The maximum number of hours per day and per week the student may work while school is in session.
- d. The minor's social security number.

- e. The signature of the minor and the issuing authority.
- f. The date on which the permit expires.

- 3123.7 All work permits expire five days after the opening of the subsequent school year (California Education Code Section 49118).
- 3123.8 A new work permit is required each summer that the minor works.
- 3123.9 Completed work permits must be forwarded to the Human Resources Division prior to the minors first work shift for retention.
- 3123.10 Hours Restrictions – Ages 14 to 15:
- a. The minor may only work three (3) hours on a school day, outside of normal school hours, and a maximum of 18 hour per school week. On non-school days (weekends, holidays, and vacation), they may work up to eight (8) hours in a day.
 - b. When school is not in session, the minor may work no more than eight (8) hours in a day or 40 hours in one week between 7:00 am and 7:00 pm. During the summer, however the minor may work until 9:00 pm.
- 3123.11 Hours Restrictions – Ages 16 to 17:
- a. These minors may work up to four (4) hours on school days and up to eight (8) hours on non-school days. They may also work up to eight (8) hours on a school day preceding a non-school day if their work permit allows.
 - b. On a day preceding a school day, these minors may not work before 5:00 am, or after 10:00 pm, unless enrolled in a work experience or cooperative vocational educational programs approved by the State Department of Education or private school.
 - c. When school is not in session, these minors may work a maximum of eight (8) hours per day and 48 hours per week. If the minor works two jobs, both jobs together may not total more than the legal number of hours that the minor may work.
 - d. Part-time student of this age may work during regular school hours as long as their workday does not interfere with their part-time schooling requirements.
- 3123.12 Minors are prohibited from operating District a vehicle.
- 3123.13 No minor shall be employed or permitted to work in any occupation declared particularly hazardous for employment of a minor between 16 and 18 years of age, or declared detrimental to their health or well-being (29 CFR, Section 570 of Subpart E).

REFERENCES

- 3123.14 California Education Code Section 49118
- 3123.15 Code of Federal Regulations ([29 CFR, Section 570 of Subpart E](#))

EMPLOYMENT OF RETIREES

Policy # **3125**

Original Effective Date: 10/07/2020

Revision Date:

Type of Policy: BOARD DISTRICT FIRE PARKS

POLICY

3125.1 The Cosumnes Community Services District (“District”) aspires to appoint candidates with the right skills and experience needed to meet the needs of all our vacancies. In certain instances, the District may need to employ or reemploy retirees to fill unique positions that require specialized skills or experience.

PURPOSE AND SCOPE

3125.2 From time to time, the District may need to fill a vacancy, for a limited duration, with an individual who has retired from the District or another agency that is a California Public Employees’ Retirement System (“CalPERS”) employer. The employment or reemployment of a retired annuitant must be in accordance with the provision of this policy as well as retirement laws and regulations that govern post service retirement employment.

3125.3 This policy applies to all District executives and employees.

APPLICATION / PROCEDURE

3125.4 Definitions:

- a. Reinstatement: an employee who is returning from retirement status to active employment with a CalPERS employer.
- b. CalPERS retiree: an employee of a CalPERS employer who terminates active employment and receives a monthly CalPERS retirement allowance.
- c. Retired annuitant: a CalPERS retiree working as an at-will employee for a CalPERS employer without reinstating from retirement.
- d. Unlawful employment: retiree employment found to be in violation of the retirement law and regulations.
- e. Limited duration: the appointment is not for an indefinite period of time and is not an appointment to a part-time regular position. Typically identified as retired annuitant or extra help positions.
- f. Retiree skills: the retiree’s work history that has previous experience and skill set needed to perform the desired work. Some examples include: the skill and

previous experience as a police officer to perform extra help law enforcement work or prior janitorial experience to perform similar services.

- g. Interim appointments: an appointment, approved by the Board of Directors, to fill a vacant position on an interim basis during the recruitment to permanently fill the vacant position.
- h. Golden Handshake: an early retirement incentive that can be offered by an employer in place of an impending layoff. The employer must contract with CalPERS for the benefit and pay the cost for this early retirement incentive.

3125.5 The employment or reemployment of a retired annuitant shall not to be used as a substitute for positions that should be appropriately filled through a recruitment process.

3125.6 The retired annuitant may only be employed or reemployed, under limited duration, to supplement the work of regular staff under one of the following conditions:

- a. To eliminate backlog.
- b. To perform work on a special project.
- c. To help with excess workloads that regular staff cannot do.

3125.7 Employment of retired annuitants is solely at the request of the hiring authority and approval of the Director of Human Resources and subject to the following conditions:

1. The retired annuitant has completed the 180-day (six month) waiting period prior to employment or reemployment.
2. The retired annuitant is appointed to a classification in which the retiree previously held status or to another classification the employee is qualified to perform the work.
3. The retired annuitant shall not have the benefit of any previously acquired seniority.
4. No employee permanently employed by the District shall be displaced by the reemployment or employment of a retiree.
5. The retired annuitant is hired to perform work of limited duration.
6. The retired annuitant shall not work for the District for more than 960 hours in a fiscal year or two years, whichever results in the longer period of employment for the retired annuitant, without approval by the Director of Human Resources.
7. The retired annuitant shall not concurrently work for any other CalPERS agency, or any other organization that creates a conflict of interest, as determined in the reasonable discretion of the Director of Human Resources.

3125.8 Hours of Work for Retiree Appointments:

- a. Retired annuitants may not work more than 960 hours in a fiscal year **for any CalPERS agency**. If a retired annuitant has worked for another CalPERS agency within the same fiscal year, the hours worked for that CalPERS agency shall be included in the retired annuitant's 960-hour total calculation.

In accordance with retirement laws and regulations, retirees who work more than 960 hours are out of compliance and are subject to mandatory reinstatement.

- b. Retired annuitants are responsible for monitoring work hours to ensure the retiree does not exceed the 960-hour limit in a fiscal year.

3125.9 Compensation for Retiree Appointments:

- a. The salary rate of retired annuitants shall be at a step within the salary range that is equal to other employees performing comparable duties, divided by 173.33 hours per month to equal an hourly rate.
- b. Retirees shall not accrue or be eligible to receive paid vacation, additional retirement benefits, management leave or any other form of compensation (i.e., paid benefit, incentives, or compensation in lieu of benefits) in addition to the hourly pay rate.
- c. Retirees are not eligible for paid sick leave.
- d. Retirees appointed to a full-time appointment shall not receive holiday pay.
- e. Retirees who work overtime hours must be paid for those hours unless designated as exempt under the Fair Labor Standards Act ("FLSA"). Retirees may not accrue compensatory time off.
- f. Retirees are not eligible for annual salary increases other than Cost of Living Adjustment (COLA) or District-wide salary adjustments granted to all employees in the particular classification.

3125.10 Limitations of Retiree Status:

- a. Retirees shall not be hired into a vacant permanent or regular staff position that is exempt as an interim appointment under Government Code § 21221(h), regardless of whether the positions are part-time or full-time.
- b. A retired annuitant appointment should have a beginning and end date.

3125.11 Interim Appointments of Retirees and 180-day exception:

- a. Interim Appointments: The District may appoint a retiree to fill a vacant position on an interim basis as long as the appointment meets the requirements of

retirement law and regulations. Interim appointments may be used under the following conditions:

- i. The position is needed during an emergency to prevent stoppage of business, e.g. disasters such as floods or earthquakes, etc.
- ii. The position is unique and the appointment requires a unique skill set during the recruitment to permanently fill the vacancy.
- iii. The appointment is used to fill a single or unique position such as General Manager, Fire Chief, Chief Administrative Officer, Director or other managerial and executive positions. The Director of Human Resources, in conjunction with the General Manager, may elect to fill positions other than the aforementioned.
- iv. There is or will be an open recruitment to permanently fill the vacancy prior to the appointment of the retiree.
- v. The appointment is of limited duration and has an end date.

Note: As required by retirement law and regulations, the specified end date cannot be amended to extend the appointment term. A retiree appointed more than once is subject to mandatory reinstatement.

- vi. The retiree is subject to the requirements of sections 3125.8, Hours of Work and 3125.9, Compensation above.
- b. 180-Day Wait Period Exceptions: CalPERS allows for exceptions to the 180-day wait period. The 180-day exception must meet the following criteria:
- i. The retiree is a firefighter or public safety officer, as determined in accordance with the definition set forth in CCR § 579.25, hired to perform a function or functions regularly performed by a public safety office or firefighter, or
 - ii. The District has certified the nature of the employment and that the appointment is necessary to fill a critically needed position before the 180 days has passed.
- c. If the retiree meets the criteria in section 3125.11 (b)(i) and (b)(ii) above, then the following criteria shall be applied and/or satisfied prior to the retirees hire date:
- i. The appointment was approved by the Board of Directors in a public meeting and was not placed on a consent calendar.
 - ii. The certification and resolution were submitted to CalPERS prior to the retiree's hire date.

- iii. The retiree has not accepted a Golden Handshake, or any other employer incentive related to retirement.

Note: Retirees who do not meet this criteria are disqualified for the exemption and must serve the 180-day wait period regardless of whether they would qualify for any of the exceptions above.

- d. In accordance with CalPERS Circular Letter 200-002-14 (or, “in accordance to retirement law and regulations”), if a retiree is employed without meeting the 180-day waiting period and without an allowable exception, the retiree is subject to immediate reinstatement from retirement. There is no provision in the retirement law to retroactively remedy a violation of the 180-day wait period.

3125.12 Consequences of Unlawful Employment:

- a. An unlawfully employed retiree is subject to mandatory reinstatement from retirement. The consequences of unlawful employment include the following:
 - i. The retiree becomes an active employee and contributing CalPERS member of the District, in the position they were unlawfully employed, and as of the date the unlawful employment began.
 - ii. The now active employee must pay retroactive member contributions plus interest for the period of unlawful employment and, likewise, the District will pay employer contributions plus interest on the employee’s behalf for the period of unlawful employment through retroactive payroll reporting.
 - iii. The now active employee must reimburse CalPERS the entire amount of retirement allowance they received during the unlawful employment.
 - iv. The District may be required to reimburse CalPERS for administrative expense incurred in respond to the investigation and resolution of the unlawful employment.

REFERENCES

- 3125.13 [Government Code section 21221\(h\)](#)
- 3125.14 [CalPERS Circular Letter 200-002-14](#)
- 3125.15 [California Code of Regulations § 579.25](#)

PROBATIONARY STATUS

Policy # **3127**
Original Effective Date: 10/07/2020
Revision Date:
Type of Policy: BOARD DISTRICT FIRE PARKS

POLICY

3127.1 The Cosumnes Community Services District (“District”) has a 12 month probationary period for all newly hired, rehired, or promoted employee. The probationary period provides time for the supervisor to assess the employee’s qualifications, performance, and general suitability to successfully meet the requirements of the position and standards of the job. It likewise provides the employee with the opportunity to experience the District, the department, and the position to determine whether the position meets their expectations.

PURPOSE AND SCOPE

3127.2 The purpose of the probationary period is to provide supervisors the opportunity to assess general work habits such as punctuality, attendance, working relationships, etc., and to evaluate the employee’s ability to meet performance standards. This policy describes the terms of the probationary period and when and how they apply to District employees.

3127.3 This policy applies to all District executives and employees.

The provisions of the policy shall be applicable to all employees of the District except where otherwise specified in an individual employment contract or Memorandum of Understanding (MOU); if any provisions of this policy differ from the applicable agreement, the applicable agreement will govern.

APPLICATION / PROCEDURE

3127.4 Definitions:

- a. Exempt Employee: an employee (probationary or regular) who is exempt from the provisions of the Fair Labor Standards Act (“FLSA”), based on their position. Employees classified as exempt are not eligible for overtime pay.
- b. Non-Exempt Employee: an employee (probationary or regular) who is subject to the overtime provisions of the Fair Labor Standards Act (“FLSA”). These employees are eligible to receive overtime or compensatory time off (“CTO”) for hours physically worked in excess of 40 hours per week.

- c. At-Will Employment: employees whose employment with the District is on an at-will basis and can be terminated at any time by the employee or the District for any reason. All part-time, temporary, and extra help/seasonal employees are at-will.

3127.5 A probationary employee is regularly scheduled to work 40 hours per week or an agreed upon work schedule resulting in 2,080 hours per year, and is a new, rehired, or promoted employee who serves a 12 month period of close supervision and evaluation in order to assess the performance of the required duties.

3127.6 The employment of a probationary employee is at-will and may be terminated by the District at any time during the probationary period for any reason. A full-time employee may be exempt or non-exempt.

3127.7 Probationary Periods:

- a. Initial Probationary Period: The initial probationary period for all newly hired or rehired employees is 12 months. During the initial probationary period, the employee is considered “at will” and the District and the employee have the right to terminate the employment relationship at any time during this 12 month period for any reason that does not violate state or federal law.
- b. Secondary Probationary Period: When a District employee accepts a promotion to another position, they will have a secondary 12 month probationary period. At any time during the secondary probation period, the employee serving a secondary probation may be returned to their previous position or a position comparable to their prior position.
- c. Transfer Probationary Period: When a District employee accepts a transfer to another position, the employee will not serve a new or secondary 12 month probationary period. However, if the employee has not completed the initial 12 month probationary period the employee will continue to be in probationary status until the completion of 12 months of service to the District.
- d. Extended Probationary Period: To successfully complete the probationary period, the employee must completely attend work as scheduled during the 12 month period. Probationary employees absent from the job for more than 30 working days shall have the probationary period and the due date of the next scheduled performance evaluation extended by the equivalent amount of time of the employee’s absence.
 1. During the time that a probationary employee is off work on an approved leave, the probationary employee shall retain their normal anniversary date for purposes of accruals and California Public Employees’ Retirement System (“CalPERS”) service credit.

3127.8 Evaluations During the Probationary Period:

- a. Refer to District Policy, Performance Evaluation (3160).

REFERENCES

3127.9 District Policy, Performance Evaluation (3160)

DRESS CODE AND PERSONAL STANDARDS

Policy # **3205**
Original Effective Date: 03/07/2006
Revision Date: 10/07/2020
Type of Policy: BOARD DISTRICT FIRE PARKS

POLICY

3205.1 Cosumnes Community Services District (“District”) requires employees to exercise appropriate judgment with regards to personal appearance and to maintain a neat and clean appearance including personal hygiene, that is appropriate for the workplace setting and for the work being performed.

PURPOSE AND SCOPE

3205.2 Professional image is important and is maintained, in part, by the image that employees present to citizens, visitors, vendors, and others in our business. In choosing appropriate work attire, employees should consider factors including tastefulness, anticipated requirement for public contact, the nature of the job, and working conditions. All District employees are expected to present a professional, businesslike image to clients, visitors, customers, and the public.

3205.3 This policy applies to all District executives, employees, interns, and volunteers.

APPLICATION / PROCEDURE

3205.4 Definitions:

General Guidelines:

- a. Business Attire: generally, include suits, sports coats, dress shirt and tie, dress slacks, pantsuit set, skirt, blazer, or dress.
- b. Business Casual Attire: generally, include slacks similar to Dockers or dressy capris, dress shirts, casual dresses or skirts, sweaters, turtlenecks or polo/golf-type shirts.
- c. Casual Attire: district issued shirt or jacket, jeans, t-shirts, or tennis shoes are acceptable. Attire worn should remain professional and appropriate for the work unit.

- d. Field Work Attire: field or facility work may require special uniforms, protective clothing, or equipment. Employees shall consult with a supervisor on requirements in advance. Personal hats or jackets, including attire with logos or names on them other than the District, shall be allowed as long as it is an approved logo that is appropriate for the work area.

- 3205.5 All employees who are required to wear uniforms shall wear the appropriate uniform for their work area. Employees are permitted to wear the uniform only during their work hours, work time, traveling to and from work, or while representing the District (e.g., community event, training, meeting). Except as provided in this policy, employees shall not wear their District uniform while off-duty. Uniforms shall never be worn to political events (Government Code Section 3206). Employees attending community events or functions representing the District shall be in business attire at all times unless the employee's supervisor has informed employee that the event or function is casual whereby District casual attire is appropriate.
- 3205.6 The District expects all employees to use good judgment and taste in matters of personal grooming and dress. Good judgment includes consideration for both the District and its employees, clients, and members of the public the District serves. Employees should always be neat and clean in appearance, dressed in reasonably professional attire, and conduct themselves in a business-like manner.
- 3205.7 Supervisors will assist employees to determine what is considered appropriate attire for the particular situation. Any questions about specific department guidelines should be discussed with the immediate supervisor.
- 3205.8 The District recognizes the importance of individually held religious beliefs. The District will reasonably accommodate an employee's religious beliefs in terms of workplace attire unless the accommodation creates an undue hardship or raises legitimate safety concerns. Those requesting a workplace attire accommodation based on religious beliefs should contact the Human Resources Division.
- 3205.9 Employees who are inappropriately dressed may be sent home and directed to return to work in the proper attire. Non-exempt employees will not be compensated for the time away from work. Employees who violate the District dress code policy or personal standards may be subject to disciplinary action.
- 3205.10 No visible tattoos are allowed anywhere on the head, neck, or face, unless related to the employee's religious affiliation or association. Any visible tattoos cannot be obscene, sexually explicit, or otherwise violate the District's policy against unlawful harassment or discrimination. Extremist or gang-related tattoos are also not

permitted. Employees with tattoos that do not comply with this policy will be encouraged to identify appropriate options, such as covering tattoos or taking other reasonable means to resolve.

- 3205.11 Jewelry should be minimal, safe, and appropriate for the work environment. Large dangling earrings or piercings that could present a safety hazard are not appropriate. Piercings as described herein shall be allowed if the employee provides information of religious affiliation or association related to his or her piercings. Any piercing or jewelry deemed to be a safety hazard or that does not comply with this policy shall be removed, covered with a bandage, or replaced with a clear, plastic spacer while the employee is working.
- 3205.12 Employees who are sensitive to perfumes and chemicals may suffer potentially serious health consequences, triggered by exposure to scented products. Consequently, employees are asked to refrain from the use of personal scented products such as perfume, after shave, and cologne in the workplace where the sole purpose is to produce a scent.
- 3205.13 Department Heads shall establish additional guidelines applicable for appropriate attire for their departments, as well as any exceptions, depending on the assignments and working environments.

REFERENCES

- 3205.14 Government Code Section 3206

UNIFORMS AND PROTECTIVE CLOTHING

Policy # **3225**

Original Effective Date: 10/07/2020

Revision Date:

Type of Policy: BOARD DISTRICT FIRE PARKS

POLICY

3225.1 The Cosumnes Community Services District (“District”), depending on the nature of the job, will provide employees with a uniform allowance, uniform or protective clothing to wear during work hours or during the course of the workday.

PURPOSE AND SCOPE

3225.2 Depending on the nature of their job, employees may be required to meet special dress code standards, such as wearing uniforms or protective clothing.

3225.3 This policy applies to all District executives, employees, interns, or volunteers.

APPLICATION / PROCEDURE

3225.4 Definitions:

a. None

3225.5 The cost of uniforms and/or protective clothing, shoes, etc., that employees are required to wear shall be borne by the District, as outlined in any applicable agreement (Memorandum of Understanding, Employee Handbook, or Employment Contract). The Supervisors will ensure the appropriate record keeping is maintained to identify all items purchased, the cost of the item and the replacement of the items. All uniform (including staff logo apparel) and other protective equipment are District property and shall be return to the District upon termination of employment with the District.

3225.6 The District has the option of authorizing reimbursements to qualifying employees upon proof of purchase; or arranging with local retailers to supply all qualifying employees with a specific product that meets the needs and/or safety requirements and bill the District for the total cost of all products purchased. Employees must seek direction from the District before incurring any clothing expense.

3225.7 Employees are responsible for the upkeep and maintenance of their uniforms except in those work units where uniform laundry service is provided. Uniforms and protective clothing shall be worn only during working hours, when representing the District, in travel to and from work, and other situations as approved by the Department Head. Uniforms shall never be worn to political events (Government Code Section 3206).

3225.8 Staff uniforms or shirts, which are paid for by the District, are California Public Employees' Retirement System ("CalPERS") reportable compensation. In cases where the expenditure exceeds \$100 in a single fiscal year, the costs will also be considered taxable fringe benefits.

REFERENCES

3225.9 Government Code Section 3206

GENDER IDENTITY NON-DISCRIMINATION

Policy # **3235**

Original Effective Date: 10/07/2020

Revision Date:

Type of Policy: BOARD DISTRICT FIRE PARKS

POLICY

3235.1 The Cosumnes Community Services District (“District”) is dedicated to maintaining a safe and productive workplace environment, free from discrimination, for all employees. The District is committed to a work environment that ensures the safety, comfort, and healthy development of all employees, including transgender or gender non-conforming employees.

PURPOSE AND SCOPE

3235.2 This policy sets forth guidelines to address the needs of transgender and gender non-conforming employees and clarifies how the law should be implemented in situations where questions may arise about how to protect the legal rights or safety of such employees.

3235.3 This policy applies to all District elected officials, executives, employees, interns, volunteers, contractors, vendors, suppliers, members of the public, and other persons who participate in District programs and services.

APPLICATION / PROCEDURE

3235.4 Definitions: the definitions provided within this policy are not intended to label employees but rather to assist in understanding this policy and the legal obligations of employers. Employees may or may not use these terms to describe themselves.

- a. Transgender: term used to describe people whose gender identity differs from the sex they were assigned at birth.
- b. Gender expression: a person’s gender-related appearance and behavior whether or not that gender-related identity, appearance or behavior is different from that traditionally associated with the person’s assigned sex at birth. It includes an individual’s characteristics and behaviors (such as appearance, dress, mannerisms, speech patterns, and social interactions) that may be perceived as masculine or feminine.
- c. Gender identity: a person’s internal understanding or sense of being male, female, or something other or in-between, regardless of the sex they were assigned at birth. Each person has a gender identity.

- d. Gender non-conforming: term that describes people who have, or are perceived to have, gender characteristics and/or behaviors that do not conform to traditional or societal expectations.
- e. Transitioning: process some transgender people go through to begin living as the gender with which they identify, rather than the sex assigned to them at birth. This process may include, but is not limited to, changes in name and pronoun usage, facility usage, participation in employer-sponsored activities or undergoing hormone therapy, surgeries, or other medical procedures.

3235.5 The District will not tolerate disrespectful language or behaviors from employees toward anyone. Every person shall be addressed in a manner that is consistent with the individual's expressed preference. This includes the use of the individual's preferred pronoun or lack of pronoun, as well as preferred name, even if it is different from the individual's legal name. The refusal of managers, supervisor, co-workers, and other employees to address individuals in a manner consistent with their expressed preference will not be tolerated.

3235.6 Right to Privacy: Transgender employees have the right to discuss their gender identity or expression openly, or to keep that information private. The transgender employee can decide when, with whom, and how much to share of their private information.

Management, Human Resources, and co-workers should avoid revealing an employee's transgender status or gender non-conforming presentation to others without the consent of the employee and should only do so based on a bona fide need-to-know basis.

3235.7 District Records: To the extent possible, the District will change an employee's official employment record to reflect a change in name and/or gender upon request from the employee.

Note: certain types of records, like those relating to payroll and retirement accounts, may require a legal name change before the person's name can be officially changed. However, to the extent possible, the District will work to reflect an employee's preferred name on District records without proof of a legal name change.

3235.8 Name/Pronoun: A transgender employee has the right to be addressed by the name and pronoun corresponding to the employee's gender identity. District employment records will also be changed to reflect the employee's new name and gender, to the extent possible, upon the employee's request.

3235.9 Transitioning: Employees who transition during their employment with the District can expect the support of management and human resources staff. Human Resources will work with each transitioning employee individually to ensure a successful workplace transition.

3235.10 Restroom Accessibility: All employees have a right to safe and appropriate restroom facilities, including the right to use a restroom that corresponds to the employee's gender identity or gender expression, regardless of the employee's sex assigned at birth. Employees shall have access to the restroom corresponding to their gender identity or gender expression.

- 3235.11 Locker/Changing Room Accessibility: All employees have the right to use the locker/changing room that corresponds to their gender identity or gender expression, regardless of the employee's sex assigned at birth.
- 3235.12 Dress Code: The District does not have a dress code that restricts employees' clothing or appearance on the basis of gender. Transgender and gender non-conforming employees have the right to comply with District's dress code in a manner consistent with their gender identity or gender expression.
- 3235.13 Discrimination/ Harassment: It is unlawful and violates District policy to discriminate in any way against an employee because of the employee's actual or perceived gender identity and/or gender expression. Additionally, it also is unlawful and contrary to this policy to retaliate against any person objecting to or supporting enforcement of legal protections against gender identity and/or gender expression discrimination in employment. See Board Policy, Prohibition Against Workplace Harassment, Discrimination and Retaliation (1105).
- a. Investigation: Any incident of discrimination, harassment, or violence based on gender identity or expression will be given immediate and effective attention, including, but not limited to, investigating the incident, taking appropriate corrective action and providing employees and staff with appropriate resources.
 - b. Complaint: Any employee who believes he, she, or they are the victim of unlawful harassment or discrimination based on gender identity or gender expression shall promptly file a complaint with the immediate supervisor and/or Human Resources. The process for filing a complaint is outlined in Board Policy 1105.

REFERENCES

- 3235.14 Board Policy, Prohibition Against Workplace Harassment, Discrimination and Retaliation (1105)

SMOKING

Policy # **3250**

Original Effective Date: 10/07/2020

Revision Date:

Type of Policy: BOARD DISTRICT FIRE PARKS

POLICY

3250.1 The Cosumnes Community Services District (“District”) prohibits the use of smoking, vaping or use of tobacco related products in and on all District property, facilities, vehicles, and equipment, unless otherwise designated.

PURPOSE AND SCOPE

3250.2 The District has a vital interest in maintaining a safe and healthy environment for the community, its participants, employees, and contractors. This policy incorporates District policy with existing state and local laws prohibiting or regulating smoke and tobacco use.

3250.3 This policy applies to all District elected officials, executives, employees, interns, volunteers, contractors, vendors, suppliers, members of the public, and other persons who participate in District programs and services.

APPLICATION / PROCEDURE

3250.4 Definitions:

- a. Cannabis: all substances containing parts of the plant Cannabis sativa Linnaeus, Cannabis indica, or Cannabis ruderalis, as further described and defined in California Business & Professions Code Section 26001.
- b. District Property and Facilities: buildings, enclosed facilities, and other open areas owned, leased, or operated by the District.
- c. District Equipment: tractors, mowers, forklifts, or other equipment powered by electricity or fossil fuels, which include gasoline, diesel, propane, or natural gas owned, leased, or operated by the District.
- d. District Vehicle: any motorized vehicle, including a golf cart, car, van, light duty truck, or fire engine owned, leased, or operated by the District.
- e. Electronic Cigarette: an electronic device that delivers vapor for inhalation including hookah pens, vape pipes, and electronic hookahs. Sometimes referred to as “e-cigarettes”.

- f. Smoke or Smoking: the carrying of a lighted pipe, lighted cigar, or lighted cigarette of any kind, or the lighting of a pipe, cigar, or cigarette of any kind.
- g. Smokeless Tobacco: either 1) a loose or flat, compressed cake form of tobacco that may be chewed or held in the mouth, or 2) a shredded, powdered, or pulverized form of tobacco that may be inhaled through the nostrils, chewed, or held in the mouth, consistent with the definition set forth in California Health and Safety Code section 118950.
- h. Tobacco Products: all substances containing tobacco leaf or derived from tobacco, including cigarettes, cigars, pipe tobacco, snuff, chewing tobacco, dipping tobacco, bidis, kreteks, Smokeless Tobacco or any other preparation of tobacco.
- i. Vape or Vaping: using an Electronic Cigarette in the following ways:
 - 1. Through inhalation or exhalation of vapor from Electronic Cigarette; or
 - 2. By holding or otherwise activating an Electronic Cigarette such that any vapor is being emitted from it.

3250.5 Prohibition at District Buildings, Facilities and Parks, and in or on District Vehicles and Equipment:

- a. This prohibition extends to all outdoor areas within 25 feet of entrances, exits, buildings and facilities, or playground and/or 250 feet from any youth sports event (pursuant to California Health and Safety Code section 104495(b)).
- b. Employees are prohibited from smoking, vaping, or using tobacco products at all times in District buildings or facilities, and in or on District vehicles and equipment. This prohibition applies to all workplace areas, including, but not limited to, all offices, cubicles, common work areas, elevators, hallways, restrooms, and conference, meeting room, and parking lots.
- c. Employees are prohibited from smoking, vaping, or using tobacco products while performing services or wearing District issued or District required uniform, on paid breaks in or around the parks or other open areas owned, leased, or operated by the District, or in any area around District property where use or disposal of tobacco products is prohibited by state or local law including, without limitation, near a children's playground or youth sports event pursuant to Health and Safety Code Section 104495(b) and Elk Grove Municipal Code Chapter 6.22.

3250.6 A clear and prominent sign stating "No Smoking" shall be posted at the entrances of buildings or structures where smoking is prohibited.

3250.7 Employees are only permitted to smoke, vape, or use tobacco products in designated areas, as established by Department Heads or their designees.

- 3250.8 Disposal of any tobacco-related waste within 25 feet of a children's playground or tot lot sandbox is prohibited. Employees should use extreme caution and dispose of cigarettes in a responsible and safe manner, not littering or throwing residual parts on the ground or street or areas of drains, etc.
- 3250.9 Employee shall only smoke during designated lunch periods.
- 3250.10 Smoking or consuming cannabis products is prohibited prior to and during performance of duties pursuant to Board Policy, Drug and Alcohol Use Prohibited (1140).

REFERENCES

- 3250.11 Board Policy, Drug and Alcohol Use Prohibited (1140)
- 3250.12 California Business and Professions Code section 26000 *et seq.* (Cannabis Regulation and Safety Act)
- 3250.13 California Health and Safety Code section 104495(b)
- 3250.14 California Health and Safety Code section 118950
- 3250.15 [California Labor Code 6404.5](#)
- 3250.16 District Ordinance No. 15, Sections 1.50 and 1.145
- 3250.17 Elk Grove Municipal Code Chapter 6.22

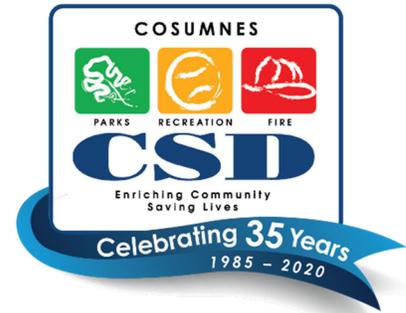
STAFF REPORT

DATE: October 7, 2020

TO: Board of Directors

FROM: Nitish Sharma, Chief Administrative Officer

SUBJECT: EXCLUSIVE NEGOTIATIONS AGREEMENT WITH DIGITAL BILLBOARD OPERATOR REGARDING LEASE PAYMENTS, OPERATIONS AND MANAGEMENT FOR THE DISTRICT DIGITAL BILLBOARD PROJECT



RECOMMENDATION

The Board of Directors (“Board”):

1. Select OUTFRONT Media LLC as the operator of the proposed digital billboard project at the Emerald Lakes Golf Course, and
2. Approve an Exclusive Negotiations Agreement with OUTFRONT Media, LLC for a Master Lease Agreement for the installation, operation, and management of the Cosumnes Community Service District (“District”) digital freeway billboard project.

BACKGROUND

Local agencies across California continue to face mounting short and long-term budgetary challenges, such as the escalating expenses from a combination of factors including increases in pension costs, retiree health costs, increase in service area demands, and the impact from the emergence of the current coronavirus (COVID-19). The Board approved financial cornerstones, as described below, provide the framework to adopt and maintain a balanced budget throughout the fiscal year.

1. Maintain a sustainable General Fund budget to support core services for residents and businesses.
2. Build and retain a high-performing and dedicated workforce by promoting diversity, equity, and inclusiveness.
3. Provide sufficient funding for capital projects that create a return on investment to the District; and
4. Be transparent, accountable, and innovative.

Staff presented a 10-year financial plan to the Board on September 16, 2020 to illustrate the revenue and expenditure challenges foreseen in the next few years. Staff continue to look for revenue opportunities and place control on expenditures to ensure the District is financially stable in the short and long-term.

Staff determined digital freeway billboard(s) (“District Digital Billboard Project”) would provide a considerable ongoing revenue source for the District. In addition, it will be a significant marketing tool for businesses within the region as well as the District and the City of Elk Grove (“City”). Staff issued a Request for Proposal (“RFP”) for Digital Billboards on February 14, 2020 and the proposal due date was extended to June 12, 2020 due to COVID-19. The RFP was posted on the District website and sent to several digital billboard vendors.

ANALYSIS

Staff received two proposals on June 12, 2020 from:

- Clear Channel Outdoor
- OUTFRONT Media, LLC

District staff conducted a comprehensive analysis of the proposals based on the criteria as described below and identified in the RFP.

- Qualifications and experience.
- Proven success in guiding customers through the process of managing billboard installation and maintenance.
- Industry knowledge.
- Cost to provide services.
- Community benefits to the District.

Staff selected OUTFRONT Media, LLC for the District Digital Billboard Project based on the evaluation of the RFP and presentation of the comprehensive materials. OUTFRONT Media presented a great opportunity to the District based upon the experience of the firm, the local support team, and the ability to bring high level marketing and advertising sales support to the project. OUTFRONT Media has also committed to removing the entirety of its existing, static signage in the City of Elk Grove, in exchange for the District Digital Billboard Project. Further, OUTFRONT Media has proudly committed to a significant, annual contribution to the District’s Diversity, Equity, and Inclusion program.

The Exclusive Negotiations Agreement (“Attachment A”) will allow the District to move forward with negotiating a master lease outlining terms regarding lease payments, operations, and for the management of the digital billboard. As part of the master lease provisions, the selected vendor must demonstrate willingness and capabilities to remove the static signs and restore the site in combination with the installation of the digital billboards. The vendor must also complete CEQA analysis and file for an amendment to the City of Elk Grove Municipal Code to allow the District Digital Billboard Project. All costs associated with the CEQA and City Code amendment process will be borne by the vendor.

FINANCIAL ANALYSIS

The District Digital Billboard Project would ensure a steady revenue stream for the District with no additional cost to maintain and operate the digital billboard.

SUSTAINABILITY ANALYSIS

There is no impact in approving the Exclusive Negotiation Agreement. An environmental analysis of this project will be completed as part of the application process with the City of Elk Grove prior to execution of a Lease.

Respectfully submitted,

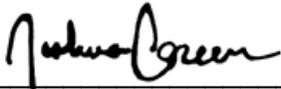


Nitish Sharma,
Chief Administrative Officer

Attachment A: Exclusive Negotiations Agreement with OUTFRONT Media, LLC

Staff Report recommendation authorized by:

Approved as to Form:



General Manager



General Counsel

Attachment A

**EXCLUSIVE NEGOTIATION AGREEMENT
(Electronic Billboard Lease)**

This Exclusive Negotiation Agreement (Electronic Billboard Lease) (“**Agreement**”) is dated _____, 2020 (“**Effective Date**”), and is entered into by and between the Cosumnes Community Services District (“**District**”) and Outfront Media LLC (“**Developer**”). District and Developer are sometimes referred to herein individually as a “Party” and collectively as the “Parties.”

RECITALS

A. District published a Request for Proposals (“**RFP**”) on February 14, 2020, soliciting offers from developers to work with the District on the development of digital billboards at certain locations owned by the District and adjacent to Highway 99 or Interstate 5 freeway corridors.

B. Developer submitted a proposal to the District and is interested in constructing and operating two (2) digital billboards (“**Billboards**”) on the District’s property located at 10651 E Stockton Blvd., Elk Grove, California, 95624, commonly referred to as Emerald Lakes Golf Course (the “**Property**”).

C. Developer desires to explore the feasibility of acquiring a leasehold interest in the Property under the terms of a ground lease or similar contractual arrangement (the “**Lease**”), including applying for all required governmental approvals from the City of Elk Grove (“**City**”) and other affected governmental agencies, for the purpose of constructing and operating the Billboards.

D. District and Developer desire to negotiate, in good faith, the terms of a Lease for the Property for purposes of constructing and operating the Billboards.

NOW, THEREFORE, in consideration of the mutually agreed upon terms and conditions contained in this Agreement, the Parties agree as follows:

TERMS

1. Negotiating Period.

1.1 Term. The Parties agree to negotiate diligently and in good faith with one another for a period of three hundred and sixty five (365) days commencing on the Effective Date of this Agreement (the “**Negotiating Period**”) in order to agree upon a mutually acceptable Lease. The Party Representatives, as set forth in Section 1.2, may extend the Negotiating Period for up to two (2) additional periods of ninety (90) days each. The term “Negotiating Period” shall include any extensions made pursuant to this Section 1.1.

1.2 Party Representatives. The Chief Administrative Officer (“**CAO**”) shall negotiate the Lease on behalf of the District. Jeff Emanuel shall negotiate the Lease on behalf of the Developer.

1.3 Execution of Lease. Subject to approval as to form by the District Counsel, the General Manager is authorized to execute the Lease on behalf of the District.

2. **Parameters for Negotiations.** The following nonexclusive list of terms shall be the subject of negotiations during the Negotiation Period:

2.1 Site Plan. This shall include the location and size of the leasehold area, access points, and landscaping.

2.2 Billboard Specifications. This shall include the specifications of the digital signs, such as screen sizes and pixel dimensions, and whether each of the Billboards are two- or one-sided.

2.3 Lease Rate. This shall include the minimum annual guaranteed payment as well as percentage of rental income.

2.4 Financing Plan. This shall include the estimated costs of permitting, CEQA and other governmental approvals, reimbursement of necessary District and other governmental expenses, and the proposed method for construction and permanent financing of the Billboards.

2.5 Compliance with Federal, State and Local Laws. Developer shall be solely responsible for ensuring that the construction and operation of the Billboards complies with all federal, state and local laws.

2.6 Additional Terms and Provisions. The Parties shall negotiate additional terms and provisions as set forth in Section 5 of the RFP and Developer's Proposal, which are attached hereto as Exhibit "A" and incorporated herein by this reference.

3. **Submission of Documents.**

3.1 Required Documents. The Developer shall furnish to the District the following documents during the Negotiation Period; (1) dimensioned layout plan, (2) engineering standard drawings, and (3) any additional documents necessary to effectuate the terms of this Agreement.

3.2 Document Approval. In the event District requests any changes be made to the documents submitted pursuant to Section 3.1, Developer shall submit the revised requested document to the District with changes and/or comments responding to the District's comments. District shall review and either approve such submission or return to Developer for further revision as soon as practical.

4. **Governmental Approvals.**

4.1 Land Use Approvals. Developer shall, at Developer's sole cost and expense, obtain all discretionary entitlements and land use approvals, including any amendments to the City's Zoning Ordinance, required to construct and operate the Billboards.

4.2 Environmental Requirements. Certain state and local environmental requirements (including, without limitations, the California Environmental Quality Act, Public Resources Code

Section 21000 *et seq.*) may be applicable to the proposed Billboards. Pursuant to such requirements, certain environmental documents may be required to be prepared for the proposed Billboards. The Developer agrees to cooperate with the City in obtaining information to determine the environmental impact of the proposed Billboards and, at the Developer's sole cost and expense, to pay all costs to prepare or cause to be prepared such environmental impact documents, if any, including but not limited to the preparation of a negative declaration or environmental impact report as may be needed to complete the Billboards.

4.3 Permits. Before commencing the construction of the Billboards, Developer shall, at Developer's sole cost and expense, secure or cause to be secured any and all permits and approvals that may be required for the construction and operation of the Billboards from the City or any other governmental agency affected by the construction or operation of the Billboards. Developer shall, without limitation, apply for and secure the following, and pay all costs, charges and fees associated therewith:

4.3.1 All permits and fees required by the District.

4.3.2 All permits and fees required by the City or any other governmental agencies with jurisdiction over the Billboards and the Property.

4.3.3 District staff will work cooperatively with Developer to assist in coordinating the expeditious processing and consideration of all necessary permits, entitlements and approvals. However, the execution of this Agreement does not constitute the granting of or a commitment to obtain any required land use permits, entitlements or approvals required by the District or any other governmental agency.

5. **Termination of Agreement.**

5.1 Nature of Agreement. This Agreement is not intended to constitute a binding agreement by District to convey all or any portion of the Property, to authorize the Billboards, or to financially participate with Developer in the design, construction or operation of the Billboards, nor is it intended to constitute a binding agreement to enter into a Lease or any other contract. Except as set forth in the Lease, no Party shall be legally bound to consummate the construction and operation of the Billboards as outlined herein unless and until a Lease or other contract has been executed by the Parties. Notwithstanding any other provision hereof, neither Developer nor District shall be under any obligation to approve or execute a Lease or any other agreement during or upon conclusion of the Negotiating Period, nor shall the District have any obligation to reimburse or pay Developer any costs or fees associated with this Agreement. Any Party may refuse to approve and execute any Lease at its sole and absolute discretion, with or without cause. In the event that a Lease is approved and executed by the Parties, this Agreement shall be superseded by that Lease, and shall terminate and be of no further force and effect.

5.2 Exclusive Negotiations. The Parties intend that certain aspects of the negotiations conducted pursuant to this Agreement be negotiated exclusively between the Parties. Accordingly, during the Negotiating Period, District shall negotiate exclusively with Developer with respect to the development of digital billboards on the Property, and Developer shall negotiate exclusively

with District with respect to the development of digital billboards within the jurisdictional boundaries of the District.

5.3 Termination of Agreement. Each Party reserves the right to terminate this Agreement, with or without cause, upon ten (10) days prior written notice to the other Party, thereby withdrawing from such negotiations without any liability to the other Party, except that each Party shall be obligated to promptly return to the other Party all information and materials which such Party has received from the other Party pursuant to this Agreement. Any proprietary or confidential business information shared or obtained by the Parties during the Negotiating Period shall remain confidential.

6. **General Provisions.**

6.1 Delivery of Notices. All written notices permitted or required under this Agreement and any other communications shall be given to the respective Parties at the following address, or at such other address as the respective Parties may provide in writing for this purpose:

Developer:

OUTFRONT Media LLC
Attention: General Manager
2512 River Plaza Drive, 1st Floor
Sacramento, CA 95833
Email: jeff.emanuel@outfrontmedia.com

District:

Cosumnes Community Services District
8820 Elk Grove Blvd.
Elk Grove, CA 95624
Attn: Chief Administrative Officer
Email: NitishSharma@yourcsd.com

Such notice shall be deemed made when personally delivered or sent via email, or when mailed, forty-eight (48) hours after deposit in the U.S. Mail, first class postage prepaid and addressed to the party at its applicable address. Actual notice shall be deemed adequate notice on the date actual notice occurred, regardless of the method of service.

6.2 Real Estate Commissions. Each of the Parties represents and warrants to the other Party that no real estate commission, broker's fees, or finder's fees which may accrue by means of the acquisition of an interest in the Property is due to any person, firm or entity. Each Party agrees to indemnify and hold the other Party harmless with respect to any judgment, damages, legal fees, court costs, and any and all liabilities of any nature whatsoever arising from a breach of such representation.

6.3 Governing Law. This Agreement shall be governed by the laws of the State of California. Venue shall be in Sacramento County.

6.4 Successors and Assigns. This Agreement shall be binding on the successors and assigns of the Parties.

6.5 Assignment or Transfer. Developer shall not assign, hypothecate or transfer, either directly or by operation of law, this Agreement or any interest herein without the prior written consent of District, in District's sole and exclusive discretion. Any attempt to do so shall be null and void, and any assignees, hypothecates or transferees shall acquire no right or interest by reason of such attempted assignment, hypothecation or transfer.

6.6 Construction; References; Captions. Since the Parties or their agents have participated fully in the preparation of this Agreement, the language of this Agreement shall be construed simply, according to its fair meaning, and not strictly for or against any Party. Any term referencing time, days or period for performance shall be deemed calendar days and not work days. All references to Developer include its shareholders, officers, employees, agents, contractors, and volunteers except as otherwise specified in this Agreement. All references to District include its elected officials, officers, employees, agents, and volunteers except as otherwise specified in this Agreement. The captions of the various articles and paragraphs are for convenience and ease of reference only, and do not define, limit, augment, or describe the scope, content or intent of this Agreement.

6.7 Amendment; Modification. No supplement, modification or amendment of this Agreement shall be binding unless executed in writing and signed by both Parties. The District's General Manager is authorized to approve any amendments or modifications to this Agreement on behalf of the District.

6.8 Waiver. No waiver of any default shall constitute a waiver of any other default or breach, whether of the same or other covenant or condition. No waiver, benefit, privilege, or service voluntarily given or performed by a Party shall give the other Party any contractual rights by custom, estoppel or otherwise.

6.9 No Third Party Beneficiaries. The parties understand and agree there are no intended third party beneficiaries of any right or obligation assumed by the Parties.

6.10 Invalidity; Severability. If any portion of this Agreement is declared invalid, illegal, or otherwise unenforceable by a court of competent jurisdiction, the remaining provisions shall continue in full force and effect.

6.11 Prohibited Interests. For the term of this Agreement, no member, officer or employee of either Party, during the term of his or her service with his or her respective District, shall have any direct interest in this Agreement, or obtain any present or anticipated material benefit arising therefrom.

6.12 Cooperation; Further Acts. The Parties shall fully cooperate with one another, and shall take any additional acts or sign any additional documents as may be necessary, appropriate or convenient to attain the purposes of this Agreement.

6.13 Attorney's Fees. If either Party commences an action against the other Party, either legal, administrative or otherwise, arising out of or in connection with this Agreement, the

prevailing Party in such litigation shall be entitled to have and recover from the losing Party reasonable attorney's fees and all other costs of such action.

6.14 Counterparts. This Agreement may be signed in counterparts, each of which shall constitute an original.

6.15 Entire Agreement. This Agreement contains the entire Agreement of the parties with respect to the subject matter hereof, and supersedes all prior negotiations, understandings or agreements. This Agreement may only be modified by a writing signed by both parties.

[Signatures on following page]

**SIGNATURE PAGE
FOR
EXCLUSIVE NEGOTIATION AGREEMENT
(Electronic Billboard Lease)**

IN WITNESS WHEREOF, the Parties have entered into this Agreement as of the Effective Date.

COSUMNES COMMUNITY SERVICES DISTRICT

By: _____
Joshua Green
General Manager

Attest:

Elenice Gomez
Clerk to the Board

Approved as to form:

Sigrid Asmundson
District Counsel

OUTFRONT MEDIA LLC

By: _____
[NAME]
[TITLE]

Approved as to form:

[NAME]
[TITLE]

EXHIBIT “A”

DISTRICT’S REQUEST FOR PROPOSALS AND DEVELOPER’S PROPOSAL

[Attached behind this cover page]

STAFF REPORT

DATE: October 7, 2020
TO: Board of Directors
FROM: Elenice Gomez, Clerk of the Board
SUBJECT: REJECTION OF CLAIM – TRINA MCDANIEL



RECOMMENDATION

The Board of Directors:

1. Adopts Resolution No. 2020-56, rejecting in whole the claim filed by Trina McDaniel.

BACKGROUND/ANALYSIS

Ms. Trina McDaniel filed a claim against the District alleging liability for personal injury in connection with an accident that occurred on March 7, 2020 involving a District vehicle.

This claim was forwarded to the District's Risk Management Administrator, Special District Risk Management Authority (SDRMA) who recommended the District rejects this claim.

The attached Resolution formally rejects the tort claim.

FINANCIAL ANALYSIS

This claim is one of five claims related to a single incident involving five claimants, should the claimants pursue further legal action the District's financial obligation is the one-time \$25,000 deductible for this incident.

SUSTAINABILITY ANALYSIS

The action being requested in this report has no impact on the District's sustainability practices.

Respectfully submitted,

Elenice Gomez
Clerk of the Board

Attachment A: Resolution No. 2020-56

Staff Report recommendation authorized by:

Joshua Green, General Manager

Approved as to Form:

Sigrid Asmundson, District Counsel

Attachment A



RESOLUTION NO. 2020-56

RESOLUTION OF THE GOVERNING BOARD OF THE COSUMNES COMMUNITY SERVICES DISTRICT

Rejection of Government Claim

RESOLVED by the Governing Board of Directors (“Board”) of the Cosumnes Community Services District (the “District”), County of Sacramento, State of California, that:

WHEREAS, a claim for monetary damages (“Claim”) has been presented by Trina McDaniel, dated September 3, 2020, against the Cosumnes Community Services District for alleged injury resulting from a vehicular accident; and

WHEREAS, California Government Code Section 912.4(a) provides that when a claim is presented to a local public entity, that local public entity has forty-five (45) days to act upon said claim; and

WHEREAS, California Government Code Section 912.6(a)(1) provides that when a claim is made against a local public entity, a Board may reject the claim, if it finds the claim is not a proper charge against the local public entity; and California Government Code Section 912.6(a)(4) provides that when a claim is made against a local public entity, the board may reject the claim if the legal liability of the public entity is disputed; and

WHEREAS, that the Governing Board of the Cosumnes Community Services District has considered the Claim filed by Trina McDaniel.

NOW, THEREFORE BE IT RESOLVED that the Governing Board of the Cosumnes Community Services District has concluded that the Claim be rejected in its entirety.

BE IT FURTHER RESOLVED that the District’s General Manager, or his designee, is authorized to give notice to Trina McDaniel of this Governing Board’s decision to reject, in its entirety, the Claim, and further advise that said claimant has six (6) months from the date the rejection is deposited in the mail to file a court action on the claim. Such notice, together with a copy of this Resolution, shall be served upon Trina McDaniel on or before October 16, 2020.

PASSED AND ADOPTED this 7th day of October, by the following vote:

AYES:

NOES:

ABSTAIN:

ABSENT:

Cosumnes Community Services District

Orlando Fuentes, President

ATTEST:

Joshua Green, Secretary

STAFF REPORT

DATE: October 7, 2020
TO: Board of Directors
FROM: Elenice Gomez, Clerk of the Board
SUBJECT: REJECTION OF CLAIM – KARISSA MCDANIEL



RECOMMENDATION

The Board of Directors:

1. Adopts Resolution No. 2020-47, rejecting in whole the claim filed by Karissa McDaniel.

BACKGROUND/ANALYSIS

Ms. Karissa McDaniel filed a claim against the District alleging liability for personal injury in connection with an accident that occurred on March 7, 2020 involving a District vehicle.

This claim was forwarded to the District's Risk Management Administrator, Special District Risk Management Authority (SDRMA) who recommended the District rejects this claim.

The attached Resolution formally rejects the tort claim.

FINANCIAL ANALYSIS

This claim is one of five claims related to a single incident involving five claimants, should the claimants pursue further legal action the District's financial obligation is the one-time \$25,000 deductible for this incident.

SUSTAINABILITY ANALYSIS

The action being requested in this report has no impact on the District's sustainability practices.

Respectfully submitted,

Elenice Gomez
Clerk of the Board

Attachment A: Resolution No. 2020-47

Staff Report recommendation authorized by:

Joshua Green, General Manager

Approved as to Form:

Sigrid Asmundson, District Counsel

Attachment



RESOLUTION NO. 2020-47

RESOLUTION OF THE GOVERNING BOARD OF THE COSUMNES COMMUNITY SERVICES DISTRICT

Rejection of Government Claim

RESOLVED by the Governing Board of Directors (“Board”) of the Cosumnes Community Services District (the “District”), County of Sacramento, State of California, that:

WHEREAS, a claim for monetary damages (“Claim”) has been presented by Karissa McDaniel, dated September 3, 2020, against the Cosumnes Community Services District for alleged injury resulting from a vehicular accident; and

WHEREAS, California Government Code Section 912.4(a) provides that when a claim is presented to a local public entity, that local public entity has forty-five (45) days to act upon said claim; and

WHEREAS, California Government Code Section 912.6(a)(1) provides that when a claim is made against a local public entity, a Board may reject the claim, if it finds the claim is not a proper charge against the local public entity; and California Government Code Section 912.6(a)(4) provides that when a claim is made against a local public entity, the board may reject the claim if the legal liability of the public entity is disputed; and

WHEREAS, that the Governing Board of the Cosumnes Community Services District has considered the Claim filed by Karissa McDaniel.

NOW, THEREFORE BE IT RESOLVED that the Governing Board of the Cosumnes Community Services District has concluded that the Claim be rejected in its entirety.

BE IT FURTHER RESOLVED that the District’s General Manager, or his designee, is authorized to give notice to Karissa McDaniel of this Governing Board’s decision to reject, in its entirety, the Claim, and further advise that said claimant has six (6) months from the date the rejection is deposited in the mail to file a court action on the claim. Such notice, together with a copy of this Resolution, shall be served upon Karissa McDaniel on or before October 16, 2020.

PASSED AND ADOPTED this 7th day of October, by the following vote:

AYES:

NOES:

ABSTAIN:

ABSENT:

Cosumnes Community Services District

Orlando Fuentes, President

ATTEST:

Joshua Green, Secretary

STAFF REPORT

DATE: October 7, 2020
TO: Board of Directors
FROM: Elenice Gomez, Clerk of the Board
SUBJECT: REJECTION OF CLAIM – CHRISTOPHER MCDANIEL



RECOMMENDATION

The Board of Directors:

1. Adopts Resolution No. 2020-48, rejecting in whole the claim filed by Christopher McDaniel.

BACKGROUND/ANALYSIS

Mr. Christopher McDaniel filed a claim against the District alleging liability for personal injury in connection with an accident that occurred on March 7, 2020 involving a District vehicle.

This claim was forwarded to the District's Risk Management Administrator, Special District Risk Management Authority (SDRMA) who recommended the District rejects this claim.

The attached Resolution formally rejects the tort claim.

FINANCIAL ANALYSIS

This claim is one of five claims related to a single incident involving five claimants, should the claimants pursue further legal action the District's financial obligation is the one-time \$25,000 deductible for this incident.

SUSTAINABILITY ANALYSIS

The action being requested in this report has no impact on the District's sustainability practices.

Respectfully submitted,

Elenice Gomez
Clerk of the Board

Attachment A: Resolution No. 2020-48

Staff Report recommendation authorized by:

Joshua Green, General Manager

Approved as to Form:

Sigrid Asmundson, District Counsel

Attachment A



RESOLUTION NO. 2020-48

RESOLUTION OF THE GOVERNING BOARD OF THE COSUMNES COMMUNITY SERVICES DISTRICT

Rejection of Government Claim

RESOLVED by the Governing Board of Directors (“Board”) of the Cosumnes Community Services District (the “District”), County of Sacramento, State of California, that:

WHEREAS, a claim for monetary damages (“Claim”) has been presented by Christopher McDaniel, dated September 3, 2020, against the Cosumnes Community Services District for alleged injury resulting from a vehicular accident; and

WHEREAS, California Government Code Section 912.4(a) provides that when a claim is presented to a local public entity, that local public entity has forty-five (45) days to act upon said claim; and

WHEREAS, California Government Code Section 912.6(a)(1) provides that when a claim is made against a local public entity, a Board may reject the claim, if it finds the claim is not a proper charge against the local public entity; and California Government Code Section 912.6(a)(4) provides that when a claim is made against a local public entity, the board may reject the claim if the legal liability of the public entity is disputed; and

WHEREAS, that the Governing Board of the Cosumnes Community Services District has considered the Claim filed by Christopher McDaniel.

NOW, THEREFORE BE IT RESOLVED that the Governing Board of the Cosumnes Community Services District has concluded that the Claim be rejected in its entirety.

BE IT FURTHER RESOLVED that the District’s General Manager, or his designee, is authorized to give notice to Christopher McDaniel of this Governing Board’s decision to reject, in its entirety, the Claim, and further advise that said claimant has six (6) months from the date the rejection is deposited in the mail to file a court action on the claim. Such notice, together with a copy of this Resolution, shall be served upon Christopher McDaniel on or before October 16, 2020.

PASSED AND ADOPTED this 7th day of October, by the following vote:

AYES:

NOES:

ABSTAIN:

ABSENT:

District Cosumnes Community Services

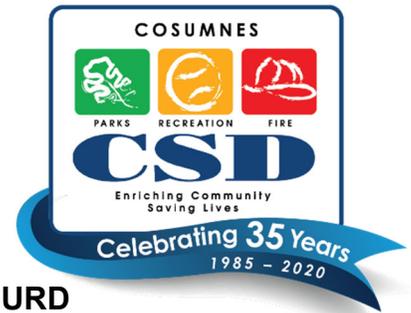
President
ATTEST:

Orlando Fuentes,

Joshua Green, Secretary

STAFF REPORT

DATE: October 7, 2020
TO: Board of Directors
FROM: Elenice Gomez, Clerk of the Board
SUBJECT: REJECTION OF CLAIM – DYANNA GUTIERREZ-HURD



RECOMMENDATION

The Board of Directors:

1. Adopts Resolution No. 2020-49, rejecting in whole the claim filed by Dyanna Gutierrez-Hurd.

BACKGROUND/ANALYSIS

Ms. Dyanna Gutierrez-Hurd filed a claim against the District alleging liability for personal injury in connection with an accident that occurred on March 7, 2020 involving a District vehicle.

This claim was forwarded to the District's Risk Management Administrator, Special District Risk Management Authority (SDRMA) who recommended the District rejects this claim.

The attached Resolution formally rejects the tort claim.

FINANCIAL ANALYSIS

This claim is one of five claims related to a single incident involving five claimants, should the claimants pursue further legal action the District's financial obligation is the one-time \$25,000 deductible for this incident.

SUSTAINABILITY ANALYSIS

The action being requested in this report has no impact on the District's sustainability practices.

Respectfully submitted,

Elenice Gomez
Clerk of the Board

Attachment A: Resolution No. 2020-49

Staff Report recommendation authorized by:

Joshua Green, General Manager

Approved as to Form:

Sigrid Asmundson, District Counsel

Attachment A



RESOLUTION NO. 2020-49

RESOLUTION OF THE GOVERNING BOARD OF THE COSUMNES COMMUNITY SERVICES DISTRICT

Rejection of Government Claim

RESOLVED by the Governing Board of Directors (“Board”) of the Cosumnes Community Services District (the “District”), County of Sacramento, State of California, that:

WHEREAS, a claim for monetary damages (“Claim”) has been presented by Dyanna Gutierrez-Hurd, dated September 3, 2020, against the Cosumnes Community Services District for alleged injury resulting from a vehicular accident; and

WHEREAS, California Government Code Section 912.4(a) provides that when a claim is presented to a local public entity, that local public entity has forty-five (45) days to act upon said claim; and

WHEREAS, California Government Code Section 912.6(a)(1) provides that when a claim is made against a local public entity, a Board may reject the claim, if it finds the claim is not a proper charge against the local public entity; and California Government Code Section 912.6(a)(4) provides that when a claim is made against a local public entity, the board may reject the claim if the legal liability of the public entity is disputed; and

WHEREAS, that the Governing Board of the Cosumnes Community Services District has considered the Claim filed by Dyanna Gutierrez-Hurd.

NOW, THEREFORE BE IT RESOLVED that the Governing Board of the Cosumnes Community Services District has concluded that the Claim be rejected in its entirety.

BE IT FURTHER RESOLVED that the District’s General Manager, or his designee, is authorized to give notice to Dyanna Gutierrez-Hurd of this Governing Board’s decision to reject, in its entirety, the Claim, and further advise that said claimant has six (6) months from the date the rejection is deposited in the mail to file a court action on the claim. Such notice, together with a copy of this Resolution, shall be served upon Dyanna Gutierrez-Hurd on or before October 16, 2020.

PASSED AND ADOPTED this 7th day of October, by the following vote:

AYES:

NOES:

ABSTAIN:

ABSENT:

District Cosumnes Community Services

President
ATTEST:

Orlando Fuentes,

Joshua Green, Secretary

STAFF REPORT

DATE: October 7, 2020
TO: Board of Directors
FROM: Elenice Gomez, Clerk of the Board
SUBJECT: REJECTION OF CLAIM – ASHLEE GUTIERREZ-HURD



RECOMMENDATION

The Board of Directors:

1. Adopts Resolution No. 2020-50, rejecting in whole the claim filed by Ashlee Gutierrez-Hurd.

BACKGROUND/ANALYSIS

Ms. Ashlee Gutierrez-Hurd filed a claim against the District alleging liability for personal injury in connection with an accident that occurred on March 7, 2020 involving a District vehicle.

This claim was forwarded to the District’s Risk Management Administrator, Special District Risk Management Authority (SDRMA) who recommended the District rejects this claim.

The attached Resolution formally rejects the tort claim.

FINANCIAL ANALYSIS

This claim is one of five claims related to a single incident involving five claimants, should the claimants pursue further legal action the District’s financial obligation is the one-time \$25,000 deductible for this incident.

SUSTAINABILITY ANALYSIS

The action being requested in this report has no impact on the District’s sustainability practices.

Respectfully submitted,

Elenice Gomez
Clerk of the Board

Attachment A: Resolution No. 2020-50

Staff Report recommendation authorized by:

Joshua Green, General Manager

Approved as to Form:

Sigrid Asmundson, District Counsel

Attachment A



RESOLUTION NO. 2020-50

RESOLUTION OF THE GOVERNING BOARD OF THE COSUMNES COMMUNITY SERVICES DISTRICT

Rejection of Government Claim

RESOLVED by the Governing Board of Directors (“Board”) of the Cosumnes Community Services District (the “District”), County of Sacramento, State of California, that:

WHEREAS, a claim for monetary damages (“Claim”) has been presented by Ashlee Gutierrez-Hurd, dated September 3, 2020, against the Cosumnes Community Services District for alleged injury resulting from a vehicular accident; and

WHEREAS, California Government Code Section 912.4(a) provides that when a claim is presented to a local public entity, that local public entity has forty-five (45) days to act upon said claim; and

WHEREAS, California Government Code Section 912.6(a)(1) provides that when a claim is made against a local public entity, a Board may reject the claim, if it finds the claim is not a proper charge against the local public entity; and California Government Code Section 912.6(a)(4) provides that when a claim is made against a local public entity, the board may reject the claim if the legal liability of the public entity is disputed; and

WHEREAS, that the Governing Board of the Cosumnes Community Services District has considered the Claim filed by Ashlee Gutierrez-Hurd.

NOW, THEREFORE BE IT RESOLVED that the Governing Board of the Cosumnes Community Services District has concluded that the Claim be rejected in its entirety.

BE IT FURTHER RESOLVED that the District’s General Manager, or his designee, is authorized to give notice to Ashlee Gutierrez-Hurd of this Governing Board’s decision to reject, in its entirety, the Claim, and further advise that said claimant has six (6) months from the date the rejection is deposited in the mail to file a court action on the claim. Such notice, together with a copy of this Resolution, shall be served upon Ashlee Gutierrez-Hurd on or before October 16, 2020.

PASSED AND ADOPTED this 7th day of October, by the following vote:

AYES:

NOES:

ABSTAIN:

ABSENT:

Cosumnes Community Services District

Orlando Fuentes, President

ATTEST:

Joshua Green, Secretary

STAFF REPORT

DATE: October 7, 2020

TO: Board of Directors

FROM: Sigrid Asmundson, District Counsel
Paul Mewton, Chief of Planning, Design and Construction

SUBJECT: STATUS UPDATE ON COMMUNITY WORKFORCE TRAINING AGREEMENT



RECOMMENDATION

The Board of Directors reviews and files this status update.

BACKGROUND/ANALYSIS

On July 15, 2020, the Board approved a motion for the District “to build the Solar Project and the Fire Station pursuant to a project labor agreement (PLA) and directed staff to negotiate terms of the agreement with Sacramento-Sierra Building and Construction Trades.” The timeline since the July 15, 2020 Board meeting is as follows:

- July 22, 2020: phone call with Kevin Ferreira, Executive Director for Sacramento-Sierra Building Trades Council (SSBTC) regarding Board direction and communication between SSBTC, Carpenters Union and Association of General Contractors (AGC)
- July 22, 2020: District emailed a redline CWTA to Mr. Ferreira. At the request of a Board member and the Carpenters Union, a copy of the District’s redline was also provided to the Carpenters Union, as a signatory to the CWTA.
- September 8, 2020: after the District emailed SSBTC requesting a status update, Mr. Enslow, attorney for SSBTC, provided a redline CWTA with SSBTC’s revisions.
- September 15, 2020: after reviewing SSBTC’s comments and conducting additional due diligence on the impacts to the District of SSBTC’s redline, the District emailed a counterproposal with comments to Mr. Enslow on behalf of SSBTC. A copy was again provided to the Carpenters Union, as a signatory to the CWTA. Staff subsequently provided copies of the September 15th CWTA version pursuant to Public Records Act requests from the City of Elk Grove and Association for General Contractors (AGC).
- September 23, 2020: District staff received a letter from SSBTC legal counsel Kathleen Mastagni Storm alleging bad faith negotiation tactics, breach of a duty to act in good faith, and interfering with a prospective economic relationship based on the District’s communications with the Carpenters Union and AGC. As this was the first correspondence District has received from Ms. Storm’s firm, District staff reached out to Mr. Enslow to determine if Ms. Storm has replaced Mr. Enslow as SSBTC’s representative in negotiating the CWTA.
- September 25, 2020: District Counsel sent a response letter to Ms. Storm correcting certain inaccuracies in Ms. Storm’s letter, including dates and references to

correspondence with AGC and the Carpenters Union, clarifying District's current obligations, and reiterating the District's desire to continue to negotiate a CWTA.

- September 29, 2020: District Counsel sent another email to Mr. Enslow, Ms. Storm and Mr. Ferreira requesting confirmation of SSBTC's representative for CWTA negotiations, raising a proposed timeline for the Board's CWTA review, and requesting additional DEI provisions as a community benefit.
- October 5, 2020: telephone meeting between District Counsel and Mr. Enslow to negotiate terms of CWTA.

District staff will continue to reach out to SSBTC to negotiate a CWTA or until SSBTC confirms that it is no longer interested in entering into a CWTA with the District. The District intends to bring back a draft CWTA for final review at the Board's October 21, 2020 meeting and has notified SSBTC of that date.

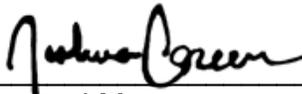
Should you have any questions, please contact me prior to the Board meeting.

Respectfully submitted,



Sigrid Asmundson
District Counsel

Staff Report recommendation authorized by:



General Manager

STAFF REPORT

DATE: October 7, 2020
TO: Board of Directors
FROM: Nitish Sharma, Chief Administrative Officer
BY: Kelly Gonzalez, Director of Business and Public Affairs
**SUBJECT: APPROVAL OF PROCLAMATION RECOGNIZING OCTOBER 12TH AS
 INDIGENOUS PEOPLES' DAY**



RECOMMENDATION

The Board of Directors approves a proclamation (**Attachment**) recognizing October 12, 2020 as Indigenous Peoples' Day.

BACKGROUND/ANALYSIS

Cosumnes Community Services District will be joining organizations across the United States to declare October 12, 2020 as Indigenous Peoples' Day. The recognition is part of a national effort to honor the existence, culture and contributions of the original inhabitants of North America.

The District would like to recognize the Indigenous People of our region who persevered through generations of enduring trauma and oppression. The District recognizes Native American communities who continue the journey of reckoning with past injustices and advocate for equality. We encourage community leaders to pay respect for those who have fought to raise awareness and visibility of Indigenous People.

Today, we honor leaders around California who have been commemorating Indigenous Peoples' Day for decades; leaders such as Morning Star Gali and Corrina Gold. Throughout Northern California, people have protested the 500th anniversary of the arrival of Christopher Columbus in the Americas as well as marked the "Day of Solidarity with Indigenous People," first celebrated in Berkeley, California in 1992.

The District's Diversity, Equity and Inclusion Committee will host tribal leaders from Wilton Rancheria to educate staff on the history of Native Americans in the Sacramento region, as well as the meaning of the Miwok word cosumnes. The District invites the community to join us in learning about the culture of the Indigenous People who inhabited the land we call home.

FINANCIAL ANALYSIS

The materials and supplies purchased to support this effort are within the allocated budget for Fiscal Year 2020-21.

SUSTAINABILITY ANALYSIS

This request has no impact on the District sustainability practices.

Respectfully submitted,



Nitish Sharma,
Chief Administrative Officer

Attachment: Proclamation Celebrating Indigenous Peoples Day

Staff Report recommendation authorized by:



General Manager

Approved as to Form:



General Counsel

Attachment



COSUMNES COMMUNITY SERVICES DISTRICT

PROCLAMATION

INDIGENOUS PEOPLES' DAY OCTOBER 12, 2020

WHEREAS, Cosumnes Community Services District is welcoming, inclusive and dedicated to improving the quality of life for those we serve; and

WHEREAS, Indigenous Peoples' Day celebrates the histories, cultures and contributions of the Indigenous People to the land we now call California.

WHEREAS, recognizing Indigenous Peoples' Day serves as a reminder to reflect on the native people and their descendants who were here before us. This day creates awareness of the culture and populations that existed long before European contact.

WHEREAS, Indigenous Peoples' Day honors and pays respect to Native Americans who persevered through generations of trauma, violence and oppression.

WHEREAS, Cosumnes Community Services District honors leaders around California who have been commemorating Indigenous Peoples' Day for decades; and

WHEREAS, throughout Northern California, people have protested the 500th anniversary of the arrival of Christopher Columbus in the Americas as well as marked the "Day of Solidarity with Indigenous People," first celebrated in Berkeley, California in 1992; and

WHEREAS, this national effort celebrates the existence, culture and contributions of the original inhabitants of North America and the contributions of all Indigenous People to the culture of diversity, innovation and resilience that has marked our state.

NOW, THEREFORE, Let it be proclaimed that the Cosumnes Community Services District will join organizations across the United States to declare October 12, 2020 as Indigenous Peoples' Day and invites the community to learn more of the history, culture, people, traditions and values that have positively enriched our community.

DONE AND PROCLAIMED this 7th day of October 2020, in Elk Grove, California.

Orlando Fuentes, President

Jim Luttrell, Vice President

Rod Brewer, Director

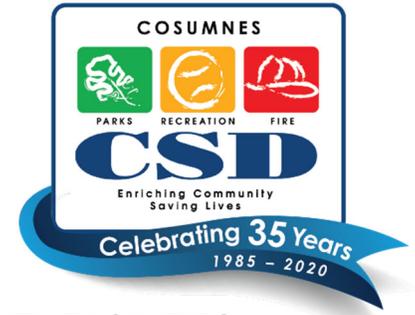
Gil Albiani, Director

Jaclyn Moreno, Director

Attest: _____
Joshua Green, General Manager

STAFF REPORT

DATE: October 7, 2020
TO: Cosumnes CSD Board of Directors
FROM: John Ebner, Senior Management Analyst
SUBJECT: PUBLIC HEARING – ANNEXATION #28 – COMMUNITY FACILITIES DISTRICT NO. 1 (ELK GROVE FIRE PROTECTION)



RECOMMENDATION

The Board of Directors:

1. Opens the public hearing and takes testimony on the proposed annexation of properties into Community Facilities District No. 1 (Elk Grove Fire Protection).
2. Approves Resolution No. 2020-52, A RESOLUTION OF THE BOARD OF DIRECTORS OF THE COSUMNES COMMUNITY SERVICES DISTRICT TO ANNEX TERRITORY TO COMMUNITY FACILITIES DISTRICT NO. 1 (Attachment 1).
3. Approves Resolution No. 2020-53, A RESOLUTION OF THE BOARD OF DIRECTORS OF THE COSUMNES COMMUNITY SERVICES DISTRICT CALLING A SPECIAL ELECTION OF THE QUALIFIED ELECTORS OF THE TERRITORY TO BE ANNEXED TO COMMUNITY FACILITIES DISTRICT NO. 1 (Attachment 2).
4. Approves Resolution No. 2020-54, A RESOLUTION OF THE BOARD OF DIRECTORS OF THE COSUMNES COMMUNITY SERVICES DISTRICT DECLARING RESULTS OF SPECIAL TAX ELECTION, DETERMINING VALIDITY OF PRIOR PROCEEDINGS, AND DIRECTING RECORDING OF AMENDED NOTICE OF SPECIAL TAX LIEN (Attachment 3).

BACKGROUND/ANALYSIS

As the Board of Directors is aware, the CSD created CFD No. 1 (Elk Grove Fire Protection) in June of 2012 for the purpose of offsetting the financial impact of providing services to new development. From time to time it will be necessary to annex projects into CFD No. 1 using the normal CFD resolution and election process.

On September 2, 2020, the Board approved Resolution 2020-43 declaring intention to annex territory into the CFD. The proposed CFD annexation contains two projects, one residential and one commercial. This is the twenty-eighth annexation to the CFD. The project has a condition of approval which requires that the property owner(s) participate in a funding mechanism for emergency mitigation and fire prevention services. The condition will be satisfied by the annexation of their project to the CFD, which is the subject of tonight's action.

In order to complete the annexation process, the Board is being asked to complete the following actions:

1. Hold a public hearing and take testimony on the annexation of additional territory into CFD No. 1 (Elk Grove Fire Protection).
2. Consider and approve Resolution No. 2020-52, A RESOLUTION OF THE BOARD OF DIRECTORS OF THE COSUMNES COMMUNITY SERVICES DISTRICT TO ANNEX TERRITORY TO COMMUNITY FACILITIES DISTRICT NO. 1 (ELK GROVE FIRE PROTECTION) AND AUTHORIZE THE LEVY OF SPECIAL TAXES THEREIN.
3. Consider and approve Resolution 2020-53, A RESOLUTION OF THE BOARD OF DIRECTORS OF THE COSUMNES COMMUNITY SERVICES DISTRICT CALLING A SPECIAL ELECTION OF THE QUALIFIED ELECTORS OF THE TERRITORY TO BE ANNEXED TO COMMUNITY FACILITIES DISTRICT NO. 1.
4. Conduct a special election on the CFD annexation during which the Canvassing Board opens the ballot, tallies the vote, and announces the results of the election.
5. Consider and approve Resolution No. 2020-54, A RESOLUTION OF THE BOARD OF DIRECTORS OF THE COSUMNES COMMUNITY SERVICES DISTRICT DECLARING RESULTS OF SPECIAL TAX ELECTION, DETERMINING VALIDITY OF PRIOR PROCEEDINGS, AND DIRECTING RECORDING OF NOTICE OF SPECIAL TAX LIEN.

Pursuant to those actions, staff, with the help of SCI Consulting Group, has completed the following steps in order to facilitate the annexation to the CFD in Elk Grove:

- The map of the proposed annexation into CFD No. 1 (Elk Grove Fire Protection) was recorded with the County Recorder on September 10, 2020.
- The CFD election ballot was mailed to the property owners at least 10 days prior to the date of the Public Hearing. The property owners are asked in the ballot whether they approve or disapprove of having their properties annexed into CFD No. 1.

The Mello Roos Community Facilities Act provides that a public hearing must be held on the annexation of additional territory into a CFD. At the close of the public hearing, absent any objections by the property owners in the proposed CFD, the Board may determine that there was no majority protest, as defined by the Act. In order to expedite the annexation process, all property owners within the proposed CFD have signed a waiver and consent form waiving their right to protest at the public hearing and waiving any minimum time periods relative to the landowner election.

Upon the final approval of the annexation into the CFD, a Notice of Special Tax Lien (Attachment 4) will be recorded with the Sacramento County Recorder, resulting in a permanent lien on the parcels involved in the special election. The lien continues in perpetuity unless the Board terminates the special tax obligation by later Board actions in accordance with the Act.

FINANCIAL ANALYSIS

The proposed CFD will be fully supported by an annual special tax levied exclusively on the real property within the CFD. The District's administrative costs related to the CFD will be reimbursed from the special tax proceeds. There will be no impact on the District's finances or on the General Fund.

SUSTAINABILITY ANALYSIS

There is no environmental impact related to the annexation of properties into Community Facilities District No. 1 (Elk Grove Fire Protection).

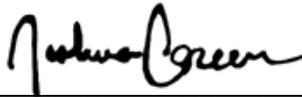
Respectfully submitted,



Michael W. McLaughlin
Fire Chief

- Attachment 1 – Resolution No. 2020-52
- Attachment 2 – Resolution No. 2020-53
- Attachment 3 – Resolution No. 2020-54
- Attachment 4 – Notice of Special Tax Lien
- Attachment 5 – Notice of Public Hearing

Staff Report recommendation authorized by:



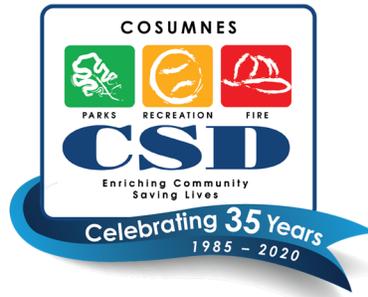
General Manager

Approved as to Form:



General Counsel

Attachment 1



RESOLUTION NO. 2020-52

A RESOLUTION OF THE BOARD OF DIRECTORS OF THE COSUMNES COMMUNITY SERVICES DISTRICT TO ANNEX TERRITORY TO COMMUNITY FACILITIES DISTRICT NO. 1

COSUMNES COMMUNITY SERVICES DISTRICT Community Facilities District No. 1 (Elk Grove Fire Protection) Annexation No. 28

RESOLVED by the Board of Directors ("Board") of the Cosumnes Community Services District (the "District"), County of Sacramento, State of California, that:

WHEREAS, the Board has conducted proceedings to establish Community Facilities District No. 1 (Elk Grove Fire Protection) (the "CFD") adopted Resolution 2012-25 on June 6, 2012 (the "Resolution of Formation") pursuant to the Mello-Roos Community Services and Facilities Act of 1982, as amended (the "Act"), Chapter 2.5 of Part 1 of Division 2 of Title 5, commencing at Section 53311, of the California Government Code; and

WHEREAS, on September 2, 2020, the Board adopted a Resolution 2020-43 entitled "Resolution of the Board of Directors of the Cosumnes Community Services District Declaring Intention to Annex Territory to Community Facilities District No. 1 and Authorize the Levy of Special Taxes Therein" (the "ROI") of the District pursuant to the Act; and

WHEREAS, a Petition, Consent and Waivers from each of Woodside Homes of Northern California, and Pappas Investments, have been filed with Clerk of the Board ("Board Clerk"); and

WHEREAS, the proposed boundaries of the territory to be annexed to the CFD are as shown on the maps attached hereto as Exhibit A, and incorporated herein, and which is also on file with the Board Clerk; and

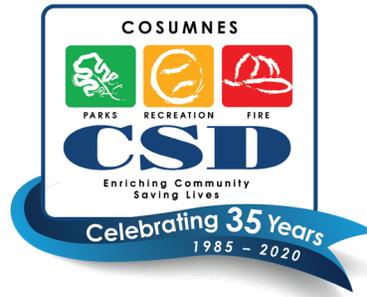
WHEREAS, the public Services and Facilities proposed to be financed by the CFD ("Services and Facilities") are described in the document titled "Description of Services and Facilities to be Financed by the CFD," attached hereto as Exhibit B and incorporated herein; and

WHEREAS, except to the extent that funds are otherwise available to the CFD to pay for the Services and Facilities, a special tax (the "Special Tax") sufficient to pay the costs thereof, secured by recordation of a continuing lien against all nonexempt real property in the CFD, will be levied annually within the CFD, and collected in the same manner as ordinary ad valorem property taxes levied within the CFD. The proposed rate and method of apportionment of the Special Tax are described in the document titled "Rate and Method of Apportionment of Special Tax," attached hereto as Exhibit C and incorporated herein; and

WHEREAS, the Board Clerk published notice of a public hearing to be held on August 5, 2020, in compliance with Section 53322 of the Act regarding the proposed annexation of territory to the CFD; and

WHEREAS, at the hearing all interested persons desiring to be heard on all matters pertaining to the annexation of territory to the CFD, the Services and Facilities to be provided therein and the levy of said special tax were heard and a full and fair hearing was held; and

WHEREAS, on the date hereof, this Board held a noticed public hearing as required by the Act and the ROI relative to the proposed annexation of territory to the CFD; and



WHEREAS, at said hearing all interested persons desiring to be heard on all matters pertaining to the annexation of territory to the CFD and the levy of said special taxes within the area proposed to be annexed were heard and a full and fair hearing was held; and

WHEREAS, the special tax proposed to be levied in the territory to annex to the CFD to pay for the fair share of proposed Services and Facilities to be provided therein has not been eliminated by protest by fifty percent (50%) or more of the registered voters residing within the territory to be annexed to the CFD or the owners of one-half (1/2) or more of the area of the territory to be annexed to the CFD and not exempt from the special tax; and

WHEREAS, if the Board proceeds with annexation of territory to the CFD, the Special Tax shall be submitted to a vote among the property owners in the proposed CFD by mailed or hand-delivered ballot, with each property owner having one vote for each acre or portion of an acre such owner owns in the CFD.

NOW, THEREFORE, BE IT RESOLVED, as follows:

1. The foregoing recitals are true and correct.
2. The proposed special tax to be levied within the territory to be annexed to the CFD has not been precluded by majority protest pursuant to Section 53324 of the Act.
3. The type of Services and Facilities proposed to be financed by the CFD and pursuant to the Act shall consist of those items listed in Exhibit B hereto and by this reference incorporated herein.
4. The Fire Chief, located at 10573 East Stockton Blvd., Elk Grove, CA 95624, telephone number 916-405-7100, is the officer of the District who will oversee the CFD Administrator who will prepare annually a current roll of special tax levy obligations by assessor's parcel number and who will be responsible for estimating future special tax levies pursuant to the Act.
5. Upon recordation of an amended notice of special tax lien pursuant to Section 3114.5 of the Streets and Highways Code of California, a continuing lien to secure each levy of the special tax shall attach to all nonexempt real property in the territory to be annexed to the CFD and this lien shall continue in force and effect until the special tax obligation is prepaid and permanently satisfied and the lien canceled in accordance with law or until collection of the tax by the District ceases.
6. The boundary map of the territory to annex to the CFD was recorded in the Sacramento County Recorder's Office as Document No. 202009100914 in Book 131, Page 21 of the Book of Maps of Assessments of Community Facilities Districts and on file with the Board Clerk are hereby finally approved, are incorporated herein by reference, and shall be included within the voter approval of the levy of the special taxes therein as hereinafter provided.
7. The Board has determined that all proceedings undertaken by the District in connection with the establishment of the territory to be annexed to the CFD and the levy of the Special Tax are valid and in conformity with the applicable provisions of the Act. Pursuant to Section 53325.1 of the Act, the Board's finding in this regard is final and conclusive.
8. Pursuant to the provisions of the Act, the proposition of the levy of the Special Tax shall be submitted to the qualified electors of the territory to be annexed to the CFD at an election, the time, place and conditions of which shall be as specified by a separate resolution of the Board.



PASSED AND ADOPTED by the Board of Directors of the Cosumnes Community Services District at a regular meeting of said Board held on the 7th day of October 2020, by the following vote:

AYES:
NOES:
ABSENT:
ABSTAIN:

President, Cosumnes CSD Board of Directors

ATTEST:

Clerk of the Board



EXHIBIT A



Legend

- Annex 28 - DS Properties 18 LP
- Sacramento County Parcels

SCI Consulting Group
4745 Mangrove Blvd.
Fairfield, CA 94534
(707) 436-4300

CLERK'S MAP FILING STATEMENT

FILED IN THE OFFICE OF THE CLERK OF THE BOARD OF THE COSUMNES COMMUNITY SERVICES DISTRICT, STATE OF CALIFORNIA, THIS _____ DAY OF _____, 2020.

CLERK OF THE BOARD _____

CLERK'S MAP CERTIFICATE

I DO HEREBY CERTIFY THAT THE WITHIN MAP SHOWING TERRITORY PROPOSED TO BE ANNEXED INTO COMMUNITY FACILITIES DISTRICT NO. 1 (ELK GROVE FIRE PROTECTION), COSUMNES COMMUNITY SERVICES DISTRICT, COUNTY OF SACRAMENTO, STATE OF CALIFORNIA, WAS APPROVED BY THE BOARD OF DIRECTORS OF THE COSUMNES COMMUNITY SERVICES DISTRICT AT A MEETING THEREOF HELD ON THE _____ DAY OF _____, 2020, BY ITS RESOLUTION NO. _____

CLERK OF THE BOARD _____

RECORDER'S CERTIFICATE

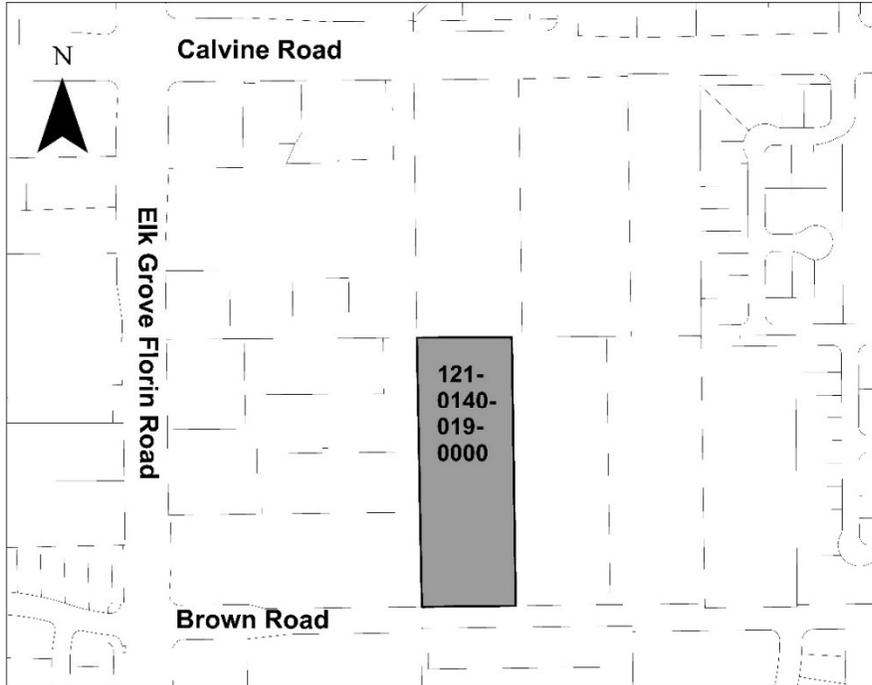
FILED THIS _____ DAY OF _____, 2020 AT THE HOUR OF _____ O'CLOCK _____ M. IN BOOK _____ OF MAPS OF ASSESSMENT AND COMMUNITY FACILITIES DISTRICTS AT PAGE _____ IN THE OFFICE OF THE COUNTY RECORDER IN THE COUNTY OF SACRAMENTO, STATE OF CALIFORNIA.

COUNTY CLERK/RECORDER, COUNTY OF SACRAMENTO

DEPUTY, COUNTY OF SACRAMENTO _____

NOTE:
REFERENCE IS HEREBY MADE TO THE MAPS AND DEEDS OF RECORD IN THE OFFICE OF THE ASSESSOR OF THE COUNTY OF SACRAMENTO FOR A DETAILED DESCRIPTION OF THE LINES AND DIMENSIONS OF ANY PARCELS SHOWN HEREIN. THOSE MAPS SHALL GOVERN FOR ALL DETAILS CONCERNING THE LINES AND DIMENSIONS OF SUCH PARCELS. EACH PARCEL IS IDENTIFIED IN SAID MAPS BY ITS DISTINCTIVE ASSESSOR'S PARCEL NUMBER.

**ANNEXATION MAP NO. 28 OF
COMMUNITY FACILITIES DISTRICT NO. 1
(ELK GROVE FIRE PROTECTION) OF THE
COSUMNES COMMUNITY SERVICES DISTRICT,
COUNTY OF SACRAMENTO, STATE OF CALIFORNIA**



CLERK'S MAP FILING STATEMENT
 FILED IN THE OFFICE OF THE CLERK OF THE BOARD OF THE COSUMNES
 COMMUNITY SERVICES DISTRICT, STATE OF CALIFORNIA, THIS _____ DAY
 OF _____, 2020.

CLERK OF THE BOARD _____

CLERK'S MAP CERTIFICATE
 I DO HEREBY CERTIFY THAT THE WITHIN MAP SHOWING TERRITORY
 PROPOSED TO BE ANNEXED INTO COMMUNITY FACILITIES DISTRICT NO. 1
 (ELK GROVE FIRE PROTECTION), COSUMNES COMMUNITY SERVICES
 DISTRICT, COUNTY OF SACRAMENTO, STATE OF CALIFORNIA, WAS
 APPROVED BY THE BOARD OF DIRECTORS OF THE COSUMNES COMMUNITY
 SERVICES DISTRICT AT A MEETING THEREOF HELD ON THE _____ DAY
 OF _____, 2020, BY ITS RESOLUTION NO. _____

CLERK OF THE BOARD _____

RECORDER'S CERTIFICATE
 FILED THIS _____ DAY OF _____, 2020 AT THE HOUR OF _____
 O'CLOCK _____ M. IN BOOK _____ OF MAPS OF ASSESSMENT AND
 COMMUNITY FACILITIES DISTRICTS AT PAGE _____ IN THE OFFICE OF THE
 COUNTY RECORDER IN THE COUNTY OF SACRAMENTO, STATE OF
 CALIFORNIA.

COUNTY CLERK/RECORDER, COUNTY OF SACRAMENTO

DEPUTY, COUNTY OF SACRAMENTO _____

NOTE:
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 SHOWN HEREIN. THOSE MAPS SHALL COVER FOR ALL DETAILS
 CONCERNING THE LINES AND DIMENSIONS OF SUCH PARCELS. EACH
 PARCEL IS IDENTIFIED IN SAID MAPS BY ITS DISTINCTIVE ASSESSOR'S
 PARCEL NUMBER.

Legend

- Annex 28 - Heartstone
- Sacramento County Parcels

SCJ Consulting Group
 4745 Mangrove Blvd.
 Fairfield, CA 94534
 (707) 432-4300

ANNEXATION MAP NO. 28 OF
 COMMUNITY FACILITIES DISTRICT NO. 1
 (ELK GROVE FIRE PROTECTION) OF THE
 COSUMNES COMMUNITY SERVICES DISTRICT,
 COUNTY OF SACRAMENTO, STATE OF CALIFORNIA

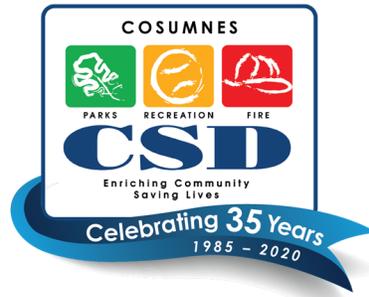


EXHIBIT B

DESCRIPTION OF SERVICES AND FACILITIES TO BE FINANCED BY THE CFD

COSUMNES COMMUNITY SERVICES DISTRICT Community Facilities District No. 1 (Elk Grove Fire Protection)

The Services and Facilities described below are proposed to be financed by Community Facilities District No. 1 (the "CFD") of the Cosumnes Community Services District (the "District"):

The types of Services and Facilities to be financed by the CFD ("Services and Facilities") shall include new a) fire protection and suppression services, b) ambulance and paramedic services; and c) renovation, expansion, acquisition, construction of existing and future fire protection and suppression Services and Facilities and equipment, vehicles, apparatus and supplies including collection and accumulation of funds to pay for anticipated Services and Facilities cost shortfalls and reserves for repair and replacement of Services and Facilities, improvements, vehicles, and equipment with a useful life of five (5) years or more to the extent that such Services and Facilities are required to sustain the service delivery capability of the District's Fire Department.

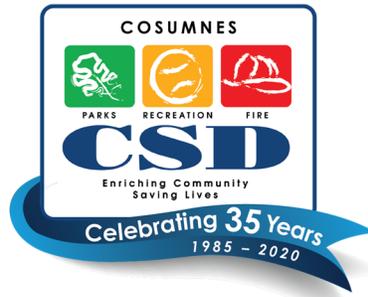


EXHIBIT C

RATE AND METHOD OF APPORTIONMENT OF SPECIAL TAX

COSUMNES COMMUNITY SERVICES DISTRICT Community Facilities District No. 1 (Elk Grove Fire Protection)

A Special Tax authorized under the Mello-Roos Community Services and Facilities Act of 1982 applicable to the land in the Community Facilities District No. 1 (the "CFD") of the Cosumnes Community Services District (the "District") shall be levied and collected according to the tax liability determined by the District through the application of the appropriate amount or rate, as shown below.

A. DEFINITIONS

"Act" means the Mello-Roos Community Services and Facilities Act of 1982, being Chapter 2.5, Part 1, Division 2 of Title 5 of the Government Code of the State of California, as amended, which authorizes the establishment of the CFD to finance: a) fire protection and suppression Services and Facilities; b) fire and emergency medical equipment; and c) other fire department operations, Services and Facilities provided by the District.

"Administrative Expenses" means the actual or estimated costs incurred by the District to determine, levy and collect the Special Taxes, including the proportionate amount of the salaries and benefits of District employees whose duties are directly related to administration of the CFD and the fees of Special Tax levy administrator, other consultants, legal counsel, the costs of collecting installments of the Special Taxes upon the County tax rolls and any other incidental costs as determined by the District.

"Age-Restricted Nonresidential" means residential retirement communities or occupancies, as described in Section 51.3 of the Civil Code, which are restricted to adults or senior citizens only, but are owned and managed by a commercial entity that rents or leases residential units such as apartments or rooms to the aforementioned individuals.

"Age-Restricted Residential" means residential retirement communities or occupancies, as described in Section 51.3 of the Civil Code, which are restricted to adults or senior citizens only.

"Annual Escalation Factor" means an amount equal to the percentage increase during the preceding year in the Consumer Price Index for All Urban Consumers in the San Francisco-Oakland-San Jose metropolitan area (CPI-U), as published by the U.S. Department of Labor, Bureau of Labor Statistics, or if this index ceases publication, an equivalent index.

"Annual Special Tax" means the annual Special Tax, determined in accordance with Section E below to be levied in the CFD in any Fiscal Year on any Assessor's Parcel.

"Assessor's Parcel" means a lot or parcel shown in an Assessor's Parcel Map with an assigned assessor's parcel number.

"Authorized Services and Facilities" means those Services and Facilities listed in the Resolution of the Board of Directors of the Cosumnes Community Services District Declaration Intention to Establish the CFD.

"Base Year" means the Fiscal Year ending June 30, 2012.



"Building Area" means the total of the gross area of the floor surfaces within the exterior wall of the building constructed or to be constructed, not including covered public pedestrian circulation areas and vehicle parking areas.

"Board" means the Board of Directors of the Cosumnes Community Services District, acting as the legislative body of the District and the CFD.

"CFD" means Community Facilities District No. 1 (Elk Grove Fire Protection) of the Cosumnes Community Services District.

"CFD Administrator" means an official of the District, or designee thereof, responsible for determining providing for the levy and collection of the Special Taxes.

"County" means the County of Sacramento, California.

"Developed Property" means all Assessor's Parcels subject to the Special Tax for which a building permit has been approved and recorded by June 1 of the prior Fiscal Year. These Assessor's Parcels can be classified into one of following groups: Single Family Residential, Multi-Family Residential or Nonresidential.

"District" means the Cosumnes Community Services District.

"Fire Protection Service and Facility Costs" means the estimated and reasonable costs of providing the Authorized Services and Facilities, including, but not limited to, a) the costs of contracting services; b) the costs of equipment, vehicles, ambulances, paramedics, fire apparatus and supplies; c) the salaries and benefits of District staff that directly provide fire suppression services, emergency medical services, fire prevention activities and other services as defined herein, respectively; and d) District overhead costs associated with providing such Services and Facilities within the CFD.

"Fiscal Year" means the period starting July 1 and ending the following June 30.

"Maximum Special Tax" means the maximum Special Tax, determined in accordance with Sections B and C below that can be levied in the CFD in any Fiscal Year on any Assessor's Parcel.

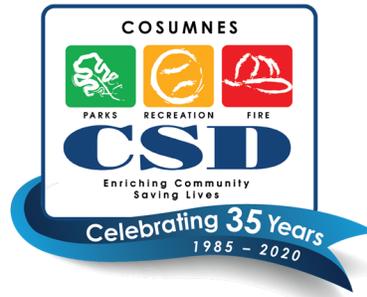
"Multi-Family Residential" means any Assessor's Parcel of Developed Property for which a building permit has been issued for construction of a structure with more than one Residential Unit. This category includes but is not limited to apartment buildings, duplexes, triplexes, fourplexes, or mobile homes.

"Nonresidential Property" means all Assessor Parcels of Developed Property for which a building permit has been issued by the City for the construction of one or more units not classified as residential property or Services and Facilities.

