City Council
AGENDA

Tuesday, June 15, 2021, 6:00 p.m.

Teleconference - Broadcast via Webinar

Based on the threat of COVID-19 as reflected in the Proclamations of Emergency issued by both the Governor of the State of California, the San Luis Obispo County Emergency Services Director, and the City Council of the City of San Luis Obispo as well as the Governor's Executive Order N-29-20 issued March 17, 2020, relating to the convening of public meetings in response to the COVID-19 pandemic, **the City of San Luis Obispo will be holding all public meetings via teleconference. There will be no physical location for the Public to view the meeting.** Below are instructions on how to view the meeting remotely and how to leave public comment. Additionally, member of the City Council are allowed to attend the meeting via teleconference and to participate in the meeting to the same extent as if they were present.

Using the most rapid means of communication available at this time, member of the public are encouraged to participate in Council meetings in the following ways

1. **Remote Viewing** - Member of the public who wish to watch the meeting can view:

    - URL: https://slocity-org.zoom.us/j/91271078622?pwd=K21kNEZ5bUhGeUpxMjhTZG9HdW05Zz09
    - Telephone Attendee: +1 (669) 900-6833
    - Webinar ID: 912 7107 8622; Passcode: 368260
    - *Note: The City utilizes Zoom Webinar for City Council Meetings. All attendees will enter the meeting muted. An Attendee tutorial is available on YouTube; please test your audio settings.*
    - Televised lived on Charter Cable Channel 20
    - View a livestream of the meeting on the City's YouTube channel: http://youtube.slo.city/

2. **Public Comment** - The City Council encourages you to submit public comment in the following ways:

   - **Mail or Email Public Comment**

     - **Received by 3:00 PM on the day of meeting** - Can be submitted via email to emailcouncil@slocity.org or U.S. Mail to City Clerk at 990 Palm St. San Luis Obispo, CA 93401. All emails will be archived/distributed to councilmembers, however, submissions after 3:00 p.m. on the day of the meeting may not be archived/distributed until the following day. Emails ***will not*** be read aloud during the meeting.

   - **Verbal Public Comment**

     - **In Advance of the Meeting - Call (805) 781-7164**; state and spell your name, the agenda item number you are calling about and leave your comment. The verbal comments must be limited to 3 minutes. All voicemails will be forwarded to the Council Members and saved as Agenda Correspondence. Voicemails ***will not*** be played during the meeting.

     - **During the meeting – Join the webinar (instructions above).** Once public comment for the item you would like to speak on is called, please raise your virtual hand, your name will be called, and your microphone will be unmuted. If you have questions, contact the office of the City Clerk at cityclerk@slocity.org or (805) 781-7100.

Pages

1. **CLOSED SESSION - 5:00 PM**

   Closed Session Webinar Information:
   Join on your computer or mobile app: Click here to join the meeting

   - Or call in (audio only): +12096454165,,754463043#
   - Phone Conference ID: 754 463 043#

   PUBLIC COMMENT ON CLOSED SESSION ITEMS ONLY

1.a. CONFERENCE WITH LEGAL COUNSEL - ANTICIPATED LITIGATION

Significant exposure to litigation pursuant to paragraph (2) of subdivision (d) of Government Code Section 54956.9: Potential Number of Cases - One.

A point has been reached where, in the opinion of the legislative body of the local agency on the advice of its legal counsel, based on existing facts and circumstances, there is a significant exposure to litigation against the local agency. The existing facts and circumstances exposing the City to litigation are set forth in a letter from California Rural Legal Assistance, Inc. which is on file and available for review in the City Clerk's Office located at 990 Palm Street.

1.b. CONFERENCE WITH LEGAL COUNSEL - ANTICIPATED LITIGATION

Significant exposure to litigation pursuant to paragraph (2) of subdivision (d) of Government Code Section 54956.9: Potential Number of Cases - One.

A point has been reached where, in the opinion of the legislative body of the local agency on the advice of its legal counsel, based on existing facts and circumstances, there is a significant exposure to litigation against the local agency. The existing facts and circumstances exposing the City to litigation are set forth in a letter from the Law Offices of Jane Heath which is on file and available for review in the City Clerk's Office located at 990 Palm Street.

1.c. ADJOURN CLOSED SESSION

Adjourn to the Regular Meeting of the City Council scheduled for Tuesday, June 15, 2021, at 6:00 p.m., via teleconference.

2. CALL TO ORDER

3. PLEDGE OF ALLEGIANCE

Vice Mayor Erica A. Stewart will lead the Pledge of Allegiance.

4. PRESENTATIONS

4.a. CITY MANAGER REPORT

Receive a brief report from City Manager Derek Johnson.

4.b. JUNETEENTH DAY PROCLAMATION

Mayor Harmon will proclaim June 19, 2021 as "Juneteenth Day."

5. PUBLIC COMMENT PERIOD FOR ITEMS NOT ON THE AGENDA

(Not to exceed 15 minutes total)

The Council welcomes your input. State law does not allow the Council to discuss or take action on issues not on the agenda, except that members of the Council or staff may briefly respond to statements made or questions posed by persons exercising their public testimony rights (Gov. Code sec. 54954.2). Staff may be asked to follow up on such items.

6. CONSENT AGENDA

Matters appearing on the Consent Calendar are expected to be non-controversial and will be acted upon at one time. A member of the public may request the Council to pull an item for discussion. Pulled items shall be heard at the close of the Consent Agenda unless a majority of the Council chooses another time. The public may comment on any and all items on the Consent Agenda within the three-minute time limit.

Recommendation:
Approve Consent Calendar Items 6a - 6g.

6.a. WAIVE READING IN FULL OF ALL RESOLUTIONS AND ORDINANCES

6.b. MINUTES REVIEW - JUNE 1, 2021 COUNCIL MINUTES 7

Recommendation:
Approve the minutes of the City Council meeting held on June 1, 2021.

6.c. A REQUEST TO INCLUDE THE PROPERTY AT 531 DANA STREET IN THE CITY'S INVENTORY OF HISTORIC RESOURCES AS A MASTER LIST RESOURCE (DANA/BARNEBERG HOUSE) 13

6.d. DOWNTOWN SLO AGREEMENT 2021-23 71

(Not to exceed 15 minutes)

Council Members report on conferences or other City activities. At this time, any Council Member or the City Manager may ask a question for clarification, make an announcement, or report briefly on his or her activities. In addition, subject to Council Policies and Procedures, they may provide a reference to staff or other resources for factual information, request staff to report back to the Council at a subsequent meeting concerning any matter or take action to direct staff to place a matter of business on a future agenda. (Gov. Code Sec. 54954.2)

9. ADJOURNMENT

The next Regular Meeting of the City Council will be held on July 6, 2021 at 6:00 p.m.

LISTENING ASSISTIVE DEVICES are available for the hearing impaired--please see City Clerk.

The City of San Luis Obispo wishes to make all of its public meetings accessible to the public. Upon request, this agenda will be made available in appropriate alternative formats to persons with disabilities. Any person with a disability who requires a modification or accommodation in order to participate in a meeting should direct such request to the City Clerk's Office at (805) 781-7100 at least 48 hours before the meeting, if possible. Telecommunications Device for the Deaf (805) 781-7410.

City Council regular meetings are televised live on Charter Channel 20. Agenda related writings or documents provided to the City Council are available for public inspection in the City Clerk's Office located at 990 Palm Street, San Luis Obispo, California during normal business hours, and on the City's website www.slocity.org. Persons with questions concerning any agenda item may call the City Clerk's Office at (805) 781-7100.

Council Minutes

June 1, 2021, 6:00 p.m.
Teleconference - Broadcast via Webinar

Council Members Present:	Mayor Heidi Harmon, Vice Mayor Erica A. Stewart, Council Member Carlyn Christianson, Council Member Andy Pease, Council Member Jan Marx
City Staff Present:	Derek Johnson, City Manager, Christine Dietrick, City Attorney, Teresa Purrington, City Clerk

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1. CALL TO ORDER

A Regular Meeting of the San Luis Obispo City Council was called to order on June 1, 2021, at 6:05 p.m. by Mayor Harmon, with all Members present via teleconference.

2. PLEDGE OF ALLEGIANCE

Council Member Marx led the Council in the Pledge of Allegiance.

CITY ATTORNEY REPORT ON CLOSED SESSION

City Attorney Christine Dietrick stated the Council met in Closed Session on one matter of labor negotiations with regard to represented and unrepresented employee organization as noted on the agenda. The Council provided unanimous direction on bargaining parameters and no further direction given.

3. PRESENTATIONS

3.a CITY MANAGER REPORT

City Manager Derek Johnson provided a report on upcoming projects and a status update on COVID-19.

3.b HUNGER AWARENESS DAY PROCLAMATION

Mayor Harmon presented a proclamation declaring June 4, 2021, as "Hunger Awareness Day" to Garret Olson, SLO Food Bank.

3.c INTRODUCTION AND OATH OF OFFICE FOR RICK SCOTT, POLICE CHIEF

City Manager Derek Johnson introduced Rick Scott, Police Chief, and City Clerk Teresa Purrington administered the Oath of Office.

4. PUBLIC COMMENT PERIOD FOR ITEMS NOT ON THE AGENDA

Public Comment:
Marshall James
Alejandro

--End of Public Comment--

5. CONSENT AGENDA

Motion By Council Member Christianson
Second By Vice Mayor Stewart

Approve Consent Calendar Items 5a - 5f.

Ayes (5): Mayor Heidi Harmon, Vice Mayor Stewart, Council Member Christianson, Council Member Pease, and Council Member Marx

CARRIED (5 to 0)

5.a WAIVE READING IN FULL OF ALL RESOLUTIONS AND ORDINANCES

Waive reading of all resolutions and ordinances as appropriate.

5.b MINUTES REVIEW - MAY 18, 2021 COUNCIL MINUTES

Approve the minutes of the City Council meeting held on May 18, 2021.

5.c SECOND READING OF ORDINANCE NO. 1698 (2021 SERIES) TO AMEND THE AIRPORT AREA AND MARGARITA AREA SPECIFIC PLANS TO ALLOW FOR DAY CARE FACILITIES

Adopt Ordinance No. 1698 (2021 Series) entitled, “An Uncodified Ordinance of the City Council of the City of San Luis Obispo, California, amending the Airport Area and Margarita Area Specific Plans to allow for Day Care Facilities consistent with restrictions that apply citywide under the Municipal Code (Spec-0209-2021).”

5.d AUTHORIZATION TO ADVERTISE BIDS FOR THE ORCUTT/TANK FARM ROUNDABOUT PROJECT, SPECIFICATION NUMBER 1000164

1. Approve plans and specifications for the Orcutt/Tank Farm Roundabout, Specification No. 1000164; and
2. Authorize staff to formally advertise for bids and for the City Manager to award the contract if the lowest responsible bid is below the Publicly Disclosed Funding Amount of $3,477,710; and
3. Authorize the City Manager to issue contract change orders in excess of $100,000 and up to the Publicly Disclosed Funding Amount of $3,477,710; and
4. Authorize the City Manager to execute a Right-of-Way Dedication Agreement between the City of San Luis Obispo and Barbara Parsons if the final agreement terms are to the satisfaction of the Public Works Director and City Attorney; and
5. Authorize the City Manager to execute a Drainage Easement between the City of San Luis Obispo and Barbara Parsons if the final agreement terms are to the satisfaction of the Public Works Director and City Attorney; and
6. Appropriate $1,364,670 in Regional and Urban State Highway Account (SHA) grant funding as provided by the San Luis Obispo Council of Governments (SLOCOG); and
7. Authorize the Finance Director to un-appropriate up to $735,866 in Citywide Transportation Impact Fee (TIF) funds from the Orcutt/Tank Farm Roundabout project account and return to the undesignated Citywide Transportation Impact Fee fund balance at the time of project completion.

5.e CLARIFICATION AND APPROVAL OF ADMINISTRATIVE APPEAL FEES FOR INCLUSION IN THE COMPREHENSIVE FEE SCHEDULE

1. Adopt Resolution No. 11249 (2021 Series) entitled, “A Resolution of the City Council of the City of San Luis Obispo, California, adopting and confirming various fees for Administrative Appeals;” and
2. Approve a fee to appeal to the Tree Committee consistent with current language of San Luis Obispo Municipal Code Section 12.24; and
3. Confirm the applicability of an existing fee to appeal an administrative citation to the Administrative Review Board; and

4. Confirm the applicability of an existing fee to appeal an administrative citation to the Construction Board of Appeals; and

5. Approve modifications to the language of the Comprehensive Fee Schedule to clarify the applicability of the fees referenced above; and

6. Request that the Administrative Review Board consider staff recommended modifications to the administrative citation appeal process, as currently codified, and recommend to the City Council any changes or fee modifications deemed necessary.

5.f ADOPT THE FUND BALANCE AND RESERVE POLICY

Adopt Resolution No. 11250 (2021 Series) entitled, “A Resolution of the City Council of the City of San Luis Obispo, California, adopting a Comprehensive Fund Balance and Reserve Policy” according to Governmental Accounting Standard Board Statement No. 54.

6. PUBLIC HEARING AND BUSINESS ITEMS

6.a ADOPTION OF THE 2021-23 FINANCIAL PLAN

City Manager Derek Johnson and Budget Analyst Natalie Harnett provided an in-depth staff report and responded to Council questions.

Public Comments:

Raleigh Delk
Myron Amerine/Lea Brooks
Declan Galli
David McCullough
Eric Veium
Alejandro
Haley
Deanna Savelson
J.P.
Jade Norton
Elle Harlow
Kat Schroeder Mora
Marshall James
Joshua Medrano
Chuy Caracoles
Carmen
Jeffrey Specht
Garrett
Michael Barros
Lael

---End of Public Comment---

Motion By Council Member Christianson
Second By Council Member Pease

1. Adopt Resolution No. 11251 (2021 series) entitled, “A Resolution of the Council of the City of San Luis Obispo, California approving the 2021-23 Financial Plan and Fiscal Year 2021-22 Budget”; and
2. Defer budget adoption of the Water and Sewer Funds until June 15, 2021 contingent on the Prop. 218 protest hearing and adoption of the water and sewer rate increases; and
3. Adopt Resolution No. 11252 (2021 Series) entitled, “A Resolution of the City Council of the City of San Luis Obispo, California, establishing Parking Rates for the City’s Parking Structures”; and
4. Adopt Resolution No. 11253 (2021 Series) entitled, “A Resolution of the City Council of the City of San Luis Obispo, California, approving modifications to the Parking Citation Penalty Schedule”; and
5. Introduce Ordinance No. 1699 (2021 Series) entitled, “An Ordinance of the City Council of the City of San Luis Obispo, California, amending Title 10 Chapter 52 (Parking Meters) of the San Luis Obispo Municipal Code” to modify parking meter rates and add language referencing the new pay stations; and
6. Introduce Ordinance No. 1700 (2021 Series) entitled, “An Ordinance of the City Council of the City of San Luis Obispo, California, amending Title 10 Chapter 04 (Definitions) of the San Luis Obispo Municipal Code” to add a definition of parking payment center; and
7. Adopt Resolution No. 11254 (2021 Series) entitled, “A Resolution of the Council of the City of San Luis Obispo, California, amending the Water and Sewer Rate Assistance Program for Residential Rate Payers.”

With the following changes:

- *To allocate $40,000 in FY 22-23 to Community Development Department to develop a scope of work and project plan for updating the Historic Resources Survey in the 23-25 Financial Plan.*
- *Rename the “Anholm” Greenway Project.*

Ayes (5): Mayor Heidi Harmon, Vice Mayor Stewart, Council Member Christianson, Council Member Pease, and Council Member Marx

CARRIED (5 to 0)

7. LIAISON REPORTS AND COMMUNICATIONS

Council Member Marx requested that the City Council draft a letter of support for the San Luis Obispo County Elections Official, Tommy Gong, and his staff. By consensus, Council directed the City Attorney to draft the letter and have the Mayor sign on behalf of the Council.

Vice Mayor Stewart indicated that she would be attending the League of California Cities Policy Committee meeting on Friday, June 4, 2021. The meeting will include a presentation and panel discussion on childcare challenges that many California cities face, and a presentation and panel discussion on homelessness.

8. ADJOURNMENT

The meeting was adjourned at 10:53 p.m. The next Regular City Council Meeting is scheduled for June 15, 2021, 5:00 p.m. and 6:00 p.m., respectively, via teleconference.

_____

APPROVED BY COUNCIL: XX/XX/202X

Department: Community Development
Cost Center: 4003
For Agenda of: 6/15/2021
Placement: Consent
Estimated Time: N/A

FROM: Michael Codron, Community Development Director
Prepared By: Walter Oetzell, Assistant Planner

SUBJECT: A REQUEST TO INCLUDE THE PROPERTY AT 531 DANA STREET IN THE CITY'S INVENTORY OF HISTORIC RESOURCES AS A MASTER LIST RESOURCE (DANA/BARNEBERG HOUSE)

RECOMMENDATION

As recommended by the Cultural Heritage Committee, adopt a Resolution entitled, "A Resolution of the City Council of the City of San Luis Obispo, California, adding the property located at 531 Dana Street to the Master List of Historic Resources as "The Dana/Barneberg House" (HIST-0091-2021)."

DISCUSSION

Background

Brian Tuohy has requested that the property at 531 Dana Street be designated as a Master List Resource in the City's Inventory of Historic Resources as the Dana/Barneberg House. The property is currently designated as a Contributing List Resource and is located with the Downtown Historic District.

Previous Council or Advisory Body Action

On April 26, 2021 the Cultural Heritage Committee considered this request and found that the property meets eligibility criteria for historical listing to a degree that qualifies it for designation as a Master List Resource and recommended that the City Council designate the property as such in the City's Inventory of Historic Resources.

Site and Setting

The property is on the south side of Dana Street, about 400 feet west of Nipomo Street, within a smaller residential section of the Downtown Historic District that includes a spectrum of settlement from the mid-19th century to the 1920s. The applicant has provided an evaluation of the property and its eligibility for historic listing prepared by Betsey Bertrando of Bertrando & Bertrando Associates (Attachment B).

The dwelling that is the subject of this evaluation was originally constructed in the late 19th Century, from about 1887, on property across Dana Street (at 550), and moved to the subject site in 1914.[1] The property (531 Dana) appears as a "Contributing Property" on the listing of historic properties adopted by the City Council in 1988 (by Resolution No. 6424).

Building Architecture

As described in the applicant's Historic Resource Evaluation, the dwelling reflects Victorian vernacular architecture,[2] sheathed in shiplap siding, with several distinctive elements:

- Unusual mix of roof lines, including flat front and gable with two-patterned shingle
- Square bays on front façade, with ins-set columns at corners and continuous sill
- Recessed porch with flat sawn balusters, wood railing, and saw cut border of circles above

Figure 1: 531 Dana (1995 View)

The City's Historic Context Statement describes the growing prevalence of wood frame construction in the City's late 19th-Century Residential Development, noting representative forms and styles of the era that include cottages and Folk Victorian. The specific architectural and historical characteristics of the building are more fully discussed in the Historic Resource Evaluation submitted with this application, and summarized in the Evaluation section of this report, below.

John Wesley Barneberg and Grace Barneberg

The applicant's Historic Resource Evaluation also provides biographical details about John Wesley Barneberg and his daughter Grace, who are most closely associated with the property. John Wesley Barneberg, born in Iowa, had been farming in Arroyo Grande and relocated to Dana Street after marrying Sarah Elizabeth Anderson in 1873. As more fully described in the Historic Resource Evaluation, he was active in the community, running a foundry and machine shop and a hardware store, serving as City Tax Collector, and involved in many civic committees, later becoming president of two local banks, and having some success in exploration and development of oil resources in the region.

[1] See description of building history, from page 17 of the Bertrando Historic Resource Evaluation (Attachment B)
[2] Bertrando, Historic Resource Evaluation (Attachment B), from pg. 23.

His daughter Grace lived much of her life in the house, up until the time of her death. She taught high school, having been educated at Stanford and Berkeley, was one of the founders of the Monday Club, and was active in several local organizations and boards. She also helped her parents raise her brother's two children, Helen Maxine and Jack Barneberg, grandchildren of Charles William Dana, who, in turn, was the son of William Goodwin Dana.

Further detail, including discussion of the intertwined relationship between the Dana and Barneberg families, is provided from page 11 of the applicant's Historic Resource Evaluation (Attachment B).

Evaluation of Eligibility

To be eligible for listing as an historic or cultural resource, the resource must exhibit a high level of historic integrity, be at least 50 years old, and meet one or more of the eligibility criteria described in § 14.01.070 of the Historic Preservation Ordinance (see Attachment C). As provided in § 14.01.050 of the Ordinance, the most unique and important resources and properties in terms of age, architectural or historical significance, rarity, or association with important persons or events in the City's past may be designated as "Master List Resources."

1. Architectural Criteria

   As described in the applicant's Historic Resource Evaluation, the dwelling exhibits many characteristic features of Victorian vernacular examples form the late 19th Century, in a manner that expresses interesting details with notable attractiveness, consistent with listing criteria for "Style" and for "Design":

   > *The 1880s architectural style of the Dana/Barneberg House used an abundance of elements that were popular with the prominent citizens of San Luis Obispo at that time. Using elements found on Queen Anne cottages such as the squared bay, panels under the windows, and shingle work under the gables, it also represents a composite of borrowed elements. The saw cut balustrades and scroll sawn border under a narrow front facing gable behind a shed roof belie other aspects of design. […] (pg. 26)*

2. Historic Criteria

   The Historic Resource Evaluation provides a summary (pp. 26 & 27) of the local activities in which John Wesley Barneberg and his daughter Grace were engaged, illuminating their contributions to the local community, and notes the association of the Barnebergs with the Dana family, to demonstrate the association of this property with the lives of persons important to local history, as described by listing criteria for "History – Person."

3. Integrity

To demonstrate satisfaction of listing criteria for "Integrity," the Historic Resource Evaluation notes the retention of the original design, footprint, and character-defining elements of the home intact in moving to its current site from its original site across Dana Street, the lack of significant alteration of the building, and its sensitive restoration in 2006, overseen by Darryl Joseph "Joe" Shauerman, a local glazer and craftsman (pp. 20-21, pg. 28).

> *Overall, the house retains more than enough of its character to communicate its significance as an innovative, abstracted example of Minimal Traditional architecture with some extraordinary interior features. (pg. 24).*

Conclusion
The information in the Historic Resource Evaluation prepared for this application, documenting the architectural character and integrity of the house, and describing the people associated with the property, provides a basis for the Council to find that the dwelling satisfies Architectural Criteria for Style and Design (§§ 14.01.070 (A) (1) & (2)), Historic Criteria for "History-Person" (§14.01.070 (B) (2)), and Criteria for Integrity (§§ 14.01.070 (C) (1) & (2)), to a degree that qualifies the property for designation as a Master List Historic Resource.

Policy Context
The recommended action on this item is supported by historical preservation policies set out in § 3.0 of the Conservation and Open Space Element of the City's General Plan, and with procedures and standards for listing of historic resources set out in the City' s Historic Preservation Ordinance §§ 14.01.060 & 14.01.070.

Public Engagement
Public notice of this hearing has been provided to owners and occupants of property near the subject site, and published in a widely circulated local newspaper, and hearing agendas for this meeting have been posted at City Hall, consistent with adopted notification procedures. Public notice was also previously provided for the Cultural Heritage Committee meeting of April 26, 2021.

ENVIRONMENTAL REVIEW

This project is categorically exempt from the provisions of the California Environmental Quality Act (CEQA). Inclusion of the subject properties on the City's Inventory of Historic Resources does not have the potential for causing a significant effect on the environment, and so is covered by the general rule described in § 15061 (b) (3) of the CEQA Guidelines.

FISCAL IMPACT

Budgeted: No
Budget Year: 2021
Funding Identified: No

Fiscal Analysis:

Funding Sources	Total Budget Available	Current Funding Request	Remaining Balance	Annual Ongoing Cost
General Fund	N/A	$	$	$
State				
Federal				
Fees				
Other:				
Total	**$**	**$0**	**$**	**$0**

ALTERNATIVES

1. ***Decline to designate the property as a Master List Resource in the Inventory of Historic Resources.*** This decision would be based on finding that the Property is not considered to be sufficiently unique or important, or found to satisfy Evaluation Criteria for listing to a degree warranting such designation. The Property would remain in the Inventory as a Contributing List Resource.
2. ***Continue consideration of the request for additional information or discussion.***

ATTACHMENTS

A – Draft Resolution
B – Historic Resource Evaluation (Bertrando & Bertrando)
C – Evaluation Criteria

RESOLUTION NO. _____ (2021 SERIES)

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF SAN LUIS OBISPO, CALIFORNIA, ADDING THE PROPERTY LOCATED AT 531 DANA STREET TO THE MASTER LIST OF HISTORIC RESOURCES AS "THE DANA/BARNEBERG HOUSE" (HIST-0091-2021)

WHEREAS, the applicants, Susan and Mark Hoffman, filed an application on February 8, 2021, for review of the inclusion of the property at 531 Dana Street on the City's Master List of Historic Resources; and

WHEREAS, the Cultural Heritage Committee of the City of San Luis Obispo conducted a public hearing via teleconference from the City of San Luis Obispo, California on April 26, 2021 and recommended that the City Council add the property at 531 Dana Street to the Master List of Historic Resources; and

WHEREAS, the City Council of the City of San Luis Obispo conducted a public hearing on April 20, 2021 for the purpose of considering the request to add the properties to the Inventory of Historic Resources; and

WHEREAS, notices of said public hearings were made at the time and in the manner required by law; and

WHEREAS, the City Council has duly considered all evidence, including the record of the Cultural Heritage Committee hearing and recommendation, testimony of the applicant and interested parties, and the evaluation and recommendation presented by staff.

NOW, THEREFORE, BE IT RESOLVED by the Council of the City of San Luis Obispo as follows:

SECTION 1. Findings. Based upon all the evidence, the City Council makes the following findings:

a) The subject property is eligible for inclusion in the City's Inventory of Historic Resources as a Master List Resource because the dwelling on the property satisfies at least one of the evaluation criteria for historic resource listing described in § 14.01.070 of the City's Historic Preservation Ordinance (HPO), exhibits a high degree of historic integrity, and is more than 50 years old.

b) The dwelling on the subject properties satisfies Architectural Criteria for Style and Design (§§ 14.01.070 (A) (1) & (2)), Historic Criteria for "History-Person" (§14.01.070 (B) (2)), and Criteria for Integrity (§§ 14.01.070 (C) (1) & (2)) to a degree that qualifies the property for designation as a Master List Historic Resource.

It conveys a purity of style, exhibits attractiveness through detailing and craftsmanship, and exhibits many characteristic features of Victorian vernacular examples form the late 19th Century in a manner that expresses interesting details with notable attractiveness. The building occupies its original site, with its exterior and interior largely unaltered, and retains its characteristic design and materials. The property is associated with John Wesley Barneberg and his daughter Grace, who were active in the community, local organizations and boards, and its civic affairs, and had an intertwined relationship with the Dana family.

SECTION 2. Environmental Determination. The project is categorically exempt from the provisions of the California Environmental Quality Act (CEQA). Inclusion of the subject properties on the City's Inventory of Historic Resources does not have the potential for causing a significant effect on the environment, and so is covered by the general rule described in § 15061 (b) (3) of the CEQA Guidelines.

SECTION 3. Action. The City Council of the City of San Luis Obispo does hereby include the property located at 531 Dana Street in the Master List of Historic Resources as "The Dana/Barneberg House."

Upon motion of Council Member _____, seconded by Council Member_____, and on the following roll call vote:

AYES:
NOES:
ABSENT:

The foregoing resolution was adopted this ____ day of _____ 2021.

_____
Mayor Heidi Harmon

ATTEST:

_____
Teresa Purrington
City Clerk

APPROVED AS TO FORM:

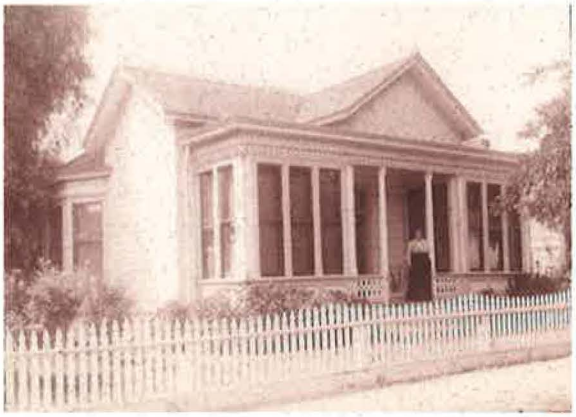
_____
J. Christine Dietrick
City Attorney

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the official seal of the City of San Luis Obispo, California, on _____.

_____
Teresa Purrington
City Clerk

R _____

HISTORIC RESOURCE EVALUATION



550 Dana Street - c.1880s

DANA/BARNEBERG HOUSE
531 Dana Street
City of San Luis Obispo, CA
APN 002-402-008

531 Dana Street - 2008

Prepared for: Brian and Kristina Tuohy
531 Dana Street
San Luis Obispo, CA

Prepared by: Betsy Bertrando
Bertrando & Bertrando Research Consultants
267 East Foothill Boulevard
San Luis Obispo, CA

January 2021

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ABSTRACT

A request was made by the owners, Brian and Kristina Tuohy, for an historic significance evaluation of the Dana/Barneberg House. The Dana/ Barneberg House is located at 531 Dana Street within the City of San Luis Obispo. This study finds that the house on the parcel is historically significant as defined in the City of San Luis Obispo Guidelines for evaluating historic resources. In an effort to recognize its historical importance, this report recommends that the Dana/Barneberg Home be placed on the City of San Luis Obispo Master List of Historic Resources.

INTRODUCTION

The research carried out to complete this historic significance evaluation was conducted by Betsy Bertrando, of Bertrando & Bertrando Research Consultants (BBRC), who was assisted in the field by Luther Bertrando. The project property (APN 002.402.008) is depicted on the San Luis Obispo 7.5 quadrangle topographic map as existing in the City of San Luis Obispo at 531 Dana Street - Block 61, lot 8 (Appendix A). Currently, the house sits within the Downtown Historic District and is on the City of San Luis Obispo's List of Contributing Historic Resources. The findings and conclusions of this study are that the Dana/Barneberg House satisfies the criteria necessary to place the house on the City's Master List of Historic Resources.

The new owners of the property are in the process of renovating the house after it has been unoccupied for a period of time. The owners have requested an historical evaluation of the house to determine whether their property would be eligible to be upgraded to a Master List property.

PROJECT DESCRIPTION

Bertrando & Bertrando Research Consultants was contacted by the owners, Brian and Kristina Touhy, in late October, 2020, to proceed with an evaluation of the house, referred to as the Dana/Barneberg House, on their recently purchased property. Researching the Dana/ Barneberg House took place over a three month period. The house had been moved from 550 Dana Street in 1914 to its current location at 531 Dana Street. The 550 Dana Street property, across the street from the project parcel, was once owned by Charles W. Dana. In the 1880s, the house, in its current form, was located at 550 Dana Street when it was the Barneberg family home. Because of this complicated history, this research investigated the home's history on both parcels (550 and 531 Dana Street). The evaluation has focused on a thorough search of all available records that pertain to the architecture, land and ownership history of the parcel and house up to the present for both properties. The study also includes the history of the the Dana and Barneberg families and their relationship to the house.

METHODS

Background for the property was gathered to establish the structure's architectural history, historic use and people associated with the property. This included research to investigate if historic events or persons important to the history of the City of San Luis Obispo were associated with the structure.

Interviews

Phone interviews were conducted with long time neighbors on Dana Street, Tim Olson and Sharon Kamm. They provided background for the area and prior changes to the house. In addition, documents and photographs were made available by Eleanor Schauerman. It was her husband, Darryl Joseph Schauerman, who took on the extensive restoration project that saved the house in 2006. Photographs documented all the restoration work that took place over a two year period. Eleanor Schauerman shared floor plans and elevations that were invaluable to this researcher.

Archival Research

Over a three month period, background for the property was gathered by a search of the historic literature; maps, directories, newspapers, documents, the internet, building permits, census and Great Register records including:

- *The private archive of Bertrando & Bertrando Research Consultants* - publications, maps and documents essential to the project.
- *The personal files and photographs of Eleanor Schauerman*
- *On line sources* including, Geneology Bank and Ancestry.com, for access to San Luis Obispo directories, family genealogical information and newspapers. Other sources were the Department of the Interior BLM, City of San Luis Obispo Permits and Maps, San Luis Obispo County Assessor, San Luis Obispo County-Clerk/Recorder, Cal Poly Special Collections and the San Luis Obispo History Center.

Field Investigation

The field investigation took place on October 23, 2020. The purpose of the investigation was to record and photograph the setting and exterior of the residence. Survey assistance was provided by Luther Bertrando. The current owners allowed access to the interior and were helpful in sharing any information that they had regarding prior ownership and changes in the structure. Notes were written focusing on the original features of the house and property. Important information collected included:

- Architectural features within the context of the "Historical Period of Significance"
- Type of construction and materials used
- Modifications through time
- Setting and Landscaping

SIGNIFICANCE CRITERIA

In the preparation of this report the City of San Luis Obispo criteria for evaluating historic properties was used. The City of San Luis Obispo evaluation criteria for historic resources was amended by Ordinance 1557 § 3 in 2010. Under 14.01.070, the standards will be used to determine if the property should be listed as a historic or cultural resource as defined in the Ordinance, as well as, consideration of the State Historic Preservation Office standards.

In order to be eligible for designation, the resource shall exhibit a high level of historic integrity, be at least fifty years old and satisfy at least one of the following criteria:

A. *Architectural Criteria*. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master, or possesses high artistic value.

1. *Style*. Describes the form of a building, such as size, structural shape and details within that form. Building style will be evaluated as a measure of:
   a. The relative purity of a traditional style;
   b. Rarity of existence at any time in the locale; and/or current rarity although the structure reflects a once popular style;
   c. Traditional, vernacular and/or eclectic influences that represent a particular social milieu and period of the community; and/or the uniqueness of hybrid styles and how these styles are put together.

2. *Design*. Describes the architectural concept of a structure and the quality of artistic merit and craftsmanship of the individual parts. Reflects how well a particular style or combination of styles are expressed through compatibility and detailing of elements. Also, suggests degree to which the designer interpreted and conveyed the style. Building design will be evaluated as a measure of:
   a. Notable attractiveness with aesthetic appeal because of its artistic merit, details and craftsmanship;
   b. An expression of interesting details and eclecticism among carpenter-builders, although the craftsmanship and artistic quality may not be superior.

3. *Architect*. Describes the professional directly responsible for the building design and plans of the structure. The architect will be evaluated as a reference to:

a. A notable architect, including architects who made significant contributions to the state, or region, or an architect whose work influenced development of the city, state or nation.
b. An architect who, in terms of craftsmanship, made significant contributions to San Luis Obispo.

B. *Historic Criteria*

1. *History—Person.* Associated with the lives of persons important to local, California, or national history. Historic person will be evaluated as a measure of the degree to which the person or group was:

a. Significant to the community as a public leader or for his or her fame and outstanding recognition - locally, regionally, or nationally.
b. Significant to the community as a public servant or person who made early, unique, or outstanding contributions to the community, important local affairs or institutions.

2. *History—Event.* Associated with events that have made a significant contribution to the broad patterns of local or regional history or the cultural heritage of California or the United States. History event will be evaluated as a measure of:

a. A landmark, famous, or first-of-its-kind event for the city—regardless of whether the impact of the event spread beyond the city.
b. A relatively unique, important or interesting contribution to the city.

3. *History—Context.* Associated with and also a prime illustration of predominant patterns of political, social, economic, cultural, medical, educational, governmental, military, industrial, or religious history. Historic context will be evaluated as a measure of the degree to which it reflects:

a. Early, first or major patterns of local history, regardless of whether the historic effects go beyond the city level, that are intimately connected with the building.
b. Secondary patterns of local history, but closely associated with the building.

C. *Integrity.* Authenticity of a historical resource's physical identity evidenced by the survival of characteristics that existed during the resource's period of significance. Integrity will be evaluated by a measure of:

1. Whether or not a structure occupies its original site and/or whether or not the original foundation has been changed, if known.

2. The degree to which the structure has maintained enough of its historic character or appearance to be recognizable as a historic resource and to convey the reason(s) for its significance.

3. The degree to which the resource has retained its design, setting, material, workmanship, feeling and association. (Ord. 1557 § 3 (part), 2010

In addition to meeting any or all of the designation criteria listed above, properties nominated must also possess historic integrity. Historic integrity is the ability of a property to convey its significance and is defined as "the authenticity of property's historic identity, evidenced by the survival of physical characteristics that existed during the property's historic period."

These criteria were applied in this report.

BACKGROUND

The first recorded European contact in San Luis Obispo occurred on September 6, 1769 when the Spanish land expedition, led by the Governor of Baja California, Gaspar de Portolá, arrived from Loreto, Baja Sur, via San Diego. At that time, Fr. Crespí gave the name La Cañada de Natividad de Nuestra Señora near the location where Mission San Luis Obispo de Tolosa was founded three years later (Engelhardt 1933). The time of greatest growth for the mission was between 1790 and 1810 (Kocher 1972). Unfortunately, the annual reports that were filed by the Mission Fathers giving the extent of growth and construction for a twenty-five year period are missing.

Later in 1822, Mexico, (including California), achieved independence from Spain and the missions began to be secularized (Kocher 1972). Ownership of the large mission ranchos and outposts were petitioned for by Mexican citizens and awarded to them by their new government.

In 1846, the American Flag was raised in Monterey, briefly the capital of California, thus heralding the beginning of the American Period. Many languages were spoken in the town of San Luis Obispo at this time when it struggled to form a community under the laws of the United States Government. Small adobes housed saloons and not much else during the 1850s (Bertrando 2009). Reading and writing were uncommon skills and lawyers were needed to resolve the land court cases that resulted from the breakup of the large rancho tracts of land.

Besides English and Spanish in the newspapers, French, German, Portuguese and Italian were common voices in the small hamlet that still thought of itself as a pueblo. A few native Chumash, Yokut and Salinan speakers were still heard as well. Many residents originally came to California to work the goldfields in the north. Some became disillusioned, drifted south and stayed in San Luis Obispo. San Luis Obispo, the county seat, served an agricultural and ranching community that was rather isolated. Markets in San Francisco were reached by sea using ports along the coast.

By the late 1880s, construction in the town had evolved from adobe to wood and was entering an era of brick commercial buildings that formed an increasingly bustling downtown. Brick construction, an improvement offering more protection from fires, began encouraging local businesses to built grander, more permanent structures. At about the same time, speculators were gambling on the Southern Pacific railroad building a coastal line from San Francisco to Los Angeles. In 1886, the rails entered San Miguel at the northern county line. Near the line of the proposed tracks, a grand hotel - the Ramona - was opened in San Luis Obispo in 1888. However, it took the railroad until 1894 to reach San Luis Obispo after building a series of tunnels to descend the grade into town.

The impact of the Southern Pacific Railroad coming in 1894 and the development of the California Polytechnic State University in the early 1900s forever changed the future of San Luis Obispo. Comparable affects in the community weren't felt until World War I, the Great Depression and World War II.

FINDINGS

The findings have focused on; Dana Street neighborhood, 531 Dana Street project parcel history, owners of the Dana/Barneberg House and construction history of the house.

Archival Research

In recognition of its long history, the City of San Luis Obispo established a Cultural Heritage Committee in 1981. One of its functions was to inventory and compile a list of historic properties and form specified districts. The "Downtown Historic District" was formed in 1983 and expanded later to include Dana Street properties. With the street's close association to the Mission and the earliest development of San Luis Obispo, it is a significant part of the history of San Luis Obispo.

Dana Street Neighborhood

Prior to 1890, Dana Street was sometimes referred to as South Monterey Street in the documents, while it was also known as Dana Street (Figure 8 - 1888 Sanborn Map). Being closely associated with the early development around the mission, by the 1860s, Dana Street already had the beginnings of a neighborhood. Only a block long, the street is situated at the confluence of two creeks; San Luis Obispo Creek (Arroyo San Luis) and Stenner Creek (Arroyo de la Huerta Vieja, AKA Garden Creek). The early names reflect the Spanish heritage of early California and are often used on maps of the area. For the purposes of this report, the land bordering Stenner Creek is referred to as the north side of Dana Street and the land bordered by San Luis Obispo Creek as the south side of the street.

Most of the earliest property owners on Dana Street; Durazo, Simmler, Dana, Wilson and Limas, were all members of the Vigilance Committee. The committee was established in 1858

when lawlessness was threatening the small community that had settled around the mission (Angel 1979). The same property owners still owned the land when the 1872 Act to Reincorporate the Town of San Luis Obispo was passed, one hundred years after Mission San Luis Obispo de Tolosa was founded. This allowed the town to appoint an attorney and surveyor and finally address civic improvements such as "the opening and grading of roads, addressing sanitation and caring for the roads within the Town limits" (Carotenuti, 2006:39).

On the north side of Dana Street bordering Stenner Creek, three Master List Historic Resources remain;

(1) 466 Dana Street - The old J. J. Simmler property, is currently owned by the City of San Luis Obispo and known as the Rosa Butron Adobe.
(2) 532 Dana Street - The "J. F." [*sic*] Anderson Home was constructed in 1898 on the former property of W. C. Dana according to the city inventory (The city inventory incorrectly gives the middle initial as F. when it should be L. for Jefferson Lee Anderson).
(3) 550 Dana Street - The Barneberg Home was constructed in 1914 and has important connections to the project parcel that are discussed in another section of this report.

Dana Street Property Owners - Prior to 1870

Early property owners on Dana Street were the first to develop San Luis Obispo after 1850. Many of their families have remained in the community and continue to thrive. Listed below are the property owners on the north side of the street, beginning at the corner of Nipomo and Dana Streets, then heading west to the end of Dana Street.

- Ricardo Durazo and his wife, Refugio had an adobe on a 270 ft plus frontage on Dana Street. Durazo came to San Luis Obispo in 1854 from Sonora, Mexico.

- Charles William Dana with a 235 ft frontage on Dana Street that contained a house on 1.52 acres that was fenced and planted with fruit trees (Figure 1).

- A. Limas had an adobe on his parcel near the location of the current I.O.O.F. Hall.

- J.J. Simmler owned land on both sides at the end of the street Simmler arrived in San Luis Obispo in 1852 from Alsace, France. He made a name for himself serving as Postmaster, Justice of the Peace, School Trustee and Town Trustee. His adobe, owned by the City today, still stands with the name of his wife, Rosa Butron.

Two owners had the property on the south side from the San Luis Obispo Creek bend after Simmler's land east to Nipomo Street.

- Captain John Wilson and his wife Ramona owned the deed for land 460 ft. along Dana Street heading east, but a brewery business was on the site in the 1860s (Figure 2). The

title was eventually settled in court. At one time, prior to 1850, Wilson was the largest land owner in the county.

- William B. Haley had the last 195 ft. to the corner of Dana and Nipomo Streets.

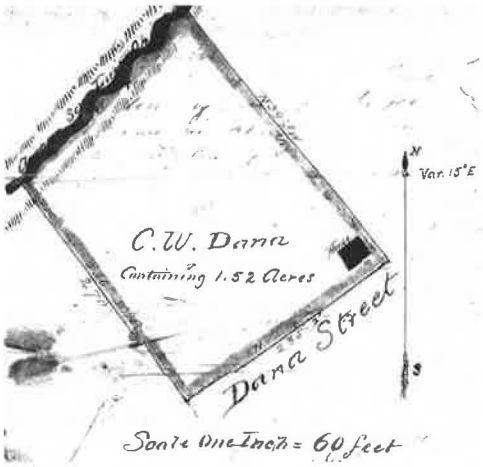

Figure 1: 1870 C. W. Dana Petition for Land with the Dana/Barneberg House at its Original Location

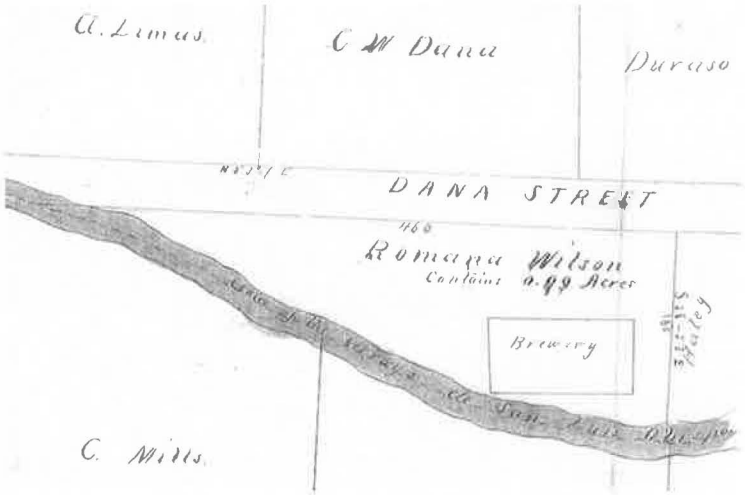

Figure 2: 1870 Ramona Wilson Petition for Land - Site of the Current Location of the Dana/ Barneberg House

Dana Street Project Area Property Owners - 1872

Ownership for this period began with requests for land filed by the residents from 1869 to 1872 who could now attain formal title to their land (Bertrando 1996). By that time, some of the petitioners had been on the land for several years. In 1870, Ramona Wilson applied for land that was previously conveyed to her deceased husband in 1859 under Ordinance #14. It included a portion of the Wilson property that the Dana/Barneberg House is currently located.

East of the brewery structures, a house at 581 Dana Street was occupied by Frank and Hannah McHenry. They had an upholstery and paper-hanging business next to the Pioneer Brewery. Frank died in 1888 leaving his widow, Hannah, to make a living washing and ironing at her house. During the early 1900s, the house had various occupants until the 1920s when the Bowles family lived in the house and ran a fish market out of the back shed (Bertrando, 2003).

William Berryman Haley built his brick house on the northeast corner of Dana and Nipomo Streets in 1867.

531 Dana Street - Project Parcel

The Dana/Barneberg House is on part of the original Ramona Wilson property. The Wilson property, stretching between 459 and 581 Dana Street, has been split into seven parcels. Currently, Lot 8 at 531 Dana Street, contains the Dana/Barneberg House. A brewery and gas company operated on the Wilson property before the house was moved from 550 Dana Street.

The Brewery

The Wilson property discussed above contained a brewery in the 1860s. It comprised the first known group of structures on the property. A court case to settle title on lands, originally confirmed to John Wilson, allowed Julius Lindenmeyer and George Deffner to formally acquire the land that contained a house and brewery.

Coming from Bavaria, Deffner was a liquor dealer in San Luis Obispo by 1863. Living next to the Sauer Adobe on Chorro Street, Deffner also ran a saloon. Lindenmeyer was born in Baden, Germany, in 1833 and came to California in 1863. In 1869, the first editions of the newspaper were advertising the Pioneer Brewery "on Monterey just below the bridge." (*San Luis Obispo Weekly Tribune*. Aug 7, 1969). The following year Julius Lindenmeyer bought out the interest of his retiring partner, Deffner, in the "old firm." (*San Luis Obispo Tribune,* June 4, 1970). Lager beer newspaper ads continued weekly throughout the 1870s with Lindenmeyer requesting the community to patronize his home industry.

> "PIONEER BREWERY - Hearing that great improvements were in progress at this brewery, we called in on Tuesday last to ascertain the truth of the report. We found Mr. Lindenmeyer, the gentlemanly proprietor, over head and ears in the work of reconstruction and enlargement of his establishment. He informed us that for several months past the call for this most invigorating Teutonic beverage (lager) has been so great that he was compelled to enlarge his brewery to meet the demands. A huge caldron has taken the place of the old one; a cooling vat, capable of holding several hundred gallons; a malt mill, driven by horse power; a new kiln for drying malt has been erected, with a heating surface of twelve feet square, and sundry other improvement too numerous to mention. With these additions he hopes to be able to supply the needs and slack the thirst of all that are bibulously inclined. He also intends keeping teams running throughout the county, so that all may drink of the bowl that 'cheers but not inebriates'. " (*San Luis Obispo Weekly Tribune* May 25, 1872)

The same year Julius Lindenmeyer took on a partner, Harry Hollman, formerly of San Francisco (Deed Book E/264). The partnership did not last long as the following year the Holman share went back to Julius Lindenmeyer (Deed Book E/341). Later in 1875, another brewery was opened in Guadalupe under the management of Julius Lindenmeyer.

The Dana Street operation had changed hands by 1881 under new ownership. With a new name, it became the Tivoli Brewery. The Tivoli Brewery was known for serving superior lager beer with Echlin and Fink as the proprietors. In 1884, the Maier brothers, Reinhold and

Joseph, took over as new owners with another name change. "The repairs of the Gambrinus Brewery having been completed. The new proprietors, having had a long experience, will furnish a first class article." (*San Luis Obispo Weekly Tribune* May 2, 1884). Soon the brewery was a place of entertainment as well. Parties in the improved gardens made the Maier brothers much admired for their operation. It did not last for long. The Maier brothers declared bankruptcy and the Sheriff took possession of the estate in 1885 (*San Luis Obispo Weekly Tribune* Oct. 9, 1885). One of the brothers, Joseph, later achieved great success as president of the Maier Brewing Company in Los Angeles. At Joseph's death in 1909, his funeral was elaborately reported in the local newspaper as one of the largest ever held in Los Angeles with fourteen police to handle the crowds. An orchestra, quartet, forty piece band, the largest floral piece ever made were accompanied by large groups of Elks, Masons, Eagles, Native Sons, and Turnerein marching to the cemetery.

In 1887, Otto Tullman acquired the brewery property from the bank following the bankruptcy (Deed Book W/635). Otto already had the old Haley property with the brick house on the corner of Dana and Nipomo Streets. Tullman added a warehouse, a saloon and ice plant as well as another brick building that faced Nipomo Street. Once a prominent part of historic San Luis Obispo, the buildings on the corner property were removed and offices constructed in 1999 (Bertrando 1998). The old warehouse along the creek was rebuilt with a similar appearance.

Early in 1900, the brewery property was owned by Ora Eleanor Stockton while Tullman kept his property at the corner of Nipomo and Dana Streets. The directory for San Luis Obispo in 1912 noted that Susan Stockton, widowed, was living at 581 Dana Street with Cecil L. Stockton, a Cal Poly agricultural student. Cecil graduated the following year. He later settled in San Pedro and began his career as a nurseryman. Later in 1921, Ora Eleanor Stockton living in San Francisco, transferred the rest of the property "land commonly known as the Pioneer Brewing Company," according to the deed, to Susan J. Stockton, a widow living in San Luis Obispo (Deed Book 150/112,113).

The Gas Company

Before Julius Lindenmeyer left the brewery, he sold a part of the property. The parcels included 507, 515, and 525 Dana Street. The property forms a triangle where the San Luis Obispo Creek meets Dana Street. The property was sold in 1875 to the newly formed San Luis Gas Company (Deed Book H/142). The first Gas Company superintendent was D. C. Norcross whose house was built in 1874 on the opposite side of San Luis Obispo Creek. On the triangular property, the Gas Company had a building with storage, office on either side of the retort that was adjacent to a large gas tank. The townspeople soon began to question who will ever use it? Nevertheless, seventy-five lamp posts were ordered and cast at the Barneberg & Philbrick foundry after a pattern procured in San Francisco for lighting the town. Early in 1877, the company received 30 tons of Sidney coal and began producing gas.

An awning was allowed to be erected on the property. A later superintendent was arrested for neglecting to repair the streets that were torn up to lay the gas lines. The same superintendent was also arrested for obstructing Dana Street with piles of rubbish in front of the Gas Company in 1878.

An early resident recalled that the gas:

> "...was made from coal and one could smell the coal fumes as one went by a house that was using gas to cook with. There was no heating by gas nor gas lights in the city. There was only one electric light in San Luis Obispo in 1905." (Maino n.d./6)

The Gas Company was relocated to Pismo Street in 1904 when the newspaper reported the following:

> Moving Big Tank
>
> "The Gas & Electric Co. moved the last of the old gas plant from Dana Street to the new location on Pismo Street yesterday morning. It was the old tank 18 feet high by 30 feet in diameter which was hauled on trucks by eight horses. Jos. Maino did the job. Owing to the narrow bridges on Nipomo and Broad streets the tank had to be hauled up Monterey to Chorro street. Some difficulty was experienced in getting under numerous telephone and other wires but the job was done by nine o'clock. The people of Dana street welcome the removal of the gas plant." (*San Luis Obispo Morning Tribune* May 11, 1904)

The former gas tank on Dana Street would have been on the west side of the project parcel before the Dana/Barneberg House was moved there. The current (now "old") Gas Works, at 280 Pismo Street is on the City's Master List of Historic Resources.

In 1912, Neil Stewart, receiver of the Bank of San Luis Obispo sold part of block 61, formerly known as the Gas Company, to Susan Stockton for $1850. The following year, Ora Eleanor Stockton sold the parcel at 531 Dana Street to John Wesley Barneberg (Deed Book 100/40,41)

Dana/Barneberg House Resident History to Present

The Dana/Barneberg House once sat on a large parcel that was owned by Charles William Dana on the north side of Dana Street. Currently, the property has two Master List houses; the Anderson House (532 Dana Street) and the Barneberg House (550 Dana Street). Barneberg moved his first house across the street to 531 Dana in 1914 and then constructed the large two-story house Master List property we see today at 550 Dana Street. Anderson built his home adjacent to Barneberg in 1898 on what was once vacant Dana land. John Wesley Barneberg married Anderson's sister, Sarah Elizabeth. Their son married William C. Dana's daughter, Emelinda Estella "Stella." The history of the people associated with the house involves three families that intermarried and have resided on Dana Street (Table 1). Research

was focused on the families up to 2005 - Dana, Barneberg and to a lesser extent on Anderson (through marriage).

TABLE 1 - Dana/Barneberg House Addresses and Occupants

Date	Address	Owner Occupant
1867	550 Dana Street	Charles William Dana until sold to Phillip Biddle in 1881
1881	550 Dana Street	Phillip Biddle - resold to John Wesley Barneberg
1882	550 Dana Street	John Wesley Barneberg m. Sarah Anderson, son Harry m. C.W. Dana daughter, Stella - their son, Jack and daughter, Helen Maxine were raised by John and Sarah Barneberg.
1914	531 Dana Street	House was moved by John Barneberg and rented the house until granddaughter Helen Maxine Barneberg m. Eugene Van Schaick and lived there.
2005	531 Dana Street	Family ownership ends with Helen and Eugene's daughter Betty Maxine. Betty Maxine m. Norman Holt. House sold by their son, Robert Holt.

Charles William Dana

Charles William Dana was born 1837 in Santa Barbara. Two years later he moved with his family to their Nipomo Rancho. Charles was the grandson of Gov. Carrillo and his parents were Captain William Goodwin Dana and Josefa Carrillo, the grantees of the Nipomo Rancho in 1837. Charles was educated both in Mexico and in eastern schools. In 1866, Charles married

Figure 3: Charles W. Dana, wife Blandina and children c. 1875

Blandina Refugio Esquer and was farming in San Luis Obispo. They had seven children reach adulthood (Figure 3). Charles had a career in San Luis Obispo that included serving in 1859 as

Clerk of the San Luis Obispo Board of Trustees for over twenty years, elected to the State Assembly 1863-1875 and Mayor of San Luis Obispo in 1881. His 1896 death in San Luis Obispo was reported in a long article in the San Francisco Newspaper headlined "San Luis Loses a Valued Citizen." "The death of few men will be more widely lamented in the counties of Monterey, Santa Barbara and San Luis Obispo than that of Charles W. Dana ." (*San Francisco Call*, Feb 29, 1896)

Emelinda Estella "Stella" Dana Barneberg/Martin (1880-1938)

The Dana and Barneberg families came together when one of the Charles William Dana daughters married into the Barneberg family after Dana's property on Dana Street was sold to John Wesley Barneberg. Stella Dana married Chester Harry Barneberg (1880-1944), the son of John Wesley and Sarah Barneberg in 1901. Harry and Stella had a daughter, Helen Maxine Barneberg (1901-1989), and a son, John Chester "Jack" Barneberg (1903-1977). The marriage didn't last however. Soon in 1908, the two children were placed under the guardianship of John Wesley Barneberg, their grandfather, with the consent of their parents. The same year, Stella Barneberg relocated to San Francisco with her mother and Harry opened a cigar store in San Luis Obispo. Not long after Stella and Harry Barneberg divorced, Stella married Charles Edward Martin, a harness maker, and had two children, Letitia C. Martin (1909-1976) and Mary Fidelia "Dolly" Martin (1915-2002). In 1932, they had a home on Mill Street in San Luis Obispo.

Figure 4: Helen Maxine, c. 1920

Helen Maxine Barneberg Van Schaick (1901-1989)

Helen Maxine, under the guardianship of her grandfather, John Wesley Barneberg, grew up at 550 Dana Street before the house was moved in 1914 (Figure 4). She continued living at that location in the new Barneberg house. Later, Helen Maxine married Eugene Chester Van Schaick (1902-1973). They eventually settled across the street in the old Dana/Barneberg House at 531 Dana Street where they raised their daughter, Betty Maxine (1923-2006). Helen Maxine is the only representative of the Dana and Barneberg families that lived in the Dana/ Barneberg House at both of its locations. City Directories list Helen and Eugene as residing at 531 Dana Street at the Barneberg House at 550 Dana Street during the last year of Eugene's life. Their daughter Betty Maxine married Norman Holt in 1944 and had a son, Robert. Robert, was the last family member to have lived in the Dana/Barneberg House where he used the kitchen as a photography studio. The family retained the property until it was sold in 2005 by the Holt family. Betty Maxine became an active member of the Monday Club following the footsteps of her great aunt, Grace Barneberg.

John Wesley Barneberg

John Wesley Barneberg (1851-1930) acquired the 550 Dana Street property in 1882. He was born in Iowa from parents who were originally from Germany. He was farming in Arroyo Grande in 1870 before he married Sarah Elizabeth Anderson (1857-1936) in 1873. Sarah was the sister of Jefferson "Jeff" Lee Anderson who built the house next door in 1898 (Appendix C) The Barnebergs had two sons, John Frederick (1874-1935), Chester Harry (1880-1944) (Appendix C) and a daughter, Grace Elizabeth (1877-1970) (Figure 5). Later in 1908, they also raised the two younger children of Stella (Dana) and their son, Chester Harry.

Figure 5: Barneberg Family - Parents John Wesley and Sarah Seated; Standing Left to Right, Grace, John and Chester Harry. c. 1890

In 1875, R. Philbrick and John Wesley Barneberg started a foundry and machine shop at the corner of Higuera and Broad Streets. Near the foundry they erected a two story building that had a store on the first floor and a large meeting hall above. John Wesley Barneberg also had the J. W. Hardware store. Becoming active in the community, John Wesley Barneberg was City Tax Collector in 1883 and served on many civic committees as the chair. John Wesley Barneberg later became president of the Commercial Bank and the San Luis Savings Bank. His major impact to the community was through his endeavors in banking, oil development and Democratic politics.

In 1879, John became interested in local politics serving as treasurer in the Working Man's Convention when it first organized. By 1894, he was appointed a member of the state Democratic committee and for many years served as chair of the Democratic Central Committee.

Always active in democratic politics, in 1912, he was a delegate to the Democratic National Convention.

John made a lot of money in the early exploration of oil in California serving as president of Brookshire Oil Company in Orcutt, San Luis Obispo and Carisa Oil Company near McKittrick, and as principle investor in Midland Oil Company. He made trips to Washington, D.C. to promote issues important to the oil industry. Great excitement took over the town when oil bubbled up in Stenner Creek behind his house. John Wesley was hoping for another oil strike. Unfortunately, the boom was short lived and both Barneberg and the town were disappointed (Black 1988).

In 1913, Ora E. Stockton deeded part of block 61 (south side of Dana Street) to John Wesley Barneberg. Perhaps it was in preparation for the following newspaper article regarding an event on Dana Street in 1914.

BANKER TO ERECT NEW HOUSE

J. W. Barneberg of Commercial Bank Will Build 12-Room House on Dana Street

"Preparatory to the laying of the foundations for a twelve-room dwelling on Dana Street for J. W. Barneberg of the Commercial Bank, on the site of the old house now being moved by Contractor J. J. Maino to a lot directly across the street, work of moving the old house is being rushed and it will be across the street this evening, weather permitting, the structure being in the middle of Dana Street at noon today.

The new home will be of the most modern type, twelve rooms, and is to be given the same outside finish that distinguishes the new Masonic Temple - a finish of plaster known as Stuttle work.

Plans and specifications for the new home have been prepared some time but commencement of the work has been delayed owing to the recent illness of the contractor." (*San Luis Obispo Daily Telegram*, Jan 13, 1914)

Unfortunately a rainy January ensued and the Barneberg family was actually living "in" Dana Street.

Move on Lot

"J. W. Barneberg and family, who started to move across Dana Street opposite the site of the new dwelling which will be erected there and who have been 'marooned' in the street the past few weeks of rainy weather, are now on the lot where they will remain until the new home is built." (*San Luis Obispo Daily Telegram*, Jan. 31, 1914)

The Barneberg family had many comings and goings to San Francisco often reported in the press. Both sons spent most of their life there (Appendix C). In 1922, the golden anniversary of John Wesley and Sarah Elizabeth was celebrated at the Palace Hotel in San Francisco. The *San Francisco Call* wrote about the event and the lists of attendees which included family members, grandchildren, and the Anderson family. Eight years later, John Wesley died at age 79 and was followed by Sarah Elizabeth in 1936.