"Single-Family Residential" means any Assessor's Parcel of Developed Property for which a building permit has been issued for construction of at least one single-family residential unit and is not Multi-Family Residential.

"Special Tax" means the Special Tax to be levied, in each Fiscal Year, on Taxable Parcel, pursuant to Sections B, C, and D below.

"Special Tax Requirement" means the amount required in any Fiscal Year for the CFD to: a) pay for Fire Protection Service and Facility Costs; b) pay for reasonable Administrative Expenses; c) pay any amounts required to establish or replenish any reserve funds; and d) pay for reasonably anticipated delinquent Special Taxes based on the delinquency rate for Special Taxes levied in the previous Fiscal Year.



"State" means the State of California.

"Residential Unit" or "Residential Units" means each separate residential dwelling unit on an Assessor's Parcel that comprises an independent facility capable of conveyance or rental as distinct from adjacent residential dwelling units.

"Taxable Parcel" means any Parcel that is not exempt from Special Taxes as defined within this Rate and Method of Apportionment of Special Tax.

"Tax-Exempt Property" means any Parcel within the CFD which is not Developed or Undeveloped Property, and includes property owned or operated by a public District or exempted for some other reason.

"Undeveloped Property" means any Assessor's Parcel which is Zoned for any use, is not Tax-Exempt Property, and for which no building permit has been approved and issued by June 1 of the previous Fiscal Year.

"Zoned" means use, zoning, allowed or designated on the applicable General Plan, Specific Plan or Community Plan which the County of Sacramento utilizes and relies upon for planning purposes and for the approval of development.

B. CALCULATION OF MAXIMUM SPECIAL TAX

The Maximum Special Tax shall be calculated as follows:

1. **Classification of Parcels.** Each Fiscal Year, using the Definitions above and the parcel records of the County Assessor's Secured Tax Roll of July 1, the District shall cause each parcel of land in the CFD to be classified as Developed Property, Undeveloped Property or Tax-Exempt Property. The District shall cause all Developed Property to be further classified as Single Family Residential, Multi-Family Residential, Age-Restricted Residential, Nonresidential and Age-Restricted Nonresidential.
2. **Assignment of Maximum Special Tax.** Each Fiscal Year, the Base Year Maximum Tax Rates shown below shall be escalated as specified in Section C, Annual Adjustment of Maximum Special Tax, to determine the Maximum Special Tax Rate for the upcoming Fiscal Year.

Land Use Classification	Base Year Maximum Tax Rate
Developed Single Family Residential	\$235.18 per unit
Developed Multi-family Residential	\$135.49 per unit
Developed Age Restricted Residential	\$110.48 per unit
Developed Nonresidential	\$0.11 per square foot of Building Area
Developed Age-Restricted Nonresidential	\$0.11 per square foot of Building Area
Undeveloped	\$0
Tax Exempt	\$0

3. **Conversion of a Tax-Exempt Property to a Taxable Property.** If a Tax-Exempt Property is not needed for public use and is converted to a private use, it shall become subject to the Special Tax.
4. **Developed Nonresidential Building Area Not Subject to the Special Tax.** Any Developed Nonresidential Building Area constructed prior to January 1, 2009 for the following Assessor's Parcels shall not be subject to the Special Tax:



Assessor's Parcel No(s)

132-2170-004	134-1010-009
132-2170-005	134-1010-010
132-2170-006	123-0160-001
132-2170-017	

C. ANNUAL ADJUSTMENT OF MAXIMUM SPECIAL TAX

Beginning in January 2013 and each January thereafter, the Maximum Special Tax shall be adjusted annually in an amount equal to the percentage increase during the preceding year in the Consumer Price Index for All Urban Consumers in the San Francisco-Oakland-San Jose metropolitan area (CPI-U), as published by the U.S. Department of Labor, Bureau of Labor Statistics, or if this index ceases publication, an equivalent index.

Each annual adjustment of the Maximum Special Tax shall become effective on the subsequent July 1.

D. CALCULATION OF THE ANNUAL SPECIAL TAX

Commencing with Fiscal Year 2012-13, and for each subsequent Fiscal Year, the Board shall determine the Special Tax Requirement and shall levy the Annual Special Tax on each Assessor's Parcel of Developed Residential Property at one hundred percent of the applicable Maximum Special Tax to fund the Special Tax Requirement.

The Board shall not levy an Annual Special Tax on 1) Undeveloped Property, 2) Tax Exempt Property or 3) Developed Nonresidential Building Area described in Section B4 hereof.

Under no circumstances will the Annual Special Tax levied against any Assessor's Parcel of Developed Single-Family or Multi-Family Residential Property increase by more than ten (10) percent as a consequence of delinquency or default by the owner of any other Assessor's Parcel within the CFD.

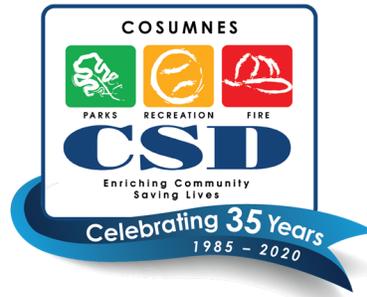
Subject to the foregoing, the amount of Annual Special Tax levied upon any Developed Property in any Fiscal Year shall not exceed the Maximum Special Tax for such Fiscal Year as computed herein.

E. DURATION OF THE SPECIAL TAX

Assessor's Parcels in the CFD shall remain subject to the Special Tax in perpetuity. If the Special Tax ceases to be levied, the District or its designee shall direct the County Recorder to record a Notice of Cessation of Special Tax. Such notice will state that the obligation to pay the Special Tax has ceased and that the lien imposed by the Notice of Special Tax Lien is extinguished.

F. APPEALS AND INTERPRETATION PROCEDURE

Any property owner who feels that the portion of the Special Tax levied on the subject property is in error, may file a written appeal no later than April 10 of the Fiscal Year in which the levy occurred, with the Fire Chief or his or her designee, appealing the levy of the Special Tax on the subject property. The Fire Chief or his or her designee will promptly review the appeal, and, if necessary, meet with the applicant and decide the merits of the appeal. If the findings of the Fire Chief or his or her designee verify that the Special Tax levied should be modified, the Special Tax levy for future Fiscal Years shall be corrected, and a credit against future Special Taxes shall be arranged, if applicable. Any overcharges shall be corrected solely by means of adjustments to future Special Tax levies; no cash refunds shall be made. Any dispute over the decision of the Fire Chief or his or her designee shall be referred to the Board and the decision of the Board shall be final.



Interpretation may be made by resolution of the Board for purposes of clarifying any vagueness or uncertainty as it relates to the application of the Special Tax rate or the method of apportionment or the classification of properties or any definition applicable to the CFD.

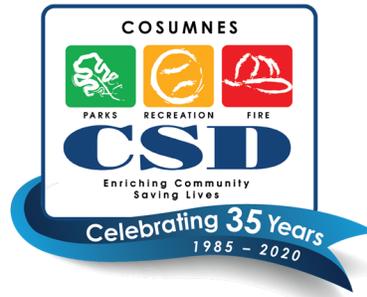
G. COLLECTION OF THE SPECIAL TAX

The Special Tax shall be collected each year in the same manner and at the same time as ad valorem property taxes are collected and shall be subject to the same penalties and lien priorities in the case of delinquency as is provided for ad valorem taxes. The District shall cause the actions required above to be done for each Fiscal Year in a timely manner to assure that the schedule of the Special Taxes to be collected are received by the County Auditor for inclusion with billings for such ad valorem taxes for the applicable Fiscal Year.

H. ANNEXATION OF TERRITORY

Any territory to be annexed to the CFD shall, in addition to payment of Special Taxes at the rate set forth above, be subject to payment of any costs incurred by the District in conducting the annexation process.

Attachment 2



RESOLUTION NO. 2020-53

A RESOLUTION OF THE BOARD OF DIRECTORS OF THE COSUMNES COMMUNITY SERVICES DISTRICT CALLING A SPECIAL ELECTION OF THE QUALIFIED ELECTORS OF THE TERRITORY TO BE ANNEXED TO COMMUNITY FACILITIES DISTRICT NO. 1

COSUMNES COMMUNITY SERVICES DISTRICT Community Facilities District No. 1 (Elk Grove Fire Protection) Annexation No. 28

RESOLVED by the Board of Directors ("Board") of the Cosumnes Community Services District (the "District"), County of Sacramento, State of California, that:

WHEREAS, on September 2, 2020, the Board adopted a Resolution No. 2020-43 entitled "Resolution of the Board of Directors of the Cosumnes Community Services District Declaring Intention to Annex Territory to Community Facilities District No. 1 (Elk Grove Fire Protection) and Authorize the Levy of Special Taxes Therein" (the "Resolution of Intention") pursuant to the California Government Code Section 53311 et seq. (the "Act"); and

WHEREAS, the Resolution of Intention to Annex Territory set a public protest hearing to be held concurrently on October 7, 2020, ("Public Hearing"); and

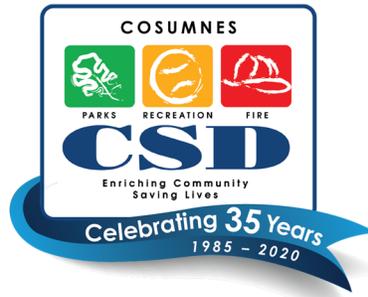
WHEREAS, at the close of the Public Hearing, the Board determined that there was no majority protest under the provisions of the Act; and

WHEREAS, at the conclusion of the Public Hearing, the Board adopted Resolution No. 2020-52 entitled "Resolution of the Board of Directors of the Cosumnes Community Services District to Annex Territory to Community Facilities District No. 1" (the "ROA") with respect to the CFD Annexation No. 28 pursuant to the Act; and

WHEREAS, pursuant to the provisions of the ROA, a proposition to authorize the levy of special taxes within the territory to be annexed to the CFD is to be submitted to the qualified electors of the annexation territory as required by the Act.

NOW, THEREFORE, BE IT RESOLVED, as follows:

1. The Board has heretofore found that fewer than twelve persons have been registered to vote within the territory of the CFD for the ninety days preceding the close of the public hearing heretofore held by the Board for the purposes of these proceedings. Accordingly, the vote shall be by the land owners of the CFD, and each owner of record at the close of such public hearing, or the authorized representative thereof, shall have one vote for each acre or portion of an acre that he or she owns within the CFD.



2. The date of the election shall be October 7, 2020, and the Board Clerk shall conduct the election. The election shall be conducted by either personally delivered or mailed ballots, and in accordance with the provisions of law regulating elections of the District insofar as such provisions are determined by the Board Clerk to be applicable. The voted ballots shall be returned to the Board Clerk not later than 4:30 p.m. on October 7, 2020 at such time the election will be closed.
3. The form of the ballot for the election is attached hereto as Exhibit A and by this reference incorporated herein. The Board Clerk has caused to be delivered to each of the qualified electors of the territory to be annex to the CFD a ballot in said form. Each ballot indicates the number of votes to be voted by the respective elector based upon the number of acres of land owned by such elector as set forth above. The identification envelope for return of the ballot was enclosed with the ballot, and shall contain (a) the name and address of the landowner, (b) a declaration, under penalty of perjury, stating that the elector is the owner of record, or the authorized representative thereof, and is the person whose name appears on the identification envelope, (c) the printed name, signature and address of the elector, (d) the date of signing and place of execution of the declaration described above and (e) a notice that the envelope contains an official ballot and is to be opened only by the Board Clerk. Analysis and arguments with respect to the ballot proposition are hereby waived.
4. There is on file with the Board Clerk a Petition, Consent and Waiver executed by each qualified elector of the CFD requesting a shortening of the time for the special election in order to expedite the process of formation of the CFD and waiving any requirement for analysis and arguments in connection therewith.

PASSED AND ADOPTED by the Board of Directors of the Cosumnes Community Services District at a regular meeting of said Board held on the 7th day of October 2020, by the following vote:

AYES:
NOES:
ABSENT:
ABSTAIN:

President, Cosumnes CSD Board of Directors

ATTEST:

Clerk of the Board



**OFFICIAL BALLOT
SPECIAL LANDOWNER TAX ELECTION**

**Cosumnes Community Service District
Community Facilities District No. 1 (Elk Grove Fire Protection)
Annexation No. 28**

This ballot is for the special landowner annexation election. You must return this annexation ballot in the enclosed postage paid envelope to the office of the Clerk of the Board of the Cosumnes Community Service District no later than 4:30 p.m. on October 7, 2020, either by mail or in person. The Cosumnes Community Service District office is located at 9355 E Stockton Blvd., Suite 185, Elk Grove, CA 95624.

To Vote, mark a cross (X) in the voting square after the word "YES" or after the word "NO." All marks otherwise made are forbidden. All distinguishing marks are forbidden and make the ballot void. If you wrongly mark, tear, or deface this ballot, please return it to the Cosumnes Community Service District to obtain another.

BALLOT MEASURE: Shall the Cosumnes Community Services District, by and for its Community Facilities District No. 1 (Elk Grove Fire Protection) (the "CFD"), be authorized to levy special taxes within the territory annexed to said CFD pursuant to and as described in Resolution No. 2020-43 of the Cosumnes Community Services District adopted by its Board on September 2, 2020?

YES: _____

NO: _____

By execution in the space provided below, you 1) declare under penalty of perjury that you are the owner of record or the authorized representative of the landowner entitled to vote this ballot; and 2) confirm your waiver of the time limit pertaining to the conduct of the election and any requirement for notice of election and analysis and arguments with respect to the ballot measure, as such waivers are described and permitted by Sections 53326(a) and 53327(b) of the California Government Code.

Number of Votes: _____
Property Owner: _____
Attention: _____

By: _____

Title: _____

Attachment 3



RESOLUTION NO. 2020-54

A RESOLUTION OF THE BOARD OF DIRECTORS OF THE COSUMNES COMMUNITY SERVICES DISTRICT DECLARING RESULTS OF SPECIAL TAX ELECTION, DETERMINING VALIDITY OF PRIOR PROCEEDINGS, AND DIRECTING RECORDING OF AMENDED NOTICE OF SPECIAL TAX LIEN

COSUMNES COMMUNITY SERVICES DISTRICT Community Facilities District No. 1 (Elk Grove Fire Protection) Annexation No. 28

RESOLVED by the Board of Directors ("Board") of the Cosumnes Community Services District (the "District"), County of Sacramento, State of California, that:

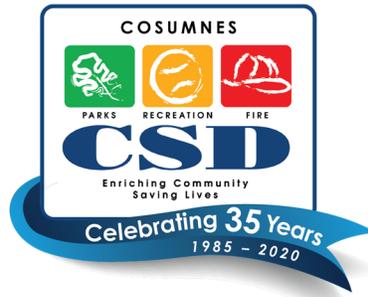
WHEREAS, in proceedings heretofore conducted by the Board pursuant to the Mello-Roos Community Facilities Act of 1982, as amended (the "Act"), this Board has heretofore adopted a resolution calling a special election of the qualified landowner electors in the territory to be annexed to Community Facilities District No. 1 (the "CFD"); and

WHEREAS, all requirements, including but not limited to any time limit, pertaining to the conduct of the special election have been waived by unanimous consent of the qualified electors of the CFD as authorized by the Act, which executed Landowner Petition, Waiver and Consent from each qualified elector is on file with the Board Clerk, and with the concurrence of the Board Clerk as the designated election official conducting the election; and

WHEREAS, as authorized by the unanimous waiver of special election requirements by all qualified electors pursuant to the Act (California Government Code section 53326(a)), the special election is by ballot mailed with the Notice of Public Hearing to all the property owners within the CFD by the Board Clerk on September 14, 2020, to be tabulated by the Board Clerk at 6:30 p.m. or as soon thereafter at the close of the public hearing on October 7, 2020; and

WHEREAS, the Board Clerk has certified that a ballot in the form set forth in Exhibit A hereto has caused to be delivered to each of qualified electors in the CFD, that each ballot indicated the number of votes to be voted by the respective landowner to which it pertains, that each ballot was accompanied by all supplies and written instructions necessary for the use and return of the ballot, and that the envelopes to return the ballot were enclosed with the ballot, and contained the following: (a) the name and address of the landowner, (b) a declaration, under penalty of perjury, stating that the voter is the owner of record or authorized representative of the landowner entitled to vote and is the person whose name appears on the envelope, (c) the printed name, signature and address of the voter, (d) the date of signing and place of execution of the declaration pursuant to clause (b) above, and (e) a notice that the envelope contains an official ballot; and

WHEREAS, the Board Clerk accepted the ballots of the qualified electors in her office upon and prior to 4:30 p.m. on October 7, 2020, or as soon thereafter as the matter could be heard, which is the



special election date, whether said ballots be personally delivered or received by mail. The Board Clerk also made available ballots to be marked at her office on the election day by said qualified electors; and

WHEREAS, the Board Clerk has on file a Canvass and Statement of Results of Election, a copy of which is attached hereto as Exhibit B; and

WHEREAS, the Board has reviewed that canvass and hereby approves it.

NOW, THEREFORE, BE IT RESOLVED, as follows:

Section 1. Recitals. The foregoing recitals are all true and correct.

Section 2. Issues Presented. The issues presented at the special election were the levy of a special tax within the CFD pursuant to the Resolution of Annexation.

Section 3. Canvass and Issues Approved. The Board hereby approves the Canvass and finds that it shall be a permanent part of the record of its proceedings for the CFD. Pursuant to the Canvass, the issues presented at the special election were approved by the qualified electors of the CFD by more than two-thirds of the votes cast at the special election.

Section 4. Proceedings Approved. Pursuant to the voter approval, the territory to be annexed to the CFD is hereby declared to be fully annexed with the authority to levy the special taxes in accordance with the approved Rate and Method of Apportionment as heretofore provided in these proceedings and in the Act. It is hereby found that all prior proceedings and actions taken by this Board with respect to the CFD were valid and in conformity with the Act

Section 5. Amended Notice of Tax Lien. The Board Clerk is hereby directed to complete, execute and cause to be recorded in the office of the County Recorder of the County of Sacramento an Amended Notice of Special Tax Lien in the form required by the Act, such recording to occur no later than 15 days following adoption by the Board of this resolution.

PASSED AND ADOPTED by the Board of Directors of the Cosumnes Community Services District at a regular meeting of said Board held on the 7th day of October 2020, by the following vote:

AYES:
NOES:
ABSENT:
ABSTAIN:

President, Cosumnes CSD Board of Directors

ATTEST:

Clerk of the Board



EXHIBIT A

**OFFICIAL BALLOT
SPECIAL LANDOWNER TAX ELECTION**

**Cosumnes Community Service District
Community Facilities District No. 1 (Elk Grove Fire Protection)
Annexation No. 28**

This ballot is for the special landowner annexation election. You must return this annexation ballot in the enclosed postage paid envelope to the office of the Clerk of the Board of the Cosumnes Community Service District no later than 4:30 p.m. on October 7, 2020, either by mail or in person. The Cosumnes Community Service District office is located at 9355 E Stockton Blvd., Suite 185, Elk Grove, CA 95624.

To Vote, mark a cross (X) in the voting square after the word "YES" or after the word "NO." All marks otherwise made are forbidden. All distinguishing marks are forbidden and make the ballot void. If you wrongly mark, tear, or deface this ballot, please return it to the Cosumnes Community Service District to obtain another.

BALLOT MEASURE: Shall the Cosumnes Community Services District, by and for its Community Facilities District No. 1 (Elk Grove Fire Protection) (the "CFD"), be authorized to levy special taxes within the territory annexed to said CFD pursuant to and as described in Resolution No. 2020-43 of the Cosumnes Community Services District adopted by its Board on September 2, 2020?

YES: _____

NO: _____

By execution in the space provided below, you 1) declare under penalty of perjury that you are the owner of record or the authorized representative of the landowner entitled to vote this ballot; and 2) confirm your waiver of the time limit pertaining to the conduct of the election and any requirement for notice of election and analysis and arguments with respect to the ballot measure, as such waivers are described and permitted by Sections 53326(a) and 53327(b) of the California Government Code.

Number of Votes: _____
Property Owner: _____
Attention: _____

By: _____

Title: _____



EXHIBIT B

CANVASS AND STATEMENT OF RESULT OF ELECTION

**COSUMNES COMMUNITY SERVICES DISTRICT
Community Facilities District No. 1
(Elk Grove Fire Protection)
Annexation No. 28**

I hereby certify that on this date, I canvassed the returns of the election held on this date, in Community Facilities District No. 1 (Elk Grove Fire Protection) Annexation No. 28 of the Cosumnes Community Services District which election is designated as the Special Tax Election, and the total number of ballots cast and the total number of votes cast for and against the measure are as follows and the totals as shown for and against the measure are full, true and correct:

	Qualified			
	Landowner Ballots	Landowner Votes	Cast	YES NO
	Ballots	Cast	Votes	Cast
Cosumnes Community Services District Community Facilities District No. 1 Annexation No. 28 Special Tax Election October 7, 2020	<u>2</u>	_____	_____	_____

BALLOT MEASURE: Shall the Cosumnes Community Services District, by and for its Community Facilities District No. 1 (Elk Grove Fire Protection) (the "CFD"), be authorized to levy special taxes within the territory annexed to said CFD pursuant to and as described in Resolution No. 2020-43 of the Cosumnes Community Services District adopted by its Board on September 2, 2020?

IN WITNESS WHEREOF, I HAVE HEREUNTO SET MY HAND this 7th day of October, 2020.

COSUMNES COMMUNITY SERVICES DISTRICT

By: _____
Clerk of the Board

Attachment 4

**RECORDING REQUESTED BY AND
AFTER RECORDATION RETURN TO:**

Mike McLaughlin, Fire Chief
Cosumnes Fire Department
Cosumnes Community Services District
10573 E. Stockton, Blvd.
Elk Grove, CA 95624

**AMENDED
NOTICE OF SPECIAL TAX LIEN**

**COSUMNES COMMUNITY SERVICES DISTRICT
Community Facilities District No. 1
(Elk Grove Fire Protection)
Annexation No. 28**

Pursuant to the requirements 3117.5 of the California Streets and Highways Code and the Mello-Roos Community Facilities Act of 1982, as amended, commencing with Section 53311 of the California Government Code (the "Act"), the undersigned Clerk of the Board of the Cosumnes Community Services District, County of Sacramento, State of California, hereby gives notice (the "Notice") of the foregoing and that a lien to secure payment of a special tax is hereby imposed by the Board of Directors of the Cosumnes Community Services District, County of Sacramento, State of California. The special tax secured by this lien is authorized to be levied for the purpose of providing the facilities and services, including incidental expenses, in and according to the rate and method of apportionment set forth in the certain Notice of Special Tax Lien heretofore recorded in the Office of the County Recorder of the County of Sacramento, State of California on July 11, 2012 as Instrument No. in Book 20120611, Page 0777, to which recorded Notice of Special Tax Lien reference is hereby made and the provisions of which are hereby incorporated by this reference.

This Amended Notice of Special Tax Lien amends the Notice of Special Tax Lien to add to the territory of Community Facilities District No. 1 (Elk Grove Fire Protection) of the Cosumnes Community Services District ("CFD") the lands set forth in that certain "Annexation Map No. 28 to Community Facilities District No. 1 of the Cosumnes Community Services District, County of Sacramento, State of California," heretofore recorded in the Office of the County Recorder of the County of Sacramento, State of California on September 10, 2020 at Book 131 of the Maps of Assessment and Community Facilities Districts at Page 21.

The assessor's tax parcel(s) numbers of all parcels or any portion thereof which are affected by this Amended Notice of Special Tax Lien, together with the name(s) of the owner(s) thereof, as they appear on the latest secured assessment roll as of the date of recording hereof or as are otherwise known to the Cosumnes Community Services District are as set forth in Exhibit A attached hereto and hereby made a part hereof.

For further information concerning the current and estimated future tax liability of owners or purchasers of real property subject to this special tax lien, interested persons should contact Chief Mike McLaughlin, Cosumnes Fire Department, Cosumnes Community Services District, 10573 E. Stockton, Blvd., Elk Grove, CA 95624, telephone (916) 405-7101.

Dated: _____, 2020

By: _____
Clerk of the Board
Cosumnes Community Services District

EXHIBIT A

DESCRIPTION OF LANDOWNER'S PROPERTIES

**COSUMNES COMMUNITY SERVICES DISTRICT
Community Facilities District No. 1
(Elk Grove Fire Protection)
Annexation No. 28**

Assessor's Parcel Number	Acres	Property Owner
116-1160-016-0000	0.508	DS PROPERTIES 18 LP
116-1160-017-0000	9.139	DS PROPERTIES 18 LP
121-0140-019-0000	3.18	HEARTSTONE LLC

Attachment 5

**NOTICE OF PUBLIC HEARING
ON THE RESOLUTION DECLARING INTENTION TO ANNEX TERRITORY
COSUMNES COMMUNITY SERVICES DISTRICT
COMMUNITY FACILITIES DISTRICT NO. 1
(ELK GROVE FIRE PROTECTION)**

NOTICE IS HEREBY GIVEN that pursuant to California Government Code Section 53322, the Board will hold a public hearing at 6:30 p.m. on Wednesday October 7, 2020, at the meeting place of the Board, 8820 Elk Grove Blvd, Elk Grove, California, to consider:

- A. A summary of the text of Resolution 2020-43 A RESOLUTION OF THE BOARD OF DIRECTORS OF THE COSUMNES COMMUNITY SERVICES DISTRICT DECLARING INTENTION TO ANNEX TERRITORY TO COMMUNITY FACILITIES DISTRICT NO. 1 AND TO AUTHORIZE THE LEVY OF THE SPECIAL TAX THEREIN is as follows:

The Board has conducted proceedings to establish Community Facilities District No. 1 (Elk Grove Fire Protection) (the "CFD") pursuant to the Mello-Roos Community Facilities Act of 1982, as amended (the "Act"), Chapter 2.5 of Part 1 of Division 2 of Title 5, commencing at Section 53311, of the California Government Code and The Board hereby finds and determines that public convenience and necessity require that territory be added to the CFD. The name of the existing CFD is "Cosumnes Community Services District Community Facilities District No. 1 (Elk Grove Fire Protection)." The territory included in the existing CFD is set forth in the map of the CFD recorded in the office of the County Recorder of the County of Sacramento in Book 116 at Page 1580 of Maps of Assessment and Community Facilities Districts, to which map reference is hereby made. The territory now proposed to be annexed to the CFD is as shown on Annexation Map No. 28 to the CFD, on file with the Clerk of the Board ("Board Clerk"). The services and facilities to be financed by the CFD (the "Services and Facilities") and pursuant to the Act are described in Exhibit A of Resolution No. 2012-25 of the District, adopted on June 6, 2012 (the "Resolution of Formation") which is incorporated herein by reference. The Resolution, Description of Facilities, Rate and Method of Apportionment of Special Tax and the proposed boundaries of the Community Facilities District No. 1 Annexation No. 28 are on file with Chief Mike McLaughlin, Cosumnes Fire Department, Cosumnes Community, 10573 E. Stockton, Blvd., Elk Grove, California, and are available for review there during business hours by any interested persons.

On Wednesday, October 7, 2020, at the meeting place of the Board, 8820 Elk Grove Blvd., Elk Grove, California, this Board, as legislative body for the CFD, will conduct a public hearing on the annexation of the territory to the CFD and consider and finally determine whether the public interest, convenience and necessity require the annexation of the Property to the CFD and the levy of the Special Tax thereon.

At the public hearing, the testimony of all interested persons or taxpayers for or against the proposed annexation will be heard. If owners of one-half or more of the area of land in the existing CFD and not exempt from the Special Tax, or if the owners of one-half or more of the area of land in the territory proposed to be annexed and not exempt from the Special Tax, file written protests against the proposed annexation, and protests are not withdrawn so as to reduce the protests to less than a majority, no further proceedings to annex the same territory shall be undertaken for a period of one year from the date of the decision of the District Board on the issues discussed at the hearing.

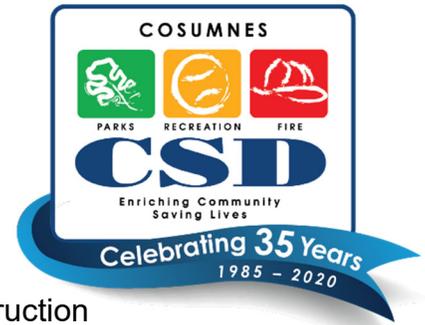
(Due to COVID-19 there is a possibility the public hearing will be broadcast via livestream at <https://www.yourcsd.com/896/Live-Board-Meeting> or via Zoom meeting.)

STAFF REPORT

DATE: October 7, 2020

TO: Board of Directors

FROM: Paul Mewton, Chief of Planning, Design and Construction
Administrative Services Department



SUBJECT: CLIMATE ACTION PLAN / SUSTAINABILITY ACTION PLAN

RECOMMENDATION

The Board of Directors (“Board”) adopts the Climate Action Plan / Sustainability Action Plan (“CAP/SAP”).

BACKGROUND/ANALYSIS

In May 2019 the Board requested staff proceed with the preparation of a Climate Action Plan. In June 2019 District staff negotiated and executed a professional services agreement with Raney Management and Planning Inc. to prepare a Climate Action Plan for the District.

The phenomenon of Climate Change and the associated ramifications and dangers it represents to communities long recognized by the scientists is now being addressed worldwide by government organizations both at the regional and local levels. In 2006 the State of California Legislature passed Assembly Bill (“AB”) 32 which requires municipalities and local governments to develop plans to comply with Greenhouse Gas (“GHG”) Emission reduction targets set forth in the legislation.

The Cosumnes Community Services District (“District”), unlike municipal and county governments, does not have land use jurisdiction and thus does not have control over planning and development. Therefore, the thresholds for meeting the state mandated requirements are much lower. In fact, the District could meet these thresholds without making a lot of changes to its present operating practices. For that reason, the District’s Climate Action Plan also focuses on the best management practices it can follow to be most effective in climate change mitigation and adaptation. However, the data analysis and methodologies used to evaluate GHG emissions for the District’s plan are consistent with those used by other municipal and local government organizations preparing Climate Action plans mandated by the State of California.

The Climate Action plan is a strategic level plan that provides guidance on how the District incorporates not only the measurable and quantifiable goals of reducing the GHG Emissions so that it is in compliance with state mandates but also the more nuanced aspects of environmental sustainability, low impact development, waste prevention and resource conservation.

The plan features a chapter on emission reduction measures and sustainability practices that can be incorporated into the day-to-day operations of the District, the planning and development of future facilities and parks and considerations to be made when purchasing new equipment. Each measure includes a short cost/benefit analysis to identify whether such measures have low, medium, or high impact. In addition, reduction measures are also evaluated in terms of what the corresponding adaptation measure looks. For example, one measure examines the effects of higher summer temperatures on District programs and services and what adaptation measures could be taken to alleviate impact of the change.

According to the plan if implemented the reduction measures would result in a 36% reduction in emissions in 2025, 39% in 2030 and 54% in 2050. It should also be noted that many of the reduction measures result in less quantifiable metrics but result in significant health and environmental benefits to the community and the natural environment. For example, inclusion of green infrastructure that absorbs run off, reduces stormwater pollution and increases wildlife habitat and restores biodiversity.

Implementation is key to the success of the plan. The plan includes a section that clearly identifies the roles and responsibilities in regard to implementation. Most of these roles fall within the Planning, Design and Construction Division who will work with other departments to execute, monitor, and oversee the implementation.

Community Outreach was conducted through a virtual meeting platform on July 29, 2020 due to COVID 19 restrictions for in-person assemblies. District staff and Raney Planning and Management presented a preliminary draft plan. Although participation was small staff received valuable feedback which helped inform the final document.

IMPACT ON DISTRICT RESOURCES

There is no direct and immediate fiscal impact in adopting the Climate Action Plan. There will be future fiscal impacts to some individual projects and some service contracts which will need to be assessed on a case by case basis as future projects and contracts are activated. The plan provides a cost benefit analysis for each reduction strategy to provide the District guidance when making such determinations.

ENVIRONMENTAL SUSTAINABILITY

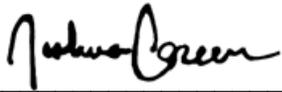
This CAP/SAP is intended to increase the environmental sustainability of the District in terms of GHG emission reductions as well as long-term operational efficiency, waste prevention, reduction in the consumption of natural resources, and minimization or elimination of potential adverse effects to the environment that could otherwise occur during future District operations.

Respectfully submitted,



Paul Mewton
Chief of Planning, Design and Construction
Administrative Services Department

Staff Report recommendation authorized by:



General Manager

Approved as to Form:



General Counsel

ATTACHMENTS:

- A – Climate Action Plan/ Sustainability Action Plan
- B – Appendix

Attachment A

Cosumnes Community Services District

Climate Action Plan / Sustainability Action Plan



September 2020

Prepared by



1501 Sports Drive, Suite A, Sacramento, CA 95834

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Appendix A: Emissions Calculations

1. INTRODUCTION

California has affirmed the need for action to reduce statewide greenhouse gas (GHG) emissions through the adoption of multiple executive orders as well as legislative actions. Taken together, the executive orders and legislative requirements establish statewide GHG reduction goals. The majority of the mandated reductions would be accomplished through statewide programs; however, implementation of local measures to reduce GHG emissions will likely be needed to achieve the statewide reductions mandated by Assembly Bill (AB) 32 and Senate Bill (SB) 32. The Cosumnes Community Services District's (Cosumnes CSD's) efforts regarding GHG emissions reductions are intended to work in concert with the efforts being undertaken on a statewide level.

Because the Cosumnes CSD is not a local government municipality, but rather a California Special District, the Cosumnes CSD is in a unique position to collaborate with local governments in achieving their GHG reduction goals, while also aiming towards increasing the sustainability of the Cosumnes CSD's future operations. Increasing the sustainability of the Cosumnes CSD's operations is an elective goal that is intended to maintain and improve the level of services provided by the Cosumnes CSD, while also reducing the environmental impacts of Cosumnes CSD in areas other than GHG emissions, such as biological resources or the consumption of natural resources. Thus, the Cosumnes CSD has prepared this Climate Action Plan / Sustainability Action Plan (CAP/SAP).

1.1 PURPOSE AND SCOPE OF THE CAP/SAP

This CAP/SAP is intended to increase the sustainability of the Cosumnes CSD in terms of GHG emissions as well as long-term operational efficiency, resource conservation, waste prevention, and economic prosperity. While a typical CAP often presents concrete GHG reduction goals, this CAP/SAP is also focused on encouraging environmentally-conscious and low impact practices. Thus, the measures included in this CAP/SAP are not only intended to reduce GHG emissions, but are also anticipated to reduce operating costs, reduce the consumption of natural resources, and minimize or eliminate potential adverse effects to the environment that could otherwise occur during future Cosumnes CSD operations. Finally, while this CAP/SAP will aid Cosumnes CSD's efforts to reduce the harmful effects of climate change, it is also necessary for the Cosumnes CSD to identify ways in which the Cosumnes CSD can adapt to certain anticipated changes and impacts. Thus, many of the measures and strategies included in this document relate to adapting the Cosumnes CSD's operations to address the impacts of climate change.

The following sections summarize the content included in subsequent chapters of the CAP/SAP.

Climate Change Science and Background

Chapter 2 of this CAP/SAP provides an explanation of climate science and the principles that drive anthropogenic climate change, and an overview of the various international, federal, State, and local regulations regarding GHG emissions.

Regional Impacts of Climate Change

Potential impacts of climate change that would specifically affect the operations of the Cosumnes CSD and the surrounding region are identified and discussed within this chapter. In general, climate change has begun shifting precipitation patterns and surface temperatures away from the reliable historic patterns that human society has come to rely on. For instance, climate change resulting from human emissions of GHGs may result in increased surface air temperatures throughout Elk Grove, Galt, and the surrounding region. Increased surface air temperatures can result in human health effects such as heat exhaustion and heat stroke, as well as increased rates of respiratory problems related to exacerbated air pollution, and increased costs to businesses related to higher demands for landscaping or agricultural irrigation. Increased surface air temperatures represent only one of many potential regional impacts related to climate change, other potential impacts may include, but are not necessarily limited to, increased wildfire risk and costs associated with fire suppression, increased public health risks, and decreased availability of water resources. An in-depth discussion of such regional impacts is included in Chapter 3 of this CAP/SAP.

Emissions Quantification

Cosumnes CSD GHG emissions were quantified by using the most-up-to-date methodology provided by the Statewide Energy Efficiency Collaborative (SEEC). SEEC is an alliance of private companies, public utility companies, and non-governmental organizations that provide information and technical assistance to California cities and counties to aid in the reduction of GHG emissions and increase energy efficiency. To facilitate such goals, the SEEC prepared ClearPath California. ClearPath California is a suite of tools designed to measure and track GHG emissions within communities in California. Based on user-provided data such as community energy use, vehicle use, water consumption, wastewater treatment, and solid waste generation, ClearPath provides GHG inventories for the operations of organizations and municipal governments. The baseline GHG inventory was prepared based on information provided by various departments within the Cosumnes CSD, including information regarding the Cosumnes CSD's vehicle fleet, information regarding the Cosumnes CSD's water and wastewater infrastructure, and information related to the Cosumnes CSD's facilities. Further information used in drafting this CAP/SAP was provided by Sacramento Municipal Utility District (SMUD), Pacific Gas and Electric (PG&E), and the Elk Grove Water District.

In addition to allowing for the quantification of current GHG emissions, the ClearPath suite of tools allows for the forecasting of future emissions. Forecasting of future emissions from Cosumnes CSD operations is based off of projected population growth in the Cosumnes CSD service area. As the Cosumnes CSD service population grows, so will the demand for Cosumnes CSD parks, facilities, and fire protection services. Based on the estimated population growth rates, emission intensity factors, and existing GHG emissions, ClearPath can generate emissions estimates for various future dates. Further discussions regarding emissions quantification and forecasting is provided in Chapter 4 of this CAP/SAP.

Emissions Reduction, Sustainability, and Adaptation Measures

This CAP/SAP includes both GHG reduction measures and sustainability measures. The GHG reduction measures work to reduce emissions that could otherwise result from Cosumnes CSD activities. In general, the sustainability measures do not result in direct, measurable reductions in GHG emissions, but otherwise contribute to water or energy conservation, waste reduction, and economic efficiency. Although many of the measures included in this CAP/SAP are either specifically targeted to reduce GHG emissions or promote sustainability, there is great overlap

between the concepts of GHG emissions reductions and sustainability; thus, the implementation of all of the measures included in this CAP/SAP is intended to increase the sustainability of the Cosumnes CSD's operations. Furthermore, the measures taken to reduce GHG emissions and increase sustainability will, in many cases, help the Cosumnes CSD adapt to challenges resulting from climate change.

The measures are organized into sectors, each of which address the major sources of emissions associated with Cosumnes CSD operations.

Implementation

Emissions reduction measures included in this CAP/SAP will be implemented through actions undertaken by the Cosumnes CSD. The party responsible for implementing suggested measures set forth within this CAP/SAP, as well as the anticipated timeline for measure implementation are identified within the Implementation chapter of this CAP/SAP Cosumnes CSD.

CAP/SAP Process

In order to gather public feedback on the CAP/SAP, a Community Outreach Meeting was held on July 29, 2020. Verbal comments received at the Community Outreach Meeting were considered in preparation of the CAP/SAP, and the CAP/SAP was revised accordingly. Following completion of the Draft CAP/SAP, a Board of Directors meeting was held October 7, 2020. The Board of Directors provided further feedback, which was integrated into the Draft CAP/SAP.

1.2 PLANNING AREA AND LOCAL SETTING

The Cosumnes CSD service area encompasses the cities of Galt and Elk Grove, as well as portions of unincorporated Sacramento County, located in Northern California's Central Valley (Figure 1).

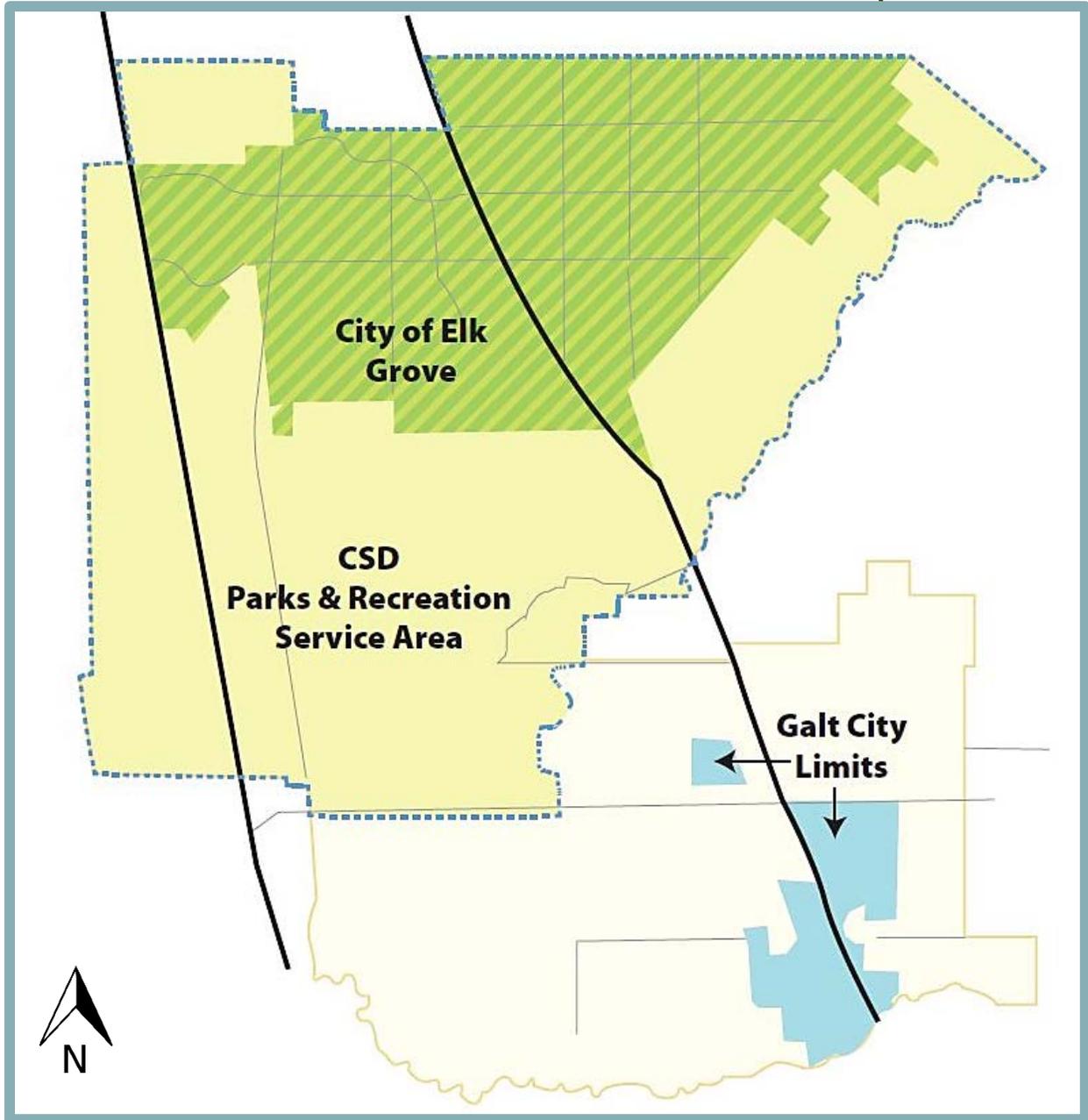
As illustrated in Figure 1, the Cosumnes CSD Parks and Recreation Service Area is shown in dark yellow. The area shaded in light yellow, including the City of Galt and the southeastern portions of unincorporated Sacramento County, are not part of the Parks and Recreation Service Area, and represent the service area for the Cosumnes CSD Fire Department only.

1.3 PLANNING

New development within the Cosumnes CSD, including parks, recreation facilities, community centers, fire stations, and others, must adhere to a number of local policy documents, building code requirements, development standards, design guidelines, and standard practices that collectively further the goals and actions included in this CAP/SAP.

In addition, various other local agencies provide guidance and regulations pertaining to air quality and greenhouse gasses. The Cosumnes CSD is within the boundaries of the Sacramento Valley Air Basin (SVAB) and under the jurisdiction of the Sacramento Metropolitan Air Quality Management District (SMAQMD). SMAQMD is responsible for monitoring air pollution within the SVAB and for developing and administering programs to reduce air pollution levels below the health-based standards established by the State and federal governments. As part of SMAQMD's efforts to reduce GHG emissions within the district in compliance with AB 32 and SB 32, SMAQMD has adopted thresholds of significance for GHG emissions from new projects. SMAQMD has a role in reviewing development projects and ensuring that projects comply with the thresholds of significance adopted by the district as applicable.

Figure 1
Cosumnes CSD Service Area Boundaries Map



Source: Cosumnes Community Services District. Parks & Recreation 2019-2022 Strategic Plan [pg. 9]. 2018.

The City of Elk Grove adopted a CAP in February of 2019, and the City of Galt adopted a CAP in March of 2020. The goal of this CAP/SAP is to establish compliance with both local CAPs and facilitate implementation of the climate goals therein.

1.4 USING THE CAP/SAP

To ensure the success of this CAP/SAP, the Cosumnes CSD will integrate the goals and strategies of the Plan into their planning, operations, and maintenance processes. As a means of integrating the CAP/SAP into future operations, the Cosumnes CSD may choose to designate a sustainability coordinator who will be responsible for coordinating GHG reduction and sustainability efforts as well as monitor and report progress of the goals herein. Successful implementation requires regular monitoring and reporting. Details regarding future updates to this CAP/SAP, as well as the incorporation of CAP/SAP consistency analyses in ongoing planning, operations, and maintenance processes are presented in Chapter 6, Implementation, of this CAP/SAP. Implementation of this CAP/SAP, in coordination with the local CAPs and statewide planning efforts, will ensure achievement of considerable GHG reductions in the short- and long-term and consistency with State GHG reduction targets and goals.

2. CLIMATE CHANGE SCIENCE AND BACKGROUND

This chapter includes a discussion of the principles of climate science and climate change, as well as background information about the climate-related rules and regulations set forth by federal, State, and local governing bodies. The Cosumnes CSD is located within southern Sacramento County. Because climate and weather act on a broad geographic range, the entire County of Sacramento is discussed throughout this chapter. It should be noted that references to Sacramento County refer solely to the geographic region, and not necessarily the municipality.

2.1 PRINCIPLES OF THE EARTH'S CLIMATE

The following section will provide a brief overview of the scientific understanding of the earth's climate system, with specific focus on the principles of climate change.

Climate vs. Weather

Although sometimes used interchangeably, the terms “climate” and “weather” represent two related, but different concepts. Weather refers to the immediate state of the atmosphere. Questions such as, is it hot or cold outside right now; what is the humidity today; and how cloudy will it be this afternoon, are all concerned with the day-to-day conditions of the atmosphere. Climate, on the other hand, is the average of a given location's weather over time.¹ Because climate information is considered on a longer temporal time scale than weather, climate is often discussed in statistical terms and can be used to answer such questions as what is the average temperature within Sacramento County during the month of June; how many inches of rain does the County receive each year; and what month is usually the coldest month of the year in the County. Because climate is the pattern of weather over a given time, questions regarding climate can be spatially and temporally broad. For instance, discussions on climate can focus on Sacramento County, California, North America, or the entire globe, and can concern periods of weeks, years, decades, millennia, and beyond.

Understanding a region's climate provides important insights into a region's average weather, as well as a region's likelihood of experiencing extreme weather events such as heat waves, storms, floods and droughts.² Extreme weather events are often the most attention-grabbing features of a region's climate, consider drought in California or hurricanes in Florida; however, average climactic conditions can also greatly impact a region's suitability for agriculture, forestry, and general human habitation. For instance, California's Mediterranean type climate, with mild wet winters and dry summers, makes the State uniquely suited for agricultural activities.

Factors Controlling Earth's Climate

Considering the importance of the region's climate to our society, we must understand the factors that affect climate. The climate within southern Sacramento County is interconnected with the

¹ National Snow & Ice Data Center. *All About Climatology and Meteorology*. Accessible at https://nsidc.org/cryosphere/arctic-meteorology/climate_vs_weather.html. Accessed February 2020.

² U.S. Global Change Research Program. *GlobalChange.gov*. Accessible at <http://www.globalchange.gov/>. Accessed January 2017.

climate of the State, continent, and globe in what is called a climate system. The main driver of the earth's climate system and, thus, the continent's, State's and County's climate, is energy radiated by the sun hitting the earth.³ Several factors can alter the amount of solar energy hitting the earth such as: the distance of the earth from the sun, the intensity of solar activity, and the tilt of the earth on the earth's axis. However, these factors are generally stable, and act on what is known as a geologic timescale, often discussed in hundreds of thousands, to millions and billions of years. Because such factors are stable and predictable, the amount of solar energy hitting the earth is known and has been relatively constant over much of human history.⁴

Although humans cannot change the amount of solar energy reaching the Earth, humans can alter how much of this incoming heat remains. The Earth's atmosphere functions as a natural heat regulation system by balancing incoming solar energy from the sun and outgoing thermal radiation, which is first absorbed from the sun and then reemitted by the land, oceans, and atmosphere. This naturally occurring phenomenon, known as the greenhouse effect, enables the Earth to have equilibrium temperatures supportive of life.

Certain gases intensify the greenhouse gas effect, however, by trapping thermal radiation and not emitting them out into space again – like a blanket or the walls of a greenhouse. These greenhouse gases (GHGs) include water vapor, carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), ozone (O₃), and fluorinated gases (such as hydrofluorocarbons or HFCs). The higher the concentration of greenhouse gases in the atmosphere, the thicker the glass walls of the greenhouse, and the more heat is trapped on Earth. This concept is illustrated in Figure 2.

On a geologic timescale, over hundreds of thousands of years, the Earth has cycled between cooler periods of glaciation (ice ages) and warmer interglacial periods. Natural changes in the atmospheric concentration of carbon dioxide and other GHGs contributed to these gradual changes in the Earth's average temperatures and climate conditions, with higher levels of GHGs associated with warmer, tropical periods and lower levels linked to ice ages.⁵

While the amount of GHGs in the atmosphere has fluctuated naturally in the Earth's past, they are now rising at unprecedented rates due to human activities such as the burning of fossil fuels (coal, gasoline, and natural gas), land conversion, industrial processes (e.g., cement production and artificial nitrogen fixation for fertilizer), food production, and many other daily activities.⁶

The foregoing activities have been releasing vast quantities of GHGs into the atmosphere continuously since the Industrial Revolution (Figure 3 and Figure 4).

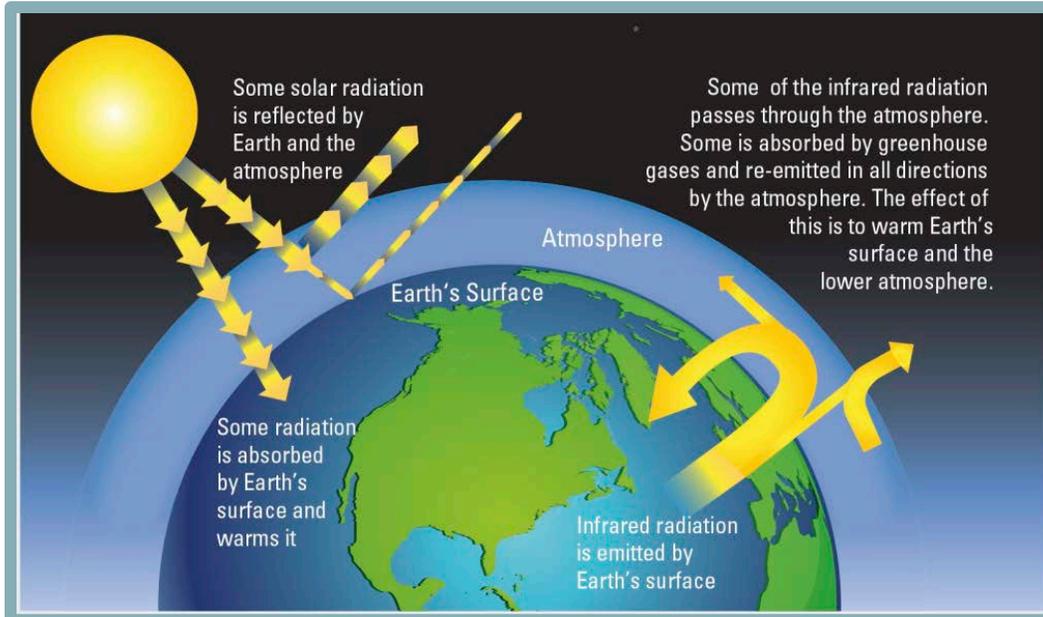
³ Masson-Delmotte, V., M. Schulz, A. Abe-Ouchi, J. Beer, A. Ganopolski, J.F. González Rouco, E. Jansen, K. Lambeck, J. Luterbacher, T. Naish, T. Osborn, B. Otto-Bliesner, T. Quinn, R. Ramesh, M. Rojas, X. Shao and A. Timmermann, 2013: *Information from Paleoclimate Archives*. In: *Climate Change 2013: The Physical Science Basis*. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Stocker, T.F., D. Qin, G.-K. Plattner, M. Tignor, S.K. Allen, J. Boschung, A. Nauels, Y. Xia, V. Bex and P.M. Midgley (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA.

⁴ National Aeronautics and Space Administration. *Paleoclimatology: Explaining the Evidence*. Available at http://earthobservatory.nasa.gov/Features/Paleoclimatology_Evidence/. Accessed on March 10, 2017.

⁵ Masson-Delmotte, V., M. Schulz, A. Abe-Ouchi, J. Beer, A. Ganopolski, J.F. González Rouco, E. Jansen, K. Lambeck, J. Luterbacher, T. Naish, T. Osborn, B. Otto-Bliesner, T. Quinn, R. Ramesh, M. Rojas, X. Shao and A. Timmermann, 2013: *Information from Paleoclimate Archives*. In: *Climate Change 2013: The Physical Science Basis*. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Stocker, T.F., D. Qin, G.-K. Plattner, M. Tignor, S.K. Allen, J. Boschung, A. Nauels, Y. Xia, V. Bex and P.M. Midgley (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA.

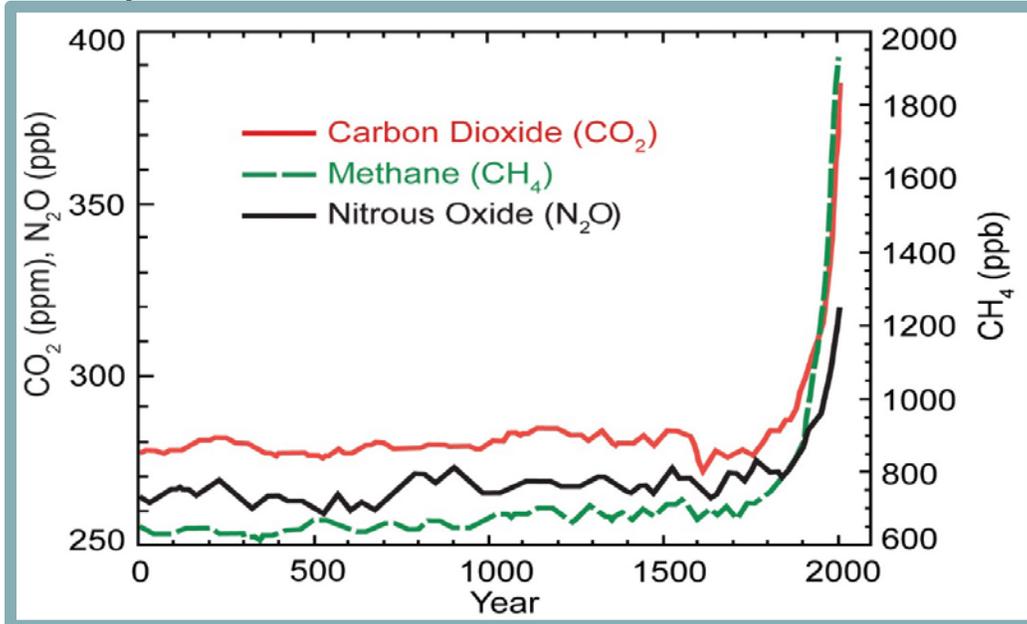
⁶ *Ibid.*

Figure 2
The Greenhouse Effect



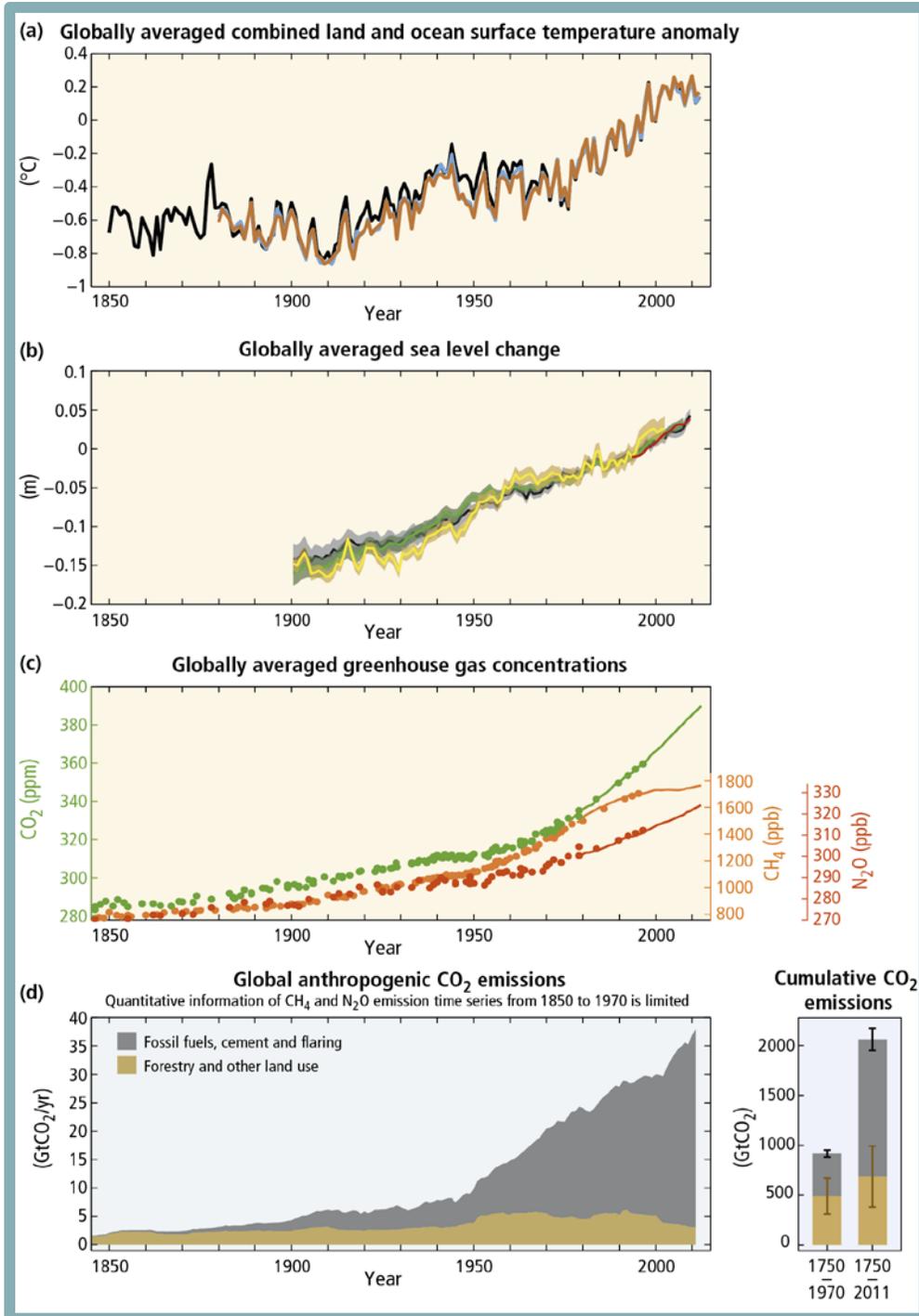
Source: The Royal Society. *The Basics of Climate Change*. Available at <https://royalsociety.org/topics-policy/projects/climate-change-evidence-causes/basics-of-climate-change/>. Accessed July, 2018.

Figure 3
Atmospheric Concentrations of Common GHGs Over Time



Sources: Forster, P., V. Ramaswamy, P. Artaxo, T. Berntsen, R. A. Betts, D. W. Fahey, J. Haywood, J. Lean, D. C. Lowe, G. Myhre et al. *Changes in Atmospheric Constituents and in Radiative Forcing*. In *Climate Change 2007: The Physical Basis*, edited by S. Solomon, D. Qin, M. Manning, Z. Chen, M. Marquis, K. B. Averyt, M. Tignor and H. L. Miller, 129-234. Vol. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge, UK and New York, NY: Cambridge University Press, 2007. Blasing, T. J. *Recent Greenhouse Gas Concentrations*. 2008.

Figure 4
Temperature, Sea Level, and Atmospheric GHGs
Since the Industrial Revolution



Source: IPCC, 2014: *Climate Change 2014: Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* [Core Writing Team, R.K. Pachauri and L.A. Meyer (eds.)]. IPCC, Geneva, Switzerland, 151 pp.

The increases of GHGs in the atmosphere can be thought of as thickening the glass walls of the Earth's greenhouse, causing more and more heat to be trapped within the Earth's system. This leads to warmer global average temperatures (Figure 4 and Figure 5), which in turn contributes to rising sea levels, more droughts, and more extreme weather conditions due to the added energy in global climate systems (Figure 4). Current GHG levels are at their highest in the past 800,000 years – before modern humans appeared on Earth – and continue to increase at unprecedented rates.

In conclusion, human society depends on stable, predictable climate patterns. At lower concentrations, GHGs retain heat within the atmosphere to provide the stable climate that humans rely on. However, human activities across the globe are drastically altering the Earth's atmospheric composition by causing large increases in GHG concentrations, mainly CO₂ but also methane, nitrous oxide, and fluorinated gases. Such human-induced changes to atmospheric GHG concentrations are increasing average land and ocean temperatures, contributing to rising sea levels (Figure 4), and threaten to alter the earth's climate system.⁷

This CAP/SAP will chart a course forward for the Cosumnes CSD, which will focus on measures that encourage growth within the Cosumnes CSD, while also encouraging climate change protection and sustainability measures throughout the community. The actions of the Cosumnes CSD, combined with other local groups and statewide and global initiatives to reduce GHG emissions, will allow for on-going prosperity without diminishing the ability of future generations to enjoy the same standard of living.

2.2 REGULATORY SETTING

GHG emissions are monitored and regulated through the efforts of various international, federal, State, and local government agencies. Agencies work jointly and individually to reduce GHG emissions through legislation, regulations, planning, policy-making, education, and a variety of programs. The agencies responsible for regulating GHG emissions within the County of Sacramento, and thus, the Cosumnes CSD, are discussed below.

Federal Regulations

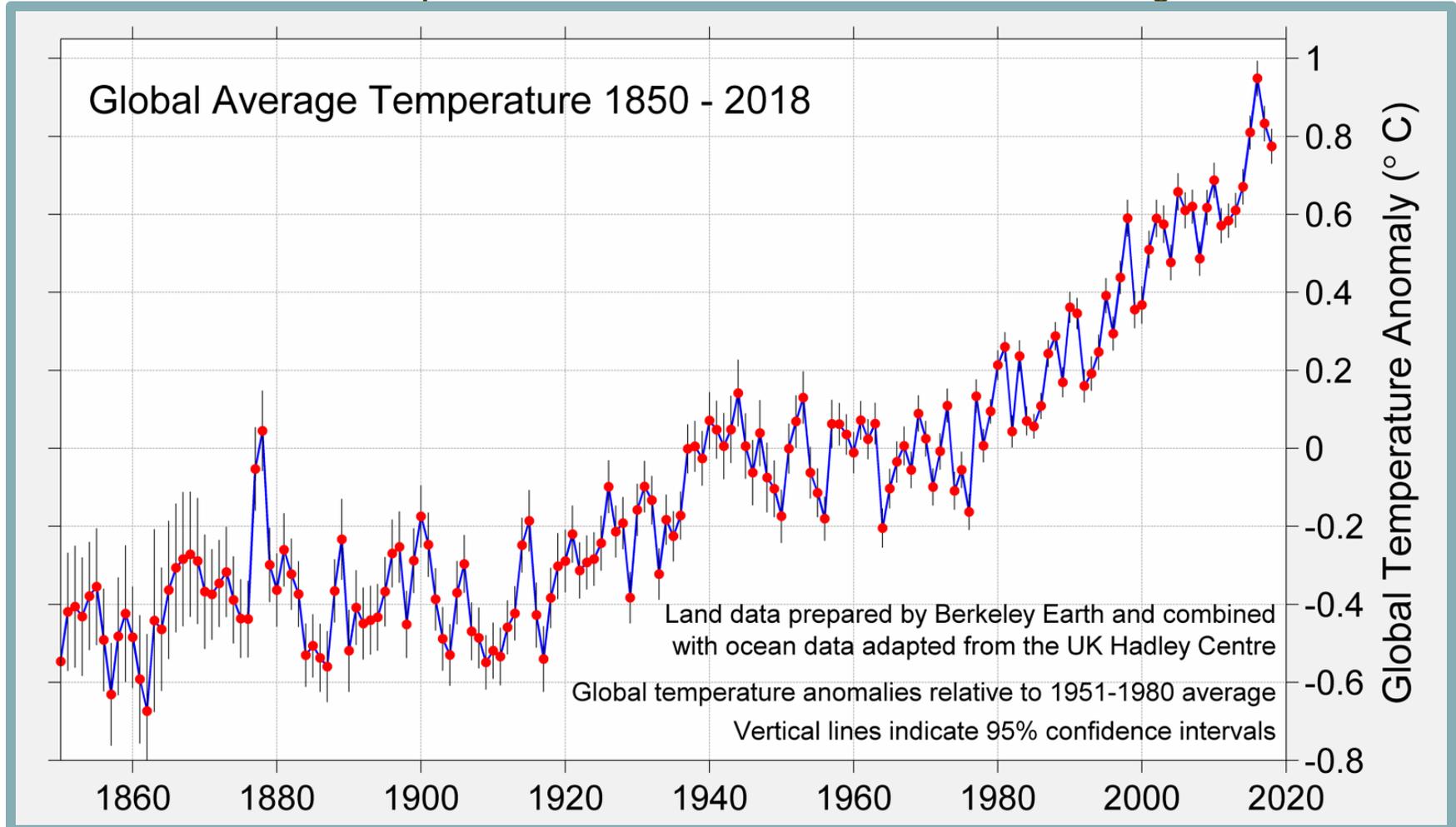
The most prominent federal regulation related to GHG emissions is the Federal Clean Air Act (FCAA), which is implemented and enforced by the United States Environmental Protection Agency (USEPA).

FCAA and USEPA

On December 7, 2009, USEPA issued findings under Section 202(a) of the FCAA concluding that GHGs are pollutants that could endanger public health. Under the so-called Endangerment Finding, USEPA found that the current and projected concentrations of the six key, well-mixed GHGs – CO₂, CH₄, N₂O, PFCs, SF₆, and HFCs – in the atmosphere threaten the public health and welfare of current and future generations. These findings do not, by themselves, impose any requirements on industry or other entities.

⁷ IPCC, 2014: Climate Change 2014: Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Core Writing Team, R.K. Pachauri and L.A. Meyer (eds.)]. IPCC, Geneva, Switzerland, 151 pp.

Figure 5
Global Temperature Anomalies Relative to 1951-1980 Average



Source: Berkeley Earth. Global Temperature Report for 2018. Available at: <http://berkeleyearth.org/2018-temperatures/>. Accessed July 2019.

The USEPA has been directed to develop regulations to address the GHG emissions of cars and trucks. The Mandatory Reporting of Greenhouse Gases Rule requires reporting of GHG emissions from large sources and suppliers in the U.S., and is intended to collect accurate and timely emissions data to inform future policy decisions. Under the rule, suppliers of fossil fuels or industrial GHG, manufacturers of vehicles and engines, and facilities that emit 25,000 metric tons or more per year of GHG emissions are required to submit annual reports to the USEPA. To track the national trend in emissions and removals of GHG since 1990, USEPA develops the official U.S. GHG inventory each year.

State Regulations

California has adopted a variety of regulations aimed at reducing GHG emissions. The adoption and implementation of the key State legislation described in further detail below demonstrates California's leadership in addressing global climate change. Only the most prominent and applicable California GHG-related legislation are included below; however, an exhaustive list and extensive details of California air quality legislation can be found at the California Air Resources Board (CARB) website.⁸

Assembly Bill (AB) 1007

AB 1007, State Alternative Fuels Plan (Pavley, Chapter 371, Statutes of 2005), required development and adoption of a State plan to increase the use of alternative fuels. The final *State Alternative Fuels Plan* was adopted on December 5, 2007 and presented strategies and actions California must take to increase the use of alternative, non-petroleum fuels in a manner that minimizes costs to California and maximizes the economic benefits of in-state production. Examples of such strategies include establishment of government incentive programs for alternative fuels, creation of a Low Carbon Fuel Standard to reduce the carbon intensity of transportation fuels, and the allowance of GHG emissions credits to entities using alternatively fueled vehicles. The plan assessed various alternative fuels and developed fuel portfolios to meet California's goals to reduce petroleum consumption, increase alternative fuels use, reduce GHG emissions, and increase in-state production of biofuels without causing a significant degradation of public health and environmental quality. The Plan recommended goals for alternative fuel use as well as reductions in the carbon intensities of fuels such as gasoline and diesel, and lays a foundation for building a multi-fuel transportation energy future for California by 2050. As of 2017, decreases in the carbon intensity of conventional fuels have met or exceeded the compliance targets, and the use of alternative fuels has increased by approximately 800 million gallons of gas equivalence units.⁹

AB 1493

California AB 1493 (Stats. 2002, ch. 200) (Health & Safety Code, §42823, 43018.5), known as Pavley I, was enacted on July 22, 2002. AB 1493 requires that the CARB develop and adopt regulations that achieve "the maximum feasible reduction of GHGs emitted by passenger vehicles and light-duty truck and other vehicles determined by the CARB to be vehicles whose primary use is noncommercial personal transportation in the State." On June 30, 2009, the USEPA granted a waiver of FCAA preemption to California for the State's GHG emission standards for motor vehicles, beginning with the 2009 model year. Pursuant to the FCAA, the waiver allows for

⁸ California Air Resources Board. *Laws and Regulations*. Available at: <http://www.arb.ca.gov/html/lawsregs.htm>. Accessed February 2018.

⁹ California Air Resources Board. *Low Carbon Fuel Standard Data Dashboard*. Available at: <https://www.arb.ca.gov/fuels/lcfs/dashboard/dashboard.htm>. Accessed May 2019.

the State to have special authority to enact stricter air pollution standards for motor vehicles than the federal government's. On September 24, 2009, the CARB adopted amendments to the Pavley regulations (Pavley I) that reduce GHG emissions in new passenger vehicles from 2009 through 2016. The second phase of the Pavley regulations (Pavley II) is expected to affect model year vehicles from 2016 through 2020. The CARB estimates that the regulation would reduce GHG emissions from the light-duty passenger vehicle fleet by an estimated 18 percent in 2020 and by 27 percent in 2030.

Renewable Portfolio Standard (RPS) and SB 100

Established in 2002 under SB 1078, accelerated in 2006 under SB 107, and expanded in 2011 under SB 2, California's RPS is one of the most ambitious renewable energy standards in the country. The RPS program requires investor-owned utilities, electric service providers, and community choice aggregators to increase procurement from eligible renewable energy resources to 33 percent of total procurement by 2020.

Since the inception of the RPS program, the program has been extended and enhanced multiple times. In 2015, SB 350 extended the State's RPS program by requiring that publicly owned utilities procure 50 percent of their electricity from renewable energy sources by 2030. The requirements of SB 350 were expanded and intensified in 2018 through the adoption of SB 100, which mandated that all electricity generated within the State by publicly owned utilities be generated through carbon-free sources by 2045. In addition, SB 100 increased the previous renewable energy requirement for the year 2030 by 10 percent; thus, requiring that 60 percent of electricity generated by publicly owned utilities originate from renewable sources by 2030.

Executive Order S-03-05

On June 1, 2005, then-Governor Schwarzenegger signed Executive Order S-03-05, which established total GHG emission goals. Specifically, emissions are to be reduced to year 2000 levels by 2010, 1990 levels by 2020, and to 80 percent below 1990 levels by 2050. The Executive Order directed the Secretary of the California Environmental Protection Agency (Cal-EPA) to coordinate a multi-agency effort to reduce GHG emissions to the target levels. The Secretary is also directed to submit biannual reports to the governor and State legislature describing: (1) progress made toward reaching the emission goals; (2) impacts of global warming on California's resources; and (3) mitigation and adaptation plans to combat these impacts.

To comply with the Executive Order, the Secretary of the Cal-EPA created a Climate Act Team (CAT) made up of members from various State agencies and commissions. In March 2006, CAT released their first report. In addition, the CAT has released several "white papers" addressing issues pertaining to the potential impacts of climate change on California.

AB 32

In September 2006, AB 32, the California Climate Solutions Act of 2006, was enacted (Stats. 2006, ch. 488) (Health & Saf. Code, §38500 et seq.). AB 32 delegated the authority for its implementation to the CARB and directs CARB to enforce the State-wide cap. Among other requirements, AB 32 required CARB to (1) identify the State-wide level of GHG emissions in 1990 to serve as the emissions limit to be achieved by 2020, and (2) develop and implement a Scoping Plan. Accordingly, the CARB has prepared the Climate Change Scoping Plan (Scoping Plan) for

California, which was approved in 2008 and updated in 2014 and 2017.¹⁰ The following sections present further information regarding plans and programs that have been introduced in order to meet the statutory requirements of AB 32.

California Scoping Plan

The 2008 Scoping Plan identified GHG reduction measures that would be necessary to reduce statewide emissions as required by AB 32. Many of the GHG reduction measures identified in the 2008 Scoping Plan have been adopted, such as the Low Carbon Fuel Standard, Pavley, Advanced Clean Car standards, RPS, and the State's Cap-and-Trade system.

Building upon the 2008 Scoping Plan, the 2014 and 2017 Scoping Plan Updates introduced new strategies and recommendations to continue GHG emissions reductions. The 2013 Scoping Plan Update created a framework for achievement of 2020 GHG reduction goals and identified actions that may be built upon to continue GHG reductions past 2020, as required by AB 32. Following the trajectory of the first update to the Scoping Plan, the 2017 Scoping Plan sets a path for the achievement of California's year 2030 GHG reduction goals.

California GHG Cap-and-Trade Program

California's GHG Cap-and-Trade Program was originally envisioned in the 2008 Scoping Plan as a key strategy to achieve GHG emissions reductions mandated by AB 32. The Cap-and-Trade Program is intended to put California on the path to meet the GHG emission reduction goal of 1990 levels by the year 2020, and ultimately achieving an 80 percent reduction from 1990 levels by 2050. Under cap-and-trade, an overall limit on GHG emissions from capped sectors has been established and facilities or industries subject to the cap are able to trade permits (allowances) to emit GHGs. The CARB designed the California Cap-and-Trade Program to be enforceable and to meet the requirements of AB 32.¹¹ The Program started on January 1, 2012, with an enforceable compliance obligation beginning with the 2013 GHG emissions. In recognition of the global scope of climate change and the need for international cooperation to curb GHG emissions, on January 1, 2014 California linked the State's cap-and-trade plan with Quebec's,¹² and on January 1, 2015 the program expanded to include transportation and natural gas fuel suppliers.¹³ AB 398 was adopted by the State's legislature in July 2017, which reauthorized the Cap-and-Trade program through December 31, 2030. The reauthorization and continued operation of the Cap-and-Trade program represents a key strategy within the State's 2017 Scoping Plan Update for the achievement of California's year 2030 GHG reduction goals.

Executive Order S-01-07

On January 18, 2007, then-Governor Schwarzenegger signed Executive Order S-01-07, which mandates that a State-wide goal be established to reduce carbon intensity of California's transportation fuels by at least 10 percent by 2020. The Order also requires that a Low Carbon Fuel Standard (LCFS) for transportation fuels be established for California.

¹⁰ California Air Resources Board. *AB 32 Scoping Plan*. Accessible at: <https://www.arb.ca.gov/cc/scopingplan/scopingplan.htm>. Accessed February 2018.

¹¹ California Air Resources Board. *Overview of ARB Emissions Trading Program*. Available at: https://www.arb.ca.gov/cc/capandtrade/guidance/cap_trade_overview.pdf. Accessed February 2018.

¹² California Air Resources Board. *Linkage*. Available at: <https://www.arb.ca.gov/cc/capandtrade/linkage/linkage.htm>. Accessed May 2019.

¹³ California Air Resources Board. *Overview of ARB Emissions Trading Program*. Available at: https://www.arb.ca.gov/cc/capandtrade/guidance/cap_trade_overview.pdf. Accessed February 2018.

SB 375

In September 2008, SB 375, known as the Sustainable Communities and Climate Protection Act of 2008, was enacted, which is intended to build on AB 32 by attempting to control GHG emissions by curbing sprawl. SB 375 enhances CARB's ability to reach goals set by AB 32 by directing CARB to develop regional GHG emission reduction goals to be achieved by the State's 18 metropolitan planning organizations (MPOs), including the SACOG. Under SB 375, MPOs must align regional transportation, housing, and land-use plans and prepare a "Sustainable Communities Strategy" (SCS) to reduce the amount of vehicle miles traveled in their respective regions and demonstrate the region's ability to attain its greenhouse gas reduction goals. SB 375 provides incentives for creating walkable and sustainable communities and revitalizing existing communities, and allows home builders to get relief from certain environmental reviews under CEQA if they build projects consistent with the new sustainable community strategies. Furthermore, SB 375 encourages the development of alternative transportation options, which will reduce traffic congestion.

Executive Order S-13-08

Then-Governor Arnold Schwarzenegger issued Executive Order S-13-08 on November 14, 2008. The Executive Order is intended to hasten California's response to the impacts of global climate change, particularly sea level rise, and directs State agencies to take specified actions to assess and plan for such impacts, including requesting the National Academy of Sciences to prepare a Sea Level Rise Assessment Report, directing the Business, Transportation, and Housing Agency to assess the vulnerability of the State's transportation systems to sea level rise, and requiring the Office of Planning and Research and the Natural Resources Agency to provide land use planning guidance related to sea level rise and other climate change impacts.

The order also required State agencies to develop adaptation strategies to respond to the impacts of global climate change that are predicted to occur over the next 50 to 100 years. The adaptation strategies report summarizes key climate change impacts to the State for the following areas: public health; ocean and coastal resources; water supply and flood protection; agriculture; forestry; biodiversity and habitat; and transportation and energy infrastructure. The report recommends strategies and specific responsibilities related to water supply, planning and land use, public health, fire protection, and energy conservation.

AB 197 and SB 32

On September 8, 2016, AB 197 and SB 32 were enacted with the goal of providing further control over GHG emissions in the State. SB 32 built on previous GHG reduction goals by requiring that the CARB ensure that statewide GHG emissions are reduced to 40 percent below the 1990 level by the year 2030. Additionally, SB 32 emphasized the critical role that reducing GHG emissions would play in protecting disadvantaged communities and the public health from adverse impacts of climate change. Enactment of SB 32 was predicated on the enactment of AB 197, which seeks to make the achievement of SB 32's mandated GHG emission reductions more transparent to the public and responsive to the Legislature. Transparency to the public is achieved by AB 197 through the publication of an online inventory of GHG and toxic air contaminants emissions from facilities required to report such emissions pursuant to Section 38530 of California's Health and Safety Code. AB 197 further established a six-member Joint Legislative Committee on Climate Change Policies, which is intended to provide oversight and accountability of the CARB, while also adding two new legislatively-appointed, non-voting members to the CARB. Additionally, AB 197 directs the CARB to consider the "social costs" of emission reduction rules and regulations, with particular focus on how such measures may impact disadvantaged communities.

Executive Order B-55-18

On September 10, 2018, then-Governor Brown established a statewide goal of carbon neutrality as soon as possible, and no later than 2045. Following achievement of carbon neutrality, net negative emissions should be pursued as the new emissions goal. The executive order directed the CARB to work with relevant State agencies to develop frameworks for implementation and tracking of the new goal, and further directed the CARB to support the carbon neutrality goal through future updates to the State Scoping Plan. The implementation of carbon sequestration targets and projects for natural and working lands is identified as a necessary measure to achieve carbon neutrality and net negative emissions.

SB 1383

SB 1383 enacts the strictest regulations on short-lived but high global warming potential (GWP) gases in the U.S. The high GWP of the gases targeted by SB 1383 means that the release of such gases can have global warming impacts hundreds of times greater than that of carbon dioxide. Because some high GWP gases have a shorter lifetime in the atmosphere, reducing their emissions can have an immediate and significant contribution to reducing climate change. SB 1383 requires a 50 percent reduction in black carbon, a 40 percent reduction in methane, and 40 percent reduction in hydrofluorocarbons from 2013 levels by 2030. Sources of these emissions include landfills, especially the decomposition of organic wastes (including food), agriculture, refrigeration, air-conditioning, and aerosol products.

California Building Standards Code

California's building codes (California Code of Regulations [CCR], Title 24) are published on a triennial basis, and contain standards that regulate the method of use, properties, performance, or types of materials used in the construction, alteration, improvement, repair, or rehabilitation of a building or other improvement to real property. The California Building Standards Code (CBSC) is responsible for the administration and implementation of each code cycle, which includes the proposal, review, and adoption process. Supplements and errata are issued throughout the cycle to make necessary mid-term corrections. The 2019 Code has been prepared and will become effective January 1, 2020. The CBSC applies State-wide; however, a local jurisdiction may amend a building code standard if the jurisdiction makes a finding that the amendment is reasonably necessary due to local climatic, geological, or topographical conditions.

California Green Building Standards Code

The 2019 California Green Building Standards Code, otherwise known as the CALGreen Code (CCR Title 24, Part 11), is a portion of the CBSC, which will become effective with the rest of the CBSC on January 1, 2020. The purpose of the CALGreen Code is to improve public health, safety, and general welfare by enhancing the design and construction of buildings through the use of building concepts having a reduced negative impact or positive environmental impact and encouraging sustainable construction practices. The provisions of the Code apply to the planning, design, operation, construction, use, and occupancy of every newly constructed building or structure throughout California.

The CALGreen Code encourages local governments to adopt more stringent voluntary provisions, known as Tier 1 and Tier 2 provisions, to further reduce emissions, improve energy efficiency, and conserve natural resources. If a local government adopts one of the tiers, the provisions become mandates for all new construction within that jurisdiction.

Building Energy Efficiency Standards

The 2019 Building Energy Efficiency Standards is a portion of the CBSC (CCR Title 24, Parts 6 and 11) that expands upon energy efficiency measures from the 2016 Building Energy Efficiency Standards. As compared to standards structures built under the 2016 Standards, operation of residential structures built under the 2019 Standards would consume seven percent less energy, while commercial structures would consume 30 percent less energy. Energy reductions relative to previous Building Energy Efficiency Standards would be achieved through various regulations including, but not limited to, requirements for the use of high efficacy lighting, improved water heating system efficiency, and high-performance attics and walls.

Fleet Rule for Transit Agencies

On December 14, 2018, the CARB unanimously approved the Innovative Clean Transit regulation. The Innovative Clean Transit regulation requires transit agencies to begin transitioning existing fleets to zero-emission vehicles, and requires that future vehicle purchases be zero-emission vehicles. The result of the Innovative Clean Transit regulation will be that by 2040, all transit vehicles within California will be zero-emissions vehicles.

Local Regulations

The following are the regulatory agencies and regulations pertinent to the proposed project on a local level.

Sacramento Metropolitan Air Quality Management District

Various local, regional, State and federal agencies share the responsibility for air quality management in Sacramento County. The Sacramento Metropolitan Air Quality Management District (SMAQMD) operates at the local level with primary responsibility for attaining and maintaining the federal and State Ambient Air Quality Standards (AAQS) in Sacramento County. The SMAQMD is tasked with implementing programs and regulations required by the FCAA and the California Clean Air Act (CCAA), including preparing plans to attain federal and State AAQS. The SMAQMD works jointly with the USEPA, CARB, SACOG, other air districts in the Sacramento region, county and city transportation and planning departments, and various non-governmental organizations to improve air quality through a variety of programs. Programs include the adoption of regulations, policies and guidance, extensive education and public outreach programs, as well as emission reducing incentive programs.

Nearly all development projects in the Sacramento region have the potential to generate air pollutants and GHG emissions. Therefore, for most projects, evaluation of air quality and GHG emissions impacts is required to comply with CEQA. In order to help public agencies evaluate air quality impacts, the SMAQMD has developed the Guide to Air Quality Assessment in Sacramento County.¹⁴ The SMAQMD's guide includes recommended thresholds of significance, including mass emission thresholds for construction-related and operational GHG emissions as well as GHG emissions from stationary sources. Projects resulting in emissions in excess of the SMAQMD's mass emissions thresholds are required to implement all feasible mitigation to reduce GHG emissions.

¹⁴ Sacramento Metropolitan Air Quality Management District. *Guide to Air Quality Assessment in Sacramento County*. Adopted December 2009. Updated September 2018.

Elk Grove CAP

The City of Elk Grove adopted their CAP in February of 2019. The CAP identifies means through which the City can achieve the State targets discussed above, and provides reduction strategies to reduce the City's annual per capita GHG levels. The CAP corresponds with the City's General Plan through key goals and policies, primarily "GOAL NR-5: Reduced GHG Emissions that Align with Local, State, and Other Goals." Therefore, consistency with the Elk Grove CAP would also imply consistency with the Natural Resources Element of the General Plan. Some reduction strategies proposed in the Elk Grove CAP include the following:

- BE-1. Building Stock: Promote Energy Conservation by residents and businesses in existing structures in close coordinated with other agencies and local energy providers, including SMUD and PG&E.
- BE-7. Building Stock: Promote installation of on-site solar PV systems in existing residential and commercial development.
- RC-1. Waste Reduction: The City shall facilitate recycling, reduction in the amount of waste, and reuse of materials.
- TACM-9. EV Charging Requirements: Adopt an EV charging station ordinance that establishes minimum EV charging standards for all new residential and commercial developments.

Galt CAP

The City of Galt adopted a Citywide CAP in 2020. The Galt CAP provides recommended measures to reduce GHG emissions throughout the City. Compliance with the Galt CAP, once finalized, would correspond with compliance with State and federal emissions goals. Some of the reduction measures featured in the Galt CAP include:

- Transportation Measure 2. In consultation with South County Transit and SACOG, the City of Galt shall seek to upgrade existing infrastructure for alternative transportation and require new development to include infrastructure for alternative transportation with a specific focus on accommodating the continued use of public transit within the City of Galt.
- Land Use Measure 3. The City of Galt shall seek funding for the preparation of an Urban Tree Management Plan.
- Building Efficiency Measure 2. The City of Galt shall seek to phase in the zero-net energy (ZNE) requirements for residential development by 2020 and commercial development by the year 2030.

Sacramento County CAP

Sacramento County began work on a CAP in 2016, and is currently working to finish the community-wide document.

3. REGIONAL IMPACTS OF CLIMATE CHANGE

This chapter discusses the means in which climate change is expected to impact the southern Sacramento County region, and how these changes could subsequently impact the Cosumnes CSD.

3.1 AREAS OF POTENTIAL IMPACTS

Executive Order S-13-08 directed the Natural Resources Agency to prepare a climate adaptation strategy identifying the potential risks to California posed by climate change.¹⁵ The initial climate adaptation strategy was prepared in 2009, with updates published in 2014 and 2018. The 2018 publication from the Natural Resources Agency titled *Safeguarding California Plan: 2018 Update*, known as the Safeguarding California Plan, is the most recent climate adaptation strategy.¹⁶

The Safeguarding California Plan focuses on the increasingly visible effects of climate change, with specific focus on how climate change is currently impacting, and will continue to impact, some of California's most valuable assets. While many of the climate change impacts identified in the Safeguarding California Plan act on a statewide or global scale, this section of the CAP/SAP will focus on those impacts that could directly impact the Cosumnes CSD and the service population. Based on the Safeguarding California Plan, global climate change will cause the following modifications to local conditions:

1. More intense and frequent heat waves.
This could impact:
 - irrigation requirements in parkland and outdoor spaces;
 - biodiversity in wildland spaces;
 - cancellation of programs and events;
 - expenditures required to keep Cosumnes CSD facilities cool; and
 - increased demand on emergency services to respond to incidences of heat exhaustion and heat stroke.

2. More intense and frequent drought, shrinking snowpack, less precipitation.
This could impact:
 - irrigation requirements in parkland and outdoor spaces;
 - biodiversity in wildland spaces;
 - water availability for Cosumnes CSD facilities, including spray-parks, aquatic centers, and fire services; and
 - the cost of potable water leading to fiscal impacts to the Cosumnes CSD's operating budget.

3. More severe and frequent wildfires.
This could impact:
 - biodiversity in wildland spaces;

¹⁵ State of California, Office of Governor Arnold Schwarzenegger. *Executive Order S-3-08*. November 14, 2008.

¹⁶ State of California, Natural Resources Agency. *Safeguarding California Plan: 2018 Update*. January 2018.

- demand for fire protection services through mutual aid agreements;
- the cost of water for fire suppression;
- cancellation of programs and events;
- the cost associated with hiring and training additional staff, especially fire personnel; and
- increased demand for emergency services to respond to community members impacted by asthma and other acute respiratory health impacts.

The foregoing changes are expected to directly influence the activities and services offered by the Cosumnes CSD, as well as the public health of those within southern Sacramento County. The specific regional impacts are discussed in further detail below.

Landscape Irrigation Demands

A likely result of climate change is increased temperatures in the Cosumnes CSD's Service Area. In general, as temperatures increase, the water demand for irrigation of plants increases proportionally.¹⁷ The Sacramento County Water Agency's Urban Water Management Plan anticipates that demand for water deliveries will increase between three and nine percent to meet increased demand due to higher irrigation demands.¹⁸ Although increased temperatures will drive increases in water demand, such increases may be tempered by increased proliferation of efficient irrigation systems and controls. For instance, a recent study of irrigation in nearby Yolo County demonstrated that despite an anticipated 30 percent increase in water demand due to climate change, a mixture of altered plant choice and increased water use efficiency through improved irrigation technologies could allow for irrigation demand to achieve a 12 percent decrease from existing levels.¹⁹

The information provided above depicts both the challenge and opportunity facing the region due to increased temperatures and on-going irrigation demands. In terms of future operational water demands from the Cosumnes CSD, the combined effect of increased demand due to rising regional temperatures and reduced demand due to changes in species selected for planting and improved irrigation efficiency could not be determined in this analysis. Thus, the growth in water demand anticipated in this CAP/SAP is based solely on the Cosumnes CSD's anticipated rate of increase in the number of facilities. As local documents such as Urban Water Management Plans are produced that provide more in-depth information regarding changes in irrigation demand in the Cosumnes CSD's service area, future iterations of this CAP/SAP will likely be able to refine this analysis.

Changes to Water Resources

Water is of crucial importance to everyday life and influences all facets of the Cosumnes CSD's operations. Potential impacts on water supply due to changes in precipitation are discussed in further depth below.

The Elk Grove Water District, Sacramento County Utilities, and the City of Galt Public Works Department provide water that is used by the Cosumnes CSD. All of the foregoing water

¹⁷ U.S. Department of the Interior, Bureau of Reclamation. *Sacramento and San Joaquin Rivers Basin Study*. March 2016.

¹⁸ Sacramento County Water Agency. *2015 Urban Water Management Plan*. June 2016.

¹⁹ Mehta, Vhisal K.; Haden, Van R.; Joyce, Brian A.; Purkey, David R.; Jackson, Louise E. *Irrigation Demand and Supply, Given Projections of Climate and Land-Use Change, in Yolo County, California. Agricultural Water Management, Volume 117* [pages 70-82]. January 31, 2013.

conveyors rely upon groundwater from the Cosumnes Subbasin (DWR Groundwater Basin Number 5-22.16) of the San Joaquin Valley Groundwater Basin as the sole source of domestic potable water for current and future water demand. Groundwater in the Cosumnes Subbasin is recharged by seepage from surface waters flowing from the Sierra Nevada, such as the Cosumnes River, the Mokelumne River, Dry Creek, and Skunk Creek. In turn, the foregoing waterways rely predominantly on precipitation and snowmelt within their respective watersheds for flow. In areas outside of the direct influence of the Cosumnes River, historic groundwater pumping has led to declining groundwater levels within the subbasin; however, the basin has experienced certain periods of significant recovery of groundwater levels. Fluctuations between groundwater decline and recovery have occurred in response to precipitation patterns within the Central Valley. For instance, during the drought of 1987-1992, water levels declined within the subbasin by 10 to 15 feet, before recovering by 15 to 20 feet during the non-drought years of 1993 through 2000.²⁰ Thus, the amount of groundwater recharge within the Cosumnes Subbasin can be seen to respond to fluctuations in surface water seepage, which is affected by the amount of precipitation within the region. Considering the link between precipitation and groundwater levels and the current reliance on groundwater to meet potable water demand, local water supply is dependent on climactic trends and precipitation patterns within the State. It should be noted that water supplies derived from surface water resources in the State are similarly dependent on climactic trends and precipitation patterns.

Although uncertainty exists regarding the specific outcomes of climate change on precipitation patterns within the State, scientists agree that climate change will alter the hydrologic patterns within the State. In particular, climate change is anticipated to affect the frequency, magnitude, and duration of extreme weather events, and result in declining snowpack, as well as more frequent, and longer droughts.²¹ Furthermore, an increased proportion of winter precipitation is anticipated to fall as rain, rather than snow, and the snow that does accumulate is anticipated to melt earlier in the year. The combined effect of less overall snowfall and earlier melting will be a change in the timing and volume of snowmelt, which will alter streamflow. Such changes to precipitation regimes could result in reduced or irregular groundwater recharge within the Cosumnes Subbasin. Should groundwater recharge be altered, the portion of the Cosumnes Subbasin that supplies water to the Cosumnes CSD would experience declines in groundwater levels, which would have the potential to result in changing groundwater quality and availability of water supplies.

In terms of Cosumnes CSD facilities, the Cosumnes CSD requires potable water for sinks, toilets, and drinking fountains in the buildings, and water for irrigating landscaped areas. In addition, the Cosumnes CSD requires water to irrigate vegetation at most parks, Emerald Lakes Golf Course, baseball and softball fields, soccer fields, landscaped areas at Cosumnes CSD-owned facilities and fire stations, trails, landscape corridors, roadway medians, and more. Properly maintained sports, golf and play fields require healthy, even grass cover and appropriate water application and drainage to ensure their viability for continued use by patrons. As heat waves pass through the southern Sacramento County region, a higher volume of water would be required to sustain healthy grasses on sports fields and healthy vegetation in landscaped areas. During future droughts, the water level in the Cosumnes Subbasin is expected to deepen, which could lead to increase costs of water collection. The increased demand for water compounded with decreased

²⁰ California Department of Water Resources. *San Joaquin Valley Groundwater Basin Cosumnes Subbasin; Bulletin 118*. Updated February 03, 2006.

²¹ State of California, Natural Resources Agency. *Safeguarding California Plan: 2018 Update*. January 2018.

water availability could present an expensive challenge for the Cosumnes CSD, and require reductions in water usage.

In addition to the water demanded by the recreation and landscaping facilities discussed above, the fire protection services provided by Cosumnes CSD are almost entirely dependent on water resources to perform fire response. Protection of public health is currently, and will remain, the highest priority for water use within the Cosumnes CSD's jurisdictional area. As such, future droughts or water shortages are not anticipated to substantially curtail the availability of water for fire suppression; however, should water supplies overall become more constrained, the Cosumnes CSD could face restrictions on training activities or increased difficulty in obtaining adequate amounts of water for fire prevention and response.

Decline in Biodiversity

The Cosumnes CSD manages approximately 1,000 acres of parks, corridors, and nature trails. The success of the Cosumnes CSD's Parks and Recreation Department relies heavily on the health of the local natural environment.