Grace Barneberg

Grace Barneberg went off to Stanford University. After graduating in 1901, she returned to get her teaching credential at University of California, Berkeley. For many years she taught high school in San Luis Obispo until she retired. Grace became active in the town as one of the founders of the Monday Club. As chairman of the building committee she was responsible for obtaining Architect Julia Morgan to design the building that is now on the National Register. Grace traveled around the world for a year and gave many lectures about her experiences when she returned. She spent most of the rest of her life promoting women's causes. Grace served on State Women's Prison Board, and California Hospital Libraries Board. She also spent her time lecturing around California for free public libraries. Local health availability issues were also a big concern for Grace. She worked to start the San Luis Obispo County Health and San Luis Obispo Dental clinics. While her father was raising money for the WW I war effort, Grace was serving in the Red Cross. Also, like her father, she was responsible for starting organizations and always serving in some Board capacity.

Figure 6: Grace Barneberg c. 1905

Grace was on hand to help her parents raise her brother's two children, Helen Maxine and Jack. Grace never married and lived in the house her father built at 550 Dana Street until she died. In her later years, with failing health and wheel chair bound, an elevator was added to the house (Taylor and Lees 2010). The Grace Barneberg Papers are in Special Collections at the Robert Kennedy Library at Cal Poly.

Charles W. Dana, John Wesley Barneberg and Grace Barneberg are the family members that specifically relate to local and statewide contributions to our history as noted above. They occupied the Dana/Barneberg House as well as other members of their families.

531 Dana Street Owners and Occupants

After the house was moved across the street in 1914, it had various renters until it became the home once again of Helen Maxine Barneberg. Known as Maxine, the girl raised by her grandparents, Wesley and Sarah Barneberg, married Eugene Van Schaick (1901-1989). Eugene and Helen Maxine had a daughter Betty Maxine (1925-2006) who married Norman E. Holt in 1944. In 1948 Betty and Norman had a son Robert Dana Holt. In 1993, and again in 1996, plans were proposed to add a second story and do a renovation, but it was not acted on. The last member of the family to live in the house was Robert Dana Holt. The family had the property until it was sold in 2005. Information regarding owners after 2005 is found in Table 2.

TABLE 2 - Owners after 2005

Year Sold	Doc #	Grantor/Grantee	Additional Information
2005	2005028013	Holt to Kelly & Tamara Gearhart	
2006	2006069958	All Real Property,Inc, with Gary Miller for Gearhart to Darryl & Eleanor Schauerman	
2008	2008036691	Schauerman et al to Ali Reza Sadeghi & Leili Zarbkhsh	Sadeghi & wife Zarbkhsh were doctors from Encino with thirty offices throughout California. Ali, originally from Iran and Leili, specialized in behavioral therapy services under California Psychcare (CPC).
2009	2009904606[illegible]	Name change to Retreat Center LLC	
2020	2020046744	Retreat Center to Brian & Kristina Touhy	Property was sold after the death of Sadeghi. The property had been rarely used and some deterioration took place.

Dana/Barneberg House Construction History

A house was located at 550 Dana Street as early as 1867. It is first depicted on a 1877 Birds Eye View of San Luis Obispo by E. S. Glover. It is shown again on a photograph taken c. 1891 of San Luis Obispo. Both views are from Cerro San Luis. Both views are difficult to make out the footprint of the house under the foliage. It is possible that some or most of that early house formed the basis for the Dana/Barneberg House. A better understanding of the house can be had from the sequence of Sanborn Fire Insurance Maps that date from 1886 to 1957. Three of the Sanborn Maps, 1888, 1909 and 1926 are presented below.

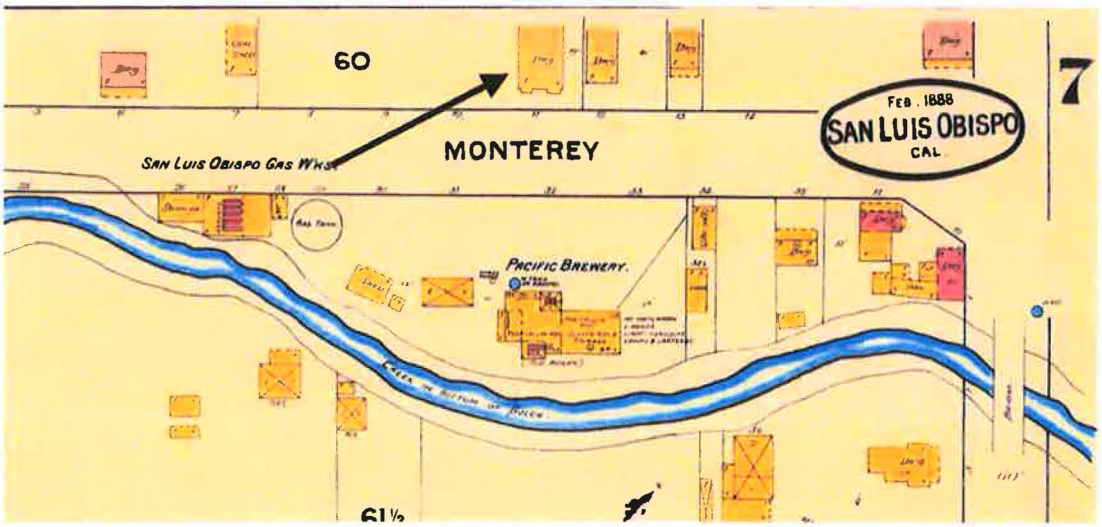

Figure 7: 1888 Sanborn Map - The Dana/Barneberg House

1886 - The brewery and south side of Dana Street are depicted, but the map cuts off the back of structures on the north side of the street resulting in an incomplete footprint of a house at 550 Dana Street. The large lot that currently has the Anderson House has no structures.

1888 - The footprint of the front of the house is as it is today. Again, the back of the house footprints on the north side of Dana Street are not depicted (Figure 7).

1891 - This is the first time that the Sanborn Map completely covers structures on the north side of Dana Street back to Stenner Creek. The Dana/Barneberg House has the same footprint we see today. Out buildings are also shown on the property.

1903 - For the first time the bays windows on the sides of the house are depicted. The out buildings have increased in size and a new wagon shed was added. A small structure that may have been an outhouse appearing on the 1891 Sanborn Map is no longer in evidence.

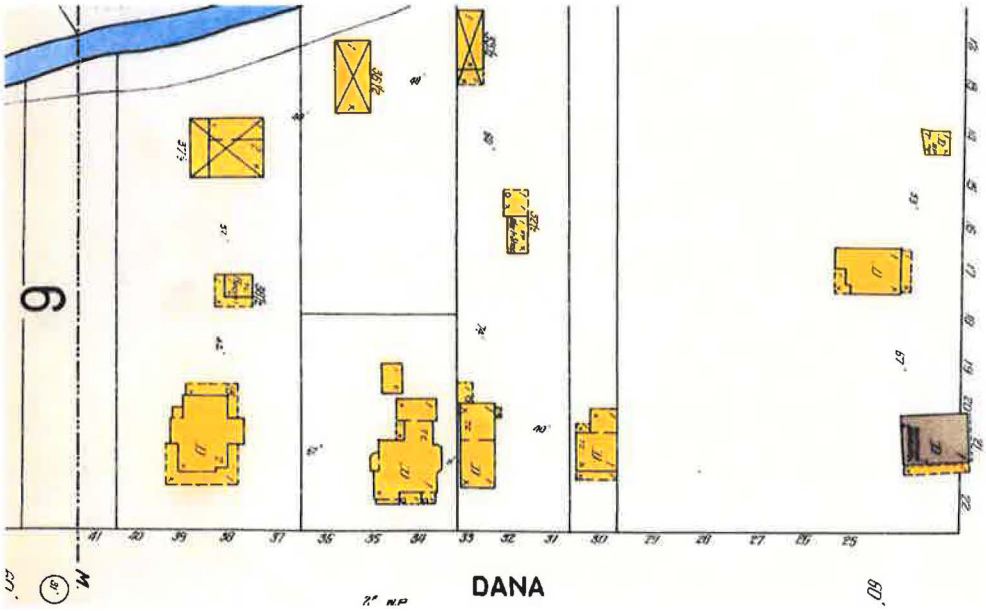

Figure 8: 1909 Sanborn Map - Left to Right - Anderson House (532 Dana Street), Dana/Barneberg House (550 Dana Street)

1909 - No changes (Figure 8)

1926 - The Dana/Barneberg House is now at 531 Dana Street having moved in 1914 (Figure 9).

1957 - The Dana/Barneberg House has had the laundry room added to the back.

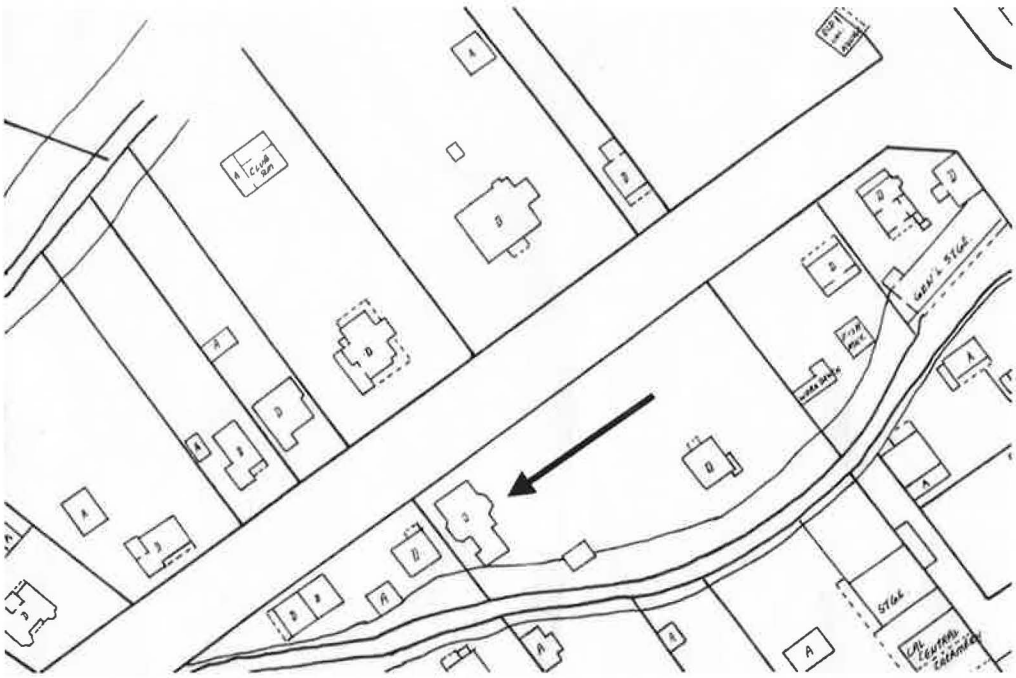

Figure 9: Arrow Points to 531 DanaStreet House Illustrating the Same Footprint After Moving From 550 Dana Street .

Additional Construction Information - 550 and 531 Dana Street

Part of the house may date earlier to the 1870s. A photograph at the History Center places the date at circa 1878 and as the Barnberg House. Today, the same view at the 531 Dana Street address depicts a house unchanged from the old photograph. The only element missing appears to be cresting on the top of the gables (Figure 10). Although John Wesley Barneberg was here with a business in 1878, the property was not owned by him until 1881/82.

The property information on file with the county assessor was dated 2008. This is the first time the addition of 2006/7 was referenced. The original size of the house was 1,476 sq. ft. and the addition added another 346 sq. ft.. The addition was to the southwest corner adding a laundry room and decking across the back of the house. The current ironwork fencing was installed after the 2006 restoration and had changed hands. Later in the assessment for 2020, a detached room of 264 sq. ft. was added when the garage was converted into a bedroom and bath with entrance from the south.

Figure 10: The Dana/Barneberg House at its First Location at 550 Dana Street - c. 1878 Written on the Back of the Photograph Located at the History Center.

The Schauerman Restoration - 2006

Darryl Joseph "Joe" Schauerman was a glazer and craftsman with a company in Morro Bay. He purchased the Dana/Barneberg House in 2006. With Schauerman as the new owner, a restoration of the c.140 year old house took place during an economic downturn to keep his employees working. The house had been vacant and was badly deteriorated both inside and out. The window framing, living room and west exterior had rotted. A new foundation and re-roofing soon took place. The roof over the previous very low ceiling in the kitchen was raised (Figure 11). A portion of kitchen cabinets remained and were incorporated with new cabinets in the same design (Figure 12). The other changes made in the kitchen were to allow for modern appliances. The original two windows in the back wall of the kitchen were removed to add a larger window and door. A utility room was added with its own entrance on the side at the back of the house (Figure 13). A deck was added off the kitchen that overlooked the creek (Figures 14 and 15). The window framing was replaced with the same materials and design as the original as was the siding where necessary. Original hardware that remained was cleaned and reused. After the restoration was completed the house was sold in 2008.

Figure 11: Original Kitchen Roof Line

Figure 12: Kitchen After the Roof was Raised

Figure 13: Adding the Utility Room

Figure 14: New Deck, Kitchen Window and Door

Figure 15: Deck and Path with the Garage in the Background

The Schauerman Restoration

Late 19th Century Residential Development

As the new County Seat, San Luis Obispo began to change its housing architecture and materials. Adobe was no longer needed as wood became more available. Larger residences began to be constructed. Successful citizens were often traveling to San Francisco for business and pleasure. They liked what they saw in the styles of the period there and brought them back to San Luis Obispo.

During the 1870s, there was great need for a planing mill in San Luis Obispo expressed over and over again in the newspaper. Finally in 1885, Smith & Wait opened up a planing mill and machine shop near the Pacific Coast Railway Depot on Higuera Street allowing opportunities for "civilizing influences of improvements in dwellings..." The long article continued in the newspaper and an excerpt follows below.

> ..."The principal machinery comprise a turning lathe, different planes for surfaces, moulding etc., circular saws of various sizes and for various purposes, band and scroll saws, morticing machines, two iron planers, drill press, and other implements and appliances used and required in such works. Much fine work is done in preparing mouldings, cornice, brackets, balustrades, newel posts and things of that class used in ornamentation and furniture; the work of the turning lathe, moulding machine, scroll saw, etc. The firm also do[sic] much iron and engine work for the fencing of the Court House lot. ..." (*San Luis Obispo Tribune* - Weekly May 22, 1885)

Evidence of that time still exists in a few homes in the old neighborhoods when certain repeated exterior enhancements began to appear. At the same time, pattern books became more common here and elements from them appear as well. Many of the saw cut decorative features and rectangular square bays are from that period. Some of those same features are found unchanged in the Dana/Barneberg House.

Field Investigation

At the time of the field investigation, the house was in the process of having repairs made to the floor. Interior walls were painted to cover up some of the graffiti and the exterior planned to be painted next. The architecture has been addressed as it was viewed. There is some evidence to explain the unusual footprint of the house. Portions may have been added to the original residence prior to the 1880s. The portion in front of the east/west gable with the rectangular square bays is an example of an 1880s addition. The unusual narrow area leading to the kitchen at the back of the house may also predate the 1880s. Early kitchen construction was often separated from the main part of the house because of fire issues. The narrow part of the middle to rear of the house may have been an early attempt to bring the kitchen area into the main part of the house (Figures 8 & 9). On the east exterior wall a vertical cut on the shiplap from ground to roof line was visible. It had been made apparently when the bathroom was added to the house. Judging from the way the shiplap was cut these changes, if correct, would date prior to the 1880s.

Architecture

The Dana/Barneberg House reflects Victorian vernacular architecture and contains several elements that were popular in the 1880s that pertain to, but are not specific to, a particular style. The house also depicts an elaborate and well proportioned design.

The one story residence is clad in ten inch shiplap siding with hand wrought nails in evidence. The flat roof covering the bays in front surround the high gable, one of several roof lines in the unusual structure (Figure 16) (Appendix B). Two patterns of decorative shingles are used under the front facing gable that covers a recessed porch. Victorian flat sawn balusters support the railing with a post on either side at the top of the stairs leading onto the porch (Figure 16).

The two large rectangular square bays in the front are the primary features. The bays have slender columns in-set on the corners that add an elegance to the design. Each bay has two narrow windows on each side and three across the front. They are all the same size one-over-one double hung sash with a continuous sill that wraps around the bays above inset panels. The windows have screens that are hung from the top. Under the eaves and vertical board frieze, a saw cut border of circles wraps around the bays above the windows and continues across the porch entry (Figures 16 and 17).

Figure 16: Centered Front Entry

The two large square bays increased the size of the front rooms. Both rooms have transoms with two panes over the doors entering from the foyer inside the front door. The front rooms with very high ceilings are mirror images of each other (Figure 18).

The west side of the house has a wide bay with two fixed pane windows with a screened one-over-one double hung sash window on each side. A continuous sill wraps around the bay. The room contains a fireplace with a period appropriate mantle. Patterned picture moulding surrounds a portion of the large room. On the east side of the house, there is a room with a smaller bay consisting of three windows.

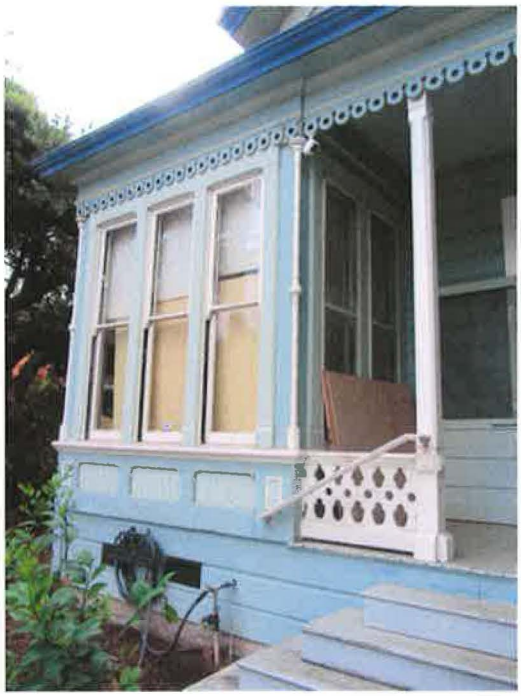

Figure 17: East Corner Bay

Figure 18: East Corner Bay Interior

The wide decking across the back wraps around one side of the kitchen leading to a door into the 2006 laundry room addition. Newer double glass doors open out from the kitchen to the deck and steps to the lower terrace formed from used bricks. The kitchen window that overlooks the creek has two vertical rows of lights on each side and is not original.

Comparison Properties

The 1886 Sanborn Map depicted one other house with two front facing square bays where the IOOF Hall is currently located on Dana Street. However, some of the design elements found on the Dana/Barneberg House can still be seen on a few houses in San Luis Obispo. Examples noted below are on the Master List. Varied dates of construction are from the city records and other sources. They were not independently confirmed by this researcher.

A sample of remaining square bays can be found at the Mrs. V. L. Latimer's house at 858 Toro Street. The Latimer House was constructed in 1880. The bay has one window on each side and three facing front. A house at 571 Pismo Street next to the Biddle House has the same bay configuration.

The Lewin House, at 671 Pismo Street, has two of the elements found on the Dana/ Barneberg residence. It has the same cut work trim with circles across the front under the fascia. The square bays are smaller with one window on each side and two across the front. Fish scale shingles appear under the centered dormer over the front entry. The frame house with "Carpenter Gothic influences" also described as a Queen Anne Cottage was dated in various studies as 1876, 1890 or 1900.

The Snyder House, at 1406 Morro Street, was constructed in 1885. It has the same cut work trim circles lining the house under the fascia as the Dana/Barneberg House.

Despite these similarities none of the above examples exhibit quite the same exuberance in detail and balanced design as the Dana/Barneberg House. It's condition, after so many years, retains its elegance as befitting the bank president John Wesley Barneberg.

Grounds

Used brick walkways surround the house that looks out across the street to the historic Anderson House. The ornate wrought iron fencing and gate are not original, but were installed by the previous owner (Figure 19). The restoration project in 2006 had used a white picket fence of the same style as shown in the early photograph. The wrought iron fencing, although not like the original white picket fence, is a reminder of the original business of John Wesley Barneberg, who started out in the 1870s with a foundry and machine business nearby.

Figure 19: Wrought Iron Fencing

Figure 20: Garage at the End of the Driveway

On the west side, a garage sits at the end of the brick driveway (Figure 20). The garage construction or relocation date is unknown. The siding is similar to the house under a low front facing gable roof. The doors have six fixed pane lights on top of three door sections. The garage has recently been converted into a casita with new entry from the back. The view of the Dana/ Barneberg House from the street is unchanged.

There is a lemon tree by the garage that has an interesting history. According to local lore, it is from the old lemon grove that still exists on the side of Cerro San Luis Obispo where there is a spring. It is supposed to be a different variety that predates 1900. In 1996, Bill Cattaneo wrote that in 1901;

> "Mr. G. W. Chandler lived in a little cabin on San Luis Mountain, where he had a yearlong supply of cool spring water. On a plateau overlooking downtown San Luis Obispo, Chandler raised three acres of lemons and oranges..." (SLO Century in *San Luis Obispo Journal August 1996*)

SIGNIFICANCE DETERMINATION

The City of San Luis Obispo evaluation criteria for historic resources has been applied to the pertinent sections of the Ordinance for the Dana/Barneberg House.

City Guidelines for Architectural Criteria

The City Guidelines for Architectural Criteria apply to the Dana/Barneberg House under (1) Style - a. purity of traditional style and c. traditional, vernacular and/or eclectic influences that represent a particular social milieu and period. It also applies under (2) Design - a. Notable attractiveness with aesthetic appeal.

The 1880s architectural style of the Dana/Barneberg House used an abundance of elements that were popular with the prominent citizens of San Luis Obispo at that time. Using elements found on Queen Anne cottages such as the squared bay, panels under the windows, and shingle work under the gables, it also represents a composite of borrowed elements. The saw cut balustrades and scroll sawn border under a narrow front facing gable behind a shed roof belie other aspects of design. The following elements are a part of the detailing still found on the house.

(1) Style

- Two large, rectangular square bays in front
- Saw cut balustrades on front porch
- Two designs of decorative shingles under front facing gable
- Decorative saw cut trim below the fascia
- Two bays - one on each side of the house
- Multi- gabled roof

(2) Design

The balance of design was well thought out for its period of significance. It still represents late 19th Century Residential Development at its best. Unchanged, the time it

was constructed reveals there must have been artistic presence involved in the planning whose name has been forgotten.

- Extensive detailing brings aesthetic appeal and cohesiveness to the design
- Exceptional craftsmanship produced the Victorian vernacular design.
- Fully restored by another master craftsman, Darryl Schauerman.

City Guidelines for Historic Criteria

The City Guidelines for Historic Criteria applies to the Dana/Barneberg House under (1) History—Person. a. Significant to the community as a public leader; and b. As a public servant who made early and important contribution to the community.

The house reflects its significance from certain people connected with it. (1) Charles William Dana, and (2), John Wesley Barneberg were important public leaders. (3) Grace Barneberg is noteworthy for her contributions with women's rights and libraries. All three were well known for their work throughout California.

(1) Charles William Dana - Civic Leader
Clerk of the San Luis Obispo Board of Trustees - 1859 (for over twenty years)
Elected to the State Assembly - 1861
Board of Director for the San Luis Obispo Railroad Company - 1872
Formed franchise to bring water to San Luis Obispo - 1872
County Auditor - 1873/74
Secretary of the Agricultural Society - 1875
Supervisor - 1876/1877
San Luis Obispo's Mayor - 1881

(2) John Wesley Barneberg - Business Leader
Co-owner of the early local foundry - 1875
President of C. Reed Corporation
City Tax Collector - 1883
Served on the Board for the San Luis Gas Company - 1896
Chairman for the Democratic Central Committee - 1898
President of the Commercial Bank
President of San Luis Savings Bank
Vice President Security First National Bank
President of the Pacific Southwest Trust and Savings Bank - Local Branch
Major stakeholder in the oil development in central California
Principle investor in Midland Oil Company
President Brookshire Oil Company
Principle in Obispo Oil Company
Served on Committee to establish Cal Poly - 1901

Democratic representative to the National Convention - 1912
Chairman of the Liberty Loan Drive - WWI

(3) Grace Barneberg - Community Organizer
Founder and President of the Monday Club - 1925
Statewide Service
State Women's Prison Board
Promoted Free Public Libraries
California State Hospital Libraries
San Luis Obispo Service
County Health Centers
San Luis Obispo Dental Clinic
Red Cross

The names Dana and Barneberg and their families have all been connected to the house, before and after it was moved to its current location.

City Guidelines for Integrity

The City Guidelines for Integrity for the Dana/Barneberg House apply under; (2) Maintained its historic appearance and character; and (3) the degree to which the structure has retained its design, setting, materials, workmanship, feeling and association.

(2) For almost thirty years the Dana/Barneberg House was at 550 Dana Street exhibiting its historic appearance and character. Since 1914 it has been at 531 Dana Street with almost no change in its original design and footprint. Characteristics from its period of significance have not diminished and are the same as depicted in the old photograph when it was across the street from its current location.

(3) Although it was once moved by the family that owned the house until 2005, it has been 107 years at its current location. Still in the same neighborhood, the Dana/Barneberg House displays the high degree of craftsmanship that makes it one of the most unaltered historic properties in the City of San Luis Obispo.

CONCLUSION/RECOMMENDATIONS

The Dana/Barneberg House is found to be significant under A. Architectural Criteria, B. Historic Criteria, and C. Integrity, in the city's "San Luis Obispo Historic Preservation Guidelines" for evaluating historic resources. As part of the Downtown Historic District, Dana Street is one of the oldest neighborhoods in town. The Dana/Barneberg House is currently one of ten properties on the Contributing List for the street that was last surveyed in 1987. As a result of this current study, the Dana/Barneberg House qualifies for its age, design, integrity, as well as, the people important to our history that were associated with the house. It is strongly recommended that the residence be upgraded and added to San Luis Obispo's Master List of Historic Properties.

ADDENDUM

Darryl and Eleanor Schauerman

Special thanks to Eleanor Schauerman for providing information critical to this report. The efforts of the badly needed restoration of the house by 2006 was recorded in photographs taken over the two years the project took place and have been used in this report. It was due to the late Darryl Joseph Schauerman, the craftsman, and his family that we have the house today. The voices of Tim Olson and Sharon Kamm, both long time residents of Dana Street, also contributed to this report.

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Taylor, Patti and Suzette Lees
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Deeds

1872 Deed Book E/264 - Lindenberg and Hollman
1873 Deed Book E/341 - Hollman to Lindenmeyer
1875 Deed Book H/142 - Lindenmeyer to Gas Company
1881 Deed Book N/254 - Charles W. Dana to Phillip Biddle
1882 Deed Book O/308 - Phillip Biddle to John Wesley Barneberg - Bl. 60, 235 x 275 ft
1883 Deed Book P/555 - Charles W. Dana to G. B. Tuley
1913 Deed Book 100/40,41 - Stockton to Barneberg
1921 Deed Book 150/112,113 - Stockton to Stockton
2005 Doc #2005028013 - Holt family to Kelley V. Gearhart
2006 Doc #2006069958 - All Real Properties, Inc. to Darryl J. Schauerman
2008 Doc #2008036691 - Schauerman to Sadeghi and Zarbkhsh
2009 Doc #2009046068 - Sadeghi and Zarbkhsh name change to Retreat Center, LLC
2020 August to current owner Brian Tuohy

Interviews

Kamm, Sharon
Olson, Tim
Schauerman, Eleanor

Maps

1870 "Map of the Town of San Luis Obispo" - Surveyed by R, R, Harris and H. D. Ward
1872 "Map of the County of San Luis Obispo" - Published by R. R. Harris
1873 "Map of B. Brizzolara Addition" - Surveyed by Harris & Lakin
1877 "Birds Eye View of San Luis Obispo, Cal" - Mapmaker: E. S. Glover

c. 1885 - Plat Map with owners on Dana Street
1886, 1888, 1891, 1903, 1909, 1926, and 1957 "Sanborn Fire Insurance Maps of San Luis Obispo"

Petitions for Land in San Luis Obispo

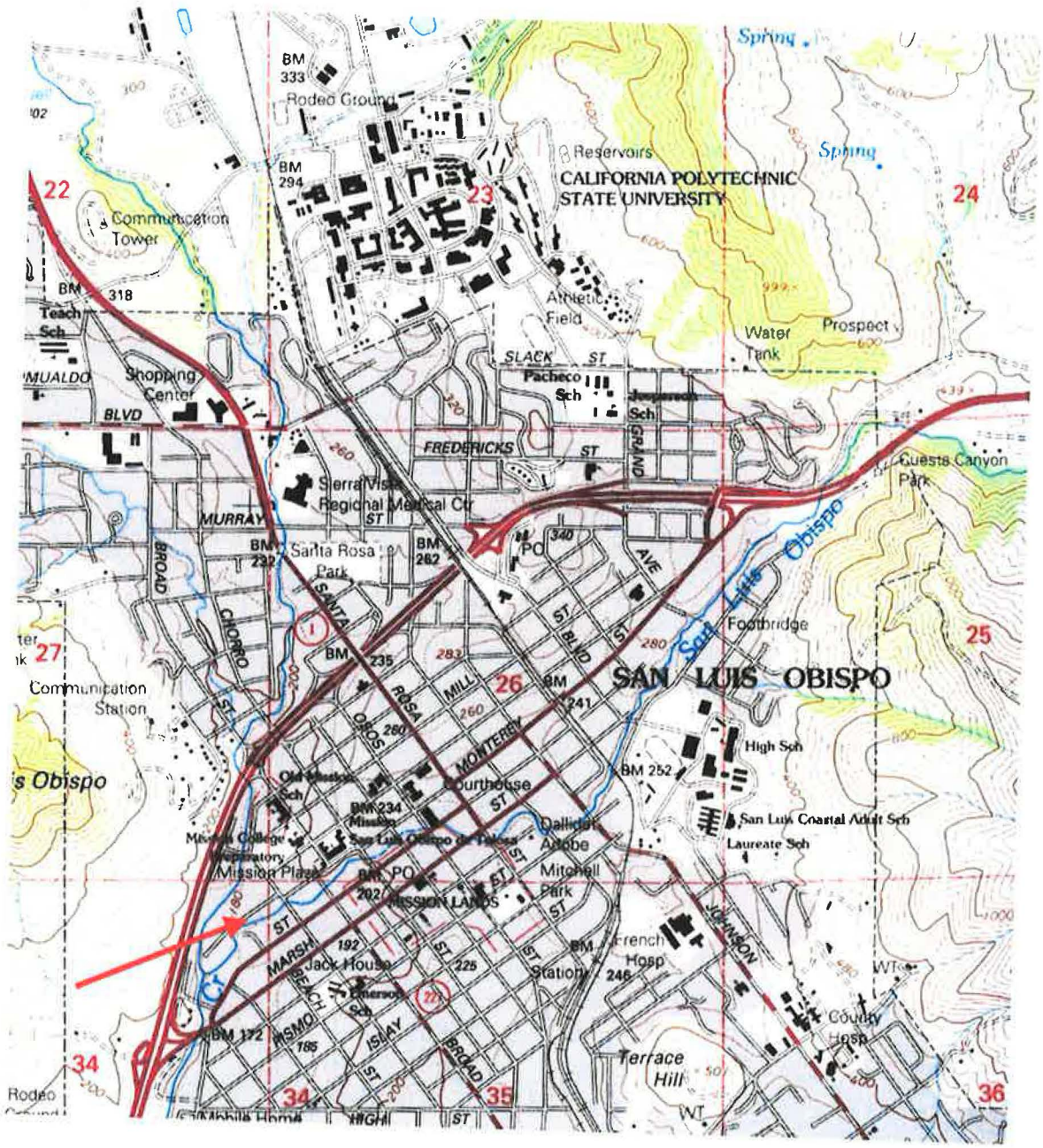
1860 Blas Castro
1870 William B. Haley with map "settled in 1869"
1870 Land claimed by Lindenmeyer and Deffner with map, one acre has brewery, dwelling and fences
1870 Ramona Wilson with map and brewery
1870 Charles Dana with map 1.52 acres fenced with fruit trees, settled in 1867

APPENDIX A: Project Location Map

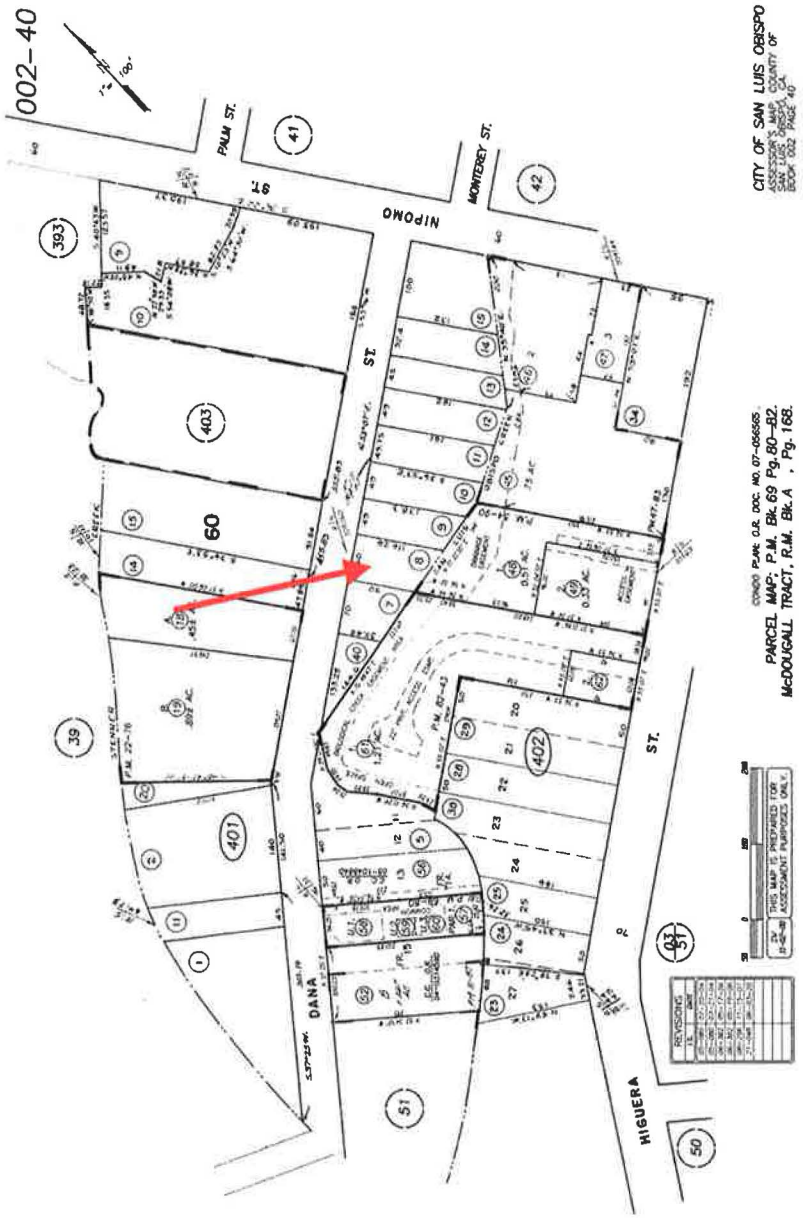
APPENDIX B: Dana/Barneberg House Floor Plan, Gables Plan and East Exterior by Schauerman

APPENDIX C: John Wesley Barneberg Sons and Brother-in-law

APPENDIX A: Project Location Maps

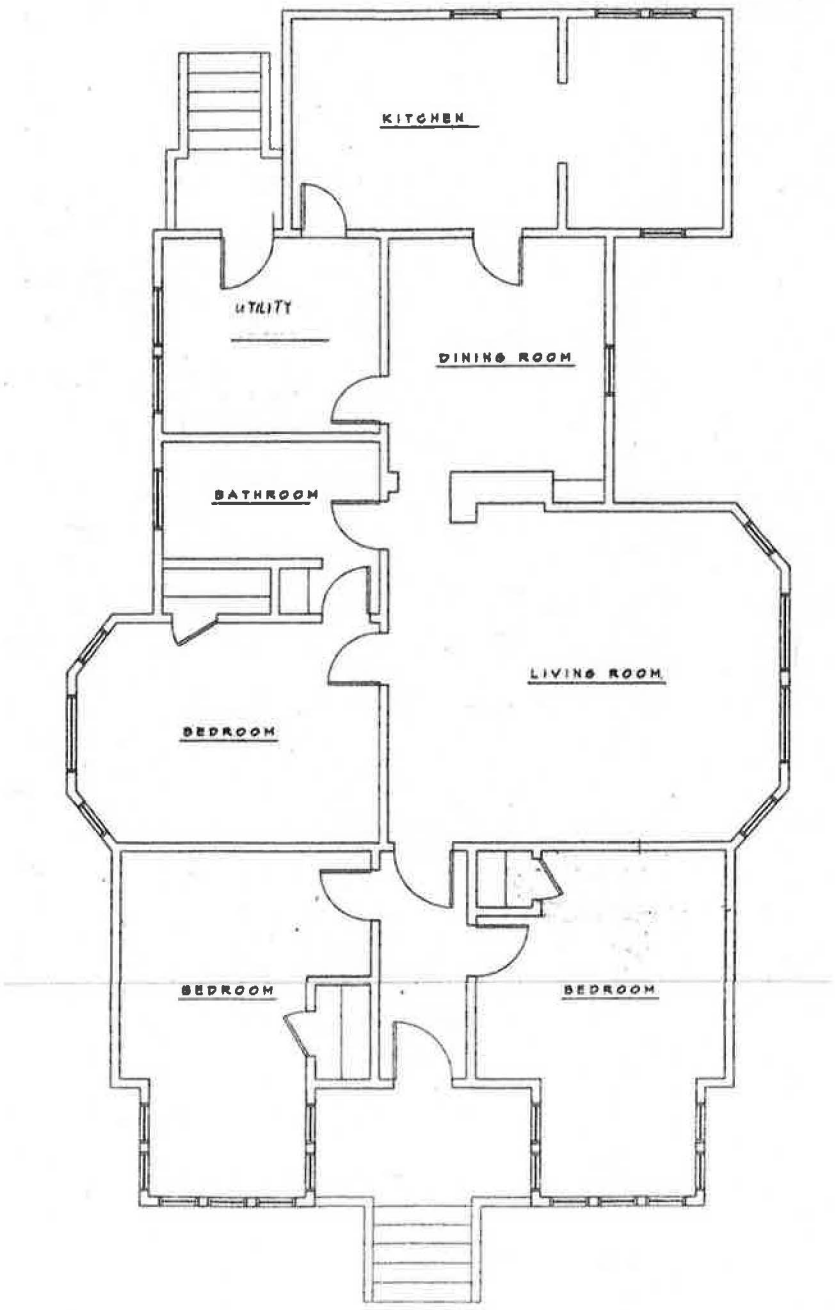


USGS 7.5' San Luis Obispo, California Quadrangle Map

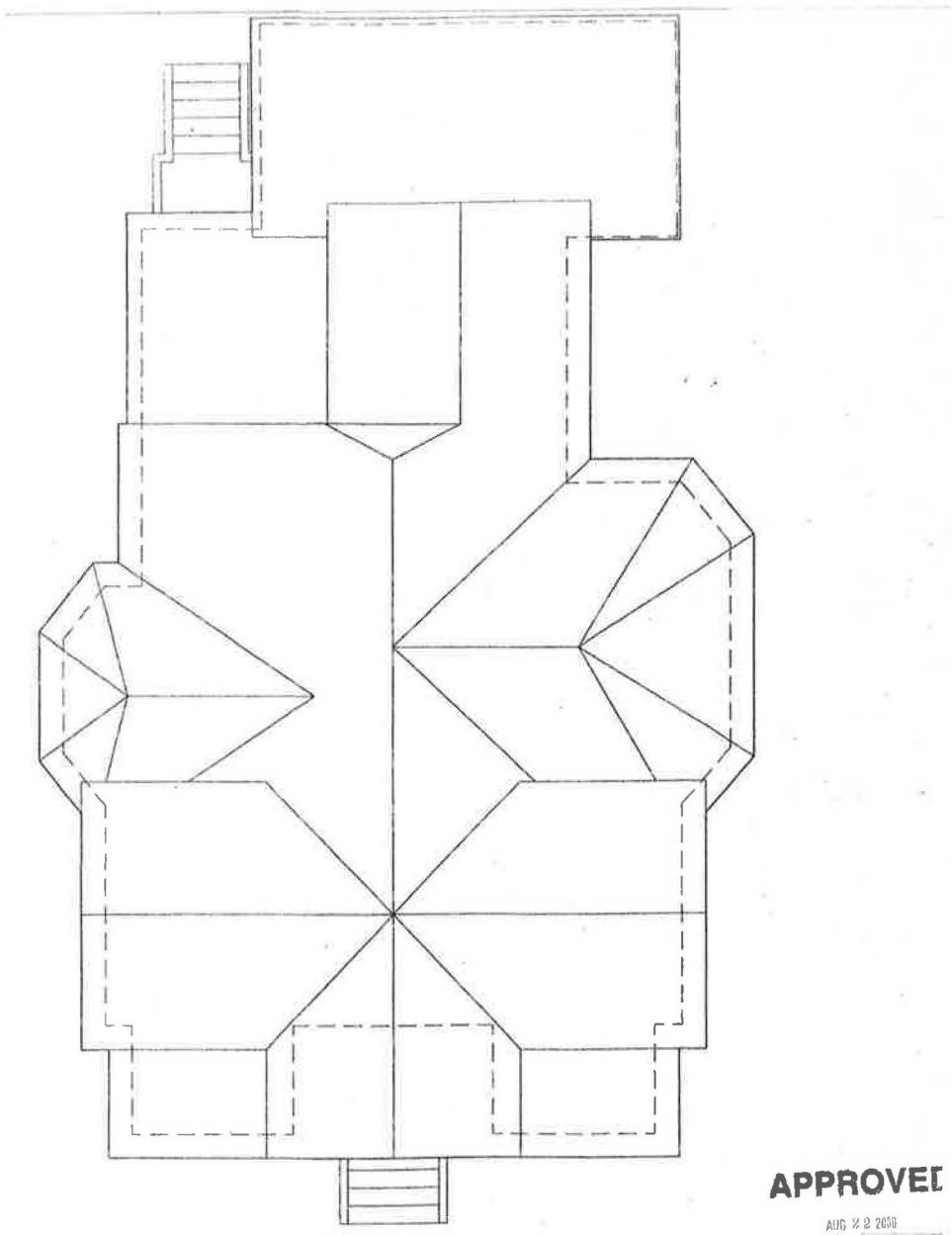


531 Dana Street Location, Dana/Barneberg House - Lot 8

APPENDIX B: Dana/Barneberg House Floor Plan, Gable Pattern, East Elevation Restoration by Darryl Joseph Schauerman



Dana/Barneberg Floorplan with the Utility Room Addition



The Dana/Barneberg House Gable Patterns

The Red Line Indicates the Area of the Utility Room Addition on the East Side

APPENDIX C: John Wesley Barneberg's Sons - John Frederick and Chester Harry

John Frederick Barneberg

John Frederick Barneberg, a miner in his youth, spent time in Dawson City in the Yukon with a couple of others from San Luis Obispo that had "Klondike Fever." His first wife was Maude Pierce, who he married in Washington when he returned. He and Maude settled in San Francisco and became involved in several enterprises. He had a saloon in San Mateo, was a cigar merchant and ran the notorious San Francisco Waldorf Gambling Club in 1913. In 1916, he had another gambling club raided and, by 1918, was back to his parents house at 550 Dana Street where Maude died. By 1920, John F. had married again and was living in San Francisco living comfortably working as an oil company manager. John died in Los Angeles in 1935, leaving his wife Ruby and daughter Jane. Jane was featured in the newspaper with a photo and announcement of her return from Honolulu. "Inherits Estate, But Continues Dancing "- "...Miss Barneberg, who inherits her grandmother's large estate (Sarah Elizabeth Barneberg), plans to go to New York to continue as a chorus girl..." (*Riverside Daily Press*, Feb 24, 1936).

Chester Harry Barneberg

In 1899, Chester Harry Barneberg, as a result of a tragic accident, had his foot amputated in San Francisco. He soon returned home with his sister, Grace, traveling with an artificial limb while working for a house that produced them. In 1901, he married Estelle (Stella) Dana in San Francisco. They returned to San Luis Obispo at the end of 1903 and Harry began working at his cigar store on Monterey Street. The marriage ended after they had a son and a daughter. Harry had ran off to San Francisco with another woman in 1905. Later, while still running the cigar store on Monterey Street, Harry was shipping slot machines to San Francisco to support his brother's gambling enterprises. For a brief period, Harry was employed by the Brookshire Oil Company in Orcutt. Sent by his father, who owned the company, the job didn't work out and soon Harry was back running the cigar store in San Luis Obispo. Harry's address during the time he had the cigar store in town was in San Francisco. He later remarried and worked as a clerk in San Francisco, with his wife Viola, until he died in 1944.

John Wesley Barneberg's Brother-in-law - Jefferson "Jeff" Lee Anderson

Jefferson Lee Anderson (1864-1958) was one of six offspring born to John F. and Elizabeth Anderson. John F. Anderson (1826-1909) was a farmer in San Luis Obispo in the 1870s. Jeff married Margaret Helen Albaugh in 1889. They had a daughter, Oma (1891-1983), and a son, Harold (1897-1927). It was Jeff's sister, Sarah Elizabeth, who became the wife of John Wesley Barneberg. Today, the homes of Anderson and Barneberg remain next to each other on Dana Street where they are listed as Master List historic properties in the City of San Luis Obispo. The Anderson home was built in 1898.

The city inventory also states that "the family of J.F. Anderson, the influential businessman who built the Anderson Hotel, lived here in the early 1900s through the teens."(City of San Luis Obispo - Volume 3, 1983). The Anderson Hotel was actually built by Jefferson Lee Anderson, years after J. F. had died. By 1900, J. F. was age 72 and living with his son, Jefferson and his family. The household included a border named Albaugh, age 67, who was a farmer, probably a relation to Jeff's wife. There was also one servant in the household. Jefferson Lee Anderson was a clothing merchant and had a clothing store at 898 Monterey Street. But he is most remembered for the Anderson Hotel, the first five-story "high rise" building in San Luis Obispo. When the hotel opened in 1923, the 84 rooms caused an uptick of civic pride in the town. The first guest to sign the register was John Wesley Barneberg. Jefferson's son, Harold, felt the hotel should have been named the "Jefferson Lee" after the dream his father had for many years while he was operating his haberdashery store (Black 1988). Today the Anderson Hotel at 955 Monterey Street is on the Master List of Historic Resources for the City of San Luis Obispo.

It is Jefferson's sister, Sarah Elizabeth, who was married to John Wesley Barneberg that lived in the Dana/Barneberg House before it moved across the street in 1914. Many social items in the newspaper reflect the activities of the Anderson, Barneberg and Dana families closely connected through marriage and neighborhood, often traveling together.

Zoning, or remove the property from historic listing if the structure on the property no longer meets eligibility criteria for listing, following the process for listing set forth herein.

14.01.070. Evaluation Criteria for Historic Resource Listing

When determining if a property should be designated as a listed Historic or Cultural Resource, the CHC and City Council shall consider this ordinance and State Historic Preservation Office ("SHPO") standards. In order to be eligible for designation, the resource shall exhibit a high level of historic integrity, be at least fifty (50) years old (less than 50 if it can be demonstrated that enough time has passed to understand its historical importance) and satisfy at least one of the following criteria:

A. Architectural Criteria: Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master, or possesses high artistic values.

(1) **Style**: Describes the form of a building, such as size, structural shape and details within that form (e.g. arrangement of windows and doors, ornamentation, etc.). Building style will be evaluated as a measure of:

a. The relative purity of a traditional style;

b. Rarity of existence at any time in the locale; and/or current rarity although the structure reflects a once popular style;

c. Traditional, vernacular and/or eclectic influences that represent a particular social milieu and period of the community; and/or the uniqueness of hybrid styles and how these styles are put together.

(2) **Design**: Describes the architectural concept of a structure and the quality of artistic merit and craftsmanship of the individual parts. Reflects how well a particular style or combination of styles are expressed through compatibility and detailing of elements. Also, suggests degree to which the designer (e.g., carpenter-builder) accurately interpreted and conveyed the style(s). Building design will be evaluated as a measure of:

a. Notable attractiveness with aesthetic appeal because of its artistic merit, details and craftsmanship (even if not necessarily unique);

b. An expression of interesting details and eclecticism among carpenter-builders, although the craftsmanship and artistic quality may not be superior.

(3) **Architect:** Describes the professional (an individual or firm) directly responsible for the building design and plans of the structure. The architect will be evaluated as a reference to:

a. A notable architect (e.g., Wright, Morgan), including architects who made significant contributions to the state or region, or an architect whose work influenced development of the city, state or nation.

b. An architect who, in terms of craftsmanship, made significant contributions to San Luis Obispo (e.g., Abrahams who, according to local sources, designed the house at 810 Osos - Frank Avila's father's home - built between 1927 – 30).

B. Historic Criteria

(1) **History – Person**: Associated with the lives of persons important to local, California, or national history. Historic person will be evaluated as a measure of the degree to which a person or group was:

a. Significant to the community as a public leader (e.g., mayor, congress member, etc.) or for his or her fame and outstanding recognition - locally, regionally, or nationally.

b. Significant to the community as a public servant or person who made early, unique, or outstanding contributions to the community, important local affairs or institutions (e.g., council members, educators, medical professionals, clergymen, railroad officials).

(2) **History – Event**: Associated with events that have made a significant contribution to the broad patterns of local or regional history or the cultural heritage of California or the United States. Historic event will be evaluated as a measure of:

(i) A landmark, famous, or first-of-its-kind event for the city - regardless of whether the impact of the event spread beyond the city.

(ii) A relatively unique, important or interesting contribution to the city (e.g., the Ah Louis Store as the center for Chinese-American cultural activities in early San Luis Obispo history).

(3) **History-Context**: Associated with and also a prime illustration of predominant patterns of political, social, economic, cultural, medical, educational, governmental, military, industrial, or religious history. Historic context will be evaluated as a measure of the degree to which it reflects:

a. Early, first, or major patterns of local history, regardless of whether the historic effects go beyond the city level, that are intimately connected with the building (e.g., County Museum).

b. Secondary patterns of local history, but closely associated with the building (e.g., Park Hotel).

C. Integrity: Authenticity of an historical resource's physical identity evidenced by the survival of characteristics that existed during the resource's period of significance. Integrity will be evaluated by a measure of:

(1) Whether or not a structure occupies its original site and/or whether or not the original foundation has been changed, if known.

(2) The degree to which the structure has maintained enough of its historic character or appearance to be recognizable as an historic resource and to convey the reason(s) for its significance.

(3) The degree to which the resource has retained its design, setting, materials, workmanship, feeling and association.

14.01.080 Historic District Designation, Purpose and Application

A. Historic (H) District designation. All properties within historic districts shall be designated by an "H" zoning. Properties zoned "H" shall be subject to the provisions and standards as provided in Ordinance 17.54 (Zoning) of the Municipal Code.

B. Purposes of Historic Districts. The purposes of historic districts and H zone designation are to:

(1) Implement cultural resource preservation policies of the General Plan, the preservation provisions of adopted area plans, the Historic Preservation and Archaeological Resource Preservation Program Guidelines, and

(2) Identify and preserve definable, unified geographical entities that possess a significant concentration, linkage, or continuity of sites, buildings, structures, or objects united historically or aesthetically by plan or physical development;

(3) Implement historic preservation provisions of adopted area and neighborhood improvement plans;

(4) Enhance and preserve the setting of historic resources so that surrounding land uses and structures do not detract from the historic or architectural integrity of designated historic resources and districts; and

(5) Promote the public understanding and appreciation of historic resources.

C. Eligibility for incentives. Properties zoned as Historic Preservation (H) shall be eligible for preservation incentive and benefit programs as established herein, in the Guidelines and other local, state and federal programs.

Council Agenda Report

Department: Administration
Cost Center: 1004
For Agenda of: 6/15/2021
Placement: Consent
Estimated Time: N/A

FROM: Greg Hermann, Deputy City Manager
Prepared By: Lee Johnson, Economic Development Manager

SUBJECT: DOWNTOWN SLO AGREEMENT 2021-23

RECOMMENDATION

Authorize the City Manager to negotiate and approve the two-year agreement with Downtown SLO and other agreements as needed to execute the Downtown related initiatives in the 2021-23 financial plan.

DISCUSSION

The City's Economic Development Program is responsible for implementing the policies laid out in the City's Economic Development Strategic Plan (EDSP) as well as the initiatives outlined in the City's Economic Recovery, Resiliency and Fiscal Sustainability Major City Goal. The recovery and vitality of the City's downtown is a critical piece of the City's short- and long-term economic health.

Background

The agreement with Downtown SLO (Attachment A) is the foundation of the City's cooperation to ensure the success of the downtown. Downtown SLO's mission is to foster an economically vibrant downtown by providing promotional activities to benefit downtown businesses including but not limited to Farmers' Market, Concerts in the Plaza, and seasonal holiday events. The Downtown SLO also manages the Clean and Safe Ambassador Program which provides litter and graffiti removal, sidewalk and gutter sweeping, and cleaning services beyond the baseline services provided by the City. Downtown SLO also provides an educational series on a wide range of topics for business owners, managers, and employees. This agreement also includes several new initiatives including, the "Light up Downtown" holiday program, leading a vacancy task force, and supporting the "Dining in the Plaza" initiative.

In addition to the City collected revenue through the Downtown Business Improvement District assessments, which is passed directly to Downtown SLO, the City is also planning to allocate up to $150,000 ($100,000 in direct funding and up to $50,000 in matching funds) per year in additional funding for the "Light up Downtown" holiday program and up to $65,000 in funding for the Clean and Safe Program per year.

This report requests authorization for the City Manager to negotiate the final funding and scope of work based on the adoption of the financial plan and current status of the State's reopening plans.

Previous Council Action
On June 18, 2019, the Council approved the last two-year agreement with Downtown SLO.

Policy Context
The recommendation for renewing agreements for the years 2019-21 are supported by the City's EDSP and the adoption of the 2021-23 Major City Goal of Economic Recovery, Resiliency and Fiscal Sustainability.

Public Engagement
Through forums and surveys, community members expressed a desire for the downtown to remain a focus as part of the 2021-23 Major City Goals.

CONCURRENCE

The proposed agreement for Downtown SLO has the concurrence of the Administration, Police, Parks and Recreation, Public Works and Utilities departments.

ENVIRONMENTAL REVIEW

The California Environmental Quality Act does not apply to the recommended action in this report, because the action does not constitute a "Project" under CEQA Guidelines Sec. 15378.

FISCAL IMPACT

Budgeted: Yes
Budget Year: 2021-22,2022-23
Funding Identified: Yes

Fiscal Analysis:

Funding Sources	**Total Budget Available**	**Current Funding Request**	**Remaining Balance**	**Annual Ongoing Cost**
General Fund	$430,000	$430,000	$0	$215,000
Other (Special Fee District):	$505,000*		$505,000	NA
Total	**$935,000**	**$430,000**	**$505,000**	**$215,000**

*The budget for the downtown assessment is $245,000 for 2021-22 and $260,000 for 2022-23. This position is not part of this contract but is shown for reference.

ALTERNATIVES

The City Council may choose to not authorize the City Manager to negotiate and approve the two-year agreement and other related agreements. This is not recommended as Downtown Vitality is a key component of the Major City Goal of Economic Recovery, Resiliency and Fiscal Sustainability.

The City Council may choose to approve partial funding for the agreement. This is not recommended as the proposed agreements are cost effective tools in advancing the City's economic development initiatives.

ATTACHMENTS

A – Downtown SLO Agreement 2021-23

AGREEMENT

THIS ECONOMIC DEVELOPMENT AGREEMENT is made and entered into in the City of San Luis Obispo on _____, by and between the DOWNTOWN SLO, a 501(c)(6) non-profit corporation organized under the laws of the State of California, with a place of business at 1135 Chorro Street, San Luis Obispo, California 93401 ("DSLO"), and the CITY OF SAN LUIS OBISPO, a municipal corporation and charter city ("City").

W I T N E S S E T H:

WHEREAS, on October 6, 1975, the City Council adopted, and subsequently amended on various occasions, Ordinance 649 (1975 Series) (collectively, "the Ordinance") creating the Downtown Parking and Business Improvement Area ("BIA") in the downtown area of San Luis Obispo, and levying the authorized assessment on all businesses within that area; and

WHEREAS, the City and DSLO have benefited from a close working relationship for the benefit of business and tourism in the downtown area of San Luis Obispo since the inception of the Downtown Parking and Business Improvement Area in 1975 and desire to continue their relationship for the betterment of tourism and business; and

WHEREAS, DSLO is uniquely qualified to provide the promotional activities services contemplated under this contract due to its intimate knowledge of downtown, unique connection to businesses in the downtown, and its long experience producing and providing promotional services for the benefit of DSLO members; and

WHEREAS, DSLO has historically added substantial value to the events produced under contract with the City by utilizing the financial resources of its membership and dedication of its staff that in total far exceed the BIA assessment revenues; and

WHEREAS, DSLO brings experienced and competent management of the subcontractors that it hires for the contracted events; and

WHEREAS, both parties acknowledge that the Thursday Night Farmers' Market, Concerts in the Plaza, and Holiday Activities are unique events that activate the downtown city streets and public areas and draw visitors; and

WHEREAS, having determined that promotional activities to benefit business and tourism activities in the downtown area of San Luis Obispo are an appropriate use of BIA assessment proceeds since such activities are expected to maintain and increase revenues derived by the City from the downtown area and to preserve and enhance the unique character of the downtown for the special benefit of downtown area businesses, and further, having determined that DSLO is able to conduct such promotional activities, the City Council desires to contract with DSLO to conduct promotional activities in the downtown area of San Luis Obispo using BIA assessment proceeds; and

WHEREAS, the City is authorized to enter into a contract to provide services to the members of the BIA and to administer the assessment collected for that purpose; DSLO, a 501(c)(6) organization, wishes to enter into this contract with the City to provide agreed upon services to the BIA members.

NOW THEREFORE, in consideration of their mutual promises, obligations, and covenants hereinafter contained, the parties hereto agree as follows:

1. **Scope of Services.** DSLO will conduct promotional activities to benefit business, cultural, and tourism activities in the downtown area of the City, more specifically set forth in this Agreement as the Scope of Services, attached hereto as Exhibit A and incorporated as if fully set forth herein, as limited by State law and the Ordinance, and subject to any modifications approved in writing by the City Manager.

   During the term of the contract, the Scope of Services, Exhibit A may be amended by mutual consent of the parties. The City Manager is hereby authorized to approve periodic amendments to Exhibit A without further consent by Council to the extent that any such amendments do not result in the elimination of required Special Events, as set forth in Exhibit A.

2. **Financial Reporting.** DSLO will prepare and file with City, consistent with City policy, quarterly financial reports within 60 days after the end of the quarter showing qualifying expenditures made by DSLO and shall, upon request by City, produce supporting invoices, receipts, vouchers and statements showing how the BIA revenues have been expended consistent with this Agreement. Such financial reports shall include a line-item schedule that matches expenditures with specific, budgeted amounts and activities. The reports will be filed with the City Finance Director consistent with the City's financial reporting policies and practices, and as reasonably requested by the Finance Director.

   In addition to interim quarterly reports, DSLO shall contract with an independent certified public accountant to prepare an annual compilation of DSLO's financial operations related to qualifying revenues and expenses. Said compilation shall be completed every year, at the end of the contract period and shall show the purposes to which the BIA funds were applied by providing the name and date of the event and the allocation of BIA funds relative to the costs of the event. The compilation shall be conducted in accordance with accounting standards generally accepted in the United States. The objective of a compilation is to assist management in presenting financial information in the form of financial statements without undertaking to obtain or provide any assurance that there are no material modifications that should be made to the financial statements. DSLO's fiscal year shall be July 1 to June 30; and the compilation shall be completed and submitted to the City's Finance Director within 180 days of the fiscal year end. The City reserves the right to request an audit of DSLO financial statements and DSLO agrees to comply with such a request, in intervals no more often than every four years nor less often than every six years.

3. **Quarterly Activity Reports.** At the time the interim quarterly financial reports are filed, DSLO will also file with the City Manager a report of the activities of DSLO and its subcontractors and the respective accomplishments of each during the period specified in the financial report.

4. **Term.** The term of this Agreement will commence July 1, 2021 ending on June 30, 2023 to match the two-year budget cycle of the City. The contract may be renewed upon approval of the Agreement, including the Scope of Services, by the City Council. The City or DSLO may terminate this Agreement and any rights, duties, and liabilities accruing in this Agreement at any time by giving written notice of election to terminate to the other party with at least thirty (30) days written notice.

5. **BIA Funding Restrictions.** The parties acknowledge that BIA funds shall be used exclusively for activities within Exhibit A and that all BIA funds allocated by the City shall be subject to the restrictions imposed on BIA monies by the Ordinance and State law.

6. **Limited Use of BIA Funds.** DSLO will not use funds received pursuant to this Agreement for any purpose not enumerated in the Ordinance, including but not limited to, any expense (including administration and overhead) in support of a DSLO Political Action Committee or any other political entity or activity. The City recognizes that DSLO may engage in such activities on behalf of its members, independent of its contract with the City and does not attempt through this Agreement to limit those activities, so long as such activities do not utilize BIA funds.

7. **Accounting for BIA Assessments.** BIA funds may be used to finance fund-raising activities intended to generate additional revenue for use by DSLO. However, the sum of all BIA funds used for this purpose shall be accounted for and proceeds from the fundraiser equal to that sum shall be used for purposes stated in the Ordinance and conforming to the purposes of the assessment as defined by State law. Further, such use of BIA funds shall be specifically described in the periodic reports described in paragraph 2 of this Agreement.