Biodiversity refers to the variety of living things in an ecosystem, including plants, animals, microbes, habitats, and even genetic diversity within a species. A diverse ecosystem is considered to be a robust and resilient ecosystem. Genetic diversity allows organisms to adapt to their environment as the environment changes or new diseases come into play. In addition, humans often depend on biodiversity in local parklands and open space areas for spirituality, inspiration, aesthetic enjoyment and recreation.²² Humans also benefit from the ecosystem services provided by biodiverse habitats, which include nutrient cycling, pollination, air purification, stormwater control, and others.

Climate change can cause a decline in biodiversity by altering the availability of water and nutrient resources, creating an environment suitable for new plant and animal diseases, and leading to a decrease in the overall resilience of ecosystems. A warming earth can also cause plants to flower earlier in the year and shift the timing of bird migration, which can subsequently affect other inter-related natural processes.²³

A decrease in biodiversity could mean that fewer species are able to survive in southern Sacramento County, including the Cosumnes CSD parks and open spaces. The anticipated decrease in biodiversity could lead to increased expenditures by the Cosumnes CSD if, for example, trees require frequent removal or replacement or flowers require seasonal replanting due to changes in the prevalence of pest populations or the spread of new botanical diseases. Not only would a decrease in biodiversity require increased spending by the Cosumnes CSD to support landscaping, but a decrease in biodiversity could also reduce the aesthetic value of Cosumnes CSD's park facilities.

Increased Demand for Fire Protection Services

A warmer and drier climate would increase the frequency and intensity of fires within the region.²⁴ An increase in the frequency and severity of wildfires would create an increased demand for fire

²² United Nations Environment Programme. *Global Environment Outlook GEO4 Environment for Development*. 2007.

²³ Center for Health and the Global Environment at Harvard Medical School. *Biodiversity: Its Importance to Human Health*. 2002.

²⁴ National Oceanic and Atmospheric Administration. *The Impact of Wildfires on Climate and Air Quality*. 2019.

services, which are provided by the Cosumnes CSD to locations within the District as well as through mutual aid agreements with other jurisdictions and agencies.

More frequent and intense fires can threaten communities across the State, whether in heavily forested regions or regions surrounded by grassland. Recent grassland fires within the Sacramento Valley have caused evacuations of residents. For instance, in 2019, grassland fires in proximity to the City of Fairfield quickly forced the evacuation of residents. Both the cities of Elk Grove and Galt are bordered by mixtures of agricultural land and grassland that could be subject to such fire risks. Furthermore, both cities contain riparian corridors that include thick vegetation in close proximity to existing developments. Prolonged drought would result in increased vulnerability of such vegetation corridors to fire, which would pose immediate risks to structures and residents within each city. The potential for riparian and grassland vegetation to become more vulnerable to fire provides an example of how the impacts of climate change can interact to increase potential impacts. An increase in forest fires in surrounding areas in Northern California would also severely impact the Cosumnes CSD's fire resources due to mutual aid relationships between the Cosumnes CSD and surrounding jurisdictions as well as the California Department of Forestry and Fire Protection (CalFire).

Increased demand for fire protection would apply economic pressure on the Cosumnes CSD. The Cosumnes CSD could be required to hire more staff members and potentially expand facilities or incur increased expenses related to personnel overtime in order to adequately respond to emergency situations. More frequent demand for fire protection services could also require more frequent use of water, thereby increasing water demand and the required purchase of water. This potential increase in water demand would occur in tandem with increasingly stressed and constrained supplies.

Wildfires also have a negative impact on air quality, and can emit substantial amounts of volatile organic compounds as well as particulate matter. Inhalation of these toxicants can have a detrimental effect to the general public, but also to the first responders at the Cosumnes CSD. Youth sport games and practices and other outdoor events could be cancelled or postponed in the event of bad air quality days due to fire, which has adverse implications for the Cosumnes CSD's Parks and Recreation Department. Decreased air quality most severely impacts individuals with existing respiratory ailments, such as asthma, and can result in increased demand for emergency services from individuals within the communities served by Cosumnes CSD.

Increased risk of fire in populated areas also entails the risk of fire damage to Cosumnes CSD-owned facilities. Not only could nearby fires pose a risk to human safety, but could be costly if Cosumnes CSD property were to be damaged.

Economic Disadvantages

As discussed above, an increased demand for fire protection services is anticipated to increase operating costs of the Cosumnes CSD. The Fire Department may require additional funding for the expansion of facilities, new equipment, additional employee salaries, employee overtime, and new employee training.

In addition, the expected variability in water supply could increase the price of water. The Cosumnes CSD relies on water for fire protection, landscaping, irrigating public parks, and for use in buildings. Coupled with warmer temperatures, outdoor plants and sports fields would require more frequent and higher-volume watering, further increasing the volume of water that would be

purchased. In addition, warmer temperatures and future heat waves would require more intensive use of air conditioning in Cosumnes CSD facilities, which could exacerbate the cost of facilities maintenance.

Impacts to Public Health and Recreational Programs

Climate change poses multiple threats to public health including risks related to extreme heat events and declining air quality. Increases in average and maximum air temperatures would contribute to increased risk of dehydration, heat exhaustion, heat stroke, and other heat related illnesses throughout southern Sacramento County.

The California Energy Commission and University of California Berkeley have developed the Cal-Adapt tool to help local agencies and the public identify and understand the potential impacts of climate change on a local scale.²⁵ A useful way of understanding potential impacts resulting from climate change is by comparing anticipated conditions with conditions from a baseline period in the past. For instance, Cal-Adapt allows for the comparison of extreme heat events during the period of 1961 to 1990 with anticipated extreme heat events from the years 2045 to 2055. According to Cal-Adapt, the Cities of Galt and Elk Grove, which are within the Cosumnes CSD boundaries, experienced an average of four days per year and seven days per year, respectively, with temperatures above 101.6 degrees Fahrenheit. However, due to climate change induced increases in extreme heat events, between the years 2045 and 2055, the City of Galt is anticipated to experience an average of 24 days above 101.6 degrees Fahrenheit per year, and the City of Elk Grove is anticipated to experience an average of 22 days above 101.6 degrees Fahrenheit per year. The substantial increase in the frequency of extreme heat events in Galt and Elk Grove can be extrapolated to include the entire Cosumnes CSD service area.

In addition to the direct physical impacts that can occur due to excessive heat exposure, higher temperatures have the potential to degrade air quality, which can affect the respiratory health of residents. Higher temperatures increase the formation of unhealthy air pollutants such as ozone and particulate matter; thus, while the emission of pollutants may remain constant, the quality of the air is still degraded due to the increased formation of harmful air pollutants. Ozone and particulate matter contribute to a variety of health problems such as asthma, acute respiratory diseases, cardiovascular diseases, and decreased lung capacity.

Groups vulnerable to the negative health effects of poor air quality include infants, the elderly, and people exercising or recreating outdoors. Young athletes may prove to be especially vulnerable, as young adults typically perceive themselves to be healthier and more resilient, and because negative impacts of poor air quality may not express themselves immediately, athletes may wrongly assume that poor air quality is not affecting their health. In reality, impacts of poor air quality can increase with long-term exposure, and may not manifest immediately upon initial exposure. Consequently, any resident that works, recreates, or spends any substantial amount of time outside would be impacted by decreased air quality.

Air quality and heat waves could have a substantial impact on the Cosumnes CSD's Parks and Recreation Department. The department organizes youth and adult sports leagues, summer camps, and other outdoor activities. In the event of a significant heat wave or poor air quality day, recreational events could be cancelled. Not only would this effect public health and happiness, but also Cosumnes CSD revenue. Poor air quality could influence the ability of park staff to perform outdoor tasks, such as routine maintenance. In addition, most of the staff working within

²⁵ California Energy Commission. *Cal-Adapt*. Available at <https://cal-adapt.org/>. Accessed March 2020.

the Golf and Operations Division spend a majority of their time working outside and could be affected by changes in air quality and temperature.

Conclusion

Many members of the community rely on the Cosumnes CSD for access to natural spaces, sports and recreation facilities, and fire protection. Each component could be impacted by global climate change, and the Cosumnes CSD has made a decision to take action. The sections above outline some of the potential impacts that could occur in individual areas of the Cosumnes CSD's operations. Although the potential impacts are discussed independently, it is crucial to realize that effects of climate change may not be felt in isolation and may be exacerbated by issues not related to climate change. The additive nature of potential impacts is clearly illustrated by the events of the spring and summer of 2020. For instance, in August of 2020, the State as a whole was faced with an unprecedented heat wave that led to rolling electricity black outs and flex alerts. Although SMUD was not subject to rolling black outs during 2020, SMUD customers may be subject to rolling black outs in the future. Rolling black outs would constrain the ability of cooling centers to operate, which affects any resident seeking relief from the heat at a Cosumnes CSD operated cooling center. The challenge of rolling black outs and extreme heat was compounded by the difficulty of protecting public and employee health during the non-climate change related global COVID-19 pandemic, which had already forced the shutdown of many Cosumnes CSD facilities and recreation programs. At the same time that the Cosumnes CSD was meeting the challenge of providing adequate and safe cooling centers, California experienced an unprecedented wave of wildfires (while the COVID-19 pandemic is not a consequence of climate change. Cosumnes CSD's Fire Department was called on by the California Office of Emergency Services to aid responses to multiple wildfires. This constellation of events represents a combined threat to the health and safety of Cosumnes CSD employees and the community, an unprecedented challenge to the recreation services provided by the Cosumnes CSD, and a stark example of the dire consequences that unchecked climate change presents to the future of the Cosumnes CSD.

Considering the potential impacts of climate change on water supply, biodiversity, fire safety, economic growth, public health, and other resources of public interest, the State has enacted various laws in an attempt to curb such impacts of climate change. Laws including AB 32, SB 97, SB 375, and SB 32 establish statewide efforts to reduce GHG emissions in order to avoid the anticipated effects of climate change. In an effort to work towards achieving the emissions reductions required by the foregoing State laws and various executive orders, the Cosumnes CSD is doing its part to protect environmental health, human safety, and prosperity within the region. Such actions, taken on a community level, will work in concert with the actions taken by the County, the State, and the vast majority of countries on earth, to reduce the threat of climate change. While reducing Cosumnes CSD emissions and increasing sustainability through implementation of this CAP/SAP would serve to ultimately reduce some of the impacts of climate change, this CAP/SAP further seeks to provide a means of adapting the Cosumnes CSD's operations to the climate change related impacts that are already occurring, to ensure that the Cosumnes CSD can continue to provide services to the community.

4. EMISSIONS QUANTIFICATION

The following sections of this chapter will present the methodology used to estimate emissions related to Cosumnes CSD operations. In particular, to estimate future emissions from the Cosumnes CSD, emissions from existing activities must be inventoried and quantified. Following the inventory and quantification of existing Cosumnes CSD emissions, existing planning documents were used to estimate growth in future emissions levels.

4.1 BASELINE EMISSIONS INVENTORY

The baseline GHG inventory was completed using the International Council for Local Environmental Initiative's (ICLEI's) ClearPath software. ClearPath is a suite of tools designed to measure and track GHG emissions within communities in California. Based on user-provided data such as community energy use, vehicle use, water consumption, wastewater treatment, and solid waste generation, ClearPath provides GHG inventories for both the operation of municipal governments and the larger community that such municipalities serve. Due to the availability of data, the year 2018 was used as the basis for the inventory. The Cosumnes CSD's total emissions were estimated to be 5,995 metric tons of carbon dioxide equivalence units (MTCO₂e) for the 2018 inventory year. Table 1 and Figure 6 present a breakdown of the baseline emissions inventory for Cosumnes CSD activities, separated per sector. The following section includes a detailed discussion of each sector: Buildings and Facilities; Vehicle Fleet; Business-Related Travel; Solid Waste; Water and Wastewater; and Process and Fugitive Emissions.

Buildings and Facilities

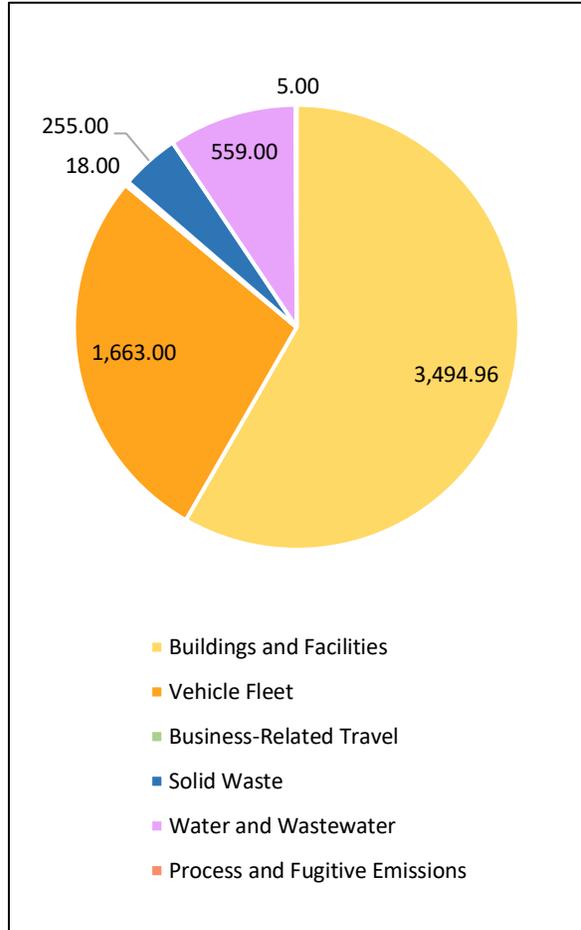
Electricity is required for lighting, appliances, refrigeration, electronics, and other uses in Cosumnes CSD buildings and facilities. Total electricity use in Cosumnes CSD buildings was provided by Sacramento Metropolitan Utility District (SMUD). Based on the SMUD billing records, the Cosumnes CSD used a total of 2,407,645 kilowatt hours (kWh) of electricity throughout the 2018 fiscal year. Although the consumption of electricity does not result in direct GHG emissions within Cosumnes CSD buildings and facilities, the generation of electricity by SMUD does involve GHG emissions at the source. Thus, consumption of electricity results in indirect GHG emissions, which are related to the sources of electricity provided by SMUD. According to the California Energy Commission, SMUD supplied electricity in the year 2018 was derived from 20 percent renewable sources, 26 percent large hydroelectric, and 54 percent natural gas.²⁶ Based on the carbon intensity associated with SMUD's electricity production, the Cosumnes CSD electricity use would result in the emissions of approximately 509.59 MTCO₂e.

Natural gas is typically used in space and water heating appliances and building features. Natural gas use in Cosumnes CSD facilities was estimated using billing information. PG&E charges an average rate of three cents per therm of natural gas sold, which, based on annual billing, suggests approximately 56,086.74 million British thermal units (MMbtu) were consumed by Cosumnes CSD facilities during the inventory year. The consumption of 56,086.74 MMBtu of natural gas equates to roughly 2,973.7 MTCO₂e per year.

²⁶ California Energy Commission. 2018 Power Content Label: Sacramento Municipal Utility District. July 2019.

Table 1 Baseline Inventory Emissions	
Source of Emissions	MTCO_{2e}
Buildings and Facilities	
Natural Gas Generators	0.59
Propane Generators	1.98
Diesel Generators	1.40
SMUD Electricity	514.00
PG&E Natural Gas	2,977.00
<i>Total</i>	<i>3,494.96</i>
Vehicle Fleet	
CSD Gasoline Fleet	371.00
CSD Diesel Fleet	760.00
Procida Landscaping	334.00
Coast Landscaping	158.00
EGP Landscaping Gasoline Fleet	19.00
EGP Landscaping Diesel Fleet	21.00
<i>Total</i>	<i>1,663.00</i>
Business-Related Travel	
Air Travel	18.00
<i>Total</i>	<i>18.00</i>
Solid Waste	
Procida Solid Waste	12.00
Republic Services Solid Waste	243.00
<i>Total</i>	<i>255.00</i>
Water and Wastewater	
Wastewater Collection	274.00
Water Conveyance	285.00
<i>Total</i>	<i>559.00</i>
Process and Fugitive Emissions	
Fertilizer Use	5.00
<i>Total</i>	<i>5.00</i>
Total GHG Emissions	5,995

**Figure 6
Baseline Inventory Emissions
(MTCO_{2e})**



Due to the Cosumnes CSD’s responsibility to provide emergency services to the Cosumnes CSD’s service area, the Cosumnes CSD occasionally uses natural gas-, propane-, and diesel-powered emergency generators for electricity generation when grid-supplied electricity is not available, for instance during power outages. In order to ensure that the Cosumnes CSD’s generators operate properly during power outages, routine maintenance and periodic runs of the Cosumnes CSD owned generators is also required. The Cosumnes CSD keeps a thorough log of emergency generator use. By applying hourly use, fuel type, and horsepower of each piece of equipment, the generators were calculated to result in approximately 3.9 MTCO_{2e} for the 2018 inventory year.

Vehicle Fleet

GHG emissions from the use of vehicles associated with Cosumnes CSD activities were estimated by collecting vehicle use data (i.e., fuel type, miles driven, miles per gallon) from Cosumnes CSD-owned cars and trucks, as well as landscaping vehicles that are hired for maintenance of Cosumnes CSD facilities. Emissions from Cosumnes CSD-owned vehicles as well as those vehicles used under contract for landscaping at Cosumnes CSD-owned facilities were calculated at 1,663 MTCO_{2e} for the inventory year.

Business-Related Travel

According to the International Air Transportation Association, aviation accounts for two percent of global carbon emissions.²⁷ Cosumnes CSD staff are occasionally required to use air travel to commute to conferences and meetings. Employee air travel was estimated to produce approximately 18 MTCO_{2e} in 2018.

Solid Waste

For this analysis, solid waste refers to any garbage, compost, biomass, or other waste that is directed to a landfill. When waste decomposes, landfill gas (primarily CH₄ and CO₂) is released as a natural byproduct of the aerobic and anaerobic breakdown processes.²⁸ While Cosumnes CSD landscaping does generate a large volume of green waste, only solid waste was considered in the baseline inventory because Cosumnes CSD green waste is recycled or composted rather than landfilled. GHG emissions from solid waste generation were estimated to be approximately 255 MTCO_{2e}.

Water and Wastewater

The Elk Grover Water District (EGWD) and Sacramento County Water Agency (SCWA) provide water service to the Cosumnes CSD. Both water districts rely almost entirely on groundwater, which requires electric motors for extraction.²⁹ In addition, electricity is used to carry water along the infrastructure system and into Cosumnes CSD facilities.

The EGWD and SCWA provided the total volume of water purchased by the Cosumnes CSD for the 2018 fiscal year. The Cosumnes CSD purchased 196.6 million gallons (MG) from EGWD, and 567.4 MG from SCWA. The EGWD also provided the total amount of electricity used by the entire EGWD for water collection and distribution. Cosumnes CSD water use accounts for six percent of the EGWD's business and, thus, accounts for 6 percent of the EGWD electricity consumption. Based on the EGWD's total electricity consumption and the proportion of the total water demand attributable to the Cosumnes CSD, water provided by the EGWD results in the consumption of one kWh of electricity per every 527.77 gallons of EGWD supplied water. Due to lack of information availability, the same conversion factor (572.77 gallons/kWh) was applied to the water conveyance system used by SCWA. Based on the Cosumnes CSD's total annual water consumption in 2018 of 764.0 MG, a total of 1,333,821 kWh of electricity use can be attributed to the Cosumnes CSD's water use. Based on the carbon intensity of electricity generation, the electricity use was estimated to result in approximately 285 MTCO_{2e}.

Water for fire protection throughout Elk Grove is provided by the EGWD and SCWA, while water provided within the City of Galt for the same purpose is provided by the City of Galt Public Works Department. Water for fire service in the City of Galt was not accounted for in the water volume listed above because Galt has adopted a CAP that has already accounted for all emissions associated with citywide water consumption.³⁰ In addition, because fire protection services are a public safety necessity, it is not feasible to reduce water consumption as it relates to fire protection. As such, GHG emissions associated with water conveyance from the City of Galt

²⁷ International Air Transportation Association. *Climate Change*. Available at: <https://www.iata.org/en/policy/environment/climate-change/>. Accessed June 3, 2020.

²⁸ Environmental Protection Agency. *Basic Information about Landfill Gas*. Available at: <https://www.epa.gov/lmop/basic-information-about-landfill-gas>. Accessed June 3, 2020.

²⁹ National Groundwater Association. *Background: U.S. Energy Utilization for Groundwater Supply*. February 2017.

³⁰ City of Galt. *City of Galt Climate Action Plan*. February 2020.

Public Works Department is not included in this baseline inventory, but is accounted for by the City of Galt's CAP.

According to Tables WW.15.2 and WW.15.3 of the ICLEI's *Appendix F: Wastewater and Water Emission Activities and Sources*, the median value for wastewater collection energy intensity is 280 kWh/MG, and the energy intensity for a large (>50 MGD) conventional aerobic wastewater treatment facility is 1,400 kWh/MG.³¹ Based on the conservative assumption that all 764.0 MG of water is converted to wastewater, electricity use associated with wastewater conveyance and treatment can be estimated. Wastewater collection would require approximately 213,913.8 kWh, and wastewater treatment would use approximately 1,069,569.2 kWh. Based on the carbon intensity of electricity generation, the electricity use associated with both wastewater collection and treatment was estimated to result in approximately 274 MTCO_{2e}.

It should be noted that the wastewater electricity estimate above does not account for the GHG emissions associated with the actual wastewater treatment process, which involves direct emission of GHGs (such as CH₄ and N₂O) as byproducts of anaerobic metabolism. Because the Cosumnes CSD does not have control over the wastewater treatment process, emissions from the treatment process were not included in the baseline inventory.

Process and Fugitive Emissions

The application of synthetic fertilizer is known to result in off-gassing of GHGs, particularly the high GWP gas, N₂O.³² As part of normal maintenance, fertilizer is applied to Cosumnes CSD landscaped areas. The recorded use of fertilizer by the Cosumnes CSD's subcontracted landscaping companies was calculated to result in approximately 5.09 MTCO_{2e}.

4.2 SERVICE POPULATION PROJECTIONS

The following discussion is based on the Cosumnes CSD's 2018 Parks, Recreation & Facilities Master Plan,³³ Elk Grove General Plan,³⁴ 2030 Galt General Plan,³⁵ City of Elk Grove CAP,³⁶ and City of Galt CAP.³⁷

In order to determine projections for future emissions related to operations of the Cosumnes CSD, the Cosumnes CSD's expected service population growth must be determined. Projections for future emissions will subsequently be used to determine emissions reductions goals in this CAP/SAP. The Cosumnes CSD Parks and Recreation Department services Elk Grove and unincorporated portions of southern Sacramento County. Therefore, as the populations of Elk Grove and unincorporated southern Sacramento County grow, the demand for parks and recreational facilities will also grow. In addition, the Cosumnes CSD Fire Department serves the cities of Elk Grove and Galt and unincorporated portions of southern Sacramento County. As the populations of such areas grow, demand for fire protection services is expected to grow as well. Overall, the projected increase in demand for parks, recreational facilities, and fire protection

³¹ ICLEI – Local Governments for Sustainability USA. *U.S. Community Protocol for Accounting and Reporting of Greenhouse Gas Emissions Appendix F: Wastewater and Water Emission Activities and Sources Version 1.1*. July 2013.

³² Millar, N., Doll, J.E., & Robertson, G.P. *Management of Nitrogen Fertilizer to Reduce Nitrous Oxide Emissions from Field Crops*. October 19, 2015.

³³ Cosumnes Community Services District. *Plan for Play: Parks, Recreation & Facilities Master Plan*. 2018.

³⁴ City of Elk Grove. *City of Elk Grove General Plan*. December 2019.

³⁵ City of Galt. *2030 Galt General Plan Policy Document*. April 2009.

³⁶ City of Elk Grove. *City of Elk Grove Climate Action Plan: 2019 Update*. February 2019.

³⁷ City of Galt. *City of Galt Climate Action Plan*. February 2020.

services are a function of population growth within the Cosumnes CSD service area. The following sections discuss the expected growth of the two sectors of the Cosumnes CSD (i.e., the Parks and Recreation Department and the Fire Department), separately. To maintain consistency with statewide emissions reductions goals as well as the recently adopted CAPs for the cities of Elk Grove and Galt, emissions projections are represented for the years 2030 and 2050.

The following projections are based primarily off of the population data for the cities of Elk Grove and Galt because the two cities represent the majority of growth anticipated in the Cosumnes CSD's service area. It should be noted that southern portions of Sacramento County would be served by the Cosumnes CSD as well. However, location-specific population information was not available for unincorporated Sacramento County, and the population residing in unincorporated Sacramento County that relies on Cosumnes CSD services is expected to be small in comparison with the populations of Elk Grove and Galt. Therefore, population information from unincorporated portions of southern Sacramento County is not included in this analysis.

Parks and Recreation Department

The Cosumnes CSD parks and recreation system is expansive, with more than 1,000 acres of developed parks, trails, and greenbelts. As of 2018, the Cosumnes CSD parks and recreation system included 97 parks, 21 miles of trails, 36 multipurpose sports fields, two aquatic centers, eight recreation buildings, and countless other facilities. The Cosumnes CSD Parks and Recreation Department and hundreds of greenbelts serves a population of approximately 171,059, which is based on the population of Elk Grove. Recreation buildings and maintenance facilities are also part of the Cosumnes CSD parks and recreation system. As the Elk Grove and Sacramento County communities grow, the Cosumnes CSD parks and recreation system will grow concurrently to meet community needs. As noted in the *Parks, Recreation & Facilities Master Plan*, the Cosumnes CSD strives to maintain a ratio of at least five acres of parkland per 1,000 residents.

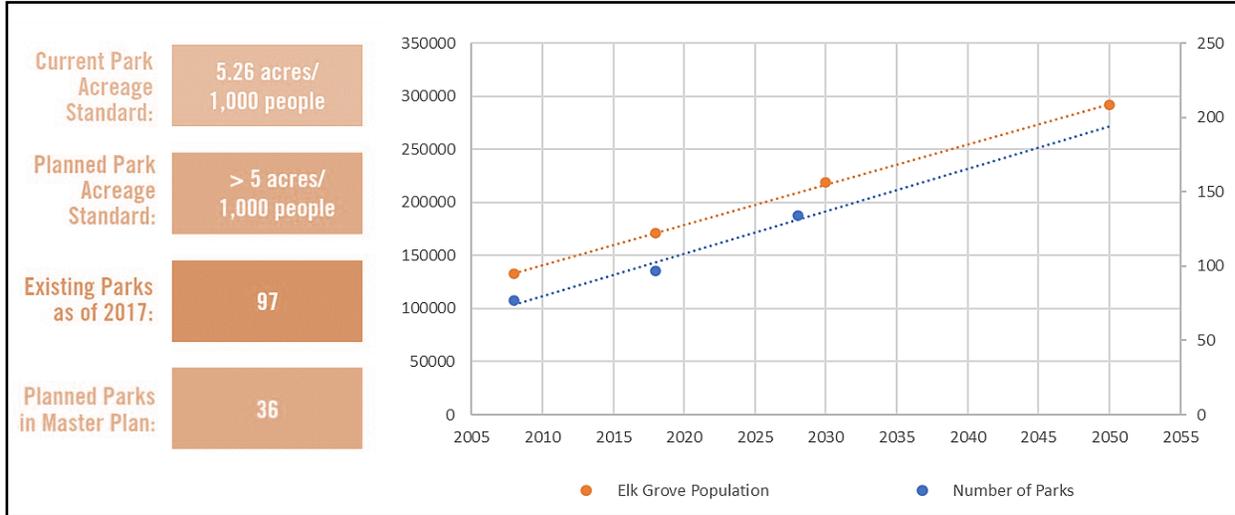
Over the past decade, 20 new parks were developed throughout the Cosumnes CSD. Per the *Parks, Recreation & Facilities Master Plan*, 37 additional parks are planned for development between the years 2018 and 2028. Based on the Elk Grove CAP, the City of Elk Grove is expected to have a population of 218,503 residents by the year 2030, and 291,481 residents by the year 2050. Figure 7 demonstrates the relationship between the population of Elk Grove and the number of Cosumnes CSD park facilities. Based on the population projections for Elk Grove, and the desired level of parkland per resident, the Cosumnes CSD could require approximately 145 parks by 2030, and almost 200 parks by 2050. In addition, the Cosumnes CSD plans to construct a 30,000-sf Community Center by the year 2024.

Fire Department

The Cosumnes Fire Department provides all-hazards emergency response and risk reduction services, including emergency medical services and fire suppression to the cities of Elk Grove and Galt, as well as the surrounding southern Sacramento County communities. Currently, the Cosumnes Fire Department employs 170 personnel and operates eight fire stations, along with a business headquarters office and a training center. As noted in the 2015 *Standards of Cover and Headquarters Services Assessment*, three additional fire stations (Stations 77, 78b, and 79) are proposed for construction in southern Elk Grove.³⁸ In addition, the 2030 Galt General Plan denotes space for two future fire stations on Figure LU-1: Land Use and Circulation Diagram.

³⁸ Citygate Associates, LLC. *Standards of Cover and Headquarters Services Assessment for the Cosumnes CSD Fire Department: Volume 2 of 3 - Technical Report*. May 26, 2015.

Figure 7
Cosumnes CSD Parks and Recreation Department Projected Growth



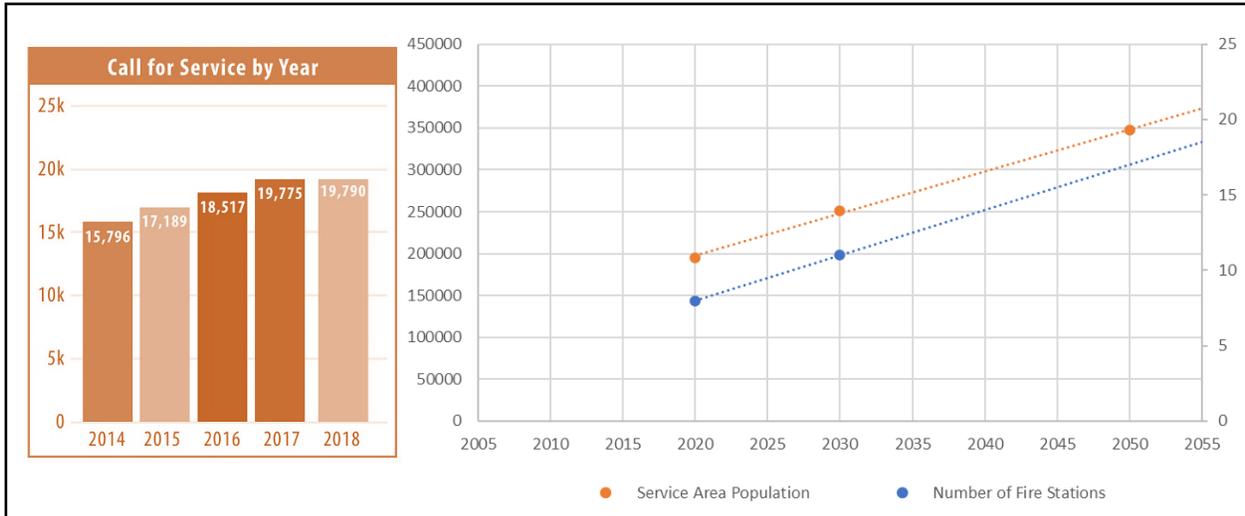
Based on the Galt CAP, the City of Galt is expected to increase to a population of 32,108 residents by the year 2030, and 56,090 residents by the year 2050. When summed with the Elk Grove population projections listed previously, the populations of both cities are anticipated to reach 250,611 residents in 2030, and 347,571 residents in 2050. An increase in residents will inevitably lead to an increase in demand for emergency services. As shown on the left side of Figure 8, Calls for Service have been increasing annually, which is likely a product of service area population growth. On the right side of Figure 8, the relationship between service area population and number of fire stations is represented. As shown in the graph, the demand for fire stations and fire safety personnel is expected to increase as population increases.

4.3 EMISSIONS FORECASTING

Based on the growth anticipated within the Cosumnes CSD service area, future emissions related to Cosumnes CSD activities were estimated for the years between 2018 and 2050. As discussed in Section 4.2, Service Population Projections, the Cosumnes CSD facilities, including parks, recreational facilities, and fire protection facilities, are expected to grow in proportion to the populations of Elk Grove and Galt. Future GHG emissions will be directly related to the operations of the Cosumnes CSD; thus, the projections for growth of the Cosumnes CSD facilities and operations form the basis of the estimated changes in future GHG emissions.

It should be noted that even in the absence of the adoption of a CAP, certain statewide actions are anticipated to lower GHG emissions from common sources, such as electricity generation and vehicle use.

**Figure 8
 Cosumnes CSD Fire Department Projected Growth**



Such statewide actions include, but are not limited to, the RPS program that reduces the carbon intensity of electricity generation, and programs related to AB 1007, which include the Low Carbon Fuel Standard to reduce the carbon intensity of transportation fuels and promote alternatively fueled vehicles.

The foregoing statewide programs would result in demonstrable emissions reductions at a local level. For instance, the State’s recently updated RPS program now requires that all electricity provided to customers by public utilities within the State be sourced solely from renewable sources by the year 2045. Because SMUD is subject to the State’s RPS requirements, electricity consumption within Cosumnes CSD facilities in the years 2045 and beyond will not result in GHG emissions. Considering that electricity consumption represents one of the largest existing sources of GHG emissions from Cosumnes CSD activities, the elimination of such emissions due to implementation of the RPS program would result in the avoidance of a significant amount of GHG emissions. Similarly, statewide requirements for low carbon fuel standards, zero emissions vehicle integration, and vehicle efficiency standards will reduce the rate of emissions from vehicle use by the Cosumnes CSD, regardless of the Cosumnes CSD’s adoption of this CAP/SAP.

The emissions forecast presented below, hereafter referred to as the Business As Usual (BAU) forecast scenario, includes required statewide actions that would reduce GHG emissions in the absence of this CAP/SAP. Figure 9 and Figure 10 depict a comparison of the composition of GHG emissions per sector in 2018 and the expected composition of GHG emissions per sector in 2050 under BAU conditions. Table 2 presents a numerical breakdown of GHG emissions per sector, and the net change compared to the 2018 emissions. The results of the emissions forecast are also presented in Figure 11.

As shown in the figures, the Buildings and Facilities and Vehicle Fleet sectors are anticipated to remain the primary contributors to Cosumnes CSD GHG emissions. As noted above, an increasing proportion of grid-electricity provided by SMUD is required to be generated through renewable sources, with 100 percent of electricity generated by renewable sources after 2045.

Figure 9
2018 Emissions Composition

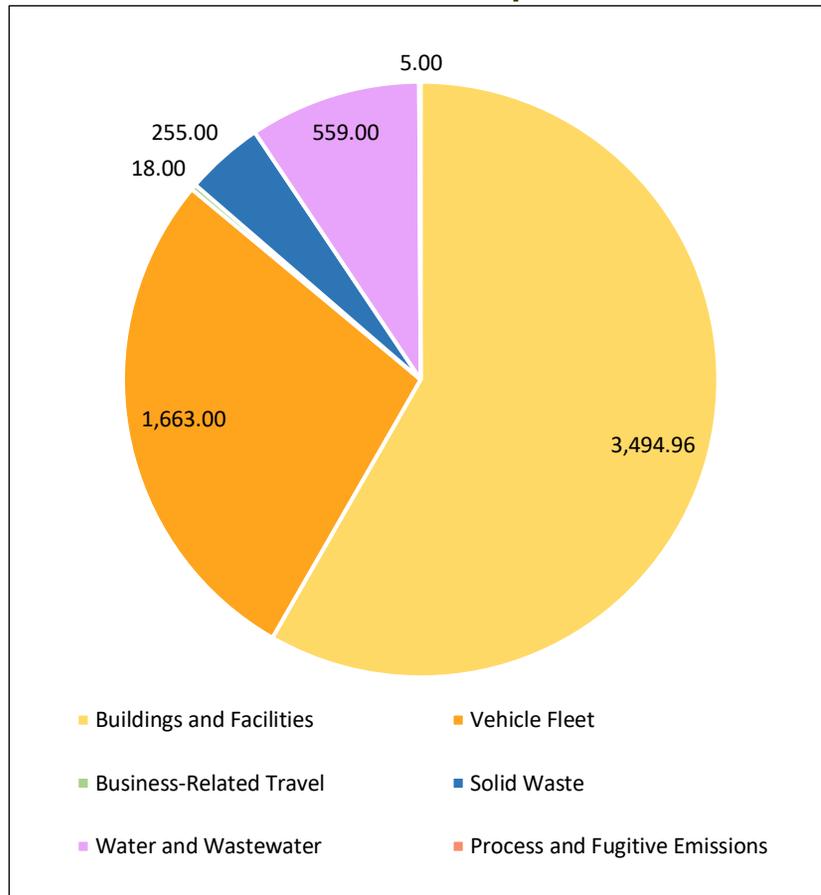


Figure 10
2050 Emissions Composition

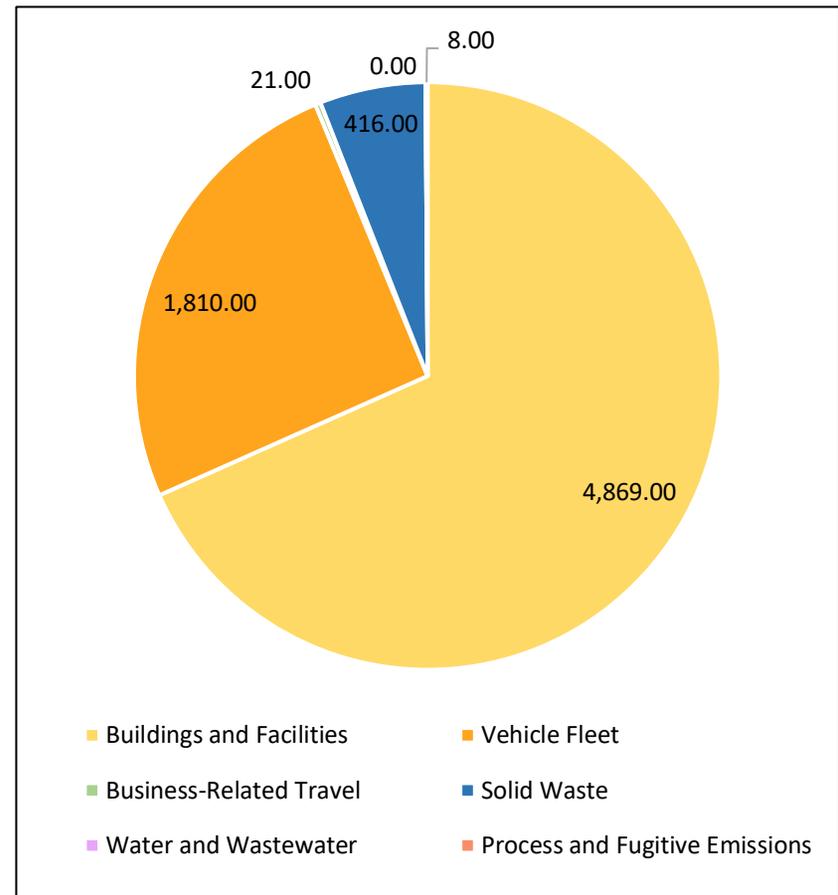
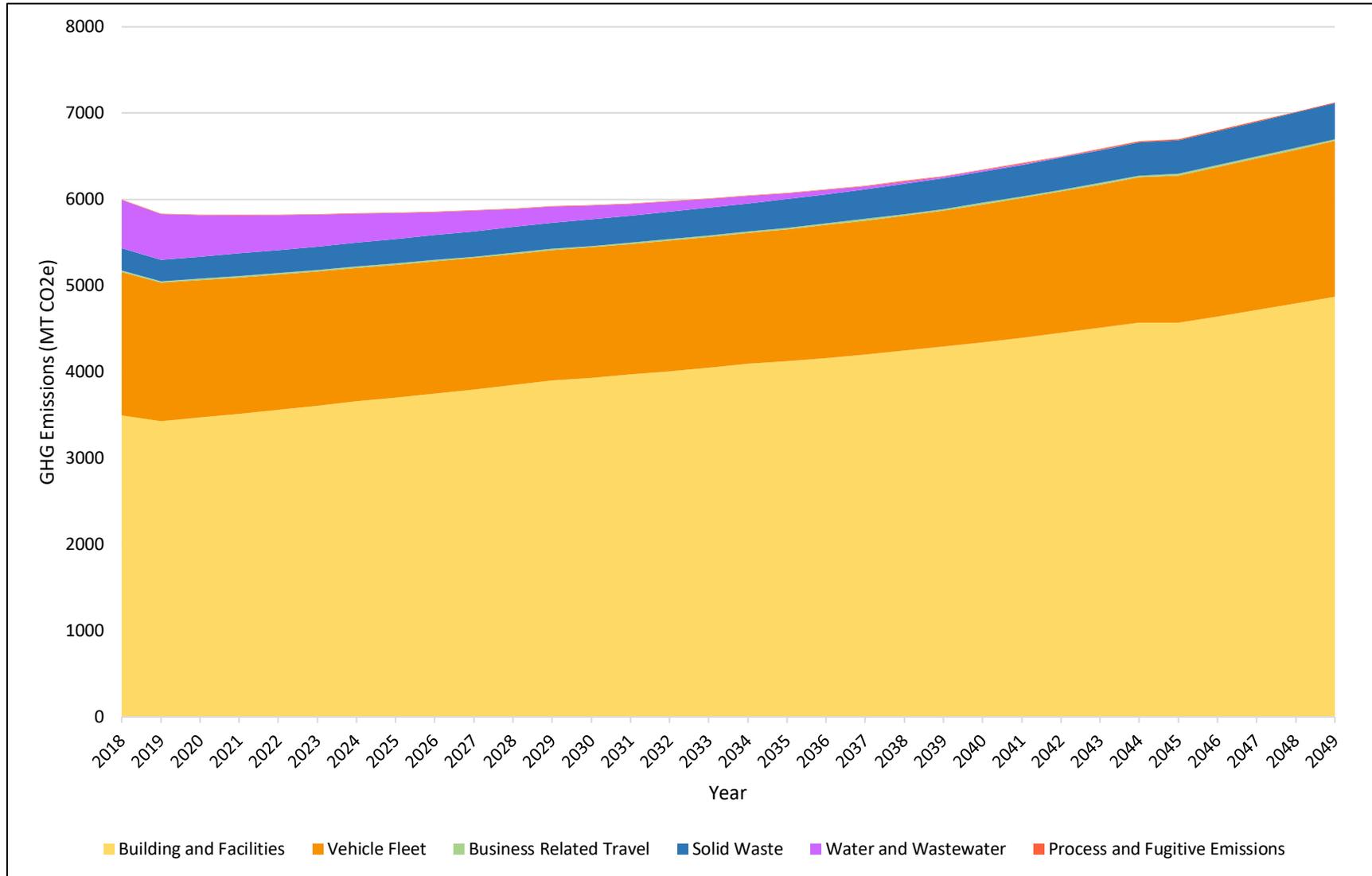


Table 2			
Comparison of GHG Emissions Per Sector			
Emissions Source	GHG Emissions (MTCO₂e)		
	2018	2050	Net Change
Buildings and Facilities			
Natural Gas Generators	0.5851	1	0.4149
Propane Generators	1.9782	3	1.0218
Diesel Generators	1.3981	2	0.6019
SMUD Electricity	514	0	-514
PG&E Natural Gas	2,977	4,863	1,886
<i>Total</i>	3,495	4,869	1,374.0386
Vehicle Fleet			
Gasoline Fleet	882	960	78
Diesel Fleet	781	850	69
<i>Total</i>	1,663	1,810	147
Business-Related Travel			
Air Travel	18	21	3
<i>Total</i>	18	21	3
Solid Waste			
Solid Waste	255	416	161
<i>Total</i>	255	416	161
Water and Wastewater			
Wastewater Collection	274	0	-274
Water Conveyance	285	0	-285
<i>Total</i>	559	0	-559
Process and Fugitive Emissions			
Fertilizer Use	5	8	3
<i>Total</i>	5	8	3
Overall Total Emissions	5,995	7,124	1,129

Figure 11
BAU 2050 Forecast: Emissions Per Sector



Therefore, while overall electricity consumption by Cosumnes CSD facilities would be anticipated to increase with the construction of new facilities (this includes both direct consumption of electricity as well as indirect consumption for instance through the transport and treatment of water), the increased consumption of electricity would not result in increased GHG emissions from the generation of electricity. The net effect of the growth in Cosumnes CSD facilities and the increased generation of electricity through renewable sources is that emissions related to electricity would gradually decrease, and consumption of electricity in the year 2045, and any year thereafter, would not result in any GHG emissions.

However, natural gas is used in buildings for water and space heating as well as various other appliances, and is anticipated to continue to be used in new structures. Each unit of natural gas burned releases a certain amount of GHGs, and the amount of GHG released per unit of natural gas, known as the GHG intensity of natural gas, remains constant into the future (i.e., unlike electricity, natural gas use would not become less GHG intensive into the future). Thus, despite the eventual elimination of GHG emissions from electricity, emissions from the Buildings and Facilities sector would grow due to the continued and increasing consumption of natural gas.

Pursuant to statewide policies, vehicle fuel and emissions efficiency will improve over time, and, as a result, each individual vehicle would leave a smaller carbon footprint in 2050 as compared to in 2018. Despite the State mandated vehicle efficiency improvements, growth in Cosumnes CSD's operations is anticipated to require the expansion of the Cosumnes CSD's vehicle fleet and overall emissions from the entire Vehicle Fleet sector would continue to grow as more vehicles are added to the fleet.

Air travel is expected to become more efficient over time due to technological improvements and lower carbon fuel standards. As such, even as the Cosumnes CSD grows and employs more personnel, GHG emissions from the Business-Related Travel sector would only minimally increase.

Emissions related to solid waste disposal would increase as the Cosumnes CSD expands over time. In 2050, the Cosumnes CSD would manage more parks with more park visitors and more facilities with more personnel, as compared to 2018. The increased operating scale of the Cosumnes CSD would result in more waste generation and, thus, more emissions from the Solid Waste sector. The CO₂ intensity of waste decomposition is not expected to change over time unless technological improvements are applied at the local landfill.

Due to the mandated RPS requirements, the electricity required for water and wastewater conveyance and wastewater treatment would be entirely renewable after 2045. As such, emissions from the Water and Wastewater sector would drop to zero by 2045, despite the overall increase in water demand and wastewater generation.

As Cosumnes CSD-owned parks and landscaped areas expand, a greater volume of fertilizer would be required as part of the standard maintenance procedure. Therefore, the Process and Fugitive Emissions sector would result in slightly more GHG emissions as the Cosumnes CSD grows.

4.4 SETTING REDUCTION GOALS

On June 1, 2005, then-Governor Schwarzenegger signed Executive Order S-03-05, which established statewide GHG emission targets. Specifically, statewide GHG emissions are to be

reduced to year 2000 levels by 2010, 1990 levels by 2020, and to 80 percent below 1990 levels by 2050. The emissions reductions goal for the year 2020 included in Executive Order S-03-05 was legislated in Assembly Bill 32, and Senate Bill 32 legislated an interim goal of reducing statewide emissions by 40 percent below 1990 levels by the year 2030. By establishing an emissions reduction goal for the year 2030, the legislature has affirmed the overall emissions reductions trajectory required by Executive Order S-03-05 for the year 2050.

The foregoing emissions reductions goals are based on emissions from the year 1990; consequently, in order to establish GHG emissions reduction goals for Cosumnes CSD operations, emissions from Cosumnes CSD operations during the year 1990 have been quantified.

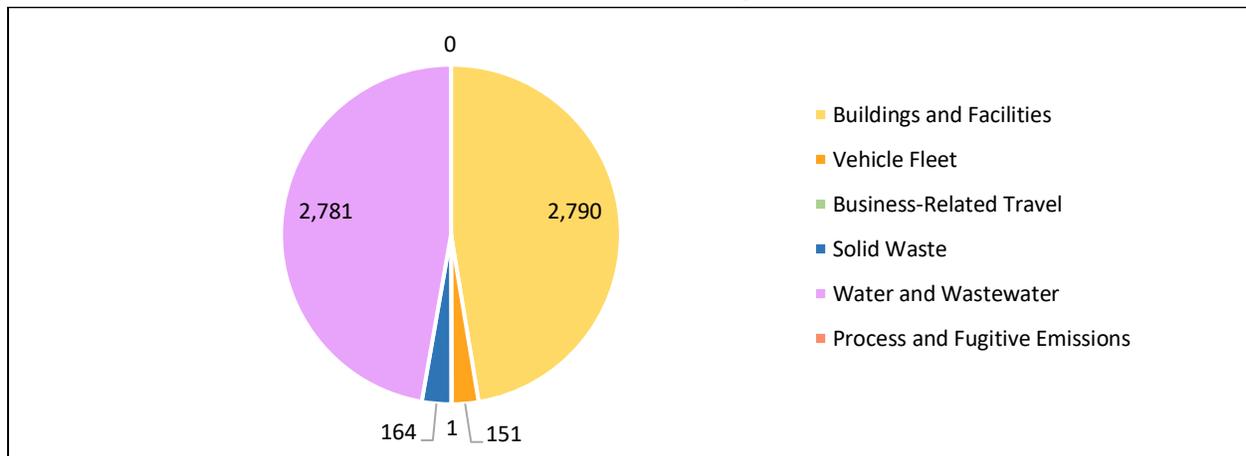
1990 Emissions Quantification

Although detailed data related to current and recent operations of the Cosumnes CSD was available for use in the emissions inventory presented above, data at the same level of detail was not available for operations in the year 1990. Due to the lack of data, emissions in the year 1990 were estimated using similar methodologies as implemented for the projection of emissions in the year 2050. For instance, the Cosumnes CSD's services have expanded in proportion to population growth within the service area since the year 1990. Thus, the population growth rate between 1990 and 2018 within the Cosumnes CSD service area was used to estimate the level of Cosumnes CSD activity in the year 1990.

As previously discussed, existing State legislation and regulations will lead to reductions in GHG emissions related to electricity production and vehicle operations into the future. Inversely, emissions from electricity production and vehicle operations in the year 1990 were comparatively more carbon-intensive than such activities presently. Emissions estimates for the year 1990 were therefore adjusted to compensate for more emission intensive electricity production and less efficient vehicles.

Based on the methodology described above, emissions from Cosumnes CSD operations were determined to equal approximately 5,887 MTCO₂e per year. Figure 12 presents the breakdown of GHG emissions per sector occurring in the year 1990.

Figure 12
1990 Emissions Composition



Per Capita Emissions

As noted previously, statewide GHG emissions reductions goals require that emissions should be reduced as compared to 1990 levels. However, in the case of the Cosumnes CSD, the service population has experienced substantial growth between the period of 1990 and 2018. Table 3 presents the observed and estimated population growth between the period of 1990 and 2050 for the cities of Elk Grove and Galt.

Table 3 Population Trends Elk Grove and Galt			
Year	Location		
	Elk Grove	Galt	Combined
1990	17,483	9,026	26,509
2018	172,886	26,440	199,326
2030	218,503	32,108	250,611
2050	291,481	56,090	347,571
<i>Source: City of Elk Grove Climate Action Plan, City of Galt Climate Action Plan</i>			

Since 1990, operations of the Cosumnes CSD have expanded to meet the demand of the population in Elk Grove and Galt. In addition, the carbon efficiency of electricity generation has also dramatically increased from 1990 to 2018, and will continue to increase through 2045. Emissions from Cosumnes CSD operations have only nominally increased from the 1990 level of 5,887 MTCO₂e per year to the inventoried 2018 level of 5,995 MTCO₂e per year. This minor increase is likely due to the inverse relationship between population growth over time and electricity carbon intensity over time. In other words, although the service population of the Cosumnes CSD has increased almost seven-fold, the carbon intensity of electricity generation has decreased from approximately 312.05 MTCO₂/GWh to only 201.27 MTCO₂/GWh. While consideration of the total emissions is informative, several variables, such as service population and electricity generation efficiency, make it difficult to parse out the efficiency with which the Cosumnes CSD has provided parks, recreation, and emergency services to the Cosumnes CSD's service population.

A metric that better describes the efficiency with which the Cosumnes CSD provides services is the use of per capita emissions rates. Per capita emissions rates are dependent on both the total amount of emissions as well as the total service population. Because per capita emissions rely on both population and total emissions, the per capita emissions rate reveals the amount of GHG emissions released per person regardless of the overall size of the Cosumnes CSD. By focusing on the emissions per person, the per capita emissions rates reveal whether the Cosumnes CSD operations are becoming more or less emissions intensive per person regardless of the overall size of the Cosumnes CSD. Table 4 below presents the per capita emissions rates using the estimated total emissions and the Cosumnes CSD's total service population, in units of MTCO₂e per capita (MTCO₂e/SP).

As shown in Table 4, although the total emissions resulting from operations of the Cosumnes CSD have increased between the years 1990 and 2018, the per capita emissions rate has substantially decreased.

Year	Total Emissions (MTCO ₂ e)	Service Population	Per Capita Emissions (MTCO ₂ e/SP)
1990	5,887	26,509	0.222
2018	5,995	199,326	0.030
2030	5,933	250,611	0.024
2050	7,124	347,571	0.020

Source: ClearPath, June 2020.

Such a pattern indicates that despite expansion of the Cosumnes CSD’s operations between 1990 and 2018, the Cosumnes CSD’s services have become less emissions intensive per person, which can be understood to mean the Cosumnes CSD’s services have become more efficient from a GHG perspective. The trend of decreasing per capita emissions is anticipated to continue through 2050.

Per capita emissions not only provide a metric on how efficiently the Cosumnes CSD is providing services, but also provide a useful link to the Elk Grove and Galt CAPs, as well as the CARB’s 2017 Scoping Plan.³⁹ The CARB’s 2017 Scoping Plan provides a roadmap for meeting the statewide GHG emissions reductions targets. All three of the aforementioned documents use per capita emissions targets as a basis for analysis of citywide emissions in comparison to the statewide GHG reductions goals for the years 2030 and 2050.

Compliance with Statewide Emissions Reductions Targets

In comparison to the statewide reduction goals, the Cosumnes CSD’s per capita emissions in the year 1990 (0.222 MTCO₂e/SP) would need to be reduced by 50 percent in 2030 and by 80 percent in 2050. To comply with the foregoing reductions, emissions in the year 2030 would need to be reduced to 0.111 MTCO₂e/SP, while emissions in 2050 would need to be reduced to 0.044 MTCO₂e/SP. As shown in Table 4, emissions in the years 2030 and 2050 are forecasted to achieve the required reductions regardless of the adoption of this CAP/SAP. The reduction in per capita emissions shown in the projections in Table 4 is largely driven by improvements in the vehicle emissions efficiency, as well as reductions in electricity related emissions. Because the Elk Grove and Galt CAPs are based on compliance with statewide emissions reductions targets, and the Cosumnes CSD’s emissions would comply with statewide emissions reductions targets on a per capita basis, the Cosumnes CSD would comply with statewide reduction goals, and would not interfere with the emissions reduction goals established by the cities of Elk Grove and Galt in their respective CAPs.

Although future Cosumnes CSD operations have been shown to comply with local and statewide emissions reduction goals, the Cosumnes CSD is nevertheless committed to attaining further emissions reductions to achieve a more environmentally and fiscally sustainable operational pattern. Consequently, Chapter 5 of this CAP/SAP presents a detailed review of the existing efforts that the Cosumnes CSD has undertaken to reduce emissions, as well as the recommended reduction strategies that can be implemented to further reduce emissions from the forecasted levels presented in this chapter.

³⁹ California Air Resources Board. *The 2017 Climate Change Scoping Plan Update*. November, 2017.

5. EMISSIONS REDUCTION, SUSTAINABILITY, AND ADAPTATION MEASURES

The following chapter outlines the recommended GHG emissions reduction, sustainability, and adaptation measures.

5.1 EMISSIONS REDUCTION MEASURES

As discussed in Chapter 4 of this CAP, the emissions quantification has shown that due to implementation of statewide policies and regulations related to the reduction of GHG emissions, activities within the Cosumnes CSD are anticipated to comply with the statewide GHG reduction goals set forth in AB 32, SB 32, and Executive Order S-03-05. Nonetheless, the Cosumnes CSD is committed to attaining further emissions reductions to achieve a more environmentally and fiscally sustainable operational pattern.

The following reduction measures have been separated into several sectors based on the emissions estimations performed for the Cosumnes CSD and presented in Chapter 4. For each reduction strategy presented below, specific implementation actions are identified, a review of the Cosumnes CSD's existing efforts, and a quantification to indicate the efficacy of each measure.

Reduction Measure Quantification

To the extent feasible, the efficacy of each reduction measure was quantified independently using the ClearPath software. However, in some cases the parameters of ClearPath did not allow for the individual quantification of reduction measures. As such, some reduction measures may have been grouped and quantified together. In other cases, due to the limitations of the ClearPath software, emissions reductions attributable to some reduction measures, such as Landscape Measure-3, could not be quantified using the ClearPath software and were instead quantified using off-model calculations.

It should be noted that all reduction measures take into account statewide programs that would work to reduce emissions simultaneous to the Cosumnes CSD's efforts. For instance, the State's RPS, which requires increased use of renewable sources of electricity by publicly owned utilities, was included in the ClearPath emissions modeling for all reduction measures as were various programs related to vehicle emissions reductions, such as the State's Low Carbon Fuel Standard and Pavley fuel efficiency requirements. As discussed in Chapter 4 of this CAP, such statewide programs have also been considered during emissions forecasting. Because the emissions reductions from existing statewide programs have already been accounted for in the emissions forecasts, quantification of the following reduction measures was carefully crafted so as not to double-count reductions stemming from the statewide measures.

Although the central focus of this document on reducing GHG emissions, the Cosumnes CSD is deeply concerned with increasing the environmental sustainability of all of its operations. Thus, some of the measures discussed below do not correspond with direct GHG emissions reductions. However, the measures, hereafter referred to as "sustainability measures", otherwise contribute to the sustainability, efficiency, and cost-effectiveness of Cosumnes CSD operations.

All emissions quantifications are presented in Appendix A to this CAP.

Each reduction measure below either reduces GHG emissions or contributes to sustainability of Cosumnes CSD operations. The following symbols are used to represent which sector the reduction measure would affect.



→ **Buildings and Facilities:** GHG emissions related to electricity, indoor and outdoor lighting, natural gas use, etc.



→ **Vehicle Fleet:** GHG emissions related to Cosumnes CSD-owned vehicles.



→ **Business-Related Travel:** GHG emissions related to employee commutes and business-related travel



→ **Solid Waste:** GHG emissions related to waste generation and disposal.



→ **Water and Wastewater:** GHG emissions related to water use, water conveyance, wastewater generation, etc.



→ **Process and Fugitive Emissions:** GHG emissions related to fertilizer use and park maintenance.



→ **Sustainability Measure:** This label is applied to any measure that does not relate to quantifiable GHG emissions reductions, but otherwise contributes to Cosumnes CSD sustainability.



→ **Adaptation Measure:** This label is applied to any measure that contributes to Cosumnes CSD adaptability to climate change.

Building Design Measures

Measure BD-1:



Energy-Efficient Buildings. Improve energy efficiency in Cosumnes CSD buildings and facilities through the following measures:

- a) Encourage innovative site design and building orientations for new construction that incorporate passive and active solar designs and natural cooling techniques. Require all new roofing to include cool roofs in compliance with Tier 2 of the California Green Building Code.
- b) Implement a Cosumnes CSD-wide Energy Efficiency Plan to inventory existing structures and prioritize investment in energy efficiency upgrades. This measure is consistent with Elk Grove CAP measures BE-1 and BE-3.
- c) Establish green building standards for new Cosumnes CSD facilities, either through the California Green Building Code's Tier 1 or Tier 2 standards, the US Green Building Council's Leadership in Energy and Environmental Design (LEED) program, or through participation in SMUD's Integrated Design Solutions Program. This measure is consistent with Elk Grove CAP measure BE-4 and Galt CAP measures BE-1 and BE-2.

The Cosumnes CSD has already made progress towards item a) by installing shade structures at the Emerald Lakes Golf Course, Hal Bartholomew Sports Park, and Wackford Community and Aquatic Complex. Shade structures are useful in preventing urban heat islands, as well as providing UV protection for the people enjoying Cosumnes CSD recreational facilities.

The surface of pavements can reach temperatures up to 90°F hotter than the air on hot and sunny days, which contributes to a concept known as urban heat islands. Urban heat islands refer to developed areas where pavement and rooftops result in temperatures substantially hotter than what would occur in less developed areas. These hot temperatures result in increased energy consumption for air conditioning, human health impacts related to excessive heat, and reduced water quality.⁴⁰ By building shade structures and incorporating cool roofs, the Cosumnes CSD can work towards reducing local urban heat islands.

Items (b) and (c) both relate to energy efficiency standards for new developments. The California Green Building Standards Code, otherwise known as the CALGreen Code (CCR Title 24, Part 11), is a portion of the California Building Standards Code that includes requirements to improve public health, safety, and general welfare by enhancing the design and construction of buildings through the use of building concepts having a reduced negative impact or positive environmental impact and encouraging sustainable construction practices. The CALGreen Code encourages local governments to adopt more stringent voluntary provisions, known as Tier 1 and Tier 2 provisions, to further reduce emissions, improve energy efficiency, and conserve natural resources. Tier 2 includes the most stringent energy efficiency measures. All new Cosumnes CSD buildings and facilities are required to comply with the mandatory CALGreen measures, and it is recommended that new facilities adopt Tier 1 or Tier 2 measures.

Increasing energy efficiency also acts as an adaptation measure by reducing the overall load on grid-supplied electricity. Reducing electricity demand can reduce the likelihood of rolling black outs caused by demand spikes, such as those that occurred in the late summer of 2020. Moreover, where emergency back-up power is required, energy efficient structures can be powered by smaller back-up generators or on-site back-up systems.

Some action items include: improve the efficiency of lighting fixtures (see Measure BD-2), replace natural gas appliances with electric models (see Measure BD-3), reach towards Zero Net Energy in new structures (see Measure BD-4), and promote water efficiency in facilities (see Measure BD-5).

⁴⁰ United States Environmental Protection Agency. *Heat Island Cooling Strategies*. Available at: <https://www.epa.gov/heat-islands/heat-island-cooling-strategies>. Accessed June 18, 2020.

Quantification: By requiring all new developments to comply with green building standards and exceed CALGreen requirements, new buildings would be less emissions-intensive. In fact, for non-residential buildings that use indoor lighting and mechanical systems, which applies to all Cosumnes CSD facilities, compliance with Tier 1 standards would result in a ten percent reduction in energy consumption, and compliance with Tier 2 standards would result in a 15 percent reduction in energy consumption.⁴¹ The GHG emissions reductions from compliance with Tier 1 and Tier 2 provisions is presented below. Because electricity in the year 2050 would not generate GHGs, all GHG emissions from energy used in buildings and facilities would be resulting from natural gas use. As such, the energy reduction required under Tier 1 or Tier 2 would be directly related to a reduction in natural gas use.

Measure BD-1	
Calculation Method	Year 2050 Emissions Reductions (MTCO₂e)
Off-Model – Tier 1	486.3
Off-Model – Tier 2	729.5
Note: See the Appendix A for calculation details.	

Benefit-Cost Analysis: Benefits of this measure accrue in terms of GHG emissions reductions through reduced energy consumption, reduced consumption of natural resources resulting from the reduced demand on natural gas and electricity resources, and reduced costs due to reduced consumption of natural gas and electricity. Costs due to compliance with Tier 1 and Tier 2 are generally related to more expensive building materials and increased design costs. As noted above, compliance with Tier 1 and Tier 2 of the 2019 CALGreen Code result in energy demand reductions of approximately 10 and 15 percent respectively. A statewide analysis was conducted to determine the cost-effectiveness of achieving such reductions in energy demand. Although some areas of the State, notably areas within the San Joaquin Valley and Bay Area, could achieve a 15 percent reduction in energy demand in a cost-effective manner, the study concluded that cost-effective strategies were available to achieve a maximum of 14.7 percent energy demand reductions. Energy reductions in excess of this amount were not deemed cost-effective.⁴² Considering the conclusions of the statewide analysis, designing buildings to achieve levels of energy reduction equivalent to the requirements of Tier 1 of the CALGreen code would provide a **HIGH** benefit to cost ratio. Considering the recommendations of the statewide cost-effectiveness study, achieving the Tier 2 energy reductions requirements is conservatively considered to have a **MEDIUM-LOW** benefit to cost

⁴¹ California Energy Codes & Standards, A Statewide Utility Program. *2019 Reach Codes: Options and Opportunities* [pg 2]. January 30, 2019.

⁴² TRC. *Statewide Nonresidential Reach Code Cost Effectiveness Analysis*. July 2017.

ratio; however, it should be noted that compliance with Tier 2 would result in significant Cosumnes CSD-wide reductions in GHG emissions.

Measure BD-2:



Improve Lighting Efficiency. Convert Cosumnes CSD-owned sports field lighting, parking lighting, and exterior building lighting to energy efficient technologies, such as LED bulbs or solar-powered lighting fixtures. Upgrade interior lighting at all Cosumnes CSD facilities to LED with occupancy sensors, timers, dimmers, and photosensors to increase energy and cost savings.

The Cosumnes CSD has already made progress towards this measure through their Energy Services Contract with ENGIE, formerly known as OpTerra. As part of the ENGIE Energy Services Contract, some Cosumnes CSD interior and exterior lighting fixtures have been replaced with LED bulbs. The majority of indoor lighting in Cosumnes CSD facilities were previously 32- to 34-watt lamps, and the exterior lighting fixtures were high-pressure sodium and metal halide lamps. Several interior and exterior lamps were replaced with LED lamps, and Exit signs were replaced with LED fixtures as well. By improving lighting efficiency, the Cosumnes CSD saved \$46,642.52 in electricity costs in the year 2018.⁴³

Similar to Measure BD-1 this measure would act as an adaptation strategy by reducing the demand on the electricity grid and by allowing for more efficient provision of emergency back-up power.

Quantification: By the year 2050, grid electricity would be generated from entirely renewable sources. Therefore, by 2050, electricity for lighting would not produce any GHGs. Nonetheless, this is a cost-effective sustainability measure.

For informational purposes, the electricity savings per year from lighting upgrades are been presented below.

Measure BD-2	
Sustainability Measure	Electricity Saved per year (kWh/yr)
Interior/Exterior LED Upgrades	281,332
Note: See the Appendix A for calculation details.	

Benefit-Cost Analysis: In the short-term, benefits from this measure would be related to GHG emissions reductions as well as cost-savings. However, given the existing mandates related to electricity production within the State, electricity consumed for lighting will eventually be produced completely from renewable energy sources, and eventually the measure will no longer serve to reduce GHG emissions. Nevertheless, the Cosumnes CSD’s past experience working with

⁴³ OpTerra Energy Services. *Cosumnes CSD and OpTerra Energy Services Contract*. September 1, 2014.

ENGIE has demonstrated that lighting efficiency upgrades experience a **HIGH** benefit to cost ratio.

Measure BD-3:



Limit Natural Gas Use. Reduce the use of natural gas in existing and future Cosumnes CSD-owned facilities. Natural gas use can be reduced by replacing existing natural gas water heaters with all-electric versions, and designing new structures to include solar water heating, heat pumps, and other electricity-based water and space heating devices.

By removing natural gas appliances and devices, buildings would rely solely on electricity, which will be generated from progressively less carbon intensive sources over time. To support increased energy efficiency, SMUD administers various incentive programs for replacement of inefficient appliances in residences and commercial developments. Participation in SMUD programs would promote the replacement of energy inefficient appliances and the replacement of natural gas fueled appliances with comparable electric powered appliances.

The Cosumnes CSD has taken action towards this measure through the ENGIE Energy Services Contract, through which several HVAC systems have been upgraded with more efficient versions. The Cosumnes CSD can continue to take action towards this measure by continuing to upgrade HVAC systems in existing buildings, and limiting the installation of new systems that use natural gas in new buildings. Where natural gas is desired, for instance in large water heating devices where electrical equivalents do not exist or in cooking appliances, eliminating other natural gas appliances, such as natural gas space heating equipment can still provide substantial emissions reductions. For instance, eliminating natural gas use from all but cooking appliances can reduce natural gas usage in new developments by 75 percent.⁴⁴ All-electric equivalents of some large equipment, for instance natural gas and propane water heating systems at the Cosumnes CSD's Wackford Aquatic Complex and Jerry Fox Swim Center, may not yet be commercially available or feasible. Nevertheless, the Cosumnes CSD can investigate the availability of all-electric systems in the future as replacements for existing water heaters are necessary.

Quantification: If the Cosumnes CSD prohibits natural gas use for all systems except for cooking appliances, emissions would be reduced by 3,100.2 MTCO₂e in the year 2050. As noted previously, emissions reductions from compliance with the CALGreen requirements (Measure BD-1) would result from direct reduction in natural gas use. In order to avoid double-counting reduction credits, this measure was considered to apply as an additional 75 percent reduction in natural gas use after

⁴⁴ Sacramento Metropolitan Air Quality Management District. *Greenhouse Gas Thresholds for Sacramento County*. June 1, 2020.

assumed compliance with either Tier 1 or Tier 2 standards. In other words, BD-1 was already assumed to be completed, and the benefits from implementing this measure were applied to the already-reduced values. This calculation method ensures that GHG reduction estimates are conservative and realistic.

Measure BD-3	
Calculation Method	Year 2050 Emissions Reductions (MTCO₂e)
Off-Model – Tier 1	3,282.55
Off-Model – Tier 2	3,100.2
Note: See the Appendix A for calculation details.	

Benefit-Cost Analysis: Natural gas consumption in new and existing Cosumnes CSD operated structures is anticipated to represent the largest single source of GHG emissions into the future (see Table 2). Consequently, this measure provides the greatest potential GHG emissions reductions benefit of all measures included in this CAP/SAP. SMAQMD has previously completed cost-benefit analyses related to the elimination of natural gas appliances in applications such as water heaters, and found that non-natural gas appliances can provide cost-savings, or be cost-competitive with traditional systems in some scenarios.⁴⁵ In addition, the Rocky Mountain Institute has found that constructing all-electric structures is cost-effective in many scenarios.⁴⁶ Although the foregoing studies have shown that reducing natural gas appliance use can be cost-effective, it is important to note that generally, switching to all-electric appliances in existing structures is less cost-effective as opposed to building a new structure that is all electric. For instance, in a new structure cost savings occur if the structure is all electric and connections to natural gas infrastructure are not required. Further cost-savings occur where heat pumps can be effectively used, which provide both heating and cooling; such systems can be installed easily in new construction, but would require replacement of both space heating and air conditioning equipment to realize full cost-efficiency in existing structures. Thus, reductions in natural gas consumption are generally more cost-effective in new structures than existing. Nevertheless, considering the high level of GHG emissions reductions efficacy of this measure, as well as the proven cost-efficacy of natural gas use reductions in some scenarios, the measure has a **HIGH** benefit to cost ratio.

Measure BD-4:



Zero Net Energy. Commit to Phasing in Zero Net Energy (ZNE) standards for new construction, in compliance with, or ahead of, State standards (i.e. 2030 for non-residential structures).

⁴⁵ Ramboll. *Technical Memorandum to SMAQMD: Cost Analysis of Space Heating and Water Heating Systems*. June 22, 2016.
⁴⁶ Rocky Mountain Institute. *The Economics of Electrifying Buildings*. June 2018.

The California Energy Efficiency Strategic Plan established the goals that new commercial development shall achieve ZNE by 2030. On a building level, ZNE is defined by the California Department of General Services as an energy-efficient building where the actual consumed energy is less than or equal to the on-site renewable energy generated, on an energy source basis. That is, a ZNE building must generate as much energy as is consumed.⁴⁷ ZNE can be achieved through a combination of energy efficiency improvements, increased renewable energy generation, and upgrades to existing development.

This measure is consistent with Galt CAP measure BE-1 and BE-2 and Elk Grove CAP measure BE-5.

Quantification: Achievement of ZNE by energy source category is anticipated to require significant reductions in natural gas usage in future developments. As such, there is substantial overlap between achieving ZNE goals, requiring building efficiency (Measure BD-1) and limiting natural gas use (Measure BD-3), and quantifying these measures individually includes several confounding variables.

Furthermore, uncertainties exist at this time that prevent direct calculation of GHG reductions from this measure. For example, it is uncertain whether the Cosumnes CSD will entirely prohibit natural gas in new buildings, or limit natural gas to specific uses such as cooking appliances only. In addition, electricity would still result in GHG emissions in the year 2030, when ZNE is required. There is additional uncertainty regarding how much electricity would be used to compensate for the reduction of natural gas, and how such an increase in electricity consumption would affect GHG emissions.

For the aforementioned reasons, specific emissions reductions from this measure cannot be calculated at this time. Nonetheless, the Cosumnes CSD recognizes this measure as an important contribution to operational sustainability, and plans to achieve the ZNE goal, consistent with Galt CAP measure BE-2 and Elk Grove CAP measure BE-5.

Benefit-Cost Analysis: The goal of achieving ZNE would support the benefits discussed in Measures BD-1 and BD-3. Research on ZNE structures has demonstrated that commercial structures built to achieve ZNE have resulted in incremental cost increases between zero and ten percent. Thus, in some instances, ZNE buildings have been demonstrated to be no more costly than standard structures. The costs of ZNE buildings can often be off-set through appropriate tradeoffs, for instance increasing the office occupancy density (i.e., housing the same number of employee offices in a smaller overall space). Even in the case where tradeoffs at the time of construction are not available,

⁴⁷ California Public Utilities Commission. *Zero Net Energy*. Available at: <http://www.cpuc.ca.gov/zne/>. Accessed June 2020.

ZNE buildings often experience lower operating costs through, which can defray some of the initial cost increases.⁴⁸ Finally, the California Energy Efficiency Strategic Plan calls for all new commercial structures built after 2030 to achieve ZNE; fulfillment of the California Energy Efficiency Strategic Plan will result in all structures achieving ZNE, which would eliminate any increased costs for this measure. Based on the benefit to cost efficacy of Measures BD-1 and BD-3, and the potential for ZNE structures to be cost comparative to standard structures, the measure is considered to achieve a **MEDIUM-HIGH** benefit to cost ratio.

Measure BD-5:



Water Conservation in Facilities. Promote water conservation in Cosumnes CSD owned and operated facilities:

- a) Maintain an inventory of water use by facility;
- b) Audit facilities to identify potential water saving measures;
- c) Prioritize identified measures based on efficacy and cost effectiveness;
- d) Establish water efficiency standards and best management practices for new facilities.

The Cosumnes CSD, in preparing this document, has already worked towards item a) by creating a baseline inventory of water use. The next step is to separate water use per building and identify which facilities would benefit most from water-saving measures.

The following hypothetical example illustrates the potential efficacy of this measure: If the inventory of water use by facility (Item a) reveals that one particular building was consuming 10 million gallons of water per year from faucets and fixtures, upgrading all water fixtures at that facility would reduce water use by approximately 19 percent, or 1.9 million gallons per year.⁴⁹

By reducing water demand, this measure would allow the Cosumnes CSD to adapt to operating conditions where water supplies are generally more constrained than they are today due to climate change.

Quantification: As discussed previously, grid electricity in the year 2050 would be generated from entirely renewable sources. Therefore, by 2050, electricity for water conveyance would not produce any GHGs. Nonetheless, this is a cost-effective and drought-friendly sustainability measure.

For informational purposes, water savings have been quantified in ClearPath and presented below. If 20 low-flow showerheads are

⁴⁸ Davis Energy Group. *Pacific Gas and Electric Company, Zero Net Energy Program California, Zero Net Energy Buildings Cost Study*. December 19, 2012.

⁴⁹ California Air Pollution Control Officers Association. *California Emissions Estimator Model User Guide Version 2016.3.2* [pg 60]. November 2017.

installed per year, either in new facilities or as an upgrade to an existing building, 46,000 gallons of water would be saved per year. If 50 low-flow faucets are installed per year, 28,500 gallons of water would be saved per year. It should be noted that these water conservation strategies also correspond with natural gas savings, as many existing buildings rely on natural gas water heaters.

Measure BD-5	
Sustainability Measure	Water Savings (gallons)
Low-Flow Showerheads	46,000
Low-Flow Faucets	28,500
Total	74,500
Note: See the Appendix A for calculation details.	

Benefit-Cost Analysis: Benefits of this measure include reduced consumption of natural resources, and reduced GHG emissions in the short-term. Because GHG emissions related to water consumption result from electricity demanded to transport water, and electricity will be carbon-free by the year 2045, this measure would not result in quantifiable GHG emissions reductions past the year 2045, but would continue to conserve natural resources and provide benefits related to adaptation to climate change impacts. Costs for implementation of this measure are generally low, as water efficient fixtures are generally inexpensive; however, high efficiency toilets and conducting water audits can result in higher upfront costs. While increasing water use efficiency would result in reduced costs over time, water utility rates are generally relatively low and the total savings may thus be limited. Nevertheless, recent studies have proven that replacement of fixtures that meet pre-1992 standards in California can be cost-effective in most scenarios.⁵⁰ Considering the uncertainty regarding the cost of upgrades resulting from implementation of this measure as well as the pricing of water utilities in the future, this measure is conservatively assigned a **MEDIUM** benefit to cost ratio, with the caveat that reducing water consumption would provide additional, unmeasured benefits related to adaptation to climate change.

Renewable Energy Measures

Measure RE-1:



Renewable Energy Production Plan. Formalize a Renewable Energy Production Plan. In collaboration with SMUD or another entity, the Cosumnes CSD shall:

- a) Inventory existing renewable energy installations within Cosumnes CSD owned/operated facilities;
- b) Establish a goal for renewable energy production within Cosumnes CSD owned/operated facilities; and

⁵⁰ Rand Corporation. *Evaluating the Benefits and Costs of Increased Water-Use Efficiency in Commercial Buildings*. 2007.

- c) Inventory potential Cosumnes CSD-owned facilities and properties that could be developed with renewable energy infrastructure.

The Cosumnes CSD may also consider enrolling in SMUD’s Greenergy or SolarShares programs to support utility scale solar. The Greenergy program offers grid electricity from renewable sources, and SolarShares offers installation of rooftop solar panels at no additional cost.

This measure is consistent with Elk Grove CAP measures BE-7 and BE-8.

The Cosumnes CSD has already made progress towards this measure through their Energy Services Contract with ENGIE. Under the Energy Services Contract, several solar arrays for photovoltaic electricity generation were installed. Rooftop solar arrays were installed on six fire stations, the main Fire Department building, and on the Wackford Community and Aquatic Complex. In addition, standalone canopy solar array structures were installed at the Hal Bartholomew Sport Park, Emerald Lake Golf Course, and Wackford Community and Aquatic Complex. The solar panels produced 1,661,210.42 kWh of electricity during the 2018 fiscal year, which resulted in \$183,309.09 of electricity savings over the course of the year. The aforementioned electricity savings equates to approximately 0.35 MTCO_{2e}, based on calculations performed in ClearPath.

Quantification: As noted previously, grid electricity in the year 2050 would be generated from entirely renewable sources. Therefore, electricity use in 2050 would not produce any GHGs. Nonetheless, this sustainability measure would reduce the Cosumnes CSD’s demand on grid electricity, resulting in cost savings and efficient use of power.

Based on the assumption that one additional solar array is developed per year, the electricity savings from on-site renewable energy generation in 2050 are been presented below for informational purposes.

Measure RE-1	
Sustainability Measure	Electricity Saved (kWh)
Renewable Energy	6,977,083.764
Note: See the Appendix A for calculation details.	

Benefit-Cost Analysis: Benefits of this strategy include reductions in GHG emissions in the short-term, and reduced consumption of natural resources. Cosumnes CSD’s recent contracts with ENGIE have shown that solar arrays can be installed in a cost-effective manner that provides long-term financial benefits to the Cosumnes CSD. As noted above, the Cosumnes CSD produced 1,661,210.42 kWh in 2018, and

saved \$183,309.09 in electricity purchases as a result.⁵¹ Should these same cost-structures exist in the year 2050, production of 6,977,083.764 kWh in 2050 would save the Cosumnes CSD \$769,898.18 per year. The foregoing calculation is for illustrative purposes, as factors including the price of electricity and the price of photovoltaic (solar) panels may change in the future. Drafting a renewable energy production plan would require staff or consultant time, which would add costs to the implementation of this measure, in addition to the cost of installation of the solar arrays. Nevertheless, because installation of solar arrays within existing Cosumnes CSD facilities has proven to be cost-effective, this measure is anticipated to result in a **HIGH** benefit to cost ratio.

Measure RE-2:



On-site Renewable Energy Storage. Study the feasibility of combining on-site renewable energy production with on-site energy storage as a means of providing emergency power to fire facilities.

As noted above, the Cosumnes CSD already has taken action towards this measure by including solar arrays on facility roofs. The next step is to install renewable energy batteries for emergency power. This would eliminate or reduce the need for emergency generators, and save money on electricity.

Renewable energy availability tends to fluctuate based on weather (i.e., sunshine or wind availability). However, renewable energy storage can help meet electricity demand during peak hours or during emergencies. Several energy storage options are available, including compressed air energy storage, lithium-ion batteries, hydrogen fuel cells, and more. The most cost-effective option for the Cosumnes CSD at this time would be lithium-ion batteries, which offer 85 to 95 percent efficiency of electricity storage for up to eight hours.⁵²

On-site renewable energy storage would help the Cosumnes CSD adapt to climate change by allowing for continued operations even during power outages. The recent heat wave induced rolling black outs demonstrated that climate change may place increasing strain on the State's electric grid, and the ability to supply independent power could support the Cosumnes CSD's continued provision of emergency and support services during future black outs.

Quantification: Installation of on-site energy storage to provide emergency power would replace or reduce the need for natural gas-, propane-, and diesel-powered emergency generators. As such, all emissions from emergency generators in 2050 could be eliminated.

⁵¹ At the time of preparation of this CAP/SAP the total electricity savings accrued under the ENGIE contract were under dispute. Consequently, the calculations for this measure may require revision upon resolution of the dispute.

⁵² Environmental and Energy Study Institute. Fact Sheet: Energy Storage (2019). Available at: <https://www.eesi.org/papers/view/energy-storage-2019>. Accessed June 18, 2020.

Measure RE-2	
Calculation Method	Year 2050 Emissions Reductions (MTCO_{2e})
ClearPath	6
Note: See the Appendix A for calculation details.	

Benefit-Cost Analysis: Benefits of this measure could accrue through multiple means. From a GHG emissions reduction perspective, using on-site energy storage coupled with on-site energy production could allow the Cosumnes CSD to reduce the use of fossil-fueled powered emergency generators and instead rely on stored grid-supplied or on-site generated electricity. The use of on-site energy storage can also provide financial benefits through other means, such as storing electricity when prices are low (off-peak hour charging), and selling electricity when prices are high (during peak hours), or through reducing a facility’s grid-electricity demand when utility rates are highest (during peak hours). Such strategies have been shown to result in utility savings sufficient to pay-off the cost of installations and provide additional savings, in certain cases. However, the price of installation and planning for such systems can be high, and systems that are designed for emergency use may not be able to also serve demand reducing functions. Due to the low potential for GHG emissions savings, as well as the uncertain price structure of on-site energy storage systems, for the time being, this measure is considered to have a **LOW** benefit to cost ratio. However, the cost of such systems may decrease with proliferation, and on-site energy storage systems could provide a means of providing renewable, grid-independent power during power outages and other emergencies, which represents a strategy to adapt to impacts of climate change.

Land Use & Planning Measures

Measure LP-1:



Provide Bicycle Parking. Exceed local standards for bicycle parking at Cosumnes CSD-owned facilities. Inventory existing bicycle parking and identify opportunities to increase the safety or accessibility of existing bicycle parking. Require new Cosumnes CSD facilities to include provision of bicycle parking appropriate for the use (i.e., short-and/or long-term parking). The Cosumnes CSD may choose to partake in bike share partnerships, such as LIME Bikes or other similar programs, in order to further encourage bicycle use.

This measure is consistent with Elk Grove CAP measure TACM-4, and would build off the efforts of the City of Elk Grove’s efforts in updating the Bicycle, Pedestrian, and Trails Master Plan.

Quantification: Implementation of bicycle parking is closely related to bicycle infrastructure improvements, as discussed below under Measure LP-2. To avoid double-counting bicycle-related emissions reductions, and to provide a conservative approach to emissions reduction estimation, this CAP has combined the emissions reductions

of Measure LP-1 and Measure LP-2, and emissions reductions are presented under Measure LP-2, below.

Benefit-Cost Analysis: Measure LP-1 would work in tandem with measure LP-2 to achieve the benefit of reduced vehicle use within the Cosumnes CSD service area. Costs from Measure LP-1 would be related to staff time needed to inventory existing facilities, as well as the cost of purchase and installation of bicycle parking infrastructure at existing and new facilities. The actual cost of material for bicycle racks is relatively limited, with bike racks often costing between \$64 and \$3,610, with a median price of \$540. Installation of bicycle racks can also be accomplished relatively simply where pavement exists already. In some situation, more expensive bicycle lockers may be desired, for instance at Cosumnes CSD offices where employees wish to secure their bicycles for the entire work day. Bicycle lockers are typically priced between \$1,280 and \$2,680 with a median of \$2,140. For comparison, construction of a vehicle parking space in a surface lot is approximately \$2,200 and parking for 10 to 12 bicycles can be accommodated within the space necessary for one vehicle space.⁵³ Considering the relatively low cost of bicycle parking infrastructure, the measure is considered to provide a **MEDIUM** benefit to cost ratio.

Measure LP-2:



Bicycle and Pedestrian Infrastructure Improvement. Promote pedestrian and bicycle connectivity between proposed and existing facilities and private development. This measure could be accomplished through early consultation during the development proposal process or preparation of guidelines of new development connection strategies in consultation with the City of Elk Grove and/or Sacramento County. Partner with the City of Elk Grove and other interested parties to make Cosumnes CSD facilities available for use as bike share hubs. Consider offering electric bicycle charging stations at Cosumnes CSD facilities either as part of the bike share partnerships or to the general public.

Improving bicycle and pedestrian infrastructure within the community would increase non-motorized travel and reduce emissions from vehicles. This measure would ensure that residents would have access to safe and clearly labeled bicycle and pedestrian routes to Cosumnes CSD parks and recreational facilities, reducing the need for community vehicle use.

This measure is consistent with Elk Grove CAP measure TACM-4.

Quantification: The reduction in vehicle miles travelled (VMT) due to improved bicycle infrastructure was calculated in ClearPath. Assuming that one tenth of the Cosumnes CSD service population would have access to the new infrastructure, and that the bicycle-riders would complete two two-mile rides per day, the measure would result in an

⁵³ Federal Highway Administration. *Costs for Pedestrian and Bicyclist Infrastructure Improvements*. October 2013.

annual reduction of 60,894 vehicle miles. Such a reduction in gasoline-fueled passenger vehicle miles would result in 22.08 MTCO_{2e}.

Measure LP-2	
Calculation Method	Year 2050 Emissions Reductions (MTCO_{2e})
ClearPath	22.08
Note: See the Appendix A for calculation details.	

Benefit-Cost Analysis: Benefits of this measure are similar to those discussed in LP-2. In addition, it should be noted that this measure would aid the City of Elk Grove achieve some of the desired VMT reductions established in Elk Grove’s CAP. This measure allows flexibility with regard to the infrastructure used to improve pedestrian and bicycle access to Cosumnes CSD facilities. For instance, construction of a new paved or unpaved trail within a Cosumnes CSD facility could provide connections between neighborhoods or otherwise promote pedestrian or bicycle access, and the ultimate price of such an improvement would be based on the length of the trail. The Cosumnes CSD could also find areas where pedestrian infrastructure could be improved with better crosswalk infrastructure. Such improvements could take the shape of mid-block median islands, flashing crossing beacons, or raised crosswalks, among other options. Alternatively, existing pedestrian crossings could be made safer by installation of curb extensions, chicanes, speed signs and trailers, or roadway signage. Considering the variety of potential projects and improvements that could be implemented to improve pedestrian infrastructure, and the intersection between the ownership of Cosumnes CSD facilities and the jurisdiction of the cities of Elk Grove and Galt, the type and number of facilities that would be installed is speculative at this time, making the estimation of costs difficult. In general, while the measure would not provide operational cost savings to the Cosumnes CSD and would require expenditures for planning and construction, the measure would support connections and accessibility of Cosumnes CSD’s facilities, while also supporting relevant goals in the CAPs prepared by the City of Elk Grove and Galt. Nevertheless, the level of uncertainty regarding the actual implementation of this measure renders conclusions regarding benefit to cost ratios too speculative to include in this analysis and the benefit to cost ratio is considered **UNKOWN** at this time.

Measure LP-3:



Provide Electric Vehicle Charging Infrastructure. Support the use of alternative fueled vehicles through the provision of electric vehicle charging stations at Cosumnes CSD-owned facilities. In partnership with SMUD (for instance, under the Commercial Charging Pilot program), the Cosumnes CSD may inventory existing parking lots and determine where installation of electric vehicle charging stations could be feasible.

This measure is consistent with Galt CAP measure TM-5 & -1 and Elk Grove CAP measure TACM-9.

Quantification: Due to information availability, the GHG reductions from this measure are based solely on vehicles owned by the Cosumnes CSD. In reality, non-Cosumnes CSD vehicles would benefit from this measure as well, and the GHG reductions would be substantially higher.

The reduction in Cosumnes CSD-owned gasoline-fueled vehicle use due to the provision of electric vehicle charging infrastructure was calculated in ClearPath. Based on the conservative assumption that two percent of vehicles would be replaced by electric versions by 2050, the measure would result in an annual reduction of 8,531 vehicle miles. Such a reduction in gasoline-fueled passenger vehicle miles would result in 3.09 MTCO₂e.

Measure LP-3	
Calculation Method	Year 2050 Emissions Reductions (MTCO₂e)
ClearPath	3.09
Note: See the Appendix A for calculation details.	

Benefit-Cost Analysis: Installation of electric vehicle charging infrastructure would allow for reductions in the use of fossil-fueled vehicles by Cosumnes CSD employees and support the use of electric vehicles in Cosumnes CSD fleet vehicles. Moreover, if charging stations are installed at existing and new public facilities, the Cosumnes CSD can contribute to increased electric vehicle usage within the communities served by the Cosumnes CSD. Reducing fossil fuel combustion in vehicles results in less GHG emissions, as well as fewer emissions of ozone forming pollutants and toxic air contaminants associated with refining, transporting, pumping, and combusting fossil fuels. Depending on the level of charging infrastructure desired, installation prices can vary between \$300 and \$51,000.⁵⁴ The large price range is related to the efficacy of the chargers, with relatively cheaper chargers at the low-end of the price range requiring 17-25 hours to achieve a full charge, while chargers at the high-end of the price range take only 20-30 minutes to deliver the same charge. The range of pricing and efficiency of chargers would provide Cosumnes CSD with a variety of options to fulfill Measure LP-3. For instance, the Cosumnes CSD could choose to install the most expensive DC Fast Chargers at locations such as fire stations or Cosumnes CSD owned facilities where electrically powered emergency vehicles could be kept. Meanwhile, chargers intended for public use could instead be installed at the cheaper Level 2 range, which provides 4- to 5-hour charge times with installation costs of \$400-\$6,500. In all cases, SMUD offers a

⁵⁴ U.S. Department of Energy, Energy Efficiency & Renewable Energy. *Costs Associated with Non-Residential Electric Vehicle Supply Equipment*. November 2015.

robust electric vehicle charging incentive program, with rebates ranging from \$1,500 per Level 2 charger, to \$80,000 per each DC Fast Charger. In addition to the installation costs, on-going maintenance of chargers would also be required, and the electricity consumed to charge electric vehicles may increase utility bills for facilities where chargers are installed. However, increased utility bills may be off-set if public chargers include payment requirements or if charging systems are combined with on-site renewable energy systems. Considering the above, installation of electric vehicle charging infrastructure can be accomplished at a range of prices and options that would allow the Cosumnes CSD to target investments and qualify for rebates to defray some of the upfront costs. Despite the anticipated on-going cost of maintenance and utilities, because this measure supports Measure TR-3, as well as measures in the City of Galt and Elk Grove CAPS, and targets the second largest sector of Cosumnes CSD operational emissions (i.e., the mobile emissions sector) this measure is considered to result in a **MEDIUM-HIGH** benefit to cost ratio.

Measure LP-4:



Heavy Equipment Upgrades. Work with SMAQMD and ARB to complete equipment upgrades, retrofits, and replacement for Cosumnes CSD-owned heavy-duty vehicles and equipment. Heavy equipment/heavy-duty vehicles refer to large, off-road machinery often used for executing construction tasks, such as backhoes, tractors, dump trucks, and loaders, as well as other equipment including stationary generators. Prioritize oldest or most emissions intensive pieces of equipment.

Quantification: Due to limitations in data availability, such as number of pieces of heavy equipment and hours of use per year, emissions reductions from this measure could not be quantified at this time.

Benefit-Cost Analysis: Although the ultimate emissions reductions occurring due to implementation of this measure cannot be quantified at this time, any improvement through upgrade, retrofit, or replacement of older equipment with newer equipment would likely result in direct reductions in GHG emissions, as well as reductions in emissions that lead to ozone and emissions that are toxic to humans. Furthermore, SMAQMD maintains incentive programs to support the replacement and retrofit of older machinery, which may help to defray costs related to implementation of this measure. Because the efficacy of this measure was not quantified and the ultimate cost of this measure is speculative at this time, the benefit to cost ratio is considered **UNKNOWN**.

Measure LP-5:



Cool Community Strategies. Implement Cool Community strategies, such as cool roofs and cool pavements.

Dark pavements and rooftops contribute to the urban heat island effect. Conventional pavement seal coats are asphalt-based and are typically black in color, ranging in initial solar reflectance from 0.05 to 0.15. Cool

pavement coatings provide a more reflective surface, with solar reflectance values between 0.31 and 0.44. The increase reflectance allows the cool pavements to absorb less sunlight than conventional seal coats, and thereby contribute to local cooling. In addition, the epoxy-acrylic coating is colorful, lasts longer than conventional coating, and can be applied over existing blacktop surfaces at the time of resurfacing.⁵⁵ Planting trees to shade paved surfaces or using permeable paving materials can serve to cool paved areas and provide other benefits, such as reduced stormwater runoff and reduced rates of infrastructure deterioration.

As compared to grass sports fields, artificial turf fields are known to reach substantially higher surface temperatures. Grass releases water vapor through transpiration, and the evaporation of that water vapor leads to cooling. As a result, grass field surface temperatures rarely reach above 100° F, whereas artificial turf field surface temperatures can exceed 150° F during sunny conditions.⁵⁶ However, artificial turf requires little to no maintenance and conserves water for irrigation. While artificial turf contributes to the urban heat island effect to a greater extent than grass fields, the overall environmental benefits may outweigh the environmental costs. For instance, a study conducted in Southern California concluded that the replacement of grass surfaces with artificial turf resulted in net energy savings despite increased urban temperatures.⁵⁷ Considering the current uncertainty regarding the efficacy of artificial turf as a cool community strategy, this measure focuses on the conversion of asphalt paved surfaces and dark rooftops to more reflective, cool pavement surfaces.

The Cosumnes CSD has already made progress towards this measure, and several basketball courts are coated with light-colored sport court surfacing, which acts as a type of cool pavement, as compared to traditional grey or black surfaces. This measure could be extended to parking areas, Cosumnes CSD facility rooftops, and any other paved areas.

Quantification: This adaptation measure would help mitigate the urban heat island effect and reduce regional temperature increases resulting from climate change. The measure would not result in a quantifiable GHG reduction.

Benefit-Cost Analysis: Benefits of this measure depend largely on the methods chosen for implementation. Treating existing roof surfaces with materials to increase solar reflectance can decrease building heat gain, which reduces utility costs related to building cooling. While cool

⁵⁵ Gilbert, Haley, Mandel, Benjamin, and Levinson, Ronnen. *Keeping California Cool: Recent Cool Community Developments, Energy and Buildings*. June 6, 2015.

⁵⁶ Sonia Myrick, National Recreation and Park Association. *Synthetic Sports Fields and the Heat Island Effect*. May 8, 2019.

⁵⁷ Yaghoobian, Neda, Kleissl, Jan, and Krayenhoff, Eric. *Modeling the Thermal Effects of Artificial Turf on the Urban Environment*. *Journal of Applied Meteorology and Climatology* 49(3):332-345. March 2010.

roofs have not only been demonstrated to reduce the urban heat island effect, but can also result in energy cost savings,⁵⁸ the benefit cost balance of cool paving is less definitive. For instance, while cool paving typically allows for reductions in the number of lighting fixtures required to illuminate a given space, the ultimate energy savings from cool paving may not prove cost effective.⁵⁹ Although the use of cool paving may not provide demonstrable reductions in energy costs, use of permeable materials that provide similar cooling effects may provide other benefits related to aesthetics or stormwater runoff reductions. Considering the above, this measure is anticipated to result in a **MEDIUM-LOW** benefit to cost ratio.

Landscape Management Measures

Measure LM-1:



Tree Management Plan. In an effort to build off of the goals of Cosumnes CSD's *Plan for Play*, the Cosumnes CSD shall draft and implement a Tree Management Plan. The Plan may include strategies to reduce biogenic Volatile Organic Compound emissions (which is a component of urban smog), adapt to warmer temperatures, and calculate the carbon sequestration potential of new trees. Collaborate with the cities of Elk Grove and Galt to meet tree planting goals. Increase commitment to providing shade trees in parking areas of new or existing facilities beyond the level currently required by local jurisdictions.

This measure is consistent with Galt CAP measure LU-3 and Elk Grove CAP measure BE-9.

Carbon sequestration refers to the process in which atmospheric CO₂ is taken in by plants and stored in plant biomass through photosynthesis. When trees sequester carbon, the tree effectively removes CO₂ from the atmosphere and holds the CO₂ until the tree decomposes or is burned. As such, carbon sequestration through tree planting and tree management is a means to offset sources of CO₂ emissions.⁶⁰ The California Emissions Estimator Model (CalEEMod) software, which was developed by the California Air Pollution Officers Association in collaboration with the California Air Districts, includes values for carbon sequestration per tree. Pursuant to the CalEEMod User's Guide, trees typically actively accumulate carbon for the first 20 years of their lifetime, after which point carbon sequestration tapers off.

⁵⁸ Levinson, Ronnen; Akbari, Hashem; Konopacki, Steve; Bretz, Sarah; Lawrence Berkeley National Laboratory, Environmental Energy Technologies Division, Heat Island Group. *Inclusion of Cool Roofs in Nonresidential Title 24 Prescriptive Requirements*. December 2002.

⁵⁹ Pomerantz, Melvin, Lawrence Berkeley National Laboratory. *Are cooler surfaces a cost-effect mitigation of urban heat islands?* April 2017.

⁶⁰ United States Department of Agriculture Forest Service. *Carbon Sequestration*. Available at: [https://www.fs.fed.us/ecosystemservices/carbon.shtml#:~:text=Carbon%20sequestration%20is%20the%20process,%2C%20and%20roots\)%20and%20soils.&text=The%20United%20States%20carbon%20market%20is%20in%20its%20formative%20stages..](https://www.fs.fed.us/ecosystemservices/carbon.shtml#:~:text=Carbon%20sequestration%20is%20the%20process,%2C%20and%20roots)%20and%20soils.&text=The%20United%20States%20carbon%20market%20is%20in%20its%20formative%20stages..) Accessed June 18, 2020.

For the first 20 years of growth, an average tree sequesters approximately 0.0354 MTCO₂ per year.⁶¹

The Cosumnes CSD already manages a significant number of trees. As noted in Chapter 3, Regional Impacts, of this CAP, the Cosumnes CSD manages over approximately 1,000 acres of parks and nature trails. Based on a street tree inventory provided by the Cosumnes CSD, there are 28,556 street trees within the Cosumnes CSD service area. Over the lifetime of the existing Cosumnes CSD street trees, 1,010.8 MTCO₂e have been reduced. The foregoing reduction captures only the sequestration resulting from the existing street trees, the total sequestration occurring from all trees within Cosumnes CSD owned facilities is likely significantly higher than 1,010.8 MTCO₂e.

Trees can also affect air quality through the emission of biogenic volatile organic compounds (BVOCs), which are compounds that have the potential to react with atmospheric molecules and contribute to the greenhouse effect, and are also the main component in urban smog.⁶² Air quality benefits of a Tree Management Plan can be maximized by planting tree species with a low Tree BVOC Index.⁶³

Implementation of a Tree Management Plan would allow the Cosumnes CSD to adapt to changes in the regional climate and protect the District's existing stock of trees. Furthermore, the palette of trees planted in parks could be selected to adapt to increased heat or changes in precipitation patterns to provide reduced costs and increased longevity of planted trees.

Quantification: Due to limitations within the ClearPath software, emissions reductions from Measure LM-1 could not be directly quantified using ClearPath. Using the information derived from the CalEEMod user guide, potential GHG emissions reductions were calculated outside of ClearPath and are presented below. GHG reductions were calculated based on the assumption that 30 trees would be planted per year from the year 2030 through the year 2050. Carbon sequestration is assumed to last for 20 years for each new tree. Thus, the emissions reductions presented in the table below reflect all new trees planted under this measure between the years 2030 and 2050. It should be noted that although tree mortality is anticipated, the Cosumnes CSD is generally anticipated to replace trees that are removed, and material from removed trees would likely be used as mulch or for other purposes that would allow for carbon cycling or storage.

⁶¹ California Air Pollution Control Officers Association. *California Emissions Estimator Model User Guide Version 2016.3.2* [pg 61]. November 2017.

⁶² United States Environmental Protection Agency. *Report on the Environment: Atmospheric Concentrations of Greenhouse Gases*. Available at: <https://cfpub.epa.gov/roe/indicator.cfm?i=24#1>. Accessed June 22, 2020.

⁶³ Simpson, J.R. and McPherson, E.G. "The Tree BVOC Index." *Environmental Pollution*, Volume 159 (2011) 2088-2093.

Measure LU-1	
Calculation Method	Year 2050 Emissions Reductions (MTCO_{2e})
Off-Model	245.32
Note: See the Appendix A for calculation details.	

Benefit-Cost Analysis: Benefits from this measure accrue through direct sequestration of GHG emissions, reductions in the urban heat island effect, protection of infrastructure, reduced stormwater runoff, increased habitat for wildlife, and positive aesthetic value. The Cosumnes CSD service area currently contains 28,556 street trees, and implementation of this measure would continue the Cosumnes CSD's history of supporting urban tree planting. Because existing and planned Cosumnes CSD operations already assume tree planting and care, implementation of this measure would not be anticipated to result in a large degree of increased cost. However, drafting and approving a formal Tree Management Plan would require staff time and resources. Once the Tree Management Plan is drafted, the Cosumnes CSD will likely need to update the plan on a decadal timeframe to ensure that the approach and species recommendations within the Tree Management Plan remain relevant. Despite the staff costs related to drafting the plan, the overall reduction in GHG emissions, as well as the existing investment in this measure by Cosumnes CSD staff and myriad of related benefits, implementation of this measure is anticipated to result in a **HIGH** benefit to cost ratio.

Measure LM-2:



Low-maintenance Nature Gardens. Integrate community butterfly gardens and nature gardens into existing and future Cosumnes CSD parks. Work with contractors to reduce reliance on fossil fuel- powered landscaping equipment. The Cosumnes CSD may consider adding requirements to contracts related to use of electric-powered landscaping equipment. To support future use of electric equipment, the Cosumnes CSD could require new facilities to be designed with outdoor electrical outlets sufficient to support such equipment.

Nature gardens inherently reduce the need for maintenance (i.e., mowing, trimming, pruning, fertilizing, watering). By promoting nature gardens in all new parks, this measure would reduce maintenance requirements and associated emissions.

Quantification: Due to limited access to information regarding fuel use in landscaping equipment, emissions reductions from this measure could not be quantified at this time. Nonetheless, this sustainability measure would directly reduce water consumption, fertilizer use, and fuel consumption.

Benefit-Cost Analysis: Cost savings from implementation of this measure would be accrued through reduced demand for water, fertilizer, fossil fuels, and direct labor costs. For example, conversion of grass lawns to xeriscape landscaping, which is considered low-

maintenance landscaping, can result in savings in both maintenance costs and purchased water for irrigation.⁶⁴ Although the switch to low-maintenance nature gardens may not provide demonstrable GHG reductions, implementation of this measure would provide cost-saving benefits along with sustained reductions in water demand. Considering the above, this measure is anticipated to result in a **MEDIUM** benefit to cost ratio.

Measure LM-3:



Reduce Fertilizer Use. Work with contractors to reduce fertilizer use within Cosumnes CSD facilities to the extent feasible. The amount of fertilizer can be tailored for specific landscaped areas, and applied directly to root areas to further reduce the amount required.

Where fertilizer continues to be used, consider use of less carbon intensive alternatives, such as organic or slow-release fertilizers. In addition, the Cosumnes CSD shall prohibit/discourage fertilizer application immediately before and during rain events, as fertilizer applied prior to rain is often washed away before being taken in by plants.

In concert with measure SW-2, Composting, the Cosumnes CSD could implement a fertilizing program that recycles compost collected from Cosumnes CSD park visitors and applies the compost to Cosumnes CSD landscaped areas as organic fertilizer.

The Cosumnes CSD has already made substantial progress towards implementing this measure. The Cosumnes CSD relies on slow-release fertilizers, and has reduced fertilizer use by 30 percent as compared to rates of conventional fertilizer use.

Quantification: Slow-release fertilizers can decrease emission by 50 percent or more as compared to conventional synthetic N fertilizers.⁶⁵ By reducing overall fertilizer use and replacing conventional fertilizer with slow-release or organic alternatives, the Cosumnes CSD would reduce emissions from fertilizer application by 4 MTCO₂e in the year 2050.

Measure LM-3	
Calculation Method	Year 2050 Emissions Reductions (MTCO₂e)
ClearPath	4
Note: See the Appendix A for calculation details.	

⁶⁴ Sovocool, Kent, Southern Nevada Water Authority. *Xeriscape Conversion Study: Final Report*. 2005.

⁶⁵ Millar, N., Doll, J.E., & Robertson, G.P. *Management of Nitrogen Fertilizer to Reduce Nitrous Oxide Emissions from Field Crops*. October 19, 2015.

Benefit-Cost Analysis: The cost of slow-release fertilizer is substantially greater than the cost of conventional fertilizers.⁶⁶ However, proper use of slow-release fertilizers requires less fertilizer application as compared to conventional fertilizers. Unfortunately, at the time of preparation of this CAP/SAP, sufficient empirical evidence was not available to allow for the comparison of the cost of traditional fertilizer use with the cost of reduced fertilizer use. Consequently, the benefit to cost ratio of this measure is currently **UNKNOWN**. Although the benefit to cost ratio cannot be determined at this time, the Cosumnes CSD has already implemented the use of slow-release fertilizer and continued use would not result in any new or greater costs than would occur in the absence of this CAP/SAP.

Measure LM-4:



Water-Efficient Irrigation Practices. The Cosumnes CSD has committed to maintaining water-efficient irrigation practices throughout their facilities. Cosumnes CSD staff currently track water use efficiency throughout all Cosumnes CSD irrigation applications.

Some actions previously implemented by the Cosumnes CSD to improve water efficiency include ensuring that landscaped areas are watered early in the morning and replacing sprinklers with drip irrigation systems or more targeted irrigation systems where practicable. If spray sprinklers are required, sprinkler heads have been upgraded to efficient models and spray patterns are adjusted to ensure that sprinklers do not apply water to non-target areas, such as sidewalks.⁶⁷ In addition, the Cosumnes CSD monitors precipitation to reduce irrigation when rain has occurred.

Continuing to implement water-efficient irrigation practices will allow the Cosumnes CSD to adapt to any future constraints in water supply due to climate change.

Considering that the Cosumnes CSD has already made substantial progress in implementing this measure. A next step could involve using reclaimed water to irrigate landscaped areas (see Measure LM-7 for more information). The Cosumnes CSD may also seek to ensure that water use is being tracked and shared with decision makers, such as the board of directors, to illustrate the water efficiency improvements and water use challenges confronting the District.

The commitment to water efficiency shall be sustained and incorporated into the planning for all new parks and facilities.

Quantification: Because electricity in the year 2050 would be produced from carbon-free sources, electricity for water conveyance

⁶⁶ International Fertilizer Industry Association. *Slow- and Controlled-Release and Stabilized Fertilizers: An Option for Enhancing Nutrient Use Efficiency in Agriculture* [pg 68]. 2010.

⁶⁷ Office of Energy Efficiency & Renewable Energy. *Best Management Practice #5: Water-Efficient Irrigation*. Available at: <https://www.energy.gov/eere/femp/best-management-practice-5-water-efficient-irrigation>. Accessed June 17, 2020.

would not result in any GHG emissions. While this measure does not result in a measurable GHG reduction, the measure would nonetheless improve Cosumnes CSD sustainability and efficiency.

Benefit-Cost Analysis: As noted above, the Cosumnes CSD has already made a transition from sprinklers to automated drip irrigation systems. As such, implementation of this measure would not require substantial upfront costs because the Cosumnes CSD has already acquired such equipment. Because the Cosumnes CSD currently uses efficient irrigation systems, any new facilities would likely be constructed with water efficient irrigation systems irrespective of this CAP/SAP measure. Therefore, implementation of this measure would result in financial benefits accrued from the reduced water demand, but would not increase existing operating costs or the costs of future development. Considering the Cosumnes CSD would not be subject to upfront equipment costs, would continue to implement sustainable water use practices, and would save money on purchased water annually, this measure is considered to have a **HIGH** benefit to cost ratio.

Measure LM-5:



Implement Landscaping Guidelines. Implement Cosumnes CSD-wide Landscaping Design Guidelines that shall include and enforce:

- a) Efficiency requirements for indoor and outdoor water fixtures;
- b) Best management practices related to irrigation infrastructure and monitoring;
- c) A list of preferred plants based on BVOC emissions rates, water use, maintenance requirements, biological benefits (native or non-native), and resiliency to future climate change. Preferred plants should continue to be suitable for the regional climate, and require decadal update and review;
- d) Compliance with the statewide Model Water Efficient Landscape Ordinance (MWELO); and
- e) Implementation of features from the River-Friendly Landscape Guidelines, as prepared by the Sacramento Stormwater Quality Partnership.⁶⁸

The Cosumnes CSD has already made substantial progress towards this measure by using efficient irrigation infrastructure, as discussed in further detail under Measure LM-4. In addition, the Cosumnes CSD incorporates appropriate plant species for landscaping based on the water use data provided in the Water Use Classification of Landscape Species (WUCOLS) database, prepared and updated by the University of California Davis. However, preparation and implementation of Cosumnes CSD Landscaping Design Guidelines would ensure that sustainable landscaping practices are applied uniformly and to the maximum extent feasible. By creating a user-friendly guidance

⁶⁸ Sacramento Stormwater Quality Partnership. *River-Friendly Landscape Guidelines: Sustainable Practices for the Landscape Professional*. January 2007.

document with straightforward requirements, this measure aims to make efficient landscaping as easy as possible.

Similar to Measure LM-4, this measure would serve to reduce water demand and support adaptation to potential constraints to water supplies in the future.

Quantification: This sustainability measure offers a framework for enforcing Measure LM-4.

Benefit-Cost Analysis: Costs of this measure would be incurred from staff time expended to initially formalize landscaping guidelines, and on-going costs would be incurred through periodic updates of the guidelines. However, much of this staff time is likely spent on individual project designs and decision-making processes that are currently made on a case-by-case basis. Implementation of broadly applicable guidelines may allow for some streamlining of future projects in parks and facilities managed or owned by Cosumnes CSD. Additional costs may be incurred if water efficient irrigation infrastructure (such as drip irrigation) is more costly than standard infrastructure (for instance sprinkler systems). Considering that Cosumnes CSD currently uses water efficient irrigation infrastructure the ultimate change in costs related to irrigation infrastructure is likely to be minute. Benefits from this measure would accrue through several means. Efficient irrigation systems reduce water demand, which reduces operating costs for the Cosumnes CSD while also providing climate change adaptation benefits. Adopting a preferred list of plants would streamline the design process for new planting areas and renovations, while also allowing staff to prioritize certain environmental benefits based on the location of the plantings or other factors. Finally, selecting plant species that are anticipated to adapt to a warming climate would reduce long-term planting costs by ensuring the longevity of the plant species being selected for planting. Considering the above, many of the costs associated with this measure would be similar to the costs of current operations, and formalizing landscaping guidelines with a goal of maximizing certain environmental benefits would allow the Cosumnes CSD to increase the efficiency and benefit of existing efforts. Accordingly, this measure is considered to have a **HIGH** benefit to cost ratio.

Measure LM-6:



Wildfire Adaptation. Wildfires represent a constant and multi-faceted threat to the operations of the Cosumnes CSD as well as the health and safety of the community served by the Cosumnes CSD. The main areas of focus of this measure are on planning for Cosumnes Fire Department staff deployments, reducing risks to communities within the Cosumnes CSD's service area, and adapting to increased prevalence of wildfire smoke.

In the fire season of 2018 and the current 2020 season, Cosumnes Fire Department staff have answered the call for mutual aid from the

California Office of Emergency Services (CAL OES) and responded to fires throughout the State. The evidence is clear that such deployments are becoming an increasingly common facet of the Department's operations; thus, it is crucial that the Department continues to plan for the deployment of staff and equipment over increasing portions of each year. While the mutual aid agreement with CAL OES provides for financial compensation for major events, it is important that preparedness and response to major wildfires remains an active component in the Department's fiscal and operational planning processes. As Cosumnes Fire Department staff respond to increasingly frequent wildfire incidents, the Cosumnes CSD as a whole must also recognize the on-going toll that such responses take on staff. The California legislature has sought to support fire fighting personnel through the California Fire Fighter Peer Support and Crisis Referral Services Act, which provides for on-going support of firefighter personnel. The Cosumnes CSD shall seek to engage in staff support programs to the maximum extent possible.

The Cosumnes CSD Service Area is located in an area of moderate to low wild fire hazard severity according to CalFire. Nevertheless, many portions of the City of Elk Grove and Galt are located in proximity to expanses of unmanaged grasslands, or riparian corridors with dense vegetation. Both unmanaged grasslands and riparian corridors can present wildfire risks to nearby residents, and such risks may be increased if the prevalence of drought within the region increases. Thus, the Cosumnes CSD shall continue to support the Fire Prevention Bureau as a crucial means of risk reduction and mitigation. Specific areas of focus related to climate change related impacts shall be promotion of defensible space in areas adjacent to riparian corridors and outlying areas of the cities of Elk Grove and Galt.

While taxing Cosumnes CSD Fire Department staff resources, the 2018 and 2020 fire seasons have also demonstrated the challenges and hazards posed by episodes of intense wildfire smoke. With air quality indices routinely reaching unhealthy and hazardous levels, outdoor activities became impossible to hold while employees needing to continue working outside were potentially exposed to unhealthy air quality. The reality that unhealthy air quality conditions such as these may become more prevalent presents a significant challenge to the Cosumnes CSD's on-going operations. However, the Cosumnes CSD is also uniquely positioned to prepare for, and respond to such conditions. For instance, in partnership with the City of Elk Grove and SMAQMD, the Cosumnes CSD may seek to use existing and planned facilities as clean air centers. Clean air centers can offer a respite from hazardous air quality conditions through the use of standard or enhanced HVAC and air filtration systems. These centers may also function as cooling centers if wildfires occur simultaneously with heat waves. In 2019 the California legislature established the Wildfire Smoke Clean Air Centers for Vulnerable Populations Incentive Pilot Program, to provide funding to establish clean air centers in certain

communities. The Cosumnes CSD may be eligible for funding under this pilot program, or through partnerships with other local agencies.

During the 2018 fire season many public safety agencies distributed N95 masks to help protect the public from hazardous levels of wildfire smoke. The availability of N95 masks was extremely diminished during the 2020 wildfire season, as most N95 masks were used instead to protect against the novel coronavirus causing COVID-19. Despite the current threat of COVID-19, in the future N95 masks will likely again be widely available. The Cosumnes CSD should plan to maintain a stockpile of N95 masks for use by Cosumnes CSD employees conducting outdoor work. Stockpiles should be based on the number of employees needing masks, and the expected length of time that masks may be needed. The Cosumnes CSD may also wish to maintain sufficient stockpiles to distribute masks to members of the public, and the Cosumnes CSD can identify specific locations where masks would be made available.

Based on the above, wildfire poses a severe threat to the health and safety of Cosumnes CSD employees and the public. To confront this threat the Cosumnes CSD shall:

- a) Continue to include wildfire response in fiscal and operational planning;
- b) Plan for and provide support services to Cosumnes Fire Department staff including participation in peer support services and crisis referral services;
- c) Support and promote the existing Fire Prevention Bureau within the Cosumnes Fire Department and identify areas particularly vulnerable to increased fire risk due to drought;
- d) Investigate providing clean air centers at existing and proposed Cosumnes CSD facilities; and
- e) Plan for and provide protection equipment, such as N95 masks, for employees and members of the public.

Quantification: This adaptation measure offers strategies to improve the resiliency of the Cosumnes CSD to wildfire related financial strains, provide support for Cosumnes CSD staff, protect the health of Cosumnes CSD staff and the public, and reduce wildfire risk in the Cosumnes CSD service area, but would not result in quantifiable GHG reductions.

Benefit-Cost Analysis: This measure is intended to mitigate effects of climate change related wildfires on the Cosumnes CSD service population. Costs from this measure would accrue through personal hours spent fighting and preventing wildland or grassland fires, as well as creating and implementing plans to use Cosumnes CSD facilities as clean air centers. Operating clean air centers would likely require investments in HVAC systems that can provide sufficient filtration of outside air as well as investment in materials necessary to support the

function of clean air facilities through extended periods of poor air quality. In addition, stockpiling and providing masks for employee or public use would require investment in and maintenance of supplies. The foregoing activities have little potential to result in operating cost savings, and would not necessarily result in GHG emissions reductions. However, implementation of this measure could result in a high benefit to the community in terms of protection from increasing wildfire risk. Because this measure is related specifically to adaptation and does not provide benefits in the same manner as the GHG emissions reduction and sustainability measures, a benefit-cost ratio is not assigned to this measure.

Measure LM-7:



Recycled Water. Implement a recycled water program to irrigate landscaped areas with treated wastewater from Cosumnes CSD facilities.

The Cosumnes CSD can promote the use of recycled water for appropriate and cost-effective uses. Recycling water is a water management strategy that relies on the reuse of purchased potable water for beneficial uses. Approved uses of recycled water include landscape and golf course irrigation, toilet flushing, construction activities, and others. Gray water refers to reusable wastewater from bathroom sinks, bath and shower drains, and clothes washing drains, that can be reused on-site, often for landscape irrigation. The use of gray water for irrigation is known to reduce the demand for fertilizer use.⁶⁹ Therefore, this measure would complement implementation of Measure LM-3.

Use of alternative sources of water would allow the Cosumnes CSD to adapt to constraints in water supplies due to climate change.

Quantification: This adaptation measure offers strategies to reduce water demand. Similar to previous measures related to reducing water demand, GHG emissions reductions have not been quantified for this measure. Furthermore, while this measure would reduce water consumption at Cosumnes CSD facilities, the extent to which water demand could be reduced depends on a wide-range of factors including the number and types of facilities that recycled water systems are installed in. Although quantification of potential GHG emissions reductions and water savings is not possible at this time, the savings could be calculated on a project-by-project basis in the future.

Benefit-Cost Analysis: Small scale, commercially-available water treatment systems that would be appropriate for on-site use at Cosumnes CSD facilities cost between \$6,000 and \$13,000. In addition, operational costs would involve the purchase of electricity, possibly chemicals, depending on the treatment method, and periodic

⁶⁹ U.S. Environmental Protection Agency. *Water Recycling and Reuse: The Environmental Benefits*. Available at: <https://19january2017snapshot.epa.gov/www3/region9/water/recycling/>. Accessed August 28, 2020.

maintenance visits. In order to reach a net financial savings, the water treatment system must recycle approximately 82,000 gallons of gray water per year.⁷⁰ The Cosumnes CSD consumes enough water for irrigation in order to see overall cost savings through implementation of this measure. In addition to savings on water costs, this measure would also result in benefits related to reduced potable water demand and increased sustainability of irrigation techniques. While implementation of this measure would require upfront costs for the provision of water treatment systems, the measure would result in long-term financial savings. As such, this measure would have a **MEDIUM-HIGH** benefit to cost ratio.

Transportation Measures

Measure TR-1:



Encourage Alternative Transportation. Work with e-tran and South County Transit to continue promoting existing bus lines serving the Cosumnes CSD facilities. Promote bicycle travel to and from events through provision of bicycle valet services or other means. Including transportation options on event websites (i.e., include a “How to Get Here” page outlining available transit and bike options). Make brochures available for transit schedules at events. Invite transit representatives to table at events and distribute information.

Quantification: Due to lack of information availability, such as the average VMT to and from Cosumnes CSD events, GHG reductions from this measure cannot be calculated at this time. However, there is substantial carryover between this measure and Measure TR-2. Therefore, some of the emissions reductions are accounted for in the total GHG emission reductions discussed in Measure TR-2, below.

Benefit-Cost Analysis: As noted above, substantial crossover exists between this measure and Measure TR-2. As such, specific financial costs are discussed in further detail below. Overall, implementation of this measure would require few costs associated with outreach and transit promotion, while the benefits of reducing VMT would be substantial. For this reason, this measure is considered to have a **HIGH** benefit to cost ratio.

Measure TR-2:



Reduce Employee Commutes. Reduce Cosumnes CSD employee commutes and associated vehicle emissions by:

- a) Implementing flextime work arrangements, including telecommuting and alternative work schedules, to decrease daily commuter trips.
- b) Instituting a Cosumnes CSD employee carpooling program. Set a goal for employee participation, for instance, by establishing a target number of employee carpools per month or a goal for total VMT avoided through carpooling.

⁷⁰ Yu, Zita, DeShazo, JR, Stenstrom, Michael, and Cohen, Yoram. *Cost-Benefit Analysis of Onsite Residential Graywater Recycling – A Case Study: the City of Los Angeles*. September 2014.

- c) Promoting bicycle commuting for employees. Set a goal for employee participation. This measure is consistent with Elk Grove CAP measure TACM-6.
- d) Participating in Traffic Management Associations (TMAs) formed by the City of Elk Grove or the City of Galt. In general, TMAs provide ongoing training and special assistance to TMA members for the implementation of commute alternative programs at work sites, including monthly networking meetings and assistance with work site program design. TMA activities include outreach to area employees and residents in an effort to provide varied commute choices, including bicycle and vanpool subsidies, vanpool formation assistance, and transit information. This measure is consistent with Galt CAP measure TM-6 and Elk Grove CAP measure TACM-3.

Quantification: The following calculations are based on the assumption that the Cosumnes CSD employment rate will consistently grow along with the Cosumnes CSD service population. Considering the Cosumnes CSD currently employs 325 full-time employees, in 2050, the Cosumnes CSD is expected to employ approximately 566 full-time employees. According to the Sacramento Area Council of Governments Metropolitan Transportation Plan/Sustainable Communities Strategy, the average commute for workers in the Sacramento area is 18.4 miles per day, and 14.8 percent of people carpool to work. The aforementioned rates are based on projections for the year 2036, as projections for 2050 are not yet available.⁷¹

Employers who offer flexible work schedules and preferential parking for those who carpool can see an increase in carpool participation up to 20 percent.⁷² Considering an average of 14.8 percent of workers already carpool, the following calculation conservatively assumes that carpool incentives increase carpool rates to 30 percent of workers (a 15.2 percent increase). When 30 percent of employees carpool to work, 813,346 VMT would be eliminated annually. Based on ClearPath, this mileage reduction equates to 294.91 MTCO_{2e}.

Based on SMAQMD's guidance stating that TMAs can reduce VMT by five percent, emissions reductions resulting from implementation of a TMA were calculated outside of ClearPath and are presented below. A five percent decrease in annual VMT would be 135,557 miles. Using ClearPath software, this mileage reduction equates to 49.15 MTCO_{2e}.

⁷¹ Sacramento Area Council of Governments. *Metropolitan Transportation Plan/Sustainable Communities Plan*. April 2012.

⁷² United States Environmental Protection Agency Office of Air and Radiation. *Carpool Incentive Programs: Implementing Commuter Benefits as One of the Nation's Best Workplaces for Commuters* [pg 11]. March 2005.

Measure TR-2	
Calculation Method	Year 2050 Emissions Reductions (MTCO₂e)
Off-Model - Carpooling	294.91
Off-Model - TMA	49.15
Total	344.06
Note: See the Appendix A for calculation details.	

Benefit-Cost Analysis: Implementation of Item (d), participation in existing Transportation Management Associations, would require upfront costs. However, implementation of Items (a) through (c) would require minimal financial contribution from the Cosumnes CSD, with the exception of employee time associated with coordinating such alternative work schedules, carpool programs, and bicycle incentives. Cosumnes CSD employees who participate in this measure would benefit from direct fuel savings, and implementation of this measure would result in overall GHG reductions, as well as reductions of harmful air pollutants. Implementation of an employee VMT reduction program has been shown to result in average administrator costs of \$1 per MTCO₂e, but participant savings of approximately \$380 per MTCO₂e.⁷³ When applying this ratio to the GHG savings quantified above, the Cosumnes CSD can expect to spend approximately \$344 in total to implement this measure. However, the GHG reduction and employee benefits would be substantial. For this reason, the measure is considered to have a **HIGH** benefit to cost ratio.

Measure TR-3:



Optimize Cosumnes CSD Vehicle Fleet. Optimize the Cosumnes CSD vehicle fleet by conducting an inventory of all Cosumnes CSD owned vehicles including fuel consumed per year and fuel economy. Establish a target miles per gallon fuel economy for the entire fleet aimed at reducing fuel consumption by Cosumnes CSD-owned vehicles. Encourage future vehicle purchases be alternatively fueled vehicles (i.e., electric, natural gas, hydrogen, renewable diesel) where feasible.

As part of fleet optimization and fleetwide fuel economy improvements, the Cosumnes CSD shall ensure the proper maintenance of vehicles (such as proper tire inflation and properly timed oil changes) to ensure Cosumnes CSD vehicles operate at the maximum fuel efficiency possible, and educate Cosumnes CSD employees of the benefits of reducing vehicle idling times.

The Cosumnes CSD has already prepared a thorough inventory of vehicle types, miles traveled, and fuel efficiency per vehicle. Based on the 2018 dataset, the Cosumnes CSD gasoline fleet achieves an average of 16.3 MPG, and the diesel fleet averages approximately 7.7 MPG. The next step is to prepare fuel efficiency goals. For example,

⁷³ Energy Policy Initiatives Center, University of San Diego School of Law. *Climate Action Plan Cost-Effectiveness Analysis* [pg B-12]. January 2018.

the Cosumnes CSD may set a goal to upgrade their diesel-fueled vehicles, mostly ambulances and fire engines, to an average fuel efficiency of 20 MPG, and their gasoline-fueled vehicles to an average fuel efficiency of 40 MPG by the year 2050. While the foregoing goals may seem aggressive, because innovative new technologies such as electric and alternatively fueled heavy-duty vehicles as well as electric passenger vehicles and trucks are already becoming more widely available, the Cosumnes CSD may have the opportunity to quickly improve their fleet through early adoption of new technologies.

Quantification: The efficacy of this measure was quantified through the ClearPath software.

Measure TR-3	
Calculation Method	Year 2050 Emissions Reductions (MTCO₂e)
ClearPath - Gasoline	445
ClearPath - Diesel	448
Total GHG Reduction	893
Note: See the Appendix A for calculation details.	

Benefit-Cost Analysis: Improved fuel efficiency of the Cosumnes CSD vehicle fleet would result in fuel consumption savings as well as GHG emissions reductions. In fact, the fuel savings benefits have been shown to outweigh the upfront cost of the updated vehicle, especially considering that fleet vehicles are periodically updated regardless of implementation of this measure. That is, operations of the Cosumnes CSD would require the purchase of new vehicles regardless of implementation of this CAP/SAP, and Measure TR-3 simply serves to guide fleet vehicle turnover to a less emissions intensive path. The additional upfront cost of opting for a hybrid, electric, or otherwise fuel-efficient vehicle as compared to the cost of purchasing a traditional, less fuel-efficient vehicle is less than the overall fuel savings over the lifetime of the vehicle. Research conducted by the Energy Policy Initiatives Center indicates that the transition of vehicle fleets to more fuel-efficient vehicles result in an average savings of \$238 per MTCO₂e.⁷⁴ When applying this savings ratio to the anticipated 893 MTCO₂e saved by 2050, the Cosumnes CSD can expect to save approximately \$212,500 in total, or \$6,640 per year, through application of this measure. As such, this measure has a **HIGH** benefit to cost ratio.

Measure TR-4:



Reduce Vehicle Idling. Encourage a reduction in idling time for Cosumnes CSD-owned vehicles through education of Cosumnes CSD field crews and outreach to Cosumnes CSD employees.

Leaving the car engine on while not moving, otherwise known as idling, is a source of local air pollution. Health effects from long-term exposure

⁷⁴ Energy Policy Initiatives Center, University of San Diego School of Law. *Climate Action Plan Cost-Effectiveness Analysis* [pg B-21]. January 2018.

to vehicle pollutants include asthma, increased cancer risk, heart disease, and more. Idling also contributes to noise pollution, and wastes fuel. In fact, idling for more than ten seconds consumes more fuel than turning the car off and back on.⁷⁵ By reducing idling time among Cosumnes CSD-owned vehicles, this measure would reduce emissions of vehicle pollutants, including ozone and diesel particulate matter, and would save money on fuel.

Some of the vehicles leased by the Cosumnes CSD include devices that allow tracking of idling time. Thus, the Cosumnes CSD should begin tracking the idling time in all leased vehicles, and establish targets for reducing idling time through education and outreach to Cosumnes CSD employees.

Quantification: Considering specific information regarding vehicle idling times is not currently available for all Cosumnes CSD vehicles, emissions from this reduction measure could not be quantified at this time. However, this measure would directly reduce vehicle emissions and improve the fuel efficiency of Cosumnes CSD-owned vehicles.

Benefit-Cost Analysis: Implementation of this measure would require education of Cosumnes CSD staff and contracted landscapers on best practices for reducing idling. The cost of staff training and education would be minimal, and several benefits would result from implementation of this measure, including reduced local air pollution, reduced fuel consumption, and fewer instances of pollutant-related adverse health effects. However, as noted above, a quantifiable GHG reduction can not be calculated at this time. Considering the relatively low cost of this measure and the health-related benefits, the measure is considered to have a **HIGH** benefit to cost ratio.

Measure TR-5:



Reduce Air Travel. Promote train or bus travel as an alternative to long-flying for employee travel. Consider purchasing carbon off-sets for unavoidable air travel.

Figure 14, below, represents the efficiency of different modes of transportation that can be used for business-related travel. The most efficient mode, Coach/Bus, results in the fewest CO₂ emissions per passenger per mile. It should be noted that based on distance, some of the following modes of travel may not be feasible for certain destinations. Nonetheless, based on the data below, the Cosumnes CSD shall prioritize employee travel in the following order:

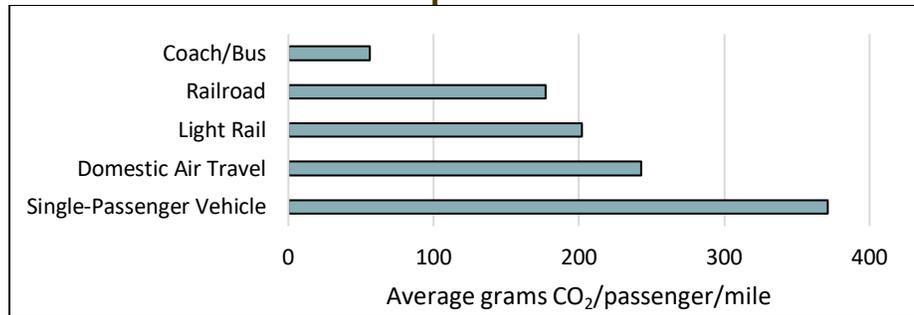
1. Coach/Bus
2. Railroad
3. Light Rail
4. Air Travel
5. Single-Passenger Vehicle

⁷⁵ Environmental Defense Fund. *Idling Gets You Nowhere: The Health, Environmental, and Economic Impacts of Engine Idling in New York City*. February 2009.

Quantification: If the Cosumnes CSD were to purchase carbon off-sets for, or otherwise reduce, 50 percent of all employee air travel, overall annual emissions could be reduced by 10.5 MTCO₂e in the year 2050.

Measure TR-5	
Calculation Method	Year 2050 Emissions Reductions (MTCO ₂ e)
ClearPath	10.5
Note: See the Appendix A for calculation details.	

Figure 13
CO₂ Emissions from Different Modes of Transportation



Source: M.J. Bradley & Associates. Comparison of Energy Use & CO₂ Emissions From Different Transportation Modes. May 2007.

Benefit-Cost Analysis: Depending on the trip length, the cost-effectiveness of travel tends to fluctuate. In some cases, it may be less expensive and less carbon-intensive to travel by train rather than plane, in which case, travel by train would be the best option. However, in other cases, the only feasible means of travel may be single-passenger vehicle even though this option is the most carbon-intensive form of travel analyzed above. Considering the variable feasibility of certain forms of travel, uncertainty of timing limitations, the relatively minor GHG reduction, and the net cost associated with the purchase of carbon off-sets, this measure is considered to have a **LOW** benefit to cost ratio.

Solid Waste Measures

Measure SW-1:



Recycling. Develop and adopt a policy requiring the provision of recycling receptacles and proper handling of recyclable materials at all events requiring a permit or held on Cosumnes CSD-owned or operated property. The Cosumnes CSD could also partner with the USEPA’s WasteWise program. WasteWise offers reduced purchasing and waste disposal costs, educational materials, and recognition for achieving recycling goals.⁷⁶

⁷⁶ United States Environmental Protection Agency. WasteWise. Available at: <https://www.epa.gov/smm/wastewise>. Accessed June 17, 2020.

By 2050, the Cosumnes CSD could aim for 50 percent of all events to be Zero Waste Events. Zero Waste Events use recyclable, compostable, or reusable products (i.e., compostable plates, cups, and utensils) and provide bins and clear signage to facilitate proper waste sorting. Reach out to local groups, such as the Sacramento State Sustainability Committee, that may be willing to volunteer as educators at Zero Waste Events. More information and a planning guide for Zero Waste Events can be found at the following website: <https://green.harvard.edu/tools-resources/how/zero-waste-event-guide>

This measure is consistent with Galt CAP measure WM 1 & 2 and Elk Grove CAP measure RC-1.

The Cosumnes CSD has already made great progress related to this measure. The Parks and Recreation Department produces a large amount of green waste, such as pruned branches and grass clippings. By recycling green waste and preventing such waste from decomposing in a landfill, the Cosumnes CSD has already saves approximately 1,844 MTCO₂e each year.

Quantification: According to the USEPA, in 2017, the United States recycled approximately 25 percent of all municipal waste.⁷⁷ If the national average is applied to Cosumnes CSD operations, 127 tons of waste would be recycled per year, which equates to an emissions reduction of 104 MTCO₂e.

Measure SW-1	
Calculation Method	Year 2050 Emissions Reductions (MTCO₂e)
ClearPath	104
Note: See the Appendix A for calculation details.	

Benefit-Cost Analysis: Implementation of this measure would involve a net cost to the Cosumnes CSD, as required for outreach events, educational opportunities, the provision of recycling receptables, and enrollment in recycling program/service. Benefits would include GHG reductions, as shown above, as well as increased community involvement and public engagement in sustainability events. The average cost of implementing this measure is \$1.79 per MTCO₂e.⁷⁸ Based on the net cost associated with this measure, the benefit to cost ratio is considered **MEDIUM**.

⁷⁷ United States Environmental Protection Agency. *National Overview: Facts and Figures on Materials, Wastes and Recycling*. Available at: <https://www.epa.gov/facts-and-figures-about-materials-waste-and-recycling/national-overview-facts-and-figures-materials#:~:text=These%20Facts%20and%20Figures%20are,27%20million%20tons%20were%20composted>. Accessed June 17, 2020.

⁷⁸ City of Pleasanton. *Climate Action Plan Appendix D: Cost-Benefit Analysis of GHG Reduction Measures* [pg D.3-2]. 2012.

Measure SW-2:



Composting. Institute a composting program at Cosumnes CSD-owned or operated properties and/or Cosumnes CSD events. Expanding organics composting would reduce the amount of waste produced within the Cosumnes CSD, and reduce the amount of GHG emissions from waste disposal. Expansion of organics collection may also allow for diversion of such waste for other beneficial uses.

This measure is consistent with Galt CAP measure WM 1 & 2 and Elk Grove CAP measure RC-2.

Quantification: According to the USEPA, in 2017, the United States composted approximately 10 percent of all municipal waste.⁷⁹ If the national average is applied to Cosumnes CSD operations, 50.8 tons of waste would be composted each year, which equates to an emission reduction of 41.6 MTCO_{2e}.

Measure SW-2	
Calculation Method	Year 2050 Emissions Reductions (MTCO_{2e})
ClearPath	41.6
Note: See the Appendix A for calculation details.	

Benefit-Cost Analysis: A startup cost would be required in order to purchase composting devices and implement a composting program. After the composting program has been instituted, the measure could result in cost savings on fertilizer, as well as the GHG reductions shown above. Implementation of this measure is anticipated to require a net cost, but would result in quantifiable GHG reduction. Therefore, the measure would have a **MEDIUM** benefit to cost ratio.

Measure SW-3:



Construction Waste Diversion. Commit to California Green Building Code (CALGreen) Tier 1 or Tier 2 construction and demolition waste diversion rates. CALGreen Tier 1 requires 65 percent of all construction and demolition waste to be diverted from local landfills, and Tier 2 requires that 80 percent be diverted. The Cosumnes CSD shall enforce this measure by adding a construction waste diversion requirement to future public works contracts.

Quantification: Construction and demolition waste production was not considered as a GHG source in the 2018 inventory. As such, specific GHG reductions cannot be calculated. However, this sustainability measure would reduce Cosumnes CSD waste generation as additional buildings and facilities are developed.

⁷⁹ United States Environmental Protection Agency. *National Overview: Facts and Figures on Materials, Wastes and Recycling*. Available at: <https://www.epa.gov/facts-and-figures-about-materials-waste-and-recycling/national-overview-facts-and-figures-materials#:~:text=These%20Facts%20and%20Figures%20are,27%20million%20tons%20were%20composted>. Accessed June 17, 2020.

Benefit-Cost Analysis: As noted above, this measure is not associated with a quantifiable GHG reduction at this time. However, other benefits of this measure would include improved sustainability of Cosumnes CSD construction activities, and exceedance of existing waste-related legislation. Implementation of this measure would require funding for employee salaries related to solid waste diversion programs as well as the cost associated with waste hauling and processing. Based on achieving a rate of 75 percent waste diversion, which falls between the Tier 1 and Tier 2 options listed above, implementation of this measure would result in a net cost of \$99 per MTCO₂e.⁸⁰ Considering this measure would result in an overall net cost to the Cosumnes CSD, and specific GHG reductions cannot be quantified at this time, this measure is considered to have a **LOW** benefit to cost ratio.

Sustainability Measure Summary

The sustainability measures have been listed below.

- Measure BD-2: *Improve Lighting Efficiency*
- Measure BD-5: *Water Conservation in Facilities.*
- Measure RE-1: *Renewable Energy Production Plan.*
- Measure LP-4: *Heavy Equipment Upgrades.*
- Measure LM-2: *Low-maintenance Nature Gardens.*
- Measure LM-4: *Water-Efficient Irrigation Practices.*
- Measure LM-5: *Implement Landscaping Guidelines.*
- Measure TR-4: *Reduce Vehicle Idling.*
- Measure SW-3: *Construction Waste Diversion.*

Implementation of the above sustainability measures would affect Cosumnes CSD operations by resulting in reduced demand for electricity, water, and fuel. In addition to reducing the Cosumnes CSD's demand on the foregoing resources the measures above would save the Cosumnes CSD money and contribute to improved regional air quality.

Adaptation Measure Summary

The adaptation measures have been listed below.

- Measure BD-1: *Energy-Efficient Buildings.*
- Measure BD-2: *Improve Lighting Efficiency*
- Measure BD-5: *Water Conservation in Facilities.*
- Measure RE-2: *On-site Renewable Energy Storage.*
- Measure LP-5: *Cool Community Strategies.*
- Measure LM-1: *Tree Management Plan.*
- Measure LM-4: *Water-Efficient Irrigation Practices.*
- Measure LM-5: *Implement Landscaping Guidelines.*

⁸⁰ Energy Policy Initiatives Center, University of San Diego School of Law. *Climate Action Plan Cost-Effectiveness Analysis* [pg B-41]. January 2018.

- Measure LM-6: *Wildfire Adaptation.*
- Measure LM-7: *Recycled Water.*

Implementation of Measures BD-1 and BD-2 would result in reduced electricity demand. Reduced electricity usage would help to reduce demand on the electricity grid, which may contribute to reductions in the likelihood of rolling black outs occurring in the future during heat waves. By implementing on-site energy storage, as recommended by Measure RE-2, facilities would be able to provide emergency power during power outages, including those caused by heat wave related electricity demand spikes or wildfire risk avoidance outages.

Measures BD-5, LM-4, LM-5, and LM-7 would all contribute to reducing the Cosumnes CSD's overall water demand, and would support more efficient water use. Reducing the Cosumnes CSD's overall water demand would allow for facilities to adjust to future constraints on water supply due to droughts. For instance, in times when water supply is low, the Cosumnes CSD would still be able to maintain landscaped areas by using already-purchased gray water for irrigation (Measure LM-7). Furthermore, by landscaping with a plant palette that is appropriate for the natural climate and has minimal additional water needs, Cosumnes CSD landscaped areas can thrive through future times of drought (Measure LM-5).

Measures LP-5 and LM-1 both contribute to regional cooling efforts, and implementation of the measures would work to reduce the impacts associated with the urban heat island effect. Furthermore, planting shade trees would increase carbon sequestration. As wildfire risk becomes a more prominent threat throughout the Central Valley, implementation of Measure LM-6 seeks to protect the Cosumnes CSD's financial security while protecting the health and safety of the Cosumnes CSD staff and service population. These measures would indirectly improve air quality, habitat health, and public safety for patrons throughout the Cosumnes CSD service area.

Implementation of the above adaptation measures are critical in increasing the adaptability of Cosumnes CSD operations as global climate change affects the Cosumnes CSD service area.

GHG Reduction Measure Summary

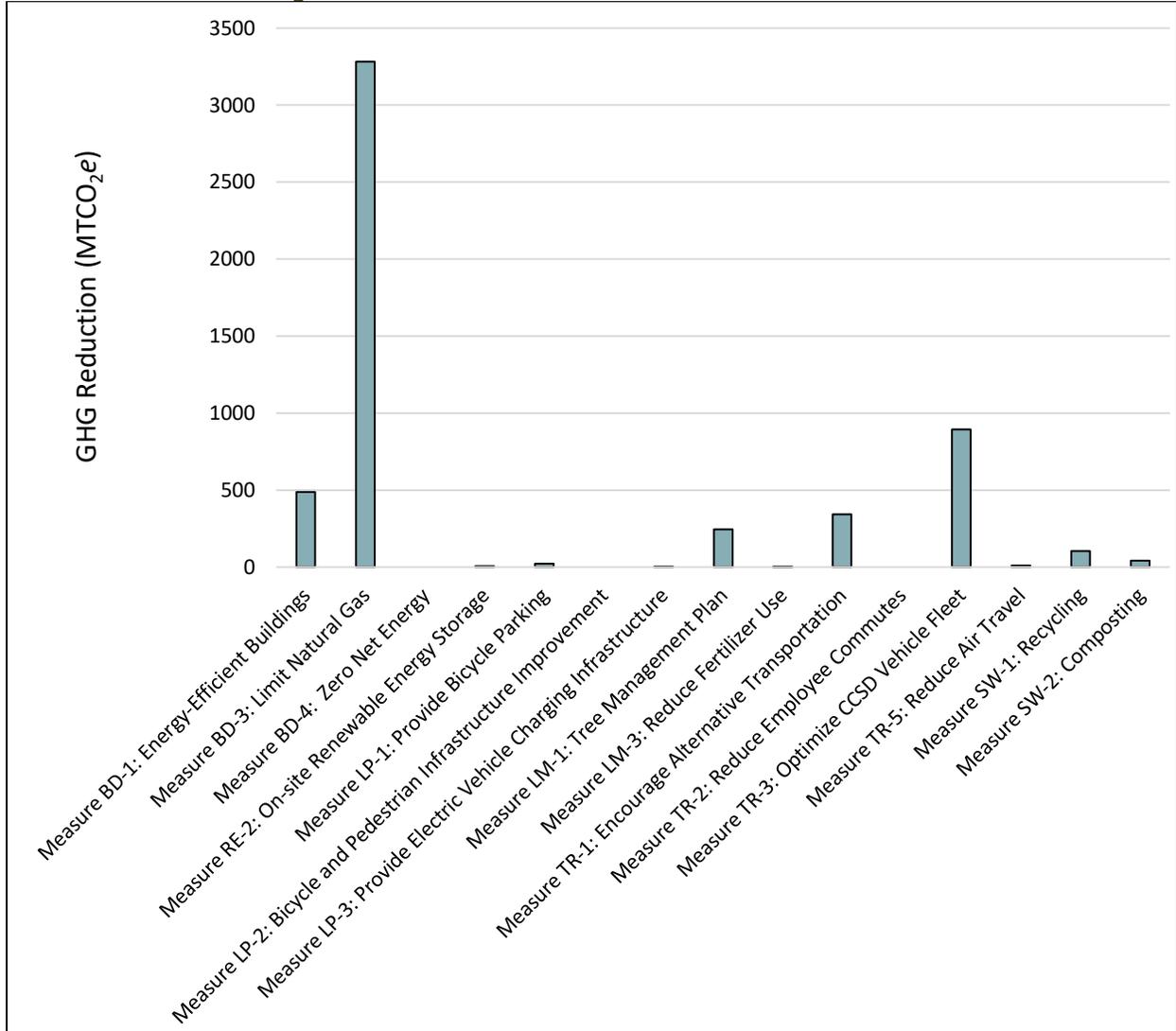
Full implementation of the foregoing GHG reduction measures would result in GHG emissions reductions as shown in Table 5. As shown in Table 5, the emissions reduction measures included in this CAP would reduce anticipated emissions in the year 2050 by 5,442.48 MTCO₂e, which equates to an approximately 76 percent reduction from the forecasted emissions level for 2050.

Figure 15 visually presents the efficacy of each GHG reduction measure. As shown in the figure, implementation of Measures BD-3, BD-1, and TR-3 would result in the greatest GHG reductions.

**Table 5
 GHG Reduction Measure Summary**

Reduction Measure	Year 2050 Emissions Reductions (MTCO_{2e})
Measure BD-1: <i>Energy-Efficient Buildings</i>	486.30 ¹
Measure BD-3: <i>Limit Natural Gas</i>	3,282.5 ¹
Measure BD-4: <i>Zero Net Energy</i>	--
Measure RE-2: <i>On-site Renewable Energy Storage</i>	6.00
Measure LP-1: <i>Provide Bicycle Parking</i>	22.08
Measure LP-2: <i>Bicycle and Pedestrian Infrastructure Improvement</i>	
Measure LP-3: <i>Provide Electric Vehicle Charging Infrastructure</i>	3.09
Measure LM-1: <i>Tree Management Plan</i>	245.32
Measure LM-3: <i>Reduce Fertilizer Use</i>	4.00
Measure TR-1: <i>Encourage Alternative Transportation</i>	344.06
Measure TR-2: <i>Reduce Employee Commutes</i>	
Measure TR-3: <i>Optimize Cosumnes CSD Vehicle Fleet</i>	893.00
Measure TR-5: <i>Reduce Air Travel</i>	10.50
Measure SW-1: <i>Recycling</i>	104.00
Measure SW-2: <i>Composting</i>	41.60
Total GHG Reductions	5,442.48
¹ Due to uncertainty regarding which goals the Cosumnes CSD will elect, compliance with Tier 1 was assumed so as to avoid overestimating reductions.	

Figure 14
Efficacy of Each GHG Reduction Measure in 2050



GHG Emissions with the CAP Compared to GHG Emissions without the CAP

Figure 16 presents a comparison of the Cosumnes CSD's anticipated GHG emissions from the years 2025 to the year 2050 under two scenarios: CAP Scenario, and No CAP Scenario (otherwise known as Business As Usual [BAU]). The black line in the upper portion of the graph represents the No CAP Scenario/BAU forecast, which refers to the scenario in which the Cosumnes CSD does not adopt a CAP. As shown in Figure 16, the BAU line indicates that GHG emission would steadily rise with projected growth in Cosumnes CSD operations from approximately 6,000 MTCO₂e/yr in 2025 to over 7,000 MTCO₂e/yr by 2050. By comparison, the colored portion of the graph represent GHG emissions per sector that are anticipated to occur under the CAP Scenario, which refers to the scenario in which a CAP is adopted by the Cosumnes CSD. With implementation of the GHG reduction measures provided in this CAP/SAP, the Cosumnes CSD's GHG emissions would remain consistently under 2,000 MTCO₂e/yr. The difference in GHG emissions from the BAU scenario as compared to the CAP Scenario becomes more substantial as time goes on. While emissions under the BAU Scenario constantly grow with Cosumnes CSD growth, the GHG emissions under the CAP Scenario remain constant even though the Cosumnes CSD continues to grow. Therefore, implementation of the GHG reduction measures presented within this CAP/SAP would result in greater GHG reduction measures every year that the measures are carried out. Table 6 presents similar information in tabular form, with the reductions from each strategy calculated in five year increments between 2025 and 2050.

Benefit-Cost Analysis Ranking

The scatter plot depicted in Figure 16 represents all quantifiable sustainability, adaptation, and GHG reduction measures from highest benefit-cost to lowest benefit-cost as well as most effective at reducing GHG emissions. The measures that fall within the yellow box have the highest benefit-cost ratio and the highest measurable GHG emissions reduction.

Figure 15
Total GHG Emissions with Implementation of all GHG Reduction Measures

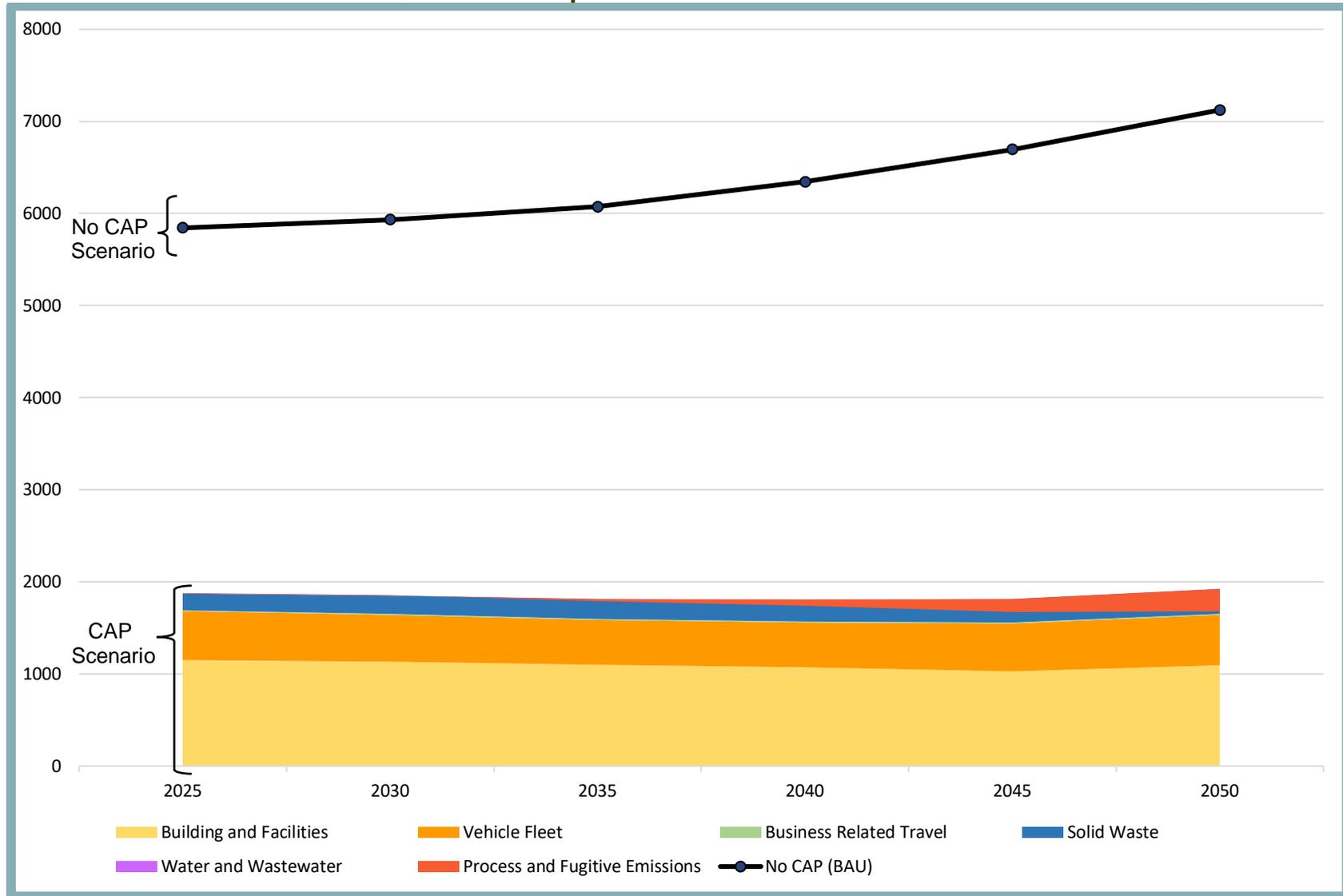
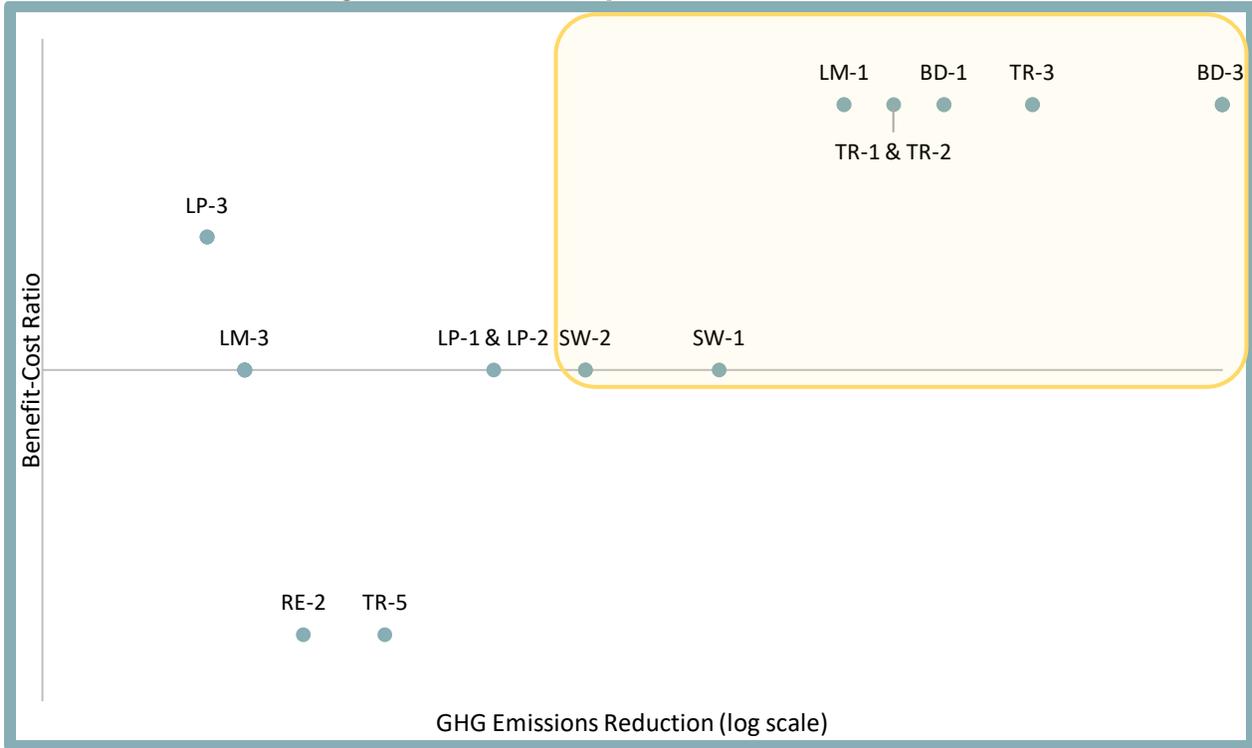


Table 6
GHG Reductions per Year with Implementation of all GHG Reduction Measures

GHG Reduction Measure	GHG Emissions Reduction (MTCO ₂ e)					
	2025	2030	2035	2040	2045	2050
Buildings and Facilities						
Measure BD-1: <i>Energy-Efficient Buildings</i>	369.8	392.8	412	433.8	456.4	486.3
Measure BD-3: <i>Limit Natural Gas</i>	2,184.9	2,403.2	2,611.5	2,835.9	3,080.7	3,282.5
Measure BD-4: <i>Zero Net Energy</i>	--	--	--	--	--	--
Measure RE-2: <i>On-site Renewable Energy Storage</i>	1.3	2.3	3.2	4.1	5.1	6
<i>Subtotal</i>	2,556	2,798.3	3,026.7	3,273.8	3,542.2	3,774.8
Vehicle Fleet						
Measure LP-1: <i>Provide Bicycle Parking</i>						
Measure LP-2: <i>Bicycle and Pedestrian Infrastructure Improvement</i>	14.6	15.9	17.6	19.1	20.5	22.1
Measure LP-3: <i>Provide Electric Vehicle Charging Infrastructure</i>	0.7	1.2	1.6	2.1	2.6	3.1
Measure TR-1: <i>Encourage Alternative Transportation</i>						
Measure TR-2: <i>Reduce Employee Commutes</i>	227.8	248.1	273.8	296.9	319.9	344.1
Measure TR-3: <i>Optimize Cosumnes CSD Vehicle Fleet</i>	758	744	747	788	842	893
<i>Subtotal</i>	1,001.1	1,009.2	1,040.0	1,106.1	1,185.0	1,262.3
Business-Related Travel						
Measure TR-5: <i>Reduce Air Travel</i>	8.5	8.5	9	9.5	10	10.5
<i>Subtotal</i>	8.5	8.5	9	9.5	10	10.5
Solid Waste						
Measure SW-1: <i>Recycling</i>	70.3	77	83.3	90.3	97.8	104
Measure SW-2: <i>Composting</i>	28.1	30.8	33.3	36.1	39.1	41.6
<i>Subtotal</i>	98.4	107.8	116.6	126.4	136.9	145.6
Process and Fugitive Emissions						
Measure LM-1: <i>Tree Management Plan</i>	0	1.1	22.3	70.1	144.4	245.3
Measure LM-3: <i>Reduce Fertilizer Use</i>	3	3	3.5	3.5	4	4
<i>Subtotal</i>	3	4.1	25.8	73.6	148.4	249.3
Total GHG Reductions Per Year	3,667.0	3,927.9	4,218.1	4,589.4	5,022.5	5,442.5

Figure 16
Benefit-Cost Analysis Ratio Compared to GHG Emissions Reduction



6. IMPLEMENTATION

The following chapter describes how the Cosumnes CSD shall generally proceed to implement the emissions reduction and sustainability measures presented in Chapter 5.

6.1 IMPLEMENTATION OF REDUCTION MEASURES

Chapter 5, Emissions Reduction Measures, of this CAP/SAP presents various information related to specific measures designed to aid the Cosumnes CSD in reducing present and future GHG emissions and improve sustainability of operations. Each emissions reduction and sustainability measure presented in Chapter 5 includes specific actions to be taken by Cosumnes CSD personnel.

Some of the emissions reductions occurring due to the measures included in Chapter 5 would occur directly through actions taken by Cosumnes CSD. For instance, replacing an aging vehicle with an electric vehicle would result in on-going emissions reductions. Other measures included in Chapter 5 would facilitate emissions reductions by other entities. For instance, installation of bicycle facilities at Cosumnes CSD properties may allow some Cosumnes CSD employees to bike instead of driving to events or locations, but such a measure would also allow residents to bike instead of drive to Cosumnes CSD facilities. Allowing residents to bike instead of drive would reduce emissions that would otherwise occur within the City of Elk Grove or unincorporated portions of Sacramento County within the Cosumnes CSD's service area.

The measures included in Chapter 5 of this CAP/SAP would be implemented on varying timeframes. Many measures would be implemented on an on-going basis, while others may only be implemented during the planning and execution of specific new facilities. To aid in the implementation of the sustainability measures and emissions reduction measures presented in Chapter 5, Table 7 has been included at the end of this chapter that presents a guide to the timing of implementation and the Cosumnes CSD Department that would be responsible for implementation of each measure.

Sustainability Webpage

To aid in the implementation of the emissions reduction measures above, the Cosumnes CSD may consider creating a specific page on the Cosumnes CSD's website that describes the ongoing sustainability efforts, identifies partnerships, and provides educational resources and opportunities for community members.

6.2 UNCERTAINTY AND FUTURE UPDATES

Emission forecasts used throughout this CAP/SAP are based on buildout forecasts of the cities of Galt and Elk Grove, and data on anticipated growth from the adopted CAPs of both jurisdictions. The foregoing sources of development data represent the most up-to-date sources of information for growth projections in the Cosumnes CSD's service area; however, uncertainty exists related to the amount of growth that will be realized in future years, with the level of uncertainty increasing the farther into the future projections are focused. For instance, the Cosumnes CSD's *Parks, Recreation & Facilities Master Plan* provides a roadmap for development and maintenance of

Cosumnes CSD infrastructure for the ten-year period between 2018 and 2028. With a Master Plan in place, the growth of Cosumnes CSD operations over that period can be known with a high degree of certainty. With growth anticipated to continue through the 2028 horizon of the Master Plan, the rate of growth, number of new facilities added, and services provided becomes increasingly uncertain and speculative. Nevertheless, by tying the growth assumptions to the most recent growth estimates from the cities of Elk Grove and Galt, the Cosumnes CSD has ensured that efforts to reduce GHG emissions and increase sustainability of Cosumnes CSD operations will comply with and amplify the efforts undertaken by Elk Grove and Galt in their respective CAPs.

Considering the uncertainty surrounding the rate of future growth within the Cosumnes CSD service area and the potential for future regulations to place further requirements on new Cosumnes CSD facilities, future updates to this CAP/SAP may be necessary to ensure that Cosumnes CSD operations continue to achieve the meaningful progress towards decreasing GHG emissions and increasing operational sustainability. A logical avenue for future updates to the CAP/SAP would be integration of the CAP/SAP process with the Master Plan Update process. Updating the CAP/SAP along with or shortly after each Master Plan would allow the CAP/SAP to integrate the most up-to-date growth estimates, and respond to any changes in operational focuses that are included in the Master Plan.

Updating the CAP/SAP will not only allow for future iterations of the CAP/SAP to respond to the realized rate of growth within the Cosumnes CSD's service area, but would also provide the Cosumnes CSD to a means of incorporating emerging technologies, respond to changing legislative and regulatory requirements, and track the progress of implementation of measures within this CAP/SAP. As growth occurs the emissions inventories prepared for future CAP/SAP updates would also provide a more detailed picture of on-going Cosumnes CSD GHG emissions, while also increasing the accuracy of future emissions forecasts. Specific areas of focus could be the integration of low-emitting vehicles into the Cosumnes CSD's operational fleet, potential increases in the use of electric landscaping equipment, as well as improved water consumption and wastewater production tracking.

6.3 PARTNERSHIPS & FUNDING

Many of the measures included in this CAP/SAP are anticipated to be implemented by the Cosumnes CSD through building design decisions, contracting, and on-the-ground monitoring activities. However, significant opportunities exist to initiate partnerships and seek funding to support many of the measures presented in Chapter 5.

SMUD has already acted as an instrumental partner in the drafting of this CAP/SAP by providing data crucial to the estimation of existing Cosumnes CSD operational emissions. Being the electricity utility for the Cosumnes CSD's service area, SMUD will continue to play an integral part of Cosumnes CSD's operations, and will likely be an effective partner in implementing many of the CAP/SAP measures. For example, SMUD offers rebates and expertise related to energy efficiency upgrades, which could aid the implementation of Measure BD-1 and BD-1. SMUD employees may also be able to contribute to expertise in pursuit of designing buildings to meet Measure BD-4 and installing electric vehicle parking infrastructure in line with LP-3. In addition to SMUD, the Sacramento Metropolitan Air Quality Management District (SMAQMD) has partnered with area businesses to promote the adoption of clean air vehicles. Thus, SMAQMD staff may be able to assist the Cosumnes CSD's implementation of LP-3, LP-4, and TR-3. Urban tree plantings, such as those promoted under LM-1, are often supported through grant funding by organizations such as CalFire. In addition, private companies such as Uber, which administers the JUMP bike

program in the region, may emerge as a partner to promote the use of bicycles in-line with TR-1 and TR-2.

The Cal-EPA maintains a database of available funding opportunities through the CoolCalifornia.org. Through the CoolCalifornia.org program the Cal-EPA promulgates best practices for emissions reductions, examples of such emissions reductions practices, and funding sources. Through the continued distribution of Cap-and-Trade program funds and legislative action on the State level, diverse funding sources are anticipated to remain available into the foreseeable future.

This CAP/SAP may also provide a basis for the Cosumnes CSD to pursue funding for climate change resiliency programs. Based on the anticipated regional effects of climate change, such programs may include increasing the availability of cooling centers during summer months, supporting urban forestry, increasing flood protection, and/or protecting regional groundwater supplies.

Table 7 Implementation Table			
Measure	Timing	Responsible Entity	Benefit to Cost Ratio
<p>Measure BD-1: Energy-Efficient Buildings.</p> <p>Improve energy efficiency in Cosumnes CSD buildings and facilities through the following measures:</p> <ul style="list-style-type: none"> a) Encourage innovative site design and building orientations for new construction that incorporate passive and active solar designs and natural cooling techniques. Require all new roofing to include cool roofs in compliance with Tier 2 of the California Green Building Code. b) Implement a Cosumnes CSD-wide Energy Efficiency Plan to inventory existing structures and prioritize investment in energy efficiency upgrades. c) Establish green building standards for new Cosumnes CSD facilities, either through the California Green Building Code's Tier 1 or Tier 2 standards, the US Green Building Council's Leadership in Energy and Environmental Design (LEED) program, or through participation in SMUD's Integrated Design Solutions Program. 	<ul style="list-style-type: none"> a) During the planning process, prior to construction of new facilities. b) Following adoption of this CAP/SAP. c) Following adoption of this CAP/SAP. 	<p>Planning, Design & Construction Division</p>	<p>Tier 1 – HIGH</p> <p>Tier 2 – MEDIUM-LOW</p>
<p>Measure BD-2: Improve Lighting Efficiency</p> <p>Convert Cosumnes CSD-owned sports field lighting, parking lighting, and exterior building lighting to energy efficient technologies, such as LED bulbs or solar-powered lighting fixtures. Upgrade interior lighting at all Cosumnes CSD facilities to LED with occupancy sensors, timers,</p>	<p>Ongoing, as funding becomes available.</p>	<p>Planning, Design & Construction Division; Fire Operations Division</p>	<p>HIGH</p>

Table 7 Implementation Table			
Measure	Timing	Responsible Entity	Benefit to Cost Ratio
dimmers, and photosensors to increase energy and cost savings.			
<p>Measure BD-3: Limit Natural Gas</p> <p>Reduce the use of natural gas in existing and future Cosumnes CSD-owned facilities. Natural gas use can be reduced by replacing existing natural gas water heaters with all-electric versions, and designing new structures to include solar water heating, heat pumps, and other electricity-based water and space heating devices. By removing natural gas appliances and devices, buildings would rely solely on electricity, which will be generated from progressively less carbon intensive sources over time. To support increased energy efficiency, SMUD administers various incentive programs for replacement of inefficient appliances in residences and commercial developments. Participation in SMUD programs would promote the replacement of energy inefficient appliances and the replacement of natural gas fueled appliances with comparable electric powered appliances.</p>	<p>Upgrades shall be ongoing, as funding becomes available. This measure shall be applied to new facilities as part of the planning process, prior to construction.</p>	<p>Planning, Design & Construction Division; Fire Operations Division</p>	<p>HIGH</p>
<p>Measure BD-4: Zero Net Energy</p> <p>Commit to Phasing in Zero Net Energy (ZNE) standards for new construction, in compliance with, or ahead of, State standards (i.e. 2030 for non-residential structures). The California Energy Efficiency Strategic Plan established the goals that new commercial development shall achieve ZNE by 2030. On a building level, ZNE is defined by the California Department of General Services as an energy-efficient building where the actual consumed energy is less than or equal to the on-site</p>	<p>During all planning efforts for new Cosumnes CSD facilities following adoption of this CAP/SAP.</p>	<p>Planning, Design & Construction Division; Fire Operations Division</p>	<p>MEDIUM-HIGH</p>

Table 7 Implementation Table			
Measure	Timing	Responsible Entity	Benefit to Cost Ratio
renewable energy generated, on an energy source basis. That is, a ZNE building must generate as much energy as is consumed. ZNE can be achieved through a combination of energy efficiency improvements, increased renewable energy generation, and upgrades to existing development.			
<p>Measure BD-5: Water Conservation in Facilities</p> <p>Promote water conservation in Cosumnes CSD owned and operated facilities:</p> <ul style="list-style-type: none"> a) Maintain an inventory of water use by facility; b) Audit facilities to identify potential water saving measures; c) Prioritize identified measures based on efficacy and cost effectiveness; d) Establish water efficiency standards and best management practices for new facilities. 	<ul style="list-style-type: none"> a) Ongoing. b) Ongoing. c) Following adoption of this CAP/SAP. d) Following adoption of this CAP/SAP. 	<p>Planning, Design & Construction Division; Fire Operations Division</p>	<p>MEDIUM</p>
<p>Measure RE-1: Renewable Energy Production Plan</p> <p>Formalize a Renewable Energy Production Plan. In collaboration with SMUD or another entity, the Cosumnes CSD shall:</p> <ul style="list-style-type: none"> a) Inventory existing renewable energy installations within Cosumnes CSD owned/operated facilities; b) Establish a goal for renewable energy production within Cosumnes CSD owned/operated facilities; and 	<ul style="list-style-type: none"> a) Ongoing. b) Following adoption of this CAP/SAP. c) Ongoing. 	<p>Planning, Design & Construction Division; Fire Operations Division</p>	<p>HIGH</p>

Table 7 Implementation Table			
Measure	Timing	Responsible Entity	Benefit to Cost Ratio
<p>c) Inventory potential Cosumnes CSD-owned facilities and properties that could be developed with renewable energy infrastructure.</p> <p>The Cosumnes CSD may also consider enrolling in SMUD's Greenergy or SolarShares programs to support utility scale solar. The Greenergy program offers grid electricity from renewable sources, and SolarShares offers installation of rooftop solar panels at no additional cost.</p>			
<p>Measure RE-2: On-site Renewable Energy Storage</p> <p>Study the feasibility of combining on-site renewable energy production with on-site energy storage as a means of providing emergency power to fire facilities.</p>	<p>Following adoption of this CAP/SAP and during planning process for new facilities.</p>	<p>Planning, Design & Construction Division; Fire Operations Division</p>	<p>LOW</p>
<p>Measure LP-1: Provide Bicycle Parking</p> <p>Exceed local standards for bicycle parking at Cosumnes CSD-owned facilities. Inventory existing bicycle parking and identify opportunities to increase the safety or accessibility of existing bicycle parking. Require new Cosumnes CSD facilities to include provision of bicycle parking appropriate for the use (i.e., short- and/or long-term parking). The Cosumnes CSD may choose to partake in bike share partnerships, such as LIME Bikes or other similar programs, in order to further encourage bicycle use.</p>	<p>Following adoption of this CAP/SAP begin inventory of existing bicycle parking resources. Establish guidelines for bicycle parking at new Cosumnes CSD facilities. Begin outreach efforts for bike share partnerships. Collaborate with Elk Grove to aid implementation of the Elk Grove Bicycle, Pedestrian, and Trails Master Plan should the plan be adopted.</p>	<p>Planning, Design & Construction Division; Fire Operations Division</p>	<p>MEDIUM</p>

**Table 7
 Implementation Table**

Measure	Timing	Responsible Entity	Benefit to Cost Ratio
<p>Measure LP-2: Bicycle and Pedestrian Infrastructure Improvement</p> <p>Promote pedestrian and bicycle connectivity between proposed and existing facilities and private development. This measure could be accomplished through early consultation during the development proposal process or preparation of guidelines of new development connection strategies in consultation with the City of Elk Grove and/or Sacramento County. Partner with the City of Elk Grove and other interested parties to make Cosumnes CSD facilities available for use as bike share hubs. Consider offering electric bicycle charging stations at Cosumnes CSD facilities either as part of the bike share partnerships or to the general public.</p>	<p>Following adoption of this CAP/SAP reach out to relevant departments at the City of Elk Grove and/or Sacramento County to communicate the intent of this measure (for instance Elk Grove Planning Division and Sacramento County Planning & Environmental Review).</p> <p>On an on-going basis provide comments on proposals for new developments within the Cosumnes CSD's service area to ensure new developments provide connectivity to Cosumnes CSD's facilities.</p>	<p>Planning, Design & Construction Division; Fire Operations Division</p>	<p>UNKNOWN</p>
<p>Measure LP-3: Provide Electric Vehicle Charging Infrastructure</p> <p>Support the use of alternative fueled vehicles through the provision of electric vehicle charging stations at Cosumnes CSD-owned facilities. In partnership with SMUD (for instance, under the Commercial Charging Pilot program), the Cosumnes CSD may inventory existing parking lots and determine where installation of electric vehicle charging stations could be feasible.</p>	<p>Following adoption of this CAP/SAP, coordinate with SMUD to determine existing available resources. Begin inventorying existing parking facilities to determine where installation of electric vehicle charging facilities is feasible, and determine schedule for</p>	<p>Planning, Design & Construction Division; Fire Operations Division</p>	<p>MEDIUM-HIGH</p>

Table 7 Implementation Table			
Measure	Timing	Responsible Entity	Benefit to Cost Ratio
	installation of electric vehicles. Include electric vehicle parking infrastructure in all new facilities.		
<p>Measure LP-4: Heavy Equipment Upgrades</p> <p>Work with SMAQMD and ARB to complete equipment upgrades, retrofits, and replacement for Cosumnes CSD-owned heavy-duty vehicles and equipment. Prioritize oldest or most emissions intensive pieces of equipment.</p>	<p>Following adoption of this CAP/SAP, coordinate with SMAQMD regarding existing programs for replacement of heavy-duty equipment. Prioritize highest emitting equipment for replacement or retrofit (typically the oldest equipment).</p>	<p>Fire Administration Division; Fire Operations Division</p>	<p>UNKNOWN</p>
<p>Measure LP-5: Cool Community Strategy</p> <p>Implement Cool Community strategies, such as cool roofs and cool pavements. Strategically plant trees to shade pavement and structures.</p> <p>The Cosumnes CSD has already made progress towards this measure, and several basketball courts are coated with cool pavements. This measure could be extended to parking areas, Cosumnes CSD facility rooftops, and any other paved areas.</p>	<p>Following adoption of this CAP/SAP consider Cool Community strategies in all new development, and when resurfacing existing paved areas. Incorporate shade tree planning into the Tree Management Plan adopted as part of Measure LM-1.</p>	<p>Planning, Design & Construction Division</p>	<p>MEDIUM-LOW</p>
<p>Measure LM-1: Tree Management Plan</p> <p>Draft and implement a Tree Management Plan. The Plan may include strategies to reduce biogenic Volatile Organic Compound emissions (which is a component of urban smog), adapt to warmer temperatures, and calculate the carbon sequestration potential of new trees. Collaborate</p>	<p>Following adoption of this CAP/SAP create a timeline for adoption and implementation of a Tree Management Plan, ideally</p>	<p>Planning, Design & Construction Division</p>	<p>HIGH</p>

Table 7 Implementation Table			
Measure	Timing	Responsible Entity	Benefit to Cost Ratio
with the cities of Elk Grove and Galt to meet tree planting goals. Increase commitment to providing shade trees in parking areas of new or existing facilities beyond the level currently required by local jurisdictions	within five years of adoption of this CAP/SAP.		
Measure LM-2: Low-maintenance Nature Gardens Integrate community butterfly gardens and nature gardens into existing and future Cosumnes CSD parks. Work with contractors to reduce reliance on fossil fuel powered landscaping equipment. The Cosumnes CSD may consider adding requirements to contracts related to use of electric-powered landscaping equipment. To support future use of electric equipment, the Cosumnes CSD could require new facilities to be designed with outdoor electrical outlets sufficient to support such equipment.	Following adoption of this CAP/SAP seek to include language applying measure during future contract negotiations. Incorporate low-maintenance design principles into future updates to Cosumnes CSD's Parks Design Principles. During design of new facilities ensure outdoor electric outlets are provided where feasible.	Planning, Design & Construction Division, Park & Golf Operations Division	MEDIUM
Measure LM-3: Reduce Fertilizer Use Work with contractors to reduce fertilizer use within Cosumnes CSD facilities to the extent feasible. The amount of fertilizer can be tailored for specific landscaped areas, and applied directly to root areas to further reduce the amount required. Continue the substantial progress Cosumnes CSD has already made in this effort. In addition, the Cosumnes CSD shall prohibit/discourage fertilizer application immediately before and during rain events, as	Following adoption of this CAP/SAP seek to include language applying this measure during future contract negotiations. Include fertilizer application standards in new contracts. Seek to implement a Cosumnes CSD composting program to re-use green	Planning, Design & Construction Division, Park & Golf Operations Division	UNKNOWN

Table 7 Implementation Table			
Measure	Timing	Responsible Entity	Benefit to Cost Ratio
<p>fertilizer applied prior to rain is often washed away before being taken in by plants.</p> <p>In concert with measure SW-2, Composting, the Cosumnes CSD could implement a fertilizing program that recycles compost collected from Cosumnes CSD park visitors and applies the compost to Cosumnes CSD landscaped areas as organic fertilizer.</p>	<p>waste as a sustainable source of fertilizer.</p>		
<p>Measure LM-4: Water-Efficient Irrigation Practices</p> <p>Continue to maintain water-efficient practices and monitoring. Examples of actions that are currently taken by Cosumnes CSD and should be continued include use of drip irrigation systems where practical, monitoring of spray irrigation systems to ensure efficient use, and monitoring of precipitation events to avoid over-watering.</p> <p>Considering that the Cosumnes CSD has already made substantial progress in implementing this measure. A next step could involve using reclaimed water to irrigate landscaped areas (see Measure LM-7 for more information). The Cosumnes CSD may also seek to ensure that water use is being tracked and shared with decision makers, such as the board of directors, to illustrate the water efficiency improvements and water use challenges confronting the District.</p> <p>The commitment to water efficiency shall be sustained and incorporated into the planning for all new parks and facilities.</p>	<p>Draft best management practices for irrigation timing and duration and implement such practices within first year following adoption of this CAP/SAP.</p>	<p>Planning, Design & Construction Division, Park & Golf Operations Division</p>	<p>HIGH</p>

Table 7 Implementation Table			
Measure	Timing	Responsible Entity	Benefit to Cost Ratio
<p>Measure LM-5: Implement Landscaping Guidelines</p> <p>Implement Cosumnes CSD-wide Landscaping Design Guidelines that shall include and enforce:</p> <ul style="list-style-type: none"> a) Efficiency requirements for indoor and outdoor water fixtures; b) Best management practices related to irrigation infrastructure and monitoring; c) A list of preferred plants based on BVOC emissions rates, water use, maintenance requirements, biological benefits (native or non-native), and resiliency to future climate change. Preferred plants should continue to be suitable for the regional climate, and require decadal update and review; d) Compliance with the statewide Model Water Efficient Landscape Ordinance (MWELO); and e) Implementation of features from the River-Friendly Landscape Guidelines, as prepared by the Sacramento Stormwater Quality Partnership. 	<p>Draft and implement guidelines within first year following adoption of this CAP/SAP.</p>	<p>Planning, Design & Construction Division, Park & Golf Operations Division</p>	<p>HIGH</p>
<p>Measure LM-6: Wildfire Adaptation</p> <p>Wildfire poses a severe threat to the health and safety of Cosumnes CSD employees and the public. To confront this threat the Cosumnes CSD shall:</p> <ul style="list-style-type: none"> a) Continue to include wildfire response in fiscal and operational planning; b) Plan for and provide support services to Cosumnes Fire Department staff including 	<p>Upon adoption of this CAP/SAP the Cosumnes CSD shall seek to immediately implement the following measures:</p> <ul style="list-style-type: none"> a) Account for wildland fire deployments during fiscal and operational planning; 	<p>All Agency Departments</p>	<p>Not Assigned</p>

Table 7 Implementation Table			
Measure	Timing	Responsible Entity	Benefit to Cost Ratio
<p>participation in peer support services and crisis referral services;</p> <p>c) Support and promote the existing Fire Prevention Bureau within the Cosumnes Fire Department and identify areas particularly vulnerable to increased fire risk due to drought;</p> <p>d) Investigate providing clean air centers at existing and proposed Cosumnes CSD facilities; and</p> <p>e) Plan for and provide protection equipment, such as N95 masks, for employees and members of the public.</p>	<p>b) Participate in support services on an on-going basis;</p> <p>c) Identify areas currently at risk of wildfire and those areas that may experience heightened risk during future droughts;</p> <p>d) Before the 2021 fire season seek collaboration with the City of Elk Grove and SMAQMD; and</p> <p>e) Before the 2021 fire season and dependent upon the COVID-19 pandemic and supply availability, seek to create a reasonable stock-pile of N95 masks for personnel.</p>		
<p>Measure LM-7: Recycled Water</p> <p>Implement a recycled water program to irrigate landscaped areas with treated wastewater from Cosumnes CSD facilities.</p> <p>The Cosumnes CSD can promote the use of recycled water for appropriate and cost-effective uses. Recycling water is a water management strategy that relies on the reuse of purchased potable water for beneficial uses. Approved uses of recycled water include landscape and golf course</p>	<p>Within the next five-years, investigate the feasibility of installing recycled water systems at new Cosumnes CSD. If proven to be feasible, begin designing future facilities with recycled water systems.</p>	<p>Planning, Design & Construction Division</p>	<p>MEDIUM-HIGH</p>

Table 7 Implementation Table			
Measure	Timing	Responsible Entity	Benefit to Cost Ratio
irrigation, toilet flushing, construction activities, and others. Gray water refers to reusable wastewater from bathroom sinks, bath and shower drains, and clothes washing drains, that can be reused on-site, often for landscape irrigation. The use of gray water for irrigation is known to reduce the demand for fertilizer use. ⁸¹ Therefore, this measure would complement implementation of Measure LM-3.			
<p>Measure TR-1: Encourage Alternative Transportation</p> <p>Work with e-tran and South County Transit to continue promoting existing bus lines serving the Cosumnes CSD facilities. Promote bicycle travel to and from events through provision of bicycle valet services or other means. Including transportation options on event websites (i.e., include a “How to Get Here” page outlining available transit and bike options). Make brochures available for transit schedules at events. Invite transit representatives to table at events and distribute information.</p>	<p>Within first year of adoption of this CAP/SAP begin consultation with e-tran and South County Transit. Begin including transportation options on event websites and brochures within one year of adoption of this CAP/SAP.</p>	<p>Planning, Design & Construction Division; Recreation & Community Services Division</p>	<p>HIGH</p>
<p>Measure TR-2: Reduce Employee Commutes</p> <p>Reduce Cosumnes CSD employee commutes and associated vehicle emissions by:</p> <p>a) Implementing flextime work arrangements, including telecommuting and alternative work schedules, to decrease daily commuter trips.</p>	<p>Seek to implement an employee commute reduction plan within first two years following adoption of the CAP/SAP. Once implemented, begin tracking success of the program on a quarterly or biannual basis.</p>	<p>All Agency Departments</p>	<p>HIGH</p>

⁸¹ U.S. Environmental Protection Agency. *Water Recycling and Reuse: The Environmental Benefits*. Available at: <https://19january2017snapshot.epa.gov/www3/region9/water/recycling/>. Accessed August 28, 2020.

**Table 7
 Implementation Table**

Measure	Timing	Responsible Entity	Benefit to Cost Ratio
<p>b) Instituting a Cosumnes CSD employee carpooling program. Set a goal for employee participation, for instance, by establishing a target number of employee carpools per month or a goal for total VMT avoided through carpooling.</p> <p>c) Promoting bicycle commuting for employees. Set a goal for employee participation.</p> <p>d) Participating in Traffic Management Associations (TMAs) formed by the City of Elk Grove or the City of Galt. In general, TMAs provide ongoing training and special assistance to TMA members for the implementation of commute alternative programs at work sites, including monthly networking meetings and assistance with work site program design. TMA activities include outreach to area employees and residents in an effort to provide varied commute choices, including bicycle and vanpool subsidies, vanpool formation assistance, and transit information.</p>			
<p>Measure TR-3: Optimize Cosumnes CSD Vehicle Fleet</p> <p>Optimize the Cosumnes CSD vehicle fleet by conducting an inventory of all Cosumnes CSD owned vehicles including fuel consumed per year and fuel economy. Establish a target miles per gallon fuel economy for the entire fleet aimed at reducing fuel consumption by Cosumnes CSD-owned vehicles. Encourage future vehicle purchases be alternatively fueled vehicles (i.e.,</p>	<p>Following adoption of this CAP/SAP seek to establish target miles per gallon within one year. Review and update any existing fleet maintenance guidelines or draft new guidelines to ensure proper tire inflation,</p>	<p>Planning, Design & Construction Division, Park & Golf Operations Division, Fire Fleet Maintenance</p>	<p>HIGH</p>

Table 7 Implementation Table			
Measure	Timing	Responsible Entity	Benefit to Cost Ratio
<p>electric, natural gas, hydrogen, renewable diesel) where feasible.</p> <p>As part of fleet optimization and fleetwide fuel economy improvements, the Cosumnes CSD shall ensure the proper maintenance of vehicles (such as proper tire inflation and properly timed oil changes) to ensure Cosumnes CSD vehicles operate at the maximum fuel efficiency possible, and educate Cosumnes CSD employees of the benefits of reducing vehicle idling times.</p>	<p>properly timed oil changes, and reduce idling time.</p>		
<p>Measure TR-4: Reduce Vehicle Idling</p> <p>Encourage a reduction in idling time for Cosumnes CSD-owned vehicles through education of Cosumnes CSD field crews and outreach to Cosumnes CSD employees.</p>	<p>Following adoption of this CAP/SAP promulgate an idling reduction fact sheet outlining the costs of idling and benefits of reducing idling to all Cosumnes CSD employees that are authorized to use Cosumnes CSD vehicles. Integrate anti-idling information into training for new employees.</p>	<p>Planning, Design & Construction Division, Park & Golf Operations Division, Fire Fleet Maintenance</p>	<p>HIGH</p>
<p>Measure TR-5: Reduce Air Travel</p> <p>Promote train or bus travel as an alternative to long-flying for employee travel. Consider purchasing carbon off-sets for unavoidable air travel. The Cosumnes CSD shall prioritize employee travel in the following order:</p> <ol style="list-style-type: none"> 1. Coach/Bus 2. Railroad 	<p>Following adoption of this CAP/SAP during any future occasions necessitating employee travel.</p>	<p>All Agency Departments</p>	<p>LOW</p>

Table 7 Implementation Table			
Measure	Timing	Responsible Entity	Benefit to Cost Ratio
3. Light Rail 4. Air Travel 5. Single-Passenger Vehicle			
<p>Measure SW-1: Recycling</p> <p>Develop and adopt a policy requiring the provision of recycling receptacles and proper handling of recyclable materials at all events requiring a permit or held on Cosumnes CSD-owned or operated property. The Cosumnes CSD could also partner with the Environmental Protection Agency's (EPA's) WasteWise program. WasteWise offers reduced purchasing and waste disposal costs, educational materials, and recognition for achieving recycling goals.</p> <p>By 2050, the Cosumnes CSD could aim for 50 percent of all events to be Zero Waste Events. Zero Waste Events use recyclable, compostable, or reusable products (i.e., compostable plates, cups, and utensils) and provide bins and clear signage to facilitate proper waste sorting. Reach out to local groups, such as the Sacramento State Sustainability Committee, that may be willing to volunteer as educators at Zero Waste Events. More information and a planning guide for Zero Waste Events can be found at the following website: https://green.harvard.edu/tools-resources/how/zero-waste-event-guide</p>	<p>Within first five-years following adoption of this CAP/SAP develop and implement recycling policy. Prior to 2050 begin promoting and implementing Zero Waste Events.</p>	<p>All Agency Departments</p>	<p>MEDIUM</p>
<p>Measure SW-2: Composting</p> <p>Institute a composting program at Cosumnes CSD-owned or operated properties and/or Cosumnes CSD events. Expanding organics composting</p>	<p>Within first five years following adoption of this CAP/SAP determine</p>	<p>All Agency Departments</p>	<p>MEDIUM</p>

Table 7 Implementation Table			
Measure	Timing	Responsible Entity	Benefit to Cost Ratio
would reduce the amount of waste produced within the Cosumnes CSD, and reduce the amount of GHG emissions from waste disposal. Expansion of organics collection may also allow for diversion of such waste for other beneficial uses.	feasibility of independent Cosumnes CSD composting program. Seek consultation with solid waste provider for Cosumnes CSD facilities to determine feasibility of organics collection at Cosumnes CSD facilities.		
Measure SW-3: Construction Waste Diversion Commit to California Green Building Code (CALGreen) Tier 1 or Tier 2 construction and demolition waste diversion rates. CALGreen Tier 1 requires 65 percent of all construction and demolition waste to be diverted from local landfills, and Tier 2 requires that 80 percent be diverted. The Cosumnes CSD shall enforce this measure by adding a construction waste diversion requirement to future public works contracts.	During all planning efforts for new Cosumnes CSD facilities following adoption of this CAP/SAP.	Planning, Design & Construction Division Fire Department Administration Division,	LOW

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Attachment B

2018 Inventory Assumptions Sheet

Inventory Records:

- 1 Natural Gas Generators**
- 2 Propane Generators**
- 3 Diesel Generators**
- 4 SMUD Electricity**
- 5 PG&E Gas Use**

1 Natural Gas Generators	
Direct Entry Record?	Yes
Fuel Type	Natural Gas
Daily Operating Hours (hr/day)	0.052877
Scope 3?	yes
Previously Calculated CO2 (MTCO2)	0.5851
Notes	CO2 equivalents calculated using CalEEMod Entered horsepower and hours of use (applicant-provided) under emergency generator Modeling assumptions sheet in "Buildings and Facilities" folder

2 Propane Generators	
Direct Entry Record?	Yes
Fuel Type	Propane
Daily Operating Hours (hr/day)	0.4065
Scope 3?	Yes
Previously Calculated CO2 (MTCO2)	1.9782
Notes	Direct entry record, calculated CO2 equivalents using CalEEMod Used applicant-provided hours of use log and horsepower to set emergency generator modeling assumptions sheet in "buildings and facilities" folder

3 Diesel Generators	
Direct Entry Record?	Yes
Fuel Type	Residual Fuel Oil No. 5
Daily Operating Hours (hr/day)	0.09589
Scope 3?	Yes
Previously Calculated CO2 (MTCO2)	1.3981
Notes	https://www.edf.org/sites/default/files/10071_EDF_BottomBarrel_Ch3.pdf ^based on this source, Residual Fuel Oil No. 5 is the closest option to diesel fuel this is a direct entry that used CalEEMod and applicant-provided hours and horsepower to calculate CO2 equivalents more info can be found on the assumptions sheet in the "buildings and facilities" folder

4 SMUD Electricity	
Factor Set	SMUD 2018
Direct Entry Record?	No
Electricity Used (kWh)	2407645
Scope 3?	Yes
Notes	Total kWh provided by SMUD. See April 9 email from SMUD Spreadsheets entitled: Cosumnes CSD Data April 2020

5 PG&E Gas Use	
Calculation Type	Heat
CHP Facility Fuel Type	Natural Gas
Total Facility Fuel Consumption (MMBtu)	56100.13
Total Useful Heat Produced (MMBtu)	56100.13
Efficiency of Steam Production	80
Efficiency of Electricity Production	35
Your Heat Purchases (MMBtu)	56100.13
Notes	Per PG&Es average billing rates spreadsheet, average gas rate is 0.3\$ per therm Total Bill = \$168300.39 Total therms/MMBtu = 56100.13

- Inventory Records:**
- 1 Gasoline Fleet**
 - 2 Diesel Fleet**
 - 3 Procida Landscaping Fuel Use**
 - 4 EGP Landscaping Fuel Use - Diesel**
 - 5 Coast Landscaping Fuel Use**
 - 6 EGP Landscaping Fuel Use - Gas**

1 Gasoline Fleet

Transportation Factor Set	2018 US National Defaults
Grid Electricity Factor Set	SCE 2018 Default
Direct Entry?	No
Outsourced Vehicles?	Government Owned
Fuel Type	Gasoline
Annual Fuel Use (Gallons)	41904.9
Annual VMT	534878
% Passenger Vehicle	38.5
% Light Truck	54
% Heavy Truck	7.5
Notes	

2 Diesel Fleet

Transportation Factor Set	2018 US National Defaults
Grid Electricity Factor Set	SCE 2018 Default
Direct Entry?	No
Outsourced Vehicles?	Government Owned
Fuel Type	Diesel
Annual Fuel Use (Gallons)	74376
Annual VMT	490151
% Passenger Vehicle	4
% Light Truck	6
% Heavy Truck	90
Notes	

3 Procida Landscaping Fuel Use

Transportation Factor Set	2018 US National Defaults
Grid Electricity Factor Set	SCE 2018 Default
Direct Entry?	No
Outsourced Vehicles?	Government Owned
Fuel Type	Gasoline
Annual Fuel Use (Gallons)	38097.9
Annual VMT	
% Passenger Vehicle	0
% Light Truck	100
% Heavy Truck	0
Notes	

4 EGP Landscaping Fuel Use - Diesel

Transportation Factor Set	2018 US National Defaults
Grid Electricity Factor Set	SCE 2018 Default
Direct Entry?	No
Outsourced Vehicles?	Government Owned
Fuel Type	Diesel
Annual Fuel Use (Gallons)	2070
Annual VMT	
% Passenger Vehicle	
% Light Truck	100
% Heavy Truck	
Notes	

5 Coast Landscaping Fuel Use

Transportation Factor Set	2018 US National Defaults
Grid Electricity Factor Set	SCE 2018 Default
Direct Entry?	No
Outsourced Vehicles?	Government Owned
Fuel Type	Gasoline
Annual Fuel Use (Gallons)	18000
Annual VMT	
% Passenger Vehicle	
% Light Truck	100
% Heavy Truck	
Notes	

6 EGP Landscaping Fuel Use - Gas

Transportation Factor Set	2018 US National Defaults
Grid Electricity Factor Set	SCE 2018 Default
Direct Entry?	No
Outsourced Vehicles?	Government Owned
Fuel Type	Gasoline
Annual Fuel Use (Gallons)	2160
Annual VMT	
% Passenger Vehicle	
% Light Truck	100
% Heavy Truck	
Notes	

Inventory Records 1 Employee Air Travel

1 Employee Air Travel

Total Employee Aviation Passenger Miles	108760
Default?	Yes
Percent Medium Haul Flights	100
Notes	Total miles flown is from FY 18.19 Air Mileage and Cost 100% medium haul flights is from the Air Mileage Spreadsheet.