8. **City Support for DSLO Activities.** The City will continue to provide staff support and services in accordance with DSLO's Scope of Services attached hereto as Exhibit A. DSLO shall pay to the City the sum of One Hundred Forty-Five Dollars and 15/100 ($145.15) per market for set up and removal of barricades during the 2021-22 fiscal year. Said sum shall be adjusted each July 1 by the All-Urban Consumer Price Index, Los Angeles Area April to April twelve month average as published annually in May by the Bureau of Labor Statistics.

   It is also agreed that DSLO will reimburse City for all costs incurred by City in providing services during the term of this Agreement relating to other DSLO events or promotional services not addressed in this contract. These costs will be determined and certified in accordance with City policies applicable to other nonprofit organizations and City will provide DSLO with invoices for such services, which will be due and payable by DSLO consistent with standard City policies and practices.

9. **Monthly Remittance of BIA Funds to DSLO**. The City will cause to be paid to DSLO the total amount of BIA funds collected by the City during each month within thirty (30) days of the end of the month. The City recognizes that DSLO relies on the City to collect the assessment and to enforce the payment of the assessment via its business license process. To ensure compliance with the Business Tax and License rules, the City and DSLO collaborate to encourage compliance. All businesses within the City are subject to the same rules and same enforcement procedures.

10. **Monthly and Quarterly Remittance of Business Reports**. The City will provide to DSLO monthly New Business Lists and Complete Business Lists (active licenses), Transient Occupancy Tax (TOT) Reports, and quarterly Sales Tax Updates and Sales Tax Reports specific to the downtown.

11. **City Council Member and City Staff Rights to Attend DSLO Board Meetings**. DSLO shall continue to notify the City via the City Manager or his/her appointed representative of all regular meetings of the Board of Directors and shall have the right to attend all such regular meetings.

12. **Independence of DSLO.** Neither the City nor any of its officers or employees will have any control over the conduct of DSLO or any of its employees, except as provided above, it being distinctly understood that DSLO is and at all times will remain as to the City, an independent contractor, and the obligations of DSLO to the City is solely as prescribed by this Agreement.

13. **Electricity and Tree Lighting Program**. The City and DSLO have agreed to work toward accomplishing additional goals set forth in Exhibit B relating to electricity for Downtown SLO Farmers' Market and tree lighting. These provisions are separate and distinct from the Exhibit A Scope of Services for which BIA funds are provided.

14. **Banner Program**. The City and DSLO have agreed to work toward accomplishing additional goals set forth in Exhibit C relating to streetlight banner arm installation and banner displays. These provisions are separate and distinct from the Exhibit A Scope of Services for which BIA funds are provided.

15. **Farmers' Market Encroachment Permit**. By no later than June 30, 2021, DSLO shall obtain from City an encroachment permit for its Farmers' Market. At all times thereafter, DSLO shall have an encroachment permit for its Farmers' Market activity. The encroachment permit will be valid for one year and may be extended by City upon DSLO submitting proof of adequate insurance.

16. **Dispute Resolution between DSLO and its Subcontractors.** DSLO shall include a dispute resolution clause in all contracts with subcontractors furnishing services related to contracted events. The dispute resolution clause shall provide a clear and concise process for resolution of disputes that arise between DSLO and its subcontractors.

17. **Assignment.** This Agreement contemplates that DSLO will render special services that it is uniquely able to provide, and it is recognized by the parties that an inducement to City for entering into this Agreement was, and is, the ability of DSLO to render these special services. Neither this Agreement nor any interest in this Agreement may be assigned by DSLO, except that DSLO may, on written consent of the City Manager or designee obtained in advance, assign any moneys due, or to become due, to DSLO for purposes consistent with this Agreement. DSLO agrees not to subcontract any portion of the performance contemplated and provided for in this Agreement, except that DSLO may enter into subcontracts for the sole purpose of carrying out promotional activities within the scope of the Ordinance with the consent of City. Nothing contained in this Agreement is intended to or will be construed as preventing DSLO from employing or hiring as many employees as it may deem necessary for the proper and efficient execution of this Agreement.

18. **Insurance.** DSLO shall obtain and maintain insurance as set forth in Exhibit D hereto, the requirements of which are incorporated herein. Each insurance policy shall be endorsed to state that coverage shall not be suspended, voided or canceled by either party except after thirty (30) days' prior written notice to City, and shall be primary and not contributing to any other insurance or self-insurance maintained by City.

    DSLO shall deliver to City certificates of insurance and original endorsements for approval as to sufficiency and form prior to the start of performance hereunder. The certificate and endorsements for each insurance policy shall contain the original signature of a person authorized by that insurer to bind coverage on its behalf. "Claims made" policies of insurance are not acceptable unless the City Risk Manager determines that "occurrence" policies are not available in the market for the risk being insured. If a "claims made" policy is accepted, it must provide for an extended reporting period of not less than one hundred eighty (180) days. Such insurance as required herein shall not be deemed to limit DSLO's liability relating to performance under this Agreement. City reserves the right to require complete certified copies of all said policies at any time. Any modification or waiver of the insurance requirements herein shall only be made with the approval of the City Risk Manager. The procuring of insurance shall not be construed as a limitation on liability or as full performance of the indemnification provisions of this Agreement.

    To the extent that DSLO subcontracts certain activities pursuant to paragraph 14 of this Agreement, DSLO may comply with the requirements of this paragraph 15 by providing certificates of insurance naming DSLO and the City of San Luis Obispo as separate “additional insured” under the subcontractor's insurance, providing that the subcontractor's insurance meets or exceeds the insurance requirements of this paragraph 15, all subject to the approval of the City Risk Manager.

19. **Hold Harmless and Indemnification.**

a. Non-design, non-construction Professional Services: To the fullest extent permitted by law (including, but not limited to California Civil Code Sections 2782 and 2782.8), DSLO shall indemnify, defend, and hold harmless the City, and its elected officials, officers, employees, volunteers, and agents ("City Indemnitees"), from and against any and all causes of action, claims, liabilities, obligations, judgments, or damages, including reasonable legal counsels' fees and costs of litigation ("claims"), arising out of DSLO's performance or DSLO's failure to perform its obligations under this Agreement or out of the operations conducted by DSLO, including the City's active or passive negligence, except for such loss or damage arising from the sole negligence or willful misconduct of the City. In the event the City Indemnitees are made a party to any action, lawsuit, or other adversarial proceeding arising from DSLO's performance of this Agreement, DSLO shall provide a defense to the City Indemnitees or at the City's option, reimburse the City Indemnitees their costs of defense, including reasonable legal fees, incurred in defense of such claims.

b. To the fullest extent permitted by law (including, but not limited to California Civil Code Sections 2782 and 2782.8), City shall indemnify, defend, and hold harmless DSLO, and its officers, employees, volunteers, and agents ("DSLO Indemnitees"), from and against any and all causes of action, claims, liabilities, obligations, judgments, or damages, including reasonable legal counsels' fees and costs of litigation ("claims"), arising out of the City's performance or City's failure to perform the obligations as set forth in Exhibit A, Paragraph 4 titled City Services in Support of Special Events under this Agreement or out of the operations conducted by DSLO. In the event DSLO Indemnitees are made a party to any action, lawsuit, or other adversarial proceeding arising from City's performance of obligations as set forth in Exhibit A, Paragraph 4 titled City Services in Support of Special Events under this Agreement, the City shall provide a defense to DSLO Indemnitees, reimburse DSLO's Indemnitees their costs of defense, including reasonable legal fees, incurred in defense of such claims.

c. The review, acceptance or approval of the City's or DSLO's work or work product by any indemnified party shall not affect, relieve or reduce the indemnification or defense obligations. This Section survives completion of the services or the termination of this contract. The provisions of this Section are not limited by and do not affect the provisions of this contract relating to insurance.

20. **Notice.** Any notices to be given under this Agreement, or otherwise, may be given by enclosing the same in a sealed envelope, addressed to the party intended to receive the same, at its address and by depositing the same in the U. S. Postal Service as regular mail, postage prepaid. When so given, notice will be effective from the time of mailing of the notice. For these purposes, unless otherwise provided in writing, the address of the City and DSLO and the proper persons to receive any notices on its behalf are the following:

Derek Johnson, City Manager
City of San Luis Obispo
990 Palm Street
San Luis Obispo, CA 93401

Bettina Swigger, CEO
Downtown SLO
1135 Chorro Street
San Luis Obispo, CA 93401
bettina@downtownslo.com

IN WITNESS WHEREOF, the parties hereto have executed this Agreement on _____.

CITY OF SAN LUIS OBISPO

By:_____
Heidi Harmon, Mayor
City of San Luis Obispo

SAN LUIS OBISPO DOWNTOWN ASSOCIATION, a 501(c)(6) Corporation

By: _____
Bettina Swigger, CEO
Downtown SLO

ATTESTATION:

By:_____
Teresa Purrington, City Clerk

APPROVED AS TO FORM:

By: _____
J. Christine Dietrick, City Attorney

EXHIBIT A

SCOPE OF SERVICES

Special Events & Activations in Public Space

Notes:

A. Due to the COVID-19 pandemic, alterations to these programs will be made as public health information changes and the emergency evolves. For the duration of this agreement, additions/replacements may be made, and events will be reevaluated for compliance with public health regulations and guidance. These decisions will be made in consultation with City Staff and subject to approval of the City Manager or designee.

The events and/or activities set forth and defined below are Special Events the continuation of which the City considers integral to the fulfillment of DSLO's obligations under the Agreement. As such, the City agrees to continue to provide, at the mutually agreed cost to DSLO, the enumerated municipal services that have traditionally been provided to DSLO in conjunction with the events/activities as set forth below and DSLO shall continue to provide the following Special Events and related services to the downtown:

1. Specific COVID-19 Initiatives: Work closely with City staff to implement initiatives within as needed to facilitate COVID-19 Recovery.
    a. Assist businesses with resources and disseminate timely information related to the COVID-19 Emergency and Recovery, including City, County, State and Federal relief information.
    b. Actively engage in and support the "Support SLO" initiative coordinated by the PCC.
    c. Continue to support "Open SLO" and other COVID related activations like "Pop-Ups in the Plaza" as it relates to the Downtown business community.

The events and/or activities set forth and defined below are Special Events the continuation of which the City considers integral to the fulfillment of DSLO's obligations under the Agreement. As such, the City agrees to continue to provide, at the mutually agreed cost to DSLO, the enumerated municipal services that have traditionally been provided to DSLO in conjunction with the events/activities as set forth below and DSLO shall continue to provide the following Special Events and related services to the downtown:

2. **Holiday Activities**: Holiday Activities include some of the County's most popular holiday events including:
    a. **Annual Holiday Parade**, a free event that features nearly 100 entries and winds its way through the Downtown streets early in the holiday season;
    b. **Santa's House in Mission Plaza,** a free service opening the day after Thanksgiving and operating through Christmas Eve. Thousands of children visit the House from all over the county and beyond;

c. **Classic Carousel in Mission Plaza,** a contracted activity by the downtown Association. Each year, an independent operator brings in a full-sized carousel that is set up adjacent to Santa's House and operates the same hours as the House.
d. **Light up Downtown Holiday program,** management of the program and agreement lights and other activities occurring in Downtown for the holidays, not including the zig-zag street lighting. This will include securing private funding to attain matching contributions from the City.

3. **Concerts in the Plaza**: Concerts in the Plaza are held in Mission Plaza showcasing local and California bands, providing the highest level of quality in all aspects of the production such as stage and sound, promotional marketing materials, a high level of staffing and security, dozens of volunteers and quality food and beverage vendors. DSLO will be given priority in Mission Plaza for the Friday night concert series beginning the first Friday in June and ending on the fourteenth contiguous Friday hence, subject to the following:
   a. In those instances, where the concert conflicts with Mission College Preparatory School graduation activities that take place in Mission Plaza, the series will begin on the second Friday in June allowing Mission College Preparatory School priority use of the plaza for graduation.
   b. In years when the series starts on the second Friday in June, it will still run the full fourteen contiguous Fridays.

4. **Dining in the Plaza:** Continued promotion and monitoring of the Dining in the Plaza activities as long as the activity is continued and supported by the City. While the City will be responsible for the set up and tear down of the tables and chairs, DLSO can assist as needed in the set up and tear down and by reporting any damage to the table and chairs to the Parks and Recreation contact.

5. **Downtown SLO Farmers' Market: (DSLOFM)**: An event that showcases downtown and downtown businesses to visitors, both locals and tourists, and offers opportunities for downtown businesses, other eligible non-downtown businesses, produce vendors, nonprofit organizations and other community groups to sell their products and services, fundraise, or provide information. DSLOFM is also often generically referred to as "Farmers' Market," "the Market," or other various combinations of those names.

6. **City Services in Support of Special Events:** City services in support of the above events have traditionally included the following, which will continue uninterrupted:
   a. Public safety support at levels determined appropriate by the City, including holiday parade escort.
   b. Placement and removal of street barricades and coordination of street closures for holiday activities and DSLOFM.
   c. Placement and removal of City-owned portable restrooms for DSLOFM.
   d. Placement and removal of the tables and chairs used for Dining in the Plaza and other support as determined appropriate by the City.

e. Banner placement and advertising at 50% of standard City fees. (Note: DSLO shall retain its priority position with regard to the placement of street banners that promote activities that benefit tourism and business in the district, in addition to the Special Events above, within the scope of the Agreement, but shall be charged fees consistent with City policy for the placement of such banners).
f. Special Events Permit processing at 50% of standard City fees.
g. Street clean-up following Special Events.
h. Free rental of Mission Plaza for placement of Santa's House and carousel and for Concerts in the Plaza.
i. Up to $150,000 in funding for the "Light Up Downtown" holiday program. Up to $50,000 may be used as matching funding subject to private funds being raised by DSLO. Final details will be subject to an additional agreement between the City and DSLO.

7. **DSLO Services in Support of Special Events:** DSLO services in support of the above events have traditionally included the following, which will continue to enhance the success of the events:
   a. Booth space at DSLOFM for City departments at no cost subject to space availability
   b. Noticing via meter flyers for DSLOFM
   c. Marketing and coordination of City-related events at DSLOFM at no cost including but not limited to:
      - Arbor Day activities
      - Fire Prevention Night
      - Law Enforcement Night
      - Public Works Night
      - City of San Luis Obispo Parks and Recreation activities
      - City of San Luis Obispo Utilities activities
      - City of San Luis Obispo Tourism activities
      - City of San Luis Obispo Transit activities
   d. Solid waste collection and public facing recycling options and bike valet for all events expecting 300 or more attendees in accordance with Policy2.13 of the City's Bicycle Transportation Plan

8. **Ongoing Services**

   In addition to the Special Events set forth above, DSLO shall provide, as needed, the following Ongoing Services to the Downtown. The costs of any City services required or requested in support of these Ongoing Services shall be allocated to DSLO consistent with City policies applicable to other not for profit entities and pursuant to the terms of the Agreement.

9. **Parking/Transportation**
   a. Distribute employee and customer parking brochures to targeted groups.

b. Work closely with City staff to analyze and make recommendations to the City Council on ways to address employee parking issues.
c. Work closely with City staff on the development of downtown construction public information programs.
d. Work closely with City staff on parking management plan and any parking and access programs that benefit the community.

10. **Downtown Maintenance**
    a. Work closely with City staff to give input on sidewalk scrubbing schedule.
    b. Disseminate cleanliness and safety information to members through publications and presentations.
    c. Work with City staff to get trash and recycling receptacles cleaned and to have waste wheelers put away after collection per City Municipal Code.
    d. Continue Downtown Forester program in assisting with tree maintenance.

11. **Economic Development Issues**
    a. Work closely with City staff to implement initiatives within the 2021-23 Major City Goal of "Economic Recovery, Resiliency and Fiscal Sustainability".
    b. Lead the "Vibrancy and Vacancy task force" including the update and maintenance of the vacancy data base.
    c. Work closely with City staff to implement the City's Economic Development Strategic Plan to maintain downtown retail health.
    d. Work closely with City staff on issues related to undesirable and/or criminal behaviors in the downtown, such as aggressive panhandling, graffiti, and drunk- in-public behaviors.
    e. Continue to coordinate with City and SLO Chamber of Commerce to get information to visitors on downtown retail/shopping opportunities.
    f. Continue collaboration efforts with the Chamber of Commerce and other business and visitor groups to increase effectiveness of local and regional marketing.
    g. Get word out to downtown retailers and restaurants when conferences/events are in town and encourage them to do direct marketing/outreach as provided to DSLO via the City's tourism efforts.

12. **Organizational Capacity**

    Keep the City apprised of and included in the process of any update to DSLO's long term strategy for the fiscal sustainability, including strategies to:

    a. Maintain economic vitality and independence of the organization.
    b. Identify options for development of other funding sources to be considered, pursued, and/or secured to supplement the organization's activities.
    c. Evaluate internal organization, and committee structure, and allocation of resources to identify changes needed to most effectively implement DSLO's mission and goals.

EXHIBIT B

ELECTRICITY AND TREE LIGHTING

Electrical Wiring in Higuera and Garden Streets for Future Electrical Connections

In 2008 and 2012 the City facilitated the installation of electrical conduit and service connections in Higuera Street to provide electrical connections for use by DSLOFM vendors. Further capital will be required to facilitate additional conduit placement. The City and DSLO have agreed to work toward accomplishing the connections over the term of the Agreement. However, the parties recognize that the completion of such a project will require additional funding and the parties agree that the cost allocation relating to the provision of such connections and post-installation maintenance issues, such as electrical service costs, are subject to further negotiation.

Tree Lighting Program

In 2012, in return for the City's issuance of a temporary revocable encroachment permit, DSLO executed an agreement for encroachment within the public right-of-way for DSLO Tree Lighting and Power Project. Furthermore, on June 14, 2012, the City and DSLO amended their contract for services dated July 1, 2011, under which DSLO was allowed to conduct a Tree Lighting and Power Project consisting of installation of string lights in trees, installation of electrical boxes to provide the lights with electricity per City standards, and installation a commemorative plaque to acknowledge tree lighting donors. A further capital project in 2018 facilitated additional connections on Garden Street.

The Tree Lighting and Power Project shall meet the following requirements:

1. The Tree Lighting and Power Project will be allowed on street trees along Higuera Street between Morro and Garden Streets (the "Project Area"). All areas outside the Project Area are reserved for the City's commemorative tree program as established per Resolution No. 10151 (2010 Series) until such time as the commemorative tree program is eliminated or the Project Area modified.

2. Trees in the Project Area that have commemorative plaques granted prior to June 14, 2012, in accordance with the City's planting and commemorative plaque program, are excluded from the Tree Lighting and Power Project unless written approval of the commemorative donor to allow inclusion in the Tree Lighting and Power Program has been obtained by DSLO.

3. DSLO may charge a fee to cover the costs of installing, maintaining, operating (including electricity) and replacing the lighting and plaques otherwise administering the Tree Lighting Project.

4. DSLO will be entirely responsible for all costs associated with the Tree Lighting and Power Project and shall comply with the following conditions:

    a. Install, maintain, operate, replace, and remove tree lighting in the Program Area upon revocation of the encroachment permit issued for the Tree Lighting and Power Project (unless otherwise agreed in writing by City);

    b. Purchase, place, maintain, and remove all plaques associated with its Program upon revocation of the encroachment permit issued for the Tree Lighting and Power Project (unless otherwise agreed in writing by City);

    c. Remove any damaged or hazardous plaques when needed or upon request by the City; and

    d. Provide lighting of the existing commemorative trees in the Program Area.

    e. Plaques shall be no larger than 5” x 6” and shall have wording appropriate to a public location.

    f. All tree lighting shall be placed in accordance with guidance of the City Arborist to minimize impacts to pruning and other maintenance operations.

    g. Any expansion of the Program Area requires the prior written approval of City before implementation by DSLO.

EXHIBIT C

BANNERS AND BANNER ARMS

Beginning in 2018, the City started the removal of large cobra-head style light poles throughout Downtown and began the installation pedestrian style light poles. Through the community placemaking and beautification work of the City's Promotional Coordinating Committee (PCC) and in partnership with DSLO, the PCC directed the installation of pedestrian banner arms throughout Downtown to maintain banner display areas in the Downtown core.

Additionally, the PCC created a portfolio of 4-series banner artwork to be displayed on pedestrian, cobra and companion banner arms, referred to as the "City Established Banner Series". The PCC also created a Banner "style guide" document in collaboration with DSLO's Cultural Arts Committee and under the terms of the City's Flag Policy, for the use of DSLO's in the implementation of the Banner Program and work with other agency's use of the banner displays.

City Established Banners Series

1. For the term of this agreement, the City will supply four complete banner sets of the City Established Banner Series for display throughout downtown. The City will be responsible for replacing damaged banners as needed within these series.

2. For the term of this agreement, the capital and coordination required to facilitate the City Established Banner Series rotation will be managed by the City directly with the designated banner installation contractor.
   a. The schedule of the City Established Banner Series for the term of this agreement is outlined below. Changes to the schedule below, will be provided to DSLO in writing.

City Established Banner Series	FY 2021-22	FY 2022-23
Series 4 – Explore	July 21 -September 21	June 22 – August 22
Series 1 – Cultural	October 21 – Mid-November 21	September 22 - Mid-November 22
Series 2 – Holiday	Mid-November 21 – Mid-February 22	Mid-November 22 – Mid-February 23
Series 3 – Reconnection	Mid-February 22 – May 22	Mid-February 23 – May 23
Series 4 – Explore	June 22 – August 22	June 23 – August 23

Banner Program

As referenced in the City adopted Flag Policy, Flags (referred to as "Banners" for the purpose of this agreement) in the Downtown core fall under the sole jurisdiction of DSLO and are subject to the guidelines described within the Flag Policy.

For the term of this agreement, DSLO will be responsible for the implementation and management of a comprehensive Downtown Banner Program in alignment with the City's Flag Policy.

The Banner Program shall meet the following requirements:

1. The Banner Program will be allowed on streetlights with existing banner arm infrastructure including cobra head and pedestrian light posts along Palm, Monterey, Higuera and Marsh Streets between the blocks of Santa Rosa and Nipomo Streets (the "Project Area").
   a. Any expansion of the Program Area or banner arm infrastructure requires the prior written approval of City before implementation by DSLO.

2. The Banner Program includes the use of all existing banner arm infrastructure within the Project Area for various banner sizes as defined as "cobra head", "companion" and "pedestrian" size banners.

3. With the exception of the City Established Banner Series, DSLO will be entirely responsible for the management associated with the Banner Program including administering the "SLO Downtown Association Flag Contract" provision as outlined in the City's Flag Policy, and shall comply with the following conditions:
   a. Provide consistent banner displays in the Project Area; and
   b. Incorporate the City Established Banner Series seasonally into the banner rotation for a minimum of 30 consecutive days within the 90-day specified quarter subject to the written approval of the City; and
   c. Utilize and maintain the Banner Style Guide provided by the City in the administration of the Banner Program; and
   d. Establish and provide a process for qualified organizations to participate.
      a. DSLO may charge a fee to contracted organizations to cover the costs in the administration of the Banner Program.

4. DSLO is responsible for coordinating with the City on the installation of new banner arm infrastructure or the maintenance, replacement, or removal of damaged or not needed banner arm infrastructure in the Project Area.
   a. Pedestrian banner arms: The City will be responsible for all costs associated with the installation and maintenance of all pedestrian banner arm infrastructure in the Project Area during the contract term of FY 21-23. DSLO will assume the maintenance responsibility of the pedestrian banner arm infrastructure in the Project Area after FY 22-23.
   b. Cobra head and companion banner arms: DSLO is responsible for all cost and management associated with all cobra head and companion banner arm infrastructure installation, maintenance, replacement, and removal in the Project Area. DSLO will remove and replace any damaged banner arms and banners when needed or upon request by the City.

EXHIBIT D

INSURANCE REQUIREMENTS

Downtown SLO ("Contractor") shall procure and maintain for the duration of the contract insurance against claims for injuries to persons or damages to property that may arise from or in connection with the performance of the work hereunder by the Contractor, its agents, representatives, employees or subcontractors.

Minimum Scope of Insurance. Coverage shall be at least as broad as:

1. Insurance Services Office Commercial General Liability coverage (occurrence form CG 0001).
2. Insurance Services Office form number CA 0001 (Ed. 1/87) covering Automobile Liability, code 1 (any auto).
3. Workers' Compensation insurance as required by the State of California and Employer's Liability Insurance.

Minimum Limits of Insurance. Contractor shall maintain limits no less than:

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

Deductibles and Self-Insured Retentions. Any deductibles or self-insured retentions must be declared to and approved by the City. At the option of the City, either: the insurer shall reduce or eliminate such deductibles or self-insured retentions as respects the City, its officers, officials, employees and volunteers; or the Contractor shall procure a bond guaranteeing payment of losses and related investigations, claim administration and defense expenses.

Other Insurance Provisions. The general liability and automobile liability policies are to contain, or be endorsed to contain, the following provisions:

1. The City, its officers, officials, employees, agents and volunteers are to be covered as insureds as respects: liability arising out of activities performed by or on behalf of the Contractor; products and completed operations of the Contractor; premises owned, occupied or used by the Contractor; or automobiles owned leased, hired or borrowed by the Contractor. The coverage shall contain no special limitations on the scope of protection afforded to the City, its officers, official, employees, agents or volunteers.

2. For any claims related to this project, the Contractor's insurance coverage shall be primary insurance as respects the City, its officers, officials, employees, agents and volunteers. Any insurance or self-insurance maintained by the City, its officers, officials, employees, agents or volunteers shall be excess of the Contractor's insurance and shall not contribute with it.
3. The Contractor's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.
4. Each insurance policy required by this clause shall be endorsed to state that coverage shall not be suspended, voided, canceled by either party, reduced in coverage or in limits except after thirty (30) days' prior written notice by certified mail, return receipt requested, has been given to the City.

Acceptability of Insurers. Insurance is to be placed with insurers with a current A.M. Best's rating of no less than A:VII.

Verification of Coverage. Contractor shall furnish the City with a certificate of insurance showing required coverage. Original endorsements effecting general liability and automobile liability coverage are also required by this clause. The endorsements are to be signed by a person authorized by that insurer to bind coverage on its behalf. All endorsements are to be received and approved by the City before work commences.

Subcontractors. Contractor shall include all subcontractors as insured under its policies or shall furnish separate certificates and endorsements for each subcontractor. All coverages for subcontractors shall be subject to all of the requirements stated herein.

Department: Fire
Cost Center: 8503
For Agenda of: 6/15/2021
Placement: Consent
Estimated Time: N/A

FROM: Keith Aggson, Fire Chief
Prepared By: Rodger Maggio, Fire Marshal Chief Building Official

SUBJECT: AUTHORIZATION TO CONTINUE THE COLLECTION OF MULTI-DWELLING PROPERTY FIRE AND LIFE SAFETY INSPECTION FEES

RECOMMENDATION

Adopt a Resolution entitled, "A Resolution of the City Council of the City of San Luis Obispo, California, authorizing the San Luis Obispo County Auditor to collect fees for 2021-22 Fire and Life Safety Inspections of Multi-Dwelling Properties containing three or more dwelling units on the Secured Property Tax Roll pursuant to California Government Section 54988, Et Seq."

DISCUSSION

Background

In May 2005, the City Council approved a cost recovery program for State-mandated fire and life safety inspections for multi-dwelling properties with three or more units. In June 2017, the Council approved a change on how fees for apartment buildings, hotels/motels, and sorority/fraternity inspections are calculated. This change is reflected in Exhibit A to the Resolution (Attachment A). The result was an increase from approximately $194,000 per year in gross revenue to approximately $260,000 at the time of change in the fee schedule. Since the adoption of the new fee schedule, revenue under this program has increased to $325,000 for fiscal year 2021-22 due to the increase in the number of units for each category and the annual CPI adjustment to the fee. Staff is not recommending any further changes in the current fees for 2021-22, however, the County requires an annual resolution adopted by the Council authorizing the continued collection of those fees on the property tax roll. Staff is recommending that the fee collection continue to be done through the secured property tax role in 2021-22 and is requesting that Council adopt the required resolution to authorize that collection.

Policy Context

California Health & Safety Code Section 13146. 2(b) authorizes cities to charge property owners in recovering the reasonable costs of providing these annual inspections. As part of this program, on June 7, 2005, the Council adopted Ordinance No. 1472 authorizing the collection of annual fees for these inspections through the secured County property

tax roll as the most cost-efficient method for fee collection (City Municipal Code Section 3.50.01(c)).

Public Engagement
This item is on the agenda for the June 15, 2021 City Council meeting and will follow all required postings and notifications. The public will have the opportunity to provide comment on this item at or before the meeting.

ENVIRONMENTAL REVIEW
The California Environmental Quality Act does not apply to the recommended action in this report, because the action does not constitute a "Project" under CEQA Guidelines Sec. 15378.

FISCAL IMPACT

Budgeted: Yes Budget Year: 2021-22
Funding Identified: N/A

The Finance Department will work with the County of San Luis Obispo to place the fees on the annual tax rolls.

Fiscal Analysis:

Funding Sources	Total Budget Available	Current Funding Request	Remaining Balance	Annual Ongoing Cost
General Fund	N/A	N/A	N/A	N/A
State				
Federal				
Fees				
Other:				
Total	**N/A**	**N/A**	**N/A**	**N/A**

In fiscal year 2020-21, the City is scheduled to collect roughly $325,000 in multi-dwelling property fire and life safety inspection fees. As of May 10, 2021 the City had collected $287,015 with the remaining amount expected to be posted in the near future as the deadline to pay property taxes was April 10, 2021 and tax payments are now delinquent. Projected revenue for fiscal year 2021-22 is expected to increase due to the increased number of multi-dwelling properties within the City.

ALTERNATIVES

Do not adopt the Resolution and go to a less cost-effective billing system by the Finance Department. This is not recommended as it would be counter to fiscal sustainability while the City continues to navigate the fiscal impacts of COVID-19 health restrictions.

ATTACHMENTS

A – Draft Resolution

RESOLUTION NO. _____ (2021 SERIES)

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF SAN LUIS OBISPO, CALIFORNIA, AUTHORIZING THE SAN LUIS OBISPO COUNTY AUDITOR TO COLLECT FEES FOR 2021-22 FIRE AND LIFE SAFETY INSPECTIONS OF MULTI-DWELLING PROPERTIES CONTAINING THREE OR MORE DWELLING UNITS ON THE SECURED PROPERTY TAX ROLL PURSUANT TO CALIFORNIA GOVERNMENT SECTION 54988, ET SEQ.

WHEREAS, the City of San Luis Obispo is required by California Health & Safety Code Section 17921 annually to inspect multi-dwelling properties containing three or more dwelling units, including apartments, certain residential condominiums, hotels, motels, lodging houses and congregate residences; and

WHEREAS, California Health & Safety Code Section 13146.2 authorizes cities to charge property owners in recovering the reasonable costs of providing these annual inspections; and

WHEREAS, in accordance with this policy, the Council adopted Resolution Nos. 9799 (2006 Series) and 10790 (2017 Series) updating the master fee schedule, as specifically set forth in "Exhibit A" hereto, and authorizing the collection of these fees on the secured property tax roll; and

WHEREAS, the Council desires to continue collection of these fees on the secured property tax roll for 2021-22.

NOW, THEREFORE, BE IT RESOLVED by the Council of the City of San Luis Obispo as follows/or that (whatever action is needed):

SECTION 1. Pursuant to California Health & Safety Code Section 13146.2(b) and Municipal Code Section 3.50, the Council hereby authorizes and directs that Fire and Life Safety Inspection fees shall be collected on the secured property tax roll by the San Luis Obispo County Auditor-Controller for fiscal year 2021-22. A listing of fees by assessor's parcel number shall be provided to the County Auditor-Controller for collection on the 2021-22 secured property tax roll in accordance with their schedule and data format requirements, pursuant to California Government Code 54988, et seq.

SECTION 2. Resolution Number 11121 (2020 Series) is hereby repealed and superseded to the extent inconsistent herewith.

Upon motion of Council Member _____, seconded by Council Member _____, and on the following roll call vote:

AYES:
NOES:
ABSENT:

The foregoing resolution was adopted this _____ day of _____ 2021.

_____
Mayor Heidi Harmon

ATTEST:

_____
Teresa Purrington
City Clerk

APPROVED AS TO FORM:

_____
J. Christine Dietrick
City Attorney

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the official seal of the City of San Luis Obispo, California, on _____.

_____
Teresa Purrington
City Clerk

EXHIBIT A

Multi-Dwelling Fire and Life Safety Inspection Fee Schedule

Administrative Fee

Processing per facility	$86.63
Each Additional Owner	$10.28

Apartment Houses

Up to 10 Units	$346.52
11- 20 Units	$519.78
21- 50 Units	$693.04
51- 100 Units	$866.30
101- 200 Units	$1386.08
Every additional 100 Units over 200	$346.52

Condominiums

Up to 10 Units	$346.52
11- 20 Units	$519.78
21- 50 Units	$693.04
51- 500 Units	$1039.56

Fees are waived for units that are built, owned and managed by the San Luis Obispo Housing Authority, other governmental agencies or not-for-profit housing organizations.

Hotels, Motels, Lodging Houses, Bed & Breakfast Facilities, Youth Hostel Facilities, Senior Facilities, Sororities, Fraternities and Other Congregate Residences

1 - 20 units	$346.52 per year per facility
21 - 50 units	$519.78 per year per facility
51-100 units	$866.30 per year per facility
101-200 units	$1386.08 per year per facility

Sorority, Fraternity, Congregate house	$693.04

These fees are applicable to all multi-dwelling units in the City based on the following definitions as set forth in the 2016 California Building Code, Chapter 2: Definitions and Abbreviations, Section 202 and Chapter 3, Section 310.

Apartment house is any building, or portion thereof, which contains three or more dwelling units, including R-2 residential condominiums.

Congregate residences are any building or portion thereof that contains facilities for living, sleeping and sanitation, as required by this code, and may include facilities for eating and cooking, for occupancy by other than a family. A congregate residence may be a shelter, convent, monastery, dormitory, fraternity, or sorority house, but does not include jails, hospitals, nursing homes, hotels, or lodging houses.

Dwelling unit is any building or portion thereof that contains living facilities, including provisions for sleeping, eating, cooking and sanitation, as required by this code, for not more than one family, or a congregate residence for ten or less persons.

Hotel is any building containing six or more guest rooms intended or designed to be use, or which are used, rented, or hired out to be occupied, or which are occupied for sleeping purposes by guests.

Lodging house is any building or portion thereof containing not more than five guest rooms where rent is paid in money, goods, labor or otherwise. (A lodging house includes bed & breakfast facilities and hostels but excludes single family dwellings).

Motel shall mean the same as hotel as defined in this code.

Council Agenda Report

Department: Parks and Recreation
Cost Center: 7008
For Agenda of: 6/15/2021
Placement: Consent
Estimated Time: N/A

FROM: Greg Avakian, Parks & Recreation Director
Prepared By: Dave Setterlund, Recreation Supervisor

SUBJECT: ACCEPTANCE OF JACK HOUSE ART RESTORATION DONATION

RECOMMENDATION

Authorize the Mayor to execute a donation agreement with the *Jack House Family Trust*, accepting a donation valued at $7,450 for its payment for contract Art Restoration and Installation work at the Historic Jack House.

DISCUSSION

Background

The Jack House and Gardens, a community gem, is in the heart of downtown San Luis Obispo at 536 Marsh Street and was deeded to the City in 1975. The Jack House Committee (JHC) was established in 1975 as a condition of the grant deed of the former Jack Family residence to the City. The JHC is comprised of a seven-member committee that serves to assist the City Council and Parks and Recreation Department in the administration and restoration of the historic Jack Residence. The JHC makes recommendations for general rules and regulations that allow for the greatest possible public use and enjoyment of the house and grounds, while protecting and preserving the history and integrity of this historical and recreational facility.

In deeding this facility to the City, the Jack Family descendants articulated their desires to keep, preserve, and use the property and the residence in a manner which maintained, enhanced, and celebrated its place in the historical development of the City of San Luis Obispo. The grant deed (Attachment B) specifies that the residence shall be maintained in its original character, a Victorian vintage residence. General maintenance and any restoration improvements are to be in keeping with the age and period when the original residence was constructed.

For the past 46 years, the residence and public gardens have been home to a variety of tours, special events, and weddings. During non-pandemic times, this historic location is visited and enjoyed by thousands of community members annually.

Need for Art Restoration
Recently, City staff was approached by the Jack House Committee with the proposition of an art restoration project within the interior of the historic residence. The current works of art (Attachment C – Works of Art) are aging and some are in poor condition. Further deterioration of the artwork could result in permanent damage if not addressed in the immediate future.

Proposed Donation
The Jack House Committee, in collaboration with the Jack Family Trust executor, and Parks and Recreation Department staff, have worked to identify a local Conservator, Patina Conservation Studios, who could provide the necessary paper conservation and archival materials work. The estimated cost of Patina Conservation Studios' conservation and archival materials restoration work is approximately $7450. The Jack Family Trust proposes to donate funds for the installation and restoration of the identified works of art at the City of San Luis Obispo Historic Jack House. In communication with the Jack House Committee, staff has drafted and included a proposed donation agreement to memorialize the terms of this donation (Attachment A).

Previous Council or Advisory Body Action
At the May 12, 2021 Jack House Committee meeting, the board recommended council approve the execution of in-kind donation, not to exceed $7500. (Attachment E – Draft Minutes).

Policy Context
Parks and Recreation and Public Works Department staff have reviewed the proposed art restoration donation for consistency with the City's approved donation policy (Attachment D – Donation Policy). Per the City's Donation Policy, all donations exceeding $5000 in value must be accepted through a written agreement and approved by City Council. The proposed donation is consistent with the grant deed restrictions and the Parks and Recreation Department goals and objectives and will enhance the historical experience of San Luis Obispo residents and visitors. The proposed donation is valued at over $5000 in materials and donated labor.

Staff notes that per the City's Financial Management Manual, the bidding process is not required for either the paper conservation or archival materials restoration work as the value of those contracts are not to exceed $7,500.

Public Engagement
At the May 12, 2021 Jack House Committee discussed the donation and provided an opportunity for public comment.

CONCURRENCE
The Public Works Department concurs with this recommendation.

ENVIRONMENTAL REVIEW
The California Environmental Quality Act does not apply to the recommended action in this report, because the action does not constitute a "Project" under CEQA Guidelines Sec. 15378.

FISCAL IMPACT
The donation is valued at $7450. All project expenditures will be supported by private funds raised by the Jack Family Trust. There is no General Fund fiscal impact associated with Council's acceptance of this Art Restoration donation.

Budgeted: No Budget Year: 2020-21
Funding Identified: Yes

Fiscal Analysis:

Funding Sources	Total Budget Available	Current Funding Request	Remaining Balance	Annual Ongoing Cost
General Fund	$0	$0	$0	$0
State	$0	$0	$0	$0
Federal	$0	$0	$0	$0
Fees	$0	$0	$0	$0
Other:	$0	$0	$0	$0
Total	**$0**	**$0**	**$0**	**$0**

ALTERNATIVES

***Decline the donation*.** Declining the Jack House Committee art restoration donation is not recommended as the art restoration and installation donation is consistent with the Jack House grant deed for restoration improvements and are in keeping with the age and period of the original residence. And finally, declining this donation is not recommended as there is no General Fund impact associated with this acceptance.

ATTACHMENTS

A – Jack House Donation Agreement
B – Jack House Grant Deed
C – Jack House Works of Art
D – Jack House Donation Policy
E – Jack House Committee Draft Minutes

DONATION ACCEPTANCE AGREEMENT

THIS AGREEMENT, made on this _____ day of _____, 2021, by and between the City of San Luis Obispo, a municipal corporation (hereinafter called the Owner) and the Jack Family Trust (hereinafter called the Donor).

This written Agreement, including all writings specifically incorporated herein by reference shall constitute the complete

WITNESSETH:

WHEREAS, the City desires to restore the condition of the art collection at the Jack House, specifically paper and painting conservation as well as archival material work to avoid further deterioration (the "Restoration Project"); and

WHEREAS, Donor desires to provide a community wide improvement to benefit the condition of the art collection at the Jack House; and

WHEREAS, Donor will provide all monetary funds necessary to complete the Restoration Project, which is presently estimated at $7450; and

WHEREAS, acceptance of this donation is consistent with the City policy regarding donation as set forth in Resolution No. 8965 (1999 Series).

NOW THEREFORE, in consideration of their mutual promises, obligations and covenants herein, the parties herby agree as follows:

1. **TERM**. The term of this agreement shall be from the date this agreement is made and entered into until completion of the Restoration Project by the City.

2. **CITY'S OBLIGATIONS.** The City shall perform as follows:
    a. Execute contract with Patina Conservation Studios to perform the paper and archival materials restoration work.
    b. Coordinate and provide oversight to the Restoration Project to ensure that it conforms to City standards and specifications.

3. **DONOR'S OBLIGATIONS.** The Donor shall perform as follows:
    a. Provide and furnish all funds to complete all the Restoration Project. Donor acknowledges that the estimated cost to complete the Restoration Project is currently $7450, and further agrees that should the cost of the Restoration Project exceed this amount, Donor shall furnish additional funds to cover the project.

4. **ADMENDMENTS**. Any amendment, modification, or variation from the terms of this agreement shall be in writing and shall be effective only upon approval by the City Manager.

5. **AUTHORITY TO EXECUTE.** Both City and Donor do covenant that each individual executing this agreement on behalf of each party is a person duly authorized and empowered to execute Agreements for such party.

IN WITNESS WHEREOF, the parties to these presents have hereunto set their hands this year and date first above written.

CITY OF SAN LUIS OBISPO,
A Municipal Corporation

_____
Heidi Harmon, Mayor

APPROVED AS TO FORM:

Christine Dietrick,
City Attorney

DONOR:

Katchy Andrews,
Jack Fund Trust Representative

GRANT DEED

FOR VALUABLE CONSIDERATION, receipt of which is hereby acknowledged, and subject to the covenants, conditions, restrictions and reservations set forth, VIRGINIA J. TYNAN, also known as VIRGINIA JACK TYNAN, PHYLLIS SINTON, also known as PHYLLIS JACK SINTON, MARGARET E. KAETZEL, also known as MARGARET KAETZEL, GERTRUDE K. KAETZEL, also known as KATHLEEN KAETZEL and GERTRUDE KATHLEEN KAETZEL, KATHLEEN G. VON STEIN, formerly KATHLEEN G. NORMAND, JUDITH MEYER, formerly JUDITH KAETZEL, and MELBA RETICKER, Grantors, do hereby grant to the CITY OF SAN LUIS OBISPO, A MUNICIPAL CORPORATION, the following described real property in the City of San Luis Obispo, County of San Luis Obispo, State of California:

> Commencing at a point on the southerly line of Higuera Street South 53° 7' West, One Hundred and eighty-three feet, six inches (183-6/12 feet) from the Southwest corner of Higuera and Nipoma Streets and running thence south 53° 7' West on the south line of Higuera Street two hundred and twenty-five (225) feet, thence south 36° 53' east to the line of Marsh Street; thence Northeasterly along the line of Marsh Street, two hundred and twenty-five (225) feet; thence at right angles northwesterly to Higuera Street and the point of beginning and being all that portion of Block 62 of the City of San Luis Obispo, occupied as a residence of R. E. Jack and wife, and extending from Higuera Street to Marsh Street according to two deeds: One made by H. M. Warden to Nellie Hollister Jack, dated August 9, 1875; and the other made by Thomas Higuera and others on February 11, 1876 to R. Edgar Jack, and both of record in the Recorder's Office of San Luis Obispo County, State of California.
>
> Excepting therefrom that portion thereof conveyed to Manuel F. Lima, et ux, by deed dated September 29, 1922, and recorded October 2, 1922 in Book 157, Page 410 of Deeds.
>
> Also excepting therefrom that portion thereof conveyed by deed dated November 14, 1917 and recorded November 22, 1917, in Book 118, Page 449 of Deeds to Nicholas F. Schlicht.

Together with all furniture, fixtures, equipment, documents, books and other personal property situated in or on said real property.

By the acceptance of this deed, said City of San Luis Obispo, hereinafter referred to as "City", agrees:

1. To keep, preserve and use said real property and the residence situated thereon in a manner which maintains, enhances and celebrates its place in the historical development of San Luis Obispo.

2. To refer to the house and grounds as "The Jack Residence" as a memorial to Robert Edgar Jack and Nellie Hollister Jack, pioneers and builders, as well as devoted citizens, of San Luis Obispo City and County.

3. To maintain the original character of the house as an example of a Victorian vintage residence. General maintenance and any restoration improvements shall be in keeping with the age and period when the original residence was constructed.

4. To care for and preserve existing trees and shrubbery, and to return the gardens as much as possible to the appearance of the gardens as illustrated in photographs circa 1910-1920 provided by the Grantors.

5. To keep the residence and contents thereof adequately insured against loss by fire and other insurable hazards.

6. To permit, subject to reasonable rules and regulations, residents of the City and County of San Luis Obispo, visitors and tourists to enter and inspect the residence and gardens and any displays and exhibits which from time to time may be presented.

7. To appoint a committee of seven (7) members whose responsibility shall be to advise the City Council in the

administration of The Jack Residence for the greatest possible public use and enjoyment. Said committee shall recommend basic rules and regulations for the use of the residence and grounds which may include, but are not limited to, permitted uses, conditions of use, hours and fees, if any. The committee shall serve without pay and consist of city residents including:

(a) One member from the San Luis Obispo County Historical Society.

(b) One member from the faculty of the School of Architecture and Environmental Design, California Polytechnic State University, preferably an architectural historian.

(c) One member from the Ornamental Horticulture faculty of the California Polytechnic State University.

(d) One member from the Parks and Recreation Commission,

(e) Two members selected at large.

(f) For a period of twenty (20) years from the date hereof, the seventh member of the committee shall be an heir of Robert Edgar Jack and Nellie Hollister Jack; the city residency requirement may be waived for this member. Thereafter, this member may be selected at large.

Committee appointments, tenure and rules of conduct shall be the same as for other advisory bodies to the City Council, e.g., the Planning Commission.

8. To accept items of personal property for the permanent collection of furnishings and artifacts, only upon majority approval of the Committee. Likewise, to dispose, destroy and give away no item of furnishings or artifacts without majority approval of the Committee and then only with the approval of the City Council.

9. Should, at any time, the residence be destroyed by

fire or other act of God, to continue to maintain the real property for park purposes, such park to be known as "The Jack Park".

10. Not to sell or give away either the whole, or any part of the real property.

In the event of a violation of any of the covenants and conditions herein contained, or failure to comply therewith, said City, and any successor thereof, shall forfeit all title to said real and personal property and, in the event of any such forfeiture, title to said real and personal property shall revert to the descendants by law of intestacy of Robert Edgar Jack and Nellie Hollister Jack. Should there be no then known descendants of said Robert Edgar Jack and Nellie Hollister Jack, said property shall vest in the County of San Luis Obispo for the uses herein contained; provided, however, that if the County should not accept said property or should fail to use it for the purposes set forth herein, title to said property shall then vest in St. Stephen's Episcopal Church of San Luis Obispo.

In consideration of the foregoing, the grantee herein agrees to pay all county, city and special taxes or assessments which are now a lien upon the real property and personal property herein described, or which hereafter become a lien upon said real and personal property.

Dated this 10th day of March, 1975.

Virginia V. Tynan
Virginia J. Tynan 17

Gertrude Kathleen Kaetzel
Gertrude Kathleen Kaetzel 25

Phyllis Sinton
Phyllis Sinton 14

Kathleen G. Von Stein
Kathleen G. Von Stein 21

Margaret E. Kaetzel
Margaret E. Kaetzel 19

Judith Meyer
Judith Meyer 12

Condition score: **2-3**

Condition Survey

Client: Jack House, City of SLO — Patina Conservation Studios

Year: 2019 Master — Conservator: Kimberly Timbs

Material: paper, plaster

Accession #: 5.3.58

Dimensions: 22 **Height** 2 **Width** 16.5 **Length (cm) Measurement of**: frame

Type of item: Framed photograph of E.B. (written on back) **#of parts:** 2

Condition: Fair

Condition notes: Photo appears to be possibly faded around the edges. The plaster on the frame is damaged on the bottom left, there is a crack in the frame in the upper left hand corner, appears to be an old photograph with some discoloration on the cut edges of the paper.

Conservation needs:

The photo should be scanned and a copy made and reframed. The original should be repackaged in archival materials and stored. The frame could be repaired if it is deemed historically significant.

Condition score: **3-4**

Condition Survey

Client: Jack House, City of SLO | Patina Conservation Studios

Year: 2019 staircase | Conservator: Kimberly Timbs

Material: drawing/print

Accession #: 5.4.13

Dimensions: 72.5 **Height** 0.8 **Width** 84.5 **Length (cm) Measurement of:** frame

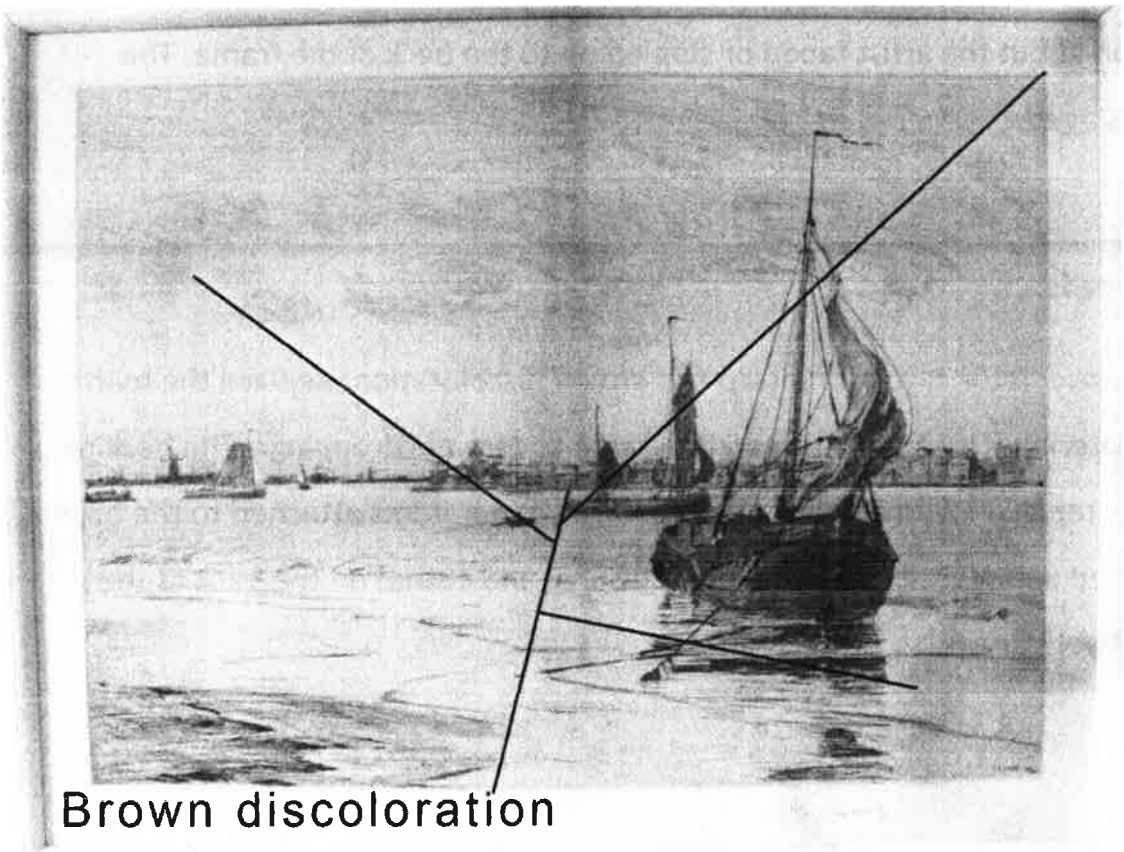
Type of item: Sail boats by C.A. Platt 1888 **#of parts:** 2

Condition: Fair

Condition notes: The drawing is very brown due to light exposure and age. The drawing appears to be clean. The frame is in good condition. The mattle appears to be ageing. There are little dots on the frame possibly from insect debris or flies. The backing paper is old and there are signs of past water damage around the edges. There is an old paper with information about the artist taped or stapled on to the back of the frame. The backing paper is aged.

Conservation needs:

See if a paper conservator can fix or lessen the brown discoloration. Replace the matte with archival materials. Dry and wet clean the frame to remove droppings. The backing paper should be replaced with archival materials. The paper items attached to the back should be scanned and placed into archival enclosures and stored on the back of the frame or in archival storage.



Brown discoloration

Condition score: **3-4**

Condition Survey

Client: Jack House, City of SLO

Patina Conservation Studios

Year: 2019 Needs home

Conservator: Kimberly Timbs

Material: paper, ink

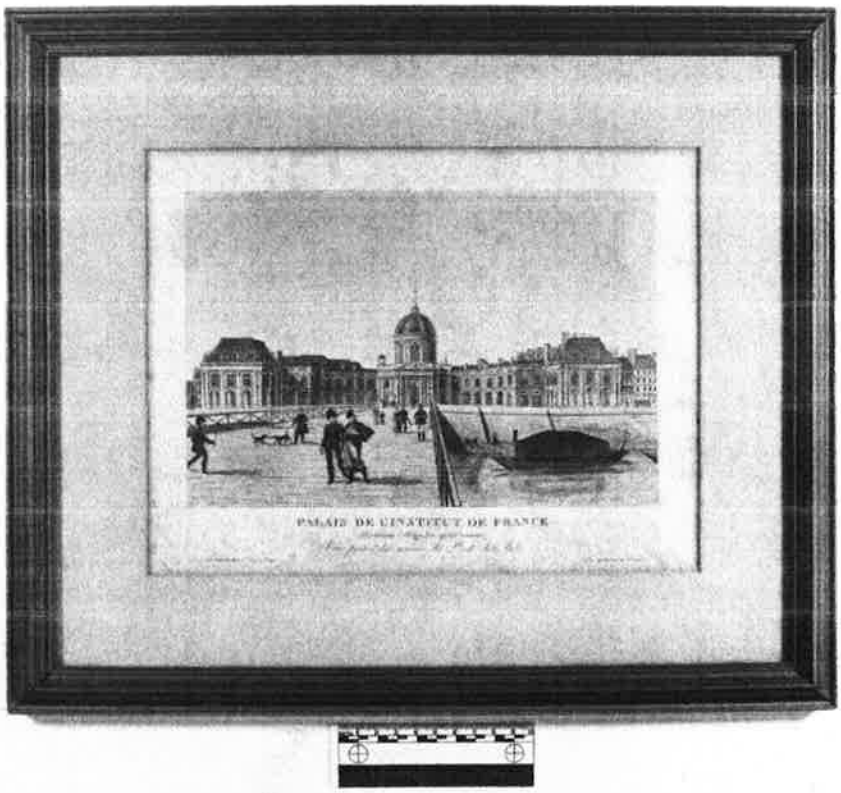
Accession #: 5.4.15

Dimensions: 35.6 **Height** 1.8 **Width** 42 **Length (cm) Measurement of**: frame

Type of item: "Palais De L'Institut de France" colored print **#of parts:** 2

Condition: Poor

Condition notes: The surface of the print is covered in brown spots possibly due to ageing or foxing. The matte edge is orange indicating ageing. The frame is in good condition. The backing paper shows signs of animal or insect damage.



Conservation needs:

The original should be sent to a paper conservator to see if the brown spots can be removed. The original should then be scanned, reproduced and stored. The mattee should be replaced with an archival matte. If the original is going back in the frame then the glass should be replaced with museum glass and the backing paper replaced.

Condition score: **3**

Condition Survey

Client: Jack House, City of SLO — Patina Conservation Studios

Year: 2019 Parlor — Conservator: Kimberly Timbs

Material: paper

Accession #: 5.4.17

Dimensions: 60 **Height** 1.9 **Width** 39.2 **Length (cm) Measurement of**: frame

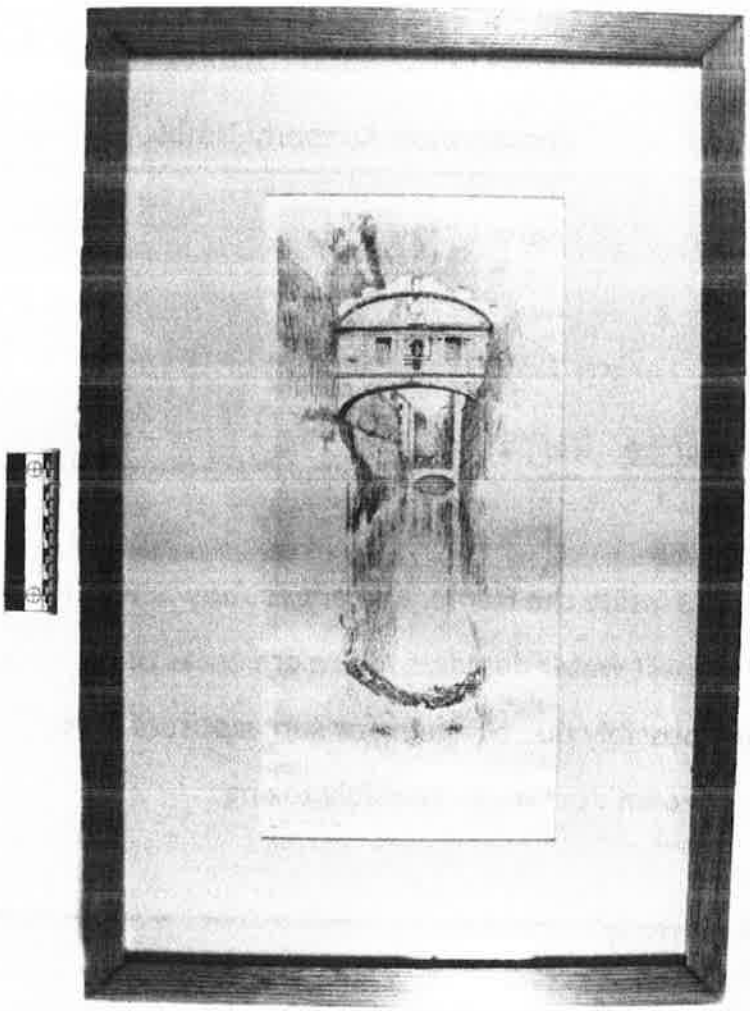
Type of item: Etching/print of a ~~bride~~ bridge in Venice **#of parts:** 3

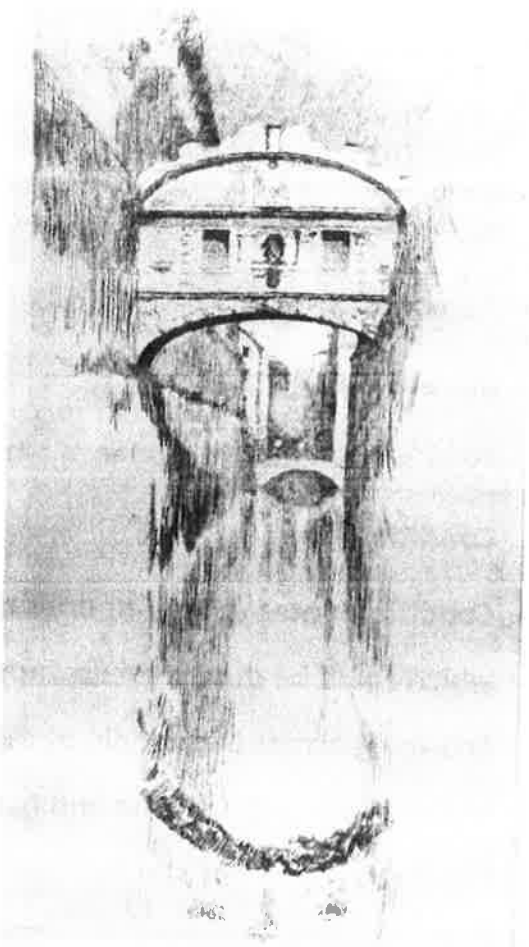
Condition: Fair

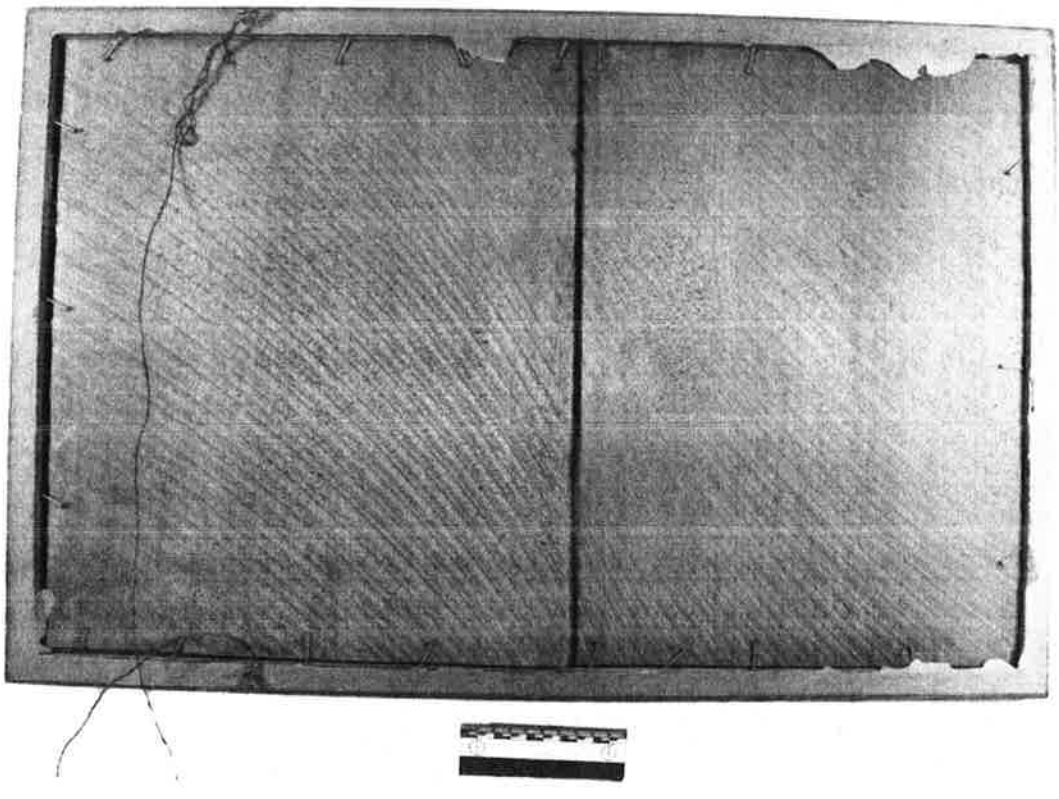
Condition notes: The print does not lay flat inside the frame. The edges show a waviness which could be due to excess humidity or past water damage. There are areas of browning across the middle of the image possibly due to ageing or sun exposure. The matte appears to be aged and has a few brown dots on it - possibly foxing.