- Inventory Records:
- 1 Procida - Solid Waste
 - 2 Republic Services - Green Waste
 - 3 Republic Services - Solid Waste
 - 4 Procida - Green Waste
 - 5 Fair Deal Waste, City Park and City Yard, etc. - Green Waste
 - 6 Coast - Green Waste

1 Procida - Solid Waste		
Waste Characterization		Default community waste
Direct Entry?		no
Total Waste Landfilled (tons)		14.575
Methane Collection?		no
Notes		
2 Republic Services - Green Waste		
Waste Characterization		Default community waste
Direct Entry?		no
Total Waste Landfilled (tons)		99.55
Methane Collection?		no
Notes		
3 Republic Services - Solid Waste		
Waste Characterization		Default community waste
Direct Entry?		no
Total Waste Landfilled (tons)		291.67
Methane Collection?		no
Notes		
4 Procida - Green Waste		
Waste Characterization		Default community waste
Direct Entry?		no
Total Waste Landfilled (tons)		341.44
Methane Collection?		no
Notes		
5 Fair Deal Waste, City Park and City Yard, etc. - Green Waste		
Waste Characterization		Default community waste
Direct Entry?		no
Total Waste Landfilled (tons)		680.11
Methane Collection?		no
Notes		
6 Coast - Green Waste		
Waste Characterization		Default community waste
Direct Entry?		no
Total Waste Landfilled (tons)		2600
Methane Collection?		no
Notes		seems really large? based on the applicant-provided "Park Ops CAP Data" spreadsheet

Inventory Records: **1 Electricity for Wastewater Collection and Treatment**
2 Electricity from Water Conveyance

1 Electricity for Wastewater Collection and Treatment	
Factor Set	SMUD 2018
Direct Entry?	No
Electricity Used (kWh)	1283482.999
Volume of Water Processed (MGD)	2.093090344
Scope 3?	No
Notes	Table WW.15.2 of ICLEI Handbook Median Value for Wastewater Collection Energy Intensity = 280 kWh/MG Table WW.15.3 Conventional Aerobic Intensity for Wastewater Treatment when facility is 50+ MGD = 1400 kWh/MG *Refer to "Water Overview" Spreadsheet

2 Electricity from Water Conveyance	
Factor Set	SMUD 2018
Direct Entry?	No
Electricity Used (kWh)	1333821.7813
Volume of Water Processed (MGD)	2.093090344
Scope 3?	No
Notes	See "Water Overview" Spreadsheet

Inventory Records: 1 Fertilizer Emissions

1 Fertilizer Emissions

Gas in CO2 Equivalent (MT) 5.09

Scope 3? No

Notes: EGP: 0.05

Coast: 4.85

Procidia: 0.19

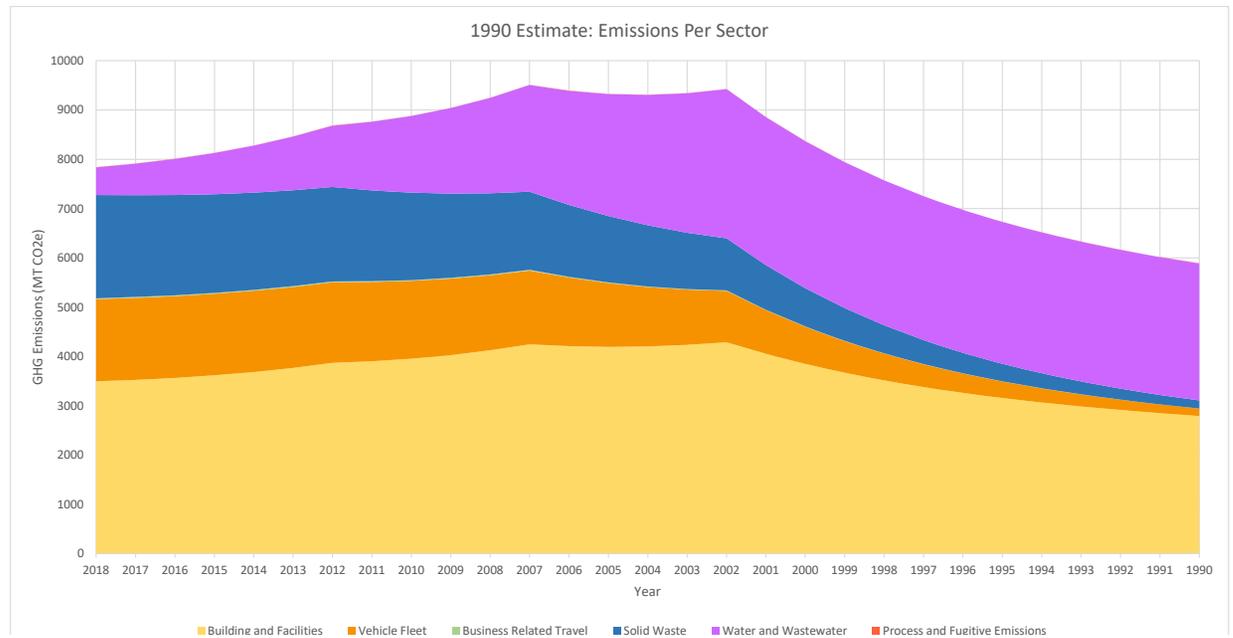
Total: 5.09 co2

this is based off an emissions factor on page 11.34 of https://www.ipcc-nggip.iges.or.jp/public/2006gl/pdf/4_Volume4/V4_11_Ch11_N2O&CO2.pdf

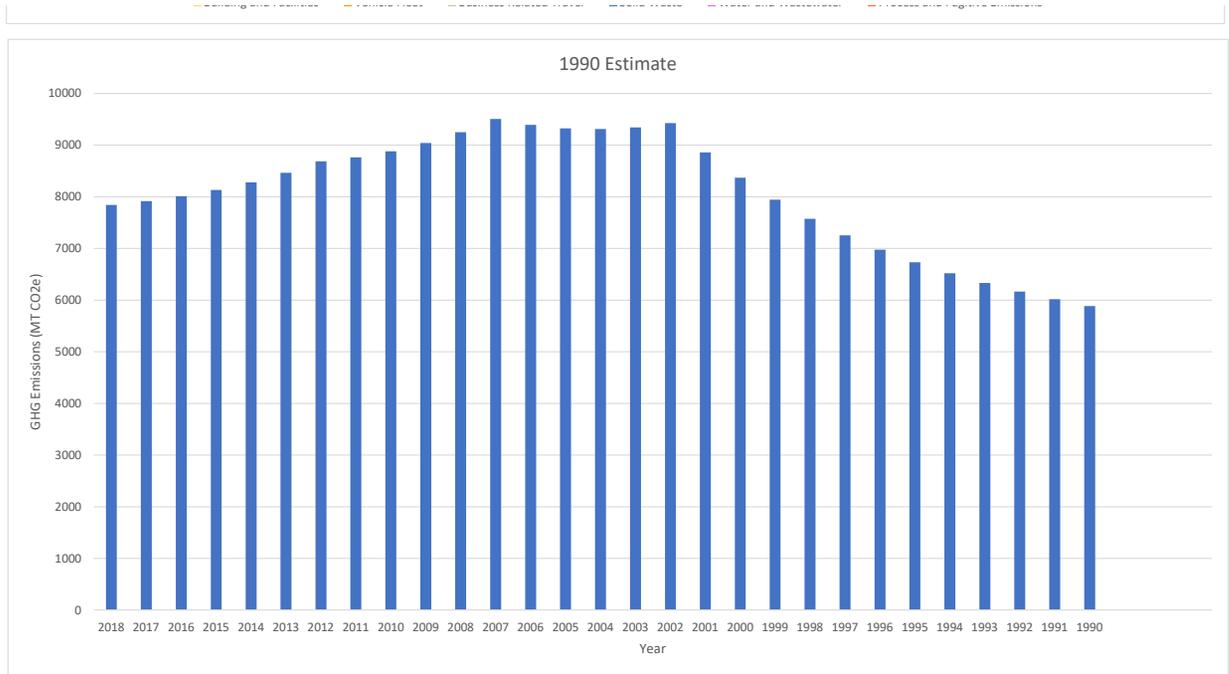
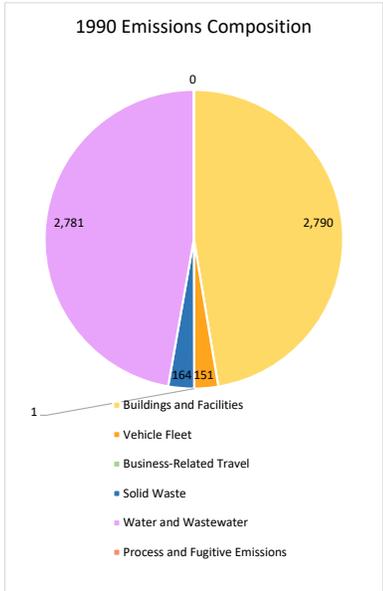
1990 Forecast Data

Year	Buildings and Facilities						Vehicle Fleet				Business Related Travel	Solid Waste		Water and Wastewater		Process and Fugitive Emissions		Total CO2e					
	SMUD Elec CO2e	Natural Gas CO2e	Propane Gas CO2e	Residual Fuel CO2e	Heat - PG&E CO2e	Gas VMT CO2e	Diesel VMT CO2e	Air Travel CO2e	Waste in W CO2e	Water and CO2e	Fertilizer Usage CO2e												
2018	8217	514	1	1	1	2	1	1	56087	2977	534878	883	490151	781	108760	18	4027	2100	8933	559	1	5	7841
2017	8094	587	1	1	1	2	1	1	55245	2932	526855	882	482799	781	107129	18	3967	2069	8799	638	1	5	7916
2016	7973	671	1	1	1	2	1	1	54417	2888	518952	880	475557	779	105522	17	3907	2038	8667	729	1	5	8011
2015	7853	767	1	1	1	2	1	1	53601	2845	511168	877	468423	776	103939	17	3849	2007	8537	834	1	5	8132
2014	7735	876	1	1	1	2	1	1	52796	2802	503500	874	461397	774	102380	17	3791	1977	8409	952	1	5	8281
2013	7619	1001	1	1	1	2	1	1	52005	2760	495948	871	454476	771	100844	17	3734	1948	8283	1088	1	5	8465
2012	7505	1144	1	1	1	2	1	1	51224	2719	488508	868	447659	769	99331	16	3678	1918	8158	1243	1	5	8686
2011	7227	1278	1	1	1	2	1	1	49329	2618	470434	853	431096	755	95656	16	3542	1847	7857	1389	1	4	8764
2010	6960	1427	1	0	1	2	1	1	47504	2521	453028	838	415145	742	92117	15	3411	1779	7566	1552	1	4	8881
2009	6702	1594	1	0	1	2	1	1	45746	2428	436266	823	399785	729	88709	15	3285	1713	7286	1733	1	4	9042
2008	6454	1781	1	0	1	2	1	1	44054	2338	420124	808	384993	716	85426	14	3163	1650	7016	1936	1	4	9250
2007	6215	1990	1	0	1	1	1	1	42424	2252	404579	794	370748	703	82266	13	3046	1589	6757	2163	1	4	9510
2006	5731	2128	1	0	1	1	1	1	39115	2076	373022	739	341830	654	75849	12	2809	1465	6230	2313	1	4	9393
2005	5284	2276	1	0	1	1	1	1	36064	1914	343926	687	315167	608	69933	11	2590	1351	5744	2474	1	3	9326
2004	4872	2434	1	0	1	1	1	1	33251	1765	317100	639	290584	566	64478	11	2388	1245	5296	2646	1	3	9311
2003	4492	2603	1	0	1	1	1	1	30657	1627	292366	595	267918	526	59449	10	2201	1148	4883	2830	1	3	9344
2002	4141	2784	1	0	1	1	1	1	28266	1500	269562	553	247021	490	54812	9	2030	1059	4502	3027	1	3	9427
2001	3545	2765	0	0	0	1	0	1	24196	1284	230745	470	211450	416	46919	8	1737	906	3854	3005	0	2	8858
2000	3034	2745	0	0	0	1	0	1	20711	1099	197518	400	181001	354	40162	7	1487	776	3299	2984	0	2	8369
1999	2597	2726	0	0	0	1	0	0	17729	941	169075	340	154937	301	34379	6	1273	664	2824	2963	0	2	7944
1998	2223	2707	0	0	0	1	0	0	15176	805	144728	289	132626	256	29428	5	1090	568	2417	2942	0	1	7574
1997	1903	2688	0	0	0	0	0	0	12991	689	123887	246	113528	217	25191	4	933	486	2069	2922	0	1	7253
1996	1629	2669	0	0	0	0	0	0	11120	590	106048	209	97180	185	21563	4	798	416	1771	2901	0	1	6975
1995	1395	2650	0	0	0	0	0	0	9519	505	90777	178	83186	158	18458	3	684	356	1516	2881	0	1	6732
1994	1194	2631	0	0	0	0	0	0	8148	432	77705	152	71207	135	15800	3	585	305	1298	2860	0	1	6519
1993	1022	2613	0	0	0	0	0	0	6975	370	66515	130	60953	115	13525	2	501	261	1111	2840	0	1	6332
1992	875	2594	0	0	0	0	0	0	5970	317	56937	111	52176	98	11577	2	429	224	951	2820	0	1	6167
1991	749	2576	0	0	0	0	0	0	5111	271	48738	94	44663	83	9910	2	367	191	814	2800	0	0	6017
1990	641	2558	0	0	0	0	0	0	4375	232	41720	80	38231	71	8483	1	314	164	697	2781	0	0	5887

Year	Building and Facilities	Vehicle Fleet	Business Related Travel	Solid Waste	Water and Wastewater	Process and Fugitive Emissions	Total
2018	3495	1664	18	2100	559	5	7841
2017	3523	1663	18	2069	638	5	7916
2016	3563	1659	17	2038	729	5	8011
2015	3616	1653	17	2007	834	5	8132
2014	3682	1648	17	1977	952	5	8281
2013	3765	1642	17	1948	1088	5	8465
2012	3867	1637	16	1918	1243	5	8686
2011	3900	1608	16	1847	1389	4	8764
2010	3951	1580	15	1779	1552	4	8881
2009	4025	1552	15	1713	1733	4	9042
2008	4122	1524	14	1650	1936	4	9250
2007	4244	1497	13	1589	2163	4	9510
2006	4206	1393	12	1465	2313	4	9393
2005	4192	1295	11	1351	2474	3	9326
2004	4201	1205	11	1245	2646	3	9311
2003	4232	1121	10	1148	2830	3	9344
2002	4286	1043	9	1059	3027	3	9427
2001	4051	886	8	906	3005	2	8858
2000	3846	754	7	776	2984	2	8369
1999	3668	641	6	664	2963	2	7944
1998	3513	545	5	568	2942	1	7574
1997	3377	463	4	486	2922	1	7253
1996	3259	394	4	416	2901	1	6975
1995	3155	336	3	356	2881	1	6732
1994	3063	287	3	305	2860	1	6519
1993	2983	245	2	261	2840	1	6332
1992	2911	209	2	224	2820	1	6167
1991	2847	177	2	191	2800	0	6017
1990	2790	151	1	164	2781	0	5887



1990 Summary Table	
Buildings a	2,790
Vehicle Fle	151
Business-R	1
Solid Wast	164
Water and	2,781
Process an	0
Total	5887

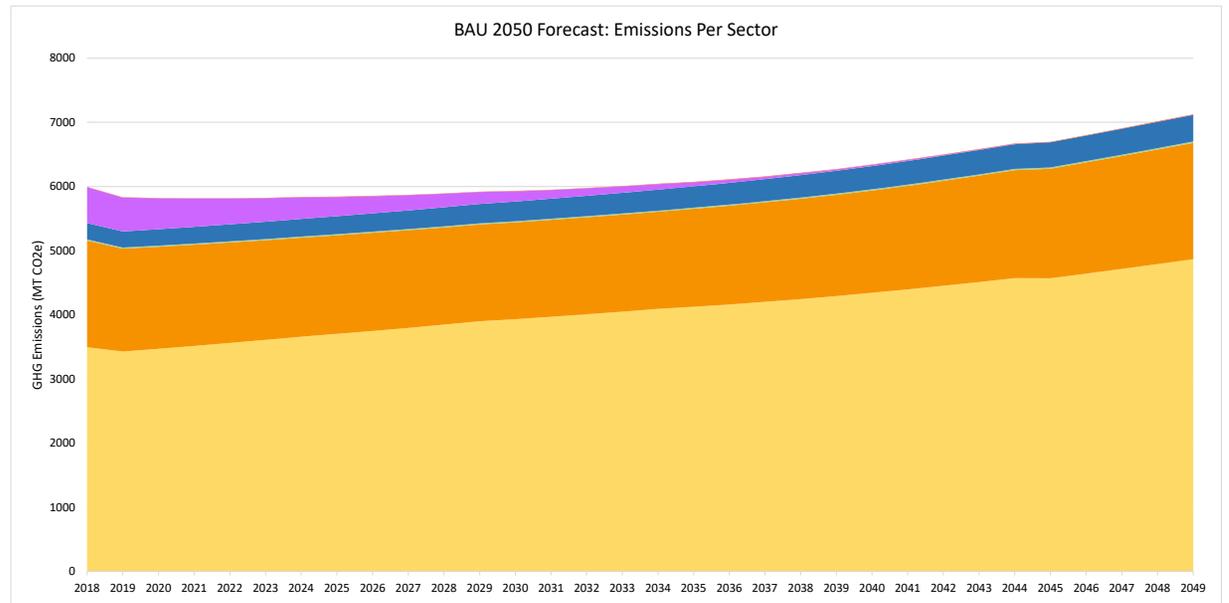


2050 Forecast Data

Year	Buildings and Facilities								Vehicle Fleet				Business Related Travel		Solid Waste		Water and Wastewater		Process and Fugitive Emissions		Total CO2e		
	SMUD Electric	CO2e	Natural Gas G	CO2e	Propane G	CO2e	Residual F	CO2e	Heat - PG	CO2e	Gas VMT	CO2e	Diesel VM	CO2e	Air Travel	CO2e	Waste in w	CO2e	Water and	CO2e		Fertilizer Usage	CO2e
2018	8217	514	1	1	2	2	1	1	56087	2977	534878	883	490151	781	108760	18	311	255	2299	559	5	5	5996
2019	8094	492	1	1	2	2	1	1	55245	2933	526855	850	482799	753	107129	17	307	251	2264	528	5	5	5833
2020	8248	479	1	1	2	2	1	1	56295	2988	536865	844	491972	747	109164	17	312	256	2307	482	5	5	5822
2021	8404	467	1	1	2	2	1	1	57365	3045	547066	838	501319	741	111238	17	318	261	2351	441	5	5	5819
2022	8564	455	1	1	2	2	1	1	58455	3103	557460	831	510844	736	113352	17	324	266	2396	403	5	5	5820
2023	8727	443	1	1	2	2	1	1	59565	3162	568051	825	520550	730	115505	17	331	271	2441	368	5	5	5825
2024	8893	432	1	1	2	2	2	2	60697	3222	578844	819	530441	725	117700	17	337	276	2487	337	6	6	5839
2025	9062	415	1	1	2	2	2	2	61850	3283	589843	815	540519	722	119936	17	343	281	2535	299	6	6	5843
2026	9234	399	1	1	2	2	2	2	63025	3346	601050	812	550789	718	122215	17	350	287	2583	266	6	6	5856
2027	9409	383	1	1	2	2	2	2	64223	3409	612469	808	561254	715	124537	17	356	292	2632	237	6	6	5872
2028	9588	368	1	1	2	2	2	2	65443	3474	624106	804	571918	712	126903	17	363	298	2682	210	6	6	5894
2029	9770	354	1	1	2	2	2	2	66687	3540	635964	801	582784	709	129315	17	370	303	2733	187	6	6	5922
2030	9927	331	1	1	2	2	2	2	67754	3597	646140	801	592109	709	131384	17	376	308	2777	159	6	6	5933
2031	10085	310	1	1	2	2	2	2	68838	3654	656478	802	601583	710	133486	17	382	313	2821	135	6	6	5952
2032	10247	291	1	1	2	2	2	2	69939	3713	666982	803	611208	710	135621	17	388	318	2866	115	6	6	5978
2033	10411	272	1	1	3	3	2	2	71058	3772	677653	803	620987	711	137791	17	394	323	2912	98	6	6	6008
2034	10577	255	1	1	3	3	2	2	72195	3832	688496	804	630923	712	139996	17	401	328	2959	83	7	7	6044
2035	10746	226	1	1	3	3	2	2	73350	3894	699512	810	641018	717	142236	18	407	333	3006	63	7	7	6074
2036	10918	200	1	1	3	3	2	2	74524	3956	710704	817	651274	723	144512	18	414	339	3054	48	7	7	6114
2037	11093	177	1	1	3	3	2	2	75716	4019	722075	823	661695	729	146824	18	420	344	3103	36	7	7	6159
2038	11271	156	1	1	3	3	2	2	76928	4084	733628	830	672282	734	149173	18	427	350	3153	28	7	7	6213
2039	11451	138	1	1	3	3	2	2	78158	4149	745367	836	683038	740	151560	18	434	355	3203	21	7	7	6270
2040	11634	123	1	1	3	3	2	2	79409	4215	757292	847	693967	750	153985	19	441	361	3254	16	7	7	6344
2041	11820	108	1	1	3	3	2	2	80679	4283	769409	858	705070	759	156449	19	448	367	3306	12	7	7	6419
2042	12009	96	1	1	3	3	2	2	81970	4351	781720	869	716351	769	158952	19	455	373	3359	9	7	7	6499
2043	12202	85	1	1	3	3	2	2	83282	4421	794227	880	727813	779	161495	19	462	379	3413	7	8	8	6584
2044	12397	75	1	1	3	3	2	2	84614	4492	806935	892	739458	789	164079	20	470	385	3468	5	8	8	6672
2045	12595	0	1	1	3	3	2	2	85968	4564	819846	905	751289	801	166704	20	477	391	3523	0	8	8	6695
2046	12797	0	1	1	3	3	2	2	87344	4637	832963	919	763310	813	169371	20	485	397	3579	0	8	8	6800
2047	13001	0	1	1	3	3	2	2	88741	4711	846291	932	775523	825	172081	21	492	403	3637	0	8	8	6906
2048	13209	0	1	1	3	3	2	2	90161	4786	859831	946	787931	838	174835	21	500	410	3695	0	8	8	7015
2049	13421	0	1	1	3	3	2	2	91604	4863	873589	960	800538	850	177632	21	508	416	3754	0	8	8	7124

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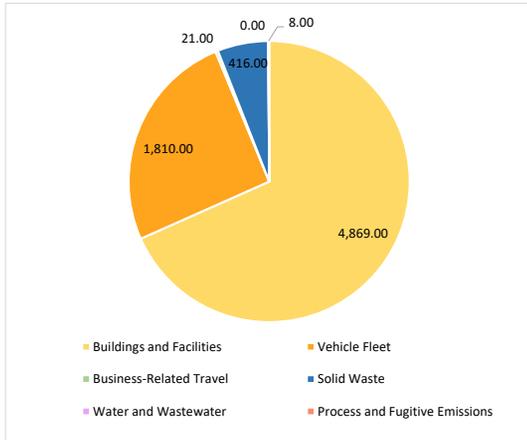
Year	Building and Fa	Vehicle Fle	Business Relat	Solid Wast	Water and	Process and	Total
2018	3495	1664	18	255	559	5	5996
2019	3429	1603	17	251	528	5	5833
2020	3471	1591	17	256	482	5	5822
2021	3516	1579	17	261	441	5	5819
2022	3562	1567	17	266	403	5	5820
2023	3609	1555	17	271	368	5	5825
2024	3659	1544	17	276	337	6	5839
2025	3703	1537	17	281	299	6	5843
2026	3750	1530	17	287	266	6	5856
2027	3797	1523	17	292	237	6	5872
2028	3847	1516	17	298	210	6	5894
2029	3899	1510	17	303	187	6	5922
2030	3933	1510	17	308	159	6	5933
2031	3969	1512	17	313	135	6	5952
2032	4009	1513	17	318	115	6	5978
2033	4050	1514	17	323	98	6	6008
2034	4093	1516	17	328	83	7	6044
2035	4126	1527	18	333	63	7	6074
2036	4162	1540	18	339	48	7	6114
2037	4202	1552	18	344	36	7	6159
2038	4246	1564	18	350	28	7	6213
2039	4293	1576	18	355	21	7	6270
2040	4344	1597	19	361	16	7	6344
2041	4397	1617	19	367	12	7	6419
2042	4453	1638	19	373	9	7	6499
2043	4512	1659	19	379	7	8	6584
2044	4573	1681	20	385	5	8	6672
2045	4570	1706	20	391	0	8	6695
2046	4643	1732	20	397	0	8	6800



2047	4717	1757	21	403	0	8	6906
2048	4792	1784	21	410	0	8	7015
2049	4869	1810	21	416	0	8	7124



Buildings a	4,869.00
Vehicle Fle	1,810.00
Business-R	21.00
Solid Wast	416.00
Water and	0.00
Process an	8.00
Total	7,124.00



Off-Model GHG Reduction Calculations

Measure BD-1: Energy-Efficient Buildings

Tier 1 compliance requires a 10% reduction in energy use

Tier 2 compliance requires a 15% reduction in energy use

Based on 2050 forecast:

CO2 from Electricity	CO2 from Natural Gas
0	4863

all GHG emissions are from natural gas. As such, the % reduction must be a direct reduction in natural gas use

Tier	% Reduction	Reduction	New Total Emissions
Tier 1	10	486.3	4376.7
Tier 2	15	729.45	4133.55

**use Tier 1

Measure BD-3: Limit Natural Gas Use

as noted above, all reductions from tier 1/tier 2 compliance would be from reduction in natural gas.

As such, this measure refers to an additional reduction in natural gas, already assuming compliance with tier 1 or tier 2

Tier	New Total Emissions	75% reduction
Tier 1	4376.7	3282.525
Tier 2	4133.55	3100.1625

**Use tier 1

lighting upgrades	Savings in kWh
	47,058
	23,311
	13,035
	6,965
	6,080
	1,175
	5,257
	4,122
	10,097
	9,973
	12,956
	14,492
	6,108
	20,445
	20,449
	22,782
	16,214
	21,474
	19,339
total:	281,332

source: opterra contract, page 42-43

According to the OpTerra-provided information, 10 rooftop solar arrays produced 1,661,210.42 kWh
 1,661,210.42 total kWh produced
 166121.042 kWh produced per building

For this measure, we assumed one solar array would be developed per year from 2018-2050

year	# buildings with solar	kwh produced
2018	10	1661210.42
2019	11	1827331.462
2020	12	1993452.504
2021	13	2159573.546
2022	14	2325694.588
2023	15	2491815.63
2024	16	2657936.672
2025	17	2824057.714
2026	18	2990178.756
2027	19	3156299.798
2028	20	3322420.84
2029	21	3488541.882
2030	22	3654662.924
2031	23	3820783.966
2032	24	3986905.008
2033	25	4153026.05
2034	26	4319147.092
2035	27	4485268.134
2036	28	4651389.176
2037	29	4817510.218
2038	30	4983631.26
2039	31	5149752.302
2040	32	5315873.344
2041	33	5481994.386
2042	34	5648115.428
2043	35	5814236.47
2044	36	5980357.512
2045	37	6146478.554
2046	38	6312599.596
2047	39	6478720.638
2048	40	6644841.68
2049	41	6810962.722
2050	42	6977083.764

Tree Count from CCSD-provided information:

front trees	9312
side trees	25
median trees	4241
slope trees	14923
sub-street trees	55
total trees	28556

total GHG Reducti **1010.8824** MTCO2

Under Measure LM-1, the goal is to plant 30 trees per year every year from 2030-2050

Year	Trees Planted Per Year	Years Elapsed	GHG Reduction per Tree (MTCO2e)
2030	30	0	0.0354
2031	30	1	0.0354
2032	30	2	0.0354
2033	30	3	0.0354
2034	30	4	0.0354
2035	30	5	0.0354
2036	30	6	0.0354
2037	30	7	0.0354
2038	30	8	0.0354
2039	30	9	0.0354
2040	30	10	0.0354
2041	30	11	0.0354
2042	30	12	0.0354
2043	30	13	0.0354
2044	30	14	0.0354
2045	30	15	0.0354
2046	30	16	0.0354
2047	30	17	0.0354
2048	30	18	0.0354
2049	30	19	0.0354
2050	30	20	0.0354

note: sequestration assumed to occur only when the tree is actively growing, which is first 20yrs

Source: CalEEMod User Guide: Appendix A [Page 61]. October 2017.

Total Trees Planted	GHG Reduction (MTCO2)	
30	1.062	
60	2.124	
90	3.186	
120	4.248	
150	5.31	
180	6.372	22.302
210	7.434	
240	8.496	
270	9.558	
300	10.62	
330	11.682	70.092
360	12.744	
390	13.806	
420	14.868	
450	15.93	
480	16.992	144.432
510	18.054	
540	19.116	
570	20.178	
600	21.24	
630	22.302	245.322
total	245.322	

# employees	325
commute per day (miles)	18.4
# work days/year	260
annual vmt from commuting	1554800

Sacramento Area Council of Governments. *Metropolitan Transportation Plan/Sustainable Communities Plan* . April 2012.

Carpool: Per this measure, 30% of people will now carpool. This reduces VMT by 30% because those 90 people no are travelling in cars that are already going to work

employees who now carpool	97.5
annual VMT reduction	466440
MTCO2 equivalent	169.12

I got this value by entering VMT and 100% gas-fueled passenger vehicle into ClearPath Community Scale inventory

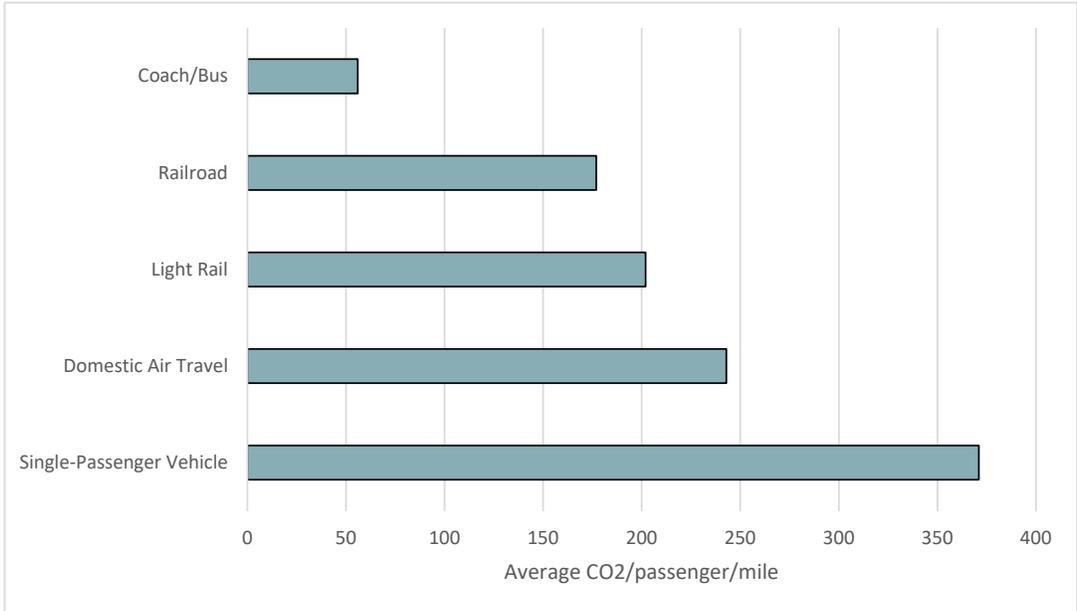
TMA: SMAQMD said TMAs reduce annual VMT by 5 %.

5 percent of VMT	77740
MTCO2 equivalent	28.19

I got this value by entering VMT and 100% gas-fueled passenger vehicle into ClearPath Community Scale inventory

TOTAL (carpool + TMA)	197.31
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Travel Type	average co2/passenger/mile
Coach/Bus	56
Railroad	177
Light Rail	202
Domestic Air Travel	243
Single-Passenger Vehicle	371
Domestic Air Travel	243
Light Rail	202
Railroad	177
Coach/Bus	56



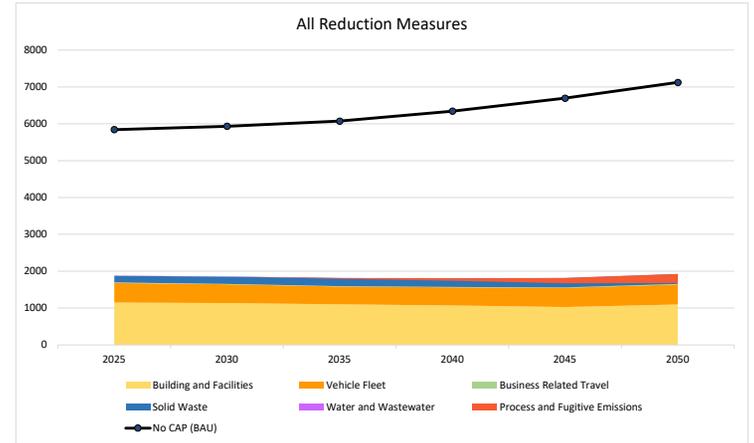
GHG Reduction Measure Summary

Reduction Measure	Year 2050 Emissions Reductions (MTCO2e)
Measure BD-1: Energy-Efficient Buildings	486.3
Measure BD-3: Limit Natural Gas	3,282.53
Measure BD-4: Zero Net Energy	-
Measure RE-2: On-site Renewable Energy Storage	6
Measure LP-1: Provide Bicycle Parking	22.08
Measure LP-2: Bicycle and Pedestrian Infrastructure Improvement	
Measure LP-3: Provide Electric Vehicle Charging Infrastructure	3.09
Measure LM-1: Tree Management Plan	245.322
Measure LM-3: Reduce Fertilizer Use	4
Measure TR-1: Encourage Alternative Transportation	344.06
Measure TR-2: Reduce Employee Commutes	
Measure TR-3: Optimize CCSD Vehicle Fleet	893
Measure TR-5: Reduce Air Travel	10.5
Measure SW-1: Recycling	104
Measure SW-2: Composting	41.6
Total GHG Reductions	5,442.48

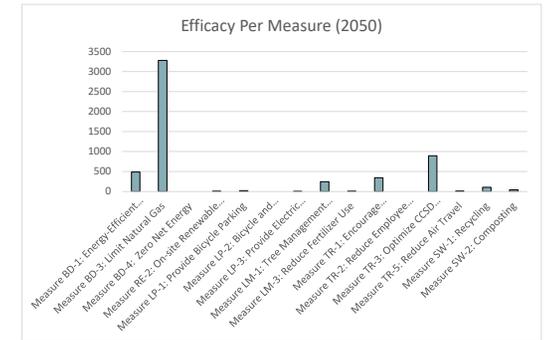
Forecast with Implementation of the CAP

Business as Usual Forecast									
Year	electricity	natural gas	Building and	Vehicle Fleet	Business Relat	Solid Waste	Water and Wastew	Process an	Total
2018	514	2977	3495	1664	18	255	559	5	5996
2019	492	2933	3429	1603	17	251	528	5	5833
2020	479	2988	3471	1591	17	256	482	5	5822
2021	467	3045	3516	1579	17	261	441	5	5819
2022	455	3103	3562	1567	17	266	403	5	5820
2023	443	3162	3609	1555	17	271	368	5	5825
2024	432	3222	3659	1544	17	276	337	6	5839
2025	415	3283	3703	1537	17	281	299	6	5843
2026	399	3346	3750	1530	17	287	266	6	5856
2027	383	3409	3797	1523	17	292	237	6	5872
2028	368	3474	3847	1516	17	298	210	6	5894
2029	354	3540	3899	1510	17	303	187	6	5922
2030	331	3597	3933	1510	17	308	159	6	5933
2031	310	3654	3969	1512	17	313	135	6	5952
2032	291	3713	4009	1513	17	318	115	6	5978
2033	272	3772	4050	1514	17	323	98	6	6008
2034	255	3832	4093	1516	17	328	83	7	6044
2035	226	3894	4126	1527	18	333	63	7	6074
2036	200	3956	4162	1540	18	339	48	7	6114
2037	177	4019	4202	1552	18	344	36	7	6159
2038	156	4084	4246	1564	18	350	28	7	6213
2039	138	4149	4293	1576	18	355	21	7	6270
2040	123	4215	4344	1597	19	361	16	7	6344
2041	108	4283	4397	1617	19	367	12	7	6419
2042	96	4351	4453	1638	19	373	9	7	6499
2043	85	4421	4512	1659	19	379	7	8	6584
2044	75	4492	4573	1681	20	385	5	8	6672
2045	0	4564	4570	1706	20	391	0	8	6695
2046	0	4637	4643	1732	20	397	0	8	6800
2047	0	4711	4717	1757	21	403	0	8	6906
2048	0	4786	4792	1784	21	410	0	8	7015
2049	0	4863	4869	1810	21	416	0	8	7124

Mitigated Forecast									
Year	Building an	Vehicle Fle	Business R	Solid Waste	Water and	Process an	Total Emissions	BUA Forecast	
2025	1146.988	535.9442	8.5	182.65	0	3	1877.08171	5843	
2030	1134.8	508.9442	8.5	200.2	0	1.938	1854.38221	5933	
2035	1099.313	486.9514	9	216.45	0	-18.802	1792.9119	6074	
2040	1070.175	490.9491	9.5	234.65	0	-66.592	1738.6821	6344	
2045	1027.838	520.9477	10	254.15	0	-140.432	1672.5032	6695	
2050	1094.175	547.7677	10.5	270.4	0	-241.3	1681.5427	7124	

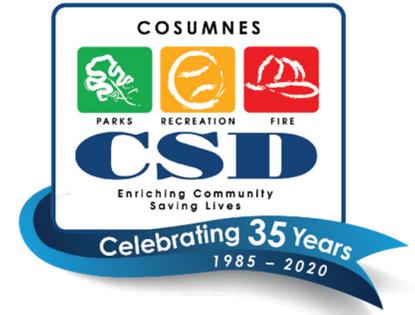


Emissions Reductions from Each Measure							notes
	2025	2030	2035	2040	2045	2050	
Measure BD-1: Energy-Efficient Buildings	369.8	392.8	412	433.8	456.4	486.3	tier 1 = 10% reduction in energy
Measure BD-3: Limit Natural Gas	2184.9	2403.15	2611.5	2835.9	3080.7	3,282.53	tier 1 = additional 75% reduction, including BD-3 already applied
Measure BD-4: Zero Net Energy	0	0	0	0	0	0	n/a
Measure RE-2: On-site Renewable Energy Storage	1.3125	2.25	3.1875	4.125	5.0625	6	slope = 6/(2050-2018)
Measure LP-1: Provide Bicycle Parking	14.617	15.92	17.573	19.052	20.53	22.079	see tab "bike infrastructure"
Measure LP-2: Bicycle and Pedestrian Infrastructure Improvement	0	0	0	0	0	0	n/a
Measure LP-3: Provide Electric Vehicle Charging Infrastructure	0.66879	1.1523	1.6356	2.1189	2.6023	3.0933	see tab "EV"
Measure LM-1: Tree Management Plan	0	1.062	22.302	70.092	144.432	245.3	see "Off Model Reduction Calcs" LM-1 tab
Measure LM-3: Reduce Fertilizer Use	3	3	3.5	3.5	4	4	just reduce fertilizer use by half
Measure TR-1: Encourage Alternative Transportation	227.77	248.08	273.84	296.88	319.92	344.06	see tab "alternative transportation"
Measure TR-2: Reduce Employee Commutes	0	0	0	0	0	0	n/a
Measure TR-3: Optimize CCSD Vehicle Fleet	758	744	747	788	842	893	see tab "optimize vehicle fleet"
Measure TR-5: Reduce Air Travel	8.5	8.5	9	9.5	10	10.5	reduce air travel by half
Measure SW-1: Recycling	70.25	77	83.25	90.25	97.75	104	recycle 1/4 of all waste
Measure SW-2: Composting	28.1	30.8	33.3	36.1	39.1	41.6	compost 1/10 of all waste



STAFF REPORT

DATE: October 7, 2020
TO: Board of Directors
FROM: Nitish Sharma, Chief Administrative Officer
BY: Jack Haddon, Information Technology Manager
SUBJECT: AUTHORIZE PURCHASE OF ASSET MANAGEMENT / COMPUTERIZED MAINTENANCE MANAGEMENT SYSTEM



RECOMMENDATION

It is respectfully recommended that the Board of Directors:

1. Awards a three-year software license agreement with Azteca Systems, LLC for the Cityworks Online Asset Management System (AMS) with an option to extend three (3) additional one-year terms.
2. Awards a contract with Timmons Group, Inc. for Professional Services to implement Cityworks Online AMS.
3. Authorizes the General Manager to execute these agreements and any future addendums or amendments related to Cityworks Online Server AMS.

BACKGROUND/ANALYSIS

Asset management is a very important tool for the District as it helps monitor and manage the assets using a systematic approach. To establish a transparent and accountable structure, the District needs a centralized electronic system to inventory and manage its assets, receive and track internal and external service requests from the public, dynamically schedule routine preventative maintenance, automate daily task assignments and perform long-term budget forecast planning.

When the District was smaller in size, assets and daily staff assignments could be managed through paper and spreadsheets. As the District grew and the number of parks, facilities and employees increased, the need to centrally manage the District's assets (including buildings, equipment, apparatus, trees, turf, playground equipment, bleachers, drinking fountains, sidewalks, etc.) has become a priority. In addition, the Government Accounting Standard Board Statement No. 34 implemented in 2004 requires the District to track, depreciate and report all the assets and its current value.

The District has staff at multiple locations that must be deployed daily to perform a variety of tasks, some routine in nature and some project based. There is currently no common system or District standard for how this process is performed between departments or divisions.

In early 2019, the City of Elk Grove (City) also began researching GIS-based, AMS/CMMS software programs. The District was invited to collaborate with the City in an extensive RFP process. Staff from the District and the City evaluated 12 proposals, narrowing down the

vendors to four finalists. The finalists provided demonstrations and participated in question/answer sessions with the District and the City. On May 13, 2020, the Elk Grove City Council approved a resolution authorizing the City Manager to execute contracts with Azteca Systems, LLC (Cityworks) and with Timmons Group, Inc.

To ensure that the District selects the best partner for this project, staff invited Cityworks and one of the City's other top RFP vendors, Nexgen, to a series of District-specific software demonstrations for various stakeholders from each department. The two vendors demonstrated the features, functions and capabilities of their respective platforms, mobile applications and ability to integrate with other enterprise systems such as GIS, ERP and document management. Staff also had the opportunity to submit questions which were answered in writing by the vendors. The two AMS/CMMS systems proved to be comparable and either could meet the District's asset management needs; however, the Nexgen system had a 3-year total cost that was 41% higher than Cityworks. This independent validation process confirmed that Cityworks Online AMS would be the best fit for the District.

The City's contract includes a 'piggyback' clause that allows the District to receive similar agreement terms and pricing without needing a separate RFP. The benefit of the District acquiring and implementing the same product as the City creates a number of possibilities including improved information sharing and, perhaps, a common dispatch in the future. Currently, when citizens request services, it is not always clear to them whether they should call the District or the City. As a result, citizens can be referred back and forth between the agencies depending on the service being requested. If an AMS/CMMS system is implemented that allows the sharing of information by the District and the City, it could be possible to issue work orders between agencies, thus improving customer service and reducing costs.

The Timmons Group partners with Cityworks to provide system planning, design, best practices, and change management activities through implementation and deployment. The Timmons Group brings a rich pool of professionals, knowledge and expertise, in engineering, planning, GIS, and information technology. They will provide support and training to the District from project kick-off, to beyond project completion. They will assist in developing a road map for a well-planned implementation, revised workflows, conversion from legacy systems, and business processes to make the District efficient in Asset Management. The Timmons Group will also help the District manage change and will help assure acceptance by the District stakeholders.

The District uses Esri GIS technology to locate physical assets, prioritize problems, and meet organizational objectives by mapping, analyzing, and visualizing geospatially-referenced datasets. A primary role of District-wide GIS is to create and maintain an authoritative database of the District's physical assets. This is a critical business function, and one that requires a coordinated effort among District staff and its partners. Cityworks is a distinguished, long-time Esri Platinum Partner, and one of the only AMS solutions built exclusively on Esri technology. Cityworks Online AMS can easily be integrated into the District's cloud-based GIS infrastructure and business document management system, thus supporting improved service delivery. GIS represents a key technology in developing and maintaining a comprehensive spatial database because the location and condition of assets is a fundamental aspect of the District's infrastructure investment.

Cityworks Online AMS is designed for maintenance and operations utilizing GIS functionality while managing and performing maintenance operations and investigation and resolving service requests. Maintenance data relating to a specific asset is tracked and managed, including tasks, assignments, costs, caller histories, and is all readily available through simple searches. The software can also be used to create work orders for both repair and preventative maintenance. Preventative maintenance work orders on assets can be scheduled in advance for specific assets or groups of assets.

Cityworks Online AMS mobile apps are compatible with iOS and Android and will provide the mobile app user with relevant GIS data and user-friendly map interface. Work orders delivered to field users via app can include safety information, manuals and parts lists, providing users with a breadth of information in the app.

Cityworks is a leading provider of cloud-based, GIS enterprise management solutions. It is designed for agencies that maintain capital assets, infrastructure and facilities. Cityworks Online AMS provides a robust solution capable of tracking and managing asset activities (work orders), resource scheduling, preventative maintenance tasks, capital planning/budgeting, reporting, field/mobile access, inventory management, time keeping, etc.

The acquisition and implementation of a robust asset management system is imperative to effectively managing and maintaining the District’s infrastructure assets now and in the future. This project supports several of the District’s stated goals and objectives:

- Implementing an AMS/CMMS system to consolidate the District’s existing work order and asset management applications is a high priority recommendation in the 2020 IT Strategic Plan presented to the board July 1, 2020.
- This recommendation is in line with the Fire Department Strategic Plan Goal areas of Administration, Operations, and Fleet Management.
- This recommendation is also in line with the Parks and Recreation Department Strategic Plan Objective 2.2, Develop an Asset Management Program which identifies the most cost effective and sustainable ways to manage asset Life-cycle costs.

FINANCIAL ANALYSIS

The estimated total cost of the Cityworks Online AMS project is \$276,396 for a three-year period (See Table 1). The total cost of this product is part of the current Fiscal Year 2020-21 budget for the Landscaping and Lighting Fund and General Fund.

Table 1

Type	Company	Contract Amount			Total
		Year 1	Year 2	Year 3	
Software	Azteca Systems, LLC (Cityworks)	\$43,500.00	\$53,500.00	\$63,500.00	\$ 160,500.00
Implementation	Timmons Group	\$95,761.00			\$ 95,761.00
Option 1	New World Integration	\$20,135.00			\$ 20,135.00
3-Year Contract with Optional Task					\$ 276,396.00

The implementation of an electronic asset management system (AMS/CMMS) will result in significant long-term savings as a result of improved processes and efficiencies.

- The ability to assign replacement costs, apply depreciation and track asset maintenance will allow staff to more efficiently forecast and plan future budget requirements many years in advance.

SUSTAINABILITY ANALYSIS

The implementation of an electronic asset management system (AMS/CMMS) will result in significant long-term positive impacts to our sustainability efforts..

- The ability to measure the effectiveness of alternative technologies and processes to create a positive environmental impact, such as utilizing LED bulbs, electric vehicles, upgrades to air heating/cooling, pool heating, etc. The AMS/CMMS is able to predict one-time budgetary costs and measure against potential future budgetary savings of utilizing more environmentally conscious materials and products.
- The elimination of manual paper processes could result in hundreds of reclaimed staff hours per year as well as reduced printing which saves paper and toner.
- The cloud-based, GIS nature of the software means that staff in the field will have immediate access to new work order information resulting in more efficient routing, fewer trips back to the office and reduced fuel consumption and greenhouse emissions.

Respectfully submitted,

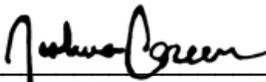


Nitish Sharma
Chief Administrative Officer

Attachment A: Cityworks Online Software License Agreement Quote

Attachment B: Timmons Group Proposal & Professional Services Agreement

Staff Report recommendation authorized by: Approved as to Form:



General Manager



General Counsel

Attachment A

Cityworks Online (CWOL) – is a Cityworks Online services subscription for the right to access and use the Online Services for the products identified hereinabove. CWOL is a highly scalable software-as-a-service (SaaS) offering. It is hosted on Azteca Systems' servers and completely scaled, managed, updated, backed up, and maintained by Azteca Systems. Because Azteca Systems controls the update schedule, users are not responsible for upgrading, managing, or patching the system themselves.

Terms and Conditions

Payment Terms

Payment due within 30 days

Authorized to Invoice 30 days prior to renewal.

All quotations are valid for ninety-days (90) from the date above, unless otherwise stated in this quotation form. All prices quoted are in USD, unless specifically provided otherwise, above. These prices and terms are valid only for items purchased for use and delivery within the United States.

Unless otherwise referenced, this quotation is for the Cityworks software products referenced above only. Pricing for implementation services (installation, configuration, training, etc.), or other software applications is provided separately and upon request.

The procurement, installation and administration of the Esri software utilized in conjunction with Cityworks will be the responsibility of the customer.

The procurement, installation and administration of the RDBMS utilized in conjunction with Cityworks will be the responsibility of the customer. Currently, Cityworks supports Oracle and SQL Server. The procurement, installation and administration of the infrastructure (hardware and networking) utilized in conjunction with Cityworks will be the responsibility of the customer.

This quotation information is confidential and proprietary and may not be copied or released other than for the express purpose of the current system selection and purchase. This information may not be given to outside parties or used for any other purpose without written consent from Azteca Systems, LLC.

Software Licensing

All Azteca Systems software offered in this quotation are commercial off-the-shelf (COTS) software developed at private expense, and is subject to the terms and conditions of the "Cityworks Software License Agreement" and any and all addendums or amendments thereto. A fully executed copy of the Software License Agreement and any addendum(s) is required before delivery and installation and usage of the software is subject to the terms of the current license agreement.

Delivery method is by way of download through Azteca Systems, LLC. customer support web portal.

Taxes

Prices quoted do not include any applicable state, sales, local, or use taxes unless so stated. In preparing your budget and/or Purchase Order, please allow for any applicable taxes, including, sales, state, local or use taxes as necessary. Azteca Systems reserves the right to collect any applicable sales, use or other taxes tax assessed by or as required by law. Azteca Systems reserves the right to add any applicable tax to the invoice, unless proof with the order is shown that your organization or entity is tax exempt or if it pays any applicable tax directly.

International Customers

These items are controlled by the U.S. government and authorized for export only to the country of ultimate destination for use by the ultimate consignee or end-user(s) herein identified. They may not be resold, transferred, or otherwise disposed of, to any other country or to any person other than the authorized ultimate consignee or end-user(s), either in their original form or after being incorporated into other items, without first obtaining approval from the U.S. government or as otherwise authorized by U.S. law and regulations.

Attachment B



ASSET MANAGEMENT / COMPUTER MAINTENANCE MANAGEMENT SYSTEM (CMMS) SOFTWARE & IMPLEMENTATION

Cosumnes CSD, Elk Gove, CA

September 3, 2020



Contact: Lou Garcia | Project Director

1001 Boulders Parkway, Suite 300, Richmond, VA 23225

443.904.3897 | louis.garcia@timmons.com

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September 3, 2020

Jack Haddon
Cosumnes CSD
8820 Elk Grove Blvd.
Elk Grove, CA 95624

RE: Asset Management / Computer Maintenance Management System

Dear Jack,

Timmons Group along with our software teaming partner Azteca Systems, Inc. (Azteca) makers of Cityworks, is pleased to submit our proposal to meet the requirements as outlined during conversations and emails. For over 20 years, Timmons Group has provided a wide variety of Enterprise Asset Management, Computerized Maintenance Management Software (CMMS), IT, and award-winning GIS services to utilities, municipal, federal, and private clients. Our team encompasses Cityworks the leading GIS-Centric CMMS & Enterprise Asset Management System (EAMS) on the market, which allows for extensive combined capabilities, software tools and depth of experience required to form a solid foundation for the success of this project.

We believe that **Cityworks® Server AMS** meets each of your requirements both now and with any future expansion. We have included an in-depth description of our approach (above and beyond what is called for within your requirements to clarify our approach), which has led to numerous successful implementations across the United States. Cityworks®—Azteca Systems is the leading provider of GIS-centric enterprise management solutions. Designed for agencies that care for capital assets, infrastructure, and facilities, Cityworks approach is unique in the industry, leveraging the inherent value and investment of your Geographic Information System (GIS) database and software. Cityworks Server AMS provides powerful tools for Asset Management, customer care, and work management. Additionally, **Timmons Group is unique as it is one of only three Cityworks solution providers that is both a Platinum Implementation Partner and a Strategic Development Partner.** In addition, Timmons Group is one of only a handful of implementation partners authorized to Implement Cityworks PLL, a community development solution. Timmons Group has implemented Cityworks PLL with over fifteen clients nationwide and we have also developed the Timmons Group PLL Portal (a public facing gateway) to extend the capabilities of PLL beyond the core Cityworks product offering.

A partnership with Timmons Group offers Cosumnes CSD a significant number of benefits. From initial system planning, design and change management activities all the way through implementation and deployment, you will have direct access to industry-leading engineering, planning, GIS, and information technology professionals and "best-of-breed" Enterprise Asset Management and CMMS services. We distinguish ourselves through our training program that starts at project kickoff and doesn't end until well past project completion as well as the understanding that we are working to implement more than just software, but also assist in developing revised workflows and business processes to make Cosumnes CSD more efficient at its Asset Management. Timmons Group is also keenly aware and highly recommends that an organizational change management strategy be developed during the course of this project. Timmons Group will work closely with Cosumnes CSD in managing this change and assuring the acceptance of Cosumnes CSD stakeholders for this paradigm shift to embracing and accepting the Cityworks Server AMS solution.

As detailed throughout our submittal, Timmons Group understands and will be your partner in implementing a GIS based Enterprise Asset Management/CMMS; to manage your multiple asset groups. We understand that the new application should be run as a web-based application using relational database management systems. Users will have the ability to access the Enterprise Asset Management System/CMMS from either browser based or Windows-based workstations as well as iOS and Android mobile devices.

Timmons Group brings a rich pool of people, knowledge, and expertise to this project through multiple years of experience in implementing Asset Management solutions with these types (and others) of functional groups. In a collaborative process, Timmons Group will build a roadmap, engage experienced professionals, and execute a well-planned approach for your implementation, integration to other systems and assist you with conversion from legacy systems. We have partnered with a multitude of municipal clients to help them achieve their Enterprise Asset Management/CMMS. We



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understand and embrace the desire of Cosumnes CSD to take an iterative phased approach to the project progression. We have also provided a detailed breakdown of our cost proposal. We have done this so that Cosumnes CSD is able to review not only our proposal but to look at project phasing from an iterative perspective.

Timmons Group is committed to providing Cosumnes CSD with the resources needed to achieve your goals and the priority to complete each task on schedule and within budget. Our dedicated staff will provide you with consistent, responsive service. We have established a strong team, based on similar projects, client success and certification status.

Timmons Group greatly appreciates this opportunity to present our submittal and we are confident that our team represents the best overall value to Cosumnes CSD. If you have any questions or require any additional information, please feel free to contact Lou Garcia at 443.904.3897.

Respectfully yours,

Ronald R. Butcher Jr., MBA, GISS, GISP
Principal in Charge

Lou Garcia, PMP
Principal



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1. QUALIFICATIONS AND EXPERIENCE

Timmons Group – Implementation Partner

Timmons Group has been a Cityworks Business Partner for 17+ years. The symbiotic relationship enjoyed between Cityworks and Timmons Group is a unique and tremendously advantageous team to our clients. While Cityworks is a software company, Timmons Group is a company focused on professional services and excellent project delivery. This, unique in the industry, teaming arrangement allows Cityworks to concentrate upon the constant development and improvement of their product offerings while Timmons Group concentrates on the successful implementation, real world use and exploitation of the Cityworks products. We view our mutual clients from somewhat different perspectives, however this is to your advantage. Timmons Group is free to ensure that the Cityworks products are implemented so that they work utilizing the workflows, business rules and processes our mutual clients desire, including integration to other software systems. Timmons Group will ensure that Cityworks works for you and is not a system that Cosumnes CSD must dedicate tremendous (and unnecessary) resources to. We are free to concentrate on the exacting requirements our clients require. We therefore look at the operational side of our client's requirements and the strategic goals they wish to achieve, as well as keeping our clients abreast of the latest trends and standards in best practices of asset management and CMMS. Cityworks can concentrate on how their products meet the basics around software: constant development, ensuring the software performs as desired, provides capabilities to meet best practices and standards and stays abreast of the latest technology developments, as well as the look and feel end users demand. Cityworks is also able to ensure their future product offerings are aligned with long term strategic goals of not only Esri GIS, but also their clients wishes and desires. All of this is made possible by offering to you, our clients, a true team of experts. Although your primary contact with the team will be with Timmons Group during the implementation, Cityworks will take an active role in the project. Our teams work together to develop our proposal responses, Cityworks Client Success Managers are involved in our scope development and will be involved with the project team (comprised of Cosumnes CSD, Timmons Group and Cityworks) from the start, including attendance at key project meetings. Once Go Live occurs Cityworks involvement will become more prominent. However, rest assured, both Cityworks and Timmons Group will remain involved and attentive to you as our mutual clients well past the Go Live stages. We share the common value that our success is truly achieved only when our clients are successful. Both Timmons Group and Cityworks take this seriously and feel that this unique relationship only makes our two companies stronger and our clients more satisfied.



Timmons Group is a multi-disciplined engineering and technology firm recognized for nearly twenty years as one of Engineering News Record's (ENR) Top 500 Design Firms in the country. We provide civil engineering, environmental, geotechnical, GIS/geospatial technology, landscape architecture and surveying services to a diverse client base. Founded in 1953, we are a well-established firm with a pioneering spirit. Decades of experience allow us to lead our industry with an unwavering commitment to forward thinking, innovative design and complete solutions that help our clients be successful. Inspired by your vision, our client service teams solve your challenges in imaginative, cost-effective and constructible ways. As a 500+ person professional services consulting firm with nearly 2,000 clients, our extensive experience in technology, engineering, planning, and surveying enables us to design and implement innovative solutions to solve our clients' varied challenges.

As Timmons Group celebrates our next sixty years, we are extremely proud of the legacy we have established in solving the many challenges our clients have entrusted to us. However, we are not resting on our many accomplishments of the past; but rather, we are focusing on building our culture as community leaders and responsible corporate citizens, focused on understanding your specific challenges and helping you to realize your vision.

Timmons Group, which has established itself as one of the most sought-after enterprise asset management (EAM) consulting groups in the United States, is excited about working side-by-side with you and your staff to develop a technological legacy that you, your organization, and all your stakeholders will take pride in. Our unique view of your project is one of the distinguishing traits that sets Timmons Group apart from other Cityworks asset management consultants. We do not view these projects as simply a software installation and configuration job. Rather, we view Cityworks as an integral piece of your over-riding enterprise CMMS/asset management strategies and the foundation upon which countless additional work tasks will rely upon for the feature-rich content needed to support your organizations varied daily operational, regulatory, and customer service challenges. We look forward to sharing our ideas and solutions



for this project. Timmons Group has been approached by other software vendors to be implementation partners within this market space, however Timmons Group works exclusively with Cityworks in this market space.

Timmons Group has completed, or is currently working on, 95+ successful Asset Management software implementation projects for clients in 26 different states as well as outside of the United States.

Cityworks – Azteca Systems – Software Developer

Cityworks is a powerful, flexible, and affordable web GIS-centric public asset management solution. Cityworks AMS (Asset Management Solution) and Cityworks PLL (Permits, Licensing, and Land) are designed to help manage physical infrastructure assets and land-based assets, as well as their associated data, work activities, and business processes. Cityworks AMS and PLL can be used together or as independent solutions.



The Cityworks approach is innovative and unique. By leveraging the inherent value and investment of GIS data, each organization can utilize a common spatial data platform to manage public assets in the field, office, and warehouse. Cityworks provides a system of record for collecting applicable information to support day-to-day business needs and regulatory compliance. Cityworks is scalable, easy-to-use, and based on open technology.

Company History

Founded in 1986, Azteca Systems began as a consulting firm that provided cartographic mapping support to federal agencies. Azteca Systems earned a reputation for GIS-centric solutions, and public works agencies began approaching us for help with their asset management strategy. In 1996, the Cityworks asset management solution was born.

Built exclusively on Esri's innovative ArcGIS technology, Cityworks helps you track historical work, understand associated costs, establish and streamline workflows, schedule preventative maintenance, and create data visualizations.

In 2007, the company released the first iteration of Cityworks PLL, a permits, licensing, and land development system. In 2015, Cityworks was released as a platform designed with a variety of AMS and PLL apps, specialized ancillary apps, and a framework capable of efficiently integrating with other systems.

Organization

Cityworks is a full-service company—a financially strong and closely held corporation. Focused on the development of GIS-centric software applications, Azteca Systems is also capable of providing complete implementation, integration, data conversion, and process review services, as well as re-engineering, education, and ongoing maintenance for Cityworks and Cityworks customers.

Headquartered in Sandy, Utah—a suburban community in the southern Salt Lake City metropolitan area—the majority of staff is located in the main office. Corporate administration, finance and accounting, product development, enterprise solutions, client relations, customer support, sales, and marketing are housed in the main office. Regional offices are located in Wisconsin, Texas and Florida housing customer support, sales, and marketing personnel. Additional offices are located in California, Colorado, Missouri, Indiana, Florida, North Carolina, Virginia, and New York.

Cityworks is staffed by a comprehensive group of professionals capable of development, implementation, training, customer support, and marketing. As a Cityworks client, you will have access to the following teams:

1. Enterprise Solutions includes teams for implementation and project management, education services, and the business partner program.

Cityworks project managers perform new client implementations and support authorized partner implementations. Depending on the scope of work, an implementation can be performed on-site, remotely using web-enabled tools, or using both on-site and remote efforts.

Training is often offered by our project management team as part of the overall implementation scope of work for new clients. Sessions can include administration and end-user classes, or train-the-trainer classes, each using the client's data.

Optional education is offered regularly at Cityworks' state-of-the-art training facility in Sandy, Utah. Training is also regularly scheduled at our regional offices in Wisconsin and Texas. Web interactive training is also available with





user, implementation, and administration training offered on a regular basis. Training is also offered during our Cityworks Conference.

The partner program offers enrollment and continuing support for implementation partners, development partners, international distribution partners, and strategic partners. Each partner has a respective role in providing implementation services, developing complementary software solutions, expanding Cityworks outside the U.S., and coordinating long-range business and technology objectives.

2. Products and Development is responsible for software development, testing, research and development, and documentation.

Cityworks is committed to innovation and ongoing enhancement of core products, optional apps, plugins, extensions, interfaces, enhancements, and software fixes. A team of software testers rigorously tests the software during development and before release. When bugs are discovered, they are verified, documented, assigned to developers, and scheduled for the next relevant minor release or service pack, or major release in the development cycle.

This team also includes subject matter experts within their respective AMS, PLL, GIS, Storeroom, and other domains. They analyze and test our software, perform demonstrations, suggest enhancements, review software changes, troubleshoot problems, and provide education regarding Cityworks technical aspects and industry best practices.

Cityworks develops documentation for all Cityworks products, which is available in several forms: online help, administrator and end-user manuals, training manuals, software update guides, help videos, diagrams, and more. Documentation can be accessed through the www.mycityworks.com customer support website or as online help through the Office, Tablet, and Respond apps.

3. Cityworks Customer Success Management (CSM) is responsible for the ongoing success of our clients. This team is comprised of the CSM team and the customer support subdivision.

Customer success managers strive to fully understand a new client's project objectives. Customer success managers work closely with implementation partners and new clients throughout the implementation process, which includes:

- Knowing the project implementation goals and plans.
- Becoming well acquainted with the organization's key stakeholders and the implementation partner.
- Understanding the responsibilities and involvement of the Cityworks staff, implementation partner, and client regarding the project scope. Projects typically consist of configuration, training, third-party integrations, and roll-out.

Upon completion of the implementation project, a natural handoff is created, transitioning the first line of support from the implementation partner to the Cityworks customer support team.

4. After implementation, customer success managers act as advocates for the client to monitor their needs, problems, and successes. As part of this process, they help direct clients to various resources, such as software solutions, training, customer support, project management tasks, and more. CSM serves in this role if the client remains active with their annual maintenance.

The customer support subdivision is responsible for customer assistance with troubleshooting and other questions. This division is staffed with full-time technicians who address inquiries by telephone, email, self-serve portal, and online chat. Technical support is provided using interactive web-enabled tools. This team also maintains the secure client and partner support website www.mycityworks.com.



PROPOSAL SUMMARY

Timmons Group is committed to providing Cosumnes CSD with the resources needed to achieve your goals and the priority to complete each task on schedule and within budget. Our dedicated staff will provide you with consistent, responsive service. We have established a strong team, based on similar projects, client success and certification status.

Our team will provide Cosumnes CSD:

- An unsurpassed ability to deliver sound solutions to all phases of your program – key team members dedicated to your project offer an impressive level of professional experience and knowledge for delivering services to your full range of associated services.
- Our technical solution, Cityworks Server AMS meets all your criteria, including:
 - Is a “turn-key system that have a full range of substantial functions
 - Can be configured to develop more efficient and effective workflows
 - Enables communication and requires minimal development, modifications or enhancements to the system
 - Our team is well qualified and experienced within this industry
 - Our team will propose best practices in the industry, with Cityworks and has done so with similar systems currently in operation with government agencies similar to the services being proposed
 - Our system, while not a SaaS, can be hosted off premise and we have proposed hosting Cityworks Online services.
 - Cityworks can utilize Esri LGIM in regard to the GIS data schema
 - Cityworks can consume multiple REST web mapping feature services from various sites, both cached and uncached
 - Supports web mapping services generated using Esri Definition queries
 - Maintains compatibility with recent versions of Esri (typically on release or one version behind) for all applicable components
 - Does not utilize Shapefiles
 - Is the only “GIS-centric” (GIS based) Enterprise Asset Management System product on the market today
 - Cityworks, and Timmons Group has implemented Cityworks with a wide range of municipal groups and is expandable beyond Cosumnes CSD’s initial requirements of working with Public Works, Operations & Maintenance and Capital Projects.
 - Easy to use, mobile friendly and is highly compatible with Cosumnes CSD’s existing GIS system and hardware
 - Cityworks is web-based, server/client architecture, utilizes SQL and IIS and we have offered an Enterprise License Agreement (ELA)
 - Implementation, training and support are offered by Timmons Group, a Platinum level Cityworks implementation and development business partner.
- A proven deployment approach to collecting asset management data that ensures useable systems delivered on time and within your established budget. This is accomplished by our implementation approach that has been honed over our 15 years of experience in being a Cityworks business partner as well as our 75+ Cityworks projects:
 - We utilize a modified Agile approach methodology whereby we work iteratively with you by “running sprints”. These occur in 1 or 2-week periods during which you will see results every 1 to 2 weeks, you will be a part of the design process of the configuration of Cityworks.
 - This approach allows your end users to be a key component in configuring Cityworks around your desired business processes and workflows
 - By doing this your end-user community “accepts” the software during the design process, it’s not just placed in front of them at the testing or training stage. By the time we get to testing and training they will be well versed in the look and feel of Cityworks and they will have already “bought into” the change as they helped to design the change they will be using.
 - Our implementation approach detailed within the Implementation Plan section below follows a logical methodology whereby we work with you to design Cityworks, we work with you to integrate Cityworks to your desired enterprise solutions, we offer full and complete testing and Go Live as well as on-going support.
- A full understanding of your program requirements and a project team committed to exceeding your highest expectations through the development of sound and innovative technical solutions. We invite you to review our Proposal, while keeping the following points in mind:
 - Timmons Group has been an Esri Business Partner for 23 years. We are currently a silver-level partner whose clients have won many awards including the Esri Special Achievement Award (SAG) in GIS. We have



- been recognized as the Esri Washington D.C. Region Foundation Partner and Business Partner of the Year for our innovative implementation of various GIS and Geospatial solutions for our numerous clients.
- Timmons Group is a Cityworks® Platinum Implementation Partner, *with over 95 Cityworks projects to date*, with our project team comprised of experienced subject matter experts who have worked together on multiple successful work management and compliance projects specific to Cityworks® AMS for close to two decades.
 - Timmons Group is a Cityworks® Strategic Development partner with intimate experience with all the Cityworks® API's and experience in leveraging them for custom integrations and mobile deployments for iOS, Android, Surface or Windows tablet or smartphones.
 - Over 100+ dedicated Timmons Group GIS, IT and database analysis experts to analyze your existing environment and assist in making improvements to meet new Esri and Azteca software requirements.
 - A project team led by a Project Director of Timmons Group, with PMP certification, as well as extensive experience delivering a wide range of local government, public works, and utility solutions to a variety of clients, including Water, Sewer, Stormwater and Electrical Utility, Transportation Engineering, Transportation Traffic Operations, and Transportation Street Operations functional groups.
 - An experienced CMMS and Cityworks implementation Project Manager, with PMP certification, as well as extensive experience delivering a wide range of local government, public works, and utility solutions to a variety of clients, including Drinking Water Utility, Wastewater Collection, Stormwater Utility, Electrical, Transportation Engineering, Transportation Traffic Operations, and Transportation Street Operations functional groups.
 - A team with institutional knowledge needed to see the project assignments through...all the way through. We will leverage our "lessons learned" on recently completed similar projects to your full advantage. We have integrated Cityworks with numerous other systems ranging from financial, to SCADA, to billing, to mobile technologies.
 - Comprehensive training program that will involve Cosumnes CSD employees through all phases of the project.
 - A team which prides themselves with delivering innovative solutions that exceeds our clients' expectations. Each team member is empowered to do what it takes to make sure your projects are successful endeavors for you and your stakeholders.

Our History

Founded in **1953**



100+
Dedicated Geospatial staff

95+ *Cityworks Projects*

Experience in **34 states**

700+
Total Staff

Where We Are

19
Nationwide offices

- Baltimore, MD
- Portland, OR
- Richmond, VA (3 offices)
- Ashburn, VA
- Asheville, NC
- Austin, TX
- Charlotte, NC
- Charlottesville, VA
- Golden, CO
- Greensboro, NC
- Hampton Roads, VA
- Jefferson City, MO
- Miami, FL
- Raleigh, NC
- Staunton, VA
- Dallas, TX
- Elizabeth City, NC

Below is a map depicting each of Timmons Group's Cityworks implementations across North America



★ **Timmons Group Office Locations**

- | | | | |
|-----------------------------------|--|--|--|
| 1 Garland, TX | 20 Raleigh, NC | 39 Sugarland, TX | 58 St. Johns County, FL |
| 2 Otay Water District, CA | 21 Allegheny County, PA | 40 Bartow County, GA | 59 Madison, WI |
| 3 Alpharetta, GA | 22 Chicago, IL | 41 North Miami Beach, FL | 60 Bonney Lake, WA |
| 4 Naperville, IL | 23 City of Winston-Salem, NC | 42 Grey Forest Utilities, TX | 61 Renton, WA |
| 5 Fayetteville, NC | 24 Watsonville, CA | 43 Herriman, UT | 62 Forsyth County, GA |
| 6 Hamilton County, TN | 25 Morro Bay, CA | 44 Milwaukie, OR | 63 Yelm, WA |
| 7 Skagit County PUD #1, WA | 26 Carpinteria Valley Water District, CA | 45 Harrisonburg, VA | 64 Tigard, OR |
| 8 Auburn, AL | 27 Shafter, CA | 46 Lebanon, OH | 65 Napa Sanitation District, CA |
| 9 Lafayette Consolidated Govt, LA | 28 Alcoa, TN | 47 MetroConnects, SC | 66 Regional Municipality of York, Canada |
| 10 Herndon, VA | 29 Goochland County, VA | 48 Las Gallinas Valley Sanitary District, CA | 67 Escondido, CA |
| 11 Richmond, VA | 30 Petersburg, VA | 49 Macon Water, GA | 68 Spotsylvania County, VA |
| 12 Alexandria, VA | 31 Henderson, KY | 50 Mid Peninsula Regional Open Space, CA | 69 Independence, MO |
| 13 Jackson, MS | 32 SeaTac, WA | 51 American States Utility Service Asheville, NC | 70 Bellingham, WA |
| 14 Washington DOT, DC | 33 Sammamish, WA | 52 Brookhaven, GA | 71 Charleston Water, SC |
| 15 Colonie, NY | 34 Weston, FL | 53 Frederick Water, VA | 72 Fairfax County, VA |
| 16 Newport News, VA | 35 Seattle, WA | 54 Montgomery County, MD | 73 West Valley City, UT |
| 17 Montgomery County, OH | 36 Grand Rapids, MN | 55 Manatee County, FL | 74 Charlotte Water, NC |
| 18 Waterford Charter Township, MI | 37 Upper St. Clair, PA | 56 Florida Keys Aqueduct Authority, FL | 75 Sammamish Plateau Water District, WA |
| 19 Altoona City Authority, PA | 38 Tallahassee, FL | | |

REFERENCES

Cityworks® AMS/PLL Implementation | City of Morro Bay, CA

Contact: Scot Graham | Tel. 805.772.6291 | Email: SGraham@morro-bay.ca.us

Address: 595 Harbor Street, Morro Bay, California 93442

Project Dates: Implementation completed in 2018; Maintenance is ongoing



MORRO BAY
PUT LIFE ON COAST

Project Description: Timmons Group implemented a phased approach to project planning, implementation and system deployment for Morro Bay, CA's Cityworks Asset Management System Implementation. This approach also enabled our project team to focus on potential risks associated with such a complex program. Based on the information gathered and analyzed during this process, our team developed the various components of the asset management and permit tracking system as outlined within the RFP, on time and within budget.

Cityworks® AMS Implementation | City of Harrisonburg, VA

Contact: Jack Thyson | Tel. 540.432.7794 | Email: jack.thyson@harrisonburgva.gov

Address: 409 South Main Street, Harrisonburg, VA 22801

Project Dates: Implementation completed in May 2017; Maintenance is ongoing



Project Description: The City of Harrisonburg, VA was looking to implement a Cityworks Server Asset Management System for their Stormwater, Water, and Sanitary Sewer departments. Timmons Group's approach was centered on three major program components: Program and Change Management, Core Software, and Department-Specific Implementation. Our approach also included the implementation of Cityworks for the City's Operations, Engineering, Finance, and Customer Service departments.

Cityworks® AMS Implementation | City of North Miami Beach, FL

Contact: Don Blalock | Tel. 305.947.7581 | Email: donald.blalock@citynmb.com

Address: 17050 NE 19th Avenue, North Miami Beach, FL 33162

Project Dates: Implementation completed in May 2016 Maintenance is ongoing



Project Description: The City of North Miami Beach contracted with Timmons Group to attempt the impossible. The project was awarded in early March of 2016. The City's licensing agreement with Hansen was expiring on May 21, 2016 and Cityworks had to be live prior to this. Timmons Group not only met this deadline but had the Cityworks system ready for production ahead of schedule. The strategy was to port over the current workflows into Cityworks, maintain operations and to now go back and modify workflows, and integrate Cityworks to several other City enterprise systems and to convert the legacy Hansen data into Cityworks. This phase of the project is now nearing completion as well

Cityworks® AMS Implementation | Otay Water District, CA

Contact: Adolfo Segura | Tel. 619.670.2222 | Email: Adolfo.Segura@otaywater.gov

Address: 2554 Sweetwater Springs Boulevard, Spring Valley, CA 91978

Project Dates: Implementation completed in 2013 Maintenance is ongoing



Project Description: The Otay Water District contracted with Timmons Group for implementation of an Enterprise Asset Management System (EAMS) for their water, recycled water, and sewer systems. Through extensive evaluation the District chose Azteca Cityworks as their Asset Management platform. Timmons Group implemented the Cityworks Server AMS technology to streamline and improve the way the District handles service request routing, tracking and management and for improving the work order management process. Otay also utilizes the analysis built into Cityworks for Capital Project planning, asset lifecycle costs analysis, etc.



Cityworks® EAMS Implementation | Skagit PUD, Redmond, WA

Contact: Angela Forbes | Tel. 425.861.6000 | Email: aforbes@geoengineers.com

Project Dates: Implementation was completed in 2012; Maintenance is ongoing

Project Description: The Skagit County PUD (PUD) contracted with Timmons Group for implementation of an Enterprise Asset Management System (EAMS) for their water distribution and plant division. Through extensive evaluation the PUD chose Azteca Cityworks as their asset management platform. As part of this implementation Timmons Group integrated Cityworks with PUD's Financial Management System (Cayenta) as well as the PUD's Customer Information System (NorthStar). By integrating Cityworks with these enterprise applications PUD is able to leverage all of the functionality of Cityworks while maintaining their current financial business process.

Cityworks® AMS Implementation | City of Auburn, AL

Contact: Christopher Graff | 334.501.7207 | cgraff@auburnalabama.org
144 Tichenor Ave., Auburn, AL 36830

Project Dates: Implementation completed in 2012; Maintenance is ongoing

Project Description: The City of Auburn, AL contracted with Timmons Group for implementation of an Enterprise Asset Management System for their water distribution division. Timmons Group is implementing the Cityworks Server technology to streamline and improve the way the City handles service request routing, tracking and management and for improving the work order management process.



City of Auburn



Cityworks®–Azteca Systems® is the leading provider of web GIS-centric enterprise management solutions. Designed for agencies that care for capital assets, infrastructure, and facilities, our approach is unique in the industry, leveraging the inherent value and investment of your GIS database and software.

Cityworks AMS (Asset Management Solution) provides powerful tools for asset management, customer care, and work management, while Cityworks PLL (Permits, Licensing, and Land) provides tools for tracking permits, licenses, planning applications, business and regulatory processes, engineering approvals, as well as code enforcement cases from beginning to completion. Cityworks AMS and PLL are fully integrated, allowing GIS asset data, service requests, work orders, and inspections to be viewed in the same environment as GIS parcel data, permits, and licenses.

Cityworks is designed with built-in apps (Office, Tablet, and others), which provide the end user with an optimized office or mobile experience using various devices. Office contains full functionality and is designed for a desktop environment while Tablet enables full asset management on mobile laptops and tablets. Both utilize a JavaScript map.



Optional mobile apps are available, including Respond and native apps for iOS and Android. Respond is an app which enables mobile service request, work order, and inspection management on an interface optimized for tablets and other mobile devices. Mobile native apps for iOS and Android are available for task-based usage when completing service requests, work orders, and inspections. The native apps support disconnected use.

Cityworks can be set up on-premises or as a managed deployment of Software as a Service (SaaS) with Cityworks Online (CWOL) hosted in a cloud environment. Cityworks utilizes cloud computing to access resources on the Cityworks platform, either on-premises or from Cityworks Online coupled with ArcGIS Online.

Within the cloud, Cityworks generates data requests for the various Cityworks apps including Cityworks web forms and the Esri web map. Cityworks initiates data requests to feature services for resources available on ArcGIS Server (or ArcGIS Online if using CWOL). A Representational State Transfer (REST) service is used to return a snapshot of the relevant GIS data to the Esri web map used by the Cityworks apps.

In addition to Cityworks apps, JavaScript Object Notation (JSON) web services have been developed to allow integration with third-party, Cityworks-centric applications to satisfy the needs of an organization. Aps are licensed separately and require configuration services.



Cityworks Web GIS-centric

To effectively manage assets, you need to know what they are and where they are located. At the core of every asset management system is an asset inventory. Cityworks is unique in utilizing the GIS database (geodatabase) as the asset inventory. Though other approaches may interface with a GIS—generally for map visualization—the Cityworks platform utilizes the geodatabase as the authoritative data system of record. Moreover, the Cityworks platform also serves as a system of engagement, empowering users to interact with the system through mobile apps and cloud technology.

Cityworks does not contain separate asset tables that must be integrated, synchronized, or linked to the GIS. The Cityworks approach is cleaner, more powerful, and inherently simpler. The GIS offers a robust and accurate representation of assets the way you want them—modeled as they are in the real world. Data models are user-definable and non-proprietary, making this information usable with other applications.

System of Record

Asset management can only be performed with an accurate asset inventory. Today, most asset management systems have incorporated the practices of asset and maintenance management into a single application. Cityworks is unique in that it also brings the location component of these features into the system environment. Using embedded ArcGIS software, Cityworks brings together powerful technologies in an easy-to-use platform while performing both asset and maintenance management.

The inventory of capital assets and infrastructure is maintained in the geodatabase. By using the GIS tools available in Esri's ArcGIS, users have complete and comprehensive asset data creation, editing, management, and analysis tools at their disposal.

Some of these functions include:

- User-definable assets (features)
- User-definable attribute fields (feature attributes)
- Asset inventory directly linked to work management functions
- Assets managed within a visual hierarchy
- Assets directly linked to electronic documents
- Assets used in capital budgeting, planning, and rehabilitation

Asset Geodatabase Models

Azteca Systems has developed and refined non-proprietary asset geodata models for common infrastructure: water, sewer, streets, traffic, parks, facilities, and more. These can be used by our customers as templates to develop a geodatabase design. These models can also be modified for user-specific needs, or a customer may decide to use a model of their own design. Telvent data models for the electric and gas industries are also compatible with Cityworks.

Because it is data-model-independent, Cityworks can read any geodata model created for any feature type, beyond the Cityworks-developed geodata models. Consequently, Cityworks has been deployed to manage a wide variety of diverse assets, including buildings, treatment plants, electric networks, recreation equipment, marinas, airports, and much more.

Cityworks leverages the inherent value of a GIS-centric enterprise asset inventory by managing the assets and their associated attributes (type, condition, installation date, and so forth), and by managing the work done to care for assets. The link between assets and work orders is maintained in such a way that the history of completed work orders against a specific asset is viewable and is easily retrieved. If an asset has not yet been identified in the geodatabase, Cityworks can manage work performed by associating it to a valid address, and it can later seamlessly update the history once the asset is reflected in the geodatabase.

System of Engagement & Customer Care

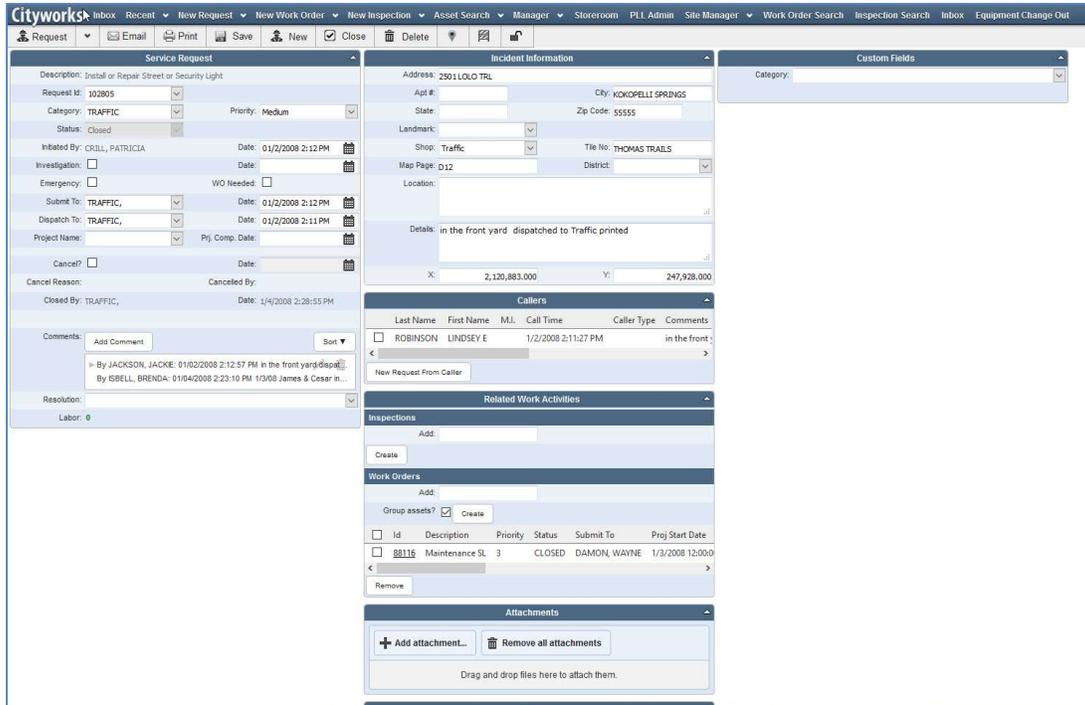
People are ever dependent on infrastructure—highways, railways, fresh water, live telephone, uninterrupted energy, and so on. Both businesses and homeowners rely on the operational integrity of these systems for transportation, health, and finance.

Meeting customer demands is an integral part of asset and maintenance management. Recording customer issues and needs is as much a part of a maintenance system as doing actual field work. Customers are often the first to recognize problems. Agencies have long recognized the need to listen to their customers, accurately identify problems, and implement timely resolutions. Cityworks is designed to help organizations care for their customers with easy-to-use software.

Service Request

Required maintenance may be initiated because of a constituent complaint. A service request is typically created after a caller notifies the agency of a problem at a specific location.

Service requests track a variety of important data, such as caller information, labor usage, status, dates, assignments, and more. It is often difficult to identify the exact cause of a problem from a telephone call. Therefore, the service request is issued to an inspector who can visit the site, speak with the caller, and explore the situation to gather more refined information. If warranted, the inspector may create a work order to remedy the situation. If the inspector determines that the apparent problem is a private concern or unrelated to the agency, the service request can be sent to the appropriate agency, yet still capture the comments, time, and labor costs associated with the customer call or on-site visit.



Office for AMS—Service request

Service requests include the following functionality:

- Caller information tracking
- Labor costs
- Multiple callers on a request
- Combine multiple requests into a single request
- Automatic notification of the same type of request in the area
- Spatial display of requests on the map
- Attach documents
- User-defined problem codes
- Question and answer scripting configured to problem type
- Relationship to work orders and inspections
- Email to customer or internal personnel
- Customizable printouts per problem type
- Search and reports

Cityworks maintains a dynamic link between the service request and the work order. When a work order is closed, the associated service request is automatically closed.

Work Management

Cityworks is a complete, automated system used to identify, track, and record assets and the work performed to care for them. Cityworks connects directly to the geodatabase with a comprehensive set of maintenance management tools.

Cityworks AMS management tools have been designed with the following:

- Inbox
- GIS-based asset data management
- Map-based service requests
- Address and asset-based work orders
- Inspections and tests
- Project management
- Map tools
- Administration tools

Inbox

The inbox is the work management dashboard that displays a user's important information at a glance. The inbox opens when the user first logs into Cityworks and its design varies depending on which application is being used. Inboxes can display individualized reports, queries, map displays, announcements, images, weather information, and other web parts.

In the Office for AMS, Tablet for AMS, and Respond applications, the inbox provides the ability to interact with the map or access service request, work order, or inspection records. Respond's inbox displays a set of tiles (or lists) used to access work assignments, charts, the GIS map, and searches and reports. The mobile native apps inbox displays a list of the user's current assignments.

Inboxes are login specific, meaning the information can be configured to be visible to a group of users or to individuals. In addition, an administrator can add a saved search to a domain's inbox, or a user can add a saved search to their individual inbox.

The screenshot displays the 'Tablet for AMS—Inbox' interface. It features a navigation bar at the top with various menu items like 'Inbox', 'Recent', 'New Request', etc. The main content area is divided into several sections:

- Service Requests & Inspections:** A table listing 'Open Water Dept Service Requests' with columns for Sr, Date Initiated, Description, Priority, Submit To, Dispatch To, Address, and Num. Calls.
- Work Orders:** A table listing 'Work Orders All Open/In Progress' with columns for Wo, Description, Priority, Status, Submit To, Proj Start Date, Proj Finish Date, Actual Start, Actual Finish, Supervisor, and Total Cost.
- GIS Map:** A map view showing the location of service requests and work orders on a street grid.
- Summary Charts:** A pie chart titled 'Open Water Dept Service Requests - Submittal' showing the distribution of requests by dispatcher (e.g., LYONS, COLIN; STEVENSON, KYLE).

Tablet for AMS—Inbox

Work Orders

Work orders are the primary tool for maintenance management. Cityworks provides a means to manage and track work orders, activities, tasks, costs, employees, and other information relating to work performed on assets.

Work order functionality includes the ability to perform the following:

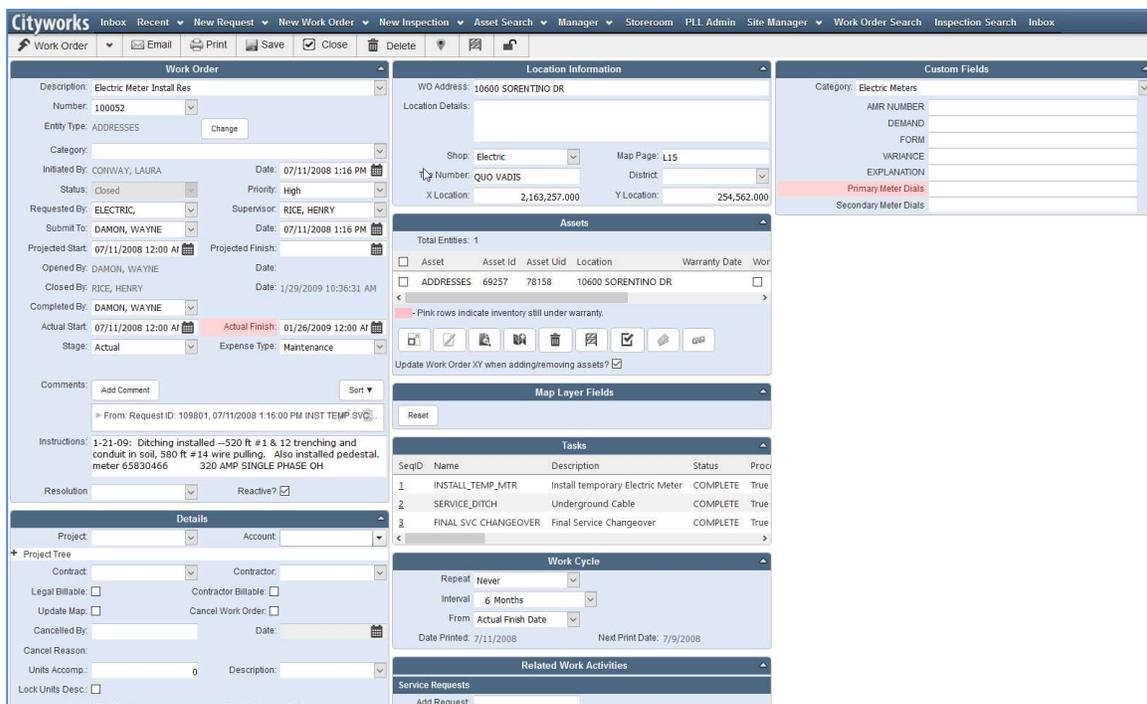
- Create, edit, prioritize, assign, schedule, and close
- Associate with service request
- Create task procedures associated to resources and assets
- Track estimated and actual equipment, labor, and material costs
- Create work orders with multiple assets or multiple work orders with individual assets

- Create preventative (scheduled) or reactive maintenance work orders
- Automatically schedule work orders dependent on a time interval or date
- Attach documents, images, videos, or other files
- Add comments with rich text formatting, hyperlinks, and email notifications
- Print and email
- Spatially display work orders on the map
- Search and create reports

Asset management involves two fundamental practices—reactive and scheduled maintenance. Reactive maintenance occurs when someone interacts with or recognizes a problem with an asset or with an infrastructure system. Scheduled maintenance is often driven by general preventative maintenance activities or recurring work schedules (weekly, monthly, and so on). Cityworks handles both scheduled and reactive maintenance.

Examples of reactive maintenance would be a citizen calling the local government agency to report a pothole, damaged street sign, or leaking hydrant. Most reactive issues begin with a service request.

Examples of scheduled maintenance would be water line flushing, valve exercising, right-of-way weed control, sewer line TV inspections, or storm inlet inspections.



The screenshot displays the Cityworks software interface for a work order. The main window is titled 'Cityworks' and contains several panes:

- Work Order:** Shows details for 'Electric Meter Install Res' (Number: 100052, Category: ADDRESSES, Status: Closed, Priority: High). It lists the initiator (CONWAY, LAURA), supervisor (RICE, HENRY), and submitter (DAMON, WAYNE). The work order was initiated on 07/11/2008 and completed on 07/11/2008.
- Location Information:** Shows the address '10600 SORENTINO DR' and location coordinates (X: 2,163,257.000, Y: 254,562.000).
- Assets:** A table showing one asset: 'ADDRESSES' with ID 69257 and location 10600 SORENTINO DR.
- Tasks:** A list of tasks with their status:

SeqID	Name	Description	Status	Proc
1	INSTALL_TEMP_MTR	Install temporary Electric Meter	COMPLETE	True
2	SERVICE_DITCH	Underground Cable	COMPLETE	True
3	FINAL SVC CHANGEOVER	Final Service Changeover	COMPLETE	True
- Work Cycle:** Shows a repeat interval of 6 months, starting from the actual finish date (7/11/2008).
- Details:** Includes project, contract, and legal billable information.

Office for AMS—Work order

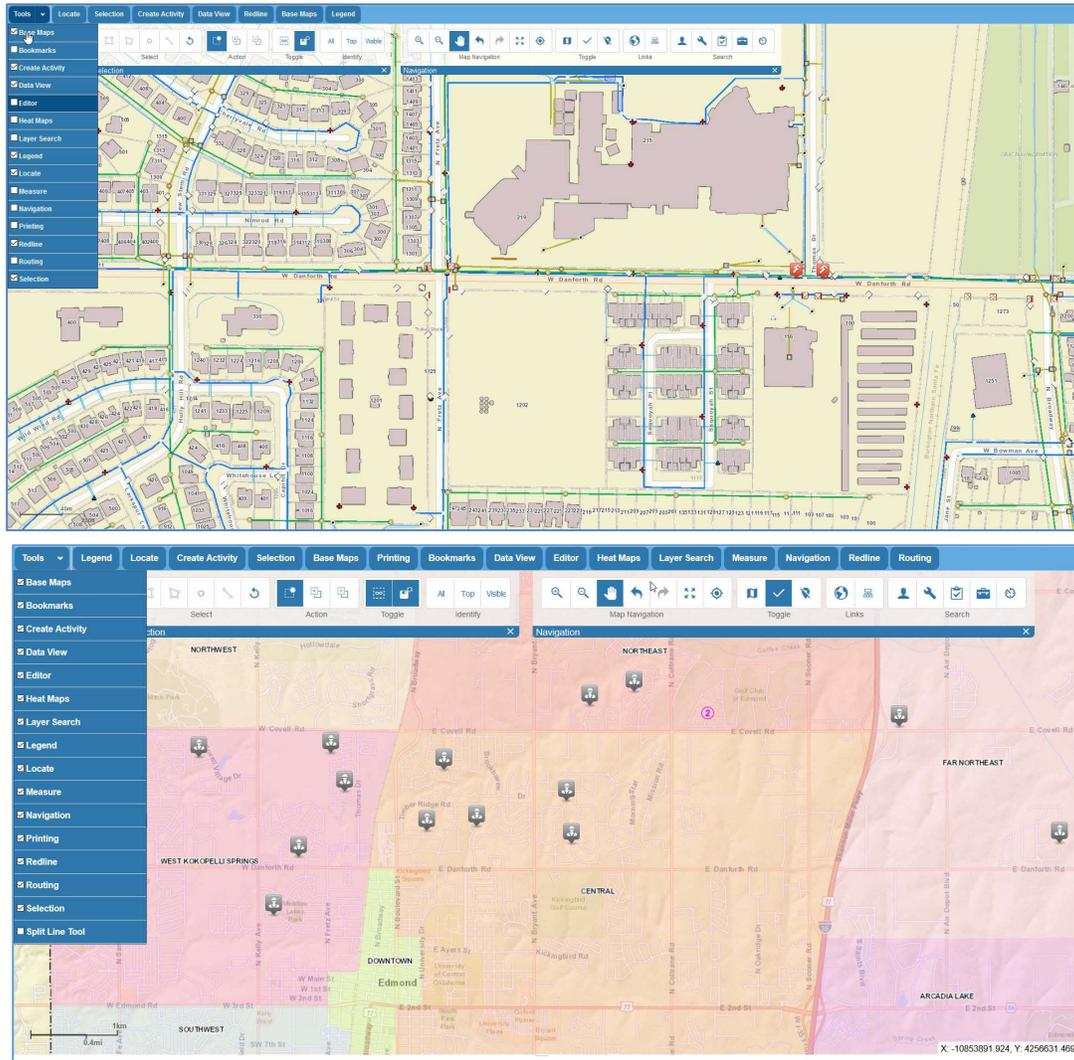
Dynamically linked, work orders are directly associated with their respective asset feature. In Cityworks, these types of work orders are called attached work orders. Unattached work orders are not associated with an asset feature, but they are associated to a feature type and a general location such as an address or intersection.

Multiple assets can be assigned to a single work order, or a work order can be created for each asset. Assets can also be associated to a work order after it has been created, as the need arises.

Map Interface

Cityworks utilizes a JavaScript map which displays on a separate browser tab. Using map tools enables users to locate addresses, select features, create service requests and work orders, determine route navigation, as well as perform other map-related functions. Active work orders, inspections, and service requests are symbolized in the GIS map view, allowing for a quick and intuitive summary of maintenance activities.

The map interface includes a Tools menu and favorite menu items can be anchored to the top of the map. Clicking the menu item opens the appropriate toolset. Favorite tools can be set and organized in Designer. Your favorites are remembered each time you work with the map and are saved in the database so they will be maintained across different browsers and devices.



Respond—Map, Tools menu (left), favorite tools (top), and Selection and Navigation toolsets

Map tools functionality:

- Base Maps—Change the base map.
- Bookmarks—Store frequently visited map extents.
- Create Activity—Enables creation of service requests, inspections, and work orders from the map.
- Data View—View and modify records and attributes of features. Display, move, and edit events. Show geodatabase attachments.
- Editor—Edit the map.
- Heat Maps—Display groupings of event layers on the map.
- Layer Search—Select features from a map layer or search and select work activities.
- Legend—Manage event layers, set selectable layers, adjust asset visibility, control the transparency, and zoom out to the full extent of the layer.
- Locate—Locate work history in a specific location.
- Measure—Measure distance, location, or area on the map.
- Navigation—Navigate the map.
- Printing—Print the map.



Redline—Draw on the map using a variety of graphics. Drawings can then be attached to service requests and work orders.

Routing—Add locations to the map to generate a route for navigation.

Selection—Select assets on the map.

The Cityworks e-URL add-on enables sharing of maps created through inspection, request, and work order searches. This application generates a URL (web address) that can be used to show an event layer on another map outside of Cityworks AMS. The user sharing the map would simply copy the URL and send it to another person to copy into their browser, displaying the map for that person.

Preventative Maintenance

Cityworks can schedule preventative maintenance work orders and have them automatically generate repeat work orders as each is completed or per a regular cycle.

Preventative maintenance can be scheduled in advance for specific assets or groups of assets. These work orders can be configured to repeat once or continually per interval (days, weeks, months, or years) or on a specified date.

Tablet for AMS—Cyclical scheduling parameters

Repeat work orders can also be created by configuring Designer’s Asset Readings function with actions, milestones, and readings linked to work order templates; work orders are generated when the values are exceeded. Alternatively, an API can be used to develop an interface with a third-party application to automatically create work orders based on milestones, thresholds, and measurements. Aps are licensed separately and require configuration services.

Resource Planning and Utilization

Cityworks tracks the labor, material, and equipment resources used on each work order. The system is flexible, allowing agencies to design, organize, and modify resources to effectively manage their use. Estimated and actual resource costs can be tracked for comparison or generation of budget estimates. Contractor-provided resources can also be tracked. For comprehensive reporting, resource costs can be associated with tasks, work order assets, and accounts. Work order costs can be entered through the labor, materials, equipment, or ELM panels of the work order.

Labor

Cityworks accounts for labor costs associated with a work order. The labor type can include employees or contractors listed by name or group, or they can be predefined on the work order template. Both estimated and actual costs can be tracked. Summary costs statistics are available for each work order, and can be broken out by resource. Labor costs are displayed for those with permission to view costs.

Cityworks has built-in standard cost types: regular, overtime, holiday, benefit, standby, shift differential, overhead, and other. These can be selected for each labor entry.



Asset Management / Computer Maintenance Management System (CMMS) Software

Name	Group	Hours/Units	Account	Contractor #	Start Date	Finish Date	Task	Asset Id	Asset	Description	Labor Type	Time Date	Cost	Regular	Overt
WASTEWATER CREW,	SEWER	7.50			7/22/2008 8:00:00 AM	7/22/2008 3:30:00 PM	REPAIR SEWERMAIN				Employee	7/28/2008 11:56:47 AM	\$363.44	\$363.44	\$0.00
WASTEWATER CREW,	SEWER	7.50			7/22/2008 8:00:00 AM	7/22/2008 3:30:00 PM	REPAIR SEWERMAIN				Employee	7/28/2008 11:56:47 AM	\$363.44	\$363.44	\$0.00
WASTEWATER CREW,	SEWER	7.50			7/22/2008 8:00:00 AM	7/22/2008 3:30:00 PM	REPAIR SEWERMAIN				Employee	7/28/2008 11:56:56 AM	\$363.44	\$363.44	\$0.00
WASTEWATER CREW,	SEWER	3.00			7/22/2008 2:00:00 PM	7/22/2008 5:00:00 PM	HYDRA-CLEAN	1856	SGMAIN		Employee	7/28/2008 11:23:35 PM	\$145.37	\$145.37	\$0.00
LEEDS, PHIL	SEWER	4.00			7/28/2008 2:50:00 PM			19922	SMANHOLE		Employee	5/18/2017 2:04:01 PM	\$77.00	\$77.00	\$0.00
PARKS, BRANDON	SEWER	3.50			7/22/2008 2:00:00 PM	7/22/2008 5:00:00 PM	HYDRA-CLEAN	1856	SGMAIN		Employee	5/18/2017 2:05:04 PM	\$67.38	\$67.38	\$0.00

Tablet for AMS—Work order labor

Alternatively, dynamic costing can be set up within an organization and used for each labor entry. These are a set of user-defined cost codes customized for your needs. These dynamic codes are defined and edited in Designer using a simple interface. Fixed rate and percentages are supported.

Material

Cityworks accounts for material costs associated with a work order. At any time, the user can add or remove material based on actual usage and view estimated and actual material and costs assigned to the work order. Materials can be drawn and used from warehouse inventory as required.

Material Id	Description	Units	Cost	Task	Asset Id	Asset	Account	Source	Stock Updated	Date/Time
Booster1330	Gronox Booster Pump 1330	1.00	\$187.11		14036	WMAIN		MAIN	True	5/23/2016 11:47:32 AM
Dirt 100	Dirt to Jobsite	1.00	\$209.00						False	5/23/2017 3:12:00 PM

Tablet for AMS —Work order materials

When implemented with Storeroom (an optional add-on), users can track warehouse transactions with additional functions like security, costing options, vendor and material information, and material transaction reporting.



Receive

Material

Storeroom: MAIN

Material List	Work Order Material	Supplier	Requisition	Material Search
<input type="checkbox"/> 100				Dirt to Jobsite
<input type="checkbox"/> 1010 Helmet				Fire Helmet Defender Visor & Faceshield MSA-1010DFS
<input type="checkbox"/> 102				4" x 3/4" Expansion (for sidewalks) IP55 CT250
<input type="checkbox"/> 108				Flowable Fill
<input type="checkbox"/> 110				Treated Salt

View Selected Material

Receive to...

Supplier: [ADD SUPPLIER] Account: [] Date: []

PO Number: [] Invoice Number: [] Quantity: 1

Unit Cost: 1 Comments: []

ADD TO LIST CLEAR

Pending Receives

Material Id	Storeroom Destination	Supplier	Invoice Num	Part Number	Qty	Unit Cost	Date	Ad Num	Comments
There is no data to display									

Storeroom—Receive transaction

Storeroom

Issue Receive Transfer Audit Search Requisition Build Assemblies

Selected (1)

Material

Storeroom: Remote Storeroom

Options search

FMAIRFILTER10X20X1 ~ 10 X 20 X 1 Air Filter ~	20 EA
Fiber Optic 12 I/O ~ 12 Fiber Indoor/Outdoor Fiber Optic Cable, Multimode, 62 ~ 10F3-212NH	2 SPOOL
FMAIRFILTER 12X20X1 ~ 12 X 20 X 1 Air Filter ~	18 EA
W16INC905PIPE ~ 16IN C905 PVC PIPE ~	50 FT
PIPECON20X6SLJ ~ 20 ft 6 inch Concrete pipe with Push On ~	15 EA
PIPECON20X8SLJ ~ 20 ft 8 inch Concrete pipe with Push On ~	15 EA

Issue To...

Account: FACILITY MAINTENANCE Transaction Date: 04/21/2017 12:00 PM

Employee: []

Work Order Id: [] Asset: []

Task: []

Comments: []

Quantity: 1 SPOOL Add to List Clear

Material to Issue

Date	Source	Storeroom	Material Id	Description	Part Number	Quantity	Unit Cost	Comments	Work Order Id	Entity Id	Account	Employee
[Empty Table]												

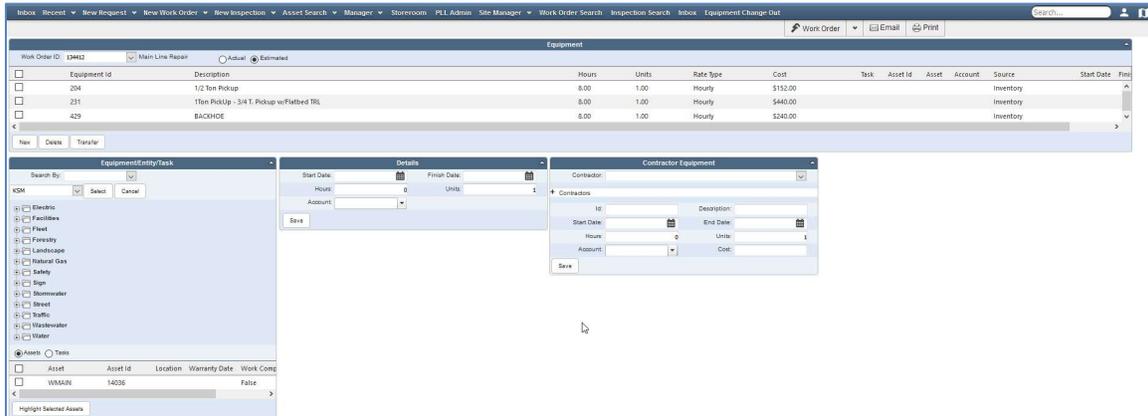
Cancel Remove Commit

Storeroom—Issue transaction

Stock on hand is adjusted as materials are issued to a work order. If materials are removed from a work order, the stock on hand is adjusted to reflect a return to the storeroom. A Bill of Materials (BOM) can be defined to manually build an assembly and add it to a work order.

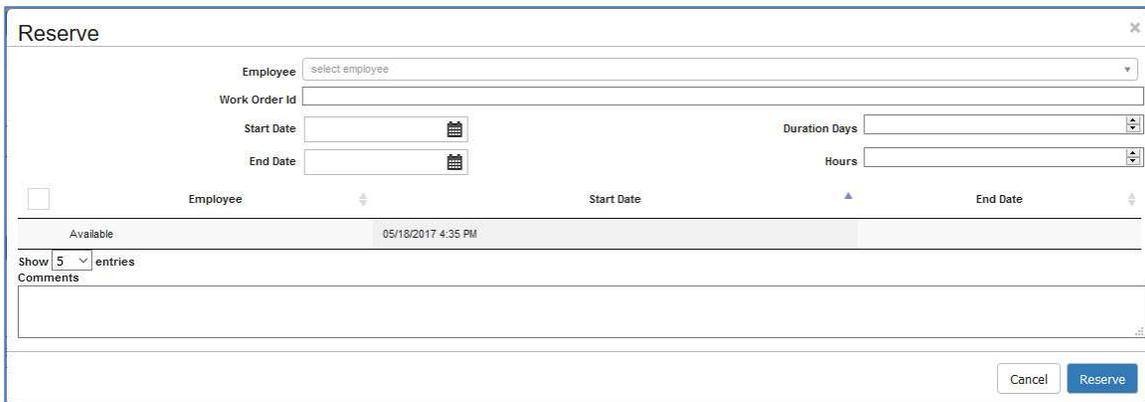
Equipment

Cityworks tracks work order equipment hours and associated costs. At any time, the user can add or remove equipment based on actual usage, and view estimated and actual equipment and costs assigned to the work order.



Office for AMS—Work order equipment

An optional Equipment Check Out app is available for equipment check out and check in, reservations, and searches of check out history.



Equipment Check Out—Reservation entry

ELM

Equipment, Labor, and Material (ELM) on a work order can be edited from a consolidated set of ELM functions. Crew profiles can be created consisting of employees and associated materials and equipment.

When a crew is selected, the associated resources can also be added to the work order. These costs can also be applied to tasks, assets, and accounts. Contractor provided resource costs can also be added using ELM.



The screenshot displays the CMMS software interface. At the top, there is a navigation bar with various menu items like 'Inbox', 'Recent', 'New Request', etc. Below this, the main content area is divided into three sections:

- Work Orders:** A table with columns for 'Id' and 'Description'. One entry is visible: '134412 Main-Line Repair'.
- Tasks:** A table with columns for 'WO Id' and 'Task'. It lists four tasks for work order 134412: 'Job Setup', 'Water Main Replacement', 'New Water Main Inspection', and 'Notify Contractor for Site Restoration'.
- Assets:** A table with columns for 'WO Id', 'Id', 'Asset Type', and 'Work Completed'. It shows one asset: '134412 14036 WMAIN'.

Below these sections is the 'Existing Costs' section, which includes a table with columns for 'Edit', 'Id', 'Name', 'Hours', 'Account', 'Start Date', 'Finish Date', 'Task', 'Id', 'Asset', 'Description', 'Labor Type', 'Trans Date', 'Regular', 'Overtime', 'Holiday', 'Benefit', 'Standby', 'Shift Diff.', 'Overhead', 'Other', and 'Cost'. It lists three cost entries for work order 134412, each associated with a different person (STONE, BOYCE, STEVENSON) and a specific date.

Office for AMS—ELM

Tasks

Tasks organize workflows to better manage and account for specific processes associated to a work activity. Tasks can be added in sequence to a work order, as needed, or can be predefined as a set of tasks on a work order template.

The screenshot shows the 'Work Order Tasks' interface. At the top, there is a red header with 'Work Order Tasks'. Below this, there is a dropdown menu for 'Work Order' set to '134412'. The main area contains a table with columns for 'Task SID', 'SeqId', 'Name', 'Description', 'Status', 'Proceed', 'Rework', 'Assigned To', 'Shop', 'Start Date', 'Finish Date', 'Proj. Start', and 'Proj. Finish'. The table lists four tasks:

Task SID	SeqId	Name	Description	Status	Proceed	Rework	Assigned To	Shop	Start Date	Finish Date	Proj. Start	Proj. Finish
7018	1	JOBSETUP	Job Setup	COMPLETE	false	false		WATER				
7019	2	MAIN_INSTALL	Water Main Replacement	COMPLETE	false	false		WATER				
7020	3	MAIN_INSPECT	New Water Main Inspection	COMPLETE	false	false		WATER				
11088	4	NOTIFY_CONTR_SR	Notify Contractor for Site Restoration	COMPLETE	false	false		WATER				

Respond—Work order tasks

Tasks can also be removed from the list, as the situation dictates. Tasks should or marked as completed (or skipped) and marked with a completion date before the work order record can be closed. For comprehensive reporting, tasks can be associated with work order assets, as well as labor, material, and equipment.

For example, the first task of a mainline repair could be to set up a temporary barricade. Once the barricade is in place, the trench can be excavated. Other tasks may include draining the area, replacing defective pipe sections or valves, backfilling the excavation, compacting, and removing the barricade.

Inspections

In Cityworks, an inspection is a recurring record of a feature or related object's condition. Inspections track asset observations or test results. Assets can have several inspections performed on them. For example, multiple TV inspections, dye tests, and smoke tests can be performed on any sewer gravity main.

Each inspection can be associated to a work order, or can be created independent of the work order. Cityworks provides predefined inspection templates, or the user can also create their own inspection templates with fields pertinent to their inspection processes.



This screenshot shows the 'Inspection' details form on a tablet. The top navigation bar includes 'Cityworks', 'Inbox', 'Recent', 'New Request', and 'New Work'. Below the navigation, there are icons for 'Inspection', 'Email', 'Print', 'Save', and 'Close'. The main form area is titled 'Inspection' and contains several sections with radio button options:

- Dry Barrel Hydrant Inspection:**
 - Hydrant is Readily Accessible: Hydrant is Accessible, Hydrant is Not Accessible
 - All Fire Hydrant Discharge Points are Accessible: All are accessible, One discharge is not accessible, Two discharges are not accessible, Three discharges are not accessible
 - Hydrant is Upright and Not Damaged: Hydrant is upright and functional, Hydrant is not upright, Hydrant is badly leaning, Hydrant is broken and lying on the ground
- Complete hydrant inspection and repair as needed.** (Yellow alert banner)
- WO Needed** (Blue button)
- Discharge Cap Status:**
 - All caps are present, One cap is missing, Two caps are missing, Three or more caps are missing, Cap chains missing, Caps not greased
- Replace cap.** (Yellow alert banner)
- Fire Hydrant Barrel Drains Property:**
 - Barrel drains properly, Barrel has water and does not drain properly
- Check barrel trough to confirm the barrel is dry.** (Blue button)
- Check for Hydrant Valve Leakage:**
 - No Observed Leaks, Leak at Valve End Connections, Leak from Barrel Flange

This screenshot shows the 'Inspection' details form on a tablet (right side). The top navigation bar is identical to the left screenshot. The main form area is titled 'Inspection' and contains several sections:

- Type:** Dry Barrel Hydrant Inspection
- Submit To:** LYONS, COLIN, **Date:** 10/14/2013 11:18 PM
- Priority:** Medium High
- Initiated By:** COTTEN, HOE, **Initiated Date:** 04/18/2012 11:53 AM
- Projected Start:** 02/8/2014 1:47 PM, **Projected Finish:** 02/8/2014 11:18 PM
- Actual Finish:** 02/8/2014 5:02 PM
- Created By:** LYONS, COLIN, **Date Created:** 8/26/2014 10:26:13 PM
- Cancel map?**
- Cancel Reason:**
- Cancelled By:**
- Location:**
 - District:** Central, **Shop:**
 - Map Page:** yg, **Title No:** OAK RIDGE MOBILE HOME P
 - Update Map:**
- Map Layer Fields:**
 - Reset** (button)
- Entry:**
 - Highlight**, **Get from Map**, **History**, **Remove**, **Asset Costs** (buttons)
 - Update Inspection XY when adding/removing asset?**
 - Editable Fields:** All Fields:
- WFIREHYD** (Asset Details):
 - CONDITION: 13
 - CONDITIONDATE: 09/24/2014 00:00:00
 - DIAMETER: 6
 - INSTALLDATE: 06/11/1979 00:00:00
 - LOCATION: 801 VISTA LN #264
 - DOWNER:
 - PRESSURE:
 - STATUS: ACT
 - WA_FITING: 11/4
 - Y: 22866.286
- Work Cycle:**
 - Repeat:** Never

Tablet for AMS—Inspection example

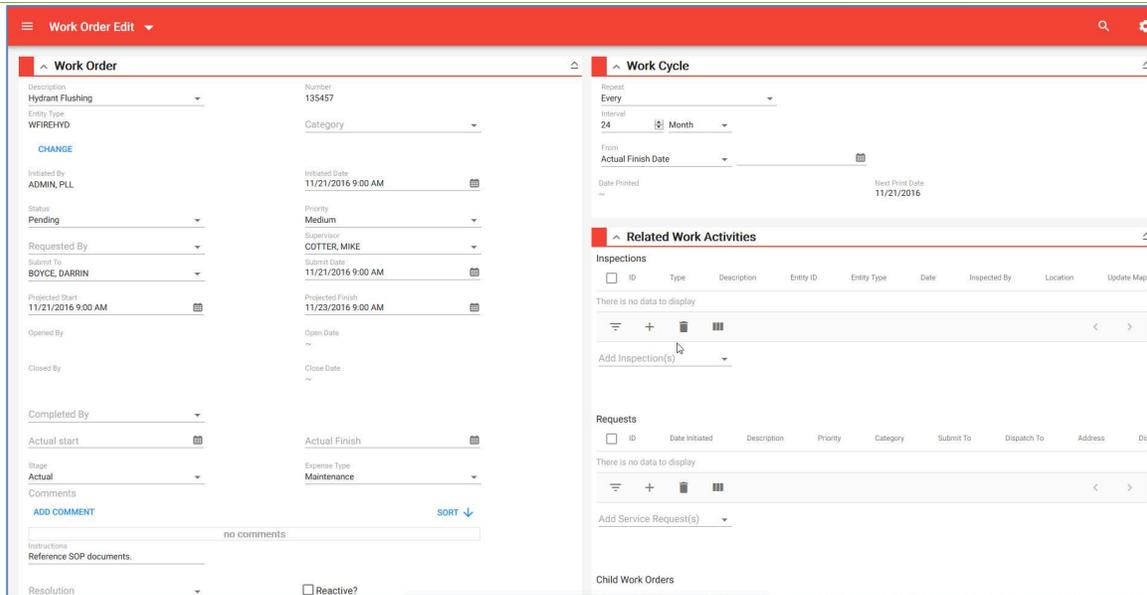
Ad-hoc search tools can query the database for inspections based on field values or geographic location. Subsequent ad-hoc or summary reports can be created, and the data can be exported to Excel. Like work orders and requests, inspections can be displayed spatially on the map.

Cityworks in the Field

Cityworks has several applications designed for use in the field: Tablet for AMS, Respond, and mobile native apps for iOS and Android. Each has an interface different from the others, and are suited for the user, purpose, and device.

Tablet is a core application built into the Cityworks platform. It offers full work management functionality and allows users to operate Cityworks in a mobile setting, such as on a tablet at a job site, and requires a constant network connection. Tablet uses a JavaScript map that opens in a separate browser tab.

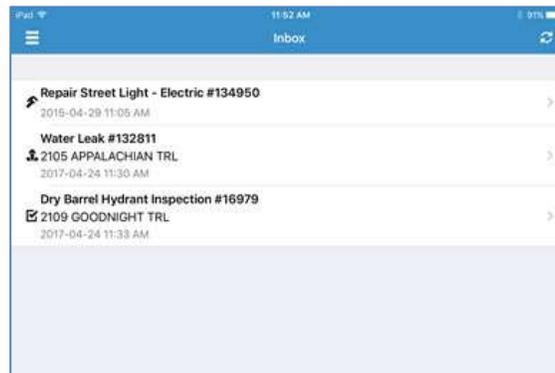
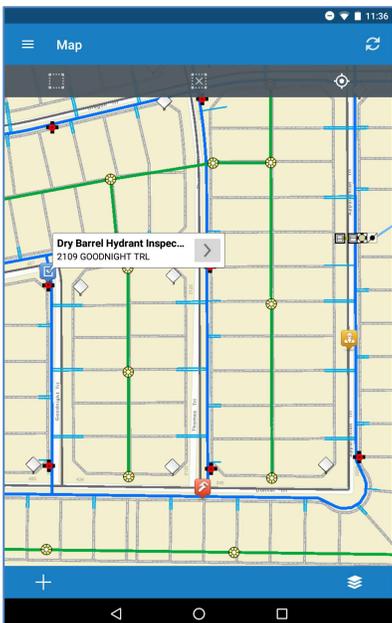
Cityworks Respond is an optional product that focuses on Office-based functionality in a mobile setting. Respond requires a constant network connection to enable real-time updates and manage aspects of Cityworks from a remote location.



Respond—Work order

Optional mobile native apps for iOS and Android allow Cityworks to be used in a disconnected environment. These apps allow users to access their assignments in the field. Users can view work activities on the map, add comments to the work activities or mark them as completed, and view the assets or tasks associated with service requests, inspections, work orders, and cases.

Upon connection to the system, records are updated in the main database; those records are removed from the device, and relevant records are loaded onto the device.



Android and iOS apps—Android map (left) and iOS inbox (right)

Attaching Files

It is often necessary to attach related documents to a work order, service request, or inspection. Cityworks allows users to attach virtually any type of digital file—images, documents, operations or maintenance manuals, photographs, CAD files, and more. Attached files are stored on a server, and the work activity stores a link to the file in question. The files can be opened if the native application of the file is accessible to the user.

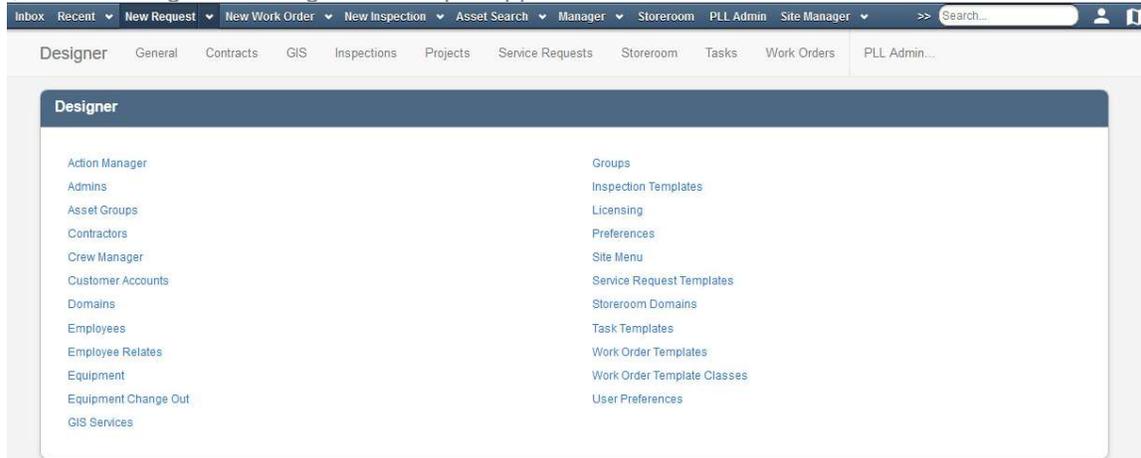


Printing Work Activities

Work orders, service requests, and inspections can be printed using user-defined templates that match the organization's existing look-and-feel, industry standards, or other driving factors. Users can print the work activity with an accompanying map that illustrates the area, attachments, and a project inventory (if applicable). Maps can be set up employing user-defined map templates that may include a key map, legend, north arrow, scale bar, and other pertinent information.

Cityworks Administration

Cityworks includes Designer, a powerful, yet easy-to-use administration app which is used to configure and manage an organization's work environment. Tools are available for defining and maintaining records related to employees, materials, equipment, and work order, service request, and inspection templates, and related information such as tasks, actions for service requests, contractors, crews, and customer accounts. Administrators can also manage general and user preferences and domain, group, and employee permissions. Other functions are available for configuration of GIS assets and services, and licensing for tracking the users per application.



Designer—Main menu

Domains define the Cityworks workforce structure, with shared work activities and resources within each domain. This includes groups, employees, request templates, work order templates, employees, etc. Groups are assigned permissions to add labor to work activities and each have security for GIS rights. Employees may belong to multiple groups. If an employee belongs to multiple groups that have different security rights, the employee is assigned the security rights with greatest access.

Each agency will need to determine how they want to set up Cityworks to define the domains and security within their organization. For example, a municipal public works agency may define domains for water and wastewater, electric, streets, stormwater, signs and signals, and parks. On the other hand, the agency may decide to define a single domain encompassing all departments while sharing many resources and configuration settings; divisions can be maintained within the organization through employee permissions to each division's respective templates. Employees, contractors, material, equipment, and other elements are entered into the system through templates or import functions. Templates and tasks can be cloned, creating new templates with the same configuration.

System Security

Cityworks security features:

Cityworks is designed with several levels of increasingly fine-grained security.

- Application login
- Filtering by domain, group, and user security
- UI security at the presentation level via site, page, and UI business logic

Other security controls exist, which include creating, editing, and closing work activities.

Rule models are defined for access to labor rates or costing, reporting, and system administration.

External threats such as SQL injection, code injection, and web service security are handled through a variety of provisions such as database transactions which occur through stored procedures, prevention of XSS scripting, and security certificate utilization.



Audit files track data changes made to key fields entered onto service requests, work orders, inspections, and other records. The ID, field name, old value, new value, date/time, and login are recorded. Viewing the audit file is limited to administrative personnel.

It is recommended that Cityworks data be backed up on a regular basis. This is the responsibility of the client to perform these tasks. SQL Server or Oracle system software contains functionality to schedule and execute backups.

Work Order Template

The work order template is used to define work orders for specific assets. For example, a pressurized water main asset has several work order options: flush main, inspect main, install main, and so on. These describe general work activities performed to maintain the asset.

The screenshot displays the 'Designer' interface for creating a work order template. The 'Templates' panel on the left shows a list of templates for the 'SEWER' group, with 'Clean/Jetting' selected. The 'Details' panel on the right shows configuration options for the selected template, including Description, Category, Priority, Is Active, Account, Custom Field Category, Shop, and Stage.

Designer—Work order template

Cityworks allows users to customize work orders specific to the needs of each group or division. This includes creating work orders for any geodatabase asset, security parameters for divisions and assets, support of user-defined fields and inspections, and customizable printouts of work orders, service requests, and inspections.

System of Insights

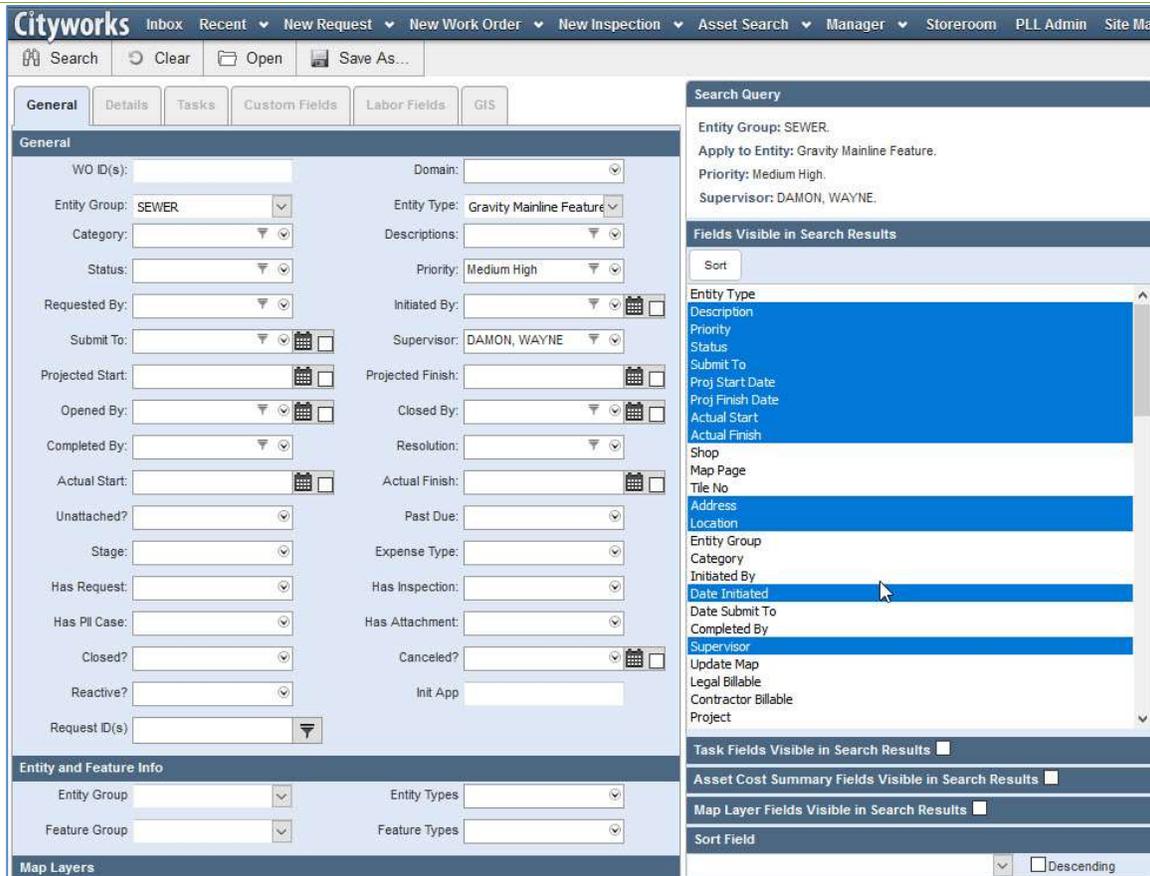
Once you begin collecting data on your assets, you can better understand the full scope of operational costs, labor, materials—as well as the overall health of your infrastructure. Cityworks helps you identify and prioritize risk, implement process improvements, enhance organizational efficiency, prepare for emergency events, and build a business case for necessary personnel and resources.

Search and Report

Cityworks contains ad-hoc search and report tools to query the work management data. Searches can be performed displaying future scheduled work, overdue work orders, assignments to specific people or groups, across date ranges, and a wide variety of parameters. Nearly every field in Cityworks is searchable, allowing for comprehensive data reporting.

Designed as an open system, the Cityworks work management database schema is available to Cityworks clients. This allows users to find and extract information that can be used to support preventative maintenance planning, budget analysis, work load balancing, periodic summaries, and other business needs.

Combinations of fields can be used in a search, which can form the basis of an ad-hoc report. These fields include account number, address, priority, status, tasks, selected assets or asset type, custom fields, and many others. In addition, search criteria can be saved as user or domain searches, or they can be used as the basis of an event layer map display.



The screenshot shows the Cityworks software interface. The top navigation bar includes 'Cityworks', 'Inbox', 'Recent', 'New Request', 'New Work Order', 'New Inspection', 'Asset Search', 'Manager', 'Storeroom', 'PLL Admin', and 'Site Ma'. Below this is a search bar with 'Search', 'Clear', 'Open', and 'Save As...' buttons. The main interface is divided into several sections:

- General:** Contains various filters and input fields for work orders, including 'WO ID(s)', 'Domain', 'Entity Group' (set to SEWER), 'Entity Type' (Gravity Mainline Feature), 'Category', 'Status', 'Priority' (Medium High), 'Requested By', 'Initiated By', 'Submitted To', 'Supervisor' (DAMON, WAYNE), 'Projected Start', 'Projected Finish', 'Closed By', 'Completed By', 'Resolution', 'Actual Start', 'Actual Finish', 'Unattached?', 'Past Due', 'Stage', 'Expense Type', 'Has Request', 'Has Inspection', 'Has PII Case', 'Has Attachment', 'Closed?', 'Canceled?', 'Reactive?', and 'Request ID(s)'.
- Entity and Feature Info:** Includes 'Entity Group', 'Entity Types', 'Feature Group', and 'Feature Types' dropdowns.
- Search Query:** Shows the current search criteria: 'Entity Group: SEWER', 'Apply to Entity: Gravity Mainline Feature', 'Priority: Medium High', and 'Supervisor: DAMON, WAYNE'.
- Fields Visible in Search Results:** A list of fields that can be displayed in the search results, including 'Entity Type', 'Description', 'Priority', 'Status', 'Submit To', 'Proj Start Date', 'Proj Finish Date', 'Actual Start', 'Actual Finish', 'Shop', 'Map Page', 'Tile No', 'Address', 'Location', 'Entity Group', 'Category', 'Initiated By', 'Date Initiated', 'Date Submit To', 'Completed By', 'Supervisor', 'Update Map', 'Legal Billable', 'Contractor Billable', and 'Project'. A mouse cursor is pointing at 'Date Initiated'.
- Task Fields Visible in Search Results:** A checkbox to toggle task fields.
- Asset Cost Summary Fields Visible in Search Results:** A checkbox to toggle asset cost summary fields.
- Map Layer Fields Visible in Search Results:** A checkbox to toggle map layer fields.
- Sort Field:** A dropdown menu for selecting the sort field, with a 'Descending' checkbox.

Office for AMS—Work order search

The Cityworks search engine includes the following functions:

- Search on multiple fields
- Select display fields
- Search on comment text strings
- Save searches for domain, group, or personal use
- Combine work orders from selected records in the search results
- Sort the search results by a column in ascending or descending order
- Display search results in a map view or in a list view
- Display and edit work schedule in a calendar
- Open selected work orders
- View work order frequencies
- Print current page, print selected work orders, print preview
- Export search results data

Cityworks is compatible with third-party search and reporting tools such as Crystal Reports, and can access customized Crystal Reports.

Project Management

Cityworks supports a multi-level project manager, in which the various proposed inspections, maintenance activities, CIP, and other activities are placed into projects.



Cityworks			
Inbox Recent New Request New Work Order New Inspection			
New Project Open Project View Edit			
Domain: KSM Summary View: Project Budgets			
Projects	Budget	Expended	Remaining
2014 Park Concessions	\$35,000.00		\$35,000.00
Capital Improvement Projects		\$324,043.12	\$69,145,956.88
2009 Capital	\$20,000.00	\$621.40	\$19,378.60
2010 Capital	\$4,500,000.00		\$4,500,000.00
2011 Capital	\$5,000,000.00	\$129,720.52	\$4,870,279.48
2012 Capital	\$5,500,000.00		\$5,500,000.00
2013 Capital		\$15,495.94	\$4,434,504.06
2014 Capital	\$14,000,000.00	\$10,015.09	\$13,989,984.91
2015 Capital		\$164,525.25	\$31,835,474.75
2016 Capital	\$4,000,000.00	\$3,664.92	\$3,996,335.08
FEMA Projects		\$16,498.06	(\$16,498.06)
Madison Street Lights		\$637.76	(\$637.76)
NG Projects	\$7,025,750.00	\$6,741.34	\$7,019,008.66
Regulatory Compliance		\$7,915,938.61	\$63,384,061.39
SLA - Property Management		\$65,260.29	\$74,739.71
Communications Dept	\$95,000.00	\$55,820.44	\$39,179.56
FM		\$9,439.85	\$35,560.15

Tablet for AMS—Project manager summary view

The software supports a security feature so that individual managers can alter their specific projects to meet their needs. Each project can be managed at the level of individual activities, as well as the overall project. This approach allows users to generate a variety of project reports.

Projects “roll up” in the hierarchy, allowing a project that contains other projects to incorporate the sub-projects in all reports. Each project can be defined with line items, attachments, budget amounts, comments, dates, assignment, approval, and work order and service request costs.

Performance Budgeting

Performance Budgeting is an optional app which produces yearly budgets based on projected costs and budgetary constraints of an organization’s assets. Tools are provided which produce detailed budget projections based on work order templates, maintenance factors, cost factors, plus actual and projected work. Performance Budgeting can help to accurately predict future budgets and determine cost projection, productivity, optimal crew size, etc.



^ WO Template														
Group STREET			Type Paved Roads			Template Crack Sealing - AC			Year 2017					
<input checked="" type="checkbox"/> Lock Budget SAVE DATA ADD NEW BUDGET YEAR														
^ Maintenance														
Management Unit Roads - Zone 1			Unit Description ZONE 1			Activity Program Asphalt			Activity Code Crack Seal					
^ Cost														
Inventory Count 950		Description Code ROAD MILES		Average Crew Size 6		Daily Budget 1743.6		Yearly Budget 165642						
Effort Level 1		Description Code ROAD MILES		Crew Days 95		Daily Labor 1032		Yearly Labor 98040						
Work Quantity 950		Description Code ROAD MILES		Unit Cost 174.36		Daily Materials 119.6		Yearly Materials 11362						
Average Daily Output 10		Description Code ROAD MILES		Labor Hours/Day 48		Daily Equipment 592		Yearly Equipment 56240						
Work Day Hours 8		Applied Overhead 0		REFRESH CALCULATED DATA										
^ Work														
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	Target
Percent	0	0	0	0	0	0	75	25	0	0	0	0	100	100
Crew Days	0	0	0	0	0	0	66	26	0	0	0	0	92	95
Labor Days	0	0	0	0	0	0	428	143	0	0	0	0	571	570

Performance Budgeting—Budget variables

Operational Insights

Insights is an optional app which generates KPI's related to the health of an organization's assets based on GIS data and tracked maintenance within Cityworks. Users define and develop strategies for assets and maintenance which generate the factors and scores used in the final calculations:

Asset strategies are defined to identify asset types, fields and their rating methods and scores, and risk factors and their rating methods and scores.

Maintenance strategies are defined to identify asset types and their proactive maintenance weighting factors and frequencies, and reactive maintenance weighting factors and threshold numbers.

Calculations are performed using the strategies developed for each asset type. The data can be displayed in a table or visualized as scatter point charts or bar graphs. The resultant numbers are indicators of the following:

- Probability of failure
- Consequence of failure
- Risk mitigation
- Business risk of exposure
- Maintenance score proactive under-maintained
- Maintenance score proactive over-maintained
- Maintenance strategy threshold



Asset Management / Computer Maintenance Management System (CMMS) Software

Tools | Legend | Locate | Create Activity | Selection | Base Maps | Printing | Bookmarks | Data View | Editor | Heat Maps | Layer Search | Measure | Navigation | Redline | Routing

Selection

Navigation

Results

OBJECTID	DIAMETER	PIPENO_FM	REVISED	MATERIAL	RECORDED_LENGTH	SUB_TYPE	LOCATION	FACILITY_NAME	OWNER
64	8"	86		Unknown	55.25	MAIN			CITY
121	8"	213		Unknown	359.7	MAIN			CITY
130	12"	244		Cast Iron Pipe	933.25	MAIN			CITY
135	8"	251		Cast Iron Pipe	282.12	MAIN			CITY

Operational Insights—Map View

Analytics Dashboard

Asset Calculation Definitions

Asset Group: WATER

Asset Type: WMAIN

Name	Date
<input type="checkbox"/> WMAIN STRAT	02/20/2018
<input checked="" type="checkbox"/> FULL WMAIN STRAT	05/1/2018

Showing 1 to 2 of 2

HIGHLIGHT ASSETS CLEAR

Probability of Failure (POF)

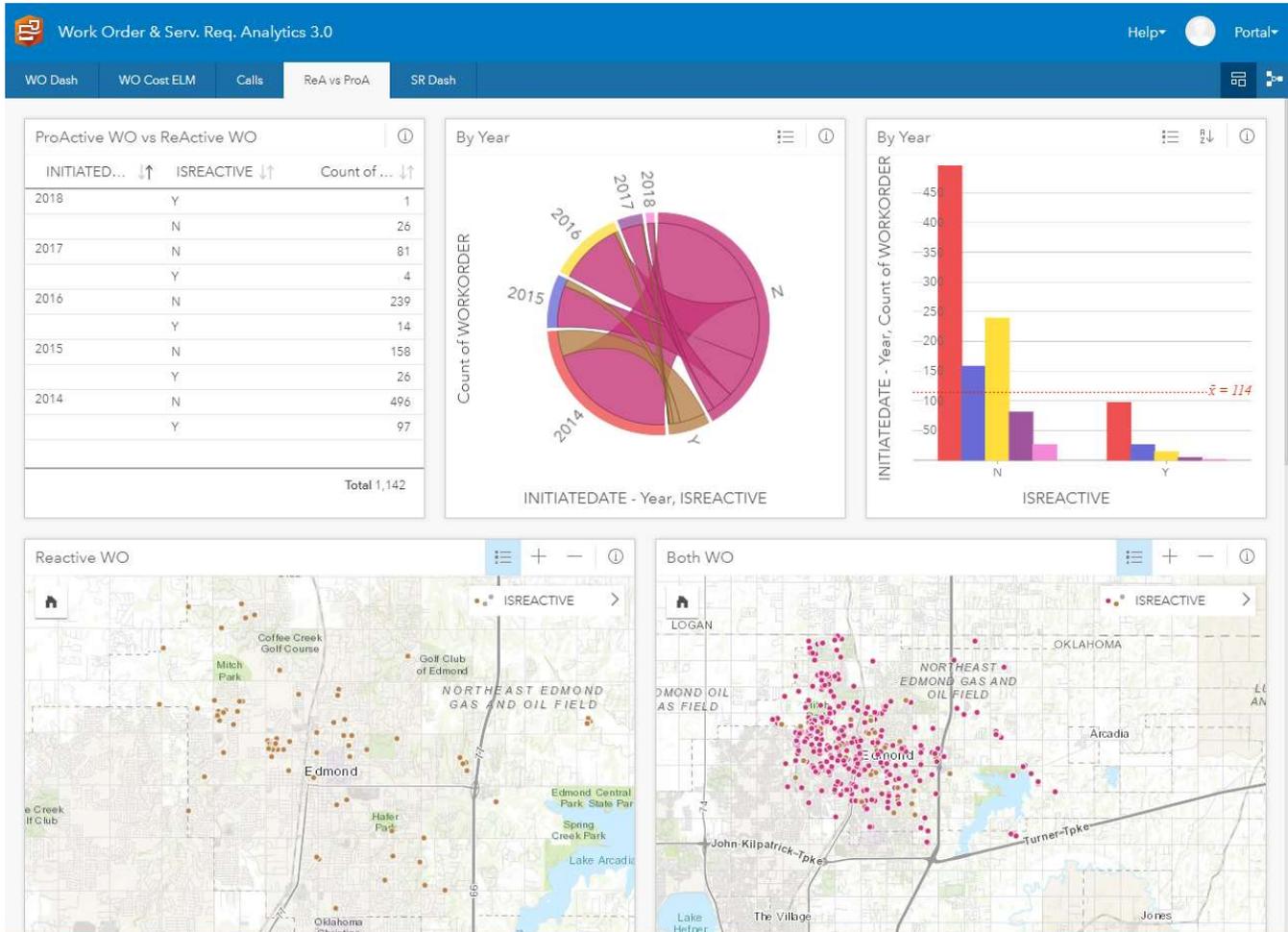
Consequence of Failure (COF)

Business Risk Exposure (BRE)

Operational Insights – Mapped and graphed linear asset data

Analytics

Analytics enables the creation of detailed graphical reports from service requests and work orders, inspections, storeroom, and PLL cases and/or contractor information.



Cityworks Analytics – Service request Dashboard

This out-of-the-box product comes with several reports that are already created—you just need to set up the connection to your own database so that the reports reflect your organization’s information.

Contracts

Contracts is an optional app that is used to track all work including the design, estimated costs, bid process, and other activities contracted out to another entity. Contracts can have a set budget; track a set of tasks, materials, or equipment; track estimated costs; record reported costs by line item; and track work completion and cost approval. Contracts can also spread materials and costs across multiple work orders or inspections.



The screenshot displays the 'Contract Information' section of the Cityworks software. The contract is identified as 'Coffee Creek Treatment Plant CIP Upgrade' with Contract ID 4015 and Contract No. 2014-CIP-100001. The contractor is 'CARGILL SALT' located at 678 SOUTH MT. PELLI, KOKOPELLI SPRINGS, NM. The account manager is 'BOYCE, DARRIN' and the accountant is 'BARR, RENEE'. The location is 'Coffee Creek Treatment Plant'. The budget is \$0, with an estimated budget of \$125,000.00 and a bid budget of \$135,000.00. The contractor information includes contact details for CARGILL SALT, including address, city, state, zip, cell phone, office phone, fax, and email. Insurance information is also provided, including Liability Ins, Workers Comp, and Automobile Ins, with effective dates and amounts.

Office for AMS—Contract sample

Customization

Cityworks AMS/PLL includes the ability for users to incorporate individualized reports, queries, charts, map displays, and other web parts into the user's inbox. This allows users to incorporate related data and information that are not core components of Cityworks, but may be directly related to a user's needs.

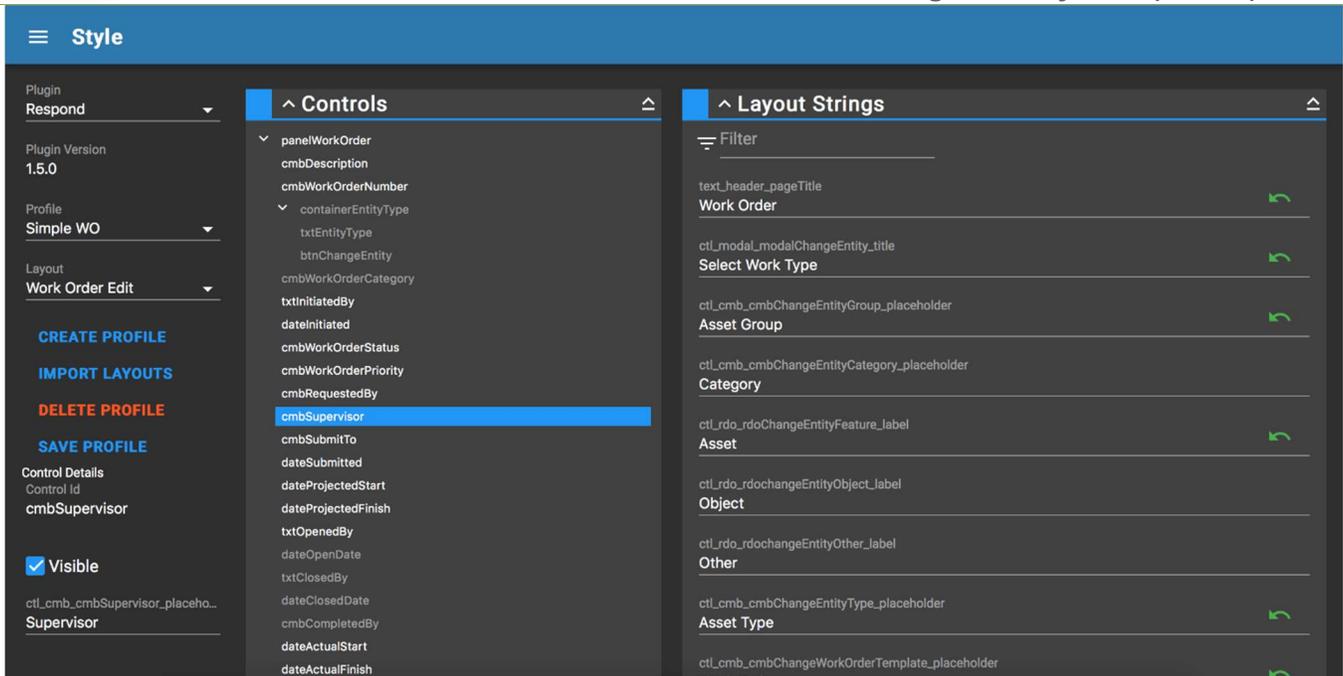
The licensee may use, copy, or prepare derivative works of documentation supplied in digital format and thereafter reproduce, display, and redistribute the customized documentation only for the licensee's own internal use.

In addition, the Cityworks User Interface (UI) can be customized utilizing changes to XML or HTML files, and by incorporating stored procedures. Moreover, customization can be accomplished using Layout Manager UI rendering tools developed for Cityworks AMS/PLL. Users interact with the Layout Manager through specifically formatted XML files. Each time a page loads, Layout Manager reads the files and then interprets them to dynamically create the UI. Documentation and optional training classes are available to help the users understand how to customize the UI.

Style

Style is an application that can be used for customization of other Cityworks apps. It requires the Cityworks 15.3 platform, and can currently be used to customize apps such as Respond. It will also be able to customize other apps compatible with Cityworks 15.3, as they are released.

Instead of manually editing XML code to change a UI, Style offers an efficient way to create style profiles and apply them to specific users. UI changes can include control label descriptions and visibility, collapsed panels, theme colors, imported layouts, and more. Keyword filtering helps navigate through the occurrences of the names of the controls, after which changes can be made. The control names can also be viewed within the application.



Interfaces with Other Systems

Cityworks is built using open standards and technology; storing data in an open, published format utilizing standard commercial SQL databases, such as Oracle and Microsoft SQL Server. The open-standards design of Cityworks is the key to developing applications and reports that enhance each individual system and interface with your critical business systems. These interfaces may be created in-house or by a third-party contractor working for your organization.

Cityworks customers are free to use the Cityworks data structures to build interfaces to other databases, such as customer information systems, financial information systems, human resource management systems, fleet management systems, and other related business applications. Several customer sites have even created their own applications to access their data. Our licensing policy does not prohibit this in any way. We believe in and fully support “open systems” and “open standards.”

Application Programming Interfaces (aps) extend the Cityworks platform to third-party applications. These aps expose specific functionality as well as data, allowing Cityworks to interact with other systems. Aps are licensed separately and require configuration.

The Cityworks data model and structure is documented for internal or neutral third-party consultant use. Azteca Systems requires the client acknowledge that copyright law protects the Cityworks data structures wherein the data is stored. However, the client is always the owner of data entered or stored in Cityworks or generated by Cityworks.

Access to and utilization of the data in Cityworks is unencumbered for the client’s internal usage for the following purposes:

- Data conversion and data migration into or out of Cityworks
- Internal application development for add-ons to Cityworks or for an application that is complementary to Cityworks, whereas the application is not a reverse engineering of Cityworks
- The development and maintenance interface from Cityworks to citizen web pages for information and service request systems. The licensee has access to the complete documentation of all Cityworks data structures.

Clients may utilize the services of a third-party vendor to support Cityworks for the above items. However, the third-party vendor cannot be a direct competitor of Azteca Systems, and the third-party vendor must execute a Non-Disclosure Agreement with Azteca Systems. Azteca Systems has an extensive network of authorized implementation partners, each having an impressive track record of successful implementations and integrations.



Cityworks Products

The Cityworks platform is designed to utilize Esri ArcGIS and contains Cityworks AMS and PLL core products which are available through their respective Office and Field apps. These apps provide the end-user with an optimized office or mobile experience. Each contains full AMS or PLL functionality, along with integrated map tools.

Core products:

- Office for AMS & PLL
- Field for AMS & PLL

Optional software applications have been designed to extend the Cityworks platform by providing additional specialized capabilities. These are licensed separately.

Optional products:

- Analytics app
- Contracts app
- Equipment change out app
- Mobile native app for iOS
- Mobile native app for Android
- Public access for PLL app
- Respond app
- Storeroom app
- Cityworks for Excel
- E-URL
- JSON web services apps
- Utilities—CCTV Interface
- Utilities—PAVER Interface

Cityworks AMS

Cityworks AMS is a Web GIS-centric public asset management system designed with built-in Office for AMS and Field for AMS apps. Each app incorporates a palette of tools, tabs, and links in a highly customizable environment, allowing Cityworks to be served across a department, a division, or an entire organization.

Designed for maintenance and operations, Cityworks Office for AMS and Field for AMS apps allow users to utilize GIS functionality while managing and performing maintenance operations and investigating and resolving service requests, all in a web-based environment.

Users can schedule and track preventative maintenance with cyclical work orders and inspections. Emergency and other reactive work orders are also managed, and are often generated as a result of customer calls which can lead to a service request investigation indicating a need for maintenance.

Maintenance data relating to specific public assets is tracked and managed, and includes: location, resource usage and costs, assignments, tasks, comments, dates, and more. Caller histories as well as asset maintenance histories are readily available through simple searches. Specialized reports can be generated using Crystal Reports.

A JavaScript map includes tools for event layers, map display, asset searches, navigation, feature selection, routing, location, redline, heat mapping, and more.

Cityworks PLL

Cityworks PLL is a Web GIS-centric system empowering users with the ability to track development projects, code enforcement cases, and other similar projects from inception to completion. It is fully integrated into mapping systems, and it facilitates the use of ArcGIS mapping functions at all relevant levels. It is not only functional for private land development, but it can be used for utilities, highways, parades, festivals, and other public projects.

Cityworks PLL is designed with built-in Office for PLL and Field for PLL apps, which provide the end-user with an optimized office or mobile experience. These apps contain full permits, license, and case management functionality and are designed for desktop computers or mobile laptops and tablets and utilize a JavaScript map.



Cityworks PLL is designed to make the workflow associated with development smoother and more manageable by giving all persons and departments a real-time, web-based view of all projects. It allows real-time reporting of inspection results, approvals, etc., and can reduce the amount of paperwork that is generated.

The installation process takes the basic Cityworks PLL package and molds it to meet the unique structure and needs of the users' organization. It can be configured to allow access by multiple departments within an organization, such as the legal department (to allow coordination on code enforcement cases), or public utilities for cooperation in the construction of water and sewer lines in new subdivisions, and so forth.

Storeroom

Cityworks Storeroom is a product designed to track incoming and outgoing materials from multiple storage areas, including work vehicles, as well as manage stock, material cost, suppliers, and requisitions. Storeroom operates in conjunction with work orders created in Cityworks AMS. When materials are added to a work order, issue transactions are written to Storeroom to adjust the available stock. If materials are removed from the work order, or if the work order is canceled, receive transactions are recorded in Storeroom to return unused materials.

Date	Source	Storeroom	Material Id	Description	Part Number	Quantity	Unit Cost	Comments	Work Order Id	Entity Id	Account	Employee
						1						

Storeroom functions include the following:

- Materials can be defined with a description, location, part number, supplier, manufacturer, stock quantity, unit cost, reorder quantity, user-defined fields, etc.
- Requisitions can be created for individual materials or from a search on the reorder quantity threshold.
- Material transfers from storeroom to storeroom can be tracked. For example, materials can be transferred from a main storeroom to another storeroom, a main storeroom to a vehicle storeroom, and so on.
- Receive transactions can track the materials coming into the storeroom from a supplier or from a work order return.
- Issue transactions track materials issued to an account, employee, or work order.



Asset Management / Computer Maintenance Management System (CMMS) Software

- Audit transactions can be used to record adjustments made to material quantities and costs. All materials tracked in Storeroom can be accounted for with an audit.
- Supplier information is tracked and associated to materials.
- Material cost types include LIFO, FIFO, Weighted Average, or Current, which are used to accurately track costs and prepare estimates.
- All materials transactions are recorded, whether entered from Storeroom or from a work order, to account for all materials and material costs.
- ABC valuation can be defined for all materials.
- Reports function allows searching materials transactions.

Contracts

Contracts is used to track all work including the design, estimated costs, bid process, and other activities contracted out to another entity. Contracts can have a set budget; track a set of tasks, materials, or equipment; track estimated costs; record reported costs by line item; and track work completion and cost approval. Contracts can also spread materials and costs across multiple work orders or inspections.

The screenshot displays the Cityworks software interface. At the top, there is a navigation menu with options like 'Recent', 'New Request', 'New Work Order', 'Inbox', 'New Inspection', 'Asset Search', 'Manager', 'PLI Admin', 'Site Admin', and 'Designer'. Below the menu is a search bar and a toolbar with 'Contract', 'Line Items', 'View', 'Save', and 'Delete' buttons.

The main content area is divided into several sections:

- Line Item Summary Table:** A table with columns for Item Number, Item Description, Unit of Measure, Unit Quantity (Engineer's Estimate), Unit Cost (Engineer's Estimate) (\$), Total Cost (Engineer's Estimate) (\$), Unit Cost (Contract Bid) (\$), Unit Quantity (Design), Total Cost (Design) (\$), % Unit Quantity (Design), % Total Cost (Design), and Unit Quantity. It lists four items: 1. Bank Stabilization Hydroseeding, 2. Litter Pickup, 3. Mowing, and 4. Pesticide Spraying.
- Contract Information Panel:** Shows Contract ID: 3, Contract No.: From 2010L501, Type: General Maintenance, Status: Active, Account Mgr: BENZ, AUSTIN, and Accountant: BENZ, AUSTIN. Description: Greenspace maintenance for ROW and medians. Includes mowing, spraying etc.
- Contractor Information Panel:** Shows Name: RAY TS SOD SERVICE, Address: 111 KOKOPELLI CT, City: KOKOPELLI FALLS, State: NM, Zip: 84025, Call Phone: 801-302-2514, Office Phone: 801-555-3691, Fax: , Other Phone: , Email: , Local: [checked], Comments: , Approved Work: , Federal Tax Id: , FMS No: , Registration: 8/10/2009, PIN: , Date: , MWBE: [unchecked].
- Attachments Panel:** Includes buttons for 'Add attachments...' and 'Remove all attachments', and a text prompt: 'Drag and drop files here to attach them.'
- Location Panel:** Shows Location: Various, Address: , City: , State: , Zip: .
- Budget Panel:** Shows Budget: \$145010, Est. Budget: \$175,000.00, Bid Budget: \$168,975.00.
- Dates Panel:** Shows Design Date: 4/8/2009, Bid Date: 6/24/2009, Signed Date: 9/11/2009, Start Date: 1/1/2010, Est. Finish: 12/31/2010, Actual Finish: , Transmit Date: , Use Insp Date: , Final Insp Date: , Guarantee Insp Date: , Use PL Insp Date: , Final PL Insp Date: , Guarantee PL Insp Date: , Insp Date: .
- Sub-Contractor Information Panel:** (Partially visible at the bottom).



Respond

Respond is an optional app which extends Cityworks AMS functionality. Respond is designed differently than Office and Field, and focuses on service request and work order management. Respond enables mobile work on an interface optimized for tablets and uses a javascript map. Respond requires a constant connection.

☰ 🔍 🏠

Work Order Edit

📄 ⚙️ 📍

Work Order

Description

Entity Type
 WMAIN Change

Initiated By
 PWADMIN,

Status

Requested By

Submit To

Projected Start

Opened By

Closed By

Completed By

Actual start

Number
 134396

Category

Initiated Date

Priority

Supervisor

Submit Date

Projected Finish

Open Date

Close Date

Actual Finish

E-URL

E-URL enables sharing of maps created through inspection, service request, and work order saved searches. The hyperlink generates a REST service URL that can be used to show event layer data on a map outside of Cityworks AMS.

Cityworks for Excel

This product allows users to make changes to the Cityworks database and geodatabase tables from one place with an easy-to-use interface. Work orders and inspections can also be created using this application. Cityworks for Excel supports Excel 2013 and Excel 365 (desktop version) on Windows.

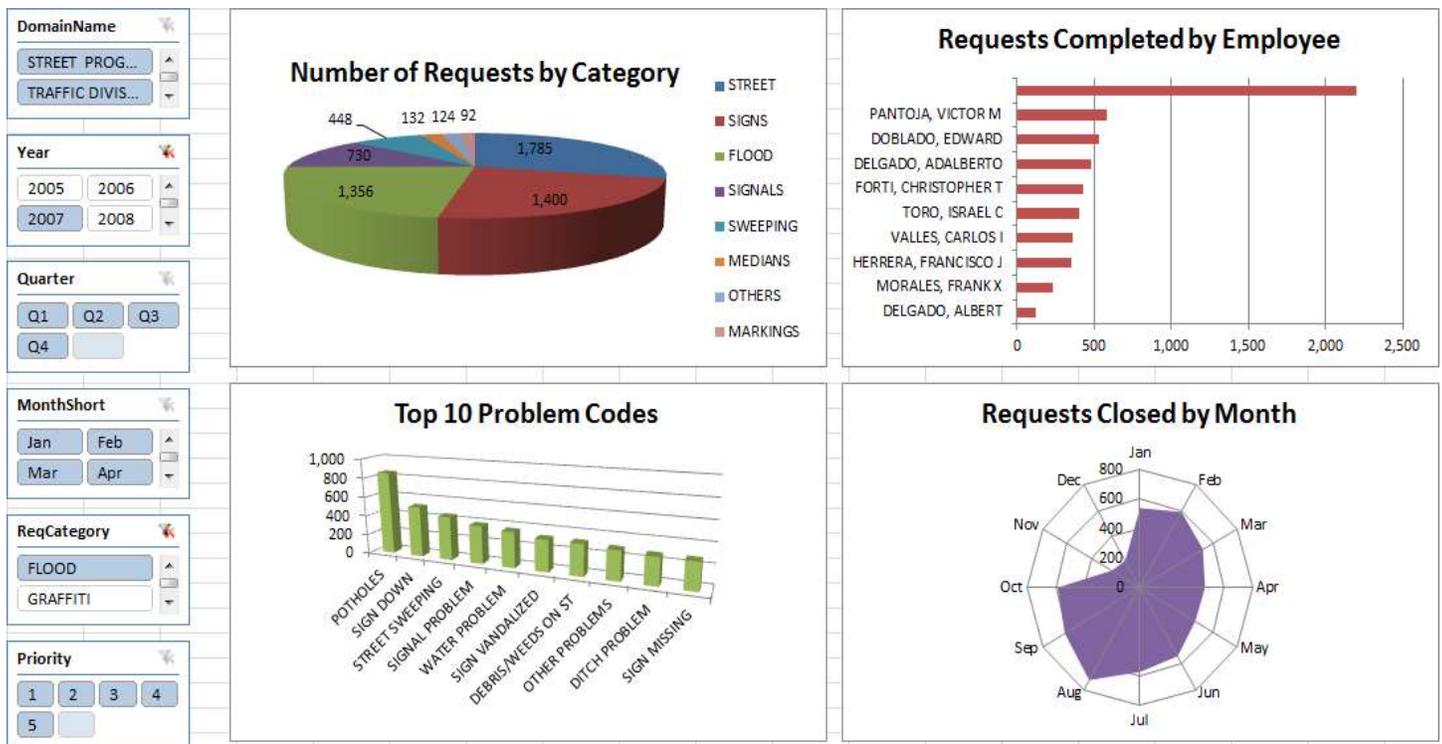
FacilityID	Enabled	LegacyID	Location	OBJECTID	InstallDate	Wat
86	TRUE	161986		1	1/1/1990	Storm
93	TRUE	161993		2	1/1/1990	Storm
103	TRUE	162003		3	1/1/1990	Storm
104	TRUE	162004		4	1/1/1990	Storm

Analytics





Cityworks Analytics allows organizations to quickly create detailed reports using the information in their database. These powerful reports are used to graphically analyze the organization's performance. This out-of-the-box product comes with several reports that are already created—you just need to setup the connection to your own database so that the reports reflect your organization's information.



Application Programming Interfaces (APIs)

Application Programming Interfaces (APIs) allow clients to extend the Cityworks platform through custom applications and integrations with third-party systems. Cityworks has developed many JavaScript Object Notation (JSON) web services APIs. These are licensed individually and require configuration services.

The following JSON web services API's are available for the Cityworks platform:

- | | | |
|--------------------|----------------|---------------------|
| Attachments | Entity | Preferences |
| Authentication | Equipment | Public Access |
| Bookmark | Equipment Cost | Reading |
| Case Asset | Event Layers | Recent Activity |
| Case Child Object | Fee Setup | Relates |
| Case Task Comments | General | Search |
| Case Task Results | GIS Search | Security |
| Crew | Holiday | Service Request |
| Condition | In Box | Storeroom |
| Codes | Inspection | Tasks |
| Contractor | Labor Cost | Types |
| Customer Call | Material | Work Order |
| Employee | Material Cost | Work Order Template |



Equipment checkout

This Equipment Check Out app is used for checking out, returning, reserving, and tracking equipment, as well as keeping a history of equipment and employee usage.

The screenshot displays the Cityworks software interface for equipment management. The top navigation bar includes options like 'Inbox', 'Recent', 'New Request', 'New Work Order', 'New Inspection', 'Asset Search', 'Manager', 'Storeroom', and 'PLI Admin'. A search bar is located on the right.

The main content area is divided into several sections:

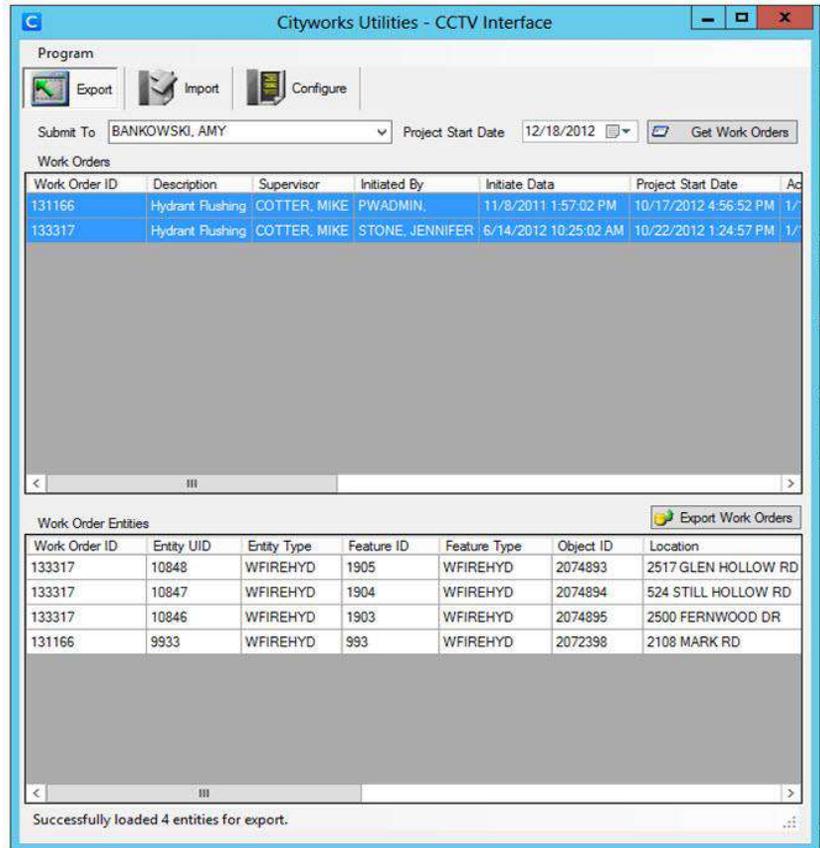
- Equipment:** Shows a search for '215 - 1/2 Ton Pickup' with a status of 'Available until 01/30/2016 12:00 PM reserved for ABBOTT, CHUCK'. Buttons for 'Reserve', 'Check Out', and 'Check In' are present.
- Reservations:** A table with columns: Equipment ID, Employee, Start Date, End Date, Work Order Id, and Comments. It shows a reservation for 'ABBOTT, CHUCK' from '01/30/2016 12:00 PM' to '01/31/2016 12:00 PM'. Below the table are buttons for 'Edit Reservation' and 'Cancel Reservations'.
- Checked Out Equipment:** A table with columns: Equipment ID, Employee, Check Out Date, Due Date, Work Order Id, and Comments. It displays 'No equipment checked out(check filters)'. A 'Check In' button is located below.
- Reservations (Detailed):** A table with columns: Equipment ID, Employee, Start Date, End Date, Work Order Id, and Comments. It shows a reservation for '215' by 'ABBOTT, CHUCK' from '01/30/2016 12:00 PM' to '01/31/2016 12:00 PM'. Buttons for 'Check Out', 'Edit Reservation', and 'Cancel Reservations' are available.
- Check Out History:** A table with columns: Equipment ID, Employee, Transaction, Start Date, End Date, Work Order Id, and Comments. It shows 'No transactions found for selected equipment/employee'. There are dropdown menus for 'Equipment' and 'Employee' above the table.



Cityworks Utilities—CCTV Interface

To facilitate data sharing, Cityworks Utilities interfaces have been developed to work with third-party systems. These specialized Cityworks products are also licensed separately.

The CCTV Interface links directly to PACP-compliant (Pipeline Assessment and Certification Program) closed circuit television (CCTV) inspection systems. The interface is a bidirectional application allowing users to pass data from the Cityworks database to a PACP database and back again.

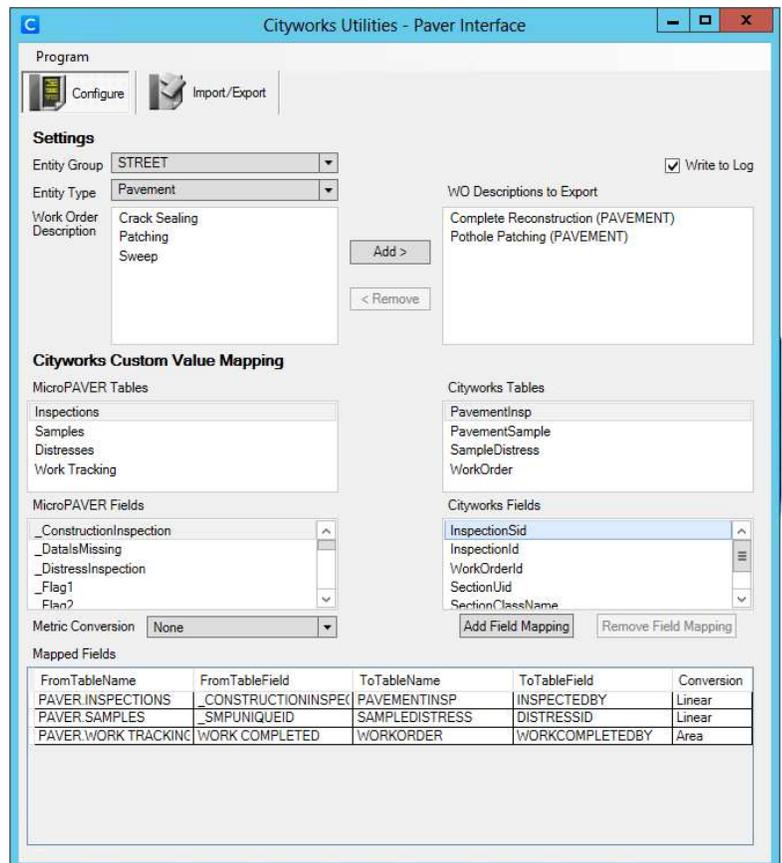


Cityworks Utilities—Paver Interface

The Paver Interface is designed for organizations that use MicroPAVER, the U.S. Army Construction Engineering Research Laboratories (USACERL) program for pavement management. Cityworks provides the asset management platform and access to the geodatabase for MicroPAVER through the interface.

Pavement inventory, work activities, and inspections are established and maintained in the Cityworks work management system. This information is exported to MicroPAVER to calculate the PCI (Pavement Condition Index), perform pavement analysis, and utilize past pavement work histories to predict future pavement conditions.

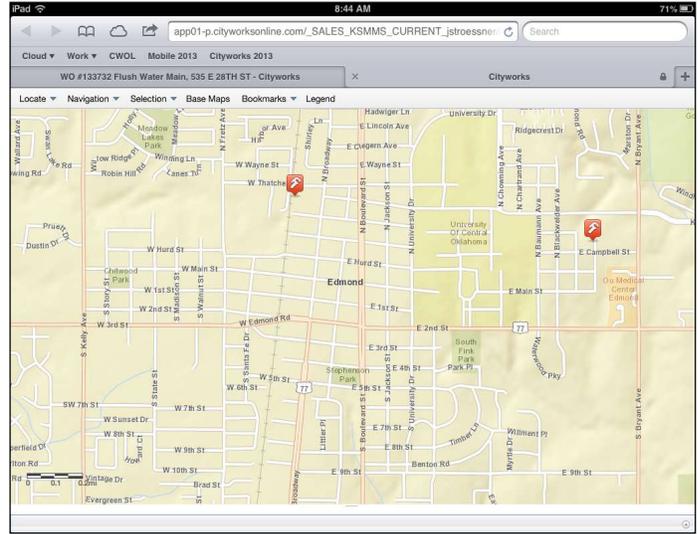
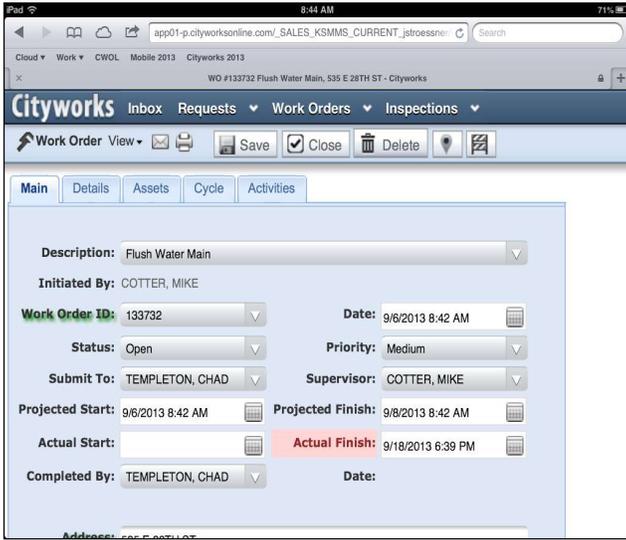
MicroPAVER is valuable in planning pavement maintenance and rehabilitation (M&R) because it can prioritize work to be done according to pavement condition and/or limit the work to a budgeted amount and available resources. This information can be transferred from MicroPAVER to Cityworks to schedule and track the work orders. The PCI can also be imported into the condition field in the geodatabase.



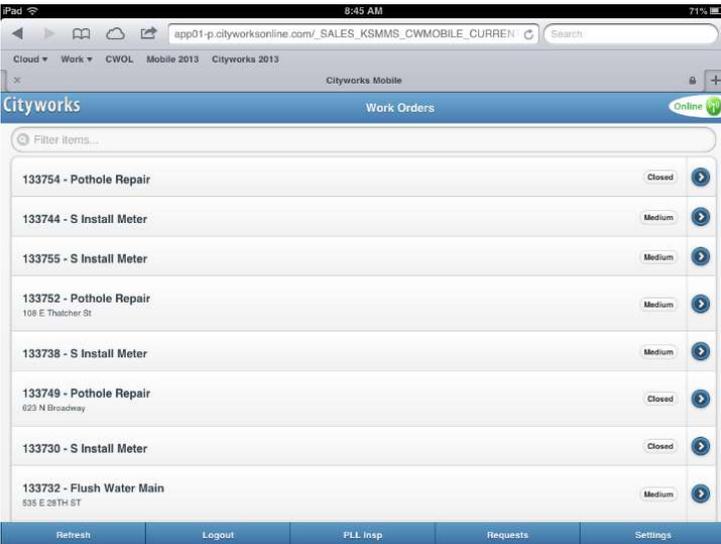


Asset Management / Computer Maintenance Management System (CMMS) Software

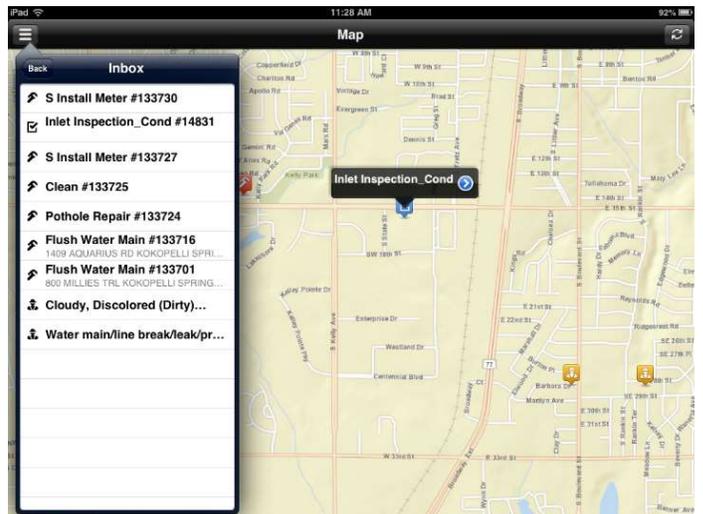
Cityworks Field provides full software functionality with a JavaScript map that opens in a separate tab to maximize screen usage. In addition, with the release of Cityworks 2014, users logging into Cityworks Field will have the ability to utilize a different set of XML forms than they access in the office. This option requires a dedicated connection.



Cityworks iOS and Android apps are currently available in their respective app stores online, and are being further enhanced with each release. Users are able to access Cityworks in a disconnected environment, with the ability to sync back to the primary database.



Along with the Standard Software Licensing the organization has the tools available to design process-specific applications using the same software development kit (SDK) used in designing this Cityworks Native Application. In addition, there are several 3rd party citizen engagement mobile apps developed by Cityworks strategic partners, which interface with Cityworks.





Public Access for PLL

The Public Access app is the citizen portal to Cityworks PLL. It allows citizens and contractors apply for and track the progress of permits. It contains map navigation as well as the general PLL functions in a customizable environment.

Frequent users can apply for a registered login. Others may login as a guest. Users may access their account information, open the user menu, view both submitted and incomplete applications, and begin a new application.

The screenshot shows the Cityworks web application interface. At the top is a blue navigation bar with the Cityworks logo on the left and a user menu on the right that says "Welcome: [User Name] Log Out". Below the navigation bar is a section titled "Create an Application (Engineer - Right of Way Permit)". Underneath this title are several tabs: "Main", "People", "Contractor", "DataGroup", "Rel Docs", and "Payment". The "Main" tab is currently selected. Below the tabs are two input fields: "Case Name" and "Location". Below these fields is a "Show Location On Map" button. The map itself shows a street grid in Edmond, Oklahoma, with various street names like W Covell Rd, E Covell Rd, and W Main St. At the bottom of the map are three buttons: "Next", "Clear", and "Cancel".

2. WORK PLAN – CITYWORKS IMPLEMENTATION

The Timmons Group team understands that Cosumnes CSD wishes to modernize its current WMS/AMS technology environment and to review existing business processes so that the new technology supports best practice processes and operation improvements. By utilizing an iterative approach with an intuitive solution, Cosumnes CSD staff will be provided with the means to adopt best practices, streamline processes, manage costs and promote transparent access to work activity information. This effort will support Cosumnes CSD as it strives to provide an exceptional level of service to a growing population.

To facilitate these goals Cosumnes CSD needs to evaluate, purchase and implement a new Asset/Work Management System. The Timmons Group team has addressed the following functional areas in the sections below:

- Asset Management
- Work Management
- Customer and Service request management
- GIS Integration
- Mobile applications

The Cityworks Server AMS solution we are proposing is capable of performing all of the technical requirements desired by Cosumnes CSD. However, this does not indicate, nor is it true, that simply by purchasing and installing our solution that you will be performing CMMS and asset management to the level you desire; nor will you become more effective at performing all of the various tasks associated with the desired level of CMMS and asset management. When Timmons Group works with our clients to address their Asset Management needs we prefer to utilize the ISO 55000 definition which states:

“Asset Management capabilities include processes, resources, competences, and technologies to enable the effective and efficient development and delivery of asset management plans and asset life activities and their continual improvement.” - as defined by ISO 55000

When reviewing this definition, Cityworks Server AMS certainly fits the technology section and addresses this extremely well. In order to meet the ISO 55000 definition, the other areas must be first recognized and understood and then a plan must be enacted to address them and to fold them into an overall plan, of which Cityworks Server AMS can be a part of.

Timmons Group proposes to work with Cosumnes CSD to refine or create new workflows, following existing business rules and other criteria so that Cosumnes CSD can leverage Cityworks to meet your CMMS and asset management goals. It will be our intent to utilize these processes and to “tweak” them as necessary to include best practices, ISO 55000 guidelines, ASCE, APWA, & AWWA guidelines, and to fully and effectively utilize the full capabilities of Cityworks Server AMS. This initial business process analysis provides our implementation team with a detailed look into the everyday processes marshaled by Cosumnes CSD staff. A primary objective of this task is for our implementation team to review and understand how Cosumnes CSD conducts business and manages its assets. The ultimate goal is to provide knowledge to support and enable our implementation team to properly address the technological impacts of the Cityworks Server AMS deployment and Cosumnes CSD in order to understand the technological impacts and the non-technological impacts related to business processes and workflows.

Realizing your vision, however, can be challenging. It will require change – new behaviors and new skills. It will also require a solid foundation of well-defined business processes and solution requirements. But before any supporting IT tools can be configured, there must be clarity on the organization’s core processes: the workflows for key steps and sub-steps, and what data must be collected at which points to inform which decisions. By analyzing business processes in a structured way, one streamlines the technology and data needs and, perhaps more importantly, one can identify tangible improvement areas for quick wins.

Engaging Timmons Group as a partner on your Asset Management programs will yield the results you demand. Many years of important lessons learned will be available to you and your stakeholders throughout the life of your program. Regarding group specific consulting, Timmons Group brings not only geospatial and information technology professionals to assist with the





implementation of the Cityworks Server AMS solution, but also subject matter experts in the fields of utilities, civil engineering, transportation, planning, asset operation and maintenance in multiple asset classifications. You will have the opportunity to work with our planning, engineering, geospatial, and technology subject matter experts who will share over a century of combined ideas and solutions with you in support of your greater mission. These resources will be available to the project team to assist with best practices as Cityworks is configured uniquely to each Functional Group and Cityworks is configured around each Functional Groups business processes and workflows. These subject matter experts will review the proposed configuration workflows for best practices and address the “do they make sense” questions, prior to Timmons Group submitting the proposed work flows for Cosumnes CSD approval.

Cosumnes CSD, no doubt, faces a critical turning point under the pressure of aging infrastructure, deprived maintenance routines, and financial pressures. Staff must manage its assets, collect and analyze information, and provide long-term value to the public. Under this project you have the opportunity to leverage data and technology in new ways and to leverage processes and asset analytic techniques. Beyond the immediate process efficiency gains, your Asset Management program can help affect real cultural change within the organization. Positions once dedicated to reactive maintenance can evolve into positions focused on preventative maintenance, analytics and structuring controlled ‘experiments’ in a quest for more capital investment. Truly, you have an exciting opportunity.



Establish

ASSET CRITICALITY AND RISK FRAMEWORK

Cosumnes CSD service goals must consistently align with its most critical assets to support infrastructure maintenance needs and track operational efficiency of services delivered to the public.



Consolidate

ASSET MANAGEMENT FUNCTIONALITY IN A BUSINESS SOLUTION

Streamline your approach and leverage Cityworks Server AMS & Esri ArcGIS for assets thus negating legacy customization or non-integrated systems.



Identify

PRIORITIZED CAPITAL IMPROVEMENT AND INVESTMENT RETURN

Identify prioritized capital needs and return on investment analysis by using data-driven AM planning through collecting the right amount of quality data to inform investment decisions.

Based on our experience in leading Asset Management transformations and the related implementation of Cityworks Server AMS, we believe you need a very specific type of partner. You need a team of advisors who are familiar with core asset management processes and workflows yet are able to translate business requirements into technology specifications. You need seasoned professionals with a **bias for action and pragmatism** as opposed to academic purity. You need organizational change experts who know how to connect with the front line as well as the executive suite, to ensure there is top-down support and real momentum for the journey. We would suggest that you also need partners who think holistically, from maintenance operations to technology to the supporting areas of City of Cosumnes CSD, in order to ensure that your CMMS and asset management plan and Cityworks Server AMS are configured for long-term success.

Importance of KPI and Level-of-Service Measures in Implementing a CMMS

As stated above, the shortfall afflicting many Asset Management programs is the disconnect between the theory and “the act of doing” (i.e., the day-to-day application of the AM practices). In our experience, the key to bridging this gap is defining insightful Key Performance Indicators (KPI’s) that are linked to key decisions.

As an example, we have provided the viewpoint of properly tracking KPI’s of a water utility. For Service Delivery Areas, we recommend defining the critical business drivers and outcomes for these processes, which in turn inform the Key Performance Indicators (KPIs) that provide insight into how well these outcomes are being delivered. The table below provides an example of this relationship.



Service Delivery Area	Example of Key Process Driver, Decision, or Outcome	Example KPIs to Inform Progress and Corrective Action
Perform Planned Maintenance	<ul style="list-style-type: none"> Extend asset life and defer Capital Expenditures as long as possible, minimizing total expenditure Balance amount of planned and unplanned (corrective) maintenance Minimize emergency/reactive maintenance and avoid crews being diverted from preventative maintenance (PM) activities Target PM activities on the highly critical assets to reduce outage times 	<ul style="list-style-type: none"> PM/CM cost ratio % PM's completed as planned CM cost by fault type Avg. Outage disruption per customer
Complete Work Order	<ul style="list-style-type: none"> Maximize crew 'wrench time' Promote and achieve worksite safety Minimize rework (Do it once; do it right) Target maintenance and renewal planning through analysis of work history 	<ul style="list-style-type: none"> Crew wrench time Avg. Time Awaiting Materials Cost by asset/fault type # accidents/near misses % work/rework costs % WO's with cost/fault/asset

As the table above demonstrates, a well-designed relationship between KPIs and Service Delivery Areas can provide clarity to your CMMS and Asset Management Plan. This up-front planning then informs the core data collection needs, requirements and implementation configuration for our proposed solution, Cityworks Server AMS. Without this framework, Cityworks could be configured to collect too much "nice to have" data which simply burdens crews and consumes screen real estate on field tablets. As part of our consulting services, we will rationalize the Cityworks data collection requirements to better align with your defined KPI, thus informing process efficiency and outcomes.

Timmons Group has developed a phased and collaborative project approach that will provide the best overall solution to Cosumnes CSD. Our approach for each major Stage and Task is centered on three major program components:

- Project Management
- Core Software Configuration
- Department (Functional Group) Specific Implementations & replacement/integration of/to various existing/future systems

Successful implementation of Cityworks as a core technology for Cosumnes CSD's CMMS and asset management plan requires a thorough understanding of the individual processes and information management applications used throughout the organization. An appropriate level of planning and strategizing is required to ensure the end-users' needs are identified, understood, and designed for prior to implementation.

As previously stated, the success or failure of Cityworks implementations is most often not attributable to the technology components, but rather to managing the implementation of the software solution and the organization's ability/inability to effectively achieve the change associated with the implementation. We will partner with Cosumnes CSD in developing a strong body of users throughout the implementation process. The widespread adoption that is often anticipated by the project stakeholders during the planning and development of enterprise systems can quickly wane shortly after implementation if the change process is not effectively managed.

The failure to adequately train and support new users is often a cause for immediate and permanent resistance to the adoption of the system. ***Incorporating a strong training and coaching program is an effective change management tool*** and appropriate budget allocations should be made and adhered to throughout the system implementation and adoption life-cycles. In addition, Cosumnes CSD would be well-served by identifying and empowering staff responsible for the daily operations and administration of the system. This individual (or individuals) should have a broad understanding of the varied services each department provides, the technique in which services are delivered, and the manner of how Cityworks solution supports the delivery of each service. The responsibilities will also include the coordination of various support mechanisms available to each end user for the assistance for expanding the user's knowledge of not just their



role within the asset management program, but also in a broader context of the overall importance of the enterprise work management program to the organization.

Preliminary Project Plan

This project will be serviced via our resources located on the west coast of the US as well as by our corporate headquarters in Richmond, VA; as well as various other offices across the United States.

Cosumnes CSD is ready to begin implementation of the Azteca Cityworks Server Asset Management System (AMS) to organize, manage and track its enterprise assets. Successful implementation of the Cityworks Server AMS solution as a core technology for Cosumnes CSD's CMMS and Asset Management System requires a thorough understanding of all the individual processes and business intelligence applications embraced throughout the organization. By utilizing the Timmons Group proven phased implementation approach we will be able to design a solution capable of delivering the desired functional goals, while providing the returns-on-investment upon which the project has been justified and its successes will be measured.

Successful program management requires a high degree of commitment to both operational and fiscal results; an acceptance of accountability for conformance to project requirements; and the people skills needed to forge a synergistic chemistry between diverse stakeholders

All Project Team members selected for this engagement have recent significant experience in the planning, design, and implementation of multiple enterprise Cityworks projects of varying depths and complexities. However, our experience indicates that these competencies alone do not automatically translate into successful projects. Rather, the key to project success is the proper utilization of available resources within the framework of a well-managed project plan that completely addresses each of the following processes:

- **INITIATION** – project authorizations and expectations
- **PLANNING** – project definitions, objectives, deliverables, and analysis of alternatives
- **EXECUTION** – coordination of resources, quality control, delivery of products and services
- **CONTROLLING** – monitoring and measuring to identify variances and initiate corrective actions
- **CLOSING** – acceptance of project results and deliverables

With our Project Manager serving as the hub of our team, and the conduit of communications between our subject matter experts and the Cosumnes CSD Core Team, we propose to utilize the following management tools in order to programmatically and proactively manage the proposed project to a successful end.

The following implementation and support functions will be addressed in the project plan with designations for each implementation/deployment phase recommended:

- Project Planning/Execution
- Communications Planning/Execution
- Infrastructure/Hardware/Environment Configuration and Build, if applicable
- Business Review, GAP Analysis and Solution Recommendation
- System/Application Configuration and Validation
- Data Analysis, Design and Development
- Customization/Interface Analysis, Design and Development
- Testing (System, Performance and User Acceptance Testing)
- Training and Documentation
- Implementation
- Operations, Maintenance and Support

Our Approach to Project Management

Timmons Group specializes in delivering Asset Management solutions for our clients. We have accumulated years of experience and lessons-learned that have shaped our project management and implementation approach. Our project manager will be responsible for:

- Facilitating meetings between the Timmons Group team and Cosumnes CSD project stakeholders;
- Preparing for, and conducting, all on-site and on-line meetings;



- Reporting risks and impediments to the team as issues arise and maintaining a risk registry on our web-based project portal;
- Maintaining the project work plan and project schedule;
- Managing change; and
- Monitoring and reporting project performance.