Conservation needs:

The print should be dry cleaned and sent to a paper conservator for flattening and to address the brown discoloration. The matte should be replaced with archival materials. The image should be scanned, reproduced and stored. The backing paper should be replaced with archival material.







Condition score: **2-3**

Condition Survey

Client: Jack House, City of SLO

Patina Conservation Studios

Year: 2019 Dining Room

Conservator: Kimberly Timbs

Material: drawing, frame

Accession #: 5.4.23

Dimensions: 76 **Height** 7 **Width** 68.5 **Length (cm) Measurement of**: frame

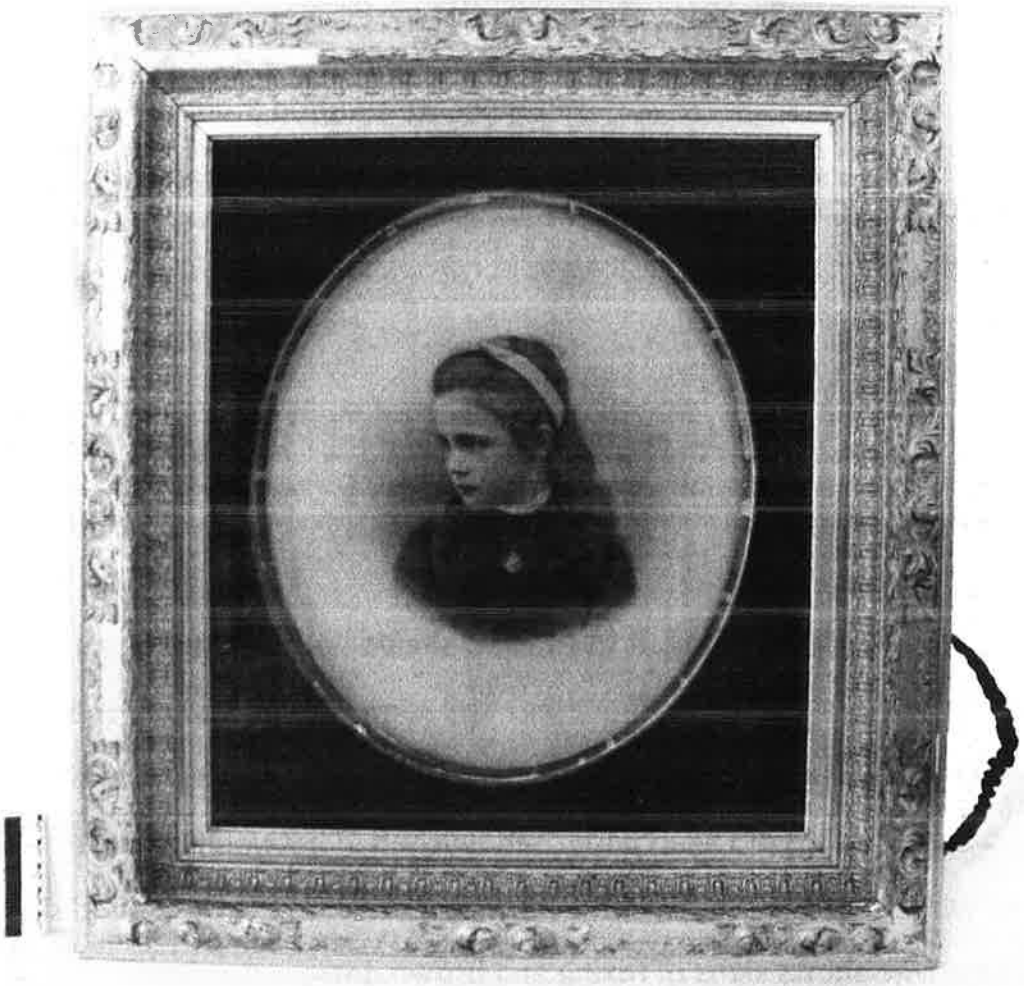
Type of item: Drawing/Photo of Little girl in velvet and gold frame **#of parts:** 2

Condition: Fair

Condition notes: The frame backing is wood. It used to be sealed with backing paper but the paper is gone. Frame pieces have fallen off in areas and some small areas are missing. The velvet is in good condition. There is old adhesive on the back of the frame probably from the old backing paper. There is old aged paper sandwiched in between boards. There are signs of past water damage on the frame back especially on the right hand side. The frame is dusty. The image shows signs of foxing and brown dots.

Conservation needs:

The missing pieces of the frame should be replaced. Have a paper conservator look at the brown foxing on the image. Dry and wet clean the frame. Inpaint missing areas on frame so they are not visually distracting. Ascess backing with a professional framer or paper conservator to see if it should be upgraded to archival materials or if a reproduction should be put back in the frame. If the original stays in the frame, museum glass should replace the original glass.



Condition score: **2**

Condition Survey

Client: Jack House, City of SLO

Patina Conservation Studios

Year: 2019 Entry

Conservator: Kimberly Timbs

Material: painting

Accession #: 5.4.29

Dimensions: 58.5 **Height** 7.3 **Width** 48.5 **Length (cm) Measurement of:** frame

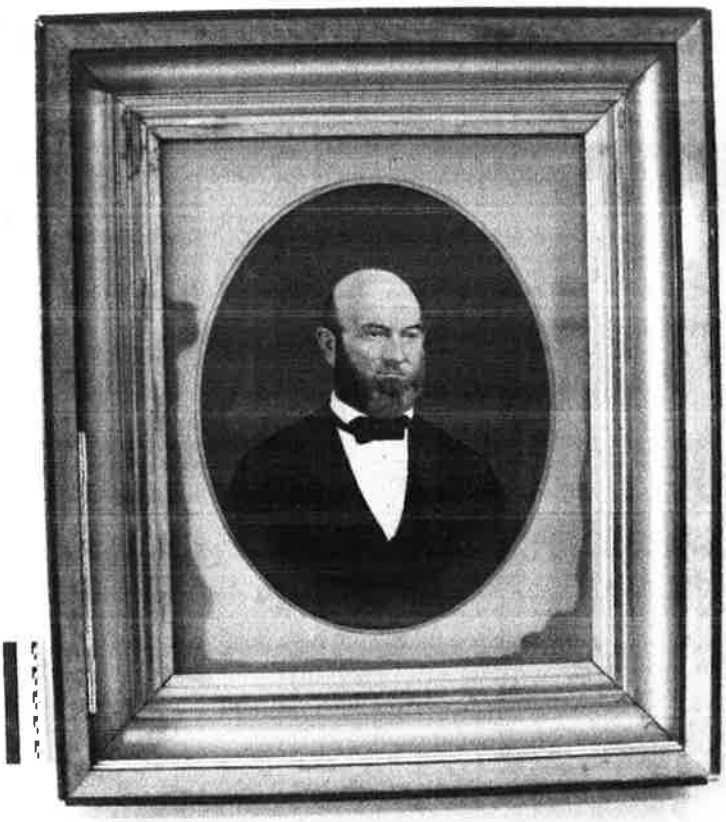
Type of item: Painting of R.E. Jack (bald man with grey beard) **#of parts:** 2

Condition: Poor

Condition notes: The matte is water damaged. There is dust inside the frame. The frame is missing pieces in several areas. There is wood/plaster coming up on top of the frame. The frame is dusty. The gold paint on the frame is cracking in the lower right corner. There is no backing paper present. The frame backing is wood and the paper underneath looks very aged and dirty. There are scrapes on the back of the frame.

Conservation needs:

The frame and the painting need to be dry cleaned. The matte should be replaced with archival materials. The wood backing should be replaced if the original is going to stay in the frame. The frame and wood at the top of the frame can be repaired. Repair any missing areas on the frame and inpaint to match. Write the accession number on the frame and the painting back.



Condition score: **2-3**

Condition Survey

Client: Jack House, City of SLO — Patina Conservation Studios

Year: 2019 — Conservator: Kimberly Timbs

Material: photograph, frame

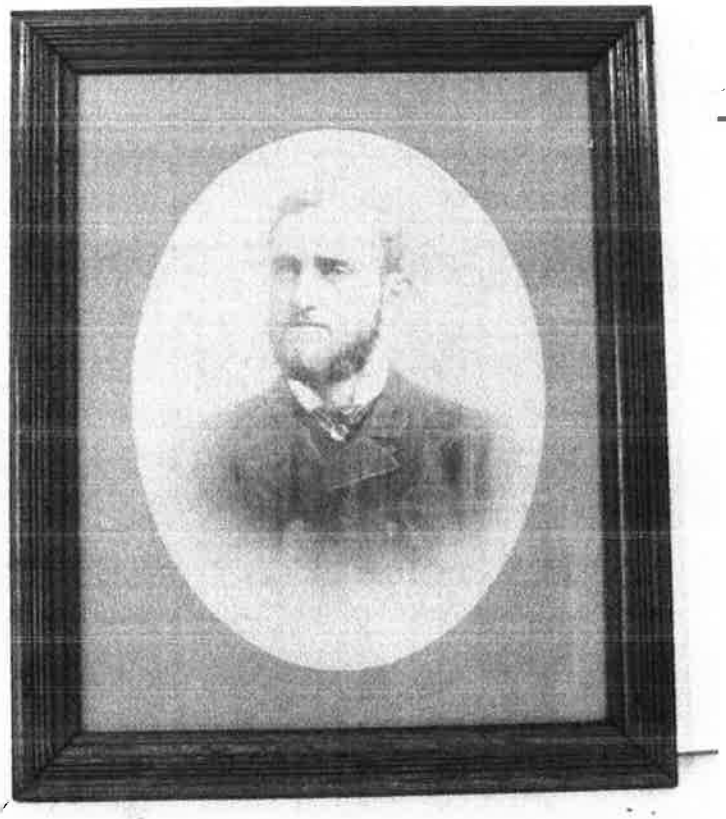
Accession #: 5.4.30

Dimensions: 59.5 **Height** 2 **Width** 49.3 **Length (cm)** **Measurement of:** frame

Type of item: Framed photo of man **#of parts:** 2

Condition: Fair

Condition notes: The matte is aged and cracking. The frame glass is dusty. The photograph appears to be in stable condition. The backing paper is old and shows signs of water stains. There is a wood backing under the paper. There are dots of something that looks like insect poo on the frame.



Conservation needs:

The photograph should be scanned and reproduced. The original photograph should go into archival storage. Otherwise, the wood backing should be removed and replaced with something archival. The backing paper should be replaced with archival materials. The frame should be dry and wet cleaned where necessary. The glass should be replaced with museum glass if the original is going to stay in the frame. The matte should be replaced with something similar but of archival quality.

Condition score: **2**

Condition Survey

Client: Jack House, City of SLO | Patina Conservation Studios

Year: 2019 | Conservator: Kimberly Timbs

Material: paper

Accession #: 5.4.33

Dimensions: 57.7 **Height** 1 **Width** 43.5 **Length (cm) Measurement of**: frame

Type of item: "The Lady Edmond" print from engraving **#of parts:** 2

Condition: Fair

Condition notes: The print is in good condition. The matte is yellowed and aged. The matte and print both appear to be dusty. The frame has nicks on the edges from handling but is in sound condition. The note written on the back says "print purchased by Ethel Easton Jack" 1920s. The backing paper is heavily aged

Conservation needs:

The print, glass and frame should be dry cleaned. The matte should be replaced with an archival matte. The backing paper should also be replaced with archival material. The print should be scanned, reproduced and the original stored. The copy should go back into the frame.

Condition score: 2

Condition Survey

Client: Jack House, City of SLO

Patina Conservation Studios

Year: 2019

Conservator: Kimberly Timbs

Material: paper, ink

Accession #: 5.9.199

Dimensions: 36 **Height** 3 **Width** 31 **Length (cm) Measurement of**: frame

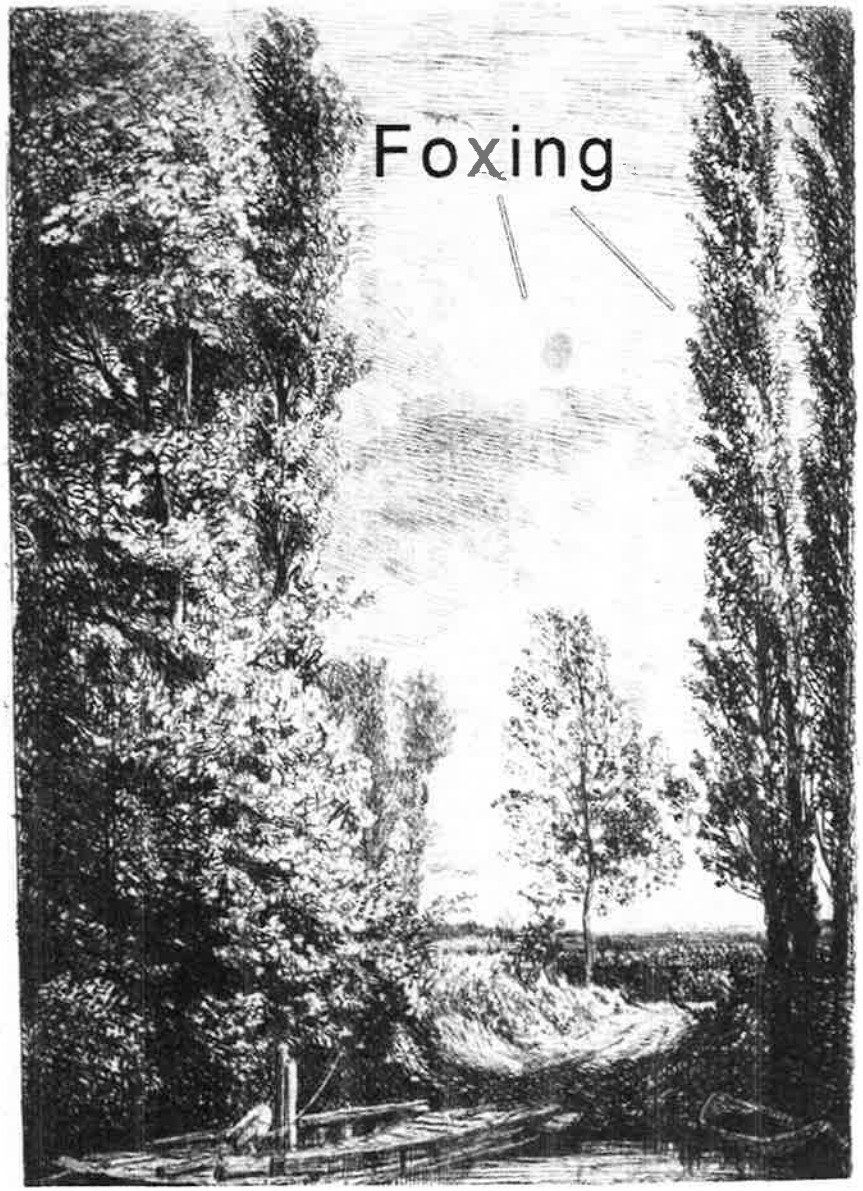
Type of item: print of etching, "Paris. Imp por Aug Delatre F.bourg Poissonnere 145"
#of parts: 2

Condition: Fair

Condition notes: The frame is very attractive and in very good condition. The corners of the frame show some damage. The matte appears to be a little dirty. There are two brown spots on the print possibly due to foxing. The back of the frame is wood. There is a "No. 47" stamped on the back. It used to have backing paper but it is missing.

Conservation needs:

The print and matte need to be dry cleaned. The foxing should be looked at by a paper conservator. The wood backing should be removed if the original is going to stay in the frame. Otherwise, a scanned copy could be put in the frame and keep the wood backing. The frame needs dry cleaning to remove dust.


Foxing

Condition score: **4**

Condition Survey

Client: Jack House, City of SLO | Patina Conservation Studios

Year: 2019 Entry | Conservator: Kimberly Timbs

Material: print, frame

Accession #: 5.4.40

Dimensions: 68.4 **Height** 2 **Width** 59.1 **Length (cm) Measurement of**: frame

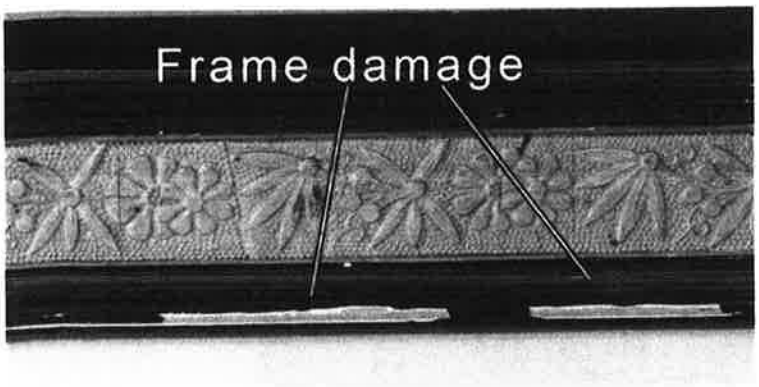
Type of item: "The Fair Angler", print **#of parts:** 2

Condition: Poor

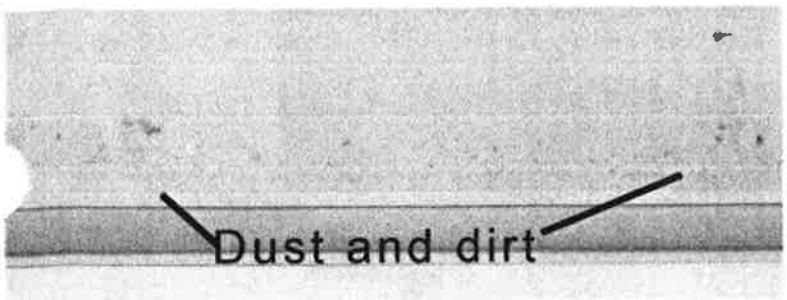
Condition notes: The image is very discolored and dusty inside the frame. It almost appears moldy towards the bottom of the image. There are brown bands of discoloration through the middle of the image. The frame is in good condition but it is missing black in a few areas and the gold is discolored on the lower left and upper right. The old backing paper is aged and brittle and fragmented. The frame has a wood backing and there is old adhesive present. There are signs of mold or dirt on the back of the paper.

Conservation needs:

The print needs dry cleaning and to be checked for mold. If mold is present, it will need to be wet cleaned to kill the mold. The frame and glass need dry cleaning. The matte should be replaced with an archival matte. The image should be scanned and reproduced with the copy being reframed. Talk to a paper conservator about removing the brown discoloration and possible mold. Inpaint areas on the frame missing black paint. Remove the old adhesive from the back and replace with new backing paper. If keeping the original in the frame, the wood backing should be removed.


Frame damage


Tarnish?


Dust and dirt

Condition score: **3**

Condition Survey

Client: Jack House, City of SLO

Patina Conservation Studios

Year: 2019

Conservator: Kimberly Timbs

Material: paper

Accession #: 5.9.200

Dimensions: 36 **Height** 3 **Width** 31 **Length (cm) Measurement of:** frame

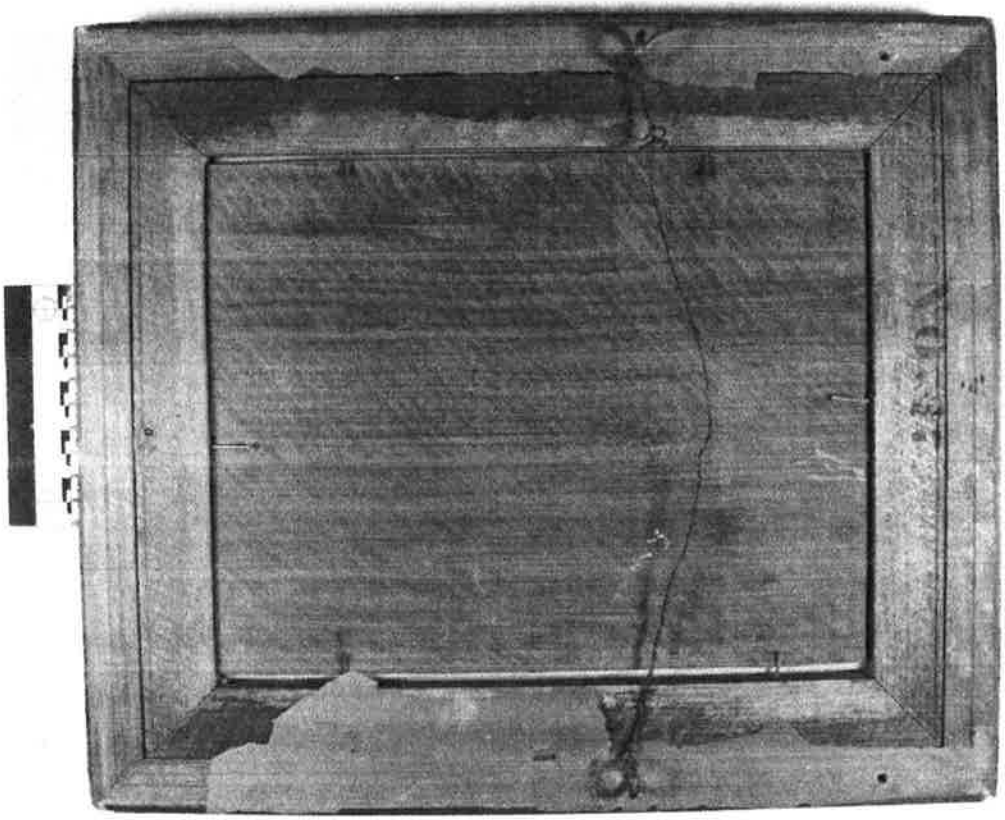
Type of item: print/charcoal drawing of woman and boy gathering water **#of parts:** 2

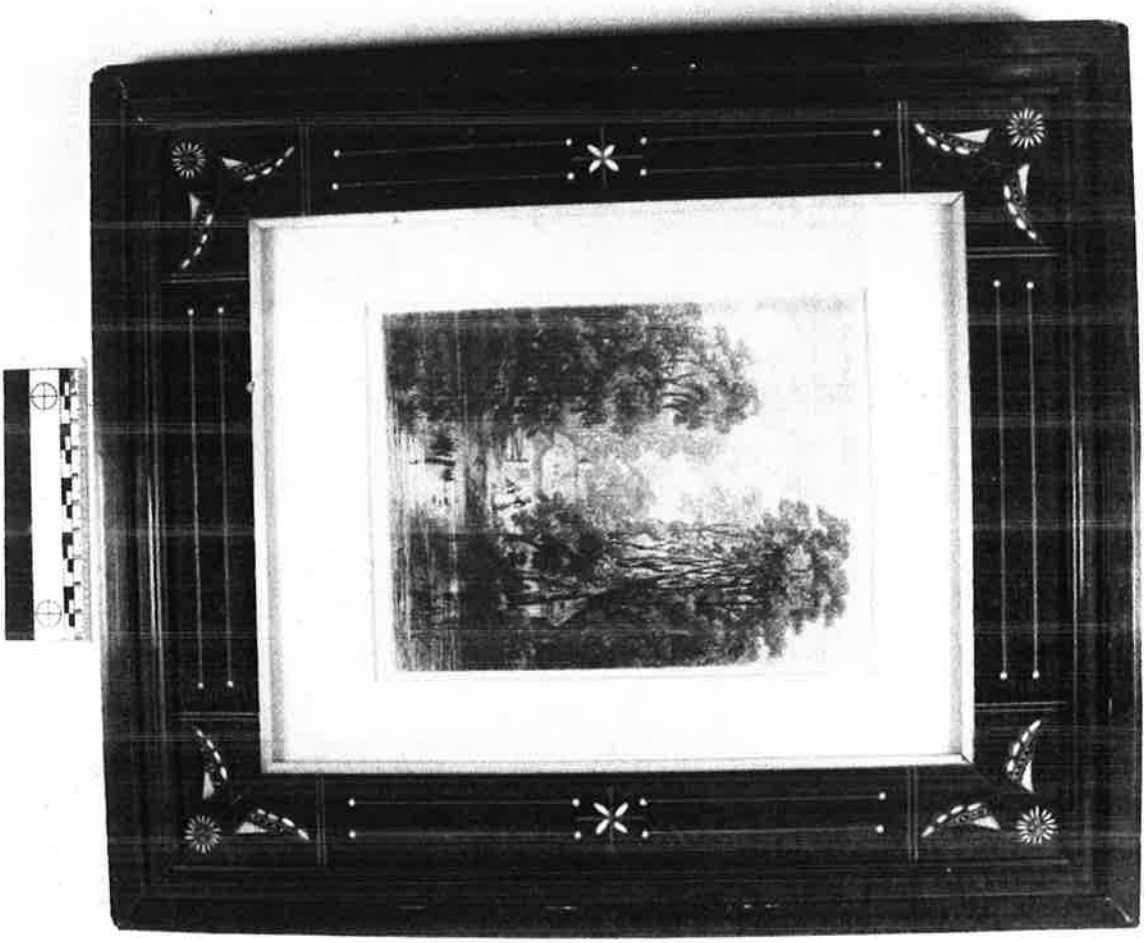
Condition: Fair

Condition notes: There is damage on all four corners of the frame. The matte and drawing appear dirty/dusty. There is some foxing present towards the top of the drawing. Part of the frame is dirty with handling grease. The brown discoloration on the frames white inner moulding is handling grease. It had backing paper but it is gone. The back is stamped with "No. 47".

Conservation needs:

The matte should be replaced with an archival matte. The backing paper should be replaced to keep dust of the drawing. The drawing should be taken to a paper conservator for dry cleaning and to address the brown discoloration. The frame should only be handled with gloves on. The corners of the frame can be repaired if desired. The wood backing should be reconsidered in the original is going back into the frame.





Section 760
DONATION POLICY

RESOLUTION NO. 8965 (1999 Series)

A RESOLUTION OF THE COUNCIL OF THE CITY OF SAN LUIS OBISPO ADOPTING A CITY DONATION ACCEPTANCE POLICY

WHEREAS, individuals, community groups, and businesses may wish to make donations to the City in either cash or in-kind contributions that enhance projects, facilities, and programs; and

WHEREAS, the need for projects, facilities, and programs exceeds the City's ability to fund all such needed projects; and

WHEREAS, it is an acceptable and appropriate practice to accept donations, in order to enhance City programs and/or facilities to provide a higher level of service to the public.

NOW, THEREFORE, BE IT RESOLVED that the City Council of the City of San Luis Obispo hereby adopts the following policy concerning the acceptance of donations:

1. The donation must have a purpose consistent with City goals and objectives
2. The City may decline any donation without comment or cause.
3. The donation will not be in conflict with any provision of the law.
4. The donation will be aesthetically acceptable to the City.
5. The donation will not add to the City's workload unless it provides a net benefit to the City.
6. The donation will not bring hidden costs such as starting a program the City would be unwilling to fund when the donation was exhausted.
7. The donation places no restriction on the City, unless agreed to by the City Council.
8. The donation shall become property of the City.
9. All donations will receive recognition appropriate to the level and nature of the donation as determined by the City. For those of a capital nature, that may be in the form of signage, marking, or naming. Any naming of Parks and Recreation facilities shall be consistent with City policy on the naming of such facilities as set forth in Resolution 8621 (1997 Series). Regardless of the recognition strategy selected, the intent shall be to appropriately honor the donor for their contribution to the community. The appearance of traditional commercial advertising shall be avoided.
10. Donations exceeding $5,000 shall be accepted through a written agreement consistent with these guidelines and approved by the City Council. In-kind capital donations will be subject to normal City review, permitting, inspection, and insurance requirements.

Upon motion of Council Member Marx seconded by Council Member Ewan, and on the

Resolution No. 8965 (1999 Series)
Page 2

following roll call vote:

AYES:	Council Members Ewan, Marx, Schwartz, Vice Mayor Romero and Mayor Settle
NOES:	None
ABSENT:	None

The foregoing resolution was adopted this 7th day of September, 1999.

Mayor Allen Settle

ATTEST:

Lee Price, City Clerk

APPROVED AS TO FORM:

Jeffrey G. Jorgensen, City Attorney

Jack House Committee

DRAFT - MINUTES

Regular Meeting – Zoom
Wednesday, May 12, 2021

CALL TO ORDER: A Regular Meeting of the Jack House Committee was called to order on Wednesday, March 10, 2021 at 5:36 p.m. via Zoom software, by Chair Chuck Crotser.

ROLL CALL: Committee Members: Dorothy Sundbye, Julie Moore, Sharon Whitney, and Chair: Chuck Crotser, Vice Chair Kati Settle

ARRIVED LATE:

ABSENT: Dorothy Sundby, Julie Moore

STAFF: Dave Setterlund, Recreation Supervisor

PUBLIC COMMENT ON ITEMS NOT ON THE AGENDA

CONSIDERATION OF MINUTES AND FINANCIAL REPORTS

1. **Review Minutes of the Jack House Committee Meeting of January 13, 2021 and Financial Reports and Expenditures**
(SETTERLUND)

MOTION BY COMMITTEE MEMBER SETTLE, SECOND BY COMMITTEE MEMBER WHITNEY, AND CARRIED 3:0:0 to approve the Financial Reports and Expenditures for March 2021.

YES: ALL
NOTES: NONE
ABSTAIN: NONE
ABSENT: NONE

PRESENTATION AND DISCUSSION

2. **History Center – Storage**
(SETTERLUND/SCOGGINS)

Staff Member Setterlund: The Conservator recommended that the History Center store the pints only in a 24 x 24 folder within the flat mat files. The City would continue to house and display the original paintings.

Scoggins: Will check with History Center Director to see if the Center can accommodate Jack House needs.

PUBLIC COMMENT
Committee Comment:

3. **Art Restoration – Donation**
(Setterlund)

MOTION TO APPROVE DONATION FOR ART RESTORATION BY COMMITTEE MEMBER SETTLE, AND SECOND BY COMMITTEE MEMBER WHITNEY.

YES: ALL
NOTES: NONE
ABSTAIN: NONE
ABSENT: NONE

Staff Setterlund: Communicated four step process to except the donation.

1. City has received the estimate for the work
2. I have created the Council Agenda Report – The report is in the process of being routed to Council
3. Council approves the donation as a consent item (potentially June 15)
4. Donation Agreement – once the donation is accepted by council, I will work with Katchy to have her sign the donation agreement.

Public Comment:
Community member Andrews: The Jack fund is

Committee Comment:

Vice Chair Settle: stressed the importance of the capital improvement project for the Jack House roof repair.

Jack House Sign Replacement
(CROTSER)

Committee Comment:

Chair Crotser: is still waiting on a bid

COMMENT AND DISCUSSION

6. **Agenda Forecast & Staff Updates**
   a. Master Plan Update – planning Commission May 26, City Council July 6.
   b. Community Services - Sports Clinics, Softball and Hybrid Events
   c. Youth Services – spark, Summer Camp, fall Registration is open
   d. Rangers – Miossi, Planning Phase for Righetti Open Space, Fuel Reduction
   e. Staff preparing for red tier programing -

Committee Comment:

Member Whitney: Required clarification about marketing fund.
Vice Chair Settle: Reported all is well with family
Chair Crotser: Reported all is well family
Docent Kincaid: Wanted clarification about the rotary painting project

ADJOURNMENT

The next Regular Meeting of the Jack House Committee is scheduled for Wednesday, July 14, 2021, at 5:30 p.m., in the Parks and Recreation Conference Room, 1341 Nipomo Street, San Luis Obispo, California.

 The City of San Luis Obispo wishes to make all public meetings accessible to the public. Upon request, this agenda will be made available in appropriate alternative formats to persons with disabilities. Any person with a disability who requires a modification or accommodation in order to participate in a meeting should direct such request to the Parks and Recreation Department at (805) 781-7300 at least 48 hours before the meeting, if possible. Telecommunications Device for the Deaf (805) 781-7107.

Meeting audio recordings can be found at the following web address:
http://opengov.slocity.org/WebLink/1/fol/68232/Row1.aspx

Department: Public Works
Cost Center: 5004
For Agenda of: 6/15/2021
Placement: Consent
Estimated Time: N/A

FROM: Matt Horn, Public Works Director
Prepared By: Greg Cruce, Interim Maintenance Operations Manager

SUBJECT: AUTHORIZE ADVERTISING A REQUEST FOR PROPOSAL FOR TREE MAINTENANCE SERVICES

RECOMMENDATION

1. Authorize the advertisement of Requests for Proposals (RFP) for on-call tree maintenance; and
2. Authorize the City Manager to award the tree maintenance contract to the selected company.

DISCUSSION

Background

The City of San Luis Obispo has a longstanding history of contracting out tree pruning services to maintain the City's urban forest. The City's on-call pruning contractor is selected through the Request for Proposal process, through which City Staff selects the most qualified contractor based on company history, ability to perform work, and value to the City.

In 2016, the City of San Luis Obispo issued a formal Request for Proposal (RFP) for tree maintenance services to assist the Urban Forest and Natural Resources Programs with tree maintenance tasks in the City's Parks, Public Right-of-Way, and Open Space. This process resulted in the City obtaining the lowest cost services provided by contractors capable of completing these services in compliance with the City's Purchasing Policy. This contract term was for four (4) years with an optional two-year extension and was set to expire in August 2022.

Due to rising overhead cost, the City's Tree Maintenance Contractor, Bunyon Bros. recently informed the City they can no longer perform work at the contracted rate. Due to this recent development, the City must advertise a new RFP for tree maintenance services.

This RFP is for on-call tree maintenance services, which are primarily used by Public Works and Natural Resources. Although not regularly used by other departments, this contract will provide contracted rates to other departments should an unforeseen need arise. The main scope of this contract is for on-call services to assist the City with emergency tree work, minor pruning request, tree removals, stump grinding, and tree plantings.

Policy Context
The City's purchasing policy designates maintenance services as a General Services Purchase and requires issuance of a formal RFP document approved by the City Council for services with a cost greater than $150,000. Because trees are dynamic and are impacted by meteorological conditions, there will be years the City's cumulative contract amount exceeds $150,000.

Public Engagement
No public engagement is necessary as this is considered to be an administrative item.

CONCURRENCE

The Office of Sustainability, Parks and Recreation, and Community Development departments concur with these recommendations.

ENVIRONMENTAL REVIEW

The California Environmental Quality Act does not apply to the recommended action in this report, because the action does not constitute a "Project" under CEQA Guidelines Sec. 15378.

FISCAL IMPACT

Budgeted: Yes Budget Year: 2020-21
Funding Identified: Yes

Fiscal Analysis:

Funding Sources	Total Budget Available	Current Funding Request	Remaining Balance	Annual Ongoing Cost
General Fund PW & Natural Resources	$315,000	$150,000	$165,000	$150,000
State				
Federal				
Fees				
Other:				
Total	**$315,000**	**$150,000**	**$165,000**	**$150,000**

Public Works funding for tree pruning services is found in the 2020-21 Urban Forest budgets. The funding level within Urban Forest is expected to remain consistent during the next Financial Plan. The remaining Urban Forest contract funding will be used in a separate forthcoming RFP for large-scale area pruning.

Natural Resources funding is used for tree pruning and fuel reduction projects. The program anticipates an increase of $20,000 during the 2021-23 Financial Plan to address hazardous tree removals in creeks and open spaces; however, this amount was not included in the fiscal impacts because the next financial plan has not been approved by the City Council. The remaining Natural Resources contract funding will be used for fuel reduction projects.

ALTERNATIVES

Deny, or reduce work scope. The Council may choose to deny authorization for the Request for Proposal. Staff does not recommend this alternative as this would reduce the City's ability to respond to trees related and the frequency of maintenance, which increases the City's risk of liability.

ATTACHMENTS

A – Request for Proposals, Urban Forestry Pruning Services No. 5004-2021-UFP

Notice Requesting Proposals for

Urban Forestry Pruning Services No. 5004-2021-UFP

The City of San Luis Obispo is requesting sealed proposals for services associated with the Landscape Maintenance Service Specification No. 5004-2021-UFP

All firms interested in receiving further correspondence regarding this Request for Proposals (RFP) will be required to complete a free registration using BidSync (https://www.bidsync.com/bidsync-app-web/vendor/register/Login.xhtml).

All proposals must be received via BidSync or by mail to the Department of Finance at or before x/xx/2021 **at 11:00 am.**

Proposals received after said time may not be considered. The preferred method of submission is electronically via BidSync. If you wish to send a hard copy, to guard against premature opening, each proposal shall be submitted to the Department of Finance in a sealed envelope plainly marked with the proposal title, project number, proposer name, and time and date of the proposal opening. Proposals shall be submitted using the forms provided in the project package.

A **MANDATORY** pre-proposal conference will be held to answer any questions that the prospective proposers may have regarding the City's request for proposals.

Due to the Covid-19 pandemic, this meeting will be held outside, attendees are required to wear face coverings and comply with CDC social distancing guidelines.

Corporation Yard
25 Prado Road, San Luis Obispo
June 16, 2021
At 10:00 AM and 2:00 PM

Project packages and additional information may be obtained at the City's BidSync website at www.BidSync.com.

Please contact **Greg Cruce at gcruce@slocity.org or (805) 781-7264** with any questions.

A. INTRODUCTION

INTRODUCTION

The City of San Luis Obispo (City) maintains approximately 20,000 trees within the public right-of-way and City Parks. The City's urban forest maintenance is completed through a combination of City staff as well as qualified tree care contractors who specialized in this type of work.

The City is requesting proposals from suitably qualified companies (Contractor) that have demonstrated experience in providing commercial tree maintenance services and can provide the best possible tree care to maintain the City's Urban Forest at a level expected by the City's residents, City Council, City staff, and visitors of the community. All work must be completed to the satisfaction of the City's contract representative.

The requested services are for on-call and emergency work as request by the City. The City anticipates advertising an additional Request for Proposal for area pruning during the 2021-2023 Financial Plan.

B. SCOPE OF WORK

All tree pruning shall comply with the City of San Luis Obispo Municipal Code and the American National Standard Institute, ANSI A300 Pruning Standards and ANSI Z133.1, Safety Requirements for Tree Pruning, Trimming, Repair or Removal. Tree care shall be consistent with the International Society of Arboriculture Best Management Practices.

All tree plantings shall be done in accordance with the City of San Luis Obispo Engineering Standards.

The City's contract representative shall determine if the Contractor has met all pruning requirements and payment shall not be made for work that is not in accordance with the above standards. The Contractor shall be deemed to be in breach of contract if they consistently fail to comply with the conditions and standards as detailed.

Overall Description of Primary Work

a. Furnish all labor, materials, equipment, and incidental items required to lawfully perform the preplanned and pre-priced for city-owned tree maintenance tasks and to respond to emergency tree clean-up and removal as described in the following sections.
b. Comply fully with this specification.

Broadleaf and Conifer Tree Pruning **(Preplanned work to be done under the pre-priced approach).**

a. Remove all dead wood.
b. Lighten heavy branches to conform to the tree's natural character.
c. Remove undesirable, weak, or crossing branches.
d. Remove suckers and water sprouts.
e. Remove stubs, broken branches, split branches, abnormal growth, mistletoe, vines, and other parasitic vegetation.

f. Make all cuts at the branch collar.
g. Remove large or heavy branches with the three-cut method: under cut, over cut & finish cut.
h. Balance the tree as appropriate for the species health and vigor.
i. Follow the directions of the City Contract Manager or designee who shall have the discretion to change or modify specifications to suit special situations.

Palm Trees (Preplanned work to be done under the pre-priced approach).

a. Remove all dead fronds.
b. Remove all seed pods and seed pod husks.
c. Remove all abnormal growth from the base of the tree trunk.
d. Elevate green or live fronds to 90 degrees.
e. Trim the base of the palm bead to form a "pineapple" effect.
f. Remove any nicked or partially cut fronds.

Quality and Care (All work).

a. Do not use hooks, climbers, gaffs, or other climbing equipment that may penetrate the bark of the tree.
b. Observe good arboricultural practices as recommended by the International Society of Arboriculture Best Management Practices.
c. Ensure that all employees on site are ISA Certified Tree Workers or have equivalent or higher ISA certification. Specialized work assignments may require the presence of a Certified Arborist during the work.
d. Ensure that pruning will not disturb the nesting seasons of birds.
e. All work shall be reviewed in advance by an ISA Certified Arborist in conjunction with the City Arborist.

Tree Removals

a. Contractor removes tree and hauls all debris. The contractor shall dispose of tree and debris properly and not at any City owned or maintained sites include the City's Corporation Yard located at 25 Prado Road.
b. Area of removal to be left in a clean and acceptable condition.
c. No wood shall be left along public right-of-way unless approved by the City.
d. Stumps should be cut 2" above grade where routing can be done safely.
e. Removals shall be conducted in professional manner in accordance with the standards of the arboricultural trade profession.
f. Removals shall be conducted in compliance with City tree removal permit process.
g. Special projects that are difficult to access with equipment or require the need for a crane or an aerial tower over seventy-five (75') feet will fall under Crew Rental rates.

Stump Grinding

a. Contractor shall be responsible for marking locations and notifying Underground Service Alert (USA) a minimum of 48 hours prior to work.
b. All tree stumps must be removed to at least 18 inches below the lowest soil level adjacent to the stump, or until deep roots are no longer encountered.
c. The Contractor shall grind the stump a minimum distance of one and a half (1½') feet either side of the outer circumference of the stump.
d. Holes created by stump and root grinding must be filled the same day. A combination of

native soil and stump grindings will be used to fill the hole to two (2") inches above normal ground level.

e. All excess routing chips debris will be removed and loaded into transport vehicle for disposal.
f. Clean up all trash and any soil or dirt spilled at the end of each working day.
g. For oblong tree trunks, the diameter shall be the average of the trunk.

Tree Planting

a. Contractor shall be responsible for marking locations and notifying Underground Service Alert (USA) a minimum of 48 hours prior to work.
b. Tree planting includes the tree, stakes, ties and complete installation and watering at time of installation as directed by City staff.
c. Contractor will guarantee the quality of the tree stock and the workmanship.
d. Planting pit shall be dug at appropriate width and the same depth of the root ball. Before placing the tree in the planting pit, Contractor shall examine root ball for injured roots and canopy for broken branches. Damaged roots should be cleanly cut off at a point just in front of the break. Broken branches should be cut out of the canopy making sure that the branch collar is not damaged.
e. Tree shall be placed in the planting pit with its original growing level (the truck flare) at the same height of the surrounding finish grade. In grass-covered parkways, the top of the root ball shall be level or slightly higher than the surrounding soil. In a concrete tree well, the root ball shall be 3 inches below the level of the finished surface of the concrete.
f. Backfill material should be native soil. Eliminate all air pockets while backfilling the planting pit by watering the soil as it is put into the hole.
g. Trees that are planted in parkways shall have a 4"-6" high water retention basin built around the tree capable of holding five - ten (5-10) gallons of water. In a concrete tree well, soil should be raked against the edge of the concrete to create a sloping basin. Immediately after planting, the tree shall be watered thoroughly by filling the water retention basin twice.
h. All trees shall be staked with two wooded lodge poles and two ties per pole. Minimum size of lodge poles shall be eight (8') feet long, with a one and a half (1½") inch diameter. Tree ties shall be placed at one-third (1/3) and two-thirds (2/3) of the trunk height. Stakes shall not penetrate the root ball and shall be driven into the ground approximately twenty-four to thirty (24"-30") inches below grade.
i. Trunk protectors such as Arbor-Guards or an approved equal shall be placed at the base of the trunk of all new trees immediately after planting.
j. In some cases, root barriers may be required. The City will make this determination. Should a root barrier be required, the Contractor will install a mechanical barrier that redirects root growth downward, eliminating the surface rooting that damages expensive hardscapes and creates a hazard. The barrier shall be twelve (12") inches in depth and at a length determined by the City and placed in a circular fashion surrounding the tree's root system. Root barriers are an additional service and cost.
k. Clean up all trash and any soil or dirt spilled at the end of each working day.
l. All trees shall be of good nursery stock that adheres to the American Standard for Nursery Stock as described in the current ANSI Z60.1 Standards. Trees shall be free from pests, disease, and structural defects.
m. Contractor shall obtain County approval for any trees purchased outside of San Luis Obispo

County.

Crew Rental

a. The crew and equipment can be modified to complete any type of miscellaneous tasks including special projects that may consist of extraordinary work. As directed by City staff, trees requiring service prior to their regularly scheduled grid or annual trim to rectify a specific problem such as blocked street lighting or signs, right-of-way clearance for utility lines, or broken limbs may be performed under the Crew Rental rate. The use of crew rental may be warranted due to inaccessibility, in parks or slope locations, or non-linear tree pruning.

Emergency Work

a. The Contractor shall be required to provide emergency on call response for damaged trees because of storms or other reasons. Emergency calls may occur at any given time. The Contractor will be provided with locations and the work to be done at each location from a City authorized representative. Emergency work shall begin within two (2) hours of the initial telephone call.
b. Contractor shall be required to provide a twenty-four (24) hour emergency phone number or the names of at least three (3) contact individuals upon award of contract. Should the contact persons or their phone numbers change during the course of the contract, those changes shall be submitted to the City within two (2) working days.
c. Contractor shall be required to provide all necessary traffic control during the course of emergency work. Should the work involve any high voltage power lines or any utility lines the Contractor shall be required to notify the responsible utility company.
d. Work performed under the emergency provision of this contract shall be paid for on a crew hour basis from portal to portal. This shall include all labor, tools equipment, disposal fees and necessary materials. Emergency response charges may also be applied for crew(s) to "stand-by" during storm-type weather elements.

Safety

a. Comply with Cal-OSHA and ANSI standards for safe working practices.
b. Place and maintain all devices required to safely close a traffic lane when necessary.
c. Place and maintain traffic control in accordance with current City standards and MUTCD guidelines.
d. Contractor is required to obtain a blanket encroachment permit with the City Public Works Department. Traffic control plans for work on arterial and collector streets are required to be reviewed and approved in advance of the work. Traffic Control plans are to be submitted a minimum of five (5) days in advance of the work at the Public Works permit counter at 919 Palm.
e. Emergency work is exempt from traffic control plan submittal requirements; however, all traffic control during emergency work shall conform to City standards and MUTCD.

Cleanup

a. Remove all equipment, materials, and debris from the worksite at the end of each workday, including sweeping of debris to prevent it from entering storm drain inlets.

b. When working within 25’ of a storm drain inlet, cover inlet to prevent debris entry until work is complete.
c. All wood and pruning debris shall be disposed of by the Contractor.
d. Dispose of all debris in accordance with City, State and Federal laws.

Notification of Scheduled Work

a. Post streets 48 hours before work starts when parking must be restricted.
b. Call City of San Luis Obispo Police Department 48-hours ahead of work starting to verify "No Parking " signs are posted to allow towing.

Issuing Work to Contractor

a. On-call work requested by the City shall commence no later than 10 calendar days after request by the City.

Documentation of Work

a. Complete Daily Tree Maintenance forms (Exhibit A) for all work performed.
b. Forms must be submitted to the City within five (5) business days after the completion of the work. Forms can be submitted electronically or paper copies.
c. Failure to submit the Daily Tree Maintenance form within five (5) business days to the City will result in a in a 25% reduction in pay for work performed.
d. Daily Tree Maintenance forms shall not be required for emergency work.

Work is subject to prevailing wage requirements.

E. GENERAL TERMS AND CONDITIONS

PROPOSAL REQUIREMENTS

1. **Requirement to Meet All Provisions.** Each individual or firm submitting a proposal (bidder) shall meet all the terms, and conditions of the Request for Proposals (RFP) project package. By virtue of its proposal submittal, the bidder acknowledges agreement with and acceptance of all provisions of the RFP specifications.

2. **Proposal Submittal**. Each proposal must be submitted on the form(s) provided in the specifications and accompanied by any other required submittals or supplemental materials. Proposal documents shall be enclosed in an envelope that shall be sealed and addressed to the Department of Finance, City of San Luis Obispo, 990 Palm Street, San Luis Obispo, CA, 93401. To guard against premature opening, the proposal should be clearly labeled with the proposal title, project number, name of bidder, and date and time of proposal opening. No FAX or emailed submittals will be accepted.

3. **Insurance Certificate**. Each proposal must include a certificate of insurance showing:

a. The insurance carrier and its A.M. Best rating.
b. Scope of coverage and limits.
c. Deductibles and self-insured retention.

The purpose of this submittal is to generally assess the adequacy of the bidder's insurance coverage during proposal evaluation; as discussed under paragraph 12 below, endorsements are not required until contract award. The City's insurance requirements are detailed in Section H.

4. **Proposal Quotes and Unit Price Extension**. The extension of unit prices for the quantities indicated and the lump sum prices quoted by the bidder must be entered in figures in the spaces provided on the Proposal Submittal Form(s). Any lump sum bid shall be stated in figures. The Proposal Submittal Form(s) must be totally completed. If the unit price and the total amount stated by any bidder for any item are not in agreement, the unit price alone will be considered as representing the bidder's intention and the proposal total will be corrected to conform to the specified unit price.

5. **Proposal Withdrawal and Opening**. A bidder may withdraw its proposal, without prejudice prior to the time specified for the proposal opening, by submitting a written request to the Director of Finance for its withdrawal, in which event the proposal will be returned to the bidder unopened. No proposal received after the time specified or at any place other than that stated in the "Notice Inviting Bids/Requesting Proposals" will be considered. All proposals will be opened and declared publicly. Bidders or their representatives are invited to be present at the opening of the proposals.

6. **Submittal of One Proposal Only**. No individual or business entity of any kind shall be allowed to make or file, or to be interested as the primary submitter in more than one proposal, except an alternative proposal when specifically requested; however, an individual or business entity that has submitted a sub-proposal to a bidder submitting a proposal, or who has quoted prices on materials to such bidder, is not thereby disqualified from submitting a sub-proposal or from quoting prices to other bidders submitting proposals.

7. **Communications.** All timely requests for information submitted in writing will receive a written response from the City. Telephone communications with City staff are not encouraged but will be permitted. However, any such oral communication shall not be binding on the City.

CONTRACT AWARD AND EXECUTION

8. **Proposal Retention and Award**. The City reserves the right to retain all proposals for a period of 60 days for examination and comparison. The City also reserves the right to waive non-substantial irregularities in any proposal, to reject any or all proposals, to reject or delete one part of a proposal and accept the other, except to the extent that proposals are qualified by specific limitations. See the "special terms and conditions" in Section C of these specifications for proposal evaluation and contract award criteria.

9. **Competency and Responsibility of Bidder.** The City reserves full discretion to determine the competence and responsibility, professionally and/or financially, of bidders. Bidders will provide, in a timely manner, all information that the City deems necessary to make such a decision.

10. **Contract Requirement.** The bidder to whom award is made (Contractor) shall execute a written contract with the City within ten (10) calendar days after notice of the award has been sent by mail to it at the address given in its proposal. The contract shall be made in the form adopted by the City and incorporated in these specifications.

CONTRACT PERFORMANCE

11. **Insurance Requirements.** The Contractor shall provide proof of insurance in the form, coverages and amounts specified in Section H of these specifications within 10 (ten) calendar days after notice of contract award as a precondition to contract execution.

12. **Business License & Tax.** The Contractor must have a valid City of San Luis Obispo business license & tax certificate before execution of the contract. Additional information regarding the City's business tax program may be obtained by calling (805) 781-7134.

13. **Laws to be Observed.** The Contractor shall keep itself fully informed of and shall observe and comply with all applicable state and federal laws and county and City of San Luis Obispo ordinances, regulations and adopted codes during its performance of the work.

14. **Immigration Act of 1986.** The Contractor warrants on behalf of itself and all subcontractors engaged for the performance of this work that only persons authorized to work in the United State pursuant to the Immigration Reform and Control Act of 1986 and other applicable laws shall be employed in the performance of the work hereunder.

15. **Work Delays.** Should the Contractor be obstructed or delayed in the work required to be done hereunder by changes in the work or by any default, act, or omission of the City, or by strikes, fire, earthquake, or any other Act of God, or by the inability to obtain materials, equipment, or labor due to federal government restrictions arising out of defense or war programs, then the time of completion may, at the City's sole option, be extended for such periods as may be agreed upon by the City and the Contractor. In the event that there is insufficient time to grant such extensions prior to the completion date of the contract, the City may, at the time of acceptance of the work, waive liquidated damages that may have accrued for failure to complete on time, due to any of the above, after hearing evidence as to the reasons for such delay, and making a finding as to the causes of same.

16. **Payment Terms.** The City's payment terms are 30 days from the receipt of an original invoice and acceptance by the City of the materials, supplies, equipment, or services provided by the Contractor (Net 30).

17. **Audit.** The City shall have the option of inspecting and/or auditing all records and other written materials used by Contractor in preparing its invoices to City as a condition precedent to any payment to Contractor.

18. **Interests of Contractor.** The Contractor covenants that it presently has no interest, and shall not acquire any interest—direct, indirect or otherwise—that would conflict in any manner or degree with the performance of the work hereunder. The Contractor further covenants that, in the performance of this work, no subcontractor or person having such an interest shall be employed. The Contractor certifies that no one who has or will have any financial interest in performing this work is an officer or employee of the City. It is hereby expressly agreed that, in the performance of the work hereunder, the Contractor shall at all times be deemed an independent contractor and not an agent or employee of the City.

19. **Contract Assignment.** The Contractor shall not assign, transfer, convey or otherwise dispose of the contract, or its right, title or interest, or its power to execute such a contract to any individual or business entity of any kind without the previous written consent of the City.

20. **Termination for Convenience.** The City may terminate all or part of this Agreement for any or no reason at any time by giving 30 days written notice to Contractor. Should the City terminate this Agreement for convenience, the City shall be liable as follows: (a) for standard or off-the-shelf products, a reasonable restocking charge not to exceed ten (10) percent of the total purchase price; (b) for custom products, the less of a reasonable price for the raw materials, components work in progress and any finished units on hand or the price per unit reflected on this Agreement. For termination of any services pursuant to this Agreement, the City's liability will be the lesser of a reasonable price for the services rendered prior to termination, or the price for the services reflected on this Agreement. Upon termination notice from the City, Contractor must, unless otherwise directed, cease work and follow the City's directions as to work in progress and finished goods.

SPECIAL TERMS AND CONDITIONS

1. **Contract Award.** Subject to the reservations set forth in Paragraph 9 of Section B (General Terms and Conditions) of these specifications, the contract will be awarded to the lowest responsible, responsive proposer.

2. **Sales Tax Reimbursement.** For sales occurring within the City of San Luis Obispo, the City receives sales tax revenues. Therefore, for bids from retail firms located in the City at the time of proposal closing for which sales tax is allocated to the City, 1% of the taxable amount of the bid will be deducted from the proposal by the City in calculating and determining the lowest responsible, responsive proposer.

3. **Labor Actions.** In the event that the successful proposer is experiencing a labor action at the time of contract award (or if its suppliers or subcontractors are experiencing such a labor action), the City reserves the right to declare said proposer is no longer the lowest responsible, responsive proposer and to accept the next acceptable low proposal from a proposer that is not experiencing a labor action, and to declare it to be the lowest responsible, responsive proposer.

4. **Failure to Accept Contract.** The following will occur if the proposer to whom the award is made (Contractor) fails to enter into the contract: the award will be annulled; any bid security will be forfeited in accordance with the special terms and conditions if a proposer's bond or security is required; and an award may be made to the next lowest responsible, responsive proposer who shall fulfill every stipulation as if it were the party to whom the first award was made.

5. **Supplemental Purchases**. Supplemental Purchases. Supplemental purchases may be made from the successful proposer during the contract term in addition to the items listed in the Detail Proposal Submittal Form. For these supplemental purchases, the proposer shall not offer prices to the City in excess of the amounts offered to other similar customers for the same item. If the proposer is willing to offer the City a standard discount on all supplemental purchases from its generally prevailing or published price structure during the contract term, this offer and the amount of discount on a percentage basis should be provided with the proposal submittal.

6. **Non-Exclusive Contract.** The City reserves the right to purchase the items listed in the Detail Proposal Submittal Form, as well as any supplemental items, from other vendors during the contract term.

7. **Unrestrictive Brand Names**. Any manufacturer's names, trade names, brand names or catalog numbers used in the specifications are for the purpose of describing and establishing general quality levels. Such references are not intended to be restrictive. Proposals will be considered for any brand that meets or exceeds the quality of the specifications given for any item. In the event an alternate brand name is proposed, supplemental documentation shall be provided demonstrating that the alternate brand name meets or exceeds the requirements specified herein. The burden of proof as to the suitability of any proposed alternatives is upon the proposer, and the City shall be the sole judge in making this determination.

8. **Delivery.** Prices quoted for all supplies or equipment to be provided under the terms and conditions of this RFP package shall include delivery charges, to be delivered F.O.B. San Luis Obispo by the successful proposer and received by the City within 90 days after authorization to proceed by the City.

9. **Start and Completion of Work.** On-call work is expected to start within 30 days of contract execusion.

10. **Change in Work.** The City reserves the right to change quantities of any item after contract award. If the total quantity of any changed item varies by 25% or less, there shall be no change in the agreed upon unit price for that item. Unit pricing for any quantity changes per item in excess of 25% shall be subject to negotiation with the Contractor.

11. **Submittal of References.** Each proposer shall submit a statement of qualifications and references on the form provided in the RFP package.

12. **Statement of Contract Disqualifications.** Each proposer shall submit a statement regarding any past governmental agency bidding or contract disqualifications on the form provided in the RFP package.

PROPOSAL CONTENT

1. **Proposal Content**. Your proposal must include the following information:

Submittal Forms

a. Proposal submittal summary. This is a brief written statement to explain what the contractor intends.
b. Certificate of insurance.
c. References from at least three firms for whom you have provided similar services.
d. Cost proposal sheet**.**
e. Acknowledgment of any issued addenda.

Qualifications

f. Experience of your company in performing work and projects relevant to the Scope of Services outlined and described in the request.

Work Program

g. Detailed description of your approach to completing the work.
h. Services or data to be provided by the City.
i. Services and deliverables provided by the Contractor(s).
j. Any other information that would assist us in making this contract award decision.

Requested *Changes* to Terms and Conditions

k. The City desires to begin work soon after selecting the preferred Consultant Team. To expedite the contracting process, each submittal shall include requested redlined changes to terms and conditions, if necessary.

***Proposal* Length**

l. Proposal length should only be as long as required to be responsive to the RFP, including attachments and supplemental materials.

2. **Phase 1- proposal Evaluation and Selection**. Proposals will be evaluated by a review committee and evaluated on the following criteria:

a. Understanding of the work required by the City.
b. Quality, clarity and responsiveness of the proposal.
c. Demonstrated competence and professional qualifications necessary for successfully performing the work required by the City.
d. Recent team experience in successfully performing similar services.
e. Creativity of the proposed approach in completing the work.
f. Value
g. Writing skills.
h. References.
i. Background and experience of the specific individuals managing and assigned to this project.

3. **Phase *2 – Oral Presentations/Interviews and Consultant Selection*** Finalist candidates will make an oral presentation to the review committee and answer questions about their proposal. The purpose of this second phase is two-fold: to clarify and resolve any outstanding questions or issues about the proposal; and to evaluate the proposer's ability to clearly and concisely present information orally. As reflected above, contract award will not be based solely on price, but on a combination of factors as determined to be in the best interest of the City. After evaluating the proposals and discussing them further with the finalists or the tentatively selected contractor, the City reserves the right to further negotiate the proposed work and/or method and amount of compensation.

4. As reflected above, contract award will not be based solely on price, but on a combination of factors as determined to be in the best interest of the City. After evaluating the proposals and discussing them further

with the finalists or the tentatively selected contractor, the City reserves the right to further negotiate the proposed work and/or method and amount of compensation.

5. **Proposal Review and Award Schedule.** The following is ***an outline of the anticipated schedule*** for proposal review and contract award:

a.	Advertise RFP	[6/10/2021]
b.	Pre-Proposal Conference (mandatory)	[6/22/2021]
c.	Receive proposals	[7/9/2021]
d.	Complete proposal evaluations	[7/15/2021]
e.	Conduct finalist interviews and finalize recommendation	[7/22/2021]
f.	Execute contract	[8/1/2021]

6. **Pre-Proposal Conference.** A MANDATORY pre-proposal conference will be held at the following location, date, and time to answer any questions that prospective bidders may have regarding this RFP:

City of San Luis Obispo Corporation Yard
25 Prado Road, San Luis Obispo
June 22, 2021
At 10:00AM and 2:00PM

Due to the Covid-19 pandemic, this meeting will be held outside, attendees are required to wear face coverings and maintain CDC social distancing guidelines.

7. **Ownership of Materials.** All original drawings, plan documents and other materials prepared by or in possession of the Contractor as part of the work or services under these specifications shall become the permanent property of the City and shall be delivered to the City upon demand.