Project Management Plan (PMP)

The PMP integrates and consolidates all of the subsidiary management plans from the planning process, including:

- Scope management plan (including the change
- Schedule management plan
- Cost management plan
- Quality management plan
- Human resource plan
- Communications management plan
- Risk management plan
- Procurement management plan

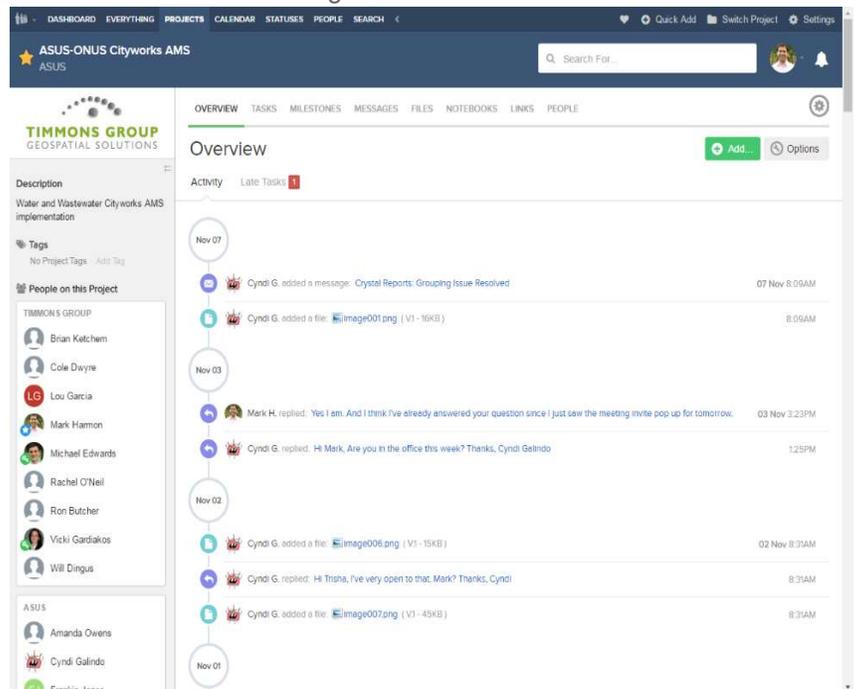
Mutually agreed-upon project baselines are established for schedule, cost and scope. These baselines are combined into a performance measurement baseline against which integrated performance can be measured throughout project execution. Our Project Manager will develop and deliver a PMP outlining the tasks, schedule, deliverables/milestones, communication plan and the associated resources (internal/external) necessary for the project to be successful.

Project Tracking and Reporting

Timmons Group will maintain procedures throughout the project for tracking and reporting progress. We will establish a dedicated, secure online project portal that provides centralized, on-demand access to project documents and status. Our approach to project management is very “hands-on” and will support constant communication to minimize project risk, remove impediments to progress, and to ensure that we are delivering the best possible solution.

Standard project management documents that will be posted to the project portal include: status reports (MS Word), current and past versions of the project work plan (MS Project), key project decision log, risk register and a task/action item log. Biweekly we will provide Cosumnes CSD with a project status report that documents the activities performed during the previous month. At a minimum the report shall address the following:

- Status of all tasks
 - Deliverable status
 - Configuration status
 - Forecasted Deliverable status for the next reporting period
- Resource status for the project, including staff utilization
- Schedule status for the project including task status, milestones completed, phases completed, schedule trends and schedule summary
- Comparison of actual percent complete versus scheduled for the work breakdown structure
- Issues, risks and resource constraints which are affecting or could affect progress including proposed or actual resolution
- Proposed changes to the project work plan, reasons for the changes, and approval/disapproval determination for any proposed changes
- Updated detailed project work plan with approved changes highlighted
- Key decisions (technical and administrative);
- Open action items;





- Schedule update;
- Financial update; and
- Project performance measurements.

Questions and Issue Tracking

Timmons Group recognizes that communication between Cosumnes CSD and our project team must follow a standard flow, if the project is to succeed. We will assume the primary role of controlling communication between our project team members as well as Cosumnes CSD employees. Should issues arise during the course of the project, we will log and track issues and key decisions (administrative and technical), questions, and action items in order to ensure that the decisions made during the communications are appropriate and that all resolutions are documented. The project tracking log will be maintained on the project portal.

Project Title: Cosumnes CSD Cityworks AMS Implementation
 Client: City of Cosumnes CSD (Cosumnes CSD)

Name	Organization	Role	Phone #	E-mail	Responsibilities
Lou Garcia	Timmons Group	Project Director	443-904-3897	Louis.garcia@timmons.com	Contract/Program Oversight/ Client Management
Ron Butcher	Timmons Group	Principal in Charge	804- 200-6971	Ron.butcher@timmons.com	Program Oversight
Lauren Sullivan	Timmons Group	Project Manager	858-254-3873	Lauren.Sullivan@timmons.com	Daily/Weekly Contact, Project Communication, Scope, Schedule, and Budget Management
Jenni Minier	Timmons Group	Cityworks Senior Solutions Architect and Software Engineer	928-301-0465	Jenni.Minier@timmons.com	Technical leadership for Asset Management Implementation
Kyle Kojan	Timmons Group	AMS Analyst	804-433-2988	Kyle.kojan@timmons.com	Asset Management Engineer
TBD	Cosumnes CSD	Project Manager	Xxx-xxx-xxxx	TBD	Daily/Weekly Contact, Project Communication, Project Management
TBD	Cosumnes CSD	Sr. Project Stakeholder	Xxx-xxx-xxxx	TBD	Project Oversight
TBD	Cosumnes CSD	?	Xxx-xxx-xxxx	TBD	Project Sponsor

The goals of Timmons Group’s communication plan are to ensure that the project objectives are clearly articulated and met, that tasks are completed on schedule, issues are identified and promptly resolved, and that project status is continuously communicated to Cosumnes CSD core team. The communication plan addresses the primary aspects of project communication, including:

- What is being communicated
- To whom it is to be communicated
- How it is to be communicated (e.g. In-person, e-mail, call, etc.)
- When it is to be communicated

Timmons Group will employ a proactive approach to project communication, consisting of the components more fully defined below, to ensure the proper and efficient utilization of resources and the timely delivery of products and services within the framework of the project Scope of Work.

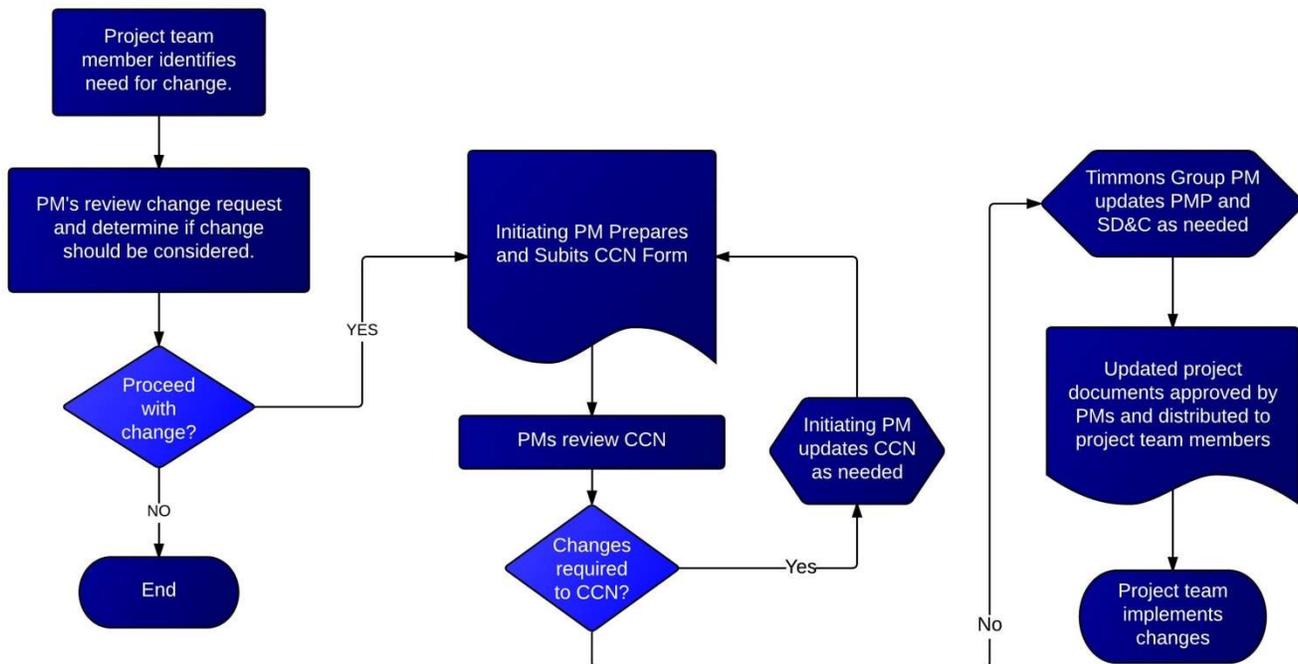
Scope Management Plan

Understanding that issues will arise during the project that may require changes to the agreed-upon scope of work, a proactive method of identification and management of these issues must be utilized. Timmons Group uses a Change Control Process that is illustrated in the following process flow diagram:

Final project costs are established through the development of a detailed Scope of Work – **one that establishes what products and services will be delivered as well as those that will not be provided as part of the established fee.** A level of open and honest communication among all stakeholders is required such that system functionality can be balanced with available funding, and appropriate and reasonable expectations set. Once these elements have been addressed, cost control becomes a multi-tiered effort involving effective project management, clear communication among stakeholders (especially the Project Managers), schedule management, and quality control. To protect both parties, client and consultant, a Change Control Process must be developed and adhered to throughout all phases of the project.

Any modifications or deviations from the agreed upon Scope of Work, including system functionality, service delivery, technical documentation, or project schedule or budget will be subject to **CHANGE CONTROL** procedures:

Any project team member may initiate a **CHANGE REQUEST** whenever there is a perceived need for a change that will affect the desired or anticipated outcome of the work or any element of the project. The project team member should use a **CHANGE CONTROL NOTICE (CCN)** form as appropriate for the change:



1. Agreement to a **CHANGE REQUEST** signifies agreement to a change in overall costs, functionality, time scales, or other identified project impact.



2. Changes will be identified and communicated by / to the respective Project Managers by any of the prescribed communication channels. **CHANGE REQUESTS** may be introduced via verbal conversation or other form of communication but must be supported by the appropriate **CCN** document.
3. All **CCN**'s will be signed by both the Timmons Group and Cosumnes CSD Project Managers to indicate acceptance of the changes.
4. All project participants should understand that time is of the essence when initiating, reviewing, negotiating, and approving **CHANGE REQUESTS**, as any delays to work in progress caused by a **CCN** may impact the overall project schedule.

The CCN template proposed for this project is presented on the following page. A complete library of CCN documents will be developed and archived for team reference as the project progresses.

Schedule Management Plan

Timmons Group utilizes Microsoft Project to track all tasks, milestones and dependencies of our enterprise asset management projects. The change control process is the same as the process outlined in Scope Management Plan. The schedule is reviewed at project progress meetings and any changes are agreed upon by the project team (which includes Cosumnes CSD stakeholders).

Risk Management

Risk Management is managed via project progress meeting and communicated via a shared document that identifies the risk, color codes the risk based upon several criteria and specifies a mitigation strategy. The Risk Register is included within the project progress report that will be provided to the project upon an agreed upon interval.

Risk Register:

Sample Timmons Group Risk Register:

IV. Risk management status:				
#	Potential Risk	Priority	Control Measures	Status
1	Group 1 Configuration	High	Timmons has placed work plan for resource dedication into action for reaching/sustaining project schedule	In process
2	Group 1 data conversion	High	Timmons has placed work plan for resource dedication into action for reaching/sustaining project schedule	In process
3	Group 1 reports	High	Timmons has placed work plan for resource dedication into action for reaching/sustaining project schedule	In process
4	811 Data Import Tool	Medium	Timmons has placed work plan for resource dedication into action for reaching/sustaining project schedule	In process
5	Training	High	Week of Oct. 16 & Oct. 23 rd needs confirmation by Metro	In process
6	Group 1 Go live	High	Items 1-5 must occur by due date to meet this date. Timmons PM & Metro PM to work to make sure these items occur as necessary	In process
7	Group 2 configuration	Low	LOE for group 2 is low	



Quality Management

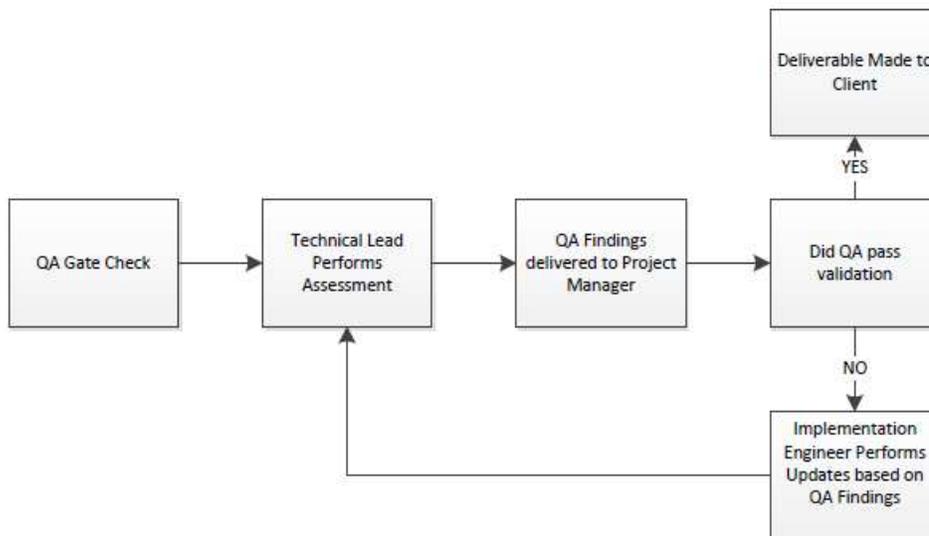
Timmons Group utilizes two strategies to ensure quality and acceptance of our deliverables. The processes are as follows:

Quality Assurance Plan:

Quality Control on a Timmons Group Cityworks implementation project is on-going throughout the life of the project. In addition to formal items such as a Project Management Plan, Testing Plan and an Acceptance Plan and Acceptance Certification, we employ several quality control measures throughout the life of the project. We have assigned a Project Director to this project. In this role the Project Director will act as the Senior Technical Reviewer for all project deliverables. Specific quality control procedures include internal review meeting between the Project Director and the project team as well as a formal change control process to deal with project changes.

Timmons Group has clear and defined roles for the Quality Control responsibilities of all staff members. Because all staff levels of the project team are involved in delivering quality service to our clients, each employee is given the necessary training and orientation to perform a specific task. Prior to being assigned to a specific Quality Control responsibility, staff members must meet minimum qualifications and must be approved by the Principal in Charge. Timmons Group has an established program for project Quality Control that is incorporated into our contract management process. Our primary means of building quality into every phase of each project is through the use of assigned senior technical reviewers (STR) and periodic QA reviews at the program level. Our reputation is built on the execution of existing work and products. Timmons Group has an excellent track record of providing high-quality services to public agencies, as demonstrated by our strong past performance ratings.

During each gate check, whether internal or client guided, the project technical lead will review the Cityworks implementation using the System Design and Configuration plan as the base line for the system implementation before delivery of any project deliverable.



Acceptance Procedures:

Certain project deliverables and milestones will be subject to a process of review and acceptance. The process will involve the Project Managers from both Cosumnes CSD and Timmons Group signing a User Acceptance document to indicate that products and services were delivered in accordance with the Project Plan. A fully executed User Acceptance document shall serve as authorization for Timmons Group to continue on to subsequent project tasks. Failure on Cosumnes CSD part to complete milestone acceptance in a timely manner may cause delays in initiation of subsequent tasks.

The process for documentation deliverables is detailed in the following workflow:

- 1) Timmons Group will submit a Preliminary Draft of the project deliverable which will consist of a basic document template or outline for Cosumnes CSD Review.



- 2) Cosumnes CSD will review and provide acceptance of the Preliminary Draft format within 10 days.
- 3) Timmons Group will deliver the draft deliverable by the scheduled due date.
- 4) Cosumnes CSD will review the deliverable and provide feedback.
- 5) Timmons Group will deliver the final version for Cosumnes CSD formal acceptance.

In some cases, where appropriate, the document deliverable will be updated throughout project and redelivered prior to Go-Live.

Communication Management

The goals of Timmons Group's communication plan are to ensure that the project objectives are clearly articulated and met, that tasks are completed on schedule, issues are identified and promptly resolved, and that project status is continuously communicated to Cosumnes CSD core team. The communication plan addresses the primary aspects of project communication, including:

- What is being communicated
- To whom it is to be communicated
- How it is to be communicated (e.g. In-person, e-mail, call, etc.)
- When it is to be communicated

Timmons Group will employ a proactive approach to project communication, consisting of the components more fully defined below, to ensure the proper and efficient utilization of resources and the timely delivery of products and services within the framework of the project Scope of Work.

Bi-Weekly Status Call and Minutes – Timmons Group's Project Manager will prepare an agenda for and conduct a bi-weekly status call related to the specific work-in-progress of the project team. The Project Manager shall record and report via meeting notes the results and action items required. Bi-Weekly Status Calls can be regularly scheduled.

Monthly Status Reports – Timmons Group's Project Manager will prepare monthly status reports using the template presented on the following page. Every other (roughly) bi-weekly status report shall be delivered to the Cosumnes CSD core team with each month's invoice. Bi-weekly status reports will also be archived online for additional, on-demand access. Monthly Status Reports are due within the fourth full week of the month, prior to the bi-weekly status call.

Ad-Hoc Meetings – As is required throughout the duration of the project, additional meetings may be called by either Project Manager to address personnel, scheduling, technical, or other project issues. These meetings will typically be held via teleconference. Project team members will participate in these meetings as necessary. The Timmons Group Project Manager will document the meetings and distribute a summary to all project team members via email.

The dates for project calls, meeting and reports will also be maintained on the project calendar, which will be available online for easy, on-demand access.



Project Report				
Project Name:				
Project Client:				
Project Number:				
Report Name:				
Report Date:				
Report Author:				
Report Distribution:				
Executive Summary:				
What we accomplished in the last month:				
1.				
2.				
	Deliverable	First Revision Status	Second Revision Status	
What we plan to accomplish in the next month:				
1.				
2.				
Summary of anticipated and approved changes in project scope/schedule/budget:				
•				
Status of schedule and deliverables:				
	Current Forecast	Actual	Status	Signoff
Risk management status:				
#	Potential Risk	Priority	Control Measures	Status
		High		
		Moderate		
		Low		

Business Process Change Management

The failure to adequately train and support new users is often a cause for immediate and permanent resistance to the adoption of the system. ***Incorporating a strong training and coaching program is an effective change management tool*** and appropriate budget allocations should be made and adhered to throughout the system implementation and adoption life-cycles. In addition, Cosumnes CSD would be well-served by identifying and empowering staff responsible for the daily operations and administration of the system. This individual (or individuals) should have a broad understanding of the varied services each department provides, the technique in which services are delivered, and the manner of how Cityworks solution supports the delivery of each service. The responsibilities will also include the coordination of various support mechanisms available to each end user for the assistance for expanding the user’s knowledge of not just their role within the asset management program, but also in a broader context of the overall importance of the enterprise work management program to the organization.

Timmons Group has proposed within our scope of services to lead a series of workshops. These workshops will be preceded by a review of all pertinent materials by Timmons Group resources. The purpose of the workshops will be to validate the (or any) documentation provided by Cosumnes CSD. After validating and documenting the existing processes, Timmons Group will seek to edit/change these existing workflows and processes to:

- 1) Leverage Cityworks technology
- 2) Leverage asset management and industry best practices
- 3) Hold workflows and processes to the current wherever possible and feasible



Asset Management / Computer Maintenance Management System (CMMS) Software

These workshops are designed to establish and assess the Business Requirements, User Requirements, and Functional Requirements that must be considered when developing the Software Design and Configuration Plan (SD&C) as well as to design the Cityworks configuration and database necessary for implementation, the integrations and data conversion.

For the first 30 minutes of the workshop our implementation team will conduct a brief software knowledge transfer session. The session will give the workshop attendees an opportunity to review and understand the software, potential impacts and changes in their daily business processes, and the purpose of adopting the new tools. It has been our experience that successful adoption of Cityworks is supported by continued, repeated exposure of the software during the workshops and review meetings. We strongly believe that all levels of end users of the system need representation within these meetings. When end users participate from the beginning in the design (configuration) of the tools they ultimately will be expected to use, their acceptance and adoption rates soar. They will understand the need for the sequencing of the workflows they will be expected to participate in once in production as well as they tools (Cityworks) they will be expected to use. This goes a long way in creating the necessary end user buy-in for the success of the project.

During the workshops, our implementation team will analyze the various technological, operational, and organizational elements of Cosumnes CSD business. This will be an essential procedure in order to ensure the planned Cityworks implementation and expected system interfaces are capable of delivering the feature-rich data needed to support the numerous complex operations and maintenance activities undertaken by the various departments. We understand that Cosumnes CSD has already documented some of your workflows and that our effort will concentrate around ensuring Cityworks is utilized to its full potential and that we consider/review with Cosumnes CSD potential workflow edits as well as to document for the first-time other workflows, to accomplish this.

In support of these efforts, our implementation team will analyze with each Functional Group the following critical elements:

- **Business Drivers** – The core functions that will benefit from the implementation of the Cityworks solution. These may include inventory, custom billing, time tracking, engineering planning and design, construction inspection and administration, operations and maintenance, inspections, regulatory compliance, customer service, disaster preparedness and emergency response, executive decision processes, etc.
- **Workflows** – Current departmental/Functional Group (internal and external) business processes and work flows that will either contribute to, or be replaced by, the planned Cityworks implementation. Key workflows that should be analyzed include, but are not limited to, inventory / data capture and maintenance, data distribution, data consumption, system planning and analysis, customer inquiry, reporting, etc.
- **Systems and Applications** – Information technology and process automation tools currently deployed and maintained by Cosumnes CSD or Functional Group should be investigated and analyzed in terms of their ability to support the increased network traffic, data loads, and application maintenance requirements introduced by the planned Cityworks program. Additionally, existing business applications such as network modeling, mobile computing, customer relationship management, etc., should be investigated to determine the best manner by which to integrate with the planned Cityworks system.
- **Data** – Existing data sets (spatial and tabular) and reports maintained for the purpose of supporting the daily operation and maintenance of the departments and their associated processes must be inventoried and analyzed for the purpose of supporting the development of any required data conversion/migration/development plans.
- **Best Practices** – Established asset management best practices, as they relate to Cosumnes CSD or Functional Group's current operational mandates, contrasted with where the various departments currently fall within the spectrum, should be established and benchmarked for the purpose of establishing the required system implementation path needed to guide Cosumnes CSD to its ultimate Cityworks deployment and adoption goals and objectives.

These core elements will provide our implementation team and Cosumnes CSD with an understanding of the needs and challenges the departments will face as they move to implement Cityworks. The initial business process analysis provides our implementation team with a detailed look into the everyday processes marshaled by Cosumnes CSD staff. A primary objective of this task is for our implementation team to review and understand how Cosumnes CSD conducts business and manages its assets. The ultimate goal is to provide knowledge to support and enable our implementation team to properly address the technological impacts of the system deployment and Cosumnes CSD in order to understand the technological impacts and the non-technological impacts related to business processes and workflows.



The RFP has asked us to provide not only a cost for the proposed changes but also to document the recommended changes. Timmons Group has implemented Cityworks numerous times and has found our iterative approach to be the most successful. It is impossible at this time to provide edited workflows for Cosumnes CSD to review.

Organizational Change Management

Within our processes Timmons Group will analyze the existing staff assigned to manage and utilize our proposed solution and corresponding work flows and business processes. We utilize the approach outlined below:

1. Clearly define the change and align it to business goals.

It might seem obvious, but many organizations miss this first vital step. During the workshops outlined within our scope of services Timmons Group will lead Cosumnes CSD through this part of the change management process. We will seek to understand your business goals, business rules and merge these into your “to-be” workflows that will be our guide for the configuration of Cityworks. It’s one thing to articulate the change required and entirely another to conduct a critical review against organizational objectives and performance goals to ensure the change will carry Cosumnes CSD in the right direction strategically, financially, and ethically. This step can also assist Cosumnes CSD in determining the value of the change, which will quantify the effort and inputs that will be invested.

Key questions:

- What do we need to change?
- Why is this change required?

2. Determine impacts and those affected.

Once we know exactly what Cosumnes CSD wishes/needs to achieve and why, we will seek to understand the impacts of the change at various organizational levels. We will review the effect on each business unit/functional group and how it cascades through the organizational structure to the individual. This information will start to form the blueprint for our training plan, so that we can mitigate the impacts of the proposed changes.

Key questions:

- What are the impacts of the change?
- Who will the change affect the most?
- How will the change be received?

3. Develop a communication strategy.

Although all end users should be included within the decisions and design of the proposed changes, the first two steps will have highlighted those employees that the Cityworks implementation team needs to absolutely communicate the change to. Timmons Group will communicate the proposed changes via a review of the proposed workflows via a MS Visio diagram that will be reviewed with the appropriate stakeholders.

Key questions:

- How will the change be communicated?
- How will feedback be managed?

4. Provide effective training.

With the change message out in the open, it will become important that the Cityworks implementation team communicate to the end users that they will receive training, structured or informal, to teach the skills and knowledge required to operate efficiently as the change is rolled out. This will form the basis for the development of our Training Plan.

Key questions:

- What behaviors and skills are required to achieve business results?
- What training delivery methods will be most effective?

5. Implement a support structure.

Providing a support structure is essential to assist employees to emotionally and practically adjust to the change and to build proficiency of behaviors and technical skills needed to achieve the desired business results. To help employees adjust to changes to how a role is performed, we highly recommend that all roles receive representation in the initial workshops.



Key questions:

- Where is support most required?
- What types of support will be most effective?

6. Measure the change process.

Throughout the change management process, a structure will be put in place to measure the business impact of the changes and ensure that continued reinforcement opportunities exist to build proficiencies. This will be done via the delivery of the existing workflows as well as the delivery of the proposed workflows and a review of the proposed workflows with stakeholders.

Key questions:

- Did the change assist in achieving business goals?
- Was the change management process successful?

SCOPE OF SERVICES & IMPLEMENTATION PLAN

Our proposed scope of services will see Cityworks Server AMS implemented with Cosumnes CSD. Upon receiving a Notice to Proceed, we will commence with implementing Cityworks Server AMS. The implementation and training will consist of Transition Management from current system(s), Asset Lifecycle Management, Work Orders, Service Requests, Inspections, Parts/Supplies Inventory, Preventive Maintenance Scheduling, Report Writing, Esri ArcGIS integration, mobile deployment and System Testing. The following functional groups are included within this proposed scope of services:

- 1) Parks & Recreation
- 2) Golf Operations
- 3) Fire Department
- 4) Facilities
- 5) Inventory (Cityworks Storeroom)

The tasks detailed below are designed to meet the full requirements of the RFP from the perspective of providing the required professional services to meet the full requirements as detailed within the RFP. This approach utilizes the methodology detailed with the 17 Tasks detailed below to deliver a system configured to the Cosumnes CSD approved business process and workflows developed within this approach.

Task 1: Project Management

Shortly after we receive notice to proceed, we will prepare an initial Project Management Plan (PMP) document, and begin initial data gathering to prepare for the kickoff meeting. We will also hold a webinar meeting with the Cosumnes CSD Project Manager and IT/GIS staff to discuss the proposed solutions we will be implementing and their impacts to your existing computing environment. This “primes the pump” for the kickoff meeting and configuration workshops and ensures there will be no IT/GIS related bottlenecks related to hardware or software purchases.

Our project manager will employ a variety of controls and management tools designed to successfully complete this project in a timely manner while keeping Cosumnes CSD informed of our progress throughout the duration of the project. The scope of this project will require our team to work with many different Cosumnes CSD staff members on a number of project tasks. This task will remain active throughout all phases of the project.

Task 1: Cosumnes CSD Responsibilities:

- Cosumnes CSD will review the Project Management Plan and ensure it meets requirements (2FTE hours).
- Cosumnes CSD’s project manager can assume a need of 4-8 hours per week during project duration
- Key personnel for each functional group can assume a need for 2 hours for project management plan review and 2 hours per week during project duration for communication, status meetings, etc.

Task 1: Deliverables:

- The Timmons Group Project Manager will draft and deliver a Project Management Plan (PMP) for an initial review by Cosumnes CSD’s Project Manager and key staff, as deemed appropriate. The draft plan will be provided in advance of the project kickoff meeting. The project management plan is a dynamic (living) document that will be managed over the life of the project.
- Monthly Project Status Reports
- A project collaboration portal will be setup for the duration of the project and for support after Go-live.

Task 1: Assumptions:

- Cosumnes CSD will review all documentation in a timely manner.



Task 1: Estimated Timeframe:

- *Project Management activities will occur throughout the duration of the project*

Task 2: Implementation Planning

The goal of this task and its subtasks is to develop a System Design and Configuration (SD&C) Plan that consolidates the gathered data with workflows, data migration requirements, and interface requirements that will be identified and modeled during a series of configuration workshops.

IT System Review

We have proposed to utilize Cityworks Online as our solution. We have not proposed any on-premise services or on-site hardware solutions. The IT review and subsequent tasks should be done in understanding that this is our proposed solution approach. More information regarding the Cityworks Solution can be found within the pricing quote. Our implementation team will meet with the Cosumnes CSD project management team and IT/GIS staff to discuss the environment requirements for the Cityworks Online implementation. During this meeting, various system architectures and minimum requirements will be explored to ensure a stable implementation for Cosumnes CSD. The goal is to ensure hardware is in place and that all related system and security policies are understood prior to initial software configuration.

The implementation team will document the Core System Design Plan components required to support the Cityworks implementation. The Core System Design Plan is developed in preparation for the configuration and implementation of Cityworks. This plan will include the following:

- **Network Requirements**
- **Peripheral Requirements**
 - **Internal Security**
- **Hardware Requirements**
- **Software Applications**
 - **DMZ**

Task 2.1: Cosumnes CSD Responsibilities:

- *Cosumnes CSD project manager assistance in scheduling IT review meeting. (1 FTE hour)*
- *Cosumnes CSD Information System stakeholder attendance/participation in meeting. (2 FTE hours each attendee).*

Task 2.1: Deliverables:

- *Core System Plan for Hardware, Software, and network configuration*

Task 2.1: Assumptions:

- *Cosumnes CSD will review and comment on all documentation in a timely manner.*

Task 2.1: Estimated Timeframe:

- *IT Review meeting and task deliverable are estimated to take 2-3 weeks to complete depending on Cosumnes CSD availability*

GIS System Review

Our implementation team will meet with Cosumnes CSD’s project management team and GIS staff to discuss the Esri GIS requirements for the Cityworks implementation. During this meeting, minimum GIS requirements will be explored to ensure a stable implementation for Cosumnes CSD. The goal is to ensure the GIS is in place and that all related system and security policies are understood prior to initial software configuration. In addition, the GIS Model will require review and possible modification by Cosumnes CSD. Our implementation team will work with Cosumnes CSD to identify any shortcomings with the existing Cosumnes CSD GIS data, datamodel and Esri licensing. It will be the responsibility of Cosumnes CSD to meet and address all identified shortcomings.

Task 2.2: Cosumnes CSD Responsibilities:

- *Cosumnes CSD project manager assistance in scheduling GIS review meeting. (1 FTE hour)*
- *Cosumnes CSD GIS stakeholder attendance/participation in meeting. (2 FTE hours each attendee).*

Task 2.2: Deliverables:

- *Core System Plan for GIS*

Task 2.2: Assumptions:

- *Cosumnes CSD will review and comment on all documentation in a timely manner.*

Task 2.2: Estimated Timeframe:

- *GIS Review meeting and task deliverable are estimated to take 2-3 weeks to complete depending on Cosumnes CSD availability*

Configuration Document Meeting

The implementation team will meet with the Cosumnes CSD Project Manager and key functional group stakeholders to review the contents of the Cityworks Configuration Document. The Cityworks Configuration Document is a collection of





spreadsheets related to information required for population of the Cityworks system. With our implementation team’s assistance, Cosumnes CSD will provide data to populate associated configuration spreadsheets prior to the Configuration Workshops. Any information Cosumnes CSD can deliver prior to the workshops will be used by the implementation team to design, configure and implement the initial Cityworks configuration.

The Cityworks Configuration Document contains eleven main configuration categories. Each is identified below and will be discussed in detail during the Configuration Document Meeting:

- **Domain Security** – a security structure and method of organization. The rest of the manual builds on this section; it should be done first.
- **Employee Hierarchy** – A list of all employees with login and domain information.
- **Work Orders** – Lists of all the primary activities each department handles.
- **Tasks** – Lists of all the tasks associated with the work orders.
- **Materials Hierarchy** – A list and organizational method for your work order materials.
- **Equipment Hierarchy** – A list and organizational method for your work order equipment.
- **Service Requests** – Details about all the service requests or calls that may come in.
- **Project Hierarchy** – Define any ongoing municipal and capital improvement projects.
- **Contractors List** – Details about contractors used for work activities.
- **Inspections** – A list of inspections completed against assets along with the information captured during the inspection.
- **Storeroom Configuration** – Details concerning the storeroom names, stock on hand and security.

Our team’s Configuration Manager, will work closely with the Cosumnes CSD Project Manager to ensure that Cosumnes CSD understands the configuration documentation and data to be gathered. Our configuration team will take information provided by Cosumnes CSD along with the Esri geodatabase and configure the Cityworks “sandbox” installation that will be used during the kickoff meeting and configuration workshops.

Task 2.3: Cosumnes CSD Responsibility:

- *Configuration Document Review Meeting. (2 FTE Hours per participant)*
- *Review and provide data. (4 -8 FTE Hours Per Functional Group)*

Task 2.3: Deliverables:

- *Configuration document with spreadsheets initially filled out from data supplied by Cosumnes CSD.*

Task 2.3: Assumptions:

- *Cosumnes CSD will provide data as identified in the Configuration Document and supporting spreadsheets.*
- *Cosumnes CSD will provide to Timmons Group an updated geodatabase of all assets covered within the scope of this project.*

Task 2.3: Estimated Timeframe:

- *Configuration Document completion is estimated to take 4-6 weeks to complete*

Task 3: Install Cityworks Server

We will install the core Cityworks software in the Cosumnes CSD development environment within the Cityworks Online environment. The intent of this installation is to meet the initial Cityworks implementation requirements which include initial system configuration and configuration customization. We will work directly with the Cosumnes CSD Project Manager to verify that all core system components are installed and appropriately configured. Our implementation team will facilitate Cityworks software installation, set-up, and initial configuration.

The purpose of installing this software at an early stage in the project is two-fold: It establishes the core system that will later be configured and tested and is the ideal platform for familiarizing Cosumnes CSD staff with the software as a sandbox for your use. From experience, we have determined that it is important for potential end users to see the software prior to discussions about functional needs so that they have a basic understanding of the software’s capabilities and limitations. This server will be linked with a copy of the Cosumnes CSD Esri GIS geodatabase. Timmons Group will generate an Installation Certification for Cosumnes CSD to sign off signifying this installation has occurred and is functioning within the Cosumnes CSD development environment.

Cityworks Server AMS is a server-based product and can technically be deployed on premise or hosted within any environment. To meet the requirements of Cosumnes CSD, Timmons Group is proposing to deploy Cityworks Server AMS within the Cityworks Online environment.

Task 3: Cosumnes CSD Responsibility:

- Provide a copy of Cosumnes CSD Esri geodatabase
- Cosumnes CSD's GIS resource (2 FTE hours)

Task 3: Deliverables:

- The core Cityworks Server AMS software installed in Cosumnes CSD's development environment within Cityworks Online
- Installation Certification

Task 3: Assumptions:

- The Cosumnes CSD development environment will be in the Cityworks Online environment

Task 3: Estimated Timeframe:

- The initial installation of Cityworks is estimated to require 2-3 weeks once the Cosumnes CSD's GIS data is received



Task 4: Project Kickoff Meeting

Project team members and participating Cosumnes CSD Functional Group staff will participate in a Project Kickoff Meeting to be held for the purpose of introducing the project participants, to establish the roles and responsibilities of all Project Participants, validate Cosumnes CSD's goals and objectives, establish the lines of communication to be employed throughout the duration of the project, and to answer any questions Cosumnes CSD staff may have. The kickoff meeting shall be 2 (two) hours in duration.

Task 4: Cosumnes CSD Responsibility:

- Cosumnes CSD project manager assistance in scheduling pre-kickoff & kickoff meeting. (4 FTE hours)
- Cosumnes CSD Information System stakeholder attendance/participation in pre-kickoff meeting. (4 FTE hours each attendee).
- Cosumnes CSD key stakeholder attendance/participation in kickoff meeting (4 FTE hours each attendee).

Task 4: Deliverables:

- Project presentation and meeting minutes.

Task 4: Assumptions:

- Cosumnes CSD will provide a conference room appropriately sized for the number of participants.

Task 4: Estimated Timeframe:

- Project Kick-off meeting should occur approximately 4 weeks after the project has been initiated

Task 5: Workshops

Our implementation team will conduct a series of workshops. These workshop meetings will focus on the following primary areas:

- 1) Asset Management requirements
 - Best practices
 - Condition scoring
 - Criticality
 - Asset lifecycle management
 - Risk assessment & risk management
 - Costs
- 2) Gather configuration data and workflows with the Functional Groups for:
 - Asset categories
 - Work order and inspection workflows
 - i. Employees
 - ii. Equipment
 - iii. Materials
 - iv. Prioritization
 - v. Dispatching



- vi. Notifications
- vii. Data to be collected
- viii. Inspection criteria
- Interfaces/integration (TBD)
 - i. Functional requirements
 - ii. User stories
 - iii. Methodology
- Reporting
 - i. Data required
 - ii. Format
 - iii. Methodology
- Data migration identified (TBD)

The workshops are designed to establish and assess the Business Requirements, User Requirements, and Functional Requirements that must be considered when developing the Software Design and Configuration Plan (SD&C) as well as to design the Cityworks configuration and database necessary for implementation, the integrations and data conversion. It is expected that Cosumnes CSD will provide the facilities for the on-site workshops and coordinate staff attendance for all workshops.

For the first 30 minutes of the workshop our implementation team will conduct a brief software knowledge transfer session. The session will give the workshop attendees an opportunity to review and understand the software, potential impacts and changes in their daily business processes, and the purpose of adopting the new tools. It has been our experience that successful adoption of Cityworks is supported by continued, repeated exposure of the software during the workshops and review meetings. We strongly believe that all levels of end users of the system need representation within these meetings. When end users participate from the beginning in the design (configuration) of the tools they ultimately will be expected to use, their acceptance and adoption rates soar. They will understand the need for the sequencing of the workflows they will be expected to participate in once in production as well as they tools (Cityworks) they will be expected to use. This goes a long way in creating the necessary end user buy-in for the success of the project.

During the workshops, our implementation team will analyze the various technological, operational, and organizational elements of Cosumnes CSD business. This will be an essential procedure in order to ensure the planned Cityworks implementation and expected system interfaces are capable of delivering the feature-rich data needed to support the numerous complex operations and maintenance activities undertaken by the various departments. We understand that Cosumnes CSD has already documented some of your workflows and that our effort will concentrate around ensuring Cityworks is utilized to its full potential and that we consider/review with Cosumnes CSD potential workflow edits as well as to document for the first-time other workflows, to accomplish this.

In support of these efforts, our implementation team will analyze with each Functional Group the following critical elements:

- **Business Drivers** – The core functions that will benefit from the implementation of the Cityworks solution. These may include inventory, custom billing, time tracking, engineering planning and design, construction inspection and administration, operations and maintenance, inspections, regulatory compliance, customer service, disaster preparedness and emergency response, executive decision processes, etc.
- **Workflows** – Current departmental/Functional Group (internal and external) business processes and work flows that will either contribute to, or be replaced by, the planned Cityworks implementation. Key workflows that should be analyzed include, but are not limited to, inventory / data capture and maintenance, data distribution, data consumption, system planning and analysis, customer inquiry, reporting, etc.
- **Systems and Applications** – Information technology and process automation tools currently deployed and maintained by the City or Functional Group should be investigated and analyzed in terms of their ability to support the increased network traffic, data loads, and application maintenance requirements introduced by the planned Cityworks program. Additionally, existing business applications such as network modeling, mobile computing, customer relationship management, etc., should be investigated to determine the best manner by which to integrate with the planned Cityworks system.
- **Data** – Existing data sets (spatial and tabular) and reports maintained for the purpose of supporting the daily operation and maintenance of the departments and their associated processes must be inventoried and



analyzed for the purpose of supporting the development of any required data conversion/migration/development plans.

- **Best Practices** – Established asset management best practices, as they relate to the Cosumnes CSD or Functional Group’s current operational mandates, contrasted with where the various departments currently fall within the spectrum, should be established and benchmarked for the purpose of establishing the required system implementation path needed to guide Cosumnes CSD to its ultimate Cityworks deployment and adoption goals and objectives.

These core elements will provide our implementation team and the Cosumnes CSD with an understanding of the needs and challenges the departments will face as they move to implement Cityworks. The initial business process analysis provides our implementation team with a detailed look into the everyday processes marshaled by Cosumnes CSD staff. A primary objective of this task is for our implementation team to review and understand how Cosumnes CSD conducts business and manages its assets. The ultimate goal is to provide knowledge to support and enable our implementation team to properly address the technological impacts of the system deployment and Cosumnes CSD in order to understand the technological impacts and the non-technological impacts related to business processes and workflows.

Task 5: Cosumnes CSD Responsibility:

- *Cosumnes CSD will be responsible for assisting our implementation team’s Project Manager with the development of a comprehensive agenda based on department and key staff. It will also be necessary for the participants in the workshops to review the SD&C Plan drafts and to provide data and discuss workflows identified in the workshops (Task 6).*
- *Cosumnes CSD’s project manager assistance in scheduling workshops. (4 FTE hours)*
- *Cosumnes CSD key stakeholder for each Functional Group attendance/participation in workshop (4 FTE hours each attendee).*

Task 5: Deliverables:

- *Workshop meeting minutes.*
- *40 hours total of on-site workshops (including kickoff meeting, IT/GIS meeting)*

Task 5: Assumptions:

- *Cosumnes CSD will provide a conference room appropriately sized for the number of participants. Critical Cosumnes CSD staff will attend workshops as defined by the configuration workshop agenda.*

Task 5: Estimated Timeframe:

- *Functional Group workshops will occur immediately following the project kick-off and will follow the table detailed within Task 5.*

Interfaces with Other Systems

During the configuration workshops, we will identify the optional task interface requirements between each system identified in the RFP for integration with Cityworks. Cityworks is built using open standards and technology, storing data in an open, published format utilizing standard commercial SQL databases, such as Microsoft SQL Server. The open standards design of Cityworks is the key to developing interfaces to your critical business systems, developing custom applications and reports that enhance each individual system. These interfaces may be created in-house or by a third-party contractor.

Cityworks customers are free to use the Cityworks data structures to build interfaces to other databases such as Customer Information Systems, Financials Information Systems, Human Resource Management Systems, fleet management, and related business applications. Several customer sites have even created their own applications to access their data. Their licensing policy does not prohibit this in any way. This truly means Cityworks is open.

Access and utilization of these data in Cityworks is unencumbered for the client’s internal usage for the following uses:

- Data conversion and data migration into or out of Cityworks.
- Internal application development for add-ons to Cityworks or for an application that is complementary to Cityworks, as long as the application is not a reverse engineering of Cityworks
- The development and maintenance interface from Cityworks to citizen web pages for information and service request systems. The licensee has access to the complete documentation of all Cityworks data structures.

We have integrated Cityworks an ample amount of times to understand that each organization’s integration requirements are unique. To be sure, there are elements that are common to many, such as updates to employee records, materials inventory and equipment. Some organizations add additional capabilities such as time entry for payroll, and work order



integration. Some organizations capture customer call information in a separate CIS and have new customer requests automatically create either a service request or work order in Cityworks. We have developed integrations that update Cityworks and the integrated system in near-real-time as business needs are required. Other integration tasks are better suited for nightly updates.

There are many variations to interface requirements. We recommend that you allow us to help you define your requirements and understand them within the context of the different integration options available. We will help you design the most economical integration model that meets your business needs. It is not possible to accurately estimate the scope of any integration effort until the detailed requirements are understood.

Task 6: System Design and Configuration (SD&C) Plan

Once all required information regarding the current work order management, service request, and inspection processes are collected and organized, our implementation team will work together to analyze and document the current status of the primary components of the business process. Specifically, these components will be analyzed:

- **Current IT Systems and Applications** – This includes relevant computer, network and peripheral infrastructure that the Cityworks system would utilize. This also includes any existing software applications that the new system might need information from, or need to provide information to (e.g., financial, assessment, codes) and security requirements.
- **Current Data Sets** – Focus on data and best practices for Cityworks. Specifically, this would include the work order, service request, and inspection documentation and data. The Esri geodatabase that will be mapped to Cityworks we expect limited if any, modification will be necessary.
- **Current Workflows** – Define and model Work orders, Service Requests, Inspections, Interface Communication, and migration of existing data leveraging Cityworks and our team’s best practices.
- **Required Outputs** – The required outputs of the current business process will be reviewed. Outputs can take many forms, and may include: reports, form letters, e-mails, export files, and receipts.
- **Required & Desired System Interfaces** – The RFP identifies the need for the Cityworks system to interface with Esri GIS, and optional various other systems. Our project team has reviewed the provided information and has provided details of our proposed integrations within Task 8.

Following the configuration workshops, our implementation team will develop a report that documents the “as-is” situation and puts forth the recommended, or “to-be” (future state), workflows of the new Cityworks system. The recommended changes will strive to enhance the efficiency of required tasks and follow industry best practices, as well as to enhance the satisfaction of the citizens/businesses being served. The resulting Software Design and Configuration (SD&C) plan will be the “floor plan” for the configuration of the Cityworks system.

Task 6: Cosumnes CSD Responsibility:

- *Review of draft SD&C. (4 - 8 FTE Hours Per Department)*

Task 6: Deliverables:

- *SD&C Plan drafts*

Task 6: Assumptions:

- *Cosumnes CSD will review all documentation in a timely manner.*

Task 6: Estimated Timeframe:

- *The SD&C plan will require approximately 8-12 weeks to complete.*

Task 7: Cityworks AMS Configuration

The goal of this task is to configure Cityworks based on the SD&C Plan and deploy in the Cosumnes CSD Test environment for review prior to final implementation. The implementation team will take the information gathered and documented and configure the Cityworks database. The configuration of Cityworks will be based on the Cityworks Configuration Document and the SD&C Plan developed from the onsite workshops.

Services for this task will include, but are not limited to:

- Work order or request types
- System Administration
- Work tasks for each work order type
- Login, concepts, data model, viewing



Asset Management / Computer Maintenance Management System (CMMS) Software

- Employees and labor classifications in that department
- Inventory (material) types
- Major equipment types
- Existing datasets used or slated to be used in the work order or request process
- Samples of service request and work order printout forms
- Print Templates
- Creating and managing call center activities
- Advanced aspects of call center
- Creating and managing problem hierarchy
- General Configuration Issues

Task7: Cosumnes CSD Responsibility:

- *Cosumnes CSD project manager and key stakeholders for each Function Group, Weekly Progress Meetings (1 FTE's Every Week).*

Task 7: Deliverables:

- *Updated Cityworks Configuration Document and SD&C Plan.*
- *Configured software (Cityworks) deployed within Cosumnes CSD's Test environment*

Task 7: Assumptions:

- *Cityworks configuration will implemented in Timmons Group cloud environment. Key Cosumnes CSD staff will have full access to this environment for training and review.*

Task 7: Estimated Timeframe:

- *The configuration of Cityworks per the SD&C Plan will require approximately 8-12 weeks*



Optional Task: Enterprise System Integration (Interfaces)

The concept of the enterprise system is to create interface points for systems to share appropriate information with other systems. Our team has extensive experience configuring software and systems leveraging Cityworks API's that include Service Request, Work Order, Inspections and metrics, Cityworks SDK, and existing interfaces for numerous customer billing, SCADA, Financial, Fleet Management, Billing, AVL, UDF, leak detection, etc. systems.

Timmons Group has developed and utilizes a Modified Agile methodology to successfully implement many heterogeneous systems integrations/interfaces. Our methodology is comprised of five (5) primary steps. These steps are a result of our experience with business systems integration and help to ensure a smooth and reliable project lifecycle and production outcome.

The steps include Planning, Build, Training, Production Deployment, and Post Production System Review. These steps ensure that we include everyone and every system of record in the development of detailed requirements for the design of the interface(s). Once the interfaces are developed, a rigorous testing plan will be executed. Upon successful completion of this User Acceptance Testing (UAT), the interfaces are ready for deployment. However, prior to the final production deployment, user training is performed for those impacted directly by the project.

In order to achieve your goals while keeping integration efforts within reason, Timmons Group uses the approach generalized above. We prefer this methodology because we feel it strikes the appropriate balance between developing an integration that is well designed, considers the best technology for achieving the implementation and is fair in regard to the level of effort to both our clients and to ourselves.



- **Planning** – Our planning is comprised of a workshop(s) where we engage our clients and iteratively work through the reasons for the integration, what data needs to flow back and forth (or sometimes in one direction), and how best from a technical perspective of how to achieve this integration (developing requirements). We will then develop to these requirements, use cases/stories and design the necessary workflows that depict the transfer of data between systems. The workshop will typically result in the need to engage the target system vendor, either to procure items such as a database design/schema diagram up to and including engaging their assistance in designing and developing the integration itself. Some of this vendor interaction may have already been established for items such as CCTV, Pavement Management, etc. via a formal or informal business relationship with Cityworks. If it has not, our proposal will reflect the appropriate level of effort required in our estimation to achieving the necessary planning required to move to the next step, building the integration.
- **Build** – In the Build phase of our integration process we will develop sprints that are approximately 1 to 2 weeks in duration that iteratively reflect the use cases/stories and methodology developed during the previous Planning step. During these sprints our team will develop a potentially deliverable component of the integration. This may be something as basic as moving one data item back and forth successfully. Working within this accelerated timeframe, the team will be able to build only the most essential functionality. This methodology encourages the integration team (including client stakeholders) to prioritize the most essential features, focus on short-term goals, and gives our clients a tangible, empirically based view of progress. Because each integration may require multiple sprints, each iteration of work builds on the previous (incremental), often replacing/discarding some of the previous work as more is learned (iterative). During sprint execution the team develops code and automated tests simultaneously using techniques such as Test-Driven Development (TDD), pair programming and continuous integration. Utilizing an Agile approach minimizes handoffs and phases as well as testing. Because the testing of the integration is integrated within our development methodology we need only provide formal testing in regard to an overall system and integration test within the development environment. Once the interfaces are developed, a testing plan will be executed. Upon successful completion of this User Acceptance Testing (UAT), the interfaces are ready for deployment. However, prior to the final production deployment, user training is performed for those impacted directly by the project.
- **Training** – Our team then works with the appropriate stakeholders to train them both at the end user level and also to train one or more stakeholders in how the integration was developed and the management requirements to keep the integration working correctly.



- Production Deployment – After the integration has been developed (and tested throughout the development) we move on to deploying the integration into your production environment.
- Post Production System Review – Once the integration is in production we will work as a team with our client stakeholders to verify that the integration was successful against the requirements defined during the Planning step. Any identified problems will be addressed and corrected.

We will develop an integration between Cityworks AMS & CSD’s New World ERP. The integration will be limited to moving the following data between the two systems:

- GL Codes
- Material Costs
- Employees
- Labor Rates

The following JavaScript Object Notation (JSON) web services are available for the Cityworks platform:

Attachments	Entity	Preferences
Authentication	Equipment	Public Access
Bookmark	Equipment Cost	Reading
Case Asset	Event Layers	Recent Activity
Case Child Object	Fee Setup	Relates
Case Task Comments	General	Search
Case Task Results	GIS Search	Security
Crew	Holiday	Service Request
Condition	In Box	Storeroom
Codes	Inspection	Tasks
Contractor	Labor Cost	Types
Customer Call	Material	Work Order
Employee	Material Cost	Work Order Template

The following APIs are available for the Cityworks platform:

Citizen Engagement	Metrics	Work Order, Extended
Document Management	Service Request	
Inspections	Work Order, Basic	

A Software Development Kit (SDK) is also available to download and install. It contains some sample DLLS to use to make coding easier if developing in .NET. The JSON web services do not support Windows Authentication. A second site, running Forms Authentication, can be used for the web services if Windows Authentication also needs to run for the main Server site.

Task 8: Configuration Review Meetings

The implementation team will conduct multiple (see schedule) webinar review workshops of the Cityworks configuration to gather feedback from the Functional Groups. Review workshops will cover the administrative configuration, system tools (service requests, work orders, and inspections), data loading/data migration, and interface.

Task 8: Cosumnes CSD Responsibility:

- *Configuration Review Meetings. (2 FTE Hours x 21 Functional Group participants)*

Task 8: Deliverables:

- *Configuration meeting minutes and updated Cityworks Configuration Document and SD&C Plan.*

Task 8: Assumptions:

- *Cosumnes CSD will ensure attendance by staff and provide review comments in a timely manner.*

Task 8: – Estimated Timeframe:

- *The Configuration Review meetings will require approximately 1 day per review*

Task 9: Migrate Cityworks Server configuration from Development to Production (Test)

Our implementation team will work with Cosumnes CSD IT staff to install and configure the Cityworks software on the production environment and migrate the Cityworks configuration from the development environment to a Test



environment. Our implementation team will work directly with the Cosumnes CSD's Project Manager to verify that all core system components (servers, clients, RDBMS, networking devices, and supporting software programs) are installed and appropriately configured. Our implementation staff will facilitate Cityworks software installation, set-up, and configuration.

Task 9: Cosumnes CSD Responsibility:

- Executed agreement for Timmons Group hosting services for Cityworks installation and configuration.
- Cosumnes CSD Information Systems resources as required for software installation (approximately 4-8 FTE hours)

Task 9: Deliverables:

- Cityworks configuration files migrated from the Timmons Group development environment.

Task 9: Assumptions:

- Cosumnes CSD IT Department will ensure that software, hardware, and network connectivity meet Cityworks Online implementation specifications as specified in the Core System Design Plan.
- Cosumnes CSD IT staff will be available to assist our implementation team during Cityworks installation.

Task 9: Estimated Timeframe:

- The installation of Cityworks in the Cosumnes CSD's Test environment will require approximately 1 week

Task 10: Develop Testing and Acceptance Plan

The implementation team will work with Cosumnes CSD to develop and administer a Testing and Acceptance Plan that addresses user Acceptance testing (UAT). Testing and Acceptance Plan objectives shall remain consistent with the application functionality detailed in the System Design and Configuration Plan and Application Design Document (for enterprise interfaces). The Testing and Acceptance Plan will address, in sufficient detail (as collectively deemed by the Cosumnes CSD and the implementation team) the elements required to support the Cosumnes CSD testing of the Cityworks software functionality and database configuration, security matrix, documentation of application performance issues/errors experienced during the testing, documentation of the resolutions to noted issues/errors, and certification and acceptance of the final deliverable database configuration and software functionality.

The test server and final production server environments will be measured against the results of the testing performed in accordance with this Testing and Acceptance Plan (for UAT only), and it is the baseline to which the scoped projects tasks will adhere. The Testing and Acceptance Plan (UAT only) shall be subject to the review and acceptance as to its reasonableness for its intended effort, which is defined herein as the ability to support the logical and thorough testing of the Cityworks application functionality, platform stability, and database configurations.

Upon completion of development of the Testing and Acceptance Plan (UAT only), the Team shall submit said plan to Cosumnes CSD for review and approval. It is important for Cosumnes CSD staff to review the draft plan for technical accuracy and completeness. Our configuration team will update the Draft Testing and Acceptance Plan, incorporating Cosumnes CSD comments and re-submit said plan as Final.

Task 10: Cosumnes CSD Responsibility:

- Review and comment on plan. (4 -8 FTE Hours Per Functional Group)
- Identify and assign for user Acceptance Testing (UAT)
- Perform UAT

Task 10: Deliverables:

- Testing and Acceptance Plan drafts and final.
- Addressing functional requirements not met/revealed by UAT that do meet defined functional requirements

Task 10: Assumptions:

- Cosumnes CSD will review all documentation in a timely manner.

Task 10: Estimated Timeframe:

- The development of the Testing & Acceptance Plan will require 4-6 weeks

Task 11: Report Development

Over the years our team has developed hundreds of custom reports for our clients. Cityworks has also provided several standard reports and has a customer driven report data repository on their www.mycityworks.com support website. During our workshops and review meetings with each Functional Group, we will identify the reports that are critical to Cosumnes CSD operations and leverage existing reports when it makes sense or create new reports as necessary. Additionally, Cityworks contains ad-hoc search and report tools to query Cityworks data. Nearly every field in Cityworks is searchable, allowing for comprehensive data reporting. Ad-hoc reports can be sorted and grouped by field into multiple descriptive



displays. Ad-hoc results can be exported to Microsoft Office products (Access, Excel, Word) or other products for further analysis or presentation. Reports can be shared among enterprise users, departments and divisions. Cityworks includes search and reporting by geography which is accessed through the fully integrated GIS interface. Searching by feature, feature type, map page, tile numbers, or any other data element is readily available as defined in the GIS. Our implementation team will use a four-step approach to meet Cosumnes CSD immediate reporting needs and ensuring they will be self-sufficient to create your own reports in the future.

1. **Catalog Existing Reports** – Our configuration team will work with the Cosumnes CSD to identify and catalog and prioritize all reports.
2. **Create Identified Reports** – Our implementation team has experience creating both Crystal and SQL reports and will develop and modify reports as necessary. Some examples include but are not limited to, the following types of reports:
 - o Status of projects within a program.
 - o Current project status and in-flight activities.
 - o Expected, actual, forecast completion dates.
 - o Earned Value Analysis.
 - o Issue status.
 - o Budget.
 - o Risks.
3. **Ad-Hoc and Crystal Server Report Training** – Our implementation team will train the designated Cosumnes CSD report writers on:
 - o How to best leverage the mycityworks.com website
 - o Developing Ad-Hoc reports
 - o The process of developing additional Crystal reports (not Crystal Reports training). This will be as part of the Admin training.
4. **Report Training Support** – Our implementation team will train Cosumnes CSD staff on creating reports for Cityworks as well as support hours for creating additional reports after Go Live.

Task 11: Cosumnes CSD Responsibility:

- *Cosumnes CSD will be responsible for assisting our implementation team with the generation of a comprehensive catalog of existing reports. (8-16 hours per Functional Group)*
- *Review of reports once designed and configured (2-4 FTE hours per Functional Group)*

Task 11: Deliverables:

- *Modification and development of reports based on a total budgeted allotment of 64 total hours.*

Task 11: Assumptions:

- *Cosumnes CSD will designate a report writer/s who will work with our implementation team to generate the catalogued list of reports, review reports developed by our implementation team, and be trained on ad-hoc and leveraging Crystal for Cityworks report creation (not Crystal Reports training).*
- *Timmons Group has applied 120 hours to accomplish the creation of new reports as information provided to make a definitive LOE calculation is not possible at this time.*

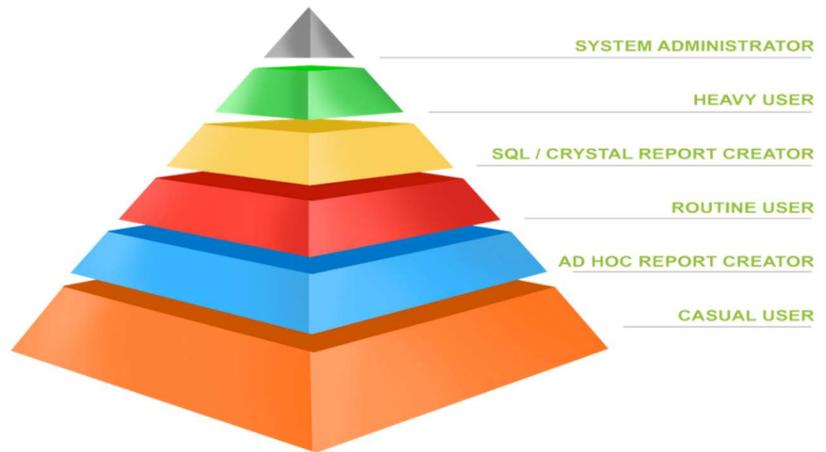
Task 11: Estimated Timeframe:

- *The development of reports will require approximately 8-10 weeks*



Task 12: Onsite Training

During each onsite meeting (kickoff, workshops, configuration review, etc.) Our implementation team will consistently expose Cosumnes CSD staff to Cityworks and basic workflows within the software. This incremental training augments the training performed after final configuration. Our implementation team, in conjunction with Cosumnes CSD’s Project Manager and key stake holders, will devise a training plan specific to your environment and data. The approach to developing this plan is detailed below.



Our training plans are unique to each Cityworks implementation client and are designed around each client’s unique configuration. During each onsite meeting (kickoff, workshops, configuration review, etc.) Our Team intentionally exposes Cosumnes CSD staff to Cityworks and basic workflows within the software. This does not replace but augments the training performed after final configuration.

Our implementation team, in conjunction with Cosumnes CSD’s Project Manager and key stake holders, will devise a training plan specific to Cosumnes CSD’s environment and data. A pro-active training plan will ensure that Cosumnes CSD staff is equipped to undertake the system utilization and maintenance tasks immediately upon receipt of the system.

The training plan will include:

- Product training curriculum descriptions
- Listing of instructors
- Training Materials
- Cosumnes CSD responsibilities
- Schedule

This training plan will be used as a guide—but may be modified when necessary to support the goals and techniques of your staff resources.

Cityworks training is modular. Students attend those sections that are relevant to the type of work that they are performing. All courses include relevant materials and sample data. Cosumnes CSD will need to identify who will be trained based upon the criteria and needs that will have been identified during the Configuration Workshops.

Training will be developed for the following user types (along with the Casual User and Report training identified earlier in the proposal):

- Routine User – Staff who will have the ability to update a request/work order after the crew has completed their work
- Heavy User – Staff who will create work orders, schedule work orders, create PM’s, maintain the parts, create reports and generally will have the ability to use the whole system based on their security level
- System Administrator – Staff who have full system access and be responsible for the daily operations and maintenance of the Cityworks environment

It is assumed that Cosumnes CSD will provide the training facility including computers and a high-resolution computer screen projector. Coming into training, the users will need to possess basic functional knowledge of Personal Computers and Windows.

Training Module	Course Description	Duration	User Group Level	Course Prerequisites
Introduction to Cityworks	Cityworks® Introduction. Course is designed to give an overview of Cityworks functionality from an end user’s point of view. Users will learn basic operations within ArcMap, the Cityworks toolbar and functions, along with the creation of Service Requests and Event Layers.	Ongoing during Workshops and Configuration Reviews	Casual Group Users	N/A



Asset Management / Computer Maintenance Management System (CMMS) Software

Cityworks Report Creating and Writing	Cityworks® Reporting with Crystal. Expose students to the Cityworks Report Engine to produce concise summary reports including Ad Hoc Reports, Predefined Reports, and Budget Reports. Cover Crystal Reports basics; becoming familiar with the tool bars and basic functionality. Students will work hands-on to create basic Crystal reports.	4 hours each class	Ad Hoc Report Creator and Crystal Report Writer	N/A
Service Requests	Cityworks® Service Requests Creating and processing Service Requests. Adding labor, submitting, searching, canceling, closing, combining, geo-locating and reports. Associating to projects and work orders.	4 hours each class	Routine and Heavy Users	Intro to Cityworks
Work Orders	Cityworks® Work Orders Creating and processing Work Orders and Tasks. Adding labor, material, and equipment. Submitting, searching, canceling, closing, scheduling, repeating, geo-locating and reports. Associating to projects and service requests.	8 hours each class	Routine and Heavy Users	Intro to Cityworks
Designer and System Administration	Cityworks® Designer and System Administration Covers system and database administration issues such as software installation, user accounts, security, code table creation, work order and service request templates and resource (labor, material, equipment) hierarchies, table creation, and permits. Includes a review for GIS personnel as well; covers items needed to successfully manage the setup and maintenance of the GIS for Cityworks® use.	8 hours each class	System Administrators	ArcGIS & Intro to Cityworks

Ongoing Training Options:

Timmons Group and Cityworks offer the following ongoing training options:

- 1) Timmons Group can provide any customized training upon demand based upon a flat rate of \$145 per hour and associated expenses to provide training either on-site, or via WebEx to Cosumnes CSD staff. This training could be repeats for previously provided training or the development of and delivery of newly identified training needs.
- 2) Cityworks (Azteca Systems, Inc.) Has several options for product related training. Virtual campus, Training at Cityworks locations (including Dallas, TX, West Bend, WI, Tampa, FL & University of Wisconsin- Madison) or at City location by Cityworks trainers. These options can be found here: <http://www.cityworks.com/tag/training/>

Our implementation team assumes that Cosumnes CSD will be able to provide the necessary training facilities to conduct onsite training. Cityworks training is modular. Students attend those sections that are relevant to the type of work that they are performing. All courses include relevant materials and sample data. Our implementation team will provide training based on the requirements set forth in the training plan. Cosumnes CSD will need to identify who will be trained based upon the criteria and needs that will have been identified by this point.

Task 12: Cosumnes CSD Responsibility:

- Assist in development and review of a training plan (4 FTE Hours per reviewer).
- IT Staff & identified Administrator Training (24 FTE hours per participant)
- Attend training (10-12 FTE hours per participant)

Task 12: Deliverables:

- Training Plan and Training Documentation
- Conduct Administrator Training
- Conduct End-user Training per Training Plan

Task 12: Assumptions:

- Cosumnes CSD will provide a conference or training room appropriately sized for the number of participants.
- Cosumnes CSD will ensure attendance by identified staff.
- Cosumnes CSD staff attending training should have basic functional knowledge of computers and the windows operating system.

Task 12: Estimated Timeframe:

- Training will require approximately 2-3 weeks

Task 13: Acceptance Testing

Prior to Go-live there will be a thirty (30) day acceptance testing period (the acceptance period is flexible based on input from the City's Project Manager). During this period Cosumnes CSD will test the Cityworks implementation and identify issues and opportunities. The Testing and Acceptance Plan will frame and guide Cosumnes CSD through the testing process.



Task 13: Cosumnes CSD Responsibility:

- *Cosumnes CSD Project Manager will work with staff to implement the Testing and Acceptance Plan (8 FTE hours per participant).*

Task 13: Deliverables:

- *Testing Plan, results, and remediation. Review test results*
- *Volume/Stress Testing Report*

Task 13: Assumptions:

- *Cosumnes CSD will be prepared to work through the Testing and Acceptance Plan and complete within a thirty (30) day period.*

Task 13: Estimated Timeframe:

- *The configuration remediation will requires approximately 2-4 weeks*

Task 14: Final Product Configuration

Our implementation team will conduct the final product configuration based on the System Design and Configuration Plan and Testing and results of the acceptance testing. Our implementation team will provide documentation for the key aspects of this project and Cityworks components. Proposed documentation is summarized below:

- **Cityworks Configuration Document** – Early on, our configuration team with Cosumnes CSD input, will develop a Cityworks Configuration document that is maintained through the life of the project.
- **Project Management Plan** – Our Team will develop and maintain a project plan that includes the scope of project services (and any changes), budget, schedule, risk management and communication approach.
- **Cityworks® Server Software** – Azteca Systems, Inc. Provides standard documentation for the latest product release. Separate documentation is provided for system administration and end users.
- **SD&C Plan** – Timmons Group will provide a copy of the plan resulting from the review, analysis and documentation of the organization and its current workflows, data sets, IT system and applications, system interface needs, output requirements, and public access and service request needs.
- **System Integration and Data Conversion specific documentation.**
- **Training Materials** – Timmons Group will provide a copy of the training plan and all training documents used during casual user, routine user, heavy user, ad-hoc reporting, management, and system administrator training.
- **Testing and Acceptance Plan** – Timmons Group will prepare and deliver a copy of the test plan and test results report to be used for system certification and acceptance by Cosumnes CSD.

Task 14: Cosumnes CSD Responsibility:

- *Final review and acceptance of configuration (40 FTE hours)*

Task 14: Deliverables:

- *All project documentation developed to date.*

Task 14: Assumptions:

- *Cosumnes CSD will receive all documentation in digital format.*

Task 14: Estimated Timeframe:

- *The final configuration of Cityworks per the SD&C Plan will require approximately 3-6 weeks*

Task 15: Go-Live and Project Close Out

Having successfully completed all system upgrades, testing/acceptance procedures, production environment initialization, and Go-Live preparation tasks specified above, the system is deemed prepared for Go-Live. Once end-user access has been configured/re-directed to the newly initialized production environment, the system is deemed to be in “Live” status. Cosumnes CSD Cityworks users will now be executing work management tasks in a live configured Cityworks production environment. After thirty (30) consecutive days of initialization of the production environment, Cosumnes CSD shall generate a certificate signifying the Cityworks application functionality and database configuration is operational in a “Live” production capacity. Cosumnes CSD’s Project Manager shall sign said “Go-live Certificate” and submit it to Timmons Group.

The following will be deliverables of this task:

- 1) Go-Live and Stabilization Plan – detailed task plan including a readiness checklist and resource assignments to support moving the Cityworks software from test to production environments.



- 2) Technical Operations manual – detailed task plan including a readiness checklist and resource assignments to support moving the Cityworks software from test to production environments, including a data load, conversion plan and a contingency plan in the event that Go Live should fail
- 3) End User Manual – online or hard copy documentation that supports Cosumnes CSD specific use of the software and provides guidance for maintenance and configuration activities

Task 15: Cosumnes CSD Responsibility:

- *Identify any issues in system and work with configuration team to modify as necessary. (40 FTE hours per participant)*

Task 15: Deliverables:

- *Last minute configuration and document modifications.*
- *Go-Live & Stabilization Plan*
- *Technical Operations Manual*
- *End user manual*
- *Configured licensed Cityworks software in Production Use*

Task 15: Assumptions:

- *Work through the project portal to resolve and issues.*

Task 15: Estimated Timeframe:

- *Go-Live and project close-out will require approximately 2-3 weeks*

Task 16: Post Go-Live Support

On-Site Coaching (Go-Live support)

Our team will provide three days (24 hours) of on-site assistance for the users in their day-to-day activities in using the Cityworks software. Once the software is on-line, the configuration staff will be on-site to assist users as they encounter day-to-day transactions. The purpose for this is to work with users on an individual basis as they use Cityworks in their daily duties to discover and resolve configuration problems, training lapses or other issues that are keeping users from getting the most from the software.

Ad-Hoc Support (Stabilization Services)

Once the system has been rolled out and is being used, our team will provide 40 hours of remote and on-site ad-hoc support to address any configuration, implementation, or software installation matters that may arise. For example, these might include the redesign of printout forms or changes in the content of the work management portion of the Cityworks® Server AMS database. Cosumnes CSD will have one year to utilize the remote support by department or functional group for the services provided.

Task 16: Cosumnes CSD Responsibility:

- *Identify any additional functionality, reports, etc. Desired and communicate this to the Timmons Group*

Task 16: Deliverables:

- *24 hours of on-site coaching for functional groups (Go Live support)*
- *40 hours of Ad-hoc support for functional groups*

Task 16: Assumptions:

- *Work through the Timmons Group PM for ad-hoc support.*

Task 16: Estimated Timeframe:

- *Go-Live is one week*
- *Ad-hoc is TBD*

ONGOING PRODUCT SUPPORT AND MAINTENANCE PROGRAMS

One of the most important aspects of corporate software is quality user support. Our goal is to have the very best customer support in the industry. We recognize if a user cannot use the software to their fullest expectation, it doesn't matter how great the software is. We endeavor to respond to inquiries in a timely manner. If a software problem causes the software to not function as designed, our programming staff's number one priority is to resolve the problem.

During implementation Timmons Group will be your primary source for support and maintenance. All inquiries regarding Cityworks should come directly to Timmons Group. We will work with Cosumnes CSD to resolve any issues. Upon Go Live and at the termination of the contract between Timmons Group and Cosumnes CSD the support and maintenance will transfer to Cityworks. Cityworks will at this time become your primary contact and will follow the maintenance agreement included below. Timmons Group, however, will be available (within reason) to assist in issues as well.

Implementations are handled by the assigned Project Manager (Michael Edwards of Timmons Group). Once the project is completed, user support is provided by the Cityworks Customer Support Representative for your geographical area. They can assist with problems, enhancement requests, and questions specific to Cityworks software. Support is available by phone, email, interactive web meetings, and VPN connections. Additional support is available for perusing 24/7 at the mycityworks.com website.

The Cityworks Update and Support agreement supplies you with subsequent upgrades, enhancements and bug fixes for future releases of the licensed applications as long as the annual renewal is current. New versions of the software are generally available annually. Prior versions of the software continue to be supported for one year following the release of a new version.

Cityworks also publishes InPrint, a quarterly publication featuring information on public asset management, implementations, client sites, business partners, etc. In addition, Cityworks and Timmons Group exhibit and present the Cityworks applications at a number of conferences throughout the U.S.

Account Managers

Cityworks will assign an account manager to Cosumnes CSD once the software license agreement has been signed. This position has been established to help guide clients through the implementation process from Cityworks as well as to help the client understand the Cityworks tool set, identify customer needs and how they can be met by Cityworks, and to maintain the client relationships with Cityworks.

Timmons Group will task a Technical Support Team to the City of Cosumnes CSD. This will be comprised of the Project Director, Project Manager and various technical staff that will have worked on the original implementation of Cityworks at the City of Cosumnes CSD. This will ensure historical knowledge of Cosumnes CSD IT, integrated software and specific City technical staff that would help to efficiently manage any technical issues.

On-Site Coaching

Our team will provide one week (40 hours) of on-site assistance for the users in their day-to-day activities in using the Cityworks software. Once the software is on-line, the configuration staff will be on-site to assist users as they encounter day-to-day transactions. The purpose for this is to work with users on an individual basis as they use Cityworks in their daily duties to discover and resolve configuration problems, training lapses or other issues that are keeping users from getting the most from the software.

Ad-Hoc Support (Stabilization Services)

Once the system has been rolled out and is being used, our team will provide 40 hours of remote and on site ad-hoc support to address any configuration, implementation, or software installation matters that may arise. For example, these might include the redesign of printout forms or changes in the content of the work management portion of the Cityworks® Server AMS database. The City will have one year to utilize the remote support by department or functional group for the services provided. These services will be provided by Timmons Group staff out of our Charlotte, NC and Richmond, VA offices.

Azteca provides ongoing software updates, documentation and technical support as part of the license fees paid by the City. Therefore, the City should contact Azteca directly regarding ongoing system support issues. One of the most

important aspects of software is the timeliness of user support. Azteca's goal is to have the very best customer support in the industry. They recognize that if a user cannot use the software to their fullest expectation, then it doesn't matter how great the software might be. They answer all questions as quickly as possible. If a question is due to a software problem that causes the software to not function as designed, the programming staff's number one priority becomes the resolution of the problem. See below for details.

Telephone Support

- Normal Business Hours 8:00 am – 5:00 pm MST
- Weekdays excluding holidays. Project manager will be available for handling severe problems during after hour periods.
- Phone numbers: (801) 523-2751, (888) 523-2751

Online and Dialup Support

- Normal Business Hours 8:00 am – 5:00 pm MST
- Weekdays excluding holidays.
- Internet support utilizes GoToMeeting software. An internet browser connected to the system is required
- VPN, dialup, and web access requires secure access through telephone to system

Website Support

- www.azteca.com (general information, links to other Cityworks support sites, news releases, event listings, white papers, partner information, contact information, etc.)
- www.mycityworks.com (User support site, includes latest documentation, support files, knowledgebase of known bugs and work around solutions, user forum, downloads of patches, etc.)

Cityworks standard support details are enumerated in the "Azteca Systems License Agreement" that is attached to our submission.

Regional User Groups

Cityworks regional user group meetings are held periodically at client sites and at our offices located in West Bend, Wisconsin, and Desoto, Texas. The Cityworks Conference is held in Salt Lake City, Utah. Cityworks forums are available through www.mycityworks.com. Cityworks Regional User Group (RUG) meetings are the ideal forum to get the information you need to extend your organization's Cityworks investment. We will discuss the Cityworks platform, mobile initiatives, Analytics, and cloud-based solutions for Cityworks. RUG meetings also offer the unique opportunity to meet with peers in your area as well as Cityworks staff and executives.

User Conference

Cityworks holds an international user conference every 18 months. The conference is held in Salt Lake City, Utah. The next conference is scheduled for December 4-6, 2019. More information is available on the Cityworks website as well as at www.mycityworks.com. The Cityworks Conference is the ideal forum to discover information you need to extend your organization's Cityworks investment. At this year's conference, you'll learn how to leverage the new world of platforms and easily build custom integrated solutions that fit your organization's needs. At the conference, you won't just learn about Cityworks—you'll equip yourself with the knowledge, skills, and resources you need to meet your goals and drive success in your organization.

TRAINING PLAN

At Timmons Group, we pride ourselves on paying meticulous attention to client needs and providing a depth of highly qualified staff to achieve your vision. As an industry leader, Timmons Group employs some of the most talented information technology and geospatial professionals in the Country. Our wealth of diverse skills and abilities, combined with our extensive experience providing the services defined in the RFP, make Timmons Group the ideal choice for your asset management and geospatial needs. We understand that the successful and efficient operation of your organization requires that we deliver unrivaled information technology solutions tailored to meet both your current and future program requirements.

Timmons Group believes our iterative approach to delivering the services necessary for a successful implementation of Cityworks to be unique. Our knowledge transfer to Cosumnes CSD has begun with the review of this proposal and will continue through Go Live and the associated support provided post Go Live.

We utilize a modified Agile process so that Cosumnes CSD stakeholders will see regular deliverables of the software as the configuration is developed. The idea is that stakeholders will develop a well-rounded knowledge of the Cityworks product as well as the configuration based upon agreed upon workflows reflective of functional needs, business rules and other factors. It is our goal that when formal training is provided towards the closing stages of the project it will act as a reinforcement and it will not be the first time the end user see's the Cityworks product as configured for Cosumnes CSD.

Timmons Group will work with Cosumnes CSD to develop a Training Plan (which will include a schedule) based upon workshops and the adherence to our change management strategy. It is impossible at this point to provide a training schedule until these unknowns are discovered and mitigated. Training is part of our mitigation process. We have provided a typical scope and costs associated with clients of similar size and scope to Cosumnes CSD. We recognize Cosumnes CSD prefers the Train the Trainer Method. We will work with Cosumnes CSD to determine which methodology of training will be the most successful at Cosumnes CSD.

It is expected that Cosumnes CSD will fully participate in the development of the Training Plan as well as to approve and accept the plan. Cosumnes CSD will have input as to the amount of training, who gets trained, what they are trained on, class size, the approach (classroom, train the trainer, etc.) And schedule.

As stated previously Timmons Group's strategy will be to develop a Training Plan (which will include a detailed breakout of the various classes/courses to be provided along with a schedule) based upon workshops and the adherence to our change management strategy. It is impossible at this point to provide a detail of these classes/courses until these unknowns are discovered and mitigated. Training is part of our mitigation process. We have provided a typical scope and costs associated with clients of similar size and scope to Cosumnes CSD.

Ongoing Training Options:

Timmons Group and Cityworks offer the following ongoing training options:

- 3) Timmons Group can provide any customized training upon demand based upon a flat rate of \$135 per hour and associated expenses to provide training either on-site, or via WebEx to City staff. This training could be a repeat for previously provided training or the development of and delivery of newly identified training needs.
- 4) Cityworks (Azteca Systems, Inc.) Has several options for product related training. Virtual campus, Training at Cityworks locations (including Dallas, TX, West Bend, WI , Tampa, FL & University of Wisconsin- Madison) or at City location by Cityworks trainers. These options can be found here: <http://www.cityworks.com/tag/training/>

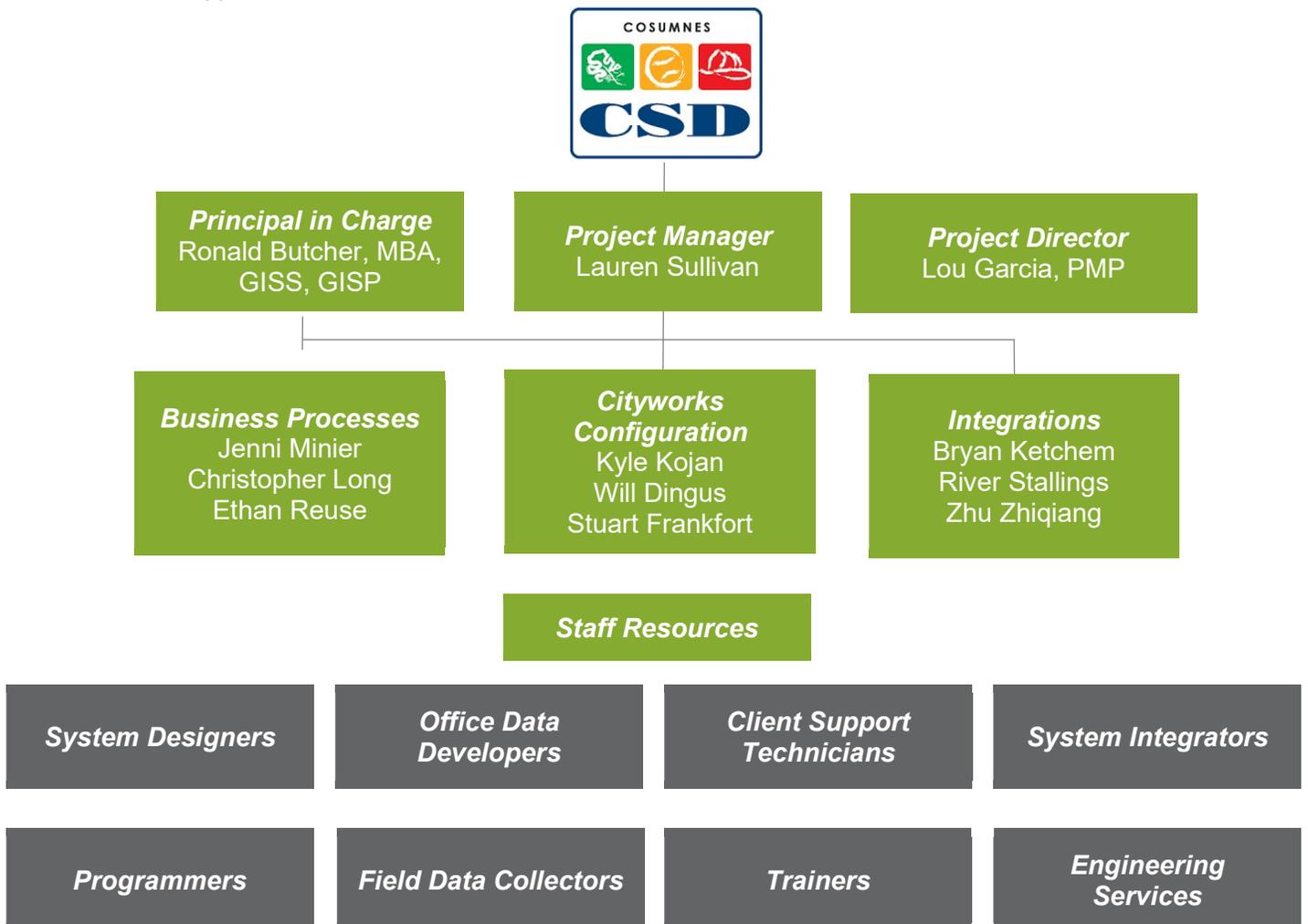
Our implementation team assumes that the City will be able to provide the necessary training facilities to conduct onsite training. Cityworks training is modular. Students attend those sections that are relevant to the type of work that they are performing. All courses include relevant materials and sample data. Our implementation team will provide training based on the requirements set forth in the training plan. The City will need to identify who will be trained based upon the criteria and needs that will have been identified by this point.

3. SUPPORTIVE INFORMATION

STATEMENT OF PROJECT TEAM QUALIFICATIONS

The following pages introduce the key staff members Timmons Group proposes to deploy the Cityworks Server AMS solution with Cosumnes CSD. Each of these individuals offers significant experience in the design, implementation and maintenance of an enterprise Cityworks environment. Backing each of these individuals up is a deep bench of highly skilled support staff that are entirely focused on the delivery of Cityworks and Esri GIS solutions. As an award-winning and industry-leading Geospatial consultant, Timmons Group goes to great lengths to stay abreast of the ever-changing and increasingly complex information technologies and EAM/CMMS/WMS applications needed to design, build, implement, and maintain the integrated geospatial solutions required to solve our clients' varied challenges. Our firm employs a broad range of subject matter experts across all areas of the CMMS Asset Management, Engineering, Planning, Information Technology and Geospatial disciplines. From our Technicians, all the way up through our Database Managers, Programmers, Systems Engineers, Consultants and Project Managers, our staff prides itself on our unique ability to grasp your vision and then work with you to deliver a solution tailored to your individual business requirements. Our team is committed to providing the City with the resources needed to achieve your goals and the priority to complete each task on schedule and within budget. Our dedicated staff will provide you with consistent, responsive service. We have established a strong team, based on similar projects, client success, and certification status.

Should any one of our proposed key personnel depart before the completion of this project, Timmons Group has an experienced and talented team of over 18 Asset Management professionals that can be re-routed to work on this project. In the case of a key personnel departure, Timmons Group will implement our internal contingency plan to replace the staff member with the approval of Cosumnes CSD.



Ron Butcher, MBA, GISS, GISP | Principal-In-Charge

Ron's background in the development and implementation of Asset Management projects affords us added depth and the ability to leverage his additional real world experiences in all of our consulting efforts. Ron will serve as the Principal in Charge for this project. He will be responsible for overseeing all technical aspects of the City's engagement to ensure the development and delivery of a solution focused on City project goals and objectives.

Lou Garcia, PMP | Project Director

As Project Director, Lou will work alongside Lauren to ensure all tasks and expectations are met by Timmons Group. Lou will also be responsible for the management of resources and overseeing finances to ensure the project progresses on time and under budget. He has over 29 years of experience authoring and managing numerous strategic management plans, needs analyses, strategic plans, and implementations for Asset Management and Geospatial Technology products and services. His extensive experience and knowledge base will be influential to our team.

Lauren Sullivan | Project Manager

Lauren is the Project Manager assigned to this project. Upon award, she will be responsible for the day to day communications with Bellingham, coordination of activities relating to the installation and implementation team and will ensure successful accomplishment of the scope of work – all within the contract budget and project schedule. She has over eight years of experience with all facets of software integration services. Her strong background involves a focus on GIS-related development and relational database management for numerous applications. Lauren's specialties include Cityworks, ArcGIS, Microsoft SQL Server, Python, HTML5, CSS3, Javascript, .NET, product integration, local government, electric and gas, community development, asset management, software, spatial analysis, and research.

Jenni Minier, Business Processes Prior to joining Timmons Group, Jenni worked as an Asset Manager at a local water utility for several years on the customer end of a Cityworks implementation. Jenni has experience with ESRI ArcGIS (ArcDesktop) and is able to work with ArcSDE versioning. Her experience on both the customer and implementer end of the project makes her a valuable addition to any project.

Christopher Long, Business Processes Chris is a Business Analyst with a wealth of experience in enterprise asset management strategic planning and Cityworks implementations for a variety of local government agencies. Chris was the winner of the 2016 Commonwealth of Virginia Innovative Technology Symposium (COVITS) award for the innovative use of open data, by making data available to citizens, businesses, and other government entities. He is skilled in applying Zachman Enterprise Architecture Framework to GIS Architecture, ArcGIS Desktop 10.x, Python Development an Automation, Spatial Analysis, Spatial Database Engine Administration (SDE), and Cartography.

Ethan Reuse, Business Processes Ethan has excellent GIS technical analytical skills and has worked on GIS field data collection and validation projects for 911, electric power distribution, and water utility location. He has GIS data maintenance and update experience including: parcels. Structures, addressing, utilities, and natural resources.

Kyle Kojan, Cityworks Configuration Kyle is a GIS technician at Timmons Group. He is experienced with data development, data analysis, GIS mapping, and project deliverable quality control based on defined parameters. He has extensive knowledge of Cityworks Server PLL and AMS. His skills include working with and understanding Microsoft Office 2010 (Word, Excel, PowerPoint, Access), SQL Server and Oracle, Crystal Reports, ESRI ArcGIS (ArcDesktop 9.3.1/ 10.x), and is able to work with ArcSDE Versioned Editing.

Will Dingus, Cityworks Configuration Will is a GIS technician at Timmons Group. He is experienced with GIS mapping, data development, data analysis, and project deliverable quality control based on defined parameters. He has full knowledge of Multuser environments including ArcSDE. His skills include working and understanding the Microsoft Office 2010 (Word, Excel, PowerPoint, Access), ESRI ArcGIS (ArcDesktop 9.3.1/ 10.x) is able to work with ArcSDE Versioned Editing. Will has the extensive knowledge needed to fulfill the requests of any project and has shown to be valuable on our GIS team.

Stuart Frankfort, Cityworks Configuration Stuart a GIS Technician in Timmons Group's Geospatial Solutions Group. He performs tasks related to mapping, data development, data analysis, and project deliverable quality control based on defined parameters. Stuart has worked on digitizing and maintaining spatial databases of DOT information for multiple states; as well as documented procedures and validated data for accuracy and completeness.

Brian Ketchem, Integrations Brian is an AMS Analyst, responsible for configuration and implementation of Cityworks Server AMS software. Brian has extensive experience in integrating various systems to Cityworks. He will be responsible for ensuring client satisfaction and assisting with the data process for implementations.

River Stallings, Integrations River is an Applications Developer at Timmons Group. He is experienced with software development including web, desktop, and console applications, server deployment, data analysis, unit testing, and database development. His skills include C#, PHP, Ruby, JavaScript, JQuery, CSS 3, HTML 5, Bootstrap, .Net, MVC, UX design, ESRI JavaScript API, Google Maps API, PublicStuff API, Cityworks API, and SQL and Oracle database scripting

Zhiqiang Zhu, Integrations Zhiqiang is a GIS applications developer at Timmons Group. He has a diverse background in design and coding development in GIS-based projects and as full-stack .Net developer on desktop and web-based projects using hybrid programming languages (C#, JavaScript, T-SQL & PL/SQL) in Agile and Scrum / Kanban environment with TDD and SOLID as best practices. He communicates effectively with clients and product manager to prioritize deliverables. He is flexible in roles and always ready to help others to ultimately achieve team goals. Zhiqiang learns new technologies quickly to adapt new requirements while delivering quality work product on time.

Lou Garcia, PMP | Project Director

Education

BS, Geography and Environmental Planning, Towson University, 1999

Experience

29 Years

Certifications

Project Management Professional (PMP), Project Management Institute; March 2009

Cityworks AMS Server; June 2012

Miller-Hieman Business Development Training; December 2005

Staff Management Training; August 2005

Spatial Database Standards for Infrastructure and the Environment 2.5 ; (SDSFIE) March 2005

Mapping Grade GPS Training; December 2004

Trimble Survey Grade GPS Training; November 2004

Project Management Training, American Management Association; March 2001

Lou Garcia is a Senior Project Manager with over 27 years of experience in Consulting and Project Management of Enterprise Asset Management, GIS, engineering, and surveying projects. He has experience at the technical consultant leadership level in applying analytical processes to the planning, design, acquisition, and implementation of new and improved business processes, GIS tools, productivity tools, and services. He has authored and managed numerous project management plans, work plans, needs analyses, strategic plans, and implementation plans for Asset Management and Geospatial Technology products and services.

Select Project Experience

- Cityworks Server AMS Software Implementation, Grey Forest Utilities, TX
- Cityworks Server AMS Software Implementation, Bartow City, GA
- Cityworks Server AMS Software Implementation, City of North Miami Beach, FL
- Cityworks Server AMS Software Migration from Cityworks AMS Desktop, City of Lebanon, OH
- Cityworks Server AMS & PLL Software Implementation, City of Alpharetta, GA
- Cityworks Server AMS and PLL Software Implementation, Winston-Salem, NC
- Cityworks Server AMS Software Implementation, City of Weston, FL
- Asset Management and Work Order Management Strategic and Implementation Plan, Altoona Water Authority, Altoona, PA*
- Enterprise Asset Management Strategic Plan & Cityworks Implementation; DOT/DPW, City of Baltimore, MD*
- Cityworks Enterprise Asset Management Implementation; City of Salisbury, MD*
- Asset Management Plan & Cityworks Implementation, Rhode Island Broadband Mapping & Rhode Island Emergency Management Agency (RIEMA), Statewide, RI*
- Enterprise GIS Needs Analysis and Strategic Plan; Talbot City, MD*

*Projects completed prior to joining Timmons Group

Ron Butcher, Jr., GISP, MBA | Principal in Charge

Education

MBA, Management Information Systems, University of Dayton, 2000
BS, Computer Science, Magna Cum Laude, Park University, 1994

Experience

23 Years

Certifications

GIS Professional (GISP)
GIS Surveyor (GISS), South Carolina

Ron is an accomplished Senior Manager with 23 years of success developing, integrating and aligning technologies to meet customer business needs and achieve corporate goals and objectives. Results-oriented director with effective balance of long-range vision and realistic pragmatism; highly adept at devising new strategies, tools and services that provide superior results at minimal cost. He is an inspirational and collaborative leader with a talent for building successful, long-term relationships with customers, forging consensus between stakeholders with various priorities, and developing cohesive, high-performance teams ready to meet any challenge. Ron leads our team of subject matter experts focused on the delivery of Enterprise Asset Management (EAM) solutions required to solve the complex asset management challenges for our water, wastewater, stormwater, gas, electric and public works clients. He has significant Cityworks EAM implementation and system integration for utility customers throughout the United States.

Select Project Experience

- Cityworks Server AMS Software Implementation, City of Renton Parks Department, WA
- Cityworks Server AMS Software Implementation, Skagit PUD, WA
- Cityworks Server AMS Software Implementation, Otay Water District, Spring Valley, CA
- Asset Management System JumpStart, City of Yelm, WA
- Cityworks Server AMS Software Implementation, Sammamish, WA
- Cityworks Server AMS Software Implementation, MidPen Regional Open Space District, Santa Clara, CA
- Cityworks Server AMS and PLL Software Implementation, City of Morro Bay, CA
- Cityworks Server AMS and PLL Software Implementation, City of Fayetteville, NC
- Cityworks Server AMS Software Implementation, City of Naperville, IL
- Cityworks Server AMS Software Implementation, Hamilton City, TN
- Enterprise Work Management System, City of Alpharetta, GA
- Cityworks EAMS, Department of Public Utilities, Auburn, AL
- Cityworks EAMS, Lafayette Consolidated Government, LA
- Cityworks Server PLL Implementation, Herndon, VA
- Cityworks CMMS, Department of Public Utilities, Richmond, VA
- Cityworks EAMS Support, DPW and Environmental Services, Alexandria, VA

Lauren Sullivan | Project Manager

Education

BA, Geography/Environmental Studies, UCLA, 2010

Experience

8 Years

Location

Portland, OR

Lauren is the Project Manager assigned to this project. Upon award, she will be responsible for the day to day communications with the City of Bellingham, coordination of activities relating to the installation and implementation team and will ensure successful accomplishment of the scope of work – all within the contract budget and project schedule. She has years of experience with all facets of software integration services. Her strong background involves a focus on GIS-related development and relational database management for numerous applications. Lauren's specialties includes ArcGIS, Microsoft SQL Server, Python, HTML5, CSS3, Javascript, .NET, product integration, local government, electric and gas, community development, asset management, software, spatial analysis, and research.

Select Project Experience

- Project Manager - Cityworks Server Implementation, Yelm, WA
- Project Manager - Cityworks Server Implementation, Bonney Lake, WA
- Project Manager - Skagit Public Utility District, Cityworks Upgrade, Mt. Vernon, WA
- Project Manager - Cityworks Server AMS & PLL Implementation, Morro Bay, CA
- Cityworks Server Implementation, Renton, WA
- Implementation of Cityworks Permits, Licensing and Land (PLL) software, Auburn, AL
- Cityworks Server PLL Implementation, Brookhaven, GA
- Project Manager - Cityworks Server AMS PLL Implementation, Upper St. Clair, PA
- Cityworks Server Implementation and GIS Data Model & Conversion, City of Milwaukie, OR
- Cityworks Server Implementation, Grand Rapids, MN
- Cityworks Server Implementation (PLL), Tallahassee, FL
- Cityworks Server Implementation, Mid-Peninsula Regional Open Space Management, Palo Alto, CA
- Cityworks Server Consulting/Upgrade, Seatac, WA
- Cityworks Server Implementation, Las Gallinas Valley Sanitary District, CA

Jenni Minier | Business Processes

Education

BS, Environmental Science, Western Washington University, 2005

MS, Geography-Intl Natural Resource Management, Western Washington University, 2011

Experience

15 Years

Location

Bellingham, WA

Prior to joining Timmons Group, Jenni worked as an Asset Manager at a local to Bellingham water utility for several years on the customer end of a Cityworks implementation. Jenni has experience with ESRI ArcGIS (ArcDesktop) and is able to work with ArcSDE versioning. Her experience on both the customer and implementer end of the project makes her a valuable addition to any project.