8. **Release of Reports and Information.** Any reports, information, data, or other material given to, prepared by or assembled by the Contractor as part of the work or services under these specifications shall be the property of the City and shall not be made available to any individual or organization by the Contractor without the prior written approval of the City.

9. **Copies of Reports and Information.** If the City requests additional copies of reports, drawings, specifications, or any other material in addition to what the Contractor is required to furnish in limited quantities as part of the work or services under these specifications, the Contractor shall provide such additional copies as are requested, and City shall compensate the Contractor for the costs of duplicating of such copies at the Contractor's direct expense.

10. **Required Deliverable Products.** The Contractor will be required to provide:

a. One electronic submission - digital-ready original .pdf of all final documents. If you wish to file a paper copy, please submit in sealed envelope to the address provided in the RFP.

b. Corresponding computer files compatible with the following programs whenever possible unless otherwise directed by the project manager:

Word Processing:	MS Word
Spreadsheets:	MS Excel
Desktop Publishing:	InDesign
Virtual Models:	Sketch Up
Digital Maps:	Geodatabase shape files in

State Plan Coordinate System as specified by City GIS staff

c. City staff will review any documents or materials provided by the Contractor and, where necessary, the Contractor will be required to respond to staff comments and make such changes as deemed appropriate.

ALTERNATIVE PROPOSALS

11. **Alternative Proposals**. The proposer may submit an alternative proposal (or proposals) that it believes will also meet the City's project objectives but in a different way. In this case, the proposer must provide an analysis of the advantages and disadvantages of each of the alternative and discuss under what circumstances the City would prefer one alternative to the other(s).

12. **Attendance at Meetings and Hearings**. As part of the work scope and included in the contract price is attendance by the Contractor at up to [number] public meetings to present and discuss its findings and recommendations. Contractor shall attend as many "working" meetings with staff as necessary in performing work-scope tasks.

13. **Accuracy of Specifications**. The specifications for this project are believed by the City to be accurate and to contain no affirmative misrepresentation or any concealment of fact. Bidders are cautioned to undertake an independent analysis of any test results in the specifications, as City does not guaranty the accuracy of its interpretation of test results contained in the specifications package. In preparing its proposal, the bidder and all subcontractors named in its proposal shall bear sole responsibility for proposal preparation errors resulting from any misstatements or omissions in the plans and specifications that could easily have been ascertained by examining either the project site or accurate test data in the City's possession. Although the effect of ambiguities or defects in the plans and specifications will be as determined by law, any patent ambiguity or defect shall give rise to a duty of bidder to inquire prior to proposal submittal. Failure to so inquire shall cause any such ambiguity or defect to be construed against the bidder. An ambiguity or defect shall be considered patent if it is of such a nature that the bidder, assuming reasonable skill, ability and diligence on its part, knew or should have known of the existence of the ambiguity or defect. Furthermore, failure of the bidder or subcontractors to notify City in writing of specification or plan defects or ambiguities prior to proposal submittal shall waive any right to assert said defects or ambiguities subsequent to submittal of the proposal.

14. To the extent that these specifications constitute performance specifications, the City shall not be liable for costs incurred by the successful bidder to achieve the project’s objective or standard beyond the amounts provided there for in the proposal.

15. In the event that, after awarding the contract, any dispute arises as a result of any actual or alleged ambiguity or defect in the plans and/or specifications, or any other matter whatsoever, Contractor shall immediately notify the City in writing, and the Contractor and all subcontractors shall continue to perform, irrespective of whether or not the ambiguity or defect is major, material, minor or trivial, and irrespective of whether or not a change order, time extension, or additional compensation has been granted by City. Failure to provide the hereinbefore described written notice within one (1) working day of contractor's becoming aware of the facts giving rise to the dispute shall constitute a waiver of the right to assert the causative role of the defect or ambiguity in the plans or specifications concerning the dispute.

SECTION G: FORM OF AGREEMENT

AGREEMENT

THIS AGREEMENT is made and entered into in the City of San Luis Obispo on [day, date, year] by and between the CITY OF SAN LUIS OBISPO, a municipal corporation, hereinafter referred to as City, and [CONTRACTOR'S NAME IN CAPITAL LETTERS], hereinafter referred to as Contractor.

W I T N E S S E T H:

WHEREAS, on _____, City requested proposals for Urban Forestry Pruning Services, per Project No. 5004-2021-UFP

WHEREAS, pursuant to said request, Contractor submitted a proposal that was accepted by City for said project;

NOW THEREFORE, in consideration of their mutual promises, obligations and covenants hereinafter contained, the parties hereto agree as follows:

1. **TERM**. The term of this Agreement shall be from August 1, 2021 through July 31, 2025 or until termination of the contract in accordance with this agreement.

2. **INCORPORATION BY REFERENCE**. City Specification No. 5004-2021-UFP and Contractor's proposal dated [_____] is hereby incorporated in and made a part of this Agreement and attached as Exhibit A. The City's terms and conditions are hereby incorporated in an made a part of this Agreement as Exhibit B. To the extent that there are any conflicts between the Contractor's fees and scope of work and the City's terms and conditions, the City's terms and conditions shall prevail, unless specifically agreed otherwise in writing signed by both parties.

3. **Contract Extension**. The term of the contract may be extended by mutual consent for an additional 2 years.

4. **Cost Adjustments**. During the term of the agreement, beginning July 1, 2022, contract prices shall be modified by a percentage equal to the percentage increase in the U.S. Consumer Price Index/All Urban Consumers (CPI-U) from March in the previous year to March in the year of adjustment. Under no circumstances shall the contract price increase more than five (5) percent from the prior contract year.

5. **Ability to Perform**. The Contractor warrants that it possesses all capital and other equipment, labor, materials, and licenses necessary to carry out and complete the work hereunder in compliance with any and all applicable federal, state, county, city, and special district laws, ordinances, and regulations.

   The Contractor's employees shall be competent and qualified to perform the specified work and shall perform the specified work in an orderly manner. If the City's representative advises the Contractor that an employee is incompetent, unqualified, or disorderly, the Contractor shall remove that employee from the specified work for the duration of the contract. The Contractor shall not bring to the specified work locations any pets, children, or persons not employed under the contract.

6. **Contractor Identification.** All staff employed in the work shall wear a shirt or jacket clearly identifying the Contractor's company.

7. **Sub-contract Provisions**. No portion of the work pertinent to this contract shall be subcontracted without written authorization by the City.

8. **Contract Assignment**. The Contractor shall not assign, transfer, convey or otherwise dispose of the contract, or its right, title or interest, or its power to execute such a contract to any individual or business entity of any kind without the previous written consent of the City.

9. **Scope of Work and Levels of Service**. The Contractor shall furnish services for Urban Forest Pruning as specified in **Exhibit A**.

   The City may periodically request additional unspecified work, such as new or replacement planting at the various locations. For this work, the City shall pay the Contractor an amount equal to the amount provided by the contractor as detailed is **Section J,** multiplied by the number of units completed or installed.

10. **Work Hours**. The Contractor shall perform maintenance work on weekdays (Monday through Friday) between the hours of 7:00 a.m. and 5:00 p.m. The Contractor shall not perform any of the specified preplanned work outside of these work hours without the previous written consent from the City's Contract Manager. Work within the downtown core shall be completed no later 12:00 pm (noon). Work hours will be restricted on arterial streets to avoid high traffic volume times. Does not apply to emergency work.

11. **Traffic Control.** Contractor is required to obtain a blanket encroachment permit with the City's Public Works Department. Traffic control plans for work on arterial and collector streets are required to be reviewed and approved in advance of the work. Traffic Control plans shall be submitted a minimum of five (5) days in advance of the work at the Public Works permit Counter at 919 Palm Street. Contractor shall provide proper traffic control at times for vehicles, bicycles, and pedestrian traffic.

12. **Encroachment Permits**. When specified work must be completed in the medians of state highways, such as those on Santa Rosa Street, the Contractor shall obtain and pay for any encroachment permits which may be required from the State of California Department of Transportation. The cost of the encroachment permit shall be reimbursed by the City.

13. **Materials.** The Contractor shall not use any material for the specified work without the City's prior written approval of that material. If requested, the Contractor shall furnish to the City without charge samples of materials for examination and testing. Irrigation shall meet current City standards.

    The Contractor shall furnish to the City a list of all materials used for the specified work that are regulated by law as toxic or hazardous. With this list the Contractor shall include a material safety data sheet for each toxic or hazardous material. The Contractor shall train its employees in the proper handling of any toxic or hazardous materials.

14. **Inspection and Corrections**. The Contractor shall furnish the City with every reasonable opportunity for City to ascertain that the services of the Contractor are being performed in accordance with the requirements and intentions of this contract. All work done and all materials furnished, if any, shall be subject to the City's inspection and approval. The inspection of such work shall not relieve Contractor of any of its obligations to fulfill its contract requirements. The City Contract Manager shall be sole judge of the adequacy of the Contractor's maintenance and the appearance of the sites.

    Upon completion of the work, the City's Contract Manager shall inspect the work to ensure thorough quality work. The Contractor will be notified by the City about any deficiencies, which must be corrected to the satisfaction of the City's Contract Manager within 10 (ten) calendar days. **If the Contractor does not correct a documented deficiency within 10 days, it shall forfeit 50 percent of price for the deficient work performed.**

15. **Termination**. If, during the term of the contract, the City determines that the Contractor is not faithfully abiding by any term or condition contained herein, the City may notify the Contractor in writing of such defect

or failure to perform. This notice must give the Contractor a 10 (ten) calendar day notice of time thereafter in which to perform said work or cure the deficiency.

If the Contractor has not performed the work or cured the deficiency within the ten days specified in the notice, such shall constitute a breach of the contract and the City may terminate the contract immediately by written notice to the Contractor to said effect. Thereafter, neither party shall have any further duties, obligations, responsibilities, or rights under the contract except, however, any and all obligations of the Contractor's surety shall remain in full force and effect, and shall not be extinguished, reduced, or in any manner waived by the termination thereof.

In said event, the Contractor shall be entitled to the reasonable value of its services performed from the beginning date in which the breach occurs up to the day it received the City's Notice of Termination, minus any offset from such payment representing the City's damages from such breach. "Reasonable value" includes fees or charges for goods or services as of the last milestone or task satisfactorily delivered or completed by the Contractor as may be set forth in the Agreement payment schedule; compensation for any other work, services or goods performed or provided by the Contractor shall be based solely on the City's assessment of the value of the work-in-progress in completing the overall scope of work.

The City reserves the right to delay any such payment until completion or confirmed abandonment of the project, as may be determined in the City's sole discretion, so as to permit a full and complete accounting of costs. In no event, however, shall the Contractor be entitled to receive in excess of the compensation quoted in its proposal.

If, at any time during the term of the contract, the City determines that continued contract maintenance is no longer in the best interests of the City due to funding shortages or unforeseen circumstances, the City reserves the right to terminate the contract. Contractor will be paid compensation due and payable to the date of termination.

16. **Record Retention and Audit**. For the purpose of determining compliance with various laws and regulations as well as performance of the contract, the Contractor and sub-contractors shall maintain all books, documents, papers, accounting records and other evidence pertaining to the performance of the contract, including but not limited to the cost of administering the contract. Materials shall be made available at their respective offices at all reasonable times during the contract period and for three years from the date of final payment under the contract. Authorized representatives of the City shall have the option of inspecting and/or auditing all records. Copies shall be furnished if requested.

17. **Release of Reports and Information**. The Contractor shall not issue any news release or public relations item of any nature, whatsoever, regarding work performed or to be performed under this contract without prior review of the contents thereof by the City and receipt of the City's written permission.

18. **Copies of Reports and Information**. If the City requests additional copies of reports, drawings, specifications, or any other material in addition to what the Contractor is required to furnish in limited quantities as part of the work or services under these specifications, the Contractor shall provide such additional copies as are requested, and City shall compensate the Contractor for the costs of duplicating of such copies at the Contractor's direct expense.

19. **Conflict of Interest.** The Contractor shall disclose any financial, business, or other relationship with the City that may have an impact upon the outcome of this contract, or any ensuing City construction project. The Contractor shall also list current clients who may have a financial interest in the outcome of this contract, or any ensuing City construction project which will follow.

The Contractor covenants that it presently has no interest, and shall not acquire any interest—direct, indirect or otherwise—that would conflict in any manner or degree with the performance of the work hereunder. The Contractor further covenants that, in the performance of this work, no sub-Contractor or person having such an interest shall be employed. The Contractor certifies that no one who has or will have any financial interest in performing this work is an officer or employee of the City. It is hereby expressly agreed that, in the performance

of the work hereunder, the Contractor shall at all times be deemed an independent Contractor and not an agent or employee of the City.

20. **Rebates, Kickbacks or Other Unlawful Consideration**. The Contractor warrants that this contract was not obtained or secured through rebates, kickbacks or other unlawful consideration, either promised or paid to any City employee. For breach or violation of the warranty, the City shall have the right in its discretion; to terminate the contract without liability; to pay only for the value of the work actually performed; to deduct from the contract price; or otherwise recover the full amount of such rebate, kickback or other unlawful consideration.

21. **Covenant Against Contingent Fees**. The Contractor warrants by execution of this contract that no person or selling agency has been employed, or retained, to solicit or secure this contract upon an agreement or understanding, for a commission, percentage, brokerage, or contingent fee, excepting bona fide employees or bona fide established commercial or selling agencies maintained by the Contractor for the purpose of securing business. For breach or violation of this warranty, the City has the right to annul this contract without liability; pay only for the value of the work actually performed, or in its discretion, to deduct from the contract price or consideration, or otherwise recover the full amount of such commission, percentage, brokerage, or contingent fee.

22. **Compliance with Laws and Wage Rates**. The Contractor shall keep itself fully informed of and shall observe and comply with all applicable state and federal laws and county and City of San Luis Obispo ordinances, regulations and adopted codes during its performance of the work.

    Prevailing wage is required, at a minimum, for work under this contract. The Contractor and any subcontractor must forfeit to the City not more than $200 per day or part of a day for each worker paid less than the prevailing wage rate and pay the worker the difference between the prevailing wage rate and the rate paid (Labor Code § 1775). The Labor Commissioner determines the amount of this penalty and bases the amount on:

    1. Whether the failure to pay the correct prevailing wage rate was a good-faith mistake that the Contractor or subcontractor promptly and voluntarily corrected upon notice
    2. The prior record of the Contractor or subcontractor in meeting its prevailing wage obligations
    3. The Contractor or subcontractor's willful failure to pay the correct rate of prevailing wages

    The Contractor shall submit certified payroll as part of the monthly invoice submittal. Weekly payrolls must include each employee's:
    1. Full name
    2. Address
    4. Work classification
    5. Straight time and overtime hours worked each day and week
    6. Actual wages paid for each day
    7. Fringe benefits or submit a statement of fringe benefits, clearly defining which benefits are paid directly to the employee as part of the hourly rate, and which benefits are paid into an approved program. Fringe benefit statements must be signed by the employer or the employer's agent certifying the fringe benefit statement is correct and the employer has been authorized to make any payments on behalf of the employee to approved programs.

23. **Payment of Taxes**. The contract prices shall include full compensation for all taxes that the Contractor is required to pay.

24. **Permits, Licenses, and Insurance**. The Contractor shall procure and maintain current, all permits, licenses, and specified insurance, and pay all charges and fees, and file all notices as they pertain to the completion of the Contractor's work. The contractor shall have and maintain the following valid State of California Licenses, C-61/D49 Contractors License, as well as Certified Arborist on staff in good standing with the International Society of Arboriculture. All work performed by the Contractor's shall be performed by a certified tree worker or equivalent.

25. (a) **Non-design, non-construction Professional Services**: To the fullest extent permitted by law (including, but not limited to California Civil Code Sections 2782 and 2782.8), Contractor shall indemnify, defend, and hold harmless the City, and its elected officials, officers, employees, volunteers, and agents ("City Indemnitees"), from and against any and all causes of action, claims, liabilities, obligations, judgments, or damages, including reasonable legal counsels' fees and costs of litigation ("claims"), arising out of the Contractor's performance or Contractor's failure to perform its obligations under this Agreement or out of the operations otherwise conducted by Contractor, including claims arising out of the City's active or passive negligence, except for such loss or damage arising from the sole negligence or willful misconduct of the City. In the event the City Indemnitees are made a party to any action, lawsuit, or other adversarial proceeding arising from Contractor's performance of this Agreement, the Contractor shall provide a defense to the City Indemnitees or at the City's option, reimburse the City Indemnitees their costs of defense, including reasonable legal fees, incurred in defense of such claims.

26. The review, acceptance or approval of the Contractor's work or work product by any indemnified party shall not affect, relieve or reduce the Contractor's indemnification or defense obligations. This Section survives completion of the services or the termination of this contract. The provisions of this Section are not limited by and do not affect the provisions of this contract relating to insurance.

    The review, acceptance or approval of the Consultant's work or work product by any indemnified party shall not affect, relieve or reduce the Consultant's indemnification or defense obligations. This Section survives completion of the services or the termination of this contract. The provisions of this Section are not limited by and do not affect the provisions of this contract relating to insurance.

27. **Safety Provisions**. The Contractor shall conform to the rules and regulations pertaining to safety established by OSHA; the California Division of Industrial Safety; and Union Pacific Railroad (UPRR) as well as the UPRR Fire Prevent Plan.

28. **Public and Employee Safety**. Whenever the Contractor's operations create a condition hazardous to the public or City employees, it shall, at its expense and without cost to the City, furnish, erect and maintain such fences, temporary railings, barricades, lights, signs and other devices and take such other protective measures as are necessary to prevent accidents or damage or injury to the public and employees.

29. **Preservation of City Property**. The Contractor shall provide and install suitable safeguards, approved by the City, to protect City property from injury or damage. If City property is injured or damaged resulting from the Contractor's operations, it shall be replaced or restored at the Contractor's expense. The facilities shall be replaced or restored to a condition as good as when the Contractor began work.

30. **Security of Work Locations**. For work locations secured by locks, the City shall provide the Contractor with the required keys. The Contractor shall properly secure these locations when specified work is completed and shall replace or repair City property lost or damaged when locks are not properly set.

31. **Contractor Non-Discrimination.** In the performance of this work, the Contractor agrees that it will not engage in, nor permit such subcontractors as it may employ, to engage in discrimination in employment of persons because of age, race, color, sex, national origin or ancestry, sexual orientation, or religion of such persons.

32. **Non-Exclusive Contract**. The City reserves the right to contract for the services listed in this proposal from other Contractors during the contract term.

33. **Contractor Invoices**. The Contractor shall deliver invoices to the City accompanied with the relevant Daily Work Logs.

34. **Payment**. For providing services as specified in this Agreement, City will pay and Contractor shall receive therefore compensation for requested work in accordance with the prices included in Section J.

35. **Resolution of Disputes**. Any dispute, other than audit, concerning a question of fact arising under this contract that is not disposed of by agreement shall be decided by a committee consisting of the City Contract Manager and the City Director of Public Works, who may consider written or verbal information submitted by the Contractor. Not later than thirty days after receipt of a written decision on any dispute by the City's Contract Manager, the Contractor may request review by the City Council of unresolved claims or disputes, other than audit, in accordance with Chapter 1.20 Appeals Procedure of the Municipal Code.

    Any dispute concerning a question of fact arising under an audit of this contract that is not disposed of by agreement, shall be reviewed by the City's Public Works Director. Not later than 30 days after issuance of the final audit report, the Contractor may request a review by the City's Public Works Director of unresolved audit issues. The request for review must be submitted in writing.

    Neither the pendency of a dispute, nor its consideration by the City will excuse the Contractor from full and timely performance in accordance with the terms of this contract.

36. **CITY'S OBLIGATIONS**. For providing the services as specified in this Agreement, City will pay, and Contractor shall receive therefore compensation as awarded by contract.

37. **CONTRACTOR/CONSULTANT'S OBLIGATIONS**. For and in consideration of the payments and agreements hereinbefore mentioned to be made and performed by City, Contractor agrees with City to do everything required by this Agreement and the said specifications.

38. **AMENDMENTS**. Any amendment, modification, or variation from the terms of this Agreement shall be in writing and shall be effective only upon approval by the City Engineer. If, at any time during the project, the Contractor is directed to do work by persons other than the City Contract Manager and the Contractor believes that the work is outside of the scope of the original contract, the Contractor shall inform the Contract Manager immediately. If the Contract Manager and Contractor both agree that the work is outside of the work scope and is necessary to the successful completion of the work, then a fee will be established for such work based on Contractor's hourly billing rates or a lump sum price agreed upon between the City and the Contractor. Any extra work performed by Contractor without prior written approval from the City Contract Manager shall be at Contractor's own expense.

39. **COMPLETE AGREEMENT**. This written Agreement, including all writings specifically incorporated herein by reference, shall constitute the complete agreement between the parties hereto. No oral agreement, understanding or representation not reduced to writing and specifically incorporated herein shall be of any force or effect, nor shall any such oral agreement, understanding or representation be binding upon the parties hereto.

40. **NOTICE**. All written notices to the parties hereto shall be sent by United States mail, postage prepaid by registered or certified mail addressed as follows:

City	Greg Cruce City of San Luis Obispo, Public Works 25 Prado Road San Luis Obispo, CA 93401
Contractor	Name Title Address Address

41. **AUTHORITY TO EXECUTE AGREEMENT**. Both City and Contractor do covenant that everyone executing this agreement on behalf of each party is a person duly authorized and empowered to execute Agreements for such party.

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

CITY OF SAN LUIS OBISPO:

By:_____
City Manager

APPROVED AS TO FORM:

_____
City Attorney

CONTRACTOR:

By: _____
Name of CAO / President
Its: CAO / President

SECTION H: INSURANCE REQUIREMENTS

Operation & Maintenance Contracts

The Contractor shall procure and maintain for the duration of the contract insurance against claims for injuries to persons or damages to property that may arise from or in connection with the performance of the work hereunder by the Contractor, its agents, representatives, employees or subcontractors.

Minimum Scope of Insurance. Coverage shall be at least as broad as:

1. Insurance Services Office Commercial General Liability coverage (occurrence form CG 0001).
2. Insurance Services Office form number CA 0001 (Ed. 1/87) covering Automobile Liability, code 1 (any auto).
3. Workers' Compensation insurance as required by the State of California and Employer's Liability Insurance.

Minimum Limits of Insurance. Contractor shall maintain limits no less than:

1. General Liability: $3,000,000 per occurrence for bodily injury, personal injury and property damage. If Commercial General Liability or other form with a general aggregate limit is used, either the general aggregate limit shall apply separately to this project/location or the general aggregate limit shall be twice the required occurrence limit.
2. Automobile Liability: $3,000,000 per accident for bodily injury and property damage.
3. Employer's Liability: $1,000,000 per accident for bodily injury or disease.

Deductibles and Self-Insured Retentions. Any deductibles or self-insured retentions must be declared to and approved by the City. At the option of the City, either: the insurer shall reduce or eliminate such deductibles or self-insured retentions as respects the City, its officers, officials, employees and volunteers; or the Contractor shall procure a bond guaranteeing payment of losses and related investigations, claim administration and defense expenses.

Other Insurance Provisions. The general liability and automobile liability policies are to contain, or be endorsed to contain, the following provisions:

1. The City, its officers, officials, employees, agents and volunteers are to be covered as insureds as respects: liability arising out of activities performed by or on behalf of the Contractor; products and completed operations of the Contractor; premises owned, occupied or used by the Contractor; or automobiles owned leased, hired or borrowed by the Contractor. The coverage shall contain no special limitations on the scope of protection afforded to the City, its officers, official, employees, agents or volunteers.
2. For any claims related to this project, the Contractor's insurance coverage shall be primary insurance as respects the City, its officers, officials, employees, agents and volunteers. Any insurance or self-insurance maintained by the City, its officers, officials, employees, agents or volunteers shall be excess of the Contractor's insurance and shall not contribute with it.
3. The Contractor's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.
4. Each insurance policy required by this clause shall be endorsed to state that coverage shall not be suspended, voided, canceled by either party, reduced in coverage or in limits except after thirty (30) days' prior written notice by certified mail, return receipt requested, has been given to the City.
5. Waiver of subrogation. All insurance coverage maintained or procured pursuant to this agreement shall be endorsed to waive subrogation against the City, its elected or appointed officers, agents, officials, employees and volunteers or shall specifically allow Contractor or others providing insurance evidence in compliance with these specifications to waive their right of recovery prior to a loss. Contractor hereby waives its own right of recovery against the City and shall require similar written express waivers and insurance clauses from each of its subconsultants.

Acceptability of Insurers. Insurance is to be placed with insurers with a current A.M. Best's rating of no less than A:VII.

Verification of Coverage. Contractor shall furnish the City with a certificate of insurance showing required coverage. Original endorsements effecting general liability and automobile liability coverage are also required by this clause.

The endorsements are to be signed by a person authorized by that insurer to bind coverage on its behalf. All endorsements are to be received and approved by the City before work commences.

❑ Certificate of insurance attached; insurance company's A.M. Best rating: _____.

Firm Name and Address

Contact *Phone*

Signature of Authorized Representative

Date

❑ Certificate of insurance attached; insurance company's A.M. Best rating: _____.

Firm Name and Address

Contact *Phone*

Signature of Authorized Representative

Date

EXHIBIT A

Nearest Address	Tree ID	Species	DBH (in)	Condition	Work Type	Worker(s)	Time Spent	Comments
				☐ Poor ☐ Fair ☐ Good				
				☐ Poor ☐ Fair ☐ Good				
				☐ Poor ☐ Fair ☐ Good				
				☐ Poor ☐ Fair ☐ Good				
				☐ Poor ☐ Fair ☐ Good				
				☐ Poor ☐ Fair ☐ Good				
				☐ Poor ☐ Fair ☐ Good				

SECTION I: ACKNOWLEDGMENT OF SERVICE LEVELS

Firm Name and Address:		
Contact Name:		
Email:	Fax:	Phone:

Signature of Authorized Representative:	Date:

SECTION J: UNIT COST FORM

The Contractor will provide all labor, equipment, and materials to perform trimming services and/or install the following items on request in accordance with City Specifications at the lump sum price of:

dsh = Diameter at Shoulder Height

			Unit	Price
1.	Full Trim Broadleaf/ Conifer Tree	3-6" dsh	Per Tree	
2.		6-12" dsh	Per Tree	
3.	Per tree pruning price shall be used for area pruning when more than 5 trees within a zone are requested to be pruned.	12-18" dsh	Per Tree	
4.		18-24" dsh	Per Tree	
5.		24-30" dsh	Per Tree	
6.		30-36" dsh	Per Tree	
7.		36-42" dsh	Per Tree	
8.		Over 42" dsh	Per Tree	
9.	Washington Palm Tree Trimming (Annually)	Any	Per Tree	
10.	Washington Palm Tree Trimming (Every 3 years)	Any	Per Tree	
11.	Date Palm Tree Trimming (Annually)	Any	Per Tree	
12.	Date Palm Tree Trimming (Every 3 years)	Any	Per Tree	
13.	Tree Removal	n/a	Per inch dia.	
14.	Stump Grinding	n/a	Per inch dia.	
15.	Furnish & Plant Tree	#15	Per Tree	
16.	Per City Engineering Standards	24" box	Per Tree	
17.		36" box	Per Tree	
18.	Three (3) Person Crew with Equipment-Regular Time	n/a	Per Hour	
19.	Three Person Crew with Equipment-	n/a	Per Hour	

	Emergency Rate (2-hour response time)			
20.	Certified Arborist	n/a	Per Hour	
21.	Minimum for emergency response	n/a	Hours	

REFERENCES

Number of years engaged in providing the services included within the scope of the specifications under the present business name:_____.

Describe fully the last three contracts performed by your firm that demonstrate your ability to provide the services included with the scope of the specifications. Attach additional pages if required. The City reserves the right to contact each of the references listed for additional information regarding your firm's qualifications.

Reference No. 1:

Agency Name	
Contact Name	
Telephone & Email	
Street Address	
City, State, Zip Code	
Description of services provided including contract amount, when provided and project outcome	

Reference No. 2:

Agency Name	
Contact Name	
Telephone & Email	
Street Address	
City, State, Zip Code	
Description of services provided including contract amount, when provided and project outcome	

Reference No. 3

Agency Name	
Contact Name	
Telephone & Email	
Street Address	
City, State, Zip Code	
Description of services provided including contract amount, when provided and project outcome	

STATEMENT OF PAST CONTRACT DISQUALIFICATIONS

The proposer shall state whether it or any of its officers or employees who have a proprietary interest in it, has ever been disqualified, removed, or otherwise prevented from bidding on, or completing a federal, state, or local government project because of the violation of law, a safety regulation, or for any other reason, including but not limited to financial difficulties, project delays, or disputes regarding work or product quality, and if so to explain the circumstances.

- ***Do you have any disqualification as described in the above paragraph to declare?***

  Yes No

- ***If yes, explain the circumstances.***

Executed on _____at _____ under penalty of perjury of the laws of the State of California, that the foregoing is true and correct.

_____
Signature of Authorized Proposer Representative

Council Agenda Correspondence

DATE: June 15, 2021

TO: Mayor and Council

FROM: Aaron Floyd, Utilities Director
Jennifer Thompson, Utilities Business Manager

VIA: Derek Johnson, City Manager

SUBJECT: Item 7.a – WATER AND SEWER RATE HEARING

Attached are comments and correspondence enclosed with Proposition 218 water and sewer rate protests. The table on the first page contains comments written on Proposition 218 protest ballots. The following pages are correspondence received separate from protest ballots.

Staff wishes to clarify some of the concerns raised in the attached correspondence:

Fixed vs. Volumetric Costs

In 2018, the City conducted a comprehensive water and sewer rate study. The primary goal of that study was to ensure that the water and sewer rate structure is compliant with the Proposition 218 proportionality requirement: the amount of a fee or charge imposed upon a parcel or person as an incident of property ownership shall not exceed the proportional costs of the service attributable to that parcel. The current rate structure was specifically developed to focus on the proportional cost of service to each customer class and the proportionality between the fixed and volumetric costs of service for each customer class. Fixed rates are approximately 25% of water and sewer rate revenue and volumetric rates are approximately 75% of water and sewer rate revenue. Rate increases are equally applied to both fixed and volumetric costs to maintain the proportionality between the two types of rates.

Development Contribution to Water and Sewer through Impact Fees

The comprehensive rate study also assumed that a portion of existing and future water and sewer system improvements will be funded by new development through water and wastewater development impact fees. Water and wastewater development impact fees collected from new development offset rate increases because additional revenue from development means that less revenue is needed from current rate payers. The improved ability to project development impact fees, as discussed in the Council Agenda Report, is one of the primary reasons that the current rate increase is less than originally projected.

Sewer Caps (Average Winter Water Use)

The City's sewer charges are tied to water usage, but residential property sewer charges are capped at the average of that property's average winter water use. Water usage is tracked from December through February when irrigation systems should be off. The average usage during those months becomes the maximum number of units that customer will pay each month for sewer for the next year. The sewer cap should be close to the amount that a property discharges into the sewer system because it does not include irrigation use.

Customers are notified each year prior to the winter average period beginning so that they are prepared to turn their irrigation water off or down.

Affordability and Customer Assistance Program

The Utilities department is aware that the water and sewer bill is a large expense for some households. Proposition 218 requires that water and sewer rates not exceed the reasonable cost to provide the service and that each customer only be charged what it costs to provide their individual service. In short, one customer cannot subsidize another. As such, it is difficult to legally offer customers discounted rates or fee waivers.

That being said, the City Council did adopt a revised, non-rate funded Customer Assistance Program (CAP) on June 1. The purpose of the revised CAP is to allow more customers to qualify for a 15% discount on their water and sewer bill. This program is funded through late fees collected from customers who do not pay their bills on time. It is important to note that all types of customers across the City are subject to the same, already established, late fees. This includes large corporate customers, other businesses, and all types of residential customers. All eligible customers are welcome to apply online now at slocity.org/ub.

Council Agenda Correspondence

DATE: June 15, 2021

TO: Mayor and Council

FROM: Aaron Floyd, Utilities Director
Jennifer Thompson, Utilities Business Manager

VIA: Derek Johnson, City Manager

SUBJECT: Item 7.a – WATER AND SEWER RATE HEARING

The City's water rates were developed as part of a comprehensive cost-of-service methodology that fairly apportions costs to all customers. As a part of that comprehensive study, the City Council established five water rate structure goals:

1. Revenue stability and predictability.
2. Discourage wasteful use.
3. Stability and predictability of rates.
4. Fair allocation of total cost of service to customer classes.
5. Reflect all present and future costs.

The rates are based on the American Water Works Association M1 Manual methodology to meet the requirements of California constitution article XIII D, section 6, commonly referred to as Proposition 218 (Prop 218).

The Utility bill is composed of a base fee and a volumetric fee. The base fee is intended to provide revenue stability and predictability, which allows for improved revenue forecasting, and is applied to all customer accounts. This base is also representative of continual water availability to the property for purposes such as firefighting. Water bills also contain a volumetric portion that is reflective of how much water is actually used.

This volumetric portion is tiered for single residential customers, as described below, to reflect the additional costs associated with larger infrastructure needed to store and move larger volumes of water throughout the water distribution system. By this tiered system approach, those that use more water, pay a higher price when the higher tiers are reached.

Lack of a base fee during the last drought caused the need for a drought surcharge as the community used less water while most of the Utilities Department's operational and debt costs remain fixed.

The City's Cost of Service Study describes customer class characteristics, identifies unit costs, and equitably allocates costs among the City's customer classes based upon that customer class' impact on the water system. This analysis looked at water consumption, seasonal usage patterns, water meter sizes, and other factors to determine service-related cost factors.

The water rates are divided into four classes of service, each with a different rate structure and different rates based upon the usage patterns of that type of customer.

1. ***Single-family Residential***
   Single-family residential customers are charged a fixed monthly base fee and a three-tiered consumption charge.

	2021-22	2022-23
Monthly Base Fee	$23.31	$24.12
Tier 1 (1 to 5 units)	$6.67	$6.90
Tier 2 (6 to 12 units)	$7.77	$8.04
Tier 3 (13+ units)	$14.24	$14.74

2. ***Multi-family Residential***
   Multi-family residential customers are charged a monthly base fee based upon their meter size and a uniform consumption charge for every unit of water used.

	2021-22	2022-23
Monthly Base Fee (Depending on meter size)	$23.31 - $1,201.35	$24.12 - $1,286.92
All Use	$7.62	$7.88

3. ***Non-residential***
   Non-residential customers are charged a monthly base fee based upon their meter size and a uniform consumption charge for every unit of water used.

	2021-22	2022-23
Monthly Base Fee (Depending on meter size)	$23.31 - $1,201.35	$24.12 - $1,286.92
All Use	$9.24	$9.57

4. ***Landscape irrigation***
   Landscape irrigation customers are charged a monthly base fee based upon their meter size and a uniform consumption charge for every unit of water used.

	2021-22	2022-23
Monthly Base Fee (Depending on meter size)	$23.31 - $1,201.35	$24.12 - $1,286.92
All Use	$11.33	$11.73

Department: Utilities
Cost Center: 6105
For Agenda of: 6/15/2021
Placement: Public Hearing
Estimated Time: 30 minutes

FROM: Aaron Floyd, Utilities Director
Prepared By: Jennifer Thompson, Utilities Business Manager

SUBJECT: WATER AND SEWER RATE HEARING

RECOMMENDATION

Adopt a resolution entitled "A Resolution of the Council of the City of San Luis Obispo, California, Establishing Water and Sewer Rates for Fiscal Years 2021-22 and 2022-23," effective July 1, 2021 and July 1, 2022.

DISCUSSION

Background

As enterprise funds, the Water and Sewer Funds finance the City's water and sewer operations almost entirely through rates charged for service. Water and sewer rates must be sufficient to cover operations, capital asset maintenance and improvements, debt obligations, and appropriate reserve levels to keep the Water and Sewer Funds healthy and prepared for unforeseen funding needs.

Recommended water and sewer rate increases for 2021-22 and 2022-23 are ***lower*** than originally projected. The Water Fund is requesting a rate increase of 3.5% effective July 1, 2021 and 3.5% effective July 1, 2022. The most recent rate study, conducted in 2018, projected the water rate increase would need to be 5.5% in 2021 and 5.5% in 2022. The Sewer Fund is requesting a rate increase of 3.5% effective July 1, 2021 and 3.5% effective July 1, 2022. The most recent rate study, conducted in 2018, projected the sewer rate increase would need to be 6.5% effective July 1, 2021 and 6.5% effective July 1, 2022.

The City's rate consultant recently completed a rate confirmation study to confirm or modify the originally forecasted rate increase estimates. As a result of additional revenue from Cal Poly and refined investment and impact fee revenue projections, the rate consultant has now recommended lower than previously projected rate increases.

Table 1: 2021-23 Proposed Rate Increases

	July 1, 2021	July 1, 2022
Water	3.5%	3.5%
Sewer	3.5%	3.5 %

Proposed Water Rate Increase
The water rate increase is driven primarily by the need to maintain consistent and reliable water treatment and delivery service, a high credit rating, and to maintain an adequate working capital balance to cover unanticipated expenses associated with aging infrastructure.

Long Term Fiscal Health and Infrastructure Maintenance
Both the City's source water and treated drinking water infrastructure are aging and need to be continually maintained. The amount of work needed to ensure continued service is high with source water supplied to the City from reservoirs as far as 50 miles away and with over 190 miles of publicly owned drinking water pipelines inside the community, the majority of which have not been replaced since their original construction.

The Water Fund has a bond issuance that requires the Fund to be evaluated and given a credit rating each year. The credit rating ("Fitch Rating") is an indicator of the Fund's overall health and its ability to meet its debt obligations and operating costs. The credit rating is important because it allows the City to access loans for infrastructure projects more readily and at lower interest rates which results in a saving to ratepayers. The Fitch Rating considers, among other things, whether the Water Fund is consistently adjusting rates to keep up with inflation, whether it is maintaining its progress on capital improvements (maintenance and new), and its capital reserve levels. Due to the unprecedented times, during its 2020 credit evaluation, the credit rating agency understood the City's decision to defer the adopted 2020 water rate increase temporarily. However, the credit rating agency noted in its report that future deferments of rate increases would lead to insufficient revenues needed to maintain infrastructure and could result in the Water Fund losing its AA credit rating.

The Water Fund aims to maintain a minimum $10,000,000 working capital balance[1] to prepare the Fund for unforeseen emergencies. As mentioned above, the credit rating also considers reserve levels. The Utilities Department strives to anticipate upcoming capital improvement needs, but aging infrastructure occasionally leads to unexpected, emergency repairs. In recent years, working capital has been used for an emergency repair within the pipe gallery at the Water Treatment Plant and to procure an emergency generator to ensure the Water Treatment Plant can continue operating in the event of a Public Safety Power Shutoff (PSPS) event.

[1] The minimum fund balance is 90 days operating & maintenance expense ($2.6 million) plus average annual capital investment ($7.2 million).

An unreserved working capital that drops below minimum levels will jeopardize the Fund's ability to react to emergencies and maintain its high credit rating.

Staff recommends water rates be increased 3.5% effective July 1, 2021 and 3.5% effective July 1, 2022 to maintain the fund's credit rating, to mitigate the declining capital balance, and to continue to provide reliable essential services. This action would increase the water portion of the average residential bill by $1.94[2] per month.

Proposed Sewer Rate Increase

The sewer rate increase is driven by the need to prepare for the cost of the Water Resource Recovery Facility (WRRF) upgrade, to maintain consistent sewer collection infrastructure and service, and to maintain an adequate working capital balance.

Long Term Fiscal Health and Infrastructure Maintenance

Based upon aging wastewater infrastructure, the Sewer Fund needs to continue replacement of sewer mainlines to reduce inflow and infiltration into the collection system, reduce scheduled maintenance, increase capacity to allow for development, and reduce wastewater overflows. The Sewer Fund is also preparing for the costs of near-term projects including the potential relocation of the Wastewater Collection shop as it is projected to be impacted by the City's Prado Road Overpass project, operational costs associated with the WRRF upgrade, and a nearly $6 million per year WRRF upgrade debt payment.

The Sewer Fund aims to maintain a minimum $15,000,000 working capital balance[3]. This balance was increased over the past several years to manage the cash flow and financing requirements of the Water Resource Recovery Facility (WRRF) upgrade project. As the project nears completion, this amount will return to the $15,000,000 target.

Staff recommends sewer rates be increased 3.5% effective July 1, 2021 to maintain the working capital balance for the WRRF upgrade, to prepare for the annual $6 million debt payment, address the aging wastewater collection system, and to continue to provide essential services. This will increase the sewer portion of the average customers' bill by $2.22[4] per month.

Protest Procedures

The City sent out 19,947 written notices of the proposed assessment and ballots (see Attachment B) in late April 2021 in compliance with Proposition 218 (Prop 218). Under Prop 218, property owners and/or customers directly responsible for the payment of the rate subject to the proposed increase may submit a written protest against the proposed rate increases.

[2] Based upon 5 units of consumption.

[3] The minimum fund balance is 90 days operating & maintenance expense ($2.2 million) plus average annual rate-funded capital investment excluding the WRRF upgrade ($12.8 million).

[4] Based upon 5 units of consumption and a sewer cap of 8.

The protest must be submitted on the form provided by the City, received by the City Clerk at or before the June 15, 2021 public hearing, identify which rate, water and/or sewer, is being protested, and contain the address of the property receiving service. The party signing the protest must be listed on the account as the person responsible for payment of the water bill and/or the property owner. If a protest is submitted by the owner and by the tenant responsible for payment of the water bill, then one valid protest is counted for the account.

If written protests are filed by a majority (50% + 1), the proposed water rate structure and rates may not be imposed. A majority of the City's 15,794 water customers is 7,898. As of May 13, 2021, a total of 192 water and 196 sewer written protests were received by the Office of the City Clerk. All protests will need to be validated regarding property ownership and duplicate addresses. The City Clerk will provide an updated summary of the protests received at the conclusion of the public hearing on June 15, 2021.

Previous Council or Advisory Body Action
In May 2018, the City Council reviewed the "Comprehensive Water & Wastewater Rate Study." In June 2020, the City Council deferred the adopted 5.5% water and 5.0% sewer 2020-21 rate increase. In December 2020, the City Council implemented the adopted 2020-21 rate increase at a lower level: 3.6% for water and 3.6% for sewer.

Policy Context
Water and sewer rates are subject to the requirements of Article XIIID, Section 6 of the California Constitution (Proposition 218).

Public Engagement
In compliance with the Proposition 218 noticing schedule, the City of San Luis Obispo mailed a notice to each property owner and water and sewer customer in the City in April 2021. The notice included the two years proposed rate increases, a summary of the purpose of the increase, and instructions on how to protest the proposed increase. Less than 800 of the 15,794 water and sewer customers had protested the proposed rate increase as of May 13, 2021.

If the rate increase is approved, customers will be notified of the July 1, 2021 rate increase via utility bill insert, social media, and the City website.

CONCURRENCE

The City's Finance Department concurs with the recommended action.

ENVIRONMENTAL REVIEW

Environmental Quality Act (CEQA) under Section 15273 of the CEQA Guidelines because the change in fees is not intended to fund expansion of capital projects not otherwise evaluated under CEQA. Therefore, no environmental review is required for this item.

FISCAL IMPACT

Budgeted: Yes
Budget Year: 2022 and 2023
Funding Identified: N/A

Fiscal Analysis:

Funding Sources	Current Rate Revenue Budget	Recommended Increase	Rate Revenue Budget with Increase
Water Fund	$22,482,863	$786,900	$23,269,763
Sewer Fund	$17,395,214	$608,832	$18,004,046
Total	**$39,878,077**	**$1,395,732**	**$41,273,809**

The proposed rate increase will increase water sales revenue by $786,900 in 2021-22 and will increase sewer sales revenue by $608,832 in 2021-22. This additional revenue was included in the water and sewer budget adopted on June 1, 2021.

ALTERNATIVES

1. ***Do not approve implementation of the water and sewer rate increases***. This is not recommended because the health of the Water and Sewer funds and their ability to provide essential services relies upon rate increases.
2. ***Approve a rate increase for water or sewer, not both***. This is not recommended because the health of both the Water and Sewer funds and their ability to provide essential services relies upon rate increases.
3. ***Approve a rate increase that is less than 3.5%***. This is not recommended because the health of the Water and Sewer funds and their ability to provide essential services relies upon rate increases. A lower rate increase now may drive the need for a higher rate increase in the future.

ATTACHMENTS

A – Draft Resolution
B – Proposition 218 Notification

RESOLUTION N0. (2021 SERIES)

A RESOLUTION OF THE COUNCIL OF THE CITY OF SAN LUIS OBISPO, CALIFORNIA, ESTABLISHING WATER AND SEWER RATES FOR FISCAL YEARS 2021-22 AND 2022-23

WHEREAS, it is the policy of the City of San Luis Obispo to review enterprise fund rates on an ongoing basis and to adjust them as required to ensure that they remain equitable and adequate to fully cover the cost of providing services; and

WHEREAS, a comprehensive water and sewer rate study was completed in May 2018 by HDR Engineering, Inc including analysis of Water and Sewer Fund operating, capital, and debt service needs for fiscal years 2018-19 through 2022-23; and

WHEREAS, a water and sewer rate study update was completed in March 2021 by HDR Engineering, Inc. including analysis of Water and Sewer Fund operating, capital, and debt service needs for fiscal years 2021-22 through 2022-23; and

WHEREAS, on June 1, 2021 the City Council reviewed the Water and Sewer Fund based on updated revenue and expenditure information necessary to meet system operating, capital, and debt service requirements; and

WHEREAS, a public hearing was properly noticed and held on June 15, 2021; and

WHEREAS, a majority protest, as contemplated by Article XIII D of the California Constitution, was not received by the conclusion of the public hearing.

NOW, THEREFORE, BE IT RESOLVED, by the Council of the City of San Luis Obispo as follows:

SECTION 1. The water rates, and water system access charges set forth in Exhibit "A" are hereby adopted, establishing water rates, and water system access charges effective July 1, 2021 and July 1, 2022. Resolution No. 11202 (2020 Series) is hereby rescinded effective 11:59 p.m. June 30, 2021.

SECTION 2. The sewer rates set forth in Exhibit "B" are hereby adopted, establishing sewer rates effective July 1, 2021 and July 1, 2022. Resolution No. 11202 (2020 Series) is hereby rescinded effective 11:59 p.m. June 30, 2021.

Upon motion of Council Member _____, seconded by City Council Member _____, and on the following roll call vote:

AYES:
NOES:
ABSENT:

The foregoing resolution was adopted this ___ day of _____ 2021.

_____
Mayor Heidi Harmon

ATTEST:

_____
Teresa Purrington
City Clerk

APPROVED AS TO FORM:

_____
J. Christine Dietrick
City Attorney

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the official seal of the City of San Luis Obispo, California, on _____.

_____
Teresa Purrington
City Clerk

EXHIBIT A: 2021-22 and 2022-23 Water Rates

Residential:

	Proposed 2021-22 Rates	Proposed 2022-23 Rates
Monthly Base Fee	$23.31	$24.12

Usage (per unit cost)[1]		
Tier 1: 0 to 5 units	$6.67	$6.90
Tier 2: 6 to 12 units	$7.77	$8.04
Tier 3: 13+ units	$14.24	$14.74

Multi-Family, Non-Residential, Irrigation:

	Proposed 2021-22 Rates	Proposed 2022-23 Rates
Base Fee by Water Meter Size		
¾ inch or less	$23.31	$24.12
1-inch meter	$38.92	$40.28
1.5-inch meter	$77.67	$80.38
2-inch meter	$124.26	$128.61
3-inch meter	$233.15	$241.31
4-inch meter	$388.64	$402.24
6-inch meter	$777.10	$804.30
8-inch meter	$1,243.40	$1,286.92

Usage (per unit cost)[1]		
Multi-Family – all use	$7.62	$7.88
Non-Residential – all use	$9.24	$9.57
Landscape Irrigation – all use	$11.33	$11.73

Water System Access Charge[2]	$94.54	$97.85

NOTES:

1. One Unit = 748 Gallons
2. This charge applies where the City provides fire protection only to businesses that utilize a private well for domestic purposes.

EXHIBIT B: 2021-22 and 2022-23 Sewer Rates

Residential:

	Proposed 2021-22 Rates	Proposed 2022-23 Rates
Monthly Base Fee	$21.15	$21.89
Usage (per unit cost)[1]	$8.88	$9.19

Multi-Family and Non-Residential:

	Proposed 2021-22 Rates	Proposed 2022-23 Rates
Base Fee by Water Meter Size		
¾ inch or less	$21.15	$21.89
1-inch meter	$35.31	$36.55
1.5-inch meter	$70.40	$72.86
2-inch meter	$112.69	$116.63
3-inch meter	$211.43	$218.83
4-inch meter	$352.45	$364.78
6-inch meter	$704.68	$729.34
8-inch meter	$1,127.53	$1,166.99
10-inch meter	$1,620.99	$1,677.72
Usage (per unit cost)[1]	$8.88	$9.19

NOTES:
1. One Unit = 748 Gallons

NOTICE OF PUBLIC HEARINGS FOR PROPOSED RATE INCREASES FOR WATER AND SEWER SERVICES

This notice is provided to all property owners and customers who currently receive water and sewer services from the City of San Luis Obispo. The San Luis Obispo City Council will be holding public hearings to consider proposed adjustments to water and sewer rates. The hearings will be held on:

DATE: **June 15, 2021**
TIME: **6:00 PM**
PLACE: **Webinar**
https://www.slocity.org/government/mayor-and-city-council/agendas-and-minutes

The public hearings will cover the proposed rate increases over two years (from July 1, 2021 to June 30, 2022 and from July 1, 2022 to June 30, 2023) for water and sewer services. If adopted, the proposed rate increases will become effective on July 1, 2021 and on July 1, 2022.

This Notice of Public Hearings provides information about increases to the City's water and sewer rates pursuant to the requirements of California Constitution Article XIII (commonly referred to as Proposition 218). This notice provides information on (1) reasons for the rate adjustments, (2) how water and sewer rates are calculated, (3) how customers can receive more information on the effect of the proposed changes to their water and sewer bills, and (4) how to file a protest against the proposed rate increases.

What is Proposition 218?

In November 1996, California voters approved Proposition 218. As a result, California agencies must comply with its requirements when setting utility rates. One provision requires that a noticed public hearing on utility rates be held and that rates not be increased if a majority of affected property owners protest the increased rates in writing.

Why Are Increased Water and Sewer Rates Necessary?

Several factors drive the need to increase the City's water and sewer rates, some of which are:

- Infrastructure age and condition
- Regulatory requirements
- Increased equipment, maintenance, and operational costs
- Bond financing requirements (debt covenants)

What Do Water and Sewer Rates Pay For?

The City's water and sewer operations rely on rate revenue to pay for operation and maintenance, infrastructure replacement, and debt service. General funds (such as property tax or sales tax) do not support these essential services. Utilities must generate sufficient income through water and sewer rates to cover expenditures, debt service, and maintain a reasonable operating reserve. Water and sewer services are provided 24 hours a day, seven days a week, 365 days a year.

Rates for both water and sewer service include maintaining and replacing critical infrastructure, meeting regulations related to public health, and paying the people who provide these essential services. Water rates pay for all costs associated with bringing water from surface reservoirs to the City's water treatment plant and distributing drinking water to over 15,000 connections. Sewer rates pay for all costs associated with the conveyance of disposed water from each connection to the facility where the wastewater is treated and valuable resources, such as energy, recycled water, and compost, are recovered. The treated water is used for irrigation or discharged into San Luis Obispo Creek for wildlife habitat.

The proportionate share of system expansion costs to serve new development is recovered through water and wastewater development impact fees imposed on the developer requesting City services. By State law (Assembly Bill 1600), the City may not collect more revenue than is necessary to recover the costs of providing services.

Basis Upon Which Water and Sewer Rates Are Calculated

The proposed rates are calculated to recover the cost of providing water and sewer services and to proportionately allocate the costs among the users. To derive the proportionality, the City completed a comprehensive Cost of Services Study in 2018 to look out five years. Additional analysis was conducted in 2021 to confirm revenue projections and expenses and determine the proposed water and sewer rates for the next two fiscal years. The water and sewer rate structures, updated in 2018, recognize different customer classes and their proportionate costs associated with the system. Based on the analysis, water rates are proposed to increase 3.5 percent in 2021-22 and 3.5 percent in 2022-23, and sewer rates are proposed to increase 3.5 percent in 2021-22 and 3.5 percent in 2022-23. If approved, the proposed water and sewer rates would become effective on July 1 of each fiscal year.

WATER RATES

Residential:

	Current Rates[1]	Proposed 2021-22 Rates	Proposed 2022-23 Rates
Monthly Base Fee	$22.52	$23.31	$24.12
Usage (per unit cost)[2]			
Tier 1: 0 to 5 units	$6.44	$6.67	$6.90
Tier 2: 6 to 12 units	$7.51	$7.77	$8.04
Tier 3: 13+ units	$13.76	$14.24	$14.74

Multi-Family, Non-Residential, Irrigation:

	Current Rates[1]	Proposed 2021-22 Rates	Proposed 2022-23 Rates
Base Fee by Water Meter Size	**Monthly Base Fee**		
¾ inch or less	$22.52	$23.31	$24.12
1-inch meter	$37.60	$38.92	$40.28
1.5-inch meter	$75.04	$77.67	$80.38
2-inch meter	$120.06	$124.26	$128.61
3-inch meter	$225.27	$233.15	$241.31
4-inch meter	$375.50	$388.64	$402.24
6-inch meter	$750.82	$777.10	$804.30
8-inch meter	$1,201.35	$1,243.40	$1,286.92
Usage (per unit cost)[2]	**Per Unit Cost**		
Multi-Family – all use	$7.36	$7.62	$7.88
Non-Residential – all use	$8.93	$9.24	$9.57
Landscape Irrigation – all use	$10.95	$11.33	$11.73
Water System Access Charge[3]	$91.34	$94.54	$97.85

WATER RATES NOTES:

1. Current rates effective February, 1 2021 (deferred July 2020)
2. One Unit = 748 Gallons
3. This charge applies where the City provides fire protection only to businesses that utilize a private well for domestic purposes.

SEWER RATES

For single-family and multi-family residential customers, a winter water use average is the three-month average of water use during December, January, and February. This is also referred to as a "sewer cap" and is the basis of the usage portion of the customer's monthly sewer charges. For non-residential customers, all "usage" is based on monthly metered water consumption.

Usage:

	Current Rates[1]	Proposed 2021-22 Rates	Proposed 2022-23 Rates
Single-Family and Multi-Family Residential Per Unit Cost (Up to Sewer Cap)[2]	$8.58	$8.88	$9.19
Non-Residential Per Unit Cost (for All Water Consumption)[2]	$8.58	$8.88	$9.19

Monthly Base Fee:

	Current Rates[1]	Proposed 2021-22 Rates	Proposed 2022-23 Rates
Single-Family Residential	$20.43	$21.15	$21.89
Multi-Family and Non-Residential By Water Meter Size:			
¾ inch or less	$20.43	$21.15	$21.89
1-inch meter	$34.12	$35.31	$36.55
1.5-inch meter	$68.02	$70.40	$72.86
2-inch meter	$108.88	$112.69	$116.63
3-inch meter	$204.28	$211.43	$218.83
4-inch meter	$340.53	$352.45	$364.78
6-inch meter	$680.85	$704.68	$729.34
8-inch meter	$1089.40	$1,127.53	$1,166.99
10-inch meter	$1,566.17	$1,620.99	$1,677.72

SEWER RATES NOTES:

1. Current rates effective February 1, 2021 (deferred July 2020)
2. One Unit = 748 Gallons

How would the Proposed Rate Increases Impact my Water and Sewer Bill?

Under the proposed rate changes, a typical single-family home using six units of water per month can expect the water portion of their monthly bill to increase from $62.23 to $64.43 in July 2021, and to $66.66 in July 2022. A typical single-family home with a sewer cap of four units can expect the sewer portion of their monthly bill to increase from $54.75 to $56.67 in July 2021, and to $58.65 in July 2022.

Average Monthly Residential Bill under Current Rates		Average Monthly Residential Bill under Proposed Rates	
		2021-22 Rates, Effective July 1, 2021	2022-23 Rates, Effective July 1, 2022
Water (base fee + six units)	$62.23	$64.43	$66.66
Sewer (base fee + four units)	$54.75	$56.67	$58.65
Total Monthly Bill:	**$116.98**	**$121.10**	**$125.31**

How Can I Find Out More About the Proposed Rate Increases?

To calculate how the proposed water and sewer rates affect your bill, visit www.slocity.org/waterservice and click on "Calculate My Bill". If you keep your monthly water and sewer bill, you can look back at the units of water used and your residential sewer cap to determine how the proposed rate will impact your bill. Look up your bill online by going to www.slocity.org/ub and click "Online Payments" followed by "Pay Utility Bill". Please call the City of San Luis Obispo Utilities Department at 805-781-7133 for assistance.

Utilities Department
879 Morro Street, San Luis Obispo, CA 93401

How Do I Protest the Proposed Water and/or Sewer Rate?

Under Proposition 218, if you are the owner of record of a parcel or parcels or a tenant directly liable for payment of the water and sewer bill, you may submit a written protest against the proposed changes to the water or sewer rates presented in this notice. Only one written protest per affected property will be counted towards the majority protest. If written protests are filed by a majority of the affected parcel owners and/or customers, the proposed rate increases will not be imposed. Although oral comments at the public hearing will not qualify as formal protests unless accompanied by a written protest, the Mayor and City Council welcome input from the community during the public hearing.

It Is Important to Follow These Instructions for Your Protest to Be Valid:

1. **The protest must be submitted and received by the City Clerk at or before the end of the public hearing on Tuesday, June 15, 2021.** Written protests may be mailed or personally delivered to the City of San Luis Obispo, City Clerk Office, 990 Palm Street, San Luis Obispo, CA 93401. **E-mail and fax protests will not be valid.**
2. The box(es) identifying that you are protesting the water and/or sewer rates **must** be checked.
3. The written protest **must** contain the service address.
4. The protest **must** be signed by either the account holder or the property owner of the service address.

The protest form provided below is your official form. This form can either be mailed or personally delivered to the City of San Luis Obispo, City Clerk Office, 990 Palm Street, San Luis Obispo, CA 93401. For owners of multiple properties, additional protest forms are available at the City Clerk Office.

PROPOSED WATER AND/OR SEWER RATE INCREASE PROTEST FORM

NAME (please print): _____

SERVICE ADDRESS (please print): _____

DATE: _____

☐ I am protesting the proposed Sewer Rate (check the box)

☐ I am protesting the proposed Water Rate (check the box)

_____

SIGNATURE (above)

☐ Property Owner ☐ Account Holder

City of San Luis Obispo Utilities Department

NOTICE OF PUBLIC HEARINGS FOR PROPOSED RATE INCREASES FOR WATER AND SEWER SERVICES

Para acceder este aviso en español, por favor visite www.slocity.org/waterandsewerrates.

This notice is provided to all property owners and customers who currently receive water and sewer services from the City of San Luis Obispo. The San Luis Obispo City Council will be holding a public hearing to consider proposed adjustments to water and sewer rates. The hearing will be held on:

DATE: June 15, 2021
TIME: 6:00 PM
PLACE: Webinar
https://www.slocity.org/government/mayor-and-city-council/agendas-and-minutes

This Notice of Public Hearings provides information about increases to the City's water and sewer rates pursuant to the requirements of California Constitution Article XIII (commonly referred to as Proposition 218). This notice provides information on (1) reasons for the rate adjustments, (2) how water and sewer rates are calculated, (3) how customers can receive more information on the effect of the proposed changes to their water and sewer bills, and (4) how to file a protest against the proposed rate increases. The meeting agenda will be made available approximately 1 week before the June 15th meeting.

What is Proposition 218?

In November 1996, California voters approved Proposition 218. As a result, California agencies must comply with its requirements when setting utility rates. One provision requires that a noticed public hearing on utility rates be held and that rates not be increased if a majority of affected property owners protest the increased rates in writing.

Why Are Increased Water and Sewer Rates Necessary?

Several factors drive the need to increase the City's water and sewer rates, some of which are:

- Aging water and sewer pipelines
- Regulatory requirements
- Increased equipment, maintenance, and operational costs
- Bond financing requirements (debt covenants)

What Do Water and Sewer Rates Pay For?

The City's water and sewer operations rely on rate revenue to pay for operations and maintenance, infrastructure replacement, and debt service. General funds (such as property tax or sales tax) do not support these essential services. Utilities must generate sufficient income through water and sewer rates to cover expenditures, debt service, and maintain a reasonable operating reserve. Water and sewer services are provided 24 hours a day, seven days a week, 365 days a year.

Rates for both water and sewer service include operating, maintaining, and replacing critical infrastructure, meeting regulations related to public health, and employing the people who provide these essential services. Water rates pay for all costs associated with bringing water from surface reservoirs to the City's water treatment plant and distributing drinking water to over 15,000 connections. Sewer rates pay for all costs associated with the conveyance of disposed water from each connection to the facility where the wastewater is treated and valuable resources, such as energy, recycled water, and compost, are recovered.

The proportionate share of system expansion costs to serve new development is recovered through water and wastewater development impact fees imposed on the developer requesting City services. By State law (Assembly Bill 1600), the City may not collect more revenue than is necessary to recover the costs of providing services.

Basis Upon Which Water and Sewer Rates Are Calculated

The proposed rates are calculated to recover the cost of providing water and sewer services and to proportionately allocate the costs among the users. To derive the proportionality, the City completed a comprehensive Cost of Services Study in 2018 to look out five years. Additional analysis was conducted in 2021 to confirm revenue projections and expenses and determine the proposed water and sewer rates for the next two fiscal years. The water and sewer rate structures, updated in 2018, recognize different customer classes and their proportionate costs associated with the system. Based on the analysis, water rates are proposed to increase 3.5 percent in 2021-22 and 3.5 percent in 2022-23, and sewer rates are proposed to increase 3.5 percent in 2021-22 and 3.5 percent in 2022-23. If approved, the proposed water and sewer rates would become effective on July 1 of each fiscal year.

WATER RATES

Residential:

	Current Rates	Proposed 2021-22 Rates	Proposed 2022-21 Rates
Monthly Base Fee	$22.52	$23.31	$24.12

Usage (per unit cost)[2]			
Tier 1: 0 to 5 units	$6.44	$6.67	$6.90
Tier 2: 6 to 12 units	$7.51	$7.77	$8.04
Tier 3: 13+ units	$13.76	$14.24	$14.74

Multi-Family, Non-Residential, Irrigation:

	Current Rates	Proposed 2021-22 Rates	Proposed 2022-21 Rates
Base Fee by Water Meter Size	**Monthly Base Fee**		
3/4 in or less	$22.52	$23.31	$24.12
1-inch meter	$37.60	$38.92	$40.28
1.5-inch meter	$75.04	$77.67	$80.38
2-inch meter	$120.06	$124.26	$128.61
3-inch meter	$225.27	$233.15	$241.31
4-inch meter	$375.50	$388.64	$402.24
6-inch meter	$750.82	$777.10	$804.30
8-inch meter	$1,201.35	$1,243.40	$1,286.92

Usage (per unit cost)[2]	**Per Unit Cost**		
Multi-Family - All Use	$7.36	$7.62	$7.88
Non-Residential - All Use	$8.93	$9.24	$9.57
Landscape Irrigation - All Use	$10.95	$11.33	$11.73

Water System Access Charge [3]	$91.34	$94.54	$97.85

Water Rate Notes

1. Current rates effective February 1, 2021 (deferred from July 2020)
2. One Unit= 748 Gallons
3. This charge applies where the City provides fire protection only to businesses that utilize a private well for domestic purposes.

SEWER RATES

For single-family and multi-family residential customers, a winter water use average is the three-month average of water use during December, January, and February. This is also referred to as a "sewer cap" and is the basis of the usage portion of the customer's monthly sewer charges. For non-residential customers, all "usage" is based on monthly metered water consumption.

Usage:

	Current Rates	Proposed 2021-22 Rates	Proposed 2022-23 Rates
Single-Family and Multi-Family Residential Per Unit Cost (Up to Sewer Cap) [2]	$8.58	$8.88	$9.19
Non-Residential Per Unit Cost (for All Water Consumption)	$8.58	$8.88	$9.19

Monthly Base Fee:

	Current Rates [1]	Proposed 2021-22 Rates	Proposed 2022-23 Rates
Single-Family Residential	$20.43	$21.15	$21.89
Single-Family and Multi-Family Residential by Water Meter Size			
3/4 in or less	$20.43	$21.15	$21.89
1-inch meter	$34.12	$35.31	$36.55
1.5-inch meter	$68.02	$70.40	$72.86
2-inch meter	$108.88	$112.69	$116.63
3-inch meter	$204.28	$211.43	$218.83
4-inch meter	$340.53	$352.45	$364.78
6-inch meter	$680.85	$704.68	$729.34
8-inch meter	$1,089.40	$1,127.53	$1,166.99
10-inch meter	$1,566.17	$1,620.99	$1,677.72

Sewer Rate Notes

1. Current rates effective February 1, 2021 (deferred from July 2020)
2. One Unit= 748 Gallons

How Would the Proposed Rate Increases Impact my Water and Sewer Bill?

Under the proposed rate changes, a typical single-family home using five units of water per month can expect the water portion of their monthly bill to increase from $54.72 to $56.66 in July 2021, and to $58.62 in July 2022. A typical single-family home with a sewer cap of five units can expect the sewer portion of their monthly bill to increase from $63.33 to $65.55 in July 2021, and $67.84 in July 2022.

Average Monthly Residential Bill under Current Rates	
Water (base fee + five units)	$54.72
Sewer (base fee + five units)	$63.33
Total Monthly Bill:	**$118.05**

Average Monthly Residential Bill Under Proposed Rates	
2021-22 Rates, Effective July 1, 2021	**2022-23 Rates, Effective July 1, 2022**
$56.66	$58.62
$65.55	$67.84
$122.21	**$126.46**

How Can I Find Out More About the Proposed Rate Increase?

To calculate how the proposed water and sewer rates affect your bill, visit www.slocity.org/waterservice and click on "Calculate My Bill". If you keep your monthly statement, you can look back at the units of water used and your residential sewer cap to see what the same bill looks like under the new rates. You can also view your bill online by going to www.slocity.org/paywaterbill and registering for an account on our payment website. Please call the City of San Luis Obispo Utilities Department at 805-781-7133 for assistance.

Utilities Department

879 Morro Road, San Luis Obispo, 93401

How Do I Protest the Proposed Water and/or Sewer Rate?

Under Proposition 218, if you are the owner of record of a parcel or parcels or a tenant directly liable for payment of the water and sewer bill, you may submit a written protest against the proposed changes to the water or sewer rates presented in this notice. Only one written protest per affected property will be counted towards the majority protest. If written protests are filed by a majority of the affected parcel owners and/or customers, the proposed rate increases will not be imposed. Although oral comments at the public hearing will not qualify as formal protests unless accompanied by a written protest, the Mayor and City Council welcome input from the community during the public hearing.

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1. **The protest must be submitted and received by the City Clerk at or before the end of the public hearing on Tuesday, June 15, 2021.** Written protests may be mailed to the City of San Luis Obispo, City Clerk Office, 990 Palm Street, San Luis Obispo, CA 93401. **E-mail and fax protests will not be valid.**
2. The box(es) identifying that you are protesting the water and/or sewer rates **must** be checked.
3. The written protest **must** contain the service address.
4. The protest **must** be signed by either the account holder or the property owner of the service address.

The protest form provided below is your official form. This form can be mailed to the City of San Luis Obispo, City Clerk Office, 990 Palm Street, San Luis Obispo, CA 93401. For owners of multiple properties, additional protest forms are available at the City Clerk Office.

Para acceder este aviso en español, por favor visite www.slocity.org/waterandsewerrates.

PROPOSED WATER AND/OR SEWER RATE INCREASE PROTEST FORM

Name (please print): _____

Services Address (please print): _____

Date: _____

☐ I am protesting the proposed Sewer Rate (check the box)

☐ I am protesting the proposed Water Rate (check the box)

_____

Signature

☐ Property Owner ☐ Account Holder

Council Agenda Correspondence

DATE: June 15, 2021

TO: Mayor and Council

FROM: Aaron Floyd, Utilities Director
Jennifer Metz, Utilities Project Manager

VIA: Derek Johnson, City Manager

SUBJECT: Item 7.b. – 2020 URBAN WATER MANAGEMENT PLAN AND 2020 WATER SHORTAGE CONTINGENCY PLAN

Staff identified a mathematical error in the water demand projection for 2025 in Tables 32, 33, and 34 found in Chapter 6, Water Supply Reliability & Drought Risk Assessment, of the draft 2020 Urban Water Management Plan (2020 UWMP) and an error in the notes below each Table. The changes to those are included below in legislative format.

As described in the 2020 UWMP, the City's water demand projections were derived using 117 gallons per capita per day (gpcd) and on population growth to levels identified in the City's General Plan. These factors are higher than current gpcd (94 gpcd in 2020) and the City's current population (45,920 in 2020). With these corrections, the City does not project a water supply shortfall due to conservative water planning.

TABLE 32: Supply and Demand Comparison - Normal Year

	2020 (actual)	2025	2030	2035	2040
Supply totals	10,143	10,337	10,537	10,587	10,637
Demand totals	4,817	7,272	7,713	8,191	8,624
Difference	5,326	~~3,166~~ 3,065	2,824	2,396	2,013

NOTES

1. Department of Water Resources, Table 7-2.
2. Units are in acre-feet per year.
3. Water demand projections for 2025 through 2040 were derived using 117 gpcd and population growth levels identified in the City's General Plan Land Use Element. Both factors are higher than the City's 2020 population and gpcd (~~92~~ 94 gpcd).
4. Supply total includes the City's contractual supply to Nacimiento Reservoir, Safe Annual Yield from Salinas and Whale Rock Reservoirs, and the projected increase in recycled water deliveries.

TABLE 33: Single Dry Year Supply and Demand Comparison

	2020 (actual)	2025	2030	2035	2040
Supply totals	10,143	10,337	10,537	10,587	10,637
Demand totals	4,817	7,272	7,713	8,191	8,624
Difference	5,326	~~3,166~~ 3,065	2,824	2,396	2,013

NOTES

1. Department of Water Resources, Table 7-3.
2. Units are in acre-feet per year.
3. Water demand projections for 2025 through 2040 were derived using 117 gpcd and population growth levels identified in the City's General Plan Land Use Element. Both factors are higher than the City's 2020 population and gpcd (~~92~~ 94 gpcd).
4. Supply total includes the City's contractual supply to Nacimiento Reservoir, Safe Annual Yield from Salinas and Whale Rock Reservoirs, and the projected increase in recycled water deliveries.

TABLE 34: Multiple Dry Year Supply and Demand Comparison

		2020 (actual)	2025	2030	2035	2040
First year	**Supply totals**	10,143	10,337	10,537	10,587	10,637
	Demand totals	4,817	7,272	7,713	8,191	8,624
	Difference	5,326	~~3,166~~ 3,065	2,824	2,396	2,013
Second year	**Supply totals**	10,143	10,337	10,537	10,587	10,637
	Demand totals	4,817	7,272	7,713	8,191	8,624
	Difference	5,326	~~3,166~~ 3,065	2,824	2,396	2,013
Third year	**Supply totals**	10,143	10,337	10,537	10,587	10,637
	Demand totals	4,817	7,272	7,713	8,191	8,624
	Difference	5,326	~~3,166~~ 3,065	2,824	2,396	2,013
Fourth year	**Supply totals**	10,143	10,337	10,537	10,587	10,637
	Demand totals	4,817	7,272	7,713	8,191	8,624
	Difference	5,326	~~3,166~~ 3,065	2,824	2,396	2,013
Fifth year	**Supply totals**	10,143	10,337	10,537	10,587	10,637
	Demand totals	4,817	7,272	7,713	8,191	8,624
	Difference	5,326	~~3,166~~ 3,065	2,824	2,396	2,013

NOTES

1. Department of Water Resources, Table 7-4.
2. The urban water targets determined in this UWMP were considered when developing the 2020 water demands included in this table.
3. Water demand projections for 2025 through 2040 were derived using 117 gpcd and population growth levels identified in the City's General Plan Land Use Element. Both factors are higher than the City's 2020 population and gpcd (~~92~~ 94 gpcd).
4. Supply total includes the City's contractual supply to Nacimiento Reservoir, Safe Annual Yield from Salinas and Whale Rock Reservoirs, and the projected increase in recycled water deliveries.

Department: Utilities
Cost Center: 6001
For Agenda of: 6/15/2021
Placement: Public Hearing
Estimated Time: 30 minutes

FROM: Aaron Floyd, Utilities Director
Prepared By: Mychal Boerman, Deputy Director – Water
Nick Teague, Water Resources Program Manager
Jennifer Metz, Utilities Project Manger

SUBJECT: ADOPTION OF 2020 URBAN WATER MANAGEMENT PLAN AND WATER SHORTAGE CONTINGENCY PLAN

RECOMMENDATION

1. Adopt a Resolution entitled, "A Resolution of the Council of the City of San Luis Obispo, California, adopting the 2020 Urban Water Management Plan;" and
2. Adopt a Resolution entitled, "A Resolution of the Council of the City of San Luis Obispo, California, adopting the 2020 Water Shortage Contingency Plan."

DISCUSSION

Background

The California Urban Water Management Planning Act (Act) is a part of California Water Code (CWC) sections 10610-10656 and 10608. The Act requires urban water suppliers to adopt and submit an updated plan to Department of Water Resources (DWR) every five years. In the Act, urban water suppliers are defined as agencies that provide water for municipal purposes to more than 3,000 customers or supply more than 3,000 acre-feet of water annually (the City meets both criteria).

The City adopted its first Urban Water Management Plan (UWMP) in November 1994 and updated the UWMP in 2000, 2005, 2010, and 2016.[1] The City Council adopted the 2015 UWMP by Resolution 10726 on June 14, 2016. By adopting a technically compliant UWMP, the City remains eligible for State grants, low interest loans, and other assistance.

2020 UWMP and WSCP Requirements

State legislation established new requirements in 2018 for 2020 UWMPs, including standardized requirements for water shortage contingency planning and drought risk assessments. Under the State requirements, water suppliers must now plan for a dry period that lasts for five consecutive years, an increase from the previous requirement of three years. Other required elements of UWMPs include:

[1] For the 2015 UWMP, the state legislature extended the filing deadline to July 1, 2016. Per the CWC, UWMPs are to be updated at least once every five years on or before July 1, in years ending in six and one, incorporating updated and new information from the five years preceding each update.

1. Discussion of local water supplies, with a long-term forecast for each source, including climate change.
2. Assessment of the reliability of water supply sources over a 20-year time frame.
3. Description of demand management measures, also known as conservation measures.
4. Demonstrated compliance with - Senate Bill X7-7 2020.[2]
5. Description of water reliability.
6. Incorporation of land use planning in water demand forecasting.
7. Preparation of a water energy analysis.
8. Inclusion of five previous years of system water losses.

The State-required UWMP sections and corresponding chapters in the City's 2020 UWMP are shown in Table 1. The City's 2020 UWMP is provided as Attachment A to this report.

Table 1 - Required Sections and Corresponding City Chapters

Required Sections (by Water Code):	**City's 2020 UWMP Chapter:**
Introduction and Lay Description	Chapter 1, Introduction
Plan Preparation	
System Description	Chapter 2, Service Area and Water System Description
Customer Water Use	Chapter 3, Past, Current, and Projected Water Use by Sector
Conservation Target Compliance	
System Supplies	Chapter 4, Water Sources Chapter 5, Recycled Water
Water Service Reliability and Drought Risk Assessment	Chapter 6, Water Supply Reliability
Demand Management Measures	Chapter 7, Water Conservation & Demand Management Measures
Plan Adoption, Submittal, & Implementation	• Notices of Public Hearings included in an appendix • Checklist included in an appendix • Electronic submittal following Council Approval

For 2020, the City's Water Shortage Contingency Plan (2020 WSCP) is required to be published separately (Attachment B) from the 2020 UWMP. The 2020 WSCP is the City's action plan for a drought or catastrophic water supply shortage. Although the State's new requirements are more prescriptive than previous versions, many elements have been included in the City's prior plan.

As discussed in the April 13, 2021 Study Session (Attachment C), the 2020 WSCP includes six progressive stages consistent with state requirements, as shown in Table 2 page 3 of this report. Each stage corresponds to an additional ten percent shortage in available water supply.

[2] Senate Bill X7-7 (Water Conservation Act of 2009) is a California state law that requires the state to reduce urban water consumption by 20 percent by the year 2020. The City's 2020 reduction target of 117 GPCD was met and surpassed by the City. The City's 2020 per capita water consumption was 94 GPCD.

As suggested during the Study Session, an action has been added to the 2020 WSCP requiring that the City cease all water sales when entering a water shortage. A section allowing for the use of aerial imagery[3]-based water allotments in place of the traditional days/per week irrigation restrictions and indoor water budgets has also been added, as directed by Council.

Table 2: 2020 Water Shortage Contingency Plan
Water Shortage Response Stages - Quick Reference Guide

STAGE	WATER SUPPLY STATUS[1]	CITY ACTIONS
Monitor	5+ years of available water supply	City maintains existing water conservation staffing levels and budget that supports meeting internal water efficiency goals and regulatory requirements for water conservation, including ongoing public outreach.
Watch	< 5 years of available water supply (up to 10% water shortage)	City increases programs that encourage voluntary water conservation including public outreach, rebate programs, and water efficient fixture giveaways. City examines available alternative water sources (groundwater expansion, recycled water filling stations, water purchase agreements, etc.), City modifies internal operations to focus on decreasing water loss and prepares for subsequent WSCP stages. City ceases any outside-City water sales/leases.
Warning	< 4.5 years of available water supply (up to 20% water shortage)	City implements time of use irrigation restrictions (7:00 PM – 7:00 AM). City increases staffing, budget, and outreach to achieve additional voluntary conservation savings while preparing for Alert-Critical stages.
Alert	< 4 years of available water supply (up to 30% water shortage)	City requires mandatory conservation measures including outdoor irrigation restrictions (four day a week watering) and considers a Water Offset Program for new connections.
Severe	< 3.5 years of available water supply (up to 40% water shortage)	City implements Water Allotment Program. Water Offset Program for new connections may be increased (1.5:1 or 2:1 offset ratio). Allowable irrigation reduced to three days per week.
Extreme	< 3 years of available water supply (up to 50% water shortage)	City continues to implement a Water Allotment Program with reduced allotment levels. Water Offset Program for new connections may be increased (1.5:1 or 2:1 offset ratio). Allowable irrigation reduced to two days per week with optional additional measures limiting turf and spray irrigation.
Critical	< 2.5 year of available water supply (>50% water shortage)	City continues to implement a Water Allotment Program at further reduced levels (minimum for public health and safety). Irrigation no longer permitted. Water Offset Program to cease and no new connections permitted.

***NOTE:** The City's Water Supply Status is informed by the Water Projection Model described in Section 2 of the WSCP, Annual Water Shortage Assessment.*

[3] Aerial imagery are high-resolution photographs taken from an aircraft or drone.

Should the 2020 UWMP and 2020 WSCP be approved by the City Council via the Resolutions provided in Attachment D and Attachment E, staff will return to Council later this year with an update to the City's Water Conservation Ordinance (Chapter 13.07 of the Municipal Code) to establish the regulations and procedures for implementing the 2020 WSCP and update the ordinance to comply with newer requirements under CWC Chapter 3.3: Excessive Residential Water Use During Drought.

Current City Water Supply Status

Utilizing the City's Water Projection Model as part of its water supply management, staff analyzes whether a water supply shortage is anticipated in any given year, and the severity of a shortage based on the availability of the City's different sources of supply and water demand trends. The City uses the model to study the potential impacts of various intensities of drought conditions, including increased temperature and evaporation rates, along with decreased precipitation.

Table 3 - Reservoir Storage

Reservoir	Volume (Acre-Feet)	Percent of Capacity
Salinas	16,267	68.23%
Whale Rock	30,050	77.12%
Nacimiento	123,365	32.64%

NOTES:

1. Reservoir volumes are as of 5/13/2021.
2. City's available balance of Whale Rock Reservoir's total storage volume is 15,295 acre-feet.

Using the Water Projection Model for 2021, the City currently has more than ten years of water available. As of May 2021, the City has over 16,000 acre-feet of water in storage at Salinas Reservoir and its available balance of Whale Rock Reservoir is 15,295 acre-feet. The City requested its full contractual allocation of 5,482 acre-feet of water from Nacimiento Reservoir for 2021.

Ongoing Public Outreach Regarding City Water Supplies

As much of California is experiencing significant drought, the City has received many inquiries regarding water supply status and whether any specific actions are being requested of community members. As described above, City water supplies are secure and adequate to meet community needs for the foreseeable future. No water use restrictions are in place in the City or necessary at this time.

To provide the community with ongoing information on the City's current water supply availability and drought, the Utilities Department established a communications plan and calendar which outlines the methods the City will take to inform the community of current water supply conditions. This plan contains information on written communication efforts such as utility bill stuffers, the quarterly Resource Newsletter, and utilizing updates in local newspapers.

MONITOR STAGE

- ✓ Communicate on the City's Water Supply Status
- ✓ Monitor Community Water Use
- ✓ Encourage Efficient Indoor and Outdoor Water Use (Voluntary Conservation)
- ✓ Identify and Notify Customers of Possible Leaks
- ✓ Enforce Water Efficiency Ordinances

The plan also outlines options for radio and social media content, and a return to public events once COVID-19 restrictions ease or are lifted. The plan focuses efforts on community groups that may be overlooked such as incoming Cal Poly students, the Spanish speaking community, and the City's senior citizen community.

Previous Council or Advisory Body Action
On June 14, 2016, Council adopted the City's 2015 UWMP by Resolution 10726.

The City Council participated in a Study Session on April 13, 2021 on the 2020 Urban Water Management Plan and 2020 Water Shortage Contingency Plan (Attachment 5).

Policy Context
General Plan, Water and Wastewater Management Element, Program A 5.3.3 states *"Prepare and update the Urban Water Management Plan every five years as required by the State."*

On Short-term Water Shortages, General Plan Policy A 6.2.2, states "*Mandatory water conservation measures as described in the City's Water Shortage Contingency Plan, included in the City's Urban Water Management Plan, may be implemented when the City's water supplies are projected to last five years or less."*

Public Engagement
On April 13, 2021, a Study Session was conducted to allow for community input related to the WSCP stages and associated actions.

The City's water planning documents including the 2015 Urban Water Management Plan, 2020 Water Resources Status Report, and General Plan Water and Wastewater Management Element are provided on the Utilities Department webpage, under Documents and Files, at the link below:

https://www.slocity.org/government/department-directory/utilities-department/documents-and-files

A complete draft of the City's 2020 Urban Water Management Plan and 2020 Water Shortage Contingency Plan was made available on the City's website on May 27, 2021.

CONCURRENCE

The City's Community Development and Public Works Departments concur with the recommendations in this report.

ENVIRONMENTAL REVIEW

No environmental review is required for this item. Per California Water Code §10652[4], urban water management planning is statutorily exempt from the California Environmental Quality Act (CEQA).

FISCAL IMPACT

Funding for the on-going implementation of the 2020 Urban Water Management Plan and 2020 Water Shortage Contingency Plan is proposed in the 2021-23 Financial Plan in the Water Fund, Water Administration and Water Resource Program section operating budgets. Adoption of these plans do not create additional costs that are not already outlined in the 2021-23 Financial Plan under consideration at the June 15, 2021 Council meeting.

ALTERNATIVES

The City Council could continue this item for consideration at a future Council meeting and provide additional direction to staff on revisions to the 2020 UWMP and 2020 WSCP. This is not recommended as the 2020 UWMP and 2020 WSCP are required to be submitted to the state by July 1, 2021.

ATTACHMENTS

A – 2020 Urban Water Management Plan
B – 2020 Water Shortage Contingency Plan
C – April 13, 2021 Council Agenda Report, Study Session on 2020 Urban Water Management Plan and Water Shortage Contingency Plan
D – Draft Resolution - Adopting 2020 Urban Water Management Plan
E – Draft Resolution - Adopting 2020 Water Shortage Contingency Plan

[4] 10652. The California Environmental Quality Act (Division 13 (commencing with Section 21000) of the Public Resources Code) does not apply to the preparation and adoption of plans pursuant to this part or to the implementation of actions taken pursuant to Section 10632. Nothing in this part shall be interpreted as exempting from the California Environmental Quality Act any project that would significantly affect water supplies for fish and wildlife, or any project for implementation of the plan, other than projects implementing Section 10632, or any project for expanded or additional water supplies.

2020 Urban Water Management Plan

This plan was adopted on June ____, 2021
pursuant to
San Luis Obispo City Council Resolution
No. _____ (2021 series).

San Luis Obispo City Council

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The City's 2020 Urban Water Management Plan is available for public review at the City's web page at slowater.org

For 2020, the City's Water Shortage Continency Plan is published separately from the 2020 Urban Water Management Plan consistent with State requirements. The 2020 Water Shortage Continency Plan is also available for public review at the City's web page at slowater.org

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For 2020, the City's Water Shortage Continency Plan is published separately from the 2020 Urban Water Management Plan consistent with State requirements.

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Chapter 1: Introduction

This 2020 Urban Water Management Plan (UWMP) describes and evaluates current and projected water supply sources through the year 2040, describes the City's water treatment and distribution system, reports current and projects future water demands, assesses current drought risk and the method used for future drought risk assessment, and identifies water demand management measures.

The City's 2020 UWMP was prepared in accordance with the requirements of the Urban Water Management Planning Act, as amended, and includes the following chapters:

1. Introduction
2. Water Service Area and System Description
3. Water Demand and Reduction Targets
4. Water Sources
5. Recycled Water
6. Water Supply Reliability
7. Demand Management Measures

This UWMP was prepared consistent with the land uses, population projections, goals, policies, and programs in the City's *General Plan*.

Per new requirements for the 2020 UWMP, the City's 2020 Water Shortage Contingency Plan (WSCP) is published as a separate volume and may be modified separately from the 2020 UWMP.

1.1 URBAN WATER MANAGEMENT PLANNING ACT

The City's UWMP was prepared in accordance with the Urban Water Management Planning Act (Act). The Act is defined by the California Water Code (CWC), Division 6, Part 2.6, and Sections 10610 through 10656. The Act requires every urban water supplier that provides water for municipal purposes to more than 3,000 connections or supplies more than 3,000 acre-feet (AF) of water annually, to adopt and submit a plan every five years to the California Department of Water Resources (DWR).

Since its passage in 1983, several amendments have been added to the Act, such as those enacted in 2009 related to Senate Bill X7-7 (SB X7-7) requiring each urban retail water supplier to develop urban water use targets to help meet the statewide 20 percent water use reduction goal by 2020 and an interim ten percent goal by 2015. Chapter 4 of this Plan explains the City's targets and implementation strategy used to meet state requirements related to SBx7-7.

The Act has undergone expansion and revision reflected in the City's 2020 UWMP and WSCP to address changing conditions in California's water resource management. These changes focus on water use efficiency, resiliency, and impacts of climate change. New requirements include water loss reporting, analysis of energy use, and a drought risk assessment that analyzes the impact of a drought lasting five consecutive years on local water supplies. The City's WSCP has been modified to be consistent with the required six progressive water shortage levels (10, 20, 30, 40, and 50 percent).

The City's 2020 UWMP serves as a foundational document and source of information for a Water Supply Assessment, (Water Code Section 10613), and a Written Verification of Water Supply, (Water Code Section 66473.7). Both statutes require detailed information regarding water supply availability to be evaluated prior to approval of specific large development projects.

The purposes of the 2020 UWMP are to:

1. Assess current and future water use trends in the community
2. Describe the sources of water supply and the water system
3. Assess water supply reliability
4. Document the water demand management measures
5. Demonstrate compliance with SB X7-7
6. Act as a source document for the City's *General Plan*

7. Act as a source document on the background and history of the water supply system
8. Comply with the state requirements to qualify for State grants and loans.

General Plan and UWMP Interface

The City's *General Plan Water and Wastewater Management Elemen*t (WWME) has been the guiding policy document for the provision of water and wastewater services to the community since 1987. The City adopted the WWME to address water and wastewater services because of the vital role these resources play in the community and the far-reaching impacts of water-related policies on community growth and character. The WWME translates the *General Plan Land Use Element's* capacity for development into potential demand for water supply and wastewater service. Additionally, the WWME outlines how the City plans to provide adequate water and wastewater services for its citizens, consistent with the goals and policies of other General Plan Elements.

The Water Management Section of the WWME was adopted during a time when the City was experiencing water supply shortages. The policies in the original section were written in a manner to address the water scarcity issues that were facing the City in 1987. Though it has been revised and amended several times over the years (the last update was in 2019), each revision focused on how to best allocate the City's limited water supply for the existing residences and future growth envisioned in the General Plan.

1.2 AGENCY COORDINATION

The Act requires the City to coordinate the preparation of its Plan with other appropriate agencies, including other water suppliers that share a common source, water management agencies, and relevant public agencies. The following is a summary of the coordination that the City took in the preparation of this Plan. Supporting documentation is provided in Appendix I.

Whale Rock Reservoir Commission

Whale Rock Reservoir provides water to the City, California Polytechnic State University (Cal Poly), the California Men's Colony, and the town of Cayucos. The Whale Rock Commission oversees the reservoir operations and is made up of representatives from the City, California Men's Colony, and Cal Poly, as well as a representative from the State Department of Water Resources. The City provides the staff for oversight of daily operations and maintenance activities of Whale Rock Reservoir. City staff works closely with staff from the Commission members relative to water planning issues.

Cayucos Area Water Organization

The Cayucos Area Water Organization (CAWO) includes the three water purveyors that serve the town of Cayucos (Paso Robles Beach Water Association, Morro Rock Mutual Water Company, County Service Area 10A) and the Cayucos-Morro Bay Cemetery District. The Whale Rock Commission and the CAWO have an agreement which includes a provision to provide up to 600-acre feet of water per year from the reservoir. The agreement dates back to the period when the dam was being planned and constructed. The agreement has been amended since that time. The water provided to the CAWO is delivered from the Whale Rock pipeline to the Cayucos Water Treatment Plant operated by the County of San Luis Obispo (County). CAWO was notified that the City was updating its UWMP in March 2021.

County Water Resources Advisory Committee

The City is represented on the county-wide Water Resources Advisory Committee (WRAC). The WRAC is an advisory committee to the County Board of Supervisors on issues pertaining to water resources planning. The Committee holds monthly meetings to discuss water resource issues, planned projects or developments, policies, or other related issues that may have county-wide water resource impacts. Recommendations are forwarded to the County Board of Supervisors for its consideration. The Committee discusses items ranging from new water supply projects to water conservation programs and policies. An update regarding the City's preparation and updating of its UWMP was provided to the WRAC. Review and comment by interested members was requested.

Nacimiento Project Commission

The County has an entitlement of 17,500-acre feet of water from Nacimiento Lake and acts as the wholesaler of this water supply. The County oversees the project that delivers water from Nacimiento

Reservoir to agencies participating in the Nacimiento Water Project. The current participating entities include the cities of Paso Robles and San Luis Obispo, Atascadero Mutual Water Company, Templeton Community Services District, Santa Margarita Ranch, Bella Vista Mobile home park, and County Service Area 10A (Cayucos).

The Nacimiento Project Commission is made up of representatives from each of the four original participating agencies' governing boards, as well as a representative from the County Flood Control and Water Conservation District (i.e. County Board of Supervisors). The Nacimiento Project Commission provides oversight and recommendations to the District relative to the project operations and maintenance and the associated budget. The County, as the water supply "wholesaler", was notified that the City was updating its UWMP in March 2021.

Integrated Regional Water Management Plan

The County has developed an Integrated Regional Water Management Plan which included involvement and participation by the City as well as other agencies and interested individuals throughout the County. The County was notified that the City was updating its UWMP in March 2021.

1.3 PUBLIC PARTICIPATION AND PLAN ADOPTION

The City encouraged public involvement in the 2020 UWMP through a City Council study session in April 2021 and a City Council public hearing in June 2021 for review of the draft document. The City further encouraged involvement of the public through correspondence and public notices. Public hearing notifications were published in *The New Times* (the local area newspaper). A copy of the published Notice of Public Hearing, correspondence, and the resolution of adoption are included in Appendix I. The hearing process provided an opportunity for all City water users to become familiar with the Plan and ask questions about its water resources in addition to the City's continuing plans for providing a reliable, safe, and high-quality water supply.

1.4 PLAN IMPLEMENTATION

Implementation of the 2020 UWMP is the responsibility of the City's Utilities Department. Key staff overseeing the implementation is the Utilities Director, Deputy Director of Utilities (Water), Utilities Project Manager, and Water Resources Program Manager. Annual updates regarding UWMP implementation, as well as other City water resources issues, are provided to the City Council as part of the City's annual Water Resources Status Report in accordance with the *General Plan, Water and Wastewater Management Element*, Policy A5.3.1. The 2016 through the 2020 Water Resources Status Reports are provided in Appendix II.

1.5 STANDARDIZED TABLES

In response to the requirements of the CWC, standardized tables for the reporting and submittal of UWMP data were developed and are required for use in 2020 UWMPs by the State. The standardization of data tables allows for efficient data management, expedited review of UWMPs, and compilation of data for regional and statewide planning. The City will submit UWMP and WSCP data electronically to DWR using standardized tables and have included the standardized tables at the end of each chapter and Appendix IV.

1.6 COMPLIANCE CHECKLIST

The City completed the checklist of specific 2020 UWMP requirements and included it in the Plan as Appendix III as requested by DWR. The Checklist includes each 2020 UWMP requirement by subject, applicable CWC section, and the page number where the required element is addressed in the Plan to assist in the DWR review of the City's 2020 UWMP.

1.7 ABBREVIATIONS & ACRONYMS

AB - Assembly Bill
AF - Acre-Foot or Acre-Feet
AFY (or afy) - Acre-Feet per Year
AWWA - American Water Works Association
BMP - Best Management Practice
CII - Commercial, Industrial, and Institutional water use sectors
CIMIS - California Irrigation Management Information System
CWC - California Water Code
DDW - State Water Resources Control Board, Division of Drinking Water
DMMs - Demand Management Measures
DOF - Department of Finance
DWR - California Department of Water Resources
EPA - U.S. Environmental Protection Agency
ETo - Reference Evapotranspiration
GIS - Geographic Information System
GPCD (or gpcd) - Gallons per Capita per Day
GPPD - Gallons per Person per Day
ILI – Infrastructure Leakage Index
IRWM - Integrated Regional Water Management
LRAA - Locational Running Annual Average
LAFCO - Local Agency Formation Commission
MGD - Million Gallons per Day
NOAA NMFS - National Oceanic and Atmospheric Administration, National Marine Fisheries Service
NPDES - National Pollutant Discharge Elimination System
PCE - Tetrachloroethylene
pH - The measure of how acidic/basic water is ranging from 0 (acidic) to 14 (basic), with 7 being neutral.
PRV - Pressure Reducing Valve
RGPCD - Residential Gallons per Capita per Day
RWQCB - Regional Water Quality Control Board
SB - Senate Bill
SB X7-7 - Senate Bill Seven of the Senate's Seventh Extraordinary Session of 2009
SDWA - Safe Drinking Water Act
SGMA - Sustainable Groundwater Management Act
SWRCB - State Water Resources Control Board
THMs - Trihalomethanes
UWMP - Urban Water Management Plan
WDR - Waste Discharge Requirement
WRRF - City of San Luis Obispo Water Resources Recovery Facility
WSCP - Water Shortage Contingency Plan
WTP - City of San Luis Obispo Water Treatment Plant

1.8 REQUIRED UWMP STANDARDIZED TABLES:

Retail Only: Public Water Systems			
Public Water System Number	Public Water System Name	Number of Municipal Connections 2020	Volume of Water Supplied 2020
4010009	City of San Luis Obispo	15,700	4,817
	TOTAL	15,700	4,817
NOTES: Table 2-1 Volume of water supplied in this table includes only potable water.			

Plan Identification (Select One)	
☒	Individual UWMP
	Regional UWMP (RUWMP)
NOTES: Table 2-2	

Agency Identification	
Type of Agency (select one or both)	
	Agency is a wholesaler
☒	Agency is a retailer
Fiscal or Calendar Year (select one)	
☒	UWMP Tables Are in Calendar Years
	UWMP Tables Are in Fiscal Years
If Using Fiscal Years Provide Month and Day that the Fiscal Year Begins (dd/mm)	
N/A	
Units of Measure Used in UWMP (select from Drop down)	
Unit	AF
NOTES: Table 2-3	

Retail: Water Supplier Information Exchange
The retail supplier has informed the following wholesale supplier(s) of projected water use in accordance with CWC 10631.
Wholesale Water Supplier Name *(Add additional rows as needed)*
County of San Luis Obispo
NOTES: Table 2-4

Notification to Cities and Counties		
City Name	60 Day Notice	Notice of Public Hearing
None		
County Name	60 Day Notice	Notice of Public Hearing
San Luis Obispo County	☑	☑
NOTES: Table 10-1 (R).		

Chapter 2: Service Area and Water System Description

2.1 SERVICE AREA DESCRIPTION

The City of San Luis Obispo is located about half-way between Los Angeles and San Francisco and has a total area of 13.2 square miles of which 13.02 square miles is land and 0.18 square miles (1.3 percent) is water. Situated in a coastal valley approximately ten miles inland from the Pacific Ocean, the City's Mediterranean climate provides for mild and dry summers and cool winters, with an annual average of about 20 inches of precipitation. Summers are generally warm and sunny, often with morning fog from the Pacific coast. Winters are generally mild, though below freezing lows may be expected during the winter. Temperatures vary widely, with 80° F readings in January and February not uncommon. Table 1, *San Luis Obispo Climate*, includes the 2020 monthly evapotranspiration rate, average maximum high temperature, and average precipitation for the City of San Luis Obispo. As the City receives water from surface water reservoirs located in different watersheds, climate data specific to those surrounding the reservoirs are utilized in water management models.

TABLE 1: San Luis Obispo Climate

	ETo (in)	Average rainfall (in)	Average temperature (F)
January	2.44	4.98	51
February	3.36	3.51	51.5
March	3.07	3.36	54.2
April	4.63	1.44	56.3
May	6.24	0.46	60.2
June	6.32	0.12	64.6
July	6.27	0.12	67.5
August	5.87	0.02	67.6
September	4.52	0.03	66.9
October	4.30	1.22	62.9
November	3.17	1.28	56.4
December	2.64	3.93	51
Annual	52.83	20.46	59.2

Source:

1. Evapotranspiration (ETo) from: California Irrigation Management Information System (CIMIS) Station 52, January 2020 - December 2020.
2. Average rainfall data for 2005-06 through 2018-19: https://www.slocounty.ca.gov/getattachment/1540beaa-ed43-4b08-92e7-fcbd0b394dad/SLO-Reservoir-Precipitation-Data-Site-749.aspx
3. Average Temperature: http://data.org/north-america/united-states-of-america/california/san-luis-obispo-144

2.2 SERVICE AREA POPULATION PROJECTION & OTHER DEMOGRAPHIC INFORMATION

Founded in 1772 and incorporated in 1856, San Luis Obispo is one of California's oldest communities and now serves as the County's hub for commercial and government services. This section describes the City's population projections, demographics information, and employment characteristics.

The City's 2020 population totaled 45,920[1]. From 2011 to 2020, the City grew by 502 people which was below the General Plan's one percent growth maximum. The City's future growth is projected to be located in the Margarita, Orcutt, Airport, Avila Ranch, and Froom Ranch specific plan areas, as well as infill and intensification of existing developed areas, such as the City's' downtown.

The City's total water demand has not increased at a rate that follows the rate of population growth (see Water Supply and Demand with Population chart below). In the past 30 years (from 1991 to 2020), annual water demand in the City has been as high as 6,416 acre-feet in 2007 and as low as 4,040 acre-feet in 1991, a variance of over 2,300 acre-feet. In the past ten years (from 2011 to 2020), water demand has been as high as 5,715 acre-feet and as low as 4,520 acre-feet, a variance of 1,195 acre-feet. This deviation in water demand is influenced by many factors including annual rainfall, the state and local drought declaration from 2014 to 2017, plumbing

[1] Population estimates for the City of San Luis Obispo are available at the California Department of Finance website at: www.dof.ca.gov/Forecasting/Demographics/Estimates/e-1/

efficiencies such as low flow toilets, shower heads, and appliances, changes in landscaping and irrigation, economic climate, water rates, limited growth, the COVID-19 pandemic in 2020, and the City's strong water conservation ethic.

To be conservative in its water planning, the City uses the growth rate and population projections from the City's *General Plan Land Use Element* (57,200 persons in 2035) and *General Plan Water and Wastewater Management Element* policy on the City's maximum per capita water use rate under SB X7-7 of 117 gpcd, described further in Chapter 3. To comply with State requirements, the 2020 UWMP looks ahead twenty years to project water demand through 2040. As this period extends beyond the 2035 horizon of the *General Plan Land Use Element*, the City has assumed the population would continue to grow annually by one percent for the five years to 2040 for this UWMP. This projection yields a future population of 60,118 in 2040. Table 2 provides the City's actual 2020 population and population projections to 2040. This approach to projecting future water demand ensures the City's water needs will be accommodated.

TABLE 2: City Population

	2020	2025	2030	2035	2040
Land Use Element (2014), Projected Population	48,826	51,317	53,934	57,200	60,118
Actual City Population (2020)	45,920	-	-	-	-

Source:
1. City of San Luis Obispo, General Plan, Land Use Element, Table 3, 2014.
2. Population estimate for the City of San Luis Obispo is from the California Department of Finance website at: www.dof.ca.gov/Forecasting/Demographics/Estimates/e-1/

According to the US Census American Community Survey Five-Year Estimates for 2013-2017, the City's population age demographics are 13 percent under the age of 18, 35 percent from 18 to 24, 22 percent from 25 to 44, 18 percent from 45 to 64, and 12 percent who are 65 years of age and older.

The City is the civic, economic and cultural hub of the Central Coast. With these major regional employers (Table 3), the City has an estimated daytime population of up to 90,000 persons. Public sector jobs account for a sizeable portion of the job market in the City. Service and retail jobs also comprise a large percentage of employers. The City's median household income was $56,071 (in 2019 dollars[2]), up from $42,461 in 2010. According to the City's *2020 Comprehensive Annual Financial Report*, the top employers within and adjacent to the City are:

TABLE 3: Top Employers

#	Employer	# of Employees
1	California Polytechnic State University (Cal Poly)	3,000
2	County of San Luis Obispo	2,920
3	Dept. of State Hospitals - Atascadero	2,000
4	Pacific Gas and Electric	1,866
5	California Men's Colony	1,517
6	Tenet Health Care Corp.	1,305
7	Compass Health	1,200
8	Lucia Mar School District	1,000
9	Mind Body	929
10	San Luis Coastal Unified School District	760

[2] https://www.census.gov/quickfacts/fact/dashboard/sanluisobispocitycalifornia/PST045219

As the top employer in the area, Cal Poly student enrollment is planned to grow from 21,800 students in 2018-19 academic year to 25,000 students by the 2035-36 academic year (growth of approximately 200 students per year). Cal Poly's faculty and staff population could increase from 3,266 to 3,935 during the same time frame. While Cal Poly has its own water supply source, the City treats water for the University which is located just outside of City limits.

The City is also a popular tourist destination due to its proximity to beaches and open space areas, historic downtown, and its overall vitality. The City's tourism is at its peak during the summer. However, Cal Poly is also out of session at this time, thus reducing the overall daily population served by the City during the summer months.

2.3 WATER SYSTEM DESCRIPTION

The City utilizes three surface water reservoirs to meet its potable water demand. Salinas Reservoir, located nine miles southeast of the community of Santa Margarita, has provided water to the City since 1944. Whale Rock Reservoir, located one-half mile east of the town of Cayucos, has been a water source for the City since 1961. Water deliveries from Nacimiento Reservoir, located 14 miles northwest of the City of Paso Robles, to the City began in January 2011. All surface water supplies are considered to be dependable and of high quality.

Three distinct raw water transmission facilities deliver water to the City's Water Treatment Plant from the Salinas, Whale Rock, and Nacimiento Reservoirs. The City does not currently rely on local groundwater to serve the community's long-term water supply needs. However, the City has relied heavily on groundwater during past droughts and is planning to resume the use of groundwater pumping in the future. Additional information is provided on the City's water sources in Chapter 4.

The City is supplied recycled water from its Water Resource Recovery Facility (WRRF). In 2021, recycled water was utilized for landscape irrigation and for construction water (dust suppression, compaction, etc.). The City will be maximizing the production of recycled water with the upgrade of the WRRF, under construction in 2021. Recycled water is discussed further in Chapter 6. Figure 1 shows the location of the City's reservoirs and conveyance pipelines.

With the enactment of the Safe Drinking Water Act (SDWA) in 1974, Congress authorized the federal government to establish national drinking water regulations. Since that time, many amendments have been made to the SDWA which require additional monitoring and treatment which has resulted in increased operational costs. The following sections discuss the impacts of the current regulations on the City's water treatment facilities and potential impacts of any foreseeable amendments to the current regulations.

Water Treatment

The City's Water Treatment Plant (WTP) is located on Stenner Creek Road, northwest of the Cal Poly campus. The facility was constructed in 1964 to provide treatment of surface water from Salinas and Whale Rock Reservoirs. The WTP is a conventional plant that includes ozone disinfection, coagulation, flocculation, sedimentation, and filtration. The WTP was originally designed to treat up to eight million gallons per day (mgd). In 1977, the plant was upgraded to provide 11.5 mgd of treatment capacity but actually treated up to 12 mgd for limited periods during peak summertime water demands. In 1994, the WTP was upgraded to comply with new regulations and to increase the treatment capacity to 16.0 mgd.

An upgrade completed in 2008 at the WTP added additional onsite storage facilities, replaced an existing pump station, and replaced the sedimentation basin with a new ballasted flocculation process among other improvements. The addition of the *Actiflo* process increased the sedimentation process capacity from eight mgd to 16 mgd. This process was needed to treat the water supply from the Nacimiento Reservoir that went online in January of 2011.

Since the WTP was constructed in 1964, the Safe Drinking Water Act was adopted and was significantly amended. The 1986 amendments were broad in scope and required implementation of new regulations by the U.S. Environmental Protection Agency (EPA). The Safe Drinking Water Act also required the EPA to specify criteria under which filtration is required as a treatment technique for surface supplies. On June 29,

1989, the EPA issued the Surface Water Treatment Rule which defined the standards for surface water treatment and had specific compliance deadlines. The purpose of the regulation is to protect the public, as much as feasible, from waterborne diseases. Waterborne diseases, most notably *Giardia lamblia*, *Cryptosporidium*, and *Legionella*, are most commonly transmitted by surface water contamination.

For the City, the most significant issue is the regulation aimed at reducing the formation of disinfection byproducts, specifically trihalomethanes (THMs), which are a group of compounds formed during disinfection by the reaction of chlorine with naturally occurring organics. The City upgraded the WTP in 1994 to use ozone as the primary disinfectant instead of chlorine. The use of ozone provides enhanced disinfection capability to meet federal and state requirements while reducing the levels of THMs. The use of ozone also helps produce water free of objectionable taste and odor associated with algae blooms at Salinas Reservoir and meets all current, as well as anticipated regulations.

The highest levels of TTHMs typically occur where water age is the greatest, such as in large water tanks with low turnover or poor mixing. With increased levels of water conservation, mixing, and turnover within some of the City's water tanks was decreased during the recent drought. In 2020, to address the issue of increasing TTHMs, mixing, aeration, and ventilation equipment was installed at two of the City's water storage tanks (Clearwell 2 at the Water Treatment Plant and Edna Saddle Tank).

Also in 2020, the City entered into a public/private partnership with Pacific Gas and Electric (PG&E) for the Water Energy Efficiency Project at the WTP. Project components include upgrading the ozone generation system, SCADA system, plant service water, and improvements to the Transfer Pump Station. It is estimated that implementation of the Water Energy Efficiency Project will result in a reduction of energy usage of over 33 percent annually from 2019 WTP operations. The Project is scheduled to be complete in 2021. Additional information on energy use associated with water conveyance, treatment, and distribution to the community is provided in Chapter 4.

City of San Luis Obispo Water Treatment Plant, 2020

FIGURE 1: Multi-Source Water Supply

Reservoir

City Limits

Conveyance Pipelines

Source: City of San Luis Obispo Utilities Department., 2016.

Possible Future Regulatory Changes

As analytical techniques allow for lower levels of regulated water contaminants to be detected, and as new contaminants are added to the regulatory list issued by the EPA and state regulatory agencies, there may be impacts on the City's water treatment operations. While the WTP upgrade was designed to meet the current and anticipated future water treatment standards, new regulations may require additional modifications, depending on the action levels adopted by regulatory agencies. The following are possible regulatory changes which may influence WTP operations:

Regulation of total organic carbon. Could require optimizing enhanced coagulation processes, which may add a pH reduction system to the treatment process (i.e. acid feed, carbon dioxide feed, etc.).

Regulation of THM sub-species. Chlorinated bromides would most likely be targeted, which would not necessarily be problematic unless the action level is extremely low.

Regulation of hypochlorites. Chlorates caused by the decomposition of hypochlorite solution may require coolers or insulation be installed on holding tanks to stabilize temperature inside the tanks. This is a requirement now being considered by the State.

Regulation of THMs via LRAA. THMs are now regulated on a LRAA instead of a system-wide average. This could require changing from hypochlorite to chloramines for final disinfection and/or adding aeration systems to storage tanks and reservoirs.

The effect of any of the potential regulations on the City's treatment operations is dependent on the action level adopted. More technical and complicated processes may require training or hiring of personnel skilled in the maintenance of sophisticated electronic equipment and with increased knowledge in telemetry and computer programming.

Potable Water Distribution System

The City’s potable water distribution system delivers water from the WTP to approximately 15,700 metered customers and over 2,000 fire hydrants via 190 miles of water mains, ten treated water storage tanks, and seven pump stations.

The water delivered from the WTP is split into two main distribution networks, the high-pressure side of town and the low-pressure side. The WTP has a large pump station (the Transfer Pump Station) that pumps water to the high-pressure zones which provide service to the higher elevation areas in the City. The transfer pumps take approximately half of the produced water, increase the pressure, and then provide water to Reservoir #2, Cal Poly, and other portions of the City, generally north and east of the Union Pacific Railroad tracks. Water flows by gravity directly into the lower pressure zones from the WTP's onsite clear well tanks.

Water storage facilities are necessary to provide water during peak demand periods and emergency situations such as fires. The City has ten water storage facilities, seven of which are steel storage tanks ranging in size from 0.04 to 4.0 million gallons and three concrete facilities with a capacity of 0.35 to 7.5 million gallons. In 2021, the combined storage capacity is 24.425 million gallons.

The goal is to provide uninterrupted water flow at adequate pressures (between 40 pounds per square inch (psi) and 80 psi) to meet all fire and domestic flow requirements and to minimize system water loss due to leakage. This pressure range will meet the needs of most irrigation sprinklers and other uses, and provide adequate pressure for fire sprinkler systems. To accomplish this, the City’s Water Distribution staff has eight major work objectives, as follows:

1. Pump station and tank maintenance
2. Water main maintenance and repair
3. Valve exercise and repair
4. Water service repair and renewal
5. Fire hydrant maintenance and replacement
6. Cross connection control
7. Underground Service Alert (USA) markouts
8. Water quality sampling

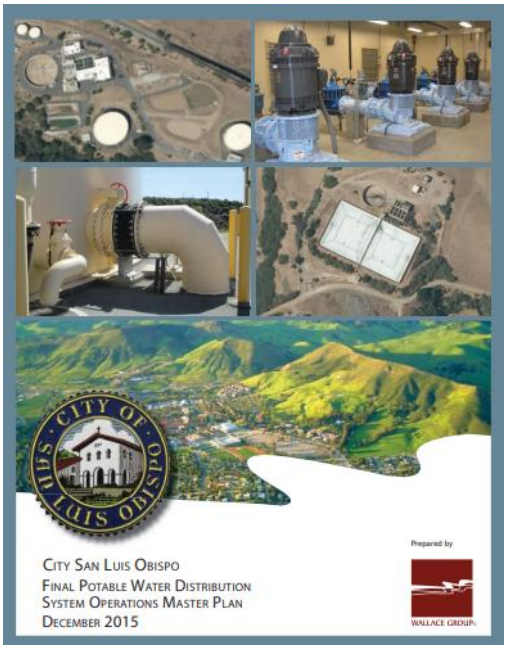
Because of the City's geographic setting, pressure zones are established in the distribution system to maintain these pressure ranges. The City's water distribution system is a complex system of 15 pressure zones and 18 pressure regulating valves (PRVs). It is unlikely this distribution pattern will change, since the WTP will continue to be the principal source of treated water for the City.

Aging pipes must be replaced to avoid major service disruptions and leaks due to deterioration. Parts of the City's water system are approaching, or past, their estimated lifespan with most of the pipes being made of cast iron and ductile iron. Other pipes are made of asbestos cement, or, since the mid-1970's, polyvinyl chloride (PVC). Water pipes serve two basic functions:

1. Larger pipes or transmission mains (ranging in size from 12 to 30 inches), move large volumes of water from one portion of the City to another.
2. Smaller pipes or distribution mains (ranging in size from four inches in the older portions of the City to 12 inches) distribute water within a local area and deliver it to each property in the City.

Fire protection is an important service the City provides to its residents. The fire protection system is a network of over 2,000 public hydrants and approximately 200 private hydrants.

The engineering estimate for the life expectancy of these facilities is 50 years or more depending on pipe type. Pipelines are prioritized for replacement in the City's *Potable Water Distribution System Operations Master Plan*.



System Operation and Maintenance

To retain a reliable water distribution system, preventative maintenance is performed by the City's Water Distribution operators. Preventative maintenance is necessary to minimize water service disruption and prolong system service life.

The City's comprehensive mainline valve exercise program is beneficial to ensure proper operation of valves and minimizes disruptions to water customers during an emergency shutdown. The program assists in identifying problem areas such as broken valves, buried gatewells, and misaligned access sleeves. Identified problem areas are scheduled for repair or replacement which minimizes future water outages and ensures availability in the event of fire. The program has a goal of exercising 1,000 of the system's estimated 5,000 valves per year, allowing for all valves in the system to be exercised every five years.

Since electrical and mechanical pumping equipment consists of moving parts that are subject to wear, a comprehensive preventative maintenance program is required to prolong the useful life and avoid costly emergency equipment breakdowns Weekly inspections of the City's pump station are performed and preventive and corrective maintenance is performed as needed.

The City's water storage tanks are an important component of the water distribution system. As a result of the storage facilities, the system's flow and pressures are improved and stabilized to better serve the customers within a storage tank's service area. Additionally, these supplies serve as a reserve for emergencies such fires, power outages, and equipment failure at the City's Water Treatment Plant. Regular inspections and preventative maintenance are necessary to protect the City's investment in these facilities. This includes regularly scheduled inspections and cleaning, painting and renewing protective coatings, upkeep of facility security systems, maintenance of access roads and sites, and monitoring of cathodic protection systems.

The service line (from the water main to the customer water meter) repair and replacement program has been a priority for the City due to the high likelihood of failure of previously installed polybutylene pipe. The City's water service lines consist of mainly copper and polyethylene pipe, but small amounts of polybutylene pipe may still exist in the system. The City removes and replaces polybutylene materials as they are discovered through routine maintenance and CIP projects. The majority of the City's water service lines have been upgraded to copper and polyethylene material due to the longevity and durability of these two types of materials.

PRVs are necessary to maintain acceptable pressure levels in both low lying and higher elevation areas of the City. These valves reduce plumbing failures and system leakage in areas that would otherwise experience high pressure. The City has 18 PRVs that are inspected and tested annually and rebuilt as needed as part of a PRV maintenance program.

To ensure that fire hydrants operate correctly when needed, testing, maintenance, and repair is performed on an annual basis. It is the responsibility of the Water Distribution staff to perform all maintenance, repairs, and hydrant replacement as needed. Hydrant exercising and flushing is performed by the City in order to proactively identify hydrants that require maintenance and to improve water quality.

Prior to placing a newly constructed water line into service, procedures are in place for disinfection, sampling, and testing consistent with guidelines provided by American Water Works Association and the Division of Drinking Water (DDW). The City's Water Distribution and Water Quality Laboratory staff provide the bacteriological sampling and testing. These procedures assure that all new water lines are free of waterborne pathogens before they are placed in service, protecting the health and safety of the community.

All City-related Underground Service Alerts (USA) mark outs (potable water, wastewater, recycled water, storm drains, fiber optics, and street lights) are consolidated under a single position in the Water Distribution section of the Utilities Department. Consolidation streamlined the process and increased staffing efficiencies. The management of the Underground Utility Locator is the responsibility of the Water Distribution Supervisor.

The City's distribution system is a "D4" system based on rating criteria that classifies the complexity of the system. The State has mandated certification for water distribution operators (minimum of a Grade D1). The City requires water distribution operators to attain Grade D3 certification. Continuing education is mandatory for periodic certification renewals.

Contract Meter Reading

In January 2015, the City executed its first water meter reading contract to address irregular billing period lengths and dates during the City's Average Winter Water Use billing cycle. Utilizing a contract meter reading service provider made it feasible to have all City's water meters read in one week and for billing dates to be standardized for all ratepayers.

Other efficiencies gained include, that contract meter readers take pictures of water meter reads that are outside a normal range of water consumption. These pictures have saved work effort and time in both the Water Resources and Utility Billing sections. Prior to contract meter reading, Water Resources staff had to visit a property to re-read a meter if the meter read appeared outside of a normal range. Staff are now able to utilize the picture taken by the contract meter reader to inform of the potential for a water leak or another cause of high consumption. The pictures have also reduced the number of billing errors related to misread meters.

The City continues to utilize a contract meter reading service provider in 2021 and looks to expand the efficiencies gained through use of these services, and associated technology, in the future.

2.4 REQUIRED UWMP STANDARDIZED TABLES:

Population - Current and Projected						
Population Served	2020	2025	2030	2035	2040	2045 (opt)
	45,920	51,317	53,934	56,686	60,118	N/A

NOTES: Table 3-1 R (Retail).
SOURCES:
1. City of San Luis Obispo, General Plan, Land Use Element, Table 3, 2014. Projections beyond 2035 utilize similar method as projections for 2025 to 2035 (1 percent annual growth).
2. Population estimate for the City of San Luis Obispo is from the California Department of Finance website at: www.dof.ca.gov/Forecasting/Demographics/Estimates/e-1/

Chapter 3: Current and Projected Water Demand

This chapter includes information on the City's historical potable water demand, current water use, and projections of future potable water demand. These demand projections are used in the City's Drought Risk Assessment provided in Chapter 6 and the annual water supply and demand assessments described in the 2020 Water Shortage Contingency Plan (annual assessments begin in 2022). This Chapter also includes description of the City's water loss auditing program and data on water use for 2016-2019.

3.1 WATER USE BY SECTOR

Existing water use in the City includes single-family and multi-family residential water users, commercial, institutional, and industrial water users (collectively "CII"), and dedicated landscape (irrigation) services. Water system loss and unbilled authorized consumption are also recorded by the City and are covered in detail in section 3.3 of this Chapter. At this time, the City does not provide potable or Title 22 recycled water for use for agricultural purposes, groundwater recharge, conjunctive use, saline water intrusion barriers, wetland or wildlife habitat, or sales/transfers/exchanges to other agencies.

As shown in Table 4, water demand projections for 2025-2035 are based on estimated City population per residential growth management Policy 1.11.2 from the City's *General Plan Land Use Element* updated in 2014. Projections for 2036 to 2040 are based on an extension of the City's one percent population growth factor for that five-year period. This population growth rate limit is notably higher than the actual growth rate the City has experienced. The City has maintained a six-year average annual growth rate of 0.60 percent per year according to the Community Development Department's residential construction permit data reported in the City's *2020 General Plan Annual Report*.[1]

Even the most efficiently managed water systems across the country experience unavoidable water loss from leaks, water main breaks, meter inaccuracies, and other causes. Despite efforts to minimize water loss, according to the US Environmental Protection Agency, the average water system sees a difference of about 15 percent between water produced and water sold each year. The City is working to reduce both real and apparent water losses. Water loss for 2020 and projected future water loss for 2025 through 2040 is provided in Table 4.

TABLE 4: Current and Projected Water Use by Sector

		Potable Water Use Sectors							Population
		Single-Family	Multi-family	Commercial, Industrial, and Institutional	Dedicated Irrigation	System Water Loss	Unbilled Authorized Consumption	Total Volume	
2020	Water Use AFY	2,087	943	922	397	463	5	4,817	45,920
% of 2020 total:		43%	20%	19%	8%	10%	<1%	100%	
2025	Water Use AFY	2,892	1,345	1,278	538	666	7	6,725	51,317
2030	Water Use AFY	3,039	1,414	1,343	565	700	7	7,068	53,934
2035	Water Use AFY	3,223	1,499	1,424	600	742	8	7,496	57,200
2040	Water Use AFY	3,388	1,576	1,497	630	780	8	7,879	60,118

NOTES:
1. Department of Water Resources, Tables 4-1 and Table 4-2.
2. Water demand by sector and population reported for 2020 is actual data.
3. Population growth is projected at one percent per year, per the *General Plan Land Use Element*, Table 3 (57,200 people in 2035).
4. Projections of total water volume are based on a factor of 117 gpcd per the *Water and Wastewater Management Element*.
5. The 2020 percentage of total volume for each water use sector is for the basis of the 2025 to 2040 water use by sector projections.

Source: City of San Luis Obispo Utilities Department, 2021.

[1] The City's *2020 General Plan Annual Report* is available at: www.slocity.org/Home/ShowDocument?id=29847

3.2 DEMAND SECTOR DEFINITIONS

Potable water demand in the City is comprised of several sectors [2], consisting of the following:

Single-family Residential: A single-family dwelling unit. A lot with a free-standing building containing one dwelling unit that may include a detached "accessory" dwelling unit.

Multi-family Residential: Multiple dwelling units contained within one building or several buildings within one complex.

Landscape: Water connections supplying water solely for landscape irrigation. Such landscapes may be associated with multi-family, commercial, industrial, or institutional/government sites, but are considered a separate water use sector if the connection is solely for landscape irrigation.

Commercial: A water user that provides or distributes a product or service.

Industrial: A water user that is primarily a manufacturer or processor of materials as defined by the North American Industry Classifications System (NAICS) code sectors 31 to 33, inclusive, or an entity that is a water user primarily engaged in research and development.

Institutional: A water user dedicated to public service. This type of user includes, among other users, higher education institutions, schools, courts, churches, hospitals, government facilities, and nonprofit research institutions.

Distribution System Losses: Examples of system losses are provided in Table 5. Reporting of system losses is required by CWC Section 10631(d)(1).

Unbilled, Authorized Consumption: water used for hydrant flushing, dead end waterline flushing, and other authorized but unbilled uses.

Unconstrained Demand: water demand absent any water supply restrictions.