Select Project Experience

- Cityworks Server Implementation, Renton, WA
- Cityworks Server Implementation, Bonney Lake, WA
- Cityworks Server Consulting/Upgrade, Seatac, WA
- Cityworks Server Implementation, Mid-Peninsula Regional Open Space Management, Palo Alto, CA
- GIS Data Model & Conversion, City of Milwaukie, OR
- Cityworks Enterprise Asset Management System Implementation (AMS & PLL), City of Morro Bay, CA
- Cityworks Implementation, Grand Rapids, MN
- Cityworks Server Implementation (PLL), Tallahassee, FL
- Cityworks Server Re-Implementation, Frederick Water, VA
- Cityworks Server Implementation, Asheville, NC
- Cityworks Server Implementation, Yelm, WA
- Cityworks Server Implementation, Las Gallinas Valley Sanitary District, CA

Chris Long | Business Processes

Education

BA, Geography (Concentration in Geospatial and Environmental Analysis), Virginia Tech, 2011
Executive Master of Science, Information Systems Management, Virginia Commonwealth University, 2018

Experience

10 Years

Chris is a Business Analyst with a wealth of experience in enterprise asset management strategic planning and Cityworks implementations for a variety of local government agencies. Chris was the winner of the 2016 Commonwealth of Virginia Innovative Technology Symposium (COVITS) award for the innovative use of open data, by making data available to citizens, businesses, and other government entities. He is skilled in applying Zachman Enterprise Architecture Framework to GIS Architecture, ArcGIS Desktop 10.x, Python Development an Automation, Spatial Analysis, Spatial Database Engine Administration (SDE), and Cartography.

Select Project Experience

- Fairfax County Enterprise Asset Management Strategic Planning, Stormwater and Transportation
- DC Department of Transportation (DDOT) Cityworks Business Process Redesign
- Cityworks AMS Implementation, Forsyth County, GA
- Cityworks AMS Implementation, Regional Municipality of York, Canada
- Asset Management Road Map, City of Tigard, OR
- Cityworks AMS Implementation, City of Madison, WI

Ethan Reuse | Business Processes

Education

BA, Geography, Virginia Tech, 2016
MS, GIS/Cartography, University of Wisconsin Madison, 2018

Experience

3 Years

Ethan has excellent GIS technical analytical skills and has worked on GIS field data collection and validation projects for 911, electric power distribution, and water utility location. He has GIS data maintenance and update experience including: parcels. Structures, addressing, utilities, and natural resources.

Select Project Experience

- Cityworks AMS Implementation, Forsyth County, GA
- Cityworks AMS Implementation, Public Works, City of Asheville, NC
- Cityworks Data Audit/Support, Spotsylvania County, VA
- Cityworks AMS Implementation, MidPeninsula Regional Open Space District

Kyle Kojan | Cityworks Configuration

Education

BS, Environmental Studies, Virginia Commonwealth University, 2015

Experience

2 Years

Kyle is a GIS technician at Timmons Group. He is experienced with data development, data analysis, GIS mapping, and project deliverable quality control based on defined parameters. He has extensive knowledge of Cityworks Server PLL. His skills include working with and understanding Microsoft Office 2010 (Word, Excel, PowerPoint, Access), SQL Server and Oracle, Crystal Reports, ESRI ArcGIS (ArcDesktop 9.3.1/ 10.x), and is able to work with ArcSDE Versioned Editing. Kyle has the extensive knowledge needed to fulfill the requests of any project and has shown to be a valuable asset to our Cityworks PLL implementation team.

Select Project Experience

- Bartow Co AMS Implementation, Bartow City, GA
- City of Auburn - Implementation of Cityworks Permits, Licensing and Land (PLL) software, Auburn, AL
- City of Brookhaven PLL Implementation, Brookhaven, GA
- Upper St Clair Cityworks AMS PLL Implementation, Alleghany City, PA
- Winston-Salem Cityworks PLL Implementation, Winston-Salem, NC

Will Dingus | Cityworks Configuration

Education

BS, Geography and History, Emory & Henry College, 2013

Experience

5 Years

Will is experienced with GIS mapping, data development, data analysis, and project deliverable quality control based on defined parameters. He has full knowledge of Multuser environments including ArcSDE. His skills include working and understanding the Microsoft Office 2010 (Word, Excel, PowerPoint, Access), ESRI ArcGIS (ArcDesktop 9.3.1/ 10.x) is able to work with ArcSDE Versioned Editing.

Select Project Experience

- Cityworks Server AMS Software Implementation, Milwaukie, OR
- Cityworks Server Implementation, Mid-Peninsula Regional Open Space Management, Palo Alto, CA
- Cityworks Server AMS Software Implementation, Otay Water District, Spring Valley, CA
- Cityworks Server AMS Software Implementation, Alpharetta, GA
- Cityworks Server AMS Software Implementation, North Miami Beach, FL
- Cityworks Server AMS Software Implementation, Bartow City, GA
- Cityworks Server AMS Software Implementation, Harrisonburg, VA
- Cityworks Server AMS Software Implementation, Weston, FL

Stuart Frankfort | Cityworks Configuration

Education

BA, Geology, Washington and Lee University, 2008

Experience

5 Years

harmo

Stuart a GIS Technician in Timmons Group's Geospatial Solutions Group. He performs tasks related to mapping, data development, data analysis, and project deliverable quality control based on defined parameters. Stuart has worked on digitizing and maintaining spatial databases of DOT information for multiple states; as well as documented procedures and validated data for accuracy and completeness.

Select Project Experience

- Cityworks Server AMS Upgrade, Skagit PUD, Mount Vernon, WA
- Cityworks Server AMS Software Implementation, Sammamish, WA
- City of Asheville Cityworks AMS, Asheville, NC
- City of Brookhaven PLL Implementation, Brookhaven, GA
- City of Morro Bay Cityworks AMS & PLL Implementation, Morro Bay, CA
- North Miami Beach Cityworks AMS Implement, North Miami Beach, FL

Brian Ketchem | Integrations

Education

BS, Geography, Virginia Tech, 2014

Experience

4 Years

Brian is an AMS Analyst, responsible for configuration and implementation of Cityworks Server AMS software. He will be responsible for ensuring client satisfaction and assisting with the data process for implementations.

Select Project Experience

- Cityworks Server AMS Upgrade, Skagit PUD, Mount Vernon, WA
- Cityworks Server AMS Software Implementation, Otay Water District, Spring Valley, CA
- Cityworks Enterprise Asset Management System Implementation (AMS), City of Harrisonburg, VA
- GIS Data Model & Conversion, City of Milwaukie, OR
- Cityworks Enterprise Asset Management System Implementation (AMS & PLL), City of Morro Bay, CA
- Cityworks Implementation, Grand Rapids, MN
- Cityworks Server Implementation (PLL), Tallahassee, FL
- Cityworks Enterprise Asset Management System Implementation (AMS/ PLL), Upper St. Clair, PA
- Cityworks Enterprise Asset Management System Implementation (AMS) North Miami Beach, FL
- Cityworks Data Conversion, City of Herriman, UT

Zhiqiang Zhu | Integrations

Education

BS, Computer Science, South China University of Technology, 2008
MS, Computer Science, Colorado State University, 2011

Experience

6 Years

Zhiqiang is a GIS applications developer at Timmons Group. He has diverse background in design and coding development in GIS-based projects and as full-stack .Net developer on desktop and web-based projects using hybrid programming languages (C#, JavaScript, T-SQL & PL/SQL) in Agile and Scrum / Kanban environment with TDD and SOLID as best practices. He communicates effectively with clients and product manager to prioritize deliverables. He is flexible in roles and always ready to help others to ultimately achieve team goals. Zhiqiang learns new technologies quickly to adapt new requirements while delivering quality work product on time.

Select Project Experience

- Implementation of Cityworks Permits, Licensing and Land (PLL) software, Auburn, AL
- Cityworks PLL Public Portal, Fayetteville, NC
- Tallahassee Portal Modifications, Tallahassee, FL
- Winston-Salem Cityworks AMS/PLL Implementation, Winston-Salem, NC

River Stallings | Integrations

Education

Computer Information Systems, ITT Tech, 2011

Location

Richmond, VA

River is an Applications Developer at Timmons Group. He is experienced with software development including web, desktop, and console applications, server deployment, data analysis, unit testing, and database development. His skills include C#, PHP, Ruby, JavaScript, JQuery, CSS 3, HTML 5, Bootstrap, .Net, MVC, UX design, ESRI JavaScript API, Google Maps API, PublicStuff API, Cityworks API, and SQL and Oracle database scripting. River has the extensive knowledge needed to fulfill the requests of any project and has shown to be valuable on our development team.

Select Project Experience

- Implementation of Cityworks Permits, Licensing and Land (PLL) software, Auburn, AL
- Cityworks Implementation, Sugar Land, TX
- Cityworks PLL Public Portal, Fayetteville, NC
- PLL Portal, Shawnee, KS
- Tallahassee Portal Modifications, Tallahassee, FL
- Winston-Salem Cityworks AMS/PLL Implementation, Winston-Salem, NC

4. PRICING

PRICING

Fee

Following is the estimated planning numbers for a Fixed Fee for the tasks outlined above. Configuration costs will be billed monthly on a percent complete basis, travel and expenses will be invoiced on a direct cost basis, not to exceed:

Project Management	\$ 8,415.00
Initial IT/GIS assesment, Iniital setup & configuration	\$ 6,202.50
Cityworks AMS Discovery	\$ 17,375.00
Cityworks Server AMS configuration	\$ 34,437.50
Cityworks AMS Training	\$ 14,070.00
Testing	\$ 4,215.00
Go-Live	\$ 3,290.00
Optional Ad-hoc support services (16 hours)	\$ 3,160.00
Estimated travel expenses	\$ 4,096.00
Sub-Total Professional Services	\$ 95,761.00
New World ERP integration	\$ 20,135.00
Cityworks On-line (software & hosting, see atatched quote)	\$ 43,500.00

Cityworks Online (CWOL) – is a Cityworks Online services subscription for the right to access and use the Online Services for the products identified hereinabove. CWOL is a highly scalable software-as-a-service (SaaS) offering. It is hosted on Azteca Systems' servers and completely scaled, managed, updated, backed up, and maintained by Azteca Systems. Because Azteca Systems controls the update schedule, users are not responsible for upgrading, managing, or patching the system themselves.

Terms and Conditions

Payment Terms

Payment due within 30 days

Authorized to Invoice 30 days prior to renewal.

All quotations are valid for ninety-days (90) from the date above, unless otherwise stated in this quotation form. All prices quoted are in USD, unless specifically provided otherwise, above. These prices and terms are valid only for items purchased for use and delivery within the United States.

Unless otherwise referenced, this quotation is for the Cityworks software products referenced above only. Pricing for implementation services (installation, configuration, training, etc.), or other software applications is provided separately and upon request.

The procurement, installation and administration of the Esri software utilized in conjunction with Cityworks will be the responsibility of the customer.

The procurement, installation and administration of the RDBMS utilized in conjunction with Cityworks will be the responsibility of the customer. Currently, Cityworks supports Oracle and SQL Server. The procurement, installation and administration of the infrastructure (hardware and networking) utilized in conjunction with Cityworks will be the responsibility of the customer.

This quotation information is confidential and proprietary and may not be copied or released other than for the express purpose of the current system selection and purchase. This information may not be given to outside parties or used for any other purpose without written consent from Azteca Systems, LLC.

Software Licensing

All Azteca Systems software offered in this quotation are commercial off-the-shelf (COTS) software developed at private expense, and is subject to the terms and conditions of the "Cityworks Software License Agreement" and any and all addendums or amendments thereto. A fully executed copy of the Software License Agreement and any addendum(s) is required before delivery and installation and usage of the software is subject to the terms of the current license agreement.

Delivery method is by way of download through Azteca Systems, LLC. customer support web portal.

Taxes

Prices quoted do not include any applicable state, sales, local, or use taxes unless so stated. In preparing your budget and/or Purchase Order, please allow for any applicable taxes, including, sales, state, local or use taxes as necessary. Azteca Systems reserves the right to collect any applicable sales, use or other taxes tax assessed by or as required by law. Azteca Systems reserves the right to add any applicable tax to the invoice, unless proof with the order is shown that your organization or entity is tax exempt or if it pays any applicable tax directly.

International Customers

These items are controlled by the U.S. government and authorized for export only to the country of ultimate destination for use by the ultimate consignee or end-user(s) herein identified. They may not be resold, transferred, or otherwise disposed of, to any other country or to any person other than the authorized ultimate consignee or end-user(s), either in their original form or after being incorporated into other items, without first obtaining approval from the U.S. government or as otherwise authorized by U.S. law and regulations.

Azteca Systems, LLC - Cityworks | 11076 South State Street Suite 24, Sandf, UT 84070 | Corporate Main 801-523-2751 | Corporate Fax 801-523-3734

5. PROFESSIONAL SERVICES CONTRACT

Client: Consumes Community Services District
Contact: Pam Dawson
Phone No: 916.405.5308
E-mail: PamDawson@cspdparcs.com

Date: January ____, 2020
Principal: Ronald Butcher
Project Manager: Lauren Sullivan
Project Name: Consumes CSD Cityworks AMS Imp.

Dear Ms. Dawson:

Timmons Group is pleased to offer this proposal for the implementation of Cityworks AMS Server v 15.x with the Consumes Community Services District. We look forward to working with you to achieve your vision for this project.

Thank you for allowing Timmons Group to provide professional services on this project. We will provide the requested services, complying with established standards, while being mindful of costs to the Client (the "Client") named above according to the terms and conditions of this Letter of Agreement (the "Agreement"). Prior to submittal to a public agency, all documents will be sent to the Client, if requested, to ensure a complete understanding by all parties.

SCOPE AND SCHEDULE OF SERVICES:

Timmons Group will provide the services as detailed on the Scope of Services attached as Exhibit A (Section #2-Work Plan Cityworks Implementation, of this document: to be known as "Scope of Services"). We will provide services in a timely and efficient manner and will keep you informed of the job status and any necessary changes. We estimate that the project will be completed within 10-12 months of our receipt of written Notice to Proceed. Any changes required to the Scope of Services must be approved in writing before such changes take effect, and you will be notified by the Project Manager. As of the date first written above, any changes in the Scope of Services caused by governing codes or Client revisions may require a schedule and/or fee change. You will be notified of any such changes in writing by the Project Manager.

PAYMENT SCHEDULE:

FIXED FEE

Fees for this Agreement will be billed on a monthly basis as a fixed fee per the Scope of Services in Exhibit A.

TERMS AND CONDITIONS:

This Agreement shall be controlled by the provisions listed above and the Terms and Conditions attached as Exhibit B. If there is any conflict between the provisions of this Letter of Agreement and the Terms and Conditions, the Terms and Conditions shall control.

We will proceed upon receipt of this signed Agreement. Please note that fees quoted are valid for sixty (60) days from the date first written above.

REIMBURSEMENTS:

Any services and costs such as submittal fees, printing, courier, mileage and outside consultants not listed in the Scope of Services ("General Reimbursements") will be invoiced separately in addition to the professional services provided under this Agreement. Reimbursements may include a reasonable handling charge of up to 15% of cost. The Scope of Services may specify a Project Reimbursement Schedule to be attached as Exhibit C if applicable.

PAYMENT TERMS:

Unless otherwise provided under the terms of this Agreement, all payments are due upon receipt. Interest shall accrue at the rate of twelve percent (12%) per annum on all unpaid invoices older than thirty (30) days. We reserve the right to stop work on any Client account that becomes sixty (60) days past due and to notify local officials that professional seals should be removed from plans associated with the Client.

We will proceed upon receipt of this signed agreement. Should you have any questions, you can reach Lauren Sullivan directly at 858.254.3873 or via email at Lauren.Sullivan@timmons.com.

Timmons Group

Date

ACKNOWLEDGED AND ACCEPTED:

On behalf of the Client, this Agreement, including Exhibit A [Scope of Services] and Exhibit B [Terms and Conditions], is accepted and agreed to as of the date written below.

By: _____
Name: _____
Title: _____
Date: _____

Terms & Conditions

SCOPE OF SERVICES: The Scope of Services performed under this Agreement shall be as described in Exhibit A of the Letter of Agreement from TIMMONS GROUP to which these Terms and Conditions are attached. Separate Change Orders signed by authorized representatives of TIMMONS GROUP and the Client may, from time to time, describe additional or different services to be performed under this Agreement, such Change Orders are incorporated by reference herein. These Terms and Conditions shall apply to the Change Orders except to the extent expressly modified by such Change Order. TIMMONS GROUP services with regard to the specific properties covered by this Agreement and subsequent Change Orders, if any, shall hereinafter be referred to as the “Project” or “Projects.”

1. **DEFINED TERMS:** Capitalized terms used in this Exhibit B but not defined shall share the meanings ascribed in the Letter of Agreement.
2. **STANDARD OF CARE:** In providing services under this Agreement, TIMMONS GROUP will endeavor to perform in a manner consistent with the degree of skill and care ordinarily exercised by members of the same profession currently practicing under similar circumstances. It is not the intention of TIMMONS GROUP to provide or offers to provide services inconsistent with or contrary to such practices, nor to make any warranty or guaranty, expressed or implied, nor to have any agreement or contract for services subject to provisions of any section of any Uniform Commercial Code. Moreover, it is not the intention of TIMMONS GROUP to accept any terms and conditions offered by the Client in its purchase order, requisition, or notice of authorization to proceed except as set forth herein or as expressly accepted in writing. Written acknowledgement or receipt of the actual performance of services subsequent to receipt of any such purchase order, requisition or notice of authorization to proceed is specifically deemed not to constitute acceptance of any terms or conditions contrary to those set forth herein.
3. **CODE COMPLIANCE:** TIMMONS GROUP shall exercise usual and customary professional care in its efforts to comply with all applicable codes, laws, regulations and the policies of regulatory agencies in effect as of the date of the Agreement. Design changes made necessary by newly enacted codes, laws, regulations and the policies of regulatory agencies after the date of this Agreement shall be treated as an additional service subject to an executed Change Order and TIMMONS GROUP shall be entitled to appropriate additional compensation. The Client understands that different officials charged with the enforcement of such codes, laws, regulations and policies of regulatory agencies may have different or inconsistent interpretations of the requirements of such codes, laws, regulations and policies of regulatory agencies, and that TIMMONS GROUP shall not be liable for any damages arising from conflicting interpretations by different officials. In the event of a conflict between the codes, laws, regulations or policies of regulatory agencies which apply to the Project, TIMMONS GROUP shall notify the Client of the nature and impact of such conflict, and the Client agrees to cooperate and work with TIMMONS GROUP in an effort to resolve the conflict.
4. **ELECTRONIC FILES:** Because of the possibility that information and data delivered in an electronic file format may be altered, whether inadvertently or otherwise, TIMMONS GROUP reserves the right to retain the drawings, reports or other forms of electronic data generated and furnished by TIMMONS GROUP as instruments of service.

TIMMONS GROUP also reserves the right to retain hard copy originals of all Project documentation which is delivered to the Client in electronic file format, which originals shall govern in the event of any inconsistency between the two. It is also understood that the automated conversion of information and data from the system and format used by TIMMONS GROUP to an alternate system or format may not be able to be accomplished without the introduction of inaccuracies, errors and anomalies. In the event any Project documentation provided to the Client in electronic file format is so converted by the Client, or someone acting on the Client's behalf, Client agrees to assume all risks associated therewith, to remove from copies provided to the Client all identification reflecting the involvement of TIMMONS GROUP in their preparation and to the fullest extent permitted by law, to hold TIMMONS GROUP harmless and indemnify it from and against any claims, liabilities, damages, losses and costs, including but not limited to attorney's fees, arising therefrom or in connection therewith.

5. **GOVERNING LAW:** This Agreement shall be governed according to the laws of the State of California.
6. **THIRD PARTY RIGHTS:** This Agreement shall not create any rights or benefits to parties other than the Client and TIMMONS GROUP.
7. **ASSIGNMENT:** This Agreement may not be assigned without the prior written consent of the Client and TIMMONS GROUP, such consent not to be unreasonably withheld.
8. **PROJECT SITE SAFETY:** TIMMONS GROUP's Project site responsibilities are limited solely to the activities of TIMMONS GROUP and TIMMONS GROUP's employees on the Project site. These responsibilities shall not be inferred by any party to mean that TIMMONS GROUP has responsibility for Project site safety. The Client and TIMMONS GROUP agree that Project site safety is the sole and exclusive responsibility of the Project's owners or contractor(s). The parties likewise agree that the Project contractor(s) is solely responsible for Project means, methods, techniques, sequences of operation and procedures, and that TIMMONS GROUP shall have no obligations relating to these contractor(s) duties.
9. **LIMITATION OF LIABILITY:** To the fullest extent permitted by law, except as expressly stated in this Agreement, Timmons Group makes no representations or warranties, express or implied. Notwithstanding any other provision of this Agreement, the maximum liability, in the aggregate, to the Client and anyone claiming by or through the Client, of TIMMONS GROUP and its officers, directors, shareholders, partners, employees, agents and subconsultants, and any of them, for any and all claims, losses, or damages, including attorney's fees, in any way related to or arising from the Project or this Agreement, shall not exceed the total compensation received over the past six calendar months by TIMMONS GROUP under this Agreement, or \$50,000, whichever is greater.
10. **INDEMNIFICATION:** TIMMONS GROUP agrees, to the fullest extent permitted by law, to indemnify and hold harmless the Client, its officers, directors and employees, against all damages, liabilities or costs, including reasonable attorney's fees and defense costs, to the extent caused solely and directly by the negligent performance of professional services by TIMMONS GROUP or its agents under this Agreement. The Client agrees, to the fullest extent permitted by law, to indemnify and hold harmless TIMMONS GROUP, its officers, directors, employees and agents, against all damages, costs and liabilities, including reasonable attorney's fees, caused solely by the Client's negligent acts in connection with the Project or that of its Contractor(s), subcontractors or consultants or anyone for whom the Client is legally liable. Neither TIMMONS GROUP nor the Client shall be obligated to indemnify the other party in any manner whatsoever for the other party's own negligence.

6. OPTIONAL GIS DATAMODEL REVIEW/OPTIMIZATION METHODOLOGY

Task 1 – Data Needs Discovery

Timmons Group will perform a needs assessment and discovery to review and ensure that the organization's data and automated processes will be converted efficiently. Factors included in this review are an analysis of the data model with respect to the organization's existing data and maintenance procedures, automated processing, and future enhancements by both the organization and Esri.

Timmons Group will provide a review of the **organization's** data and the proposed data model to the **organization** prior to proceeding with data conversion to ensure that the **organization's** needs are met and/or exceeded.

Task 2 – Data Audit and Cleanup

Timmons Group has developed a solid infrastructure for quality control and quality assurance (QA/QC) in support of our data services. Data quality control begins by establishing the data parameters and domains that define data type, content, and format. The parameters include geometric and attribute logic checks.

Where possible, we incorporate the latest data QA/QC tools offered by the Esri (specifically, Workflow Manager, Data Reviewer and Task Assistant Manager) to automate, standardize, and manage the data processes. It provides tools and a collaborative and shared environment to improve the quality, value of geospatial data, and cartographic products through standardization, repeatability, and configuration of your production processes.

Data quality parameters are used to configure the Esri work processes and data checks tools by leveraging the checks provided by Esri and then adding checks that are specific to your data (e.g. specific domain values for parcel attribution). Once configured, the tools are used to guide and manage our technical staff's data conversion and QC processing.

The benefits of using this approach and tools include:

- Clear and concise business driven data development specifications
- Streamlined GIS data creation, maintenance and map product production
- Early delivery and testing of data products to ensure they meet the business requirements
- Collaborative QA/QC between Team and Client
- Automated Data Validation
- Quickly navigate errors
- Zoom to features with errors
- Automated Error Tracking and Resolution with
 - Error notes
 - Correction Status
 - Validation Status

Task 3 - Data Conversion and Migration

It is likely the Organization's desire to use Esri's local government data model (LGIM) for their schema. The needs assessment will produce a document detailing the migration from the **organization's** current database design to the LGIM. All data and settings will be migrated over, i.e.: versions, subtypes, domains. Timmons Group will work with the client team to ensure that the newly developed database is successfully deployed within the **organization's** internal GIS.

Task 4 – Data Cleanup

Our data creation and cleanup processing is typically managed using the Esri Production Mapping tools (specifically, Workflow Manager, Data Reviewer and Task Assistant Manager) to automate, standardize, and manage the data creation and QA/QC processes. We have extensive experience using industry ETL tools in the market today. This includes the Esri Data Interoperability Extension (FME Workbench) and FME from Safe Software. We have setup ETL processes for on-time, periodic, and continuous use applications. We also provide training on the setup and use of ETL tools for our clients, should the need arise.

The GIS data conflation of incongruent or duplicate geospatial data may require a process consisting of a two-step approach – automated and manual. Conflation requires a solution of two generic Geoprocessing problems: Feature alignment and

feature matching. The term "features" implies lines, points and polygons and annotation that comprise topological digital maps. The conflation process requires the establishment of links between common elements in each data set.

Timmons Group will use Esri's **Data Interoperability Extension** along with native Conflation techniques to assist in recreating overlays generate polygons from existing Overlays. Timmons Group will also incorporate a robust Data Reviewer regimen to review problematic areas in the migration. At the end of this process, the resultant data will be incorporated into the data schemas.

Quality Assurance

Timmons Group implements formalized infrastructure for quality control and assurance (QA/QC) in support of all of our database development services. Our project team will be using this infrastructure to perform the data development quality assurance and quality control for this task.

Task 5 – Workflow Enhancement

Where possible, Timmons Group incorporates the latest data QA/QC tools offered by Esri, specifically the Production Mapping tools (Data Reviewer and Task Assistant Manager) to automate, standardize, and manage the data development and QA/QC processes. This limits the number of custom tools required to support data development and helps produce geospatial content through managing and publishing accurate data and cartographic products with fewer resources.

The benefits of using this approach and tools include:

- Clear and concise business driven data development specifications
- Streamlined GIS data creation, maintenance, and map product production
- Automated Data Validation
- Quickly navigate errors with Automated Error Tracking and Resolution with
 - Error notes
 - Correction Status
 - Validation Status

Error reports can be generated for managers or data technicians for resolution. In addition to exporting results to PDF, the ArcGIS interface also presents to the user all error results allowing them to zoom to individual feature errors, resolve the error, rerun the validation, and move to the next issue. ng the tools mentioned above provides a more concise and accurate editing workflow.

7. OPTIONAL GIS SERVICES

RANGE OF SOLUTIONS PROVIDED

Timmons Group Provides the following solutions & services:

Timmons Group is unique as it is one of three of Cityworks solution providers that is both a Platinum Implementation Partner and a Strategic Development Partner. We have been a Cityworks business partner for over 16 years. We are the sole Certified Implementation Partner with CitySourced, a public facing citizen engagement tool.

Our typical implementation services for Cityworks includes 2 to 3 integrations to other systems with our clients. These integrations include:

- Financial
- Customer Engagement
- CSM/CSR (Customer Service, billing)
- AVL
- SCADA
- CCTV
- Fleet Management
- Fuel Management
- Building/Facility Management
- Animal Control

Timmons Group offers a comprehensive suite of GIS services to support government enterprise GIS including: Planning, Design, Development, and Implementation. We have extensive experience in providing these services gained through over 1500 successful GIS projects in the last 28 years.

GIS Planning

Timmons Group provides GIS planning as part of our RoadMap Strategic Planning services described in the response to G. Strategic Planning Assistance below.

Emerging Geospatial Technologies

One of the more valued assets we provide our clients is our understanding and insight into the future of GIS, specifically integrating geospatial tools and analytics into client business operations and decision support systems. Our depth of geospatially staff and SMEs in many government services disciplines (Program Management, Asset Management, Water and Wastewater Utilities, Natural Resource Management, Financial Systems, Operations Management, Transportation, Logistics) enable us to see emerging trends within the geospatial world that can be applied to these disciplines.

GIS Cost to Benefit Analysis

Timmons Group provides cost benefit analysis for implementing GIS for enterprise and tactical level GIS implementations. The analysis is typically very specific to a specific client's needs, available resources, and clients (e.g. public and internal users). The costs are typically defined in terms acquisition and maintenance costs (e.g. hardware, software, data, staffing) thru time. Benefits we typically consider include: improved decision support for office and field operational and management staff, more timely and accurate information provision, automated data sharing, improved work processes for the field and operational staff, reduction in data maintenance through data sharing, reduction in the time it takes to find, prepare, and present information to the public, and reduction in the time it takes to provide data to the public.

Database Development and Management

Timmons Group has been **developing GIS databases to support government GIS since well before the advent of Esri standardized data models.** When Esri introduced their standard data models, **Timmons Group participated in the testing as a Beta site.** The objective of Geodatabase design is to develop a functional, well-organized database which satisfies organizational requirements, contains all necessary data, accommodates different views of the data, meets requirements of applications, and appropriately represents, codes, and organizes geographic features. We use Esri



platform tools and industry specific data models as a point-of-departure to configure the geodatabase for our client's specific needs. We have assisted local government clients with developing GIS in a wide variety of business areas including:

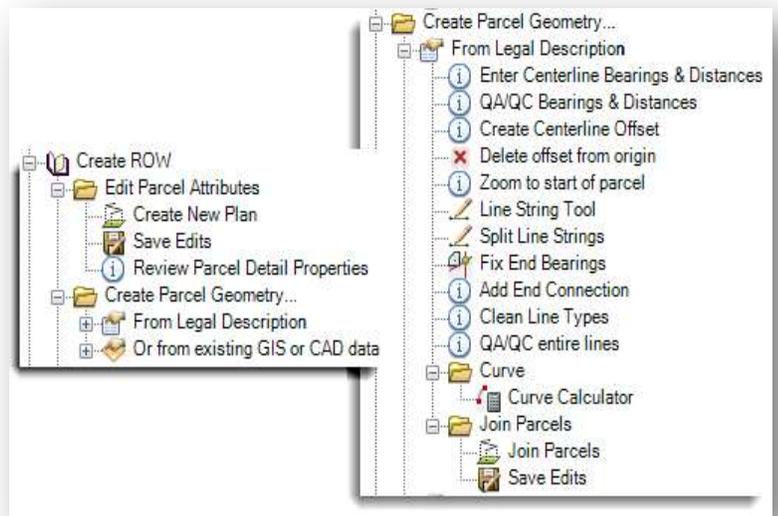
- Planning
- Cadastral mapping
- Emergency operations
- Utilities management
- Asset management
- Natural resource management
- Economic development

GIS Work Process Design

Our work process design typically starts once the existing business processes and needs are documented. The required changes to the existing processes to support the needs and geospatial integration are analyzed. Consideration is given to the use environment (workstation, mobile, connected, disconnected) the user functional needs (viewing, collection, reporting, etc.) and the available infrastructure. Work processes are created using application development tools (.net, HTML5, etc.) and data management tools (e.g. Esri Workflow Manager, Data Reviewer and Task Assistant Manager) to define and manage the processes.

GIS Data Management Tools

Timmons Group leverages the Esri ArcGIS Workflow Manager (WMX) to define and implement standards for GIS data management and maintenance. WMX extends the core GIS data editing tools by providing a centralized enterprise job management and tracking system to streamline data management and maintenance. Workflow manager components typically use include the Task Assistant Manager and Data Reviewer. Both components are leveraged through workflow configurations.



GIS Analytic Services

Timmons Group GIS modeling and analysis services provide our clients access to industry leading GIS analysis resources with experience in a wide variety of business verticals. Our GIS analysis services enable our clients to get timely decision support information without having to maintain a staff of GIS analysts.

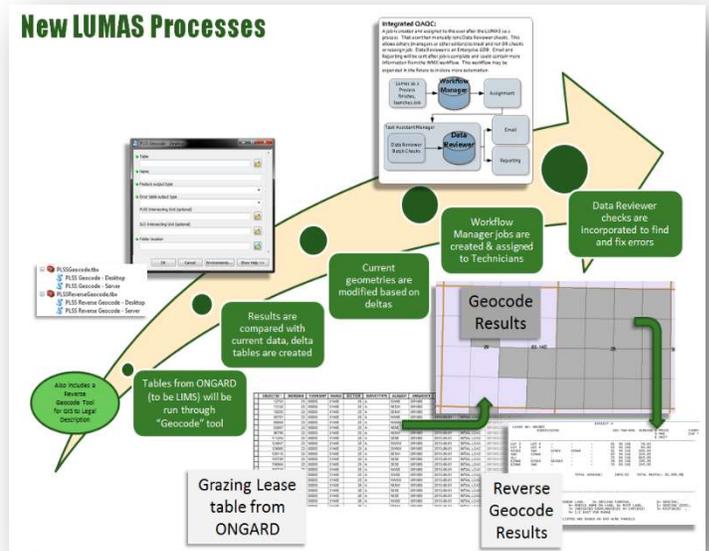
GIS analysis engagements can take many different forms, depending on the specific project needs. Sometimes we provide on-site staff augmentation resources working side-by-side with client staff to achieve a defined goal and provide knowledge transfer. Other times, our clients come to our offices and have access to our entire human and GIS resources that can be focused on specific client needs.

Analytic processes and data flows are defined and created using Industry standard and custom business information tool sets. The analysis tools transform the data into documentable and repeatable information sets that support the key performance metrics. The analysis scope and update frequency is defined by the business needs, available data, and user presentation tool selection.

Examples of GIS analysis for government activities include but are not limited to:

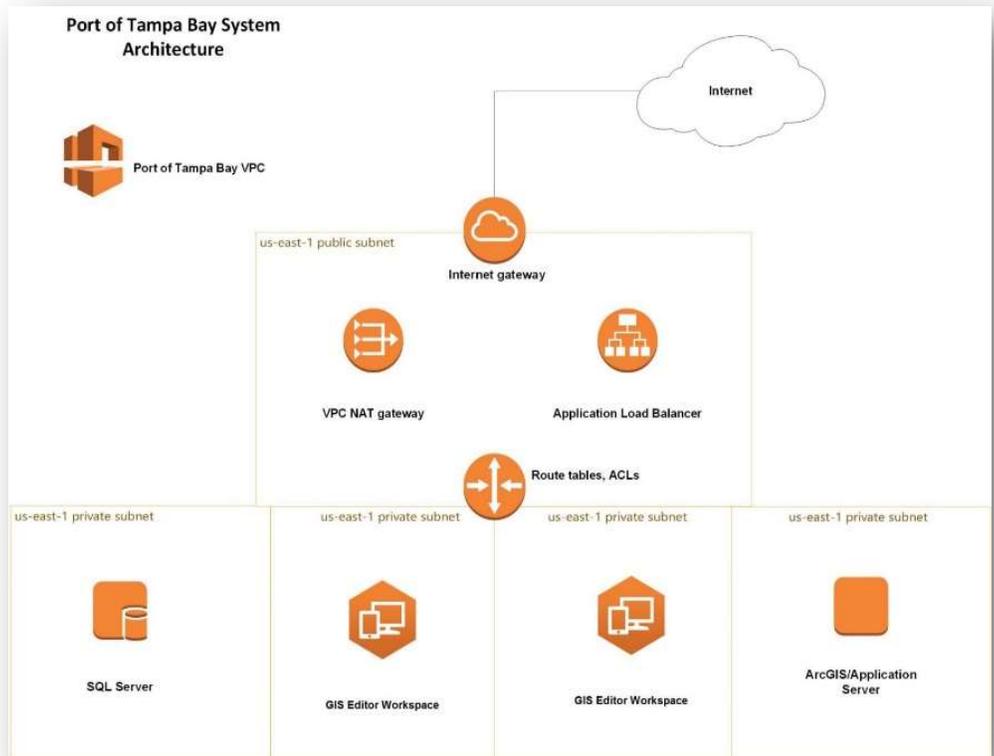
- GIS system design
- Map design and production
- Economic development
- Land planning and management
- Political and School redistricting
- Transportation routing
- Intelligent Transportation Systems design and implementation
- Financial systems integration
- Land rights and water rights adjudication assistance
- Utility systems management and predictive modeling

The graphic below shows analysis work for integrating geospatial tools into the management of surface and sub-surface land rights for the State of New Mexico.



Systems Architecture Testing, Documentation, and Recommendations Development

Timmons Group has GIS architecture SMEs who provide GIS infrastructure design, testing, evaluation, and documentation services to ensure that business users get the level of service required for their specific application needs. Our services typically include documenting the specific business application performance needs and testing existing GIS infrastructure. We look at processing speed, bandwidth, storage, and security required to support the business applications. We then use testing software and processes to stress test the existing systems and evaluate the performance against the business requirements. The existing infrastructure test results are evaluated using the user performance needs. We document the infrastructure performance gaps then develop recommendations to mitigate the gaps and guide the GIS infrastructure evolution.



GIS Data Services

Our GIS data services include the design, development, documentation, and population of geodatabases to support a wide variety of business user's needs. Timmons Group provides the staffing and work process tools to support data conversion from paper to digital and between digital formats Extract Translate and Load (ETL) processing. Our document conversion

processing is typically managed using the Esri Production Mapping tools (specifically, Workflow Manager, Data Reviewer and Task Assistant Manager) to automate, standardize, and manage the data development and QA/QC processes.

GIS Integration

As our client's business needs evolve, the GIS must also evolve to meet those needs. More and more, we see this evolution drive the need to integrate GIS and non-GIS systems to leverage the information resources stored and maintained in a variety of legacy systems throughout the organization. Using GIS tools and interfaces to aggregate, analyze, and display data is a good approach because most people think and respond better to information presentation in integrated data/map display environments.

Timmons Group has expertise with integrating a variety of systems with Enterprise Esri GIS solutions, including Financial, Transportation, Emergency services (E-911 & NG911), CMMS, SCADA, and Asset management enterprise systems. Timmons Group is well-versed in identifying and documenting integration points in a variety of products. System integration can be done using several different methods depending on the business need and legacy system capabilities. These methods range from a periodic data file download/upload exchange to fully automated transaction-level exchange where systems are updating each other's data on continuous basis.

Data Quality Assurance

We incorporate the latest data QA/QC tools offered by the Esri Production Mapping tools (specifically, Workflow Manager, Data Reviewer and Task Assistant Manager) to automate, standardize, and manage the data development and QA/QC processes. This limits the amount of custom tools required to support data development and helps produce geospatial content through managing and publishing accurate data and cartographic products with fewer resources.

GIS Application Development

Timmons Group provides GIS applications development to present data in standalone and web environments. Please see the Applications Development services described in the response for details or our application development approach

Training

We provide GIS training to operational and end user staff. The training is task oriented and focuses on using GIS applications developed as part of the project deliverables and COTS Esri GIS tools.

For our client's technical staff, we offer "over the shoulder" training focused on operating the GIS and applications to ensure they are available for the end user. For the end user, our training is typically focused on using the application as part of their business process. In addition to end-user training, if requested, we also provide staff evaluation and recommendations for GIS specific training, based on the specific staff responsibilities (systems maintenance, software maintenance, etc.).

Our Geospatial staff technical writer provides supplementary manuals, descriptive documentation, and metadata for all geospatial services.

Staff Augmentation Services

Timmons Group provides on-site, contract staffing to assist our clients with geospatial system development and operations. We offer full-time staff with experience in systems design, data modeling, data development, and GIS analysis services. Our depth of staff allows our services to be custom fit for diverse experience requirements and budget constraints. We can support your staffing needs ranging from a few weeks to a few years. Below is a list of sample GIS staff augmentation clients:

- North Carolina DOT – We currently provide on-site staff augmentation to support the design and implementation of Esri Roads and Highways. This includes systems design, testing and acceptance of contractor (Esri) application and data deliverables, business process documentation and design, and systems integration.
- Virginia DOT – Timmons Group has staffed up to 15 people onsite at VDOT. These positions are long-term onsite positions that work primarily on GIS Technician and Analyst roles. Some of the staff have been at VDOT onsite for multiple years working alongside full-time VDOT staff. They have reach back capabilities to the main Timmons Group office as well.
- Dominion Power – Dominion is a Fortune 200 private company that leverages Timmons Group staff for field and office support. This is supplied through multiple full-time positions located throughout their service territory. Most positions have been in place for multiple years. Staff focus on field GIS services and in-office technical editing and

data management tasks.

- Missouri Department of Conservation – Timmons Group provides onsite and offsite support to the large and complex organization. We provide back office support for highly complex ArcGIS server implementations with multiple Geodatabases, servers and load-balanced environments. We also offer technical programming support to the entire organization and have done so successfully for the last 5+ years.

Timmons Group also provides the following engineering and surveying services:

- Site/Civil Engineering
- Stormwater Infrastructure
- Environmental Services
- Survey & Mapping
- Traffic & Transportation
- Structures & Bridges
- Economic Development
- Landscape Architecture
- Right of Way Services
- Geotechnical Engineering & Testing
- Water & Wastewater Engineering
- LEED® & Envision™ Sustainable Design

STAFF REPORT

DATE: October 7, 2020
TO: Board of Directors
FROM: Michael W. McLaughlin Fire Chief
SUBJECT: 2019 SAFER GRANT AWARD ACCEPTANCE



RECOMMENDATION

The Board of Directors:

1. Accepts the Federal Emergency Management Agency (FEMA) 2019 Staffing for Adequate Fire and Emergency Response (SAFER) grant award as required by the granting agency; and,
2. Authorizes the General Manager to execute any and all documents related to accepting the grant funding from FEMA.

BACKGROUND/ANALYSIS

The Cosumnes CSD Fire Department was awarded a three-year Federal Emergency Management Agency 2019 Staffing for Adequate Fire and Emergency Response (SAFER) grant to cover the salaries and benefits for 15 new firefighter positions and five attrition positions in the amount of \$7,126,890.60.

Typically, SAFER grants require local cash or in-kind match. For the 2019 grant, due to COVID-19 financial hardships, FEMA has waived the cost-share requirements for the award. Therefore, the SAFER grant award will cover 100% of the salaries and benefits of 20 firefighters or firefighter-paramedics for the three-year Period of Performance with no cash or in-kind requirement.

The SAFER Grant award must be accepted or declined on or before October 16, 2020. With Board of Directors approval to accept the SAFER grant award, District staff will accept the FEMA Grant Outcomes system.

The current recommended action is to accept the grant, and does not authorize staff to initiate a recruitment, fill any positions, or expend any funds. Additionally, this action does not authorize the initiation of the construction of Station 77. Staff will be bringing a comprehensive Station 77 Business and Operations Plan to the Board of Directors for consideration as a separate action.

FINANCIAL ANALYSIS

There are not any financial impacts associated with this action. Staff will present a comprehensive fiscal analysis for Board approval before any funds are encumbered or expended.

SUSTAINABILITY ANALYSIS

There are not any sustainability impacts associated with this action.

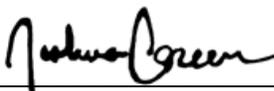
Should you have any questions, please contact me before the Board meeting.

Respectfully submitted,



Michael W. McLaughlin, CFO
Fire Chief

Staff Report recommendation authorized by:



General Manager

Approved as to Form:



General Counsel

STAFF REPORT

DATE: October 7, 2020
TO: Board of Directors
FROM: Joshua Green, General Manager
SUBJECT: APPROVAL OF FIRE CHIEF CONTRACT



RECOMMENDATION

The Board of Directors authorizes the General Manager to execute an employment contract with Felipe Rodriguez for the position of Fire Chief.

BACKGROUND/ANALYSIS

On July 22, 2020 Fire Chief Mike McLaughlin announced his planned retirement. Chief McLaughlin intends to retire in December, 2020.

The District contracted with recruitment firm Peckham & McKenney to conduct a national recruitment process for its next fire chief. The District also conducted an extensive outreach and recruitment process by advertising the position on CSDA, ICMA, Sacramento Black Chamber of Commerce, Sacramento Employment and Training Agency, Government Finance Officers Association, Governmentjobs.com, Careers in Government (with cross posts in DEI markets including African American, Asian, Latino, LGBTQ+, Veterans, Women, Retirement, Disability), Daily Dispatch, LinkedIn, Pro Able, Western Cities, IAFC, and the Professional Diversity Network (which encompasses the following sites: iHispano, BlackCareerNetwork, WomensCareerChannel, Military2Career, ProAble, AsianCareers, OutProNet, and Prodivnet). The District received 55 applicants, with 56% from California and 44% from out-of-state.

After multiple rounds of interviews, the District issued a conditional offer of employment to Felipe Rodriguez. Chief Rodriguez currently serves as the Fire Chief for the City of Folsom.

Chief Rodriguez would become the District's Fire Chief on October 31, 2020.

Should you have any questions, please contact me prior to the Board meeting.

Respectfully submitted,

Joshua Green
General Manager

Attachment: Fire Chief Contract

Attachment

**EMPLOYMENT CONTRACT
BETWEEN
FELIPE RODRIGUEZ
AND THE
COSUMNES COMMUNITY SERVICES DISTRICT**

This Employment Contract (“Contract”) is dated October 7, 2020, for reference purposes only, and is entered into by and between the General Manager, on behalf of the Cosumnes Community Services District (“District”) and Felipe Rodriguez (“Employee”).

NOW, THEREFORE, FOR GOOD AND VALUABLE CONSIDERATION AND THE PROMISES, AND COVENANTS OF DISTRICT AND EMPLOYEE SET FORTH IN THIS CONTRACT, DISTRICT AND EMPLOYEE AGREE AS FOLLOWS:

I. TERM.

- A. Employee, in consideration of the compensation set forth in this Contract, shall serve as the Fire Chief for the District, commencing on October 31, 2020. This Contract shall thereafter continue in full force and effect for an on-going and indefinite term until such time as either party terminates this Contract pursuant to the provisions hereof. Notwithstanding, the foregoing, Employee’s employment as Fire Chief shall be at will. This means that employee may be terminated from his employment with the District at any time, without cause, and without notice, subject to the provisions hereof.

II. COMPENSATION.

- A. Base Salary. District agrees to pay Employee an annual base salary for services rendered in the amount of Two Hundred Forty Five Thousand Four Hundred Eighty Four Dollars (\$245,484). Salary shall be payable in installments on periodic paydays established by the District at the same time that the other employees of the District are paid and subject to all appropriate deductions and withholdings.
- B. Salary Adjustments. Employee shall receive annual compensation cost of living increases, effective the first day of July, commencing July 1, 2021 to the Base Salary at a rate equal to the February Annual Consumer Price Index - West Region as published by the U.S. Department of Labor, Bureau of Labor Statistics (CPI), based on the amount of Employee’s salary as may be adjusted from time to time. Employee’s salary shall not be adjusted downward as a result of a decrease in the above-referenced Consumer Price Index.
- C. Step Increase. If applicable, on or after each December 1 of this Contract, commencing December 1, 2021, the General Manager shall determine whether Employee shall receive a step increase as a result of Employee’s performance for the preceding year of service. Employee is not guaranteed any step increase. The decision of whether to provide a step increase is committed to the discretion of the General Manager.
- D. Mutual Aid Incident Participation. While Employee is assigned to a mutual aid emergency response per the California Fire Service and Rescue Emergency Mutual Aid System for which the District will receive reimbursement, Employee

will be paid a straight-time base hourly rate for all hours devoted portal-to-portal (meaning from the dispatch of assignment until the return from the assignment). The straight-time base hourly rate is calculated as follows: Employee's annual base salary divided by 2,080 = \$ straight-time base hourly rate. Employee is not entitled to be paid at an overtime rate, no additional pays are calculated into the straight time rate, and Employee does not accrue any additional paid leave than otherwise would have been accrued if not assigned to the mutual aid response. Employee's eligibility for portal-to-portal strike team pay does not change employee's exempt status. Employee is not eligible for any hourly pay when performing any normally assigned tasks and will continue to be paid on a salaried basis when not assigned to mutual aid. Ongoing participation by the Employee in mutual aid responses shall be at the District's discretion. Employee will return from a mutual aid assignment (or decline requests to participate) if requested by the General Manager to address necessary District business.

III. PROFESSIONAL DUTIES AND RESPONSIBILITIES.

- A. Fire Chief. Employee shall serve as the Fire Chief, as such is responsible for the District Fire Department, and shall provide the duties and responsibilities of the Fire Chief, as set forth in Appendix "B," which may be amended from time to time by written mutual agreement of Employee and the General Manager. As Fire Chief, Employee shall report to, and is directly accountable to the General Manager.
- B. Professional Duties. Employee shall perform all duties prescribed by the laws, rules and regulations of the State of California and the Board and shall carry out all lawful directions of the General Manager and the Board.
- C. Full-Time Employment. The position of Fire Chief is a full-time position, and Employee is expected to devote the whole of his working time, skill, experience, knowledge, energy, attention, and best effort exclusively to the District's business and affairs. As a result, Employee shall not engage in any off- duty activity or employment that interferes with the legitimate interests of the District or the employee's ability to perform the duties and responsibilities set forth herein. Any outside employment shall require advance written approval of the General Manager.
- D. Conflicts of Interest. Employee is specifically informed that he must avoid situations involving actual or potential conflicts of interest. By way of illustration and not limitation, supervisor-subordinate romantic or close personal relationships with subordinates pose a conflict of interest for the District because they could adversely affect morale and productivity, because they could reflect poor business judgment, and because they may increase the District's risk of liability.

IV. DUTY - NONDUTY DAYS AND OTHER BENEFITS.

- A. Regular Service. Employee shall be required to render service to the District during the Term of this Contract at a level necessary to satisfy and fulfill the requirements of the Employment. Employee work schedule shall be subject to the direction and prior approval of the General Manager.
- B. Annual Vacation

1. Employee shall be afforded paid vacation in accordance with the Employee Handbook of the Cosumnes Community Services District.
2. At the conclusion of this Contract, or in the event of early termination (see Article IX), Employee shall be entitled to full compensation for all accrued and unused vacation.
3. The General Manager reserves the right to direct the use of vacation by Employee.
4. Employee may elect to cash-out vacation hours in accordance with the following conditions:
 - (a) On or before December 1 of each calendar year, Employee may elect to cash-out up to the full amount of vacation he will accrue during the following calendar year (“the Accrual Period”).
 - (b) This option for a cash-out is optional. Employee does not have to cash-out any vacation hours. If Employee elects to cash-out any vacation hours, he should complete a cash-out election form provided by the District.
 - (c) Employee’s election is final. Once Employee decides to cash-out vacation from the Accrual Period, that election cannot be changed.
 - (d) The District will pay the cash-out in accordance with the following and on the following dates (“Cash-Out Date”): If Employee elects to cash-out 100% of his accrued vacation for the Accrual Period, 50% of that accrual will be paid in June, and the remainder will be paid in December. If Employee elects to cash-out 50% or less of his vacation accrual for the Accrual Period, then the entire amount will be cashed-out in June.
 - (e) If Employee’s employment ends before the Cash-Out Date, then Employee is only eligible for payment of the time actually accrued on a pro rata basis during the Accrual Period.
 - (f) Vacation will be paid out at Employee’s standard rate of pay in effect at the time the vacation is paid.
 - (g) If the amount of unused vacation hours accrued during the Accrual Period remaining on the Cash-Out Date is less than the amount of hours that Employee elected to cash-out, the District shall adjust the election to be consistent with the remaining hours.

C. Sick Leave

1. Employee shall be afforded sick leave in accordance with the Employee Handbook of the Cosumnes Community Services District.

2. There shall be no cash compensation for unused sick leave upon termination of Employee's employment with the District.
3. Unused sick leave benefits shall be converted for retirement credit as provided for in Section 20965 of the Government Code, under the Public Employee's Retirement Law.

D. Other Leaves, Retirement and Health and Welfare Benefits

1. General Benefit Policies. Employee shall be provided with such other leaves, retirement and health and welfare benefits in accordance with the provisions of Appendix "D". If neither Contract or Appendix "D" addresses such benefits, then Employee will be provided with other terms and conditions of employment in the Employee Handbook (as set forth on the execution date of this Contract).
2. Holiday Leave. Employee shall be provided with Holiday Leave as provided in Appendix "D".
3. CalPERS. The District contracts with the California Public Employees' Retirement System ("CalPERS") for retirement benefits. Employee will be entitled to those benefits under the terms of the contract between the District and CalPERS. The applicable retirement formula will be determined by CalPERS after the District has enrolled Employee into CalPERS.
 - (a) Classic Members shall pay three percent (3%) of the employer retirement contribution, which shall be automatically deducted from Employee's base salary each pay period. These retirement contributions will be made on a pre-tax basis.
 - (b) Classic Members shall pay an employee retirement contribution equal to nine percent (9%), which shall be automatically deducted from Employee's base salary each pay period on a pre-tax basis. Additionally, the employee is responsible for a contribution of .06% for contracted survivor benefits. Total Classic member contribution shall be 12.06%.
 - (c) PEPRA Members shall pay a retirement contribution equal to 10.81% (10.75% PEPRA contribution and .06% contracted survivor benefits).
4. Administrative Leave. Employee shall be entitled to one hundred twenty (120) hours of administrative leave per fiscal year in recognition of after-hours business commitments. Employee may not carry over any administrative leave bank balance past June 30 of each year. Any unused Administrative Leave will be cashed out in Employee's final paycheck of each fiscal year.
5. Retiree Medical Benefit. Subject to Employee meeting eligibility

requirements to enroll in a CalPERS health benefit plan, after the fifth (5th) anniversary of the commencement date of Employee's employment, Employee shall be entitled to complete the same number of years of continuous employment with the District as members of the Management Employees Organization (MEO), but not to exceed seven (7) years, in order to be eligible for the same post-retirement health benefit available to members of MEO. The preceding sentence applies only to Employee's eligibility for post-retirement health benefits. Any District contribution towards Employee's post-retirement health benefits shall mirror MEO's vesting schedule including, without limitation, years of service requirements and amounts.

6. Retiree Health Trust Account Contributions. Employee shall contribute three percent (3%) of Employee's base salary toward the irrevocable medical trust account to fund the liability related to retiree medical costs. Contributions made toward the trust shall be on a pre-tax basis.
7. Cafeteria Plan. The District has established a Section 125 compliant Cafeteria Plan ("Plan") to provide a vehicle for the payment of health benefit premiums on a pre-tax basis.

District Contributions to Plan: the District agrees to contribute a dollar amount equal to the lesser of either the Kaiser (KN) or Blue Shield Access+ (BS) rate (as set forth below) in the month the benefit is received for medical insurance coverage.

Employee Only, 100% of the applicable monthly rate minus \$85.00;
Employee + 1 dependent, 100% of the applicable monthly rate minus \$175.00;
Full Family, 100% of the applicable monthly rate minus \$225.00.

V. GOALS AND OBJECTIVES.

- A. At the discretion of the General Manager, Employee and the General Manager may, at least once during each fiscal year, meet to establish the District's goals and objectives for Employee for the subsequent fiscal year.

VI. EVALUATION.

- A. Annually, or at such other time as desired by the General Manager, the General Manager and Employee shall meet to evaluate the performance of Employee. Nothing in this Contract is to be construed to require General Manager to evaluate Employee solely upon the performance standards, if any, mentioned above, nor to limit the discretion of the General Manager to evaluate Employee as it deems necessary in the sole discretion of the General Manager.
- B. If General Manager determines that performance of Employee is unsatisfactory in any respect, a written report shall describe such unsatisfactory performance in reasonable detail. The evaluation shall include recommendations for improvement in all areas where the General Manager deems performance to be unsatisfactory and will

include timeline expectations for corrective actions. In such cases, the Employee shall have the right to make a written response to the report within twenty (20) days.

VII. PROFESSIONAL GROWTH.

- A. The District encourages the continuing professional growth of Employee through participating in:
 - 1. The operations, programs and other activities conducted or sponsored by local, state and national associations related to community services districts;
 - 2. Seminars and courses offered by public or private educational institutions;
 - 3. Informational meetings with other persons whose particular skills or backgrounds would serve to improve the capacity of Employee to perform professional responsibilities for District; and
 - 4. Community Service Organizations.
- B. Employee shall be permitted a reasonable amount of release time to attend such matters and District shall pay, in accordance with policy, necessary travel, registration/tuition and subsistence expenses, and other District costs of such participation.
- C. In all cases, advance written approval shall be obtained from the General Manager as a condition of receiving reimbursement.

VIII. EXPENSE REIMBURSEMENT AND STIPENDS.

- A. General. Employee shall be reimbursed for all actual and necessary expenses incurred within the scope of employment. Reimbursement shall be in accordance with District policy.
- B. Transportation. Employee shall be provided with a District vehicle and District credit card for fuel to be used in the performance of his official duties, in a manner specified by the Fire Chief. Should Employee use his own vehicle for any approved District travel outside Sacramento County, Employee will be compensated at the mileage rate set forth in the Employee Handbook or, if none, at the rate set by the Internal Revenue Service (IRS).
- C. Professional Organizations and Committees. District shall pay membership fees for Employee in various professional organizations and committees subject to prior approval by the General Manager. Employee shall be encouraged to participate in such activities.
- D. Uniform and Boot Allowance. District shall provide Employee with uniform and boot allowance of One Hundred Ten Dollars (\$110) per month.
- E. Technology. District shall provide Employee with a technology allowance of One

Hundred Fifty Dollars (\$150.00) per month to ensure constant District access by telephone and email.

- F. Chief Officer Designation Stipend. District shall provide Employee with a stipend of Three Hundred Fifty Dollars (\$350) per month for possession of a certification and designation as a Chief Officer by the State of California State Fire Marshal's Office.
- G. EMT License. District shall provide Employee with a stipend of One Hundred Fifty Dollars (\$150) per month for possession of a current and valid EMT license.
- H. Paramedic License. District shall provide Employee with a stipend of Four Hundred Dollars (\$400) per month for possession of a current and valid Paramedic License.

IX. TERMINATION OF CONTRACT; SEVERANCE

Employee understands and agrees that he has no constitutionally protected property or other interest in employment as Fire Chief. Employee understands and agrees that he works at the will and pleasure of the District, and that he may be terminated, or asked to resign, at any time, with or without cause in accordance with the provisions below. This Contract may be terminated by:

- A. Mutual agreement of the parties.
- B. Retirement /Resignation of Employee. Employee may voluntarily terminate employment at any time by giving not less than sixty (60) days' notice.
- C. By the District with Cause.
 - 1. In the event of discharge for cause, which shall be defined as conduct which is seriously prejudicial to District, this Contract may be terminated. This shall include by way of illustration and not limitation: unprofessional conduct, neglect of duty, or a breach of this Contract.
 - 2. Should the General Manager elect to terminate this Contract pursuant to this section, the General Manager shall notify Employee in writing. General Manager shall serve upon Employee a reasonably detailed statement of the reasons compelling termination.
- D. For Cause by Employee.
- E. By the District/Buy-Out Provision.
 - 1. Notwithstanding any other provision of this Contract, the General Manager shall have the sole right to terminate this Contract without cause.
 - (a) The Employee shall be given written notice of the intent to implement this Buy-Out Provision.
 - (b) If this Contract is terminated, except pursuant to Sections A, B, C, or D above, the Employee shall receive a one-time, lump sum cash

payment equivalent to the sum of Employee's then-current base monthly salary multiplied by six (6) as severance pay. Eligibility for such severance payment is expressly conditioned upon Employee's execution of (i) a waiver and release of any and all of his claims against District (in a form substantially similar to the one provided in Appendix "C" hereto), and (ii) a covenant not to sue. All normal payroll taxes and withholdings are required by law shall be made with respect to any amounts paid under this section. Payment shall be made to the Employee within seventy-two (72) hours of the effective date of the waiver and release unless otherwise provided in the waiver and release agreement. Both District and Employee agree that this shall be the sole and exclusive remedy for termination of the Contract pursuant to this provision.

- F. Firefighter's Procedural Bill of Rights Act. Termination under Paragraphs C and E shall be enacted in accordance with applicable provisions of the Firefighter's Procedural Bill of Rights Act (Sections 3250 et seq. of the Government Code), as it may be amended or renumbered.
- G. Statutory Requirements. This Contract shall be deemed to incorporate by reference and abide by the provisions of Sections 53260 et seq. of the Government Code, as it may be amended or renumbered.

X. MISCELLANEOUS.

- A. District, in consultation with Employee, shall fix any other terms and conditions of employment as District may determine from time to time, relating to the performance of Employee, provided such terms and conditions are not inconsistent with or in conflict with the provisions of this Contract, or any law. No such terms and conditions shall be binding upon the parties to this Contract unless and until they are reduced to writing and signed by both parties. Neither party may rely upon such terms and conditions without such an executed writing.
- B. Unless otherwise specifically provided herein, all provisions of the regulations and rules of District relating to vacation and sick leave, retirement contributions, health benefits, holidays and other fringe benefits and working conditions as they now exist or hereafter may be amended, also shall apply to Employee as they would to other District Non-Represented employees. Except for terms expressly addressed by this Contract, all other terms of the District's Personnel Rules and Procedures and benefits programs shall apply. To the extent there is an inconsistency between the Personnel Rules and Procedures or benefits programs, the terms of this Contract shall apply.

XI. EXTENSION OR RENEWAL OF EMPLOYMENT CONTRACT.

- A. This Contract may be extended by mutual consent of Employee and the District at any time during the Term of this Contract.
- B. If extended, this extension:

1. May be for whatever legal time is deemed appropriate by the General Manager; and,
 2. Shall be ratified by the Board at the next regular Board of Directors meeting subsequent to this extension. In the event this Contract is extended by operation of this provision, this provision continues to apply to the Contract as extended.
- C. The District may extend this Contract an infinite number of times pursuant to the provisions of this Article XI.

XII. RENEWAL/NON-RENEWAL OF EMPLOYMENT CONTRACT.

- A. If this Contract has not been extended pursuant to Article XI, the General Manager shall provide written notification to Employee, at least ninety (90) days prior to the expiration of this Contract, as to what extension, if any, will be recommended to the Board.
- B. In the event that the General Manager and Employee fail to execute an extension to the Term of this Contract prior to its expiration and the General Manager has not notified Employee in writing, that this Contract will not be renewed prior to the expiration of the Term, this Contract shall automatically be extended on a month-to-month basis until such time, if ever, as the District and Employee execute a written extension of this Contract or the General Manager delivers to the Employee thirty (30) days' prior written notice of the non-renewal of this Contract.

XIII. NOTICES.

- A. Notices pursuant to this Contract shall be in writing given by deposit in the custody of the United States Postal Service, postage prepaid, addressed as follows:

DISTRICT
General Manager
Cosumnes Community Services District
8820 Elk Grove BLVD.
Elk Grove, CA 95624

EMPLOYEE
Felipe Rodriguez
Employee's address on file with the District's Human Resources Department.

- B. Alternatively, notices required pursuant to this Contract may be personally served in the same manner as is applicable to the civil judicial process. Notice shall be deemed given as of the date of personal service or as of the date of deposit of such written notice in the course of transmission in the United States Postal Service or into a traceable overnight delivery service (e.g. Federal Express or similar).

XIV. BONDING/INDEMNIFICATION.

- A. District shall bear the full cost of any fidelity or other bonds required of Employee

under any law or ordinance. The District shall defend, hold harmless, and indemnify Employee against any tort, civil rights, personnel, discrimination, professional liability claim or demand or other legal action, whether groundless or otherwise, arising out of an alleged act of omission occurring in the performance of Employee's duties in accordance with the provisions of California Government Code Section 825 and provide a defense in accordance with California Government Code Section 995. The District may decline to defend and/or indemnify only as permitted by the California Government Code. The District may compromise and settle any such claim or suit and pay the amount of any settlement or judgment therefrom. This provision shall survive any termination or resignation of the Employee or expiration of this Contract. This section is not intended to provide any rights in excess of those rights provided by state law.

XV. GENERAL PROVISIONS.

- A. This Contract is the full and complete Contract between the parties. It can be changed or modified only by writing, signed by the parties or their successors in interest to this Contract.
- B. Except as modified herein, this Contract is subject to all applicable laws of the State of California and to the lawful rules and regulations of the Board of the Cosumnes Community Services District. Said laws, rules and regulations, and policies, to the extent they have not been lawfully superseded by this Contract, are hereby made a part of the terms and conditions of this Contract as though fully set forth herein.
- C. The unenforceability, invalidity, or illegality of any provision of this Contract shall not render the other provisions unenforceable, invalid or illegal.
- D. Employee is an at-will employee of the District. Upon the termination in accordance with Article IX, Employee shall have no additional employment rights with the District.
- E. In the event that any employee group is offered improved benefit items, improved economic terms or the return of any concessionary financial contributions, upon request the Board agrees to reopen this employment contract.
- F. This Contract may be modified or amended, or any of its provisions waived, only by a subsequent written agreement executed by each of the parties. The parties agree that this requirement for written modifications cannot be waived and any attempted waiver shall be void.

[Signatures on following page]

IN WITNESS HERETO, we affix our signatures to this Contract as the full and complete understanding of the relationships between the parties hereto.

FOR THE COSUMNES COMMUNITY SERVICES DISTRICT:

JOSHUA M. GREEN
GENERAL MANAGER

DATE

ACCEPTANCE:

I hereby accept the terms and conditions of this Contract and agree to comply with the conditions thereof and to fulfill all of the duties of employment as set forth herein.

FELIPE RODRIGUEZ

DATE

FIRE CHIEF

FULL-TIME SALARY SCHEDULE (Updated: 07/01/2020)

Title	Type	Step	Semi-Monthly	Monthly	Annual
FIRE CHIEF	Salary	1	\$9,717.00	\$19,434	\$233,208
FIRE CHIEF	Salary	2	\$10,228.50	\$20,457	\$245,484
FIRE CHIEF	Salary	3	\$10,766.50	\$21,533	\$258,396

FIRE CHIEF

DUTIES AND RESPONSIBILITIES

[Attached behind this cover page]

Class Title: Fire Chief

Description

Under administrative direction, serves as the principal leader and administrator of the Fire Department; plans, organizes, reviews, and provides administrative direction to Department activities and operations encompassing a wide range of fire service-related functions including fire prevention, fire suppression, emergency medical services, public information, emergency planning, training/fitness, and related administrative services; advises and makes recommendations to the Board of Directors through the General Manager regarding Department administration and operations; assures and enforces applicable federal, state, and local laws, ordinances, codes and Board policies; serves as a member of the District's Strategic Management Team.

CLASS CHARACTERISTICS

This is a single-incumbent executive management classification. The classification of Fire Chief is distinguished from other fire management classifications by its level and degree of responsibility and broad oversight of all Department functions. The incumbent in this classification has extensive contact with public officials, state/federal/local agencies, other public/private organizations, and the general public, and is responsible for the development and implementation of programs designed to provide quality services within the Department's service area.

Supervision Received and Exercised

Receives general direction from the General Manager. The Fire Chief works independently, exercises judgement and initiative, and carries out District and Board policies, receiving only general instruction or assistance. The position provides direct supervision to subordinate managers. May act as a project leader or provide supervision to assigned lower level administrative workers in other areas on a case by case basis.

Duties and Responsibilities

Note: The following duties are intended only as illustrations of the various types of work that may be performed. The omission of a specific statement on duties does not exclude them from the position if the work is similar, related or a logical assignment to the position. Each individual in the classification does not necessarily perform all the duties listed. Employees may perform other related duties at an equivalent level as required.

GENERAL DUTIES

- Work closely with the General Manager in setting and carrying out the District's vision, mission, and objectives for the Fire Department; including but not limited to, long-range strategic planning, financial management, and administration of policies, procedures, programs, goals, and objectives unique to the Department.
- Participates as a member of the District's Strategic Management Team; provides assistance to the General Manager and Board of Directors on fire and emergency medical services service-related matters; supports driving business strategy development by assessing risks, noting opportunities for expansion, setting overall goals and metrics, and proposing projects or systems to optimize performance and revenue to move the District forward.
- Direct and/or participate in the preparation of complex statistical and narrative reports, correspondence, and other documents, including those required by law; makes presentations to the Board of Directors as required; perform special projects as assigned.
- Represent the District and the Department to the public, elected officials, other agencies, jurisdictions, committees, community groups, and organizations; make presentations; chair and

participate in meetings and committees; improve District operations; manage contract negotiations and development projects; conduct community outreach; participate in major development projects; provides staff assistance to the Board of Directors; maintain constructive media relations; respond to sensitive citizen and media questions, feedback, and requests for information.

- Prepare strategic plans and annual work plans; develop and execute special projects impacting Department operations and activities; develop, implement, improve, monitor, and evaluate programs, projects, workflows, methods, and work products in accordance with District and Department plans, budgets, and policies.
- Provide leadership that attracts, develops, and retains a diverse, highly competent, service-oriented workforce who support the vision, mission, objectives, and service expectations of the District and the Department.
- Promote and create an equitable workplace that demonstrates an environment respectful of living and working in a multicultural society; ensures that employees are provided with guidance and opportunity to correct deficiencies, and appropriate discipline procedures are implemented.
- Administers, directs, and participates in the development and administration of the Department annual budget; direct the forecast of additional funds needed for staffing, equipment, materials, and supplies; direct the monitoring of and approves expenditures; direct and implement adjustments as necessary; evaluate new revenue generating and cost saving initiatives.
- Perform various related essential duties as required.

LOCAL GOVERNMENT POLICIES/PRACTICES

- Monitor changes in state and federal laws, regulations, and technology that may affect District or Department operations; implement policy and procedural changes as required.
- Participate, support and assist in the negotiation of contracts and agreements, including labor contracts and collective bargaining efforts.
- Explains, justifies, and defends department programs, policies, and activities; negotiates and resolves sensitive and controversial issues.
- Review and analyze pertinent statutes, regulations, ordinances, and policies in terms of impact on Department programs; ensure compliance.
- Oversee contractual agreements for the Department and evaluates contract renewals and changes; inspect and evaluate the work of the district contractors.

SERVICE DELIVERY

- Conducts and/or participates in working meetings with a wide variety of individuals; utilizes leadership, management, and interpersonal skills in reaching decisions, formulating recommendations, and the negotiation/resolution of sensitive, significant, controversial, and often competing issues.
- Coordinates with State and local fire districts and other agencies for developing mutual assistance programs.
- May personally represent the District to the legislature, special interest groups and appropriate officers of the local, state, and federal governments as well as the general public; may serve as primary District spokesperson with the news media;
- Implements and/or ensures the District emergency operations are conducted with the use of all contemporary and accepted methods which effectively utilize the emergency response resources.
- Directs fire and emergency medical operations; retaining overall responsibility for fire ground operations and suppression; responsible for ensuring highest level of patient care; enforces codes and laws pertaining to fire control and hazards.
- Responds to significant greater alarm fires and may assume any position of command or relieve any officer of command for re-assignment; may be required to make emergency operational decisions under conditions of extreme physical and/or mental stress.

SUPERVISION AND MANAGEMENT

- Supervises personnel including training, assigning and reviewing work, planning, maintaining standards, coordinating activities, allocating personnel, acting on employee problems, recruiting and recommending or approving the hire of new employees, or promotions/salary increases; enacting discipline when appropriate; promotes opportunities for career training for all personnel; instructs staff in policies and procedures and directs supervisory staff in training activity by means of staff meetings, conferences and individual direction;
- Directs and supports the Department management team; represents Department interests and operations at regular meetings to ensure efficient and cost-effective operations of the Department;
- Ensure that all personnel are informed of District and Department policies and works through subordinate managers to ensure adherence to policies.

COMMUNITY ENGAGEMENT

- Coordinate activities with City officials, other City departments, outside agencies and community-based organizations as appropriate; participates on committees and boards and in community activities; attends meetings, conferences, and workshops as appropriate;
- Act as a community liaison and represents the Department; gives reports at community and other public meetings and task force meetings.
- Serves as a liaison to other departments, elected officials, divisions, clients, local residents, community groups, school districts, and private businesses; attends meetings, as necessary; negotiates and resolves significant and controversial issues.
- Responds to citizen complaints which have not been resolved at a lower level within the division and/or Department;

MINIMUM QUALIFICATIONS

Any equivalent combination of training and experience which provides the required skills, knowledge, and abilities may be considered qualifying at the sole discretion of the District. The education or experience requirements may be modified or waived at the sole discretion of the General Manager. At least one of the education or experience requirements must be met; however, both requirements cannot be modified or waived. The Cosumnes Community Services District Board of Directors shall be notified of any such modifications or waivers. A typical way to obtain the knowledge, skills and abilities:

Education and Training:

- A Bachelor's Degree from an accredited college with major course work in an applicable field is required.
- A Master's degree in an applicable field is preferred.
- Certification as a California State Chief Officer Certification is required; Chief Fire Officer designation from the Center for Public Safety Excellence (CPSE) is acceptable.

Experience:

- Ten (10) years of increasingly responsible fire and emergency medical services management experience including administrative/management experience that includes responsibility for staff supervision, budgeting, planning; a minimum of five (5) years of experience at the Chief Officer level.

Special Requirements:

- Must possess Penal Code § 832 Certificate (non-firearm module). Firearm module will be required if choosing to participate in the armament program.
- Must possess and maintain throughout employment a valid California class "C" driver's license with a driving record sufficient to be insurable through the District.

- Successfully completion of a department approved physical fitness exam. Fitness for duty exam may be required when appropriate.
- Successfully pass a standard safety position background investigation.
- Subject to being called back when off duty.

Knowledge of:

- Principles and practices of strategic leadership in public administration related to the mission and purpose of the fire and emergency medical services industries.
- Current research and development in the fields of fire suppression, fire administration, fire prevention, emergency medical services and strategic planning;
- Principles and modern methods of fire administration including organization, negotiation, fiscal management, program planning, implementation and administration;
- Knowledge of relevant federal, state, and local laws, statutes, regulations, and ordinances, and the ability to analyze, interpret, explain, and apply them in governing the activities of a fire district serving an extensive urban, industrial and wild land area;
- Familiarity with the operational capabilities and maintenance of various types of apparatus and equipment used in modern fire suppression;
- Current methods, techniques, principles, and procedures used in good internal and external customer service.
- Computer database programs, desktop publishing and word processing in currently used programs such as Microsoft Outlook, Word, and Excel.
- Modern methods and techniques of emergency preparedness and Incident Command System (ICS)
- Operation, maintenance and uses of apparatus and equipment utilized in fire suppression and emergency/medical response activities; communication and information systems related to fire and emergency response services.
- Principles of employee supervision including training, performance evaluations, employee counseling and progressive discipline.

Ability to:

- Balance the business needs of multiple customers and fulfillment of those needs with consideration of broader organizational, business, legal and community issues and requirements.
- Manage, plan, assign, review and assess the work of a diverse staff in the accomplishment of multiple projects.
- Collaborate with communities of color and people traditionally underrepresented in local decision-making; facilitate inclusive participation in programs and activities; communicate cross-culturally.
- Manage a multicultural workforce, promote an equitable workplace environment, and apply equitable program practices to diverse and complex District services.
- Manage functions and operations, including personnel management and budget administration, and apply program practices to diverse and complex District services.
- Establish and maintain effective working relationships with those contacted in the course of work, including other governmental agencies, non-profits, labor partners, colleagues, media, and the public; demonstrate tact, diplomacy, and patience; gain cooperation through discussion and collaboration.
- Communicate effectively, both verbally and in writing; present information, proposals, and recommendations clearly and persuasively in public settings.
- Interpret, analyze and advise District staff on industry-related laws, rules, regulations, ordinances, and policies.
- Comprehend, prepare and direct development of reports and forms such as accident and incident reports, inventory lists, budget documents, correspondence, attendance records, basic technical medical reports, news releases, e-mail, policy manuals, timesheets, procedure manuals, and calendars.

- Identify and determine the nature of potential safety hazards and correct or institute corrective courses of action.
- Apply administrative and technical knowledge to assure compliance with contracts; examine workmanship and materials; detect deviations from plans, regulations, and standard practices.
- Perform complex tasks during life threatening emergencies.
- Use independent judgment in frequently non-routine situations involving some period financial risk in decision making and occasional major risk of injury or death to self, staff or public;
- Create common understanding on issues through education with relevant/factual information
- Present complex technical and operational issues simply and logically to the Strategic Management Team, Senior Leadership Team, policy makers, and community.

PHYSICAL DEMANDS AND WORKING CONDITIONS

Physical Requirements:

- Mobility: Frequent work in offices and buildings; occasional moderate to severe amount of physical effort to climb ladders, stooping, bending, squatting, working in high places and in closely confined places; occasional pushing, pulling or lifting up to fifty (50) pounds;
- Vision/Talking/Hearing: Regular reliance on sense of sight, hearing, smell and touch while on fire grounds to aid in assigned duties and maintain personal safety; color vision sufficient to perform assigned duties safely; visual acuity sufficient to drive vehicles, read blueprints, specifications, fine print and Video Display Terminals; hear well enough to identify mechanical noises, to converse on the radio, telephone, and in person over incident noise;
- Dexterity: Occasional performance of a variety of tasks on slippery, hazardous surfaces such as on rooftops or from ladders;
- Emotional/Psychological: Constant concentration and decision making; frequent ability to exercise sound judgment under stress; public contact; frequent to moderate working alone; Occasional work for long periods of time requiring sustained physical and intense concentration; occasional physically demanding work in hot conditions while wearing equipment which significantly impairs body cooling mechanisms; or in wet, icy or muddy conditions; infrequent exposure to grotesque sights and smells associated with major trauma and burn victims;
- Driving: Ability to use fine and gross motor coordination for driving;
- Potential Exposures: Occasional work outside in all weather conditions under hazardous conditions and in closely confined areas; exposure to carcinogenic dust or toxic substances, either to inhalation or skin contact; frequently faces exposure to infectious agents, such as Hepatitis B or HIV;
- No person shall pose a direct threat to themselves, to the health and safety of other individuals in the workplace, or to the public they serve.

Typical Working Conditions:

Incumbents are typically assigned work both in an indoor and outdoor environment which may take place in various types of weather and high temperatures. Work may take place in environments of high noise, poor visibility, limited mobility, at heights, and in enclosed or confined spaces. Work may involve exposure to hazardous and/or carcinogenic materials through inhalation or skin contact and on rare occasions may include exposure as outlined above. Work will include traveling from site to site in a vehicle.

FLSA STATUS: Full-time, Exempt

Appendix "C"

This document is being provided as a sample severance and release agreement, illustrating the general content and scope of the waivers and releases that will be required as a condition of any severance/buy-out payment pursuant to the Employment Agreement. The specific terms of the severance and release agreement that Employee will be presented and expected to sign as a condition of receiving severance allowed for in the Employment Agreement may be modified as appropriate for the factual scenario.

SEVERANCE AND RELEASE AGREEMENT

This Severance and Release Agreement ("Agreement") is made as of [insert date], between Cosumnes Community Services District ("District"), and XXXXX ("Employee").

RECITALS

- A. Employee has been employed with the District under an employment agreement effective XXXXX ("Employment Agreement");
- B. The Employment Agreement is now ending, and the Parties desire to resolve all issues related to Employee's employment;

NOW, THEREFORE, District and Employee, in consideration of the mutual covenants and agreements herein, agree as follows:

AGREEMENT

1. Separation Date.

Employee's employment with the District will cease on [insert date] (the "Separation Date").

2. Separation Terms.

As of the Effective Date of this Agreement, the following terms of separation shall apply:

- A. If Employee executes this Agreement and does not revoke his signature as provided in Section 15, then pursuant to Section IX of the Employment Agreement, the District will pay to Employee the gross amount of \$ _____ (less all taxes and appropriate deductions) which is the equivalent of six (6) months' base salary at current compensation levels. Such amount will be paid in equal installments at the periodic pay periods when other District employees are paid.
- B. Employee's participation in District-sponsored benefits (including medical coverage) will end as of the last day of the month in which his separation occurs. Under separate cover, Employee will receive information about his right to benefit continuation under COBRA at his own expense if he elects to continue coverage.
- C. All payments under this Agreement are subject to applicable payroll taxes and

withholdings, whether state or federal.

- D. No later than the payroll cycle immediately following the Separation Date above, Employee will be paid earned wages through the Separation Date, and will be paid the cash value of any accrued but unused vacation hours and other earned benefits. Employee expressly warrants and agrees that, as of the date of executing this Agreement, he does not dispute as inaccurate any wages previously paid to her.

3. Confidentiality.

District agrees that, absent written authorization from Employee, it will release to prospective employers or to other third parties only Employee's dates of employment, positions held, and salary. Other employment information about Employee (including, but not limited to, this Agreement) will be released by the District only (a) with Employee's written consent, (b) to refute or defend a claim initiated by Employee, or (c) as otherwise required by law. However, the Parties acknowledge that a proper Public Records Act request may require this Agreement be disclosed. Further, the District reserves the right to respond with truthful, accurate information upon inquiry by employment-related governmental agencies (e.g. California Public Employees' Retirement System, the California Employment Development Department, Internal Revenue Service, etc.).

4. Waiver of Discrimination Claims.

Employee understands and acknowledges that Title VII of the Civil Rights Act of 1964, the Age Discrimination in Employment Act, the Civil Rights Act of 1991, the Vietnam Era Veterans' Readjustment Assistance Act of 1974, the Americans with Disabilities Act of 1990, the Federal Family and Medical Leave Act of 1993, the California Family Rights Act of 1991, the California Fair Employment and Housing Act, and other statutes provide Employee with the right to bring an action against the District if Employee believes he has been discriminated against based on race, ancestry, creed, color, religion, sex, marital status, national origin, age, status as an individual who has filed a claim for workers' compensation benefits or who has sustained an industrial injury, status as a veteran of the Vietnam era, physical or mental handicap, and/or disability. Employee understands the rights afforded to his under these Acts and agrees that he will not bring any action against the District based on any alleged violation(s) of these Acts.

Employee hereby waives any right to assert a claim for any relief under these Acts, including, but not limited to, back pay, attorney fees, damages, reinstatement, and/or injunctive relief, arising out of his employment with District or the separation from such employment.

5. Waiver of Age Discrimination Claim.

Employee understands and acknowledges that the Age Discrimination in Employment Act of 1967, as amended, provides Employee the right to bring a claim against the District if Employee believes that he has been discriminated against on the basis of age. Employee understands the rights afforded under this Act and agrees that he will not bring any action against the District based on any alleged violation(s) of the Act. Employee hereby waives any right to assert a claim for relief under this Act, including, but not limited to, back pay, attorney fees, damages, reinstatement, and/or injunctive relief arising out of his employment with

District or the separation from such employment.

6. Waiver of Civil Code Section 1542.

The release contained herein is intended to be complete and final and to cover not only claims, demands, liabilities, damages, actions and causes of action which are known, but also claims, demands, liabilities, damages, actions and causes of action which are unknown or which Employee does not suspect to exist in his favor which, if known at the time of executing this Agreement might have affected his actions, and therefore, he expressly waives the benefit of the provisions of section 1542 of the California Civil Code, which provides:

A general release does not extend to claims that the creditor or releasing party does not know or suspect to exist in his or her favor at the time of executing the release and that, if known by him or her, would have materially affected his or her settlement with the debtor or released party.

Employee hereby expressly waives and relinquishes all rights and benefits which he has or may have had under section 1542 of the California Civil Code or the law of any other state, country, or jurisdiction to the same or similar effect to the full extent that he may lawfully waive such rights. As a part of this waiver, Employee expressly waives any right to notice and an opportunity for a hearing or appeal regarding his separation from District employment.

7. Release of Claims; Covenant Not to Sue; Waiver of District Employment.

- G. Employee represents that he has not filed any complaint, grievance, claim, or action against the District or any of its District Board members, officers, agents, directors, employees, or representatives with any state, federal, or local agency, board, arbitrator, or court based on any matters arising out of his employment with the District and/or his separation from District employment.
- H. Except as otherwise set forth in this Agreement, Employee hereby releases and forever discharges the District, its District Board members, officials, directors, agents, attorneys, servants, employees, consultants, successors, assignees, and related entities from any and all claims, liabilities, demands, causes of action, costs, expenses, damages, indemnities, and obligations of every kind, in law, equity or otherwise, known or unknown, arising out of or in any way related to Employee's District employment or his separation from District employment. This release is intended to be interpreted as broadly as permitted by law and to apply to all transactions and occurrences between Employee and the District, including, but not limited to, any and all claims related to Employee's employment and employment conditions with the District and all other losses, liabilities, claims, charges, demands and causes of action, known or unknown, suspected or unsuspected, arising directly or indirectly out of or in any way connected to Employee's employment with the District or the separation from such employment (collectively, "Released Claims"). Released Claims include, but are not limited to, any claim based in common law, the state or federal Constitution, state or federal statutes, all contract or tort claims (such as wrongful termination, constructive discharge, breach of contract, breach of the covenant of good faith and fair dealing, fraud, defamation, libel, invasion of privacy, and intentional or negligent infliction of emotional distress), and all related claims for physical injuries, illness or damage, expense reimbursement, and all claims for attorneys' fees, costs and expenses, grievances, claims and/or appeals

under federal or state law or due process, or under the District's internal administrative review procedures. However, claims for workers' compensation or unemployment insurance benefits are expressly excluded from the waiver and releases provided in this Agreement.

- I. Excepting claims for workers' compensation or unemployment insurance benefits, Employee further covenants not to sue or file any complaint, grievance, claim or action at any time hereafter based on any matters arising out of or in any way relating to his employment with the District, or separation from District employment, that could have been filed as of the date of executing this Agreement. Should Employee legally have the right to participate in any action against the District in the future pertaining to or arising out of Employee's District employment or separation from it, Employee expressly agrees that he shall have no right to recover damages, attorneys' fees, costs, or other compensatory relief. District expressly agrees not to challenge Employee's eligibility for unemployment insurance benefits arising out of his separation from District employment, but reserves the right to provide accurate, truthful information as requested by the California EDD.
- J. Nothing in this Agreement shall be interpreted to waive Employee's statutory rights under the California Labor Code and the California Government Claims Act regarding defense of, and/or indemnity for, claims against him relating to acts committed within the course and scope of his employment, subject to District's rights under such statutory provisions.
- K. Employee agrees and recognizes that his employment relationship with the District has been severed permanently. In recognition of the consideration provided herein, Employee agrees he will not apply for or otherwise seek re-employment or reinstatement with the District, and he expressly agrees that the District has no obligation to reinstate, rehire, re-employ, recall or hire him in the future. The District is entitled to reject without cause any application for employment made by Employee and to immediately discharge Employee should it be discovered by the District that Employee has obtained such employment in violation of this provision.

8. No Admission of Liability.

This Agreement and compliance with it shall not operate or be construed as an admission by either party of any liability, misconduct, or wrongdoing whatsoever by or against the other Party or against any other person; nor as an admission by the District of any violation of the rights of Employee or any other person; nor as a violation of any order, law, statute, duty, or contract whatsoever against Employee or any other person. Rather, the Parties expressly deny any liability to one another.

9. Negotiated Agreement and Governing Law; Cost of Preparation.

This Agreement shall be deemed to have been jointly drafted by the Parties and shall be governed by and construed in accordance with the laws of the State of California. Each Party shall bear the Party's own associated costs of preparing this Agreement, including attorneys' fees.

10. Notice.

Any notices or other communications to be given to either party pursuant to this Agreement, shall be in writing and delivered personally or by U.S. mail, postage prepaid, addressed to the party at the address set forth below. Notice so mailed shall be deemed delivered three (3) business days after deposit in the U.S. mail. Nothing shall preclude the giving of notice by fax, which shall be effective upon receipt of the fax; provided, however, that notice by fax shall be followed by notice deposited in the U.S. mail as discussed above.

DISTRICT

Attention: General Manger
Cosumnes CSD
8820 Elk Grove Blvd.
Elk Grove, CA 95624

EMPLOYEE

NAME
Last Address on File with District

11. Entire Agreement.

This Agreement constitutes the entire agreement between Employee and the District. No other promise or inducement has been offered for this Agreement. Any amendments to this Agreement must be in writing, signed by duly authorized representatives of both the District and Employee, and must state that the parties intend to amend the Agreement. None of the Parties are relying upon any other negotiations, discussions or agreements in connection with the subject matter of this Agreement. This is a fully integrated agreement.

12. Severability.

- A. If any provision of this Agreement is adjudicated by a court of competent jurisdiction to be invalid or unenforceable, the remainder of the Agreement, which can be given full force and effect without the invalid provision, shall continue in full force and effect and shall in no way be impaired or invalidated.
- B. Any of the terms or conditions of this Agreement may be waived at any time by the party entitled to the benefit, but no such waiver shall affect or impair the right of the waiving party to require observance, performance or satisfaction either of that term or condition as it applies on a subsequent occasion, or of any other term or condition of this Agreement.

13. Choice of Law; Venue of Actions; Costs and Fees.

This Agreement shall be interpreted according to the laws of the State of California. Venue of any legal action shall be in Sacramento County. If any legal action is instituted to enforce any provision of this Agreement, or because of an alleged dispute, breach, default or misrepresentation in connection with any of its provisions, the court shall award the prevailing party reasonable attorneys' fees and other litigation costs incurred in that action, in addition to any other relief to which the prevailing party may be entitled. Nothing in this Section shall prevent the parties from mutually agreeing to binding arbitration of any dispute, in which case the arbitrator may award attorneys' fees and litigation costs to the prevailing party as described above.

14. Voluntary Execution of Agreement.

Employee represents that he has carefully read this entire Agreement and that he knows and understands its contents. Employee has had the opportunity to receive independent legal advice from attorneys of their choice with respect to the preparation, review, and advisability of executing this Agreement, and by signing the Agreement, acknowledges that he has been advised by District to do so. Employee further represents and acknowledges that he has freely and voluntarily executed this Agreement after independent investigation and without fraud, duress, or undue influence, with a full understanding of the legal and binding effect of this Agreement and with the approval of his legal counsel, if any.

15. Right of Revocation; Effective Date of Agreement.

Employee acknowledges that he has been advised to seek the assistance of counsel in negotiating the terms of this Agreement and that he has been provided with the time to consult with an attorney prior to signing this Agreement. Pursuant to the Age Discrimination in Employment Act and the Older Workers' Benefit Protection Act, the District hereby notifies Employee that he has up to twenty-one (21) days within which to consider whether he should sign this Agreement, although he may sign this Agreement in less time if he so chooses. Employee acknowledges and agrees that any changes made to this Agreement, whether material or immaterial, as a result of the parties' negotiations do not restart the running of the twenty-one (21) day review period. In addition, should Employee choose to sign the Agreement, he shall have seven (7) days following the date on which he signed the Agreement to revoke this Agreement. If Employee chooses to revoke this Agreement pursuant to this paragraph, Employee shall do so in writing, delivered to the District at the address specified above within the seven (7) day period. This Agreement does not become effective until the eighth day after Employee signs this Agreement when this seven- day period has elapsed without Employee's revocation of this Agreement (the "Effective Date").

Employee understands and agrees that he will be entitled to the consideration provided by this Agreement if he does not revoke his signature on this Agreement.

_____ Employee's Initials

16. Counterparts.

This Agreement may be executed in two or more counterparts, including via facsimile or electronically-transmitted signature, each of which shall be deemed an original, but all of which together shall constitute one-in-the-same document.

17. Signatures

EMPLOYEE & GENERAL MANAGER

FIRE CHIEF**A. Holidays**

The Employee shall observe the following official holidays with leave provided by District. In the event any of these holidays are deleted from the District's employee handbook, or new holidays are added to the District's employee handbook, those changes shall automatically apply to Employee:

New Year Day	January 1
Martin Luther King Jr. Day	Typically Observed 3 rd Monday in January
President's Day	Observed 3 rd Monday in February
Memorial Day	Last Monday in May July 4th
Independence Day	1 st Monday in September
Labor Day	2 nd Monday in October
Indigenous Peoples' Day	November 11th
Veteran's Day	4 th Thursday in November
Thanksgiving Day	4 th Friday in November
Friday After Thanksgiving	December 24th
Christmas Eve Day	December 25th
Christmas Day	December 31st
New Years Eve (1/2) Day	To be utilized as Employee sees fit.
Floating Holiday	

B. Available Insurance Plans

1. Medical Insurance. The District shall provide Employee and his dependents, with the option of enrolling in any medical insurance plan available through its contract with the Health Division of PERS.
2. Dental Insurance. The District shall provide Employee and his dependents, with the option of enrolling in the dental plan available through the District.
3. Vision Plan. The District shall provide Employee and his dependents, with the option of enrolling in the vision plan available through the District.
4. Life Insurance. The District shall provide Employee with a Fifty Thousand Dollar (\$50,000) term life insurance policy through the plan selected by the District. Additional life insurance protection of up to Five Hundred Thousand Dollars (\$500,000) is available to Employee as an additional employee cost.
5. Cancer Insurance. The District shall provide Employee with the cancer insurance policy available through the District.
6. Income Protection. The District does not administrator the Income Protection benefit beyond providing an information booklet to Employee. The administrator (currently the California Association of Professional Firefighters) is solely responsible for administering the program.
7. Employee Assistance Program. The District shall provide Employee and his

dependents, an employee assistance program selected by the District.

C. Retirement Medical Benefit

Employee must complete the required PERS-credited services with the Cosumnes Community Services District as set forth in the Contract in order to have any eligibility for retiree medical benefits.

1. Medical Insurance. In accordance with the provisions of its contract with the Health Division of CalPERS, the District shall provide Employee and his dependents, with the option of enrolling in any available medical plan. Employee must separate from District service and retire from PERS within 120-days from the separation date to be eligible for retiree medical benefits.
2. Contribution. The District shall establish a section 115 medical reimbursement plan to reimburse Employee for qualifying retiree medical expenses in accordance with the following:

(a) District Contribution to Retiree Medical Plan

- (i) The District's contribution shall be a dollar amount equal to that of active employees.
- (ii) Employee shall receive the contribution amount as described above. Employee does not qualify for Medicare and shall continue to have the District premium reimbursement based on the Sacramento area basic plan as follows.
- (iii) The District benefit contribution shall be a dollar amount sufficient to pay the premium for the lowest cost HMO (the lesser of either Kaiser (KN) or Blue Shield Access +HMO (BS) when combined with the Retiree Contribution rates below:

Enrollment Category	Retiree Contribution
Employee only medical up to the lowest cost HMO	\$0.00
2-party or family medical up to the lowest cost HMO	\$15.00

- (iv) Reimbursement amounts identified above may be used for premium reimbursement of Employee and any eligible dependents in a qualifying individual plan, non-District group plan, exchange plan or Medicare supplemental plan.



CALIFORNIA FIRE CHIEFS ASSOCIATION

1851 Heritage Lane, Ste. 138 • Sacramento, CA 95815

Off: 916-923-9455 www.CalChiefs.org

September 14, 2020

Joshua Green, General Manager
Cosumnes Community Services District
8820 Elk Grove Boulevard
Elk Grove, CA 95624

Dear General Manager Green:

On behalf of the Full Board of Directors of the California Fire Chiefs Association, I wanted to extend our appreciation to you for hosting our Annual Business Meeting at the Pavilion in Elk Grove Park. This meeting is typically held at our Annual Conference but this year we were forced to cancel our conference due to COVID-19. The Pavilion facility allowed for us to follow the social distancing restrictions and to have some board members attend virtually, which was necessary due to both COVID-19 and the wildfires occurring throughout the State.

We wanted to specifically call out Cosumnes CSD staff Chief McLaughlin, Molly Collins, Kavita Takhar, Jeff Phom, Elenice Gomez and Angela (who was our contact at the Pavilion the day of the event) for their assistance in coordinating the logistical needs and ensuring we had all we needed to make our meeting run smoothly.

Sincerely,

A handwritten signature in blue ink, appearing to read "Dan Stefano".

Dan Stefano
President

Cc. Michael McLaughlin, Fire Chief
Cosumnes CSD Fire Department

In this hurry up world,
the words "Thank you"
are too often forgotten.
I want to take this
opportunity to thank
you for saving my life.
It's amazing that such
a little pill could cause
me to stop breathing. If
it wasn't for you and
my poor boyfriend who
found me, I wouldn't
be alive today.
Sincerely,