3.3 DISTRIBUTION SYSTEM WATER LOSS & UNBILLED AUTHORIZED CONSUMPTION TYPES

Senate Bill 555, approved by Governor Brown in October 2015, requires retail water suppliers in California with 3,000 or more connections, or an annual water demand of over 3,000 acre-feet, to conduct an annual audit of their water distribution system to quantify water loss. The standardized audit must be validated by a certified water loss auditor to ensure data accuracy and consistency in reporting. The City submitted its first audited water loss audit to the Department of Water Resources in October 2017 for the 2016 calendar year and has submitted water loss audits annually since.

The City performs annual water loss audits using the methodology outlined in the *Water Audits and Loss Control Programs Manual (M36)* published by the American Water Works Association (AWWA M36). The results of the annual water loss audits are submitted to the State to meet the distribution loss standards enacted by the SWRCB pursuant to Section 10631.1. Additionally, the City submits information identifying steps taken in the preceding year to increase the validity of the data entered in the final audit, reduce the volume of apparent losses, and reduce the volume of real losses.

Water losses can be the result of a variety of issues such as water line leaks, meter inaccuracies, and data handling errors. This is not to be confused with unbilled authorized consumption which accounts for approved uses such as mainline flushing, fire flow testing, and other authorized uses of water that are not billed by the City. Losses which are neither billed nor metered are classified as apparent losses and include unauthorized consumption (water theft), metering inaccuracies, and systematic data handling errors. A sample of common water loss and unbilled authorized consumption types can be seen in Table 5.

[2] The City compiles commercial, industrial, and institutional accounts in one category known as "CII" consistent with CWC 10608.12.

TABLE 5: Common Water Loss & Unbilled Authorized Consumption Types

Examples of Water Loss & Unbilled Authorized Consumption Causes				
Water Loss	Mainline & Service Line Leakage	Meter Inaccuracies	Data Handling Errors	Overflow of Storage Tanks
Unbilled Authorized Consumption	Treatment Plant and Distribution System Process Water	Mainline Flushing	Fire Flow Testing	Water Quality Testing

The City's water loss volume has ranged from 11.5 percent to as low as 6.6 percent of volume supplied over the five-year period from 2016 to 2020. Reductions in water loss are the result of an increased focus on replacing aging infrastructure, including water meters which ensure accurate quantification of water use within the community. During the 2016-2020 period the City also constructed a Supervisory Control and Data Acquisition (SCADA) system which allows for ongoing monitoring of the water distribution system in order to quickly identify leaks and other system abnormalities.

The AWWA M36 methodology utilizes the *Infrastructure Leakage Index* (ILI) as the metric to compare the performance of water suppliers, rather than percent of volume supplied. The ILI is a unit-less benchmarking metric calculated as the ratio of current losses to unavoidable losses, and is a method for comparing performance across suppliers, which accounts for the differences in how suppliers may categorize water loss. Unavoidable losses represent the theoretical lowest level of leakage, considering the water distribution system size, characteristics, and an estimation of background leakage expected in a distribution system. A well-performing system generally has an ILI score less than 3.0, indicating leakage loss is less than three times the unavoidable loss level. The City's average ILI is 1.46 for calendar years 2016 through 2020 exceeding this standard, as shown in Table 6. Full water loss audits for 2016-2020 are available in Appendix VI.

TABLE 6: Water Loss Audit Data and Results

Year	Billed Authorized Consumption	Unbilled Authorized Consumption	Apparent Losses	Real Losses	Unavoidable Real Losses	Infrastructure Leakage Index (ILI)	Water Loss, % volume supplied
2016	3,990.46	13.60	102.76	412.92	204.37	2.02	11.4
2017	4,281.00	21.93	155.56	402.35	204.90	1.96	11.5
2018	4,380.05	7.63	112.13	199.42	206.41	0.97	6.6
2019	4,198.61	4.93	107.59	231.95	249.44	0.95	7.5
2020	4,348.87	4.93	111.72	351.29	249.44	1.41	9.7
					Five-Year Average	1.46	9.34

Source: City of San Luis Obispo, Utilities Department, 2021.

3.4 ESTIMATING FUTURE WATER SAVINGS

Water savings from codes, standards, ordinances, and transportation and land use plans drive reduction in water demand within the City. CWC 10631 (e) (4) (B) (ii) requires that it be noted in the UWMP that the projected water use identified for 2025, 2030, 2035, and 2040 does not reflect any representation of water savings from codes, standards, ordinances, or transportation and land use plans.

3.5 HOUSING

The City's *General Plan Housing Element,* updated in 2020, includes a residential land capacity analysis that shows the City has approximately 387 acres of vacant, underutilized, or deteriorated property that can accommodate approximately 4,140 dwelling units. The City's projected water use figures provided in Table 4 include the projected water use for all future housing in the City, including future lower income households as defined in Section 50079.5 of the Health and Safety Code and the City's *Housing Element*, as required by CWC 10631.1. Table 7 shows the quantity and category of lower income housing units from the *Housing Element* and estimated water use for these affordable housing units.

TABLE 7: Water Demand for Future Lower Income Housing Units

Income Category	Total Housing Units	Estimated Water Use (in acre feet)
Very Low Income	825	247.5
Low Income	520	156
Total	1,345	403.5

Note: Estimated water use was calculated using 0.3 AFY per housing unit following conservative water demand rates.
Source: City of San Luis Obispo, General Plan Housing Element, Table 4, Sixth Cycle Regional Housing Needs Allocation, 1/1/2019 to 12/31/2028.

3.6 BASELINES AND TARGETS FOR WATER USE REDUCTION BY 2020

The Water Conservation Act of 2009 (SB X7-7) was incorporated into Division 6 of the CWC in 2009. According to the CWC, urban retail water suppliers must include in their urban water management plan the baseline daily per capita water use, along with the basis for determining the estimate, including references to the supporting data. The legislation specifically calls for using the methodologies and criteria developed by the DWR and contained in the guidance document *Methodologies for Calculating Baseline and Compliance Urban Per Capita Water Use* to determine compliance as required in the years 2015 and 2020. The legislation directs urban water suppliers to adopt one of the four outlined options or *Target Methods* in the legislation to determine their urban water use targets.

As the City has invested in and implemented water conservation programs since 1988, the baseline periods outlined in the SB X7-7 used to create water use targets in 2015 and 2020 were not achievable using Target Method 1, a flat 20 percent reduction from the baseline period. After reviewing and analyzing the considerable resources required to perform Target Methods 2 and 4, the City chose Target Method 3. This method sets water use goals based on the state hydrologic region target as set forth in SB X7-7. This method represents the local climate and geography, it is important to note that the City lies completely within Central Coast Region (Region 3). The Central Coast Region's 2020 target, expressed in gpcd, is the lowest of any region in the state. Central Coast region goals can be compared with other regions in Table 8.

TABLE 8: Target Method 3 Hydrologic Region Goals

Hydrologic Region	"2020 Plan" Regional Targets	Method 3 Regional Targets (95%)
North Coast	137	130
North Lahontan	173	164
Sacramento River	176	167
San Francisco Bay	131	124
San Joaquin River	174	165
Central Coast	123	117
Tulare Lake	188	179
South Lahontan	170	162
South Coast	149	142
Colorado River	211	200

Source: Department of Water Resources.

3.7 UPDATING CALCULATIONS FROM 2010 UWMP

In accordance with *CWC 10608.20 (g)*, and per the recommendation of DWR, the City examined its 2020 Urban Water Use Target and will continue to utilize Method 3 (Hydrologic Region Goals); the City will not change its Target Method. Per DWR's required use of 2010 U.S. Census data, and to correct for discrepancies between DOF's projected populations for 2010, and actual census population data for 2010, the City updated the baseline population calculations for the 2015 Urban Water Management Plan. The

population corrections made slight changes to the 10-year average baseline GPCD, and the five-year average baseline gpcd, but did not change the City's 2015 Interim, or 2020 Urban Water Use Reduction Goals as defined in Method 3 shown in Table 8.

A requirement in the 2020 UWMP is completion and submission of the SB X7-7 Standardized Tables. These tables compile in-depth information about SB X7-7 and provide proof of compliance with the Water Conservation Act of 2009. The SB X7-7 Standardized Tables are provided in Appendix IV.

3.8 BASELINE PERIODS

In the 2010 UWMP, the City defined both ten-year (Baseline GPCD) and five-year (Target Confirmation) baseline periods; these periods remain unchanged from the 2010 UWMP and are used to establish the 2020 Target Goal, along with baseline period per capita figures for water use reduction. Table 9 defines the ten-year baseline period from 1997-2006 and the five-year baseline period from 2004-2008. The methodology used to establish ten-year and five-year baseline periods is included below.

Through analysis of the quantity of total water deliveries made up of recycled water in 2008, it was discovered that the City did not meet the ten percent threshold required to use a 15-year baseline period, leading the City to follow CWC 10608.12 (b) (1) guidance to use a ten-year baseline period. The City's ten-year baseline period of 1997 to 2006 and corresponding populations, annual gross water use, and daily per capita water use (gpcd) calculations provided by DWR can be viewed in SB X7-7 Table 1 in Appendix IV.

As defined by **CWC 10608.12 (b)**, "*base daily per capita water use*" is defined as:

(1) *The urban retail water supplier's estimate of its average gross water use, reported in gallons per capita per day and calculated over a continuous 10-year period ending no earlier than December, 31 2004, and no later than December 31, 2010.*

Or

(2) *For an urban water supplier that meets at least 10 percent of its 2008 measured retail water demand through recycled water that is delivered within the service area of urban water supplier or its urban wholesale water supplier, the urban water supplier may extend the calculation described in paragraph (1) up to an additional five years to a maximum continuous period ending no earlier than December 31, 2004, and no later than December 31, 2010.*

In accordance with CWC 10608.12 (b) the City calculated its five-year baseline average period water use. Ranging from 2004-2008, the five-year time frame was selected in accordance with *Methodology 3: Base Daily Per Capita Water Use.*

TABLE 9: Baseline Period Ranges

Baseline	Parameter	Value	Units
10- to 15-year baseline period	2008 total water deliveries	6,359	Acre Feet
	2008 total volume of delivered recycled water	90	Acre Feet
	2008 recycled water as a percent of total deliveries	1.41	Percent
	Number of years in baseline period [1]	10	Years
	Year beginning baseline period range	1997	
	Year ending baseline period range [2]	2006	
5-year baseline period	Number of years in baseline period	5	Years
	Year beginning baseline period range	2004	
	Year ending baseline period range [3]	2008	

[1] If the 2008 recycled water percent is less than ten percent, the first baseline period is a continuous ten-year period. If the amount of recycled water delivered in 2008 is ten percent or greater, the first baseline period is a continuous ten- to 15-year period.

[2] The ending year must be between December 31, 2004 and December 31, 2010.

[3] The ending year must be between December 31, 2007 and December 31, 2010.

NOTE: SB X7-7 Table 1, see Appendix IV.

3.9 SERVICE AREA POPULATION

For the 2020 UWMP, the City's service area boundaries have been found to correspond by 95 percent or more with the city limits. This correspondence allows the City to use Department of Finance population estimates as defined in DWR's *Urban Water Management Guidebook*. These population estimates were updated from the 2015 UWMP to reflect differences in population between the Department of Finance projections and the 2010 Census. Population data for each of the baseline years can be found in Table 11.

3.10 GROSS WATER USE

As defined by CWC 10608.12 (g), "Gross Water Use" means the total volume of water, whether treated or untreated, entering the distribution system of an urban water supplier, excluding all of the following:

(1) Recycled water that is delivered within the service area of an urban water supplier or its urban water wholesale water supplier
(2) The net volume of water the urban retail water supplier places into long term storage
(3) The volume of water the urban retail water supplier conveys for use by another urban water supplier
(4) The volume of water delivered for agricultural use, except as otherwise provided in subdivision (f) of Section 10608.24.

The City's gross water use is exclusively comprised of water entering the distribution system from four sources: Salinas Reservoir, Whale Rock Reservoir, Nacimiento Reservoir, and groundwater. Per *Methodology 1: Gross Water* of the methodologies document, recycled water delivered within the service area is excluded from the calculation of gross water. Water suppliers are not required to report their recycled water use, nor demonstrate any reduction in recycled water use for the purposes of SB X7-7. For detailed information on volume of water that entered the distribution during the baseline periods and in 2020, please refer to Table 10.

TABLE 10: Annual Gross Water Use

Baseline Year		Volume Into Distribution System	Deductions					Annual Gross Water Use
			Exported Water	Change in Dist. System Storage (+/-)	Indirect Recycled Water	Water Delivered for Agricultural Use	Process Water	
Year 1	1997	6219.76	0	0	0	0	0	6,220
Year 2	1998	5852.94	0	0	0	0	0	5,853
Year 3	1999	6172.13	0	0	0	0	0	6,172
Year 4	2000	6121.19	0	0	0	0	0	6,121
Year 5	2001	5885.52	0	0	0	0	0	5,886
Year 6	2002	6031.44	0	0	0	0	0	6,031
Year 7	2003	5968.75	0	0	0	0	0	5,969
Year 8	2004	6238.95	0	0	0	0	0	6,239
Year 9	2005	6098.43	0	0	0	0	0	6,098
Year 10	2006	5990.47	0	0	0	0	0	5,990
10 - 15 year baseline average gross water use:								6,058
5 Year Baseline - Gross Water Use								
Year 1	2004	6,239	0	0	0	0	0	6,239
Year 2	2005	6,098	0	0	0	0	0	6,098
Year 3	2006	5,990	0	0	0	0	0	5,990
Year 4	2007	6,416	0	0	0	0	0	6,416
Year 5	2008	6,269	0	0	0	0	0	6,269
5-year baseline average gross water use:								6,203
2020 Compliance Year - Gross Water Use								
2020		4,817	0	0	0	0	0	4,817

NOTE: Volume into distribution from Salinas, Whale Rock, and Nacimiento Reservoirs, and groundwater.

3.11 BASELINE PER CAPITA WATER USE

Daily Per Capita Water Use was calculated for the ten-year, five-year, and 2020 compliance year periods (see Table 11). The ten-year average baseline per capita water use was calculated at 123 gpcd while the five-year average baseline per capita water use totaled 124 gpcd. The 2020 compliance year figure of 94 gpcd is low due to continued conservation efforts by the community and decreases in system water losses.

3.12 2015 AND 2020 URBAN WATER USE TARGET

Per CWC 10608.20 (e), water retailers were directed to calculate a 2020 urban water use target, and an interim urban water use target in their 2015 Urban Water Management Plan. This target is referred to as the 2020 target.

As detailed in section 3.6, the City used Target Method 3 to comply with SB X7-7. As noted in Table 8, the Central Coast Hydrologic Region was required to reduce the regional goal of 123 gpcd by five percent, effectively establishing a 117 gpcd goal for the City.

As a requirement of CWC 10608.22, an urban water supplier's per capita daily water use reduction shall be no less than five percent base per capita water use as defined in the five-year baseline average. This calculation, and compliance is confirmed Table 12. The Central Coast Region target goal of 117 gpcd requires a six percent reduction in per capita water use, thus satisfying the requirement for at least a five percent reduction.

All information and DWR tables used to develop baselines and the resulting 2020 target can be viewed in Appendix IV. The summarized information in Table 14 is provided at the recommendation of DWR for quick verification of compliance with the Water Conservation Act of 2009.

TABLE 11: Daily Per Capita Water Use

Baseline Year		Service Area Population	Annual Gross Water Use	Daily Per Capita Water Use (GPCD)
10- to 15-Year Baseline GPCD:				
Year 1	1997	42,983	6,220	129
Year 2	1998	43,421	5,853	120
Year 3	1999	43,766	6,172	126
Year 4	2000	44,179	6,121	124
Year 5	2001	44,293	5,886	119
Year 6	2002	44,406	6,031	121
Year 7	2003	44,293	5,969	120
Year 8	2004	44,271	6,239	126
Year 9	2005	44,630	6,098	122
Year 10	2006	44,483	5,990	120
10- to 15-Year Average Baseline GPCD:				**123**
5-Year Baseline GPCD:				
Baseline Year		**Service Area Population**	**Gross Water Use**	**Daily Per Capita Water Use**
Year 1	2004	44,271	6,239	126
Year 2	2005	44,630	6,098	122
Year 3	2006	44,483	5,990	120
Year 4	2007	44,438	6,416	129
Year 5	2008	44,650	6,269	125
5-Year Average Baseline GPCD:				**124**
2020 Compliance Year GPCD:				
2020		45,920	4,817	94

TABLE 12: Confirmed 2020 Targets

5-Year Baseline GPCD	Maximum 2020 Target[1]	Calculated 2020 Target	Confirmed 2020 Target
124	118	117	117
Notes: 1. Maximum 2020 Target is 95% of the 5 Year Baseline GPCD 2. All values are in Gallons per Capita per Day (GPCD) 3. 117 GPCD is from Target Method 3			

TABLE 13: Baselines and Targets Summary

Baseline Period	Start Year	End Year	Average Baseline GPCD*	Confirmed 2020 Target*
10-year	1997	2006	123	117
5-Year	2004	2008	124	
*Values are in Gallons per Capita per Day (GPCD)				

3.13 COMPLIANCE DAILY PER CAPITA WATER USE (GPCD)

In 2020, the SB X7-7 reduction target of 117 GPCD was met and surpassed by the City. Low potable water usage and gallons per capita per day figures in 2020 are a result of a continued focus on efficient water use, largely from measures implemented in during the 2012-2015 drought. Beginning in 2015, potable water usage and gallons per capita per day figures were significantly reduced due to conservation efforts, prolonged drought, and Governor Brown's April, 2015 drought declaration, requiring a statewide 25 percent reduction in potable water use.

TABLE 14: 2020 SB X7-7 Compliance

Actual 2020 GPCD	2020 Target GPCD	Optional Adjustments to 2020 GPCD					2020 GPCD	Did Supplier Achieve Targeted Reduction for 2020?
		Extraordinary Events	Economic Adjustment	Weather Normalization	TOTAL Adjustments	Adjusted 2020 GPCD		
94	117	0	0	0	0	94	94	Yes
NOTE: All values are in Gallons per Capita per Day (GPCD)								

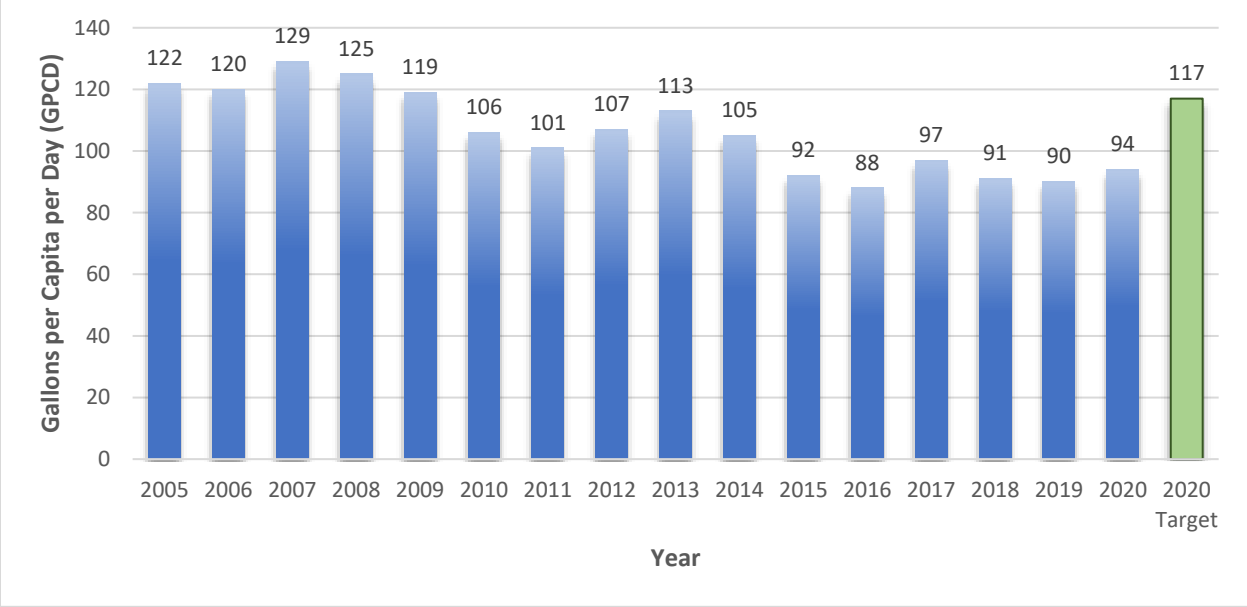
In accordance with statewide reduction efforts and Executive Order B-29-15, the City was required to reduce residential gallons per capita daily (RGPCD) consumption by 12 percent from 2013 usage levels. Due to a long history of successful conservation strategies, along with strong community support, the City surpassed both its drought reduction goals and its SB X7-7 water use reduction goals.

Actual 2020 per capita water demand is provided in Figure 4, along with per capita water demand from 2005 to 2020, which ranged from a high of 129 gpcd in 2007 to a low of 88 gpcd in 2016. Staff believes water demand will remain in line with the average use rate for the past five-year period (2016-2020). Table 15 provides five-year, ten-year, and pre-drought daily per capita averages.

TABLE 15: Average Gallons Per Capita Per Day (GPCD)

Timeframe	GPCD
10-Year Average (2011-2020)	98
5-Year Average (2016-2020)	92
Pre-drought Average (2006-2011)	117

FIGURE 4: 2005-2020 Water Use in Gallons per Capital Per Day Compared to 2020 Target



NOTE: Includes all water use (potable and recycled water).
Source: City of San Luis Obispo, Utilites Department, 2021.

3.14 INFLUENCE OF CLIMATE CHANGE ON WATER DEMAND

The potential influence of climate change on water demand is one of the factors that the City considers when using making its water demand projections, such as the potential for greater landscape irrigation demand due to a reduction in rainfall. The City recognizes the impact of rainfall variability on water demand. During years where the City receives less than average rainfall, irrigation can continue into late in the year (November and December) or resume early in the year (March and April). Table 16 provides the City's Calendar Year 2020 monthly potable and recycled water demand, illustrating the variability of monthly water demand due to landscape irrigation.

Climate change research suggest that water demand for agriculture will be affected more heavily than will demands in other sectors. However, the City does not supply any water for agricultural irrigation.

Although the City has seen increased water demand for landscape irrigation during years with less rainfall, the City has also seen a shift in the types of landscapes being installed as part of new development and landscape retrofits since the 2012-2015 drought. The use of drought-tolerant landscaping and more efficient landscape design should reduce year-to-year variations in water use that are driven by variations in weather.

Reference Chapter 6 for a detailed discussion of climate change considerations related to the City's water sources and the City's Drought Risk Assessment.

TABLE 16: Monthly Water Demand

Month	2020 Water Demand		%
	Potable	Recycled	
January	300	5	7%
February	333	14	8%
March	270	5	6%
April	292	14	7%
May	382	29	9%
June	410	30	10%
July	410	30	10%
August	431	37	10%
September	424	26	10%
October	421	26	10%
November	346	17	8%
December	329	12	7%
Total:	4,349	245	
Total 2020 Water Demand:		4,594	

Notes:
1. Water demand values are in acre-feet.
2. Water demand in this table is based on metered water deliveries.

Source: City of San Luis Obispo, Utilities Department, 2021.

3.15 REQUIRED UWMP STANDARDIZED TABLES:

Demands for Potable and Raw Water - Actual			
Use Type	2020 Actual		
	Additional Description	Level of Treatment When Delivered	Volume
Single Family		Drinking Water	2,087
Multi-Family		Drinking Water	943
Landscape	Does not include recycled water	Drinking Water	397
Other	CII	Drinking Water	922
Losses		Drinking Water	469
Other	Unbilled Authorized	Drinking Water	0
		TOTAL	4,817
NOTES: Other "CII" contains commercial, industrial, and institutional account types UWMP Table 4-1 R (Retail).			

Potable and Non-Potable Water - Projected					
Use Type	Additional Description	Projected Water Use			
		2025	2030	2035	2040
Single Family		2,892	3,039	3,223	3,388
Multi-Family		1,345	1,414	1,499	1,576
Landscape	Includes all separately metered landscape / irrigation	538	565	600	630
Other	CII	1,278	1,343	1,424	1,497
Losses		666	700	742	780
Other	Unbilled Authorized	7	7	8	8
	TOTAL	6,725	7,068	7,496	7,879
NOTES: UWMP Table 4-2 R (Retail).					

Total Water Demands					
	2020	2025	2030	2035	2040
Potable and Raw Water *From Tables 4-1 and 4-2*	4,817	6,725	7,068	7,496	7,879
Recycled Water Demand *From Table 6-4*	245	445	645	695	745
TOTAL WATER DEMAND	5,062	7,171	7,713	8,191	8,624
NOTES: UWMP Table 4-3 R (Retail).					

Last Five Years of Water Loss Audit Reporting	
Reporting Period Start Date (mm/yyyy)	Volume of Water Loss (AF) [1]
01/2016	515.683
01/2017	557.908
01/2018	515.683
01/2019	339.544
01/2020	463.009
[1] Taken from the field "Water Losses" (a combination of apparent losses and real losses) from the AWWA worksheet.	
NOTES: UWMP Table 4-4 R (Retail). Values for 2020 are estimated, the 2020 Water Loss Audit is not yet complete/validated.	

Inclusion in Water Use Projections	
Are Future Water Savings Included in Projections?	No
Are Lower Income Residential Demands Included In Projections?	Yes
NOTE: UWMP Table 4-5 R (Retail).	

Baselines and Targets Summary From SB X7-7 Verification Form				
Baseline Period	**Start Year**	**End Year**	**Average Baseline GPCD**	**Confirmed 2020 Target**
10-15 Year	1997	2006	123	117
5-Year	2004	2008	124	
NOTE: UWMP Table 5-1 R (Retail).				

2020 Compliance				
2020 GPCD			2020 Confirmed Target GPCD	Did Supplier Achieve Targeted Reduction for 2020
Actual 2020 GPCD	2020 Total Adjustments	Adjusted 2020 GPCD		
94	0	0	0	Yes
NOTE: UWMP Table 5-2 R (Retail).				

Chapter 4: Water Sources

As the sole water purveyor within the City limits, the City maintains control over water quality, distribution, and service to the community, as well as ensuring consistency with the General Plan policies and goals.

Whale Rock Reservoir, August 2019.

The City's *General Plan Water and Wastewater Management Element* (WWME) was originally adopted in 1987. Policy A2.2.1 states "The City shall utilize multiple water resources to meet its water supply needs." Having several sources of water avoids dependence on any one source that may not be available during a drought or other water supply reduction or emergency. There is generally greater reliability and flexibility if sources are of different types (such as surface water, recycled water, and groundwater) and if the sources of one type are in different locations (such as reservoirs in different watersheds). Consistent with the WWME, the City obtains water from Salinas Reservoir (Santa Margarita Lake), Whale Rock Reservoir, Nacimiento Reservoir, and recycled water from the City's Water Resource Recovery Facility (WRRF). Groundwater was utilized in the past and is considered an available supplemental water supply. The following sections discuss each of the City's water sources; the reliability of each water source is discussed in Chapter 6.

4.1 SALINAS RESERVOIR

The Salinas Reservoir (also known as Santa Margarita Lake) is located on the upper Salinas River, approximately nine miles southeast of the community of Santa Margarita. The project was originally built by the War Department to ensure an adequate water supply for Camp San Luis Obispo, as well as the City of San Luis Obispo. The dam and appurtenances were declared surplus by the War Department on April 14, 1947 and the U.S. Army Corps of Engineers assumed responsibility for the facilities. On July 11, 1947, the Corps entered into an agreement with the San Luis Obispo County Flood Control and Water Conservation District (District) for the operation and maintenance of the dam and related facilities. The City has an agreement with the Corps for use of the reservoir, as well as a water rights permit to divert water from the Salinas River for storage within the reservoir.

Operation and Distribution

Salinas Reservoir is formed by a concrete arched dam. Immediately following construction, the reservoir had an estimated storage capacity of 24,000 acre-feet, surface area of 793 acres, and a drainage area of 112 square miles. As a result of siltation since the original construction, the reservoir capacity has been reduced. A 1990 analysis conducted by the County of San Luis Obispo indicates that the siltation rate is on the order of 40 acre-feet per year. The estimated loss in storage capacity for Salinas Reservoir between 1990 and 2010 was 800 acre-feet.

Water is conveyed from Salinas Reservoir through 48,700 feet (9.2 miles) of 24-inch diameter reinforced concrete pipe to a three million gallon regulating reservoir at the Santa Margarita booster pump station near the northerly base of Cuesta Grade adjacent to Highway 101. The pipeline is designed to flow by gravity from the Reservoir to the regulating reservoir when the lake level is above the elevation of 1,267 feet. A booster pump station at the base of the dam, consisting of two horizontal centrifugal pumps, is capable of maintaining the rated flow of 12.4 cubic feet per second (cfs) when the water surface elevation falls below 1,267 feet. Three electrically driven, horizontal centrifugal pumps at the Santa Margarita booster station pump water through 6,810 feet of 24-inch diameter reinforced concrete pipe to the entrance portal of the Cuesta Tunnel, which runs 5,327 feet through the mountains near Cuesta Grade. From the outlet portal of the tunnel, water is conveyed through an 18-inch diameter steel pipeline a distance of 5,133 feet to the

City's turnout point. From the turnout, an 18-inch diameter pipe runs 4,180 feet to the site of Reservoir #2 on Stenner Creek Road. From there, a pipeline that varies from 24-inches to 30-inches in diameter conveys the water by gravity to the water treatment plant 5,930 feet downstream.

The operation and maintenance of the dam and water conveyance system (to the City's turnout) are the responsibility of San Luis Obispo County Flood Control and Water Conservation District. The City pays all operating, maintenance, and capital costs associated with the reservoir and transmission system (excluding costs associated with recreational activities at the Lake).

Salinas Dam spillway, February 2019.

4.2 WHALE ROCK RESERVOIR

Whale Rock Reservoir is located on Old Creek approximately one-half mile east of the community of Cayucos. The project was planned, designed, and constructed under the supervision of the State Department of Water Resources. Construction took place between October 1958 and April 1961. The reservoir is jointly owned by the City, the California Men's Colony, and the California Polytechnic State University at San Luis Obispo (Cal Poly). These three agencies form the Whale Rock Commission which is responsible for operation and administration of the reservoir and associated water deliveries. Day-to-day operation is provided by the City. The City owns 55.05 percent of the water storage rights at the reservoir. The remaining water storage rights are apportioned between the two State agencies with Cal Poly owning 33.71 percent and the California Men's Colony owning 11.24 percent.

Operation and Distribution

Whale Rock Reservoir is formed by an earthen dam and was able to store an estimated 40,662 acre-feet of water at the time of construction. The dam is 266 feet tall with a crest length of 850 feet and crest width of 30 feet. The top of dam elevation is 232.2 feet. The Reservoir covers an area of 600 acres. In 2021, the maximum storage capacity is 38,967 acre-feet. Over the life of the Whale Rock Reservoir and dam, the lake has filled to capacity and the spillway has been used 12 times, last spilling in 2005.

The project facilities consist of a 30-inch pipeline, two pumping stations, over two miles of trails and a fishing access facility, a maintenance facility and office, and a structure used as a private residence.

City staff is responsible for ongoing maintenance and operation of the reservoir, including the inlet and outlet structures, reservoir structural instrumentation, access roads, daily reservoir level readings and climatological data, reservoir patrol and security, pipelines and pumping stations, water meters, cathodic protection systems, and other associated duties. Staff also monitors public access to the lake.

The conveyance system delivers water from the reservoir to the Whale Rock Commission member agencies located between the reservoir and the City. Outlets from the pipeline exist for water deliveries to Chorro Reservoir and water treatment plant (operated by the California Men's Colony), Cal Poly State University, the Cayucos water treatment facility and the City's Water Treatment Plant. In addition, water can be delivered to the Dairy Creek Golf Course under terms of an agreement between the California Men's Colony and the County of San Luis Obispo.

The Whale Rock pipeline is approximately 17 miles long, connecting the reservoir to the member agencies, and terminating at the City's Water Treatment Plant. The design capacity of the pipeline is 18.94 cubic feet per second (approximately 8,500 gallons per minute). The line consists of modified pre-stressed concrete cylinder pipe at most locations. Cement mortar lined steel pipe is used at creek crossings and junctions.

The pipeline has surge protection consisting of eight-inch, globe type, diaphragm-actuated pressure relief valves which protect the line from excessive pressures. The cathodic protection system consists of sacrificial anodes and test stations located in areas subject to galvanic corrosion. Previous inspections made during routine maintenance and repairs indicate the pipeline to be in good condition.

Two pump stations transmit the water along the pipeline to member agencies. The first pump station is located in Cayucos at Chaney Way (elevation 44 feet). The second station is located near Camp San Luis Obispo, approximately six miles southeast of Morro Bay (elevation 181 feet). Each station has five-200 horsepower pumps capable of delivering various flow rates requested by member agencies. Upgrades to both pump stations, which included the addition of two pumps at each station, were completed in August 1993.

In 2018, the City contracted with HDR Engineering, Inc. for inspection and assessment of the 850-foot long Whale Rock Dam spillway. The investgation included:

1. Review of design, construction, inspection, analysis, operation and maintenance, and geologic information, as provided by City.
2. Detailed visual, non-destructive inspection of the spillway slabs and walls from upstream of the spillway crest to downstream of the stilling basin.
3. Video/camera inspection of accessible outfall drains and heel drains.
4. Geologic inspection of foundation material adjacent to the spillway.
5. Evaluation of original spillway design versus a modern spillway design.
6. Evaluation of operations, inspection, and surveillance practices.
7. Evaluation of performance of previous repairs.

Whale Rock Dam Spillway.

A report was completed in March 2019 with recommendations including maintenance and repair activities for the drainage system and further engineering investigations. The City and its Whale Rock partners, Cal Poly and the California Men's Colony, will implement corrections as recommended by the California Department of Water Resources, Division of Safety of Dams.

Whale Rock trail.

Operating Agreements

Several agreements establish policies for the operation of the Whale Rock system and actions of the member agencies. A brief description of the existing agreements follows:

30-inch Whale Rock Pipeline Repair Conducted in June 2017

A) Agreement for the construction and operation of the Whale Rock Project, 1957, set forth the project's capital cost distribution to the member agencies.

B) A supplemental operating agreement, 1960, established the Whale Rock Commission and apportioned the operating costs.

C) Downstream water rights agreement (original 1958 agreement was amended and replaced with a new agreement in April 1996) established water entitlements for adjacent and downstream water users. The downstream water users (Cayucos Area Water Organization or CAWO) affected by this agreement consist of three public water purveyors and the cemetery. In addition to the agencies, water entitlements were identified for separate downstream landowners; see Table 17.

TABLE 17: Whale Rock Reservoir Downstream Entitlement

Downstream Water Users	Allocation
Cayucos Area Water Organization	**600**
Paso Robles Beach Water Association	222
Morro Rock Mutual Water Company	170
County Water District #10A	190
Cayucos-Morro Bay Cemetery District	18
Mainini	**50**
Ogle	**14**
Total Downstream Entitlement:	**664**

NOTE: Allocations are in acre-feet per year.
Source: City of San Luis Obispo Utilities Dept., 2021.

D) A decision and order by the Fish and Game Commission of the State of California, October 24, 1964, required the Whale Rock Commission to stock the reservoir with 17,500 rainbow trout (between six and eight inches long) each year. The State Department of Fish and Game has directed that no fish be planted in the reservoir to protect the existing fish population in the reservoir (landlocked steelhead).

E) Superior Court decision #36101, 1977, required the Whale Rock Commission to allow public entry to the reservoir for fishing. In 1981, construction was completed on access trails and sanitary facilities at the reservoir, and public fishing began at the lake.

F) An agreement for water allocation and operational policy between the agencies forming the Whale Rock Commission. The agreement established the accounting procedures to allow each agency to carry over excess or deficit water each year. The operating policies were most recently amended in 2014 to allow agencies to utilize their water supplies in the reservoir as needed by their agency.

G) An agreement between the Whale Rock Commission and the California Men's Colony, 1990, to establish maintenance and operation criteria for the Chorro Booster pumps. The Chorro Booster pumps were installed by the Commission on the California Men's Colony turnout from the Whale Rock line to reduce system pressures required to provide full flow to the California Men's Colony water treatment plant. Pump station maintenance, per the agreement, is the responsibility of the California Men's Colony.

H) An agreement between the Whale Rock Commission and the County of San Luis Obispo for connection to the Whale Rock pipeline, 1995, allowed a pipeline connection to deliver water to the Dairy Creek Golf Course. Typically, the golf course uses reclaimed water from the California Men's Colony Wastewater Treatment Plant. Water from Whale Rock Reservoir can be delivered when reclaimed water is not available under the terms of the agreement.

I) A consent to common use agreement, 1996, between the Whale Rock Commission and the County of San Luis Obispo. The agreement allowed the installation of the State Water pipeline at seven locations within the existing Whale Rock pipeline easement.

J) An agreement, updated in 2018, for exchange of water between the City of San Luis Obispo and the San Luis Obispo County Service Area No. 10A. The agreement allows for the exchange of up to 50 acre-feet per year of Nacimiento water for water from Whale Rock Reservoir.

TABLE 18: Reservoir Attributes

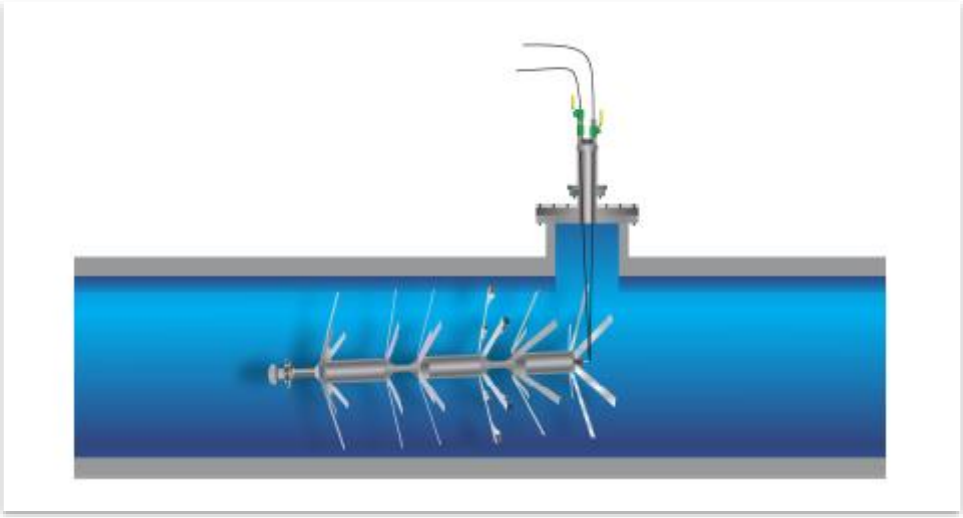
Reservoir	Watershed Size (Square Miles)	Storage Capacity (Acre-Feet)	Average Annual Precipitation (inches)	Average Annual Evaporation (Inches)
Salinas	112.0	23,843	22.1	85.4
Whale Rock	20.3	38,967	18.7	61.6
Nacimiento	361.5	377,900	35-55	-

Notes
1. Average annual precipitation and evaporation depths are based on the verified hydrologic data from the City's Safe Annual Yield Model, 2018. See Appendix IV.
2. Due to the size of Nacimiento Reservoir watershed area, average precipitation varies. Evaporation averages for Nacimiento Reservoir are not currently identified.

SOURCE: Nacimiento Water Project Initial Watershed Sanitary Survey, 2014.

Pipeline Condition Assessments

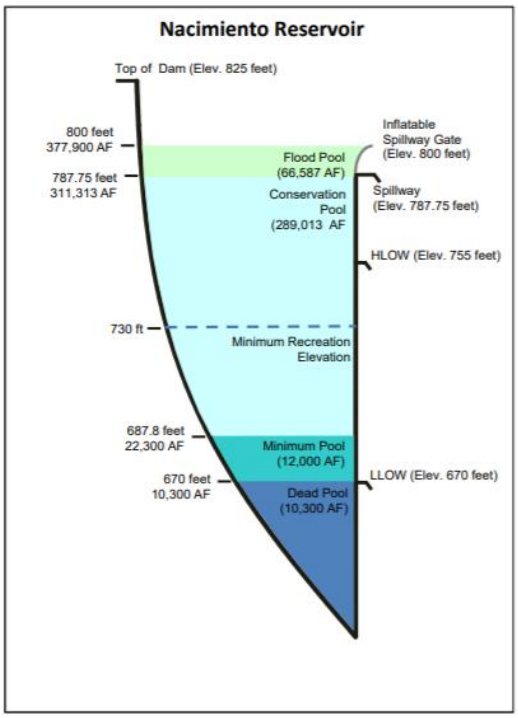
During 2019, pipeline condition assessments were completed for the Whale Rock Reservoir and Salinas Reservoir (Santa Margarita Lake) water transmission pipelines. The condition assessments used free-swimming electromagnetic inspection technology, shown in the image below, to locate and identify segments of the pipeline in need of repair. Over 16 miles of 30-inch transmission pipeline from Whale Rock Reservoir was analyzed. The assessment found that 2,610 segments had no abnormalities, and 25 segments had varying deficiencies (broken bar wraps or cylinder wall loss). The Salinas pipeline condition assessment analyzed 1.25 miles of pipeline originally installed in 1940s. Results of the assessment were described in a May 2019 report revealing 222 of the total 236 segments had no abnormalities, and 14 segments had varying deficiencies. Funding is programmed to address the identified pipeline deficiencies in the next few years.



Conceptual image of Electromagnetic Inspection Technology used to assess the Whale Rock and Salinas Reservoir transmission pipelines.

4.3 NACIMIENTO RESERVOIR

In 1959, the San Luis Obispo Flood Control and Watershed Protection District entered into an agreement with Monterey County Flood Control and Water Conservation District (now Monterey County Water Resources Agency) to secure rights to 17,500 acre-feet of water per year from Nacimiento Reservoir. Nacimiento Reservoir is located entirely within San Luis Obispo County, California (County), and was built by Monterey County Flood Control and Water Conservation District who continues to control reservoir ownership and operations. Nacimiento Reservoir has a storage capacity of 377,900 acre-feet and serves the purpose of abating seawater intrusion in the groundwater aquifers of the Salinas River Valley. The Nacimiento Reservoir also provides flood protection and is a source of water supply for groundwater recharge for the Salinas Valley. 1,750 AFY of the County's entitlement have been designated for uses around the lake, leaving 15,750 AFY for allocation to other areas within the County of San Luis Obispo.



Source: *Monterey County Water Resources Agency, Nacimiento Dam Operations Policy, 2018.*

The "dependable yield" from Nacimiento Reservoir is the contractual amount of water that the City has rights to from Nacimiento Reservoir. The original amount contracted for was 3,380 acre-feet per year. Engineering studies, environmental impact reports, dependable yield analyses, and preliminary design reports were undertaken in an effort to meet the various water needs within the County. In 2004, the County requested interested agencies to approve the contractual agreements for participation in the Nacimiento Project. The four initial project participants included the cities of San Luis Obispo and Paso Robles, the Atascadero Mutual Water Company, and the Templeton Community Services District. All of these agencies executed participation agreements with San Luis Obispo County for entitlements of water which totaled 9,630 acre feet. On June 29, 2004, the City Council authorized participation in the Nacimiento Water Project for the delivery of the original 3,380 acre-feet of water. In 2004, the County Service Area 10A in Cayucos became a project participant (25 AFY).

The County began construction in 2007 on a 45-mile pipeline project to deliver water from the Nacimiento Reservoir to participating agencies and cities. The facilities consist of a multi-port intake structure, three pump stations, three storage tanks, 45 miles of pipeline, four turnouts, a control center, and a Supervisory Control and Data Acquisition (SCADA) and Project control system. The Project budget was $176-million, including design, construction, construction management, environmental permitting, and right-of-way. Pipeline construction and related water delivery facilities were completed in the fall of 2010 with water deliveries to the City beginning in January of 2011.

In March 2016, the City Council approved the addition of 2,102 AFY from Nacimiento Reservoir to the City's secondary water supply. This addition brought the City's total Nacimiento Reservoir Allocation to 5,482 AFY. Secondary water supplies are used to meet short-term losses to the City's water supply due to events such as drought, pipeline maintenance, and repair of infrastructure. With uncertainty of future climatic conditions, regulation and aging infrastructure, the additional supply of Nacimiento water to the City's portfolio reduces pressure on use of water supplies in the Whale Rock and Salinas reservoirs. It would serve to extend these stored supplies during future critical water shortage periods.

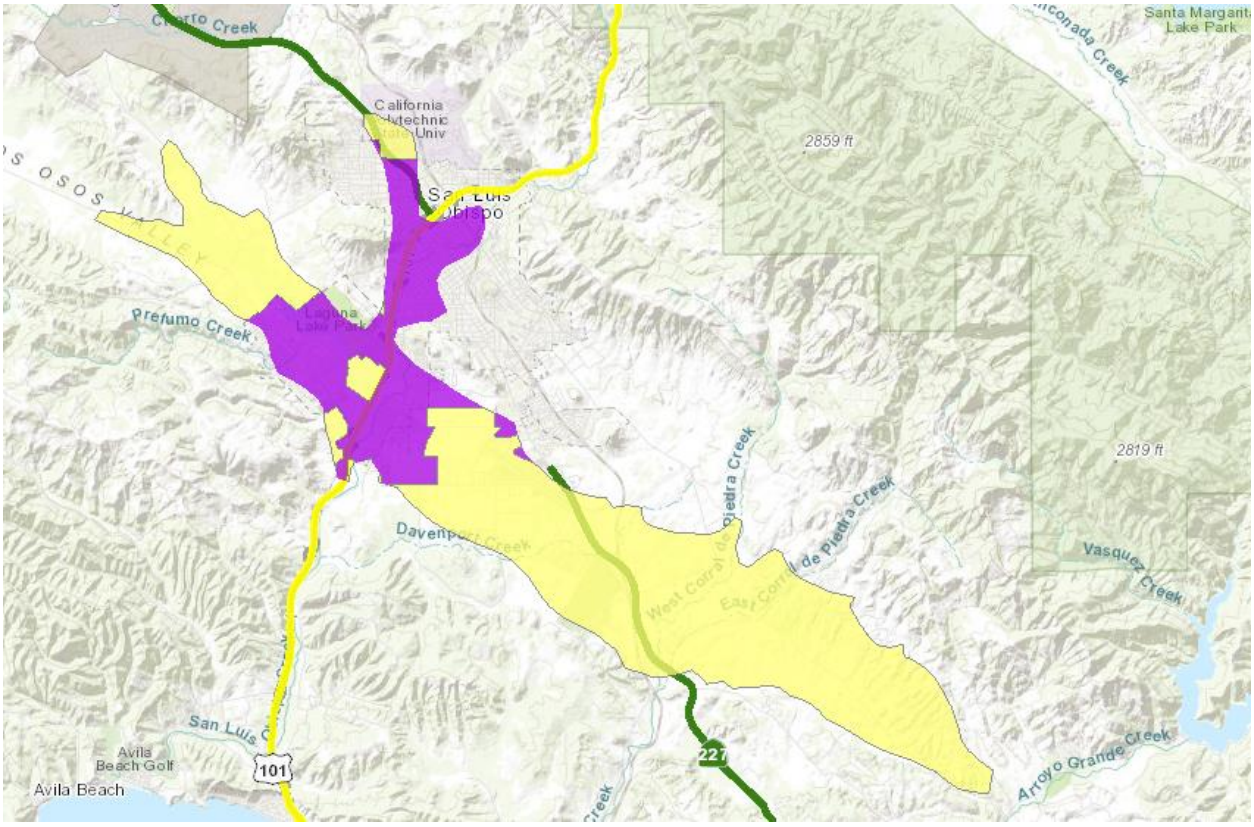
San Luis Obispo County operates, maintains, and administers capital improvement projects for the water delivery system from Nacimiento Reservoir to participating agencies (currently the cities of Paso Robles and San Luis Obispo, Atascadero Mutual Water Company, Templeton Community Services District, County Service Area 10A [Cayucos], Santa Margarita Ranch, and Bella Vista Mobile Home Park). The Nacimiento

Project Commission provides oversight to project operations, maintenance, and the project budget. The Commission is made up of representatives from each of the four founding agencies' governing boards and a County Representative who is a member of the County Board of Supervisors who also sits on the Board of Directors for the Flood Control District.

4.4 GROUNDWATER

The principal source of groundwater for the City is the San Luis Obispo Valley Groundwater Basin (Basin). The Basin is oriented in a northwest-southeast direction and is composed of unconsolidated or loosely consolidated sedimentary deposits. It is approximately 14 miles long and 1.5 miles wide. It covers a surface area of about 12,700 acres (19.9 square miles). The Basin is bounded on the northeast by the relatively impermeable bedrock formations of the Santa Lucia Range, and on the southwest by the formations of the San Luis Range and the Edna fault system. The bottom of the SLO Basin is defined by the contact of permeable sediments with the impermeable bedrock Miocene-aged and Franciscan Assemblage rocks. The Basin is commonly referenced as being composed of two distinct valleys, with the San Luis Valley in the northwest, providing water to the City of San Luis Obispo, and the Edna Valley in the southeast providing water to unincorporated areas of the county and large agricultural operations.

FIGURE 5: San Luis Obispo Valley Groundwater Basin



The City's major source of water was groundwater and surface water local creeks until 1944 when the City began to use water from Salinas Reservoir. In 1943, the City pumped 1,380 acre-feet of groundwater. Groundwater was used again during the summer of 1948, when 440 acre-feet was pumped. From that point on until 1989, most groundwater in the City was used by agriculture and very little was used for domestic consumption.

With the onset of the drought in 1986, resulting in decreasing surface water supplies, the City activated groundwater wells in 1989 to meet the City's water demand. In November 1992, nitrate levels in the Auto

Park Way Well exceeded State standards, so the well was taken out of service. In April 2015, the City stopped utilizing the Pacific Beach Well on Los Osos Valley Road for potable water purposes due to more stringent regulations for hexavalent chromium. The Fire Station #4 Well had been offline due to remediation of soil contamination at the adjacent Shell service station and is also currently offline due to hexavalent chromium.

Like surface water, groundwater must meet the standards set in the Safe Drinking Water Act. Water quality analysis in 1989 indicated that advanced treatment was needed on the now decommissioned Dalidio and Auto Park Way Wells due to unacceptable levels of tetrachloroethylene (PCE). Carbon adsorption units were placed on each well to provide necessary treatment and were granted approval for domestic consumption by the State of California, Department of Public Health (now the State Water Resources Control Board, Division of Drinking Water (DDW)).

The 1996 Amendments to the SDWA required the EPA to develop regulations that require disinfection of ground water systems to protect the public health. In 2006, the Groundwater Rule was adopted to further protect against waterborne illness due to fecal and E. Coli contamination in public water systems that use groundwater supplies.

In the 2010 update of the WWME, the City eliminated groundwater from the water supply calculation as a basis for meeting long-term water demands. The decision was based on the water quality and availability issues which deemed groundwater as a potentially unreliable source. Consistent with Policy A 3.2.3 from the City's WWME, the City does not rely on groundwater to meet long-term water demand. The City will utilize groundwater in the future, as the resource is needed, and plans to use well-head treatment to ensure the water quality is appropriate for potable purposes.

Current groundwater use includes one non-potable well located within the City's Corporation yard and two irrigation wells used at the City's Laguna Golf Course. The City's drinking water wells are offline and not used to meet any of the City's water needs. The Corp Yard well was established during the drought of 1987-91 to serve as an alternative source of water for construction-related activities prior to the City's recycled water program. The City placed limitations on the use of the Corp Yard well in 2015 and it is only available for municipal purposes, such as street sweeping and of City-owned trees. Table 19 shows the City's groundwater production for 2016 through 2020. These production amounts do not include agricultural and private groundwater pumping by non-City entities. Table 19 does not identify any City groundwater production in the term examined as part of this UWMP.

Sustainable Groundwater Management Act

In the future, the City plans to use groundwater to balance of its overall water supply portfolio as the use of groundwater would contribute to resiliency in the City's water supply portfolio. The Sustainable Groundwater Management Act (SGMA) is a statewide law that requires Groundwater Sustainability Agencies (GSA) to adopt groundwater management plans that outline actions needed to return groundwater basins to sustainable levels of pumping and recharge.

In May 2017, the City Council approved Resolution 10796 authorizing the City to become a Groundwater Sustainability Agency (GSA) for the San Luis Valley Groundwater Basin for the area that lies beneath and within the City's jurisdictional boundaries. In February 2019, the City Council, acting as the San Luis Valley Basin – City of San Luis Obispo Groundwater Sustainability Agency, approved the Notification of Intent to initiate development of a Groundwater Sustainability Plan (GSP) for the San Luis Obispo Valley Groundwater Basin.

While the Basin as a whole has been identified to be in overdraft and is listed as a high priority basin under SGMA, the basin has two distinct, largely hydrologically disconnected sub areas that are experiencing drastically different conditions from one another. The area underlying the City of San Luis Obispo, from which the City historically pumped groundwater, has experienced no ongoing groundwater level decline and is estimated to have a groundwater surplus of 700 AFY. The area to the southeast of the City, generally within the Edna Valley area, has experienced ongoing groundwater level decline and is estimated to have more than 1,000 AFY in over-pumping of groundwater resources. The San Luis Valley Groundwater Basin is not an adjudicated basin.

The City is working in collaboration with the County of San Luis Obispo GSA to create a single Groundwater Sustainability Plan (GSP) that provides full coverage of the San Luis Valley Groundwater Basin where each GSA is responsible for ensuring compliance with SGMA for their respective portions of the groundwater basin. To get additional information, to sign up for the interested stakeholder email list, or to see materials for past or upcoming meetings related to the GSP development, interested parties are encouraged to visit www.slowaterbasin.com. The San Luis Valley GSP must be submitted to California Department of Water Resources (DWR) by January 31, 2022.

TABLE 19: City Groundwater Production

Basin Name	2016	2017	2018	2019	2020
San Luis Obispo Valley (Basin 3-9)	0	0	0	0	0

NOTES:
1. Water volumes are in acre-feet per year.
2. Department of Water Resources, Table 6-1.

Source: City of San Luis Obispo Utilities Department, 2021.

4.5 FUTURE WATER PROJECTS AND DESALINATED WATER OPPORTUNITIES

The City has not identified the need for additional water supplies to meet potable water demand for the term of this UWMP. However, as described further in Chapter 5, construction of the upgrade of the WRRF is underway in 2021 to accommodate General Plan buildout and maximize recycled water production. The upgrade will enable the City to pursue potable reuse opportunities in the future, including opportunities to augment groundwater supplies with recycled water.

In July of 2020, the City received a nearly $2 million planning-phase grant, funded through Proposition 1, to study PCE contamination of the groundwater basin. A detailed understanding of the extent of PCE contamination and remediation options are necessary steps in fully utilizing the City's groundwater pumping opportunities. The planning phase work will continue into 2022. The City is planning to apply for an implementation-phase grant to fund necessary capital improvements to put an additional groundwater well into service. This work enhances the City's ability to extract, treat, and utilize groundwater to meet a portion of the City's potable water demand.

Desalination is a viable technology which is not rainfall dependent. Desalination activities can have significant negative environmental impacts and significant energy requirements which drive up the cost of desalinized water. The major disadvantages of desalination are the cost, potential for environmental impacts, and significant energy demand. Desalination is currently being used or considered for use by multiple agencies in California and could potentially be a water supply consideration in the future if the City's current supplies prove to be inadequate or insufficiently resilient. Advances in desalination technology and cost reductions may create opportunities to utilize this resource in the future.

4.6 WATER SUPPLY SUMMARY

Tables 20 and 21 provide information for each source of water utilized by the City in 2020. The City utilized water from its multi-source supply in a conjunctive manner. The City intends use its contractual water supply from Nacimiento Reservoir first, with Whale Rock and Salinas used as needed to meet the City's overall potable water demand. In the twenty years projected by this UWMP through 2040, the City assumes it will continue to use these water supplies in this coordinated manner. Recycled water was used at over 50 metered locations for landscape irrigation and construction water uses in 2020.

TABLE 20: 2020 Actual Water Supplies

Water Supply Sources	2020
Water purchased from:	
SLO County Flood Control and Water Conservation District (Nacimiento Reservoir)	2,065
Supplier-produced groundwater	0
Supplier-produced surface water (Salinas and Whale Rock Reservoirs)	2,752
Total (Potable Water):	4,817
Recycled Water	245
Total (Potable and Recycled Water):	5,062

NOTES:
1. Water volumes are in acre-feet per year and rounded to the nearest acre-foot.
2. Department of Water Resources, Table 6-8.

Source: City of San Luis Obispo Utilities Department, 2021.

TABLE 21: Actual and Projected Water Supplies

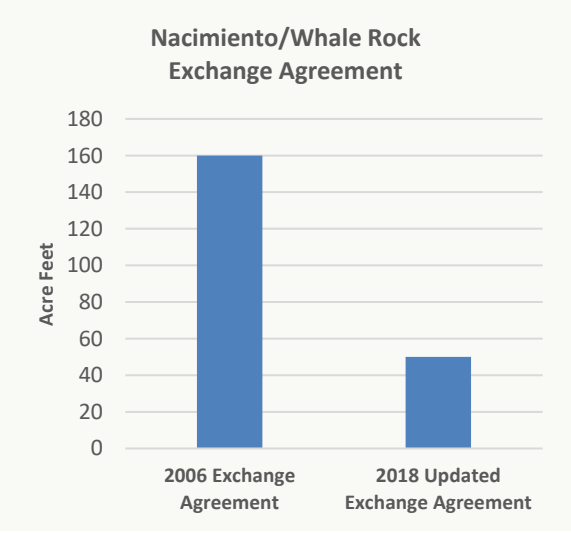
Water Supply Sources		2025	2030	2035	2040
Water purchased from:	**Wholesaler supplied volume (yes)**				
SLO County Flood Control and Water Conservation District	All	5,482	5,482	5,482	5,482
Supplier-produced groundwater		0	0	0	0
Supplier-produced surface water (not desalinated)		939	1,265	1,614	1,947
Recycled Water (City of SLO WRRF)		445	645	695	745
Total		**6,866**	**7,392**	**7,791**	**8,174**
Projected Population:		**51,317**	**53,934**	**57,200**	**60,118**

NOTES
1. Water volumes are projected using population projections from Table 2.
2. Water volumes are in acre-feet per year.
3. Department of Water Resources, Table 6-8 and 6-9.

Source: City of San Luis Obispo Utilities Department, 2021.

4.7 TRANSFERS AND EXCHANGES

The City of Morro Bay and the Whale Rock Commission (which the City of San Luis Obispo is a member agency) executed an agreement in June of 2000 which provides for Mutual Aid between the agencies during disruption of water deliveries or lack of available water supplies. The agreement provides a general framework for exchanging water between agencies in the event of emergencies or other water disruptions. The agreement is voluntary based on each agency's ability to assist at any point in the future. The City is also a member of the California Water/Wastewater Agency Response Network (CalWARN). This organization functions in coordination with the State Office of Emergency Services (OES) to support and promote statewide emergency preparedness, disaster response, and mutual assistance matters for public and private water and wastewater utilities.



The San Luis Obispo County Service Area No. 10 (Cayucos) and the City have a water exchange agreement which was originally executed in October of 2006. In 2018, Following the full allocation of Nacimiento Reservoir, City and County staff recognized the need to update the Exchange Agreement to align with the entitlements in the provisions of the full allocation of Nacimiento. The updated agreement reduces the amount of water that could potentially be delivered to CSA 10 from 160 acre-feet, identified in the 2006 agreement, to 50-acre feet per year, coinciding with the total County Service Area No. 10A and Bella Vista Mobile Home Park entitlement.

TABLE 22: Transfers and Exchanges

Transfer Agency	Transfer or Exchange	Short-term or long-term	Proposed Volume
City of Morro Bay (emergency supply)	Transfer	Short-Term	Not Identified
San Luis Obispo County Service Area No.10	Exchange	Long-Term	50
		Total	50

NOTE: Water volumes are in acre-feet per year.

Source: City of San Luis Obispo Utilities Department, 2021.

The updated Exchange Agreement, finalized in July 2018, facilitates a successful partnership between the City and County to meet regional water needs and minimizing cost and potential environmental issues.

4.8 ENERGY USE

The 2020 UWMP is required to include energy information. For purposes of analyzing the energy used by the City to deliver potable water to the community in 2020, potable water management is divided into raw water conveyance, water treatment, and water distribution. Because the City conveys, treats, and distributes water as a retail provider to Cal Poly by agreement, the energy consumed for each water management process is calculated as a percentage of the total energy use for the process, equal to the City's portion of the water. The energy used to provide potable water to the community is summarized in Table 23. The energy used to provide recycled water to the community is described in Chapter 5 and summarized in Table 29.

Raw Water Conveyance

As described earlier in this Chapter, the City utilizes raw water from three surface water reservoirs (Salinas, Whale Rock, and Nacimiento) to meet the community water demand. Water is conveyed from Salinas Reservoir through 9.2 miles of 24-inch diameter reinforced concrete pipe to a three-million gallon regulating reservoir at Santa Margarita booster pump station near the northerly base of Cuesta Grade adjacent to Highway 101. The pipeline is designed to flow by gravity from the Reservoir to the regulating reservoir when the lake level is above the elevation of 1,267 feet. A booster pump station at the base of the dam, consisting of two horizontal centrifugal pumps, is capable of maintaining the rated flow of 12.4 cubic feet per second (cfs) when the water surface elevation falls below 1,267 feet. Three electrically driven horizontal centrifugal pumps at the Santa Margarita booster station pump water through 6,810 feet of 24-inch diameter reinforced concrete pipe to the entrance portal of the Cuesta Tunnel, which runs 5,327 feet through the mountains near Cuesta Grade. From the outlet portal of the tunnel, water is conveyed through an 18-inch diameter steel pipeline a distance of 5,133 feet to the City's turnout point. In 2020, 676,580 kWh of energy were used to move 1,718 acre-feet (559.96 MG) from Salinas Reservoir to the WTP.

Conveyance of untreated, or “raw” water from Whale Rock Reservoir requires energy to power two pump stations. Each pump station has five-200 horsepower pumps capable of delivering water at various flow rates. The Whale Rock pipeline extends approximately 17 miles from the reservoir to the WTP. The design capacity of the pipeline is 18.94 cubic feet per second (approximately 8,500 gallons per minute). In 2020, 758,208 kWh of energy were used to move 1,305 acre-feet (425.12 MG) from Whale Rock Reservoir to the WTP.

Water is conveyed from Nacimiento Reservoir through 45 miles of pipeline using three pump stations. San Luis Obispo County operates and maintains the water delivery system from Nacimiento Reservoir to participating agencies (currently the cities of Paso Robles and San Luis Obispo, Atascadero Mutual Water Company, Templeton Community Services District, County Service Area 10A [Cayucos], Santa Margarita Ranch, and Bella Vista Mobile Home Park). The City pays a proportion of the costs, equal to the volume of

water allocated as a percent of the total volume released. In 2020, 1,893,991 kWh of energy were used to move 1,958 acre-feet (637.98 MG) from Nacimiento Reservoir to the WTP.

Potable Water Treatment

Raw water from Salinas, Whale Rock, and Nacimiento Reservoirs is treated at the WTP via a process including ozone treatment for disinfection and oxidation, mixing and settling, filtration, chlorination, fluoridation, and THM removal using an in-tank aeration system. Energy included under that WTP also includes the Transfer Pump Station that pumps water to Reservoir 2.

Potable Water Distribution

The City's water distribution system utilizes pump stations to move water through over 190 miles of water mains for distribution to the community. The majority of the City's water distribution system is fed by gravity from Reservoir 2.

TABLE 23: 2020 Energy Usage for Potable Water Management

	Water Management Process			
	Water Conveyance	**Water Treatment**	**Water Distribution**	**Total**
Volume of Water Entering Process (acre-feet)	4,981	4,981	4,981	4,981
Energy Consumed (kWh)	3,328,779	1,096,117	70,563	4,495,459
% of total Energy Consumed	74%	24%	2%	100%
Energy Intensity (kWh/vol.)	668	220	14	903

NOTES

1. The energy required for conveyance of water from Nacimiento Reservoir to the City is not individually metered and was calculated as a percentage of the total energy required to convey water to the San Luis Obispo County Flood and Water Conservation District member agencies.
2. Some meters report the energy consumption of equipment used in more than one water management process. To provide the most accurate data, the energy use was allocated to the process which required the greatest energy demand.
3. For 2020, community potable water demand was met using Nacimiento (39%), Salinas (34%), and Whale Rock (26%). Water quality, operations and maintenance, and climate influence the City's coordinated operation of the three water supplies.

Source: City of San Luis Obispo, Utilities Department, 2021.

4.9 REQUIRED UWMP STANDARDIZED TABLES:

Retail: Groundwater Volume Pumped						
Groundwater Type	**Location or Basin Name**	**2016**	**2017**	**2018**	**2019**	**2020**
Alluvial Basin	San Luis Obispo Valley	0	0	0	0	0
	TOTAL					
NOTES: Table 6-1 R.						

Retail: Water Supplies — Actual			
Water Supply	**Additional Detail on Water Supply**	**2020**	
		Actual Volume	**Water Quality**
Surface water	Nacimiento Reservoir	2,065	Drinking Water
Surface water	Whale Rock Reservoir	940	Drinking Water
Surface water	Salinas Reservoir	1,812	Drinking Water
Groundwater	San Luis Obispo Valley Basin	0	Drinking Water
Recycled Water	City of San Luis Obispo WRRF	245	Recycled Water
	Total	5,062	
NOTES: Table 6-8 R.			

Water Supplies — Projected					
Water Supply	**Additional Detail on Water Supply**	**Projected Water Supply**			
		2025	**2030**	**2035**	**2040**
		Reasonably Available Volume	**Reasonably Available Volume**	**Reasonably Available Volume**	**Reasonably Available Volume**
Surface water	Nacimiento Reservoir	5,482	5,482	5,482	5,482
Surface water	Salinas Reservoir and Whale Rock Reservoir	4,910	4,910	4,910	4,910
Recycled Water	City of San Luis Obispo WRRF	445	645	695	745
Other (siltation)		-500	-500	-500	-500
	Total	10,337	10,537	10,587	10,637
NOTES: Table 6-9 R (Retail).					

Chapter 5: Recycled Water

This chapter was prepared to fulfill the requirements of Section 10633 (a-g) of California Water Code Division 6, Article 2, Part 2.6 regarding the City's recycled water supply. As defined in Water Code Section 13050(n),

> *"Recycled Water" means water which as, a result of treatment of waste, is suitable for a direct beneficial use or a controlled use that would not otherwise occur and is therefor considered a valuable resource.*

The City produces and distributes recycled water consistent with the regulatory requirements described below and therefore meets the minimum requirements to be classified as recycled water in this UWMP. These regulations, as set forth in Title 22, Division 4 of the California Code of Regulations, Wastewater Recycling Criteria (Title 22) and the conditions and requirements contained in the City's National Pollutant Discharge Elimination System (NPDES) Permit Number R3-2003-081 prescribed by the Regional Water Quality Control Board (RWQCB), establish specific criteria for treatment, distribution, and application of recycled water within the state. The RWQCB and Division of Drinking Water (DDW) have a memorandum of understanding in which DDW agrees the RWQCB will be the implementing agency responsible for permitting recycled water programs. The RWQCB Master Permit for Recycled Water is the guiding document for most of the City's requirements. In accordance with the Master Permit (WDR Order No. 03-2003-081, October 24, 2003), the City complies with the following:

1. Meter the total quantity of reclaimed water distributed daily,
2. Monitor and record chlorine residual concentration at a point after the final chlorine contact basin,
3. Provide guidance to recycled water users including a user manual and other guidance as needed,
4. Provide instruction to all City field staff to report incidents of unauthorized daytime irrigation activity or runoff,
5. Cooperate with County Environmental Department of Health Services to ensure backflow devices are present, tested and repaired or replaced if found defective,
6. Inspect the operation of reuse sites,
7. Perform cross connection testing,
8. Conduct site supervisor training and quarterly interviews to verify system operation, and
9. Quarterly review of monthly meter readings with follow-up on change in patterns of use.

The City also complies with minimum daily average discharge requirements from the Water Resource Recovery Facility (WRRF) to San Luis Obispo Creek for protection of downstream fish habitat as required by National Oceanic Atmospheric Association, National Marine Fisheries Service (NOAA NMFS).

5.1 WASTEWATER COLLECTION, TREATMENT, AND DISPOSAL

The City's wastewater collection system serves residential, commercial and industrial customers within the city limits. The City also provides service to Cal Poly State University and the County of San Luis Obispo Airport. The City's WRRF is located on Prado Road, adjacent to U.S. 101 in the southern portion of the City. The design flow rate at the WRRF is 5.1 million gallons per day (MGD), with a 2020 average daily flow of 2.9 MGD. The WRRF discharges to San Luis Obispo Creek. An upgrade is underway at the WRRF to expand the design flow rate to 5.4 MGD. That project is scheduled to be complete in 2023.

The City's Water Reuse Project, which included improvements at the WRRF and the construction of eight miles of recycled water distribution system, was completed in October of 2006. The recycled water pump station was designed to provide up to 1,750 gallons per minute (gpm) of recycled water at a pressure of approximately 130 pounds per square inch (psi). Maximum design capacity is approximately 2.5 MGD. The distribution system was designed to serve the City through one pressure zone. Recycled water storage is provided by one-600,000 gallon underground storage tank located at the WRRF. The existing recycled water pump station was designed to accommodate future expansion with space for two additional pumps at the WRRF. The upgrade will enable the City to consider potable reuse in the future. Potable reuse is discussed more in section 5.7 of this Chapter.

The City's recycled water distribution system extends to the east and west from the WRRF in the southern portion of the City. The distribution system was designed to supply irrigation water to several existing City parks, the City's Laguna Lake Golf Course, a middle school, and future development areas. Recycled water is provided to Caltrans from a metered connection near the WRRF, which is adjacent to U.S. Highway 101. Caltrans utilizes recycled water to irrigate landscape areas along the entire highway corridor through the City, which was previously supplied with potable water. Annual usage for 2016 through 2020 is provided in Table 23.

The City's WRRF produced over 3,000 acre-feet of disinfected tertiary-treated effluent in 2020. The City is required to maintain a minimum average daily release, year-round, of treated effluent to San Luis Obispo Creek at a rate of 2.5 cubic feet per second (cfs), or approximately 1.6 mgd, to provide a flow volume adequate to support habitat for anadromous fish species within San Luis Obispo Creek. This rate totals a minimum of 1,807 acre-feet per year of creek discharge. The City monitors the release of effluent through an effluent meter at the WRRF. The balance, approximately 1,250 acre-feet in 2020, makes up the City's available recycled water resource (See Table 24).

TABLE 24: Recycled Water Usage, 2016-2020

Year	Usage (in acre-feet)
2016	193.24
2017	239.60
2018	219.44
2019	215.26
2020	244.85

Source: City of San Luis Obispo Utilities Department, 2021.

5.2 CURRENT RECYCLED WATER USE

In 2020, recycled water was delivered to over 50 metered locations in the City for landscape irrigation. Additional sites will continue to be connected to the recycled water distribution system with new development in the City. Other notable recycled water demand figures:

- ***Average Daily Demand*** in July, August, and September 2020 was over 342,000 gallons.
- ***Peak Daily Demand*** was over 619,833 gallons on August 25, 2020.
- ***Peak Monthly Demand*** was over 11.5 million gallons during August 2020.

The City began issuing annual construction water permits in July 2009. During the 2019-20 fiscal year over 20 construction water permits were sold. Permit holders have access to an unlimited supply of recycled water for dust control and compaction on construction sites in the City. The City has metered wharf head hydrant filling stations on the recycled water distribution system, at the City's Corporation Yard, and within the WRRF.

TABLE 25: 2020 Influent Flow and Recycled Water Availability

Average Influent Flow to WRF		Treated Effluent Produced (AFY)	Minimum Average Daily Creek Release (MGD)[1]	Minimum Annual Creek Release (AFY)	Average Daily Recycled Water Availability (MGD)	Annual Recycled Water Availability (AFY) [1]
2020 Average Flow	2.9 mgd	3,248	1.6129	1,807	1.28	1,411
Future Flow at WRRF Design Capacity	5.4 mgd	5,966	1.6129	1,807	3.79	4,159

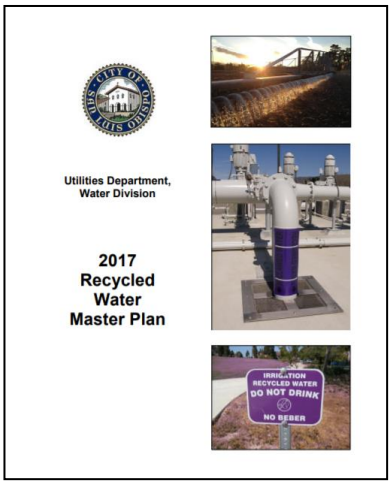
NOTES:

1. 2020 data was derived from WRRF average monthly influent data. Future annual recycled water volume is based on the design capacity of the WRRF of 5.4 mgd and is not an indication of actual volumes of available recycled water. The City's WRRF upgrade project is currently under construction in 2021.

Source: City of San Luis Obispo Utilities Department, 2021.

5.3 FUTURE SYSTEM EXPANSION

This section discusses the City's 2017 *Recycled Water Master Plan* (*2017 Master Plan*) including the potential for future expansion of the City's recycled water system, and projected recycled water usage in 2025, 2030, 2035, and 2040. The *2017 Master Plan* is part of a comprehensive strategy to efficiently manage the City's water resources. The scope included the following:



1. Plan for the strategic and beneficial use of recycled water, including the potential for future potable reuse.
2. Analyze recycled water production capability in the short- and long-term, ensuring the Master Plan reflects current wastewater generation rates.
3. Understand the City's expected growth patterns and recycled water demand.
4. Develop a hydraulic model for the recycled water distribution system that can be utilized for future infrastructure analysis.
5. Analyze the available recycled water supply, including surplus supply.
6. Confirm the long-term extent of the Master Plan area.
7. Provide a plan for incremental expansion of the recycled water distribution system.
8. Prioritize future retrofit opportunities based on defined criteria.
9. Identify future storage needs based on future peak day demand.
10. Evaluate infrastructure improvements needed to reach new customers and a prioritized Capital Improvement Project (CIP).

The *2017 Master Plan* covers the planning period to the year 2035 consistent with development projections in the City's *General Plan*. In Table 4 of the *2017 Master Plan*, the City estimated that demand existed for approximately 791 acre-feet of recycled water annually. This estimate includes serving approximately 400 AFY of recycled water for landscape irrigation to the Orcutt, Margarita, and Airport, San Luis Ranch, Avila Ranch, and Froom Ranch areas (some sites are actively using or under construction in 2021), as well as medium- and high-priority retrofits (63 AFY and 89 AFY, respectively) of existing irrigation systems to use recycled water.

Projected recycled water use for 2025 through 2040 is provided in Table 23. Table 24 revisits estimates made in the 2015 UWMP for 2020 and actual 2020 recycled water deliveries.

TABLE 26: Potential Future Recycled Water Use

Beneficial Use Type	General Description of 2020 Uses	Level of Treatment	2020	2025	2030	2035	2040
Landscape irrigation (excludes golf courses)	Irrigation at parks, school, medians, multi-family housing sites, etc.	Tertiary	208	410	610	660	710
Golf course irrigation	Laguna Lake Golf Course	Tertiary	9	10	10	10	10
Commercial use	Irrigation at commercial sites	Tertiary	0	0	0	0	0
Other: Construction Water	Construction Water Permit program	Tertiary	28	25	25	25	25
		Total:	**245**	**445**	**645**	**695**	**745**

NOTES:
1. Water volumes are in acre-feet per year.
2. Department of Water Resources, Table 6-4.
3. Projected recycled water usage for 2025 to 2040 is based on the City's knowledge of planned projects identified in the City's General Plan Land Use Element to be served with recycled water (including the Margarita, Orcutt, Airport, Avila Ranch, San Luis Ranch, and Froom Ranch areas).

Source: City of San Luis Obispo Utilities Department, 2021.

5.4 RECYCLED WATER PROGRAM INCENTIVES

In 2021, the City's metered rate charged for recycled water is 90 percent of the potable water rate. An annual Construction Water Permit is available to contractors for $1,260 for use on construction projects within the City.

TABLE 27: 2015 UWMP Recycled Water Use Projection Compared to 2020 Actual Deliveries

Use Type	2015 Projection for 2020[1]	2020 Actual Use
Agricultural irrigation	0	0
Landscape irrigation (excludes golf courses)[2]	135	208
Golf course irrigation	15	9
Commercial use[3]	30	0
Other: Construction Water	20	28
Total	**200**	**245**

NOTES:
1. Projection for 2020 identified in the City's 2015 UWMP.
2. "Landscape irrigation" includes irrigation at commercial plazas and parking lot areas, parks, schools, medians and streetscape, and common area landscape with residential homeowners associations.
3. For the 2020 UWMP, "commercial use" is interpreted as recycled water use interior to a dual plumbed commercial building.
4. Water volumes are in acre-feet per year.
5. Department of Water Resources, Table 6-5 (R).

Source: City of San Luis Obispo Utilities Department, 2021.

The City adopted a mandatory use ordinance for recycled water in 2004. The policy, codified in the Municipal Code as Chapter 13.24, allows the City to require the use of recycled water on parcels when considered feasible. The code language is as follows:

> ***13.24.010 Statement of Policy***
> *When in the judgment of the city, reclaimed water service can be feasibly provided to a particular parcel for particular uses, the utilities director shall require the use of reclaimed water in lieu of potable water for those uses. As used herein, the term "feasible" means reclaimed water is available for delivery to the property in compliance with all applicable federal, state, and local laws, ordinances and regulations and such reclaimed water can be delivered to the property at an overall cost to the user which does not exceed the overall cost of potable water service (Ord. 1403 § 1,2001).*

For areas within the recycled water expansion area that are not subject to the mandatory use ordinance defined above, funding mechanisms or incentives may be required to achieve user site retrofits.

5.5 SEASONAL SURPLUS

The City has identified a "seasonal surplus" of recycled water available in excess of required discharge to San Luis Obispo Creek (1.6129 million gallons per day or mgd as required by the National Oceanic and Atmosopheric Association, National Marine Fisheries Service in 2005) and recycled water for landscape irrigation. The primary use of recycled water in the City is for landsacpe irrigation with 73 percent of the City's recycled water demand occuring from May through October. During 2020, 245 acre feet of recycled water was used for landscape irrigation and construction water. As only a limited amount of landscape irrigation takes place from November to April (seasonal off-peak period), more than 2 mgd of recycled water

is available during the seasonal off-peak period. Related to this seasonal surplus, the following goal and program was added to the *General Plan*, *Water and Wastewater Management Element* in 2010:

Goal A7.1.2 *Maximize the use of the City's available recycled water supply for approved uses.*

Program A 7.3.4 *Consider the potential to deliver available recycled water supplies to customers outside the city limits, including analysis of policy issues, technical concerns, and cost recovery, provided it is found to be consistent with the General Plan.*

With the update to the *General Plan*, *Land Use Element* in 2014, Policy 1.13.2 was added. This policy was broadened in 2020 to also include non-potable water:

1.13.2. Recycled Water
Provision of non-potable or recycled water outside of City limits may only be considered in compliance with Water and Wastewater Element Policy A 7.3.4 and the following findings:

A. Non-potable/recycled water is necessary to support continued agricultural operations.
B. Provision of non-potable/recycled water will not be used to increase development potential of property being served.
C. Non-potable/recycled water will not be further treated to make it potable.
D. Prior to provision of non-potable/recycled water, the property to be served will record a conservation, open space, Williamson Act, or other easement instrument to maintain the area being served in agriculture and open space while non-potable/recycled water is being provided.
E. Provision of non-potable and recycled water will not impair the City's ability to maintain an adequate water supply that meets projected water demand at buildout under the General Plan including the required reliability reserve.

TABLE 28: Methods to Expand Recycled Water Use

Name of Action	Description	Planned Implementation Year	Expected Increase in Recycled Water Use
Mandatory Use	Ordinance adopted	2004	450 acre-feet
Sale of Seasonal Surplus	Under study	Unknown	Unknown
Recycled Water Rate Restructuring	Not currently under consideration	Not currently under consideration	Unknown
Potable Reuse	Under study	Unknown	Unknown
		Total	450 acre-feet

NOTES:
1. Department of Water Resources, Table 6-6.

Source: City of San Luis Obispo Utilities Department, 2021.

5.6 POTABLE REUSE

The construction phase for the upgrade of the WRRF is underway in 2021 to accommodate the City's buildout and maximize recycled water production. The upgrade will enable the City to consider either direct or indirect potable reuse in the future.

Direct potable reuse is the planned introduction of recycled water either directly into a public water system (treated drinking water augmentation), as defined in Section 116275 of the Health and Safety Code, or into a raw water supply immediately upstream of a water treatment plant (raw water augmentation). Direct potable reuse is a practice which is not currently occurring in California; however, Assembly Bill (AB) 574 (Water Code, Division 7, Chapter 7.3) requires the State Water Board to adopt uniform water recycling criteria for direct potable reuse through raw water augmentation on or before December 31, 2023.

Additionally, the State Water Board Division of Drinking Water (DDW) published a Proposed Framework of Regulating Direct Potable Reuse in California in 2018 and updated the Framework in 2019.

Indirect potable reuse occurs when tertiary or advanced treated wastewater augments drinking water resources. The two types of indirect potable reuse are:

- Indirect potable reuse for groundwater recharge - where recycled water recharges a groundwater basin and groundwater is later extracted from the basin.
- Reservoir water augmentation – where recycled water is added into a surface water reservoir used as a source of domestic drinking water supply.

Indirect potable reuse does not actually occur until the water is subsequently pumped from the ground or withdrawn from the reservoir, treated, and added to the drinking water distribution system. Indirect potable reuse through groundwater recharge has occurred in California since 1962. Title 22, Division 4, Chapter 3, Article 5.1 (CCR §60320 *et seq*) describes the permitting and monitoring process required to obtain a RWQCB permit for groundwater recharge.

Title 22, Division 4, Chapter 3, Article 5.3 (CCR §60320 *et seq*) describes the regulations governing reservoir augmentation. These regulations set requirements for the quality of treated recycled water that can be added to an augmented reservoir, the percentage of recycled water that can be added, and the required residence time before treatment at a drinking water facility. Like groundwater recharge with recycled water, reservoir water augmentation would only occur with a permit and monitoring requirements from the RWQCB.

5.7 ENERGY USE

This section describes the City's energy usage to produce and deliver recycled water to the community. Energy consumption data was acquired from PG&E for the meters associated with the recycled water process. As shown in Table 29, the process includes energy use for each of the following:

- Wastewater collection conveyance,
- Wastewater treatment,
- Discharge and recycled water distribution.

The City's wastewater collection system includes 138 miles of gravity sewer line ranging from six-inch to 48-inch pipe. The system includes 2.4 miles of force main ranging from four- to 16-inch pipe. Wastewater generally flows by gravity to the City's WRRF for treatment. Seven sewer lift stations (Airport, Laguna, Margarita, Prefumo, Silver City, Tank Farm) serve areas in the southern portion of the City down gradient from the WRRF. One lift station (Foothill) is located in the northern portion of the City serving approximately 70 parcels. All lift stations are monitored/controlled with a SCADA system.

For 2020, influent flow is established from both metered flow and an estimation of unmetered internal recycled flow. Effluent flow is a calculation of multiple flow meters. The City's WRRF is undergoing a comprehensive facility upgrade to address regulatory compliance and replace aging infrastructure. More accurate data will be available in the future when the upgrade is complete.

The City's recycled water pump station was designed to provide up to 1,750 gallons per minute (gpm) of recycled water at a pressure of approximately 130 pounds per square inch (psi). Maximum design capacity is approximately 2.5 MGD. The distribution system was designed to serve the City through one pressure zone. Recycled water storage is provided by one- 600,000 gallon underground storage tank located at the WRRF. The existing recycled water pump station was designed to accommodate future expansion with space for two additional pumps at the WRRF.

TABLE 29: 2020 Energy Usage for Recycled Water Management

	Recycled Water Management Process			
	Wastewater Collection	Wastewater Treatment	Discharge / Recycled Water Distribution	Total
Volume of Wastewater Entering Process (acre-feet)	3,272	3,272	3,449	3,272
Wastewater Energy Consumed (kWh)	0	3,932,217	0	3,932,217
Wastewater Energy Intensity (kWh/volume)	0.0	1,202	0.0	1,202
Volume of Recycled Water Entering Process (volume units selected above)	237	237	250	250
Recycled Water Energy Consumed (kWh)	0	0	301,649	301,649
Recycled Water Energy Intensity (kWh/volume)	0.0	0.0	1,206	1,206

SOURCE: City of San Luis Obispo, Utilities Department, 2021.

5.7 Required UWMP Standardized Tables:

Wastewater Collected Within Service Area in 2020						
100	Percentage of 2020 service area covered by wastewater collection system *(optional)*					
100	Percentage of 2020 service area population covered by wastewater collection system *(optional)*					
Wastewater Collection			**Recipient of Collected Wastewater**			
Name of Wastewater Collection Agency	**Wastewater Volume Metered or Estimated?**	**Volume of Wastewater Collected in 2020**	**Name of Wastewater Treatment Agency Receiving Collected Wastewater**	**Treatment Plant Name**	**Is WWTP Located Within UWMP Area?**	**Is WWTP Operation Contracted to a Third Party?**
City of San Luis Obispo	Metered	3,248	City of San Luis Obispo	City of San Luis Obispo	Yes	No
Total Wastewater Collected from Service Area in 2020:		3,248				
NOTES: Table 6-2 R.						

Wastewater Treatment and Discharge Within Service Area in 2020										
Wastewater Treatment Plant Name	Discharge Location Name or Identifier	Discharge Location Description	Wastewater Discharge ID Number	Method of Disposal	Does This Plant Treat Wastewater Generated Outside the Service Area?	Treatment Level	2020 volumes			
							Wastewater Treated	Discharged Treated Wastewater	Recycled Within Service Area	Recycled Outside of Service Area
City of San Luis Obispo Water Resource Recovery Facility	San Luis Obispo Creek	San Luis Obispo Creek outfall	R3-2014-0033	River or creek outfall	Yes	Tertiary	3,248	3,003	245	0
						Total	3,248	3,003	245	0
NOTES: Table 6-3 R.										

Wastewater Treatment and Discharge Within Service Area in 2020							
Beneficial Use Type	**General Description of 2015 Uses**	**Level of Treatment**	**2020**	**2025**	**2030**	**2035**	**2040**
Agricultural irrigation	None		0	0	0	0	0
Landscape irrigation (excludes golf courses)	Irrigation at parks, school, medians, etc.	Tertiary	208	410	610	660	710
Golf course irrigation	Laguna Lake Golf Course	Tertiary	9	10	10	10	10
Commercial use	Irrigation at commercial sites	Tertiary	0	0	0	0	0
Other: Construction Water	Construction Water Permit program	Tertiary	28	25	25	25	25
		Total:	**245**	**445**	**645**	**695**	**745**
NOTES: Table 6-4 R.							

2015 UWMP Recycled Water Use Projection Compared to 2020 Actual		
Use Type	**2015 Projection for 2020**	**2020 Actual Use**
Agricultural irrigation	0	0
Landscape irrigation (excludes golf courses)	135	208
Golf course irrigation	15	9
Commercial use	30	0
Other: Construction Water	20	28
Total	**200**	**245**
NOTES: Table 6-5 R.		

Retail: Methods to Expand Future Recycled Water Use			
Page 5-3, 5-4, 5-5, 5-6	Provide page location of narrative in UWMP		
Name of Action	**Description**	**Planned Implementation Year**	**Expected Increase in Recycled Water Use**
Mandatory Use	Ordinance adopted	2004	500 acre-feet
Sale of Seasonal Surplus	Under study	Unknown	Unknown
Recycled Water Rate Restructuring	Not currently under consideration	Not currently under consideration	Unknown
Potable Reuse	Under study	Unknown	Unknown
		Total	**500**
NOTES: Table 6-6 R.			

Expected Future Water Supply Projects or Programs	
☐	No expected future water supply projects or programs that provide a quantifiable increase to the agency's water supply. Supplier will not complete the table below.
☑	Some or all of the supplier's future water supply projects or programs are not compatible with this table and are described in a narrative format.
Page 5-6	Provide page location of narrative in the UWMP
NOTES: Table 6-7 R.	

Chapter 6: Water Supply Reliability & Drought Risk Assessment

Chapter 4 discussed how the City uses multiple water sources to meet projected short- and long-term potable water demands. This chapter focuses on the reliability of those sources. This chapter also discusses the projected supplies available during a single dry water year and during multiple-dry water years to assess overall drought risk. As required by Water Code Section 10635 for the 2020 UWMP, this chapter provides an assessment of water supplies and water uses under an assumed drought period that lasts five consecutive years.

Chapter 7 will discuss the water efficiency and demand management measures implemented by the City to maintain long-term water supply reliability. Actions that would be undertaken during a short-term water supply emergency, such as drought or a catastrophic supply interruption, are addressed in the City's 2020 Water Shortage Contingency Plan (available under separate cover).

6.1 SALINAS AND WHALE ROCK RESERVOIRS

Salinas and Whale Rock Reservoirs

- ✓ Potable Water Supplies
- ✓ Located in Different Watersheds
- ✓ Coordinated Operation
- ✓ 4,910 acre-feet Annually
- ✓ Reliable during 5-Year Drought

For Salinas and Whale Rock Reservoirs, the City uses a computer model to simulate the combined operation of these two water supply sources over a historical period to determine the "safe annual yield" or the quantity of water which can be safely withdrawn every year without causing impacts to long- or short-term water availability, to accommodate City water demand.

Salinas Reservoir and Whale Rock Reservoir are in geographically and climatologically distinct watersheds. Salinas Reservoir has a higher evaporation rate and larger watershed than Whale Rock Reservoir, but smaller storage capacity -- about 60 percent of the storage capacity of Whale Rock Reservoir. Whale Rock Reservoir has a smaller watershed, as compared to Salinas Reservoir, but greater storage capacity. Whale Rock experiences a lower evaporation rate as it is close to ocean. Coordinated operation of the two reservoirs results in maximization of safe annual yield. This approach increases the long-term water supply from these two sources when compared to operation of the two reservoirs independently.

General Plan, Water and Wastewater Management Element, policy A3.3.2 states:

> *The City will update the safe annual yield computer model for Salinas and Whale Rock Reservoirs following severe drought periods to determine if any changes are necessary to the safe annual yield amount.*

In 2018 to understand the impacts of climate change, the City updated to the safe annual yield model following the addition of data from the most recent drought that ended in 2016 and analysis of three independent climate change models by the U.S. Environmental Protection Agency (EPA), San Luis Obispo Council of Governments (SLOCOG) as part of the 2014 Regional Transportation Plan, and Nature Communications.

The EPA climate assessment tool (Climate Resilience Evaluation and Awareness or "CREAT") was created by the federal agency monitoring climate change. Changes identified in CREAT were derived from an evaluation of 38 global climate models recognized by the Intergovernmental Panel on Climate Change (IPCC). The SLOCOG model was recommended by City Council as it reflected a summary of work previously performed to examine impacts in the local area and is focused on three IPCC global climate models. The work by Nature Communications was selected as it is a preeminent peer-reviewed scientific publication.

Each climate projection was applied to the City's historical dataset for Whale Rock and Salinas reservoir's inflow, precipitation, and evaporation. The City's 2018 model was then used to calculate a revised safe annual yield assuming these conditions had prevailed during the historical period of record. Complete information on the analysis is included in the Technical Memo provided in Appendix V.

On May 15, 2018, the City Council adopted Resolution 10893 amending the General Plan, Water and Wastewater Management Element to reflect a 2,030-acre-foot reduction in the safe annual yield, reducing the available volume from 6,940 acre-feet annually to 4,910 acre-feet annually from the coordinated operation of Salinas and Whale Rock Reservoirs. This reduction in safe annual yield results in a reduction of 2,030 acre-feet of water availability to the community annually.

6.2 RECYCLED WATER

With a 2020 average influent flow of 2.9 million gallons per day, the City's WRRF produces over 3,200 acre-feet of disinfected tertiary-treated effluent per year. A minimum of 1,807 acre-feet is discharged to San Luis Obispo Creek annually to provide satisfactory habitat and flow volume for fish species (steelhead trout) within the Creek environment. The balance makes up the City's available recycled water resource which is available for approved uses.

A consistent flow of wastewater to the WRRF enables the City to produce a volume of recycled water that exceeds identified seasonal demand for landscape irrigation. The distribution/delivery of recycled water is via a pump station located within the WRRF. The pump station does not have backup power during a power outage. Power outage events have been infrequent. Therefore, the City's recycled water supply is considered a reliable water supply. Additional information on the City's recycled water supply is provided in Chapter 5.

Recycled Water Supply

- ✓ Tertiary Treated Wastewater
- ✓ Over 1,000 acre-feet Annually
- ✓ Reliable during 5-Year Drought

6.3 NACIMIENTO RESERVOIR

In 2002, the San Luis Obispo County Flood Control and Water Conservation District (District) retained the services of Boyle Engineering Corporation to assess the ability of the Nacimiento Reservoir to reliably provide the District's entitlement of 17,500 AFY to the District contractors. As part of the analysis, the study took into account the agreement with the Monterey County Water Resources Agency (MCWRA), which owns and operates the Nacimiento Reservoir facilities, that stipulates that the District entitlement through operational procedures will be "preserved" in the reservoir due to MCWRA being contractually obligated to maintain a "minimum pool" for the benefit of the District. This enables the District to maintain deliveries to the participating agencies even when reservoir levels are low, meaning that unless the water storage capacity drops below the "dead pool" of the reservoir, the District's entitlement will always be available. The 2002 study took into account the following factors:

- Short-term power outages
- Delivery facility failure
- Energy costs
- Drought
- Contamination of supply
- Environmental restrictions

Upon completion of the analysis relating to drought conditions, the 2002 study summarized that even though there have been several periods of drought, both short-term and long-term, the total annual entitlement for the District could be delivered consistently, even in periods of extended drought.

Nacimiento Reservoir

- ✓ Potable Water Supply
- ✓ 5,482 acre-feet Annually
- ✓ Contractual Supply
- ✓ Reliable during 5-Year Drought

During the worst-case drought on record in the region (2011 to 2015), Nacimiento Reservoir remained a resilient water supply capable of providing a consistent and reliable source of water for San Luis Obispo County, which includes the City's contractual amount of 5,482 acre-feet per year. To confirm the prior analysis with more recent data, the City reviewed rainfall and inflow data from 2013 which was the driest year on record. Over that year, Nacimiento Reservoir received 35,000 acre-feet of inflow. Though this is significantly below the average inflow into the reservoir, the District's entitlement could still be met if inflow remained at this level.

Interlake Tunnel Project

An Interlake Tunnel Project has been proposed by Monterey County to create a connection between Nacimiento Reservoir and Lake San Antonio. The goal of the project is to redirect water from Nacimiento Reservoir into San Antonio Lake to fill the excess capacity typically available in the lake. While the Interlake Tunnel Project has the potential to increase water storage up to 60,000 acre-feet per year in Lake San Antonio, it is unclear if the diversion from Lake Nacimiento would result in any positive or negative changes in reliability to water availability of the County's 17,500 ace-feet per year entitlement. Lake San Antonio and Nacimiento Reservoir both discharge water to the Nacimiento River to support agriculture within the Salinas Valley, increasing storage within Lake San Antonio by diverting excess water from Nacimiento Reservoir during periods in which it was at full capacity could offer the opportunity to reduce downstream discharges from Nacimiento Reservoir during dry periods. Increased operational flexibility of the two reservoirs, if strategically implemented, could benefit all involved parties. The City will be closely monitoring the project to ensure its water rights are protected.

According to the Monterey County Water Resource Agency website in 2021, the Interlake Tunnel *"requires a detailed engineering analysis; but is generally planned to consist of an 11,000 foot gravity flow tunnel with an intake structure in Nacimiento Reservoir and an exit structure in San Antonio."*

6.4 GROUNDWATER

Consistent with Policy A 3.2.3 from the City's General Plan, Water and Wastewater Management Element, the City will continue to use groundwater for domestic purposes when available. As described in Chapter 4, groundwater may also be utilized by the City as a supplemental supply during a water shortage emergency. The City has utilized a number of wells in the past, with most in the southern portion of the City, especially during the drought period in the late 1980's and early 1990's when up to 50 percent of the City's water demand was met utilizing groundwater.

Groundwater

- ✓ Potable Water Supply
- ✓ Wells offline in 2020
- ✓ Available during 5-Year Drought

A study completed for the City in 2004 determined that up to 1,390 acre-feet of groundwater could be utilized annually. However, by the 2000 to 2009 period, the City's ten-year average reduced to 156 acre-feet of groundwater use annually as the groundwater in the area of higher production wells was contaminated with nitrates and tetrachloroethylene (PCE). Though the City suspended using groundwater for potable purposes in April 2015, groundwater wells remain in an operable, stand-by position should the use of groundwater be needed.

In July of 2020, the City received a nearly $2 million planning-phase grant, funded through Proposition 1, to study PCE contamination of the groundwater basin. A detailed understanding of the extent of PCE contamination and remediation options are necessary steps in fully utilizing the City's groundwater pumping opportunities. The planning phase work will continue into 2022. The City is planning to apply for an implementation-phase grant to fund necessary capital improvements to put an additional groundwater well into service. This work enhances the City's ability to extract, treat, and utilize groundwater to meet a portion of the City's potable water demand.

TABLE 30: Water Quality Current and Projected Water Supply Impacts

Water Source	Water Quality
Nacimiento Reservoir	Drinking Water
Salinas Reservoir	Drinking Water
Whale Rock Reservoir	Drinking Water
Groundwater	Drinking Water
Recycled Water	Title 22, Tertiary Treated Recycled Water

Source: City of San Luis Obispo Utilities Department, 2021.

6.5 WATER QUALITY

A summary of the water quality from the City's various water sources is provided in Table 29. The City has no known water quality constraints that would make a water source unavailable for potable water use. The City's 2020 Annual Water Quality Report is provided in Appendix V.

6.6 WATER SUPPLY RELIABILITY ANALYSIS / DROUGHT RISK ASSESSMENT

A regulatory requirement of the UWMP is to perform a water supply reliability analysis applying different worst-case drought years according to stringent guidelines set forth in the UWMP plan documentation. The following tables provide data on the reliability of the City's water supply during normal, single-dry, and a severe drought period lasting five consecutive years. The City remains confident in the reliability of its multi-source water supply portfolio.

Table 30 lists the years which correlate to the guidelines for the specific water year type and are based on rainfall information. The City's average water year was determined to be 2020 based on review and update of the City's average rainfall total. The City's single dry water year was determined to be 2013 as the rainfall total that year was the lowest on record. The City's multiple dry year scenario was determined to be 2011 to 2015 as the combined rainfall total for those five years was the lowest on record.

The City makes projections of future water demand using a conservative per capita potable water use rate of 117 gpcd which is the City's SB X7-7 target, actual water use within the community is currently 94 gpcd and not anticipated to increase beyond minor year-to-year variations over time. Table 31 summarizes the results of that analysis which, based on the City's available water supplies and estimates of future water demand, indicates the City's water resources are reliable during extended drought periods.

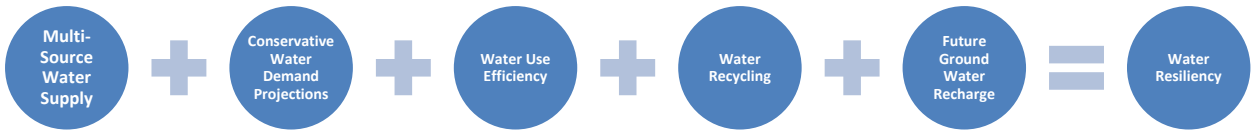
TABLE 31: Basis of Water Year Data

Year Type	Base Year(s)	Volume Available (in AFY)
Average Year	2020	10,143
Single-Dry Year	2013	10,143
Consecutive-Dry Years, 1st year	2011	10,143
Consecutive -Dry Years, 2nd year	2012	10,143
Consecutive -Dry Years, 3rd year	2013	10,143
Consecutive -Dry Years, 4th year	2014	10,143
Consecutive -Dry Years, 5th year	2015	10,143

NOTES

1. Department of Water Resources, Table 7-1.
2. Volume available includes the City's contractual supply to Nacimiento Reservoir, Safe Annual Yield from Salinas and Whale Rock Reservoirs, and recycled water.

Source: City of San Luis Obispo Utilities Department, 2021.



Formula for Water Resiliency

TABLE 32: Supply and Demand Comparison - Normal Year

	2020 (actual)	2025	2030	2035	2040
Supply totals	10,143	10,337	10,537	10,587	10,637
Demand totals	4,817	7,272	7,713	8,191	8,624
Difference	5,326	3,166	2,824	2,396	2,013

NOTES
1. Department of Water Resources, Table 7-2.
2. Units are in acre-feet per year.
3. Water demand projections for 2025 through 2040 were derived using 117 gpcd and population growth levels identified in the City's General Plan Land Use Element. Both factors are higher than the City's 2020 population and gpcd (92 gpcd).
4. Supply total includes the City's contractual supply to Nacimiento Reservoir, Safe Annual Yield from Salinas and Whale Rock Reservoirs, and the projected increase in recycled water deliveries.

Source: City of San Luis Obispo Utilities Department, 2021.

Table 32 and Table 33 summarize the City's water supplies in a single dry year and a multiple dry year scenario. To address Water Code Section 10635 (b), Table 34 includes available water supply and demand estimate for 2021 through 2025. The water demand projections were derived using 117 gpcd and on population growth to levels identified in the City's General Plan. Both of these factors are higher than current gpcd and the City's current population. As the City does not project a supply shortfall due to conservative water planning, the City does not anticipate a water shortage necessitating any water supply augmentation or requiring water use restrictions.

TABLE 33: Single Dry Year Supply and Demand Comparison

	2020 (actual)	2025	2030	2035	2040
Supply totals	10,143	10,337	10,537	10,587	10,637
Demand totals	4,817	7,272	7,713	8,191	8,624
Difference	5,326	3,166	2,824	2,396	2,013

NOTES
1. Department of Water Resources, Table 7-3.
2. Units are in acre-feet per year.
3. Water demand projections for 2025 through 2040 were derived using 117 gpcd and population growth levels identified in the City's General Plan Land Use Element. Both factors are higher than the City's 2020 population and gpcd (92 gpcd).
4. Supply total includes the City's contractual supply to Nacimiento Reservoir, Safe Annual Yield from Salinas and Whale Rock Reservoirs, and the projected increase in recycled water deliveries.

Source: City of San Luis Obispo Utilities Department, 2021.

Accounting for Siltation

Siltation at reservoirs is a natural occurrence that can reduce the storage capacity over long periods. The reduction of available storage reduces the safe annual yield of the reservoirs. Siltation at reservoirs varies depending on factors such as rainfall intensity and watershed management practices. Climate change could have an impact on future water availability in the form of increased siltation in reservoirs resulting from wildland fires which could affect the safe annual yield of the City's reservoirs.

Numerous studies and reports addressing siltation at Salinas Reservoir have been completed. The Whale Rock Reservoir Bathymetric Survey and Volumetric Study was completed in May 2013.

The City has policies and programs in the WWME to anticipate the loss of storage at Whale Rock and Salinas Reservoirs. WWME Policy A 4.2.2 relates to Accounting for Future Siltation. The policy states:

> *The City will account for estimated safe annual yield losses at Salinas and Whale Rock Reservoirs through 2060 by deducting 500 acre-feet of available water supplies to account for these future losses. The siltation rate will be updated as information becomes available from subsequent siltation analyses.*

Accounting for siltation of reservoirs contributes to the overall reliability of the City's water supply portfolio as it ensures that the City is planning for this occurrence.

TABLE 34: Multiple Dry Year Supply and Demand Comparison

		2020 (actual)	2025	2030	2035	2040
First year	Supply totals	10,143	10,337	10,537	10,587	10,637
	Demand totals	4,817	7,272	7,713	8,191	8,624
	Difference	5,326	3,166	2,824	2,396	2,013
Second year	Supply totals	10,143	10,337	10,537	10,587	10,637
	Demand totals	4,817	7,272	7,713	8,191	8,624
	Difference	5,326	3,166	2,824	2,396	2,013
Third year	Supply totals	10,143	10,337	10,537	10,587	10,637
	Demand totals	4,817	7,272	7,713	8,191	8,624
	Difference	5,326	3,166	2,824	2,396	2,013
Fourth year	Supply totals	10,143	10,337	10,537	10,587	10,637
	Demand totals	4,817	7,272	7,713	8,191	8,624
	Difference	5,326	3,166	2,824	2,396	2,013
Fifth year	Supply totals	10,143	10,337	10,537	10,587	10,637
	Demand totals	4,817	7,272	7,713	8,191	8,624
	Difference	5,326	3,166	2,824	2,396	2,013

NOTES

1. Department of Water Resources, Table 7-4.
2. The urban water targets determined in this UWMP were considered when developing the 2020 water demands included in this table.
3. Water demand projections for 2025 through 2040 were derived using 117 gpcd and population growth levels identified in the City's General Plan Land Use Element. Both factors are higher than the City's 2020 population and gpcd (92 gpcd).
4. Supply total includes the City's contractual supply to Nacimiento Reservoir, Safe Annual Yield from Salinas and Whale Rock Reservoirs, and the projected increase in recycled water deliveries.

Source: City of San Luis Obispo Utilities Department, 2021

Reliability Reserve and Secondary Water Supply

The City's WWME, includes policies to maintain a "Reliability Reserve" and "Secondary Water Supply" in an effort to reduce the impacts of a water shortage on the community. The "Reliability Reserve", identified in the City's Charter, provides a twenty percent buffer beyond the City's projected water demand at build out to account for future unforeseen or unpredictable long-term impacts to the City's available water resources such as loss of yield from an existing water supply source and impacts due to climate change. The City's Secondary Water Supply is the amount needed to meet peak water demand periods or short-term loss of City water supply sources. The City's "Secondary Water Supply" is identified as any water supply resources above those needed to meet the Primary Water Supply and Reliability Reserve.

Water and Wastewater Management Element Policies

Policy A 5.2.3 Reliability Reserve. *The City will establish a reliability reserve that is 20-percent of the water use rate established in Policy A 5.2.1 multiplied by the current population. The water supply designated as the reliability reserve may not be used to serve future development.*

Policy A 5.2.4 Secondary Water Supply. *After accounting for primary water supply and a reliability reserve, any remaining water supplies shall be utilized for meeting short-term water supply shortages or peak water demands.*

TABLE 35: Five Year Drought Risk Assessment (2021-2025)

2021	Total
Total Water Use	6,276
Total Supplies	10,177
Surplus/Shortfall w/o/ WSCP Action	3,901
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP – supply augmentation benefit	0
WSCP – use reduction savings benefit	0
Revised Surplus/(shortfall)	3,901
Resulting % Use Reduction from WSCP action	0%
2022	**Total**
Total Water Use	6,528
Total Supplies	10,217
Surplus/Shortfall w/o/ WSCP Action	3,689
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP – supply augmentation benefit	0
WSCP – use reduction savings benefit	0
Revised Surplus/(shortfall)	3,689
Resulting % Use Reduction from WSCP action	0%
2023	**Total**
Total Water Use	6,593
Total Supplies	10,257
Surplus/Shortfall w/o/ WSCP Action	3,664
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP – supply augmentation benefit	0
WSCP – use reduction savings benefit	0
Revised Surplus/(shortfall)	3,664
Resulting % Use Reduction from WSCP action	0%
2024	**Total**
Total Water Use	6,659
Total Supplies	10,297
Surplus/Shortfall w/o/ WSCP Action	3,638
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP – supply augmentation benefit	0
WSCP – use reduction savings benefit	0
Revised Surplus/(shortfall)	3,638
Resulting % Use Reduction from WSCP action	0%
2025	**Total**
Total Water Use	6,725
Total Supplies	10,337
Surplus/Shortfall w/o/ WSCP Action	3,612
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP – supply augmentation benefit	0
WSCP – use reduction savings benefit	0
Revised Surplus/(shortfall)	3,612
Resulting % Use Reduction from WSCP action	0%

NOTES

1. Department of Water Resources, Table 7-5.
2. Water demand projections for 2025 through 2040 were derived using 117 gpcd and population growth levels identified in the City's General Plan Land Use Element. Both factors are higher than the City's 2020 population and gpcd (92 gpcd).
3. Supply total includes the City's contractual supply to Nacimiento Reservoir, Safe Annual Yield from Salinas and Whale Rock Reservoirs, and the projected increase in recycled water deliveries.

Source: City of San Luis Obispo Utilities Department, 2021.

6.7 PRECAUTIONARY POWER OUTAGES

In an effort to protect communities from wildfire, Pacific Gas & Electric (PG&E) notified its municipal and private customers in 2019 of its plans to implement precautionary measures during fire season. If extreme fire danger conditions threaten a portion of the PG&E electrical system, high-risk transmission lines may be turned off, resulting in widespread power outages to San Luis Obispo County. PG&E refers to this as a Public Safety Power Shutoff (PSPS). According to PG&E, a PSPS may be necessitated by strong winds, low humidity levels, and critically dry vegetation. These outages will not be localized; and regional solutions will be limited (one city may not be able to borrow from another neighboring city needed equipment and/or resources).

In the past, the City has been able to continue to provide uninterrupted water service during short-duration power outages and when limited areas of the City are affected by outages utilizing the existing storage in the water system along with limited back-up power generation. With the potential for a PSPS, the City is working to prepare for the potential for power outages lasting up to seven days or more. The City provides water service to critical facilities such as the City's Emergency Operations Center, area hospitals, as well as the SLO County Emergency Operations Center, the Cal Poly campus, and the SLO County airport.

As the driver for the PSPS is climatic conditions which could result in the higher likelihood of catastrophic fire in the County, it is imperative that the City's water system remain operable in the event that such a fire starts.

The City has four portable generators that are mobilized as needed to various locations in the City's water conveyance system, including Pump Station A and B on the Whale Rock pipeline, and water distribution system pump stations. A permanent back-up generator is planned to be in service in 2021 at the Salinas Booster Station. A temporary back-up generator is in place at the City's Water Treatment Plant as a permanent on-site water treatment plant generator currently being designed. Back-up power is not currently planned for the Nacimiento Water Project pump stations. However, with generators available to provide water from both Whale Rock and Salinas reservoirs, staff is confident it can maintain water service during a PSPS event.

6.8 REQUIRED UWMP STANDARDIZED TABLES:

Basis of Water Year Data

Year Type	Base Year	Available Supplies if Year Type Repeats	
		Agency may provide volume only, percent only, or both	
		Volume Available	% of Average Supply
Average Year	2020	10,143	100%
Single-Dry Year	2013	10,143	100%
Multiple-Dry Years 1st Year	2011	10,143	100%
Multiple-Dry Years 2nd Year	2012	10,143	100%
Multiple-Dry Years 3rd Year	2013	10,143	100%
Multiple-Dry Years 4th Year	2014	10,143	100%
Multiple-Dry Years 5th Year	2015	10,143	100%
NOTES: Table 7-1(R)			

Normal Year Supply and Demand Comparison

	2025	2030	2035	2040
Supply totals (*autofill from Table 6-9)*	10,337	10,537	10,587	10,637
Demand totals *(autofill from Table 4-3)*	7,272	7,713	8,191	8,624
Difference	3,166	2,824	2,396	2,013
NOTES: Table 7-2(R)				

Single Dry Year Supply and Demand Comparison				
	2025	2030	2035	2040
Supply totals	10,337	10,537	10,587	10,637
Demand totals	7,272	7,713	8,191	8,624
Difference	3,166	2,824	2,396	2,013
NOTES: Table 7-3(R)				

Multiple Dry Years Supply and Demand Comparison					
		2025	2030	2035	2040
First year	Supply totals	10,337	10,537	10,587	10,637
	Demand totals	7,272	7,713	8,191	8,624
	Difference	3,166	2,824	2,396	2,013
Second year	Supply totals	10,337	10,537	10,587	10,637
	Demand totals	7,272	7,713	8,191	8,624
	Difference	3,166	2,824	2,396	2,013
Third year	Supply totals	10,337	10,537	10,587	10,637
	Demand totals	7,272	7,713	8,191	8,624
	Difference	3,166	2,824	2,396	2,013
Fourth year	Supply totals	10,337	10,537	10,587	10,637
	Demand totals	7,272	7,713	8,191	8,624
	Difference	3,166	2,824	2,396	2,013
Fifth year	Supply totals	10,337	10,537	10,587	10,637
	Demand totals	7,272	7,713	8,191	8,624
	Difference	3,166	2,824	2,396	2,013
NOTES: Table 7-4(R)					

Five Year Drought Risk Assessment	
2021	**Total**
Total Water Use	6,463
Total Supplies	10,147
Surplus/Shortfall w/o/ WSCP Action	3,684
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP – supply augmentation benefit	0
WSCP – use reduction savings benefit	0
Revised Surplus/(shortfall)	3,684
Resulting % Use Reduction from WSCP action	0%
2022	**Total**
Total Water Use	6,528
Total Supplies	10,157
Surplus/Shortfall w/o/ WSCP Action	3,629
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP – supply augmentation benefit	0
WSCP – use reduction savings benefit	0
Revised Surplus/(shortfall)	3,629
Resulting % Use Reduction from WSCP action	0%
2023	**Total**
Total Water Use	6,593
Total Supplies	10,167
Surplus/Shortfall w/o/ WSCP Action	3,574
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP – supply augmentation benefit	0
WSCP – use reduction savings benefit	0
Revised Surplus/(shortfall)	3,574
Resulting % Use Reduction from WSCP action	0%
2024	**Total**
Total Water Use	6,659
Total Supplies	10,177
Surplus/Shortfall w/o/ WSCP Action	3,518
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP – supply augmentation benefit	0
WSCP – use reduction savings benefit	0
Revised Surplus/(shortfall)	3,518
Resulting % Use Reduction from WSCP action	0%
2025	**Total**
Total Water Use	6,725
Total Supplies	10,187
Surplus/Shortfall w/o/ WSCP Action	3,462
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP – supply augmentation benefit	0
WSCP – use reduction savings benefit	0
Revised Surplus/(shortfall)	3,462
Resulting % Use Reduction from WSCP action	0%
NOTES: Table 7-5(R)	

Chapter 7: Water Conservation & Demand Management Measures

7.1 HISTORY

Water conservation is an integral part of the City's overall water management strategy and was first referenced as a part of the water management policies in 1973. In 1985, the City adopted the Annual Water Operational Plan policy that established water conservation as a means of extending water supplies during projected water shortages. Many technological and philosophical changes have occurred since that time, proving that water conservation can be used for both a short-term corrective measure to address immediate water supply shortages, and as a long-term solution to water supply reliability.

Demand management measures are those **water** conservation **measures**, programs, and incentives that prevent the waste of **water** and promote the reasonable and efficient use and reuse of available supplies. Brief summaries of the City's demand management measures are provided below to provide additional detail about the City's water conservation program.

7.2 WATER CONSERVATION PROGRAM HIGHLIGHTS (2016-2020)

The Utilities Department's Water Resources section implemented the City's core water conservation programs from 2016 to 2020. Examples of successful program activities during this timeframe were:

1. Enforcement of all water conservation related municipal codes
2. Monthly site inspections of properties with suspected leaks and inefficient uses of water
3. Enforcement of the toilet retrofit upon sale program
4. Proactive enforcement of water waste prohibitions
5. Facilitation of the Utilities Department's school education contract
6. Implementation of the Utilities Department's water conservation-related public outreach and communication programs, including a quarterly newsletter, public events, and social media
7. Implementation of high-efficiency fixture giveaway program
8. No-cost residential and non-residential water use surveys, audits, and inspections
9. Implementation of conservation rebate programs (toilets & washing machines)
10. Management of the City's recycled water program
11. Use of consumption-based water rates
12. Monthly billing audits to identify and contact high water use account holders
13. Enforcement of Model Water Efficient Landscape Ordinance (MWELO)

Through the City's water conservation programs and policies, water demand over the five-year period ranged from a high of 97 gpcd in 2017 to a low of 88 gpcd in 2016, as shown in Figure 5. Annual per capita water use for that period was well below the City's SBX7-7 compliance year goal of 117 gpcd. With the continuation of the demand management measures listed above, the City anticipates ongoing compliance with state conservation mandates into the future.

FIGURE 5: 2016 to 2020 Annual Per Capita Water Demand Compared to 2020 Target

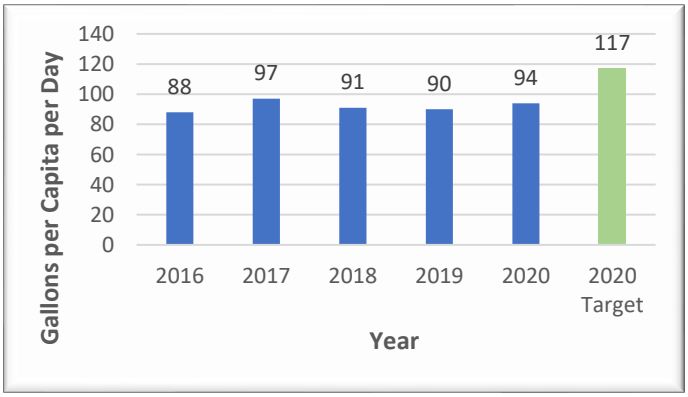


TABLE 36: Demand Management Measures/Conservation Program Implementation Schedule

Weekly / Ongoing	Monthly	Annually	Other Frequency
Enforcement of all water conservation related municipal codes	Monthly billing audits to identify and contact high water use account holders	Water Resource Status Report	Social media use (Facebook, Twitter, Instagram) and streaming videos
Site inspections of properties with suspected leaks and inefficient uses of water	High water use account holders outreach	Water loss audit	Billing inserts / Direct mail
Update reservoir level data on the City's webpage	Monthly urban water supplier reporting to the State	Booth at annual public events	Use of acoustic correlation equipment to detect water leaks
Review of planning submittals for compliance with water efficient landscape ordinance	Booth at Thursday downtown Farmers Market (26 times a year)	Funding for SLO Waterwise Landscaping website	Communication with local news and print media for featured stories and articles
No-cost residential and non-residential water use surveys, audits, and inspections		School education programs (K-12)	Meetings with local homeowners' associations and local businesses
Water supply and demand modelling	**Quarterly**	Water meter performance testing	Enforcement of the toilet retrofit upon sale program
Implementation of volumetric/consumption-based water rates	Communication with Site Supervisors and Recycled Water Reporting	Calibrate meters at the Water Treatment Plant	Maintenance of Drought/water conservation portal on City website
Management of the City's recycled water program	Publication of Resource Newsletter		

7.3 STATE AND LOCAL EMERGENCY DROUGHT DECLARATION

In response to the State's emergency drought declaration and restrictions on water use, on September 16, 2014 the City Council adopted a resolution limiting outdoor irrigation of ornamental landscape or turf with potable water to three days a week. On June 2, 2015, the City Council adopted resolutions declaring a local drought emergency and requiring the deferral of new landscape installation or the use of modified landscape plans during the drought emergency. On June 16, 2015, the City Council adopted a resolution further limiting outdoor irrigation of ornamental landscaping or turf with potable water to two days a week. These measures remained in place through 2016.

A 2016 Executive Order (B-37-16), approved by Governor Brown on May 9, 2016, bolstered California's drought resilience and preparedness by establishing longer-term water conservation measures that include permanent monthly water use reporting, new urban water use targets, reducing system water loss, eliminating clearly wasteful practices, and strengthening urban drought contingency plans. These measures aim to not only reduce immediate water use but to establish a long-term change in the way Californians think about water.

This conservation measure that originated with the drought became a permanent requirement under the 2016 Executive Order

Following abundant rainfall, on April 7, 2017 Governor Brown issued an Executive Order ending the state of emergency in California and eliminating statewide water use reduction requirements, including the City's 12 percent water use reduction requirement. The City Council rescinded the local emergency drought declaration and restrictions on water use on June 20, 2017.

7.4 WATER WASTE PREVENTION ORDINANCES

According to the DWR 2020 UWMP Guidebook, a water waste ordinance that explicitly states the waste of water is to be prohibited must be adopted. To promote responsible use of water and minimize water waste, the City's water waste prohibitions are included in Chapter 13.07 of the City's Municipal Code, which defines water waste as follow:

13.07.020 – Water runoff prohibited.

A. No person shall cause any water delivered by the city water system to flow away from property owned, occupied or controlled by such person in any gutter, ditch or in any other manner over the surface of the ground, so as to constitute water waste runoff.
B. "Water waste runoff" means water flowing away from property and which is caused by excessive application(s) of water beyond reasonable or practical flow rates, water volumes or duration of application. (Ord. 1089 § 1 (part), 1987)

In accordance with City Municipal Code 13.07.030, when deemed necessary in the judgment of the City Council to conserve water during critical water periods, the City Council may also by resolution declare an emergency condition and do any or all of the following which in its judgment is deemed advisable after publication of notice thereof in a newspaper of general circulation distributed in the City or after reasonable notice thereof is otherwise given by the City to users:

1. Limit irrigation within the City water service area to specified hours, or prohibit irrigation entirely within the service area or any portion or portions thereof;
2. Limit all customers inside the City water service area to specified maximum usages of water for each category of users;
3. Implement other water conservation measures as deemed appropriate.

7.5 WATER METERING

In accordance with the 2020 UWMP guidebook and CWC 527 (a) (1), the City has metered all of its service connections. Having all service connections metered encourages water conservation by effectively billing customers for the quantity of water consumed, forming a relationship between water consumed and total cost of the water bill. The City also continues to implement effective metering requirements for new development requiring separate water meters for residential, non-residential, and landscape uses.

There are approximately 450 dedicated landscape water meters in the City, which represents approximately three percent of the total number water meters. In 2020, 8.3 percent of potable water consumption was to dedicated landscape meters. An additional 4.4 percent of total water consumption was recycled water for landscape irrigation.

In the City, separate landscape water meters are required for new commercial, institutional, and multi-unit residential development projects that have greater than 1,000 square feet of landscaping. The City does not allow submeters in place of a dedicated landscape meter for landscape irrigation. As the sewer charges are based on a customer's water usage in the City, commercial, institutional, and multi-unit residential customers often opt to install a separate water meter to avoid paying sewer charges on water used for landscape irrigation.

City Municipal Code Section 17.70.220 (B) Water Efficient Landscape Standards states:

For the efficient use of water, a landscape shall be designed and planned for the intended function of the project.

Use of recycled water for landscape irrigation is required for customers in the City's Recycled Water Master Plan area. Recycled water is discussed in Chapter 6.

The City's water meter replacement program is implemented by the Water Distribution section of the Utilities Department. Under the program, water meters are replaced based on age of meter and as defective or under-registering meter are identified. Water meter replacement ensures accurate consumption data is provided to both the customer and the utility.

The City offers a downloadable tool on its website (Microsoft Excel file) to calculate a project's Estimated Total Water Use (ETWU) and Maximum Applied Water Allowance (MAWA). The calculator is pre-populated with the City's reference evapotranspiration for consistency.

Table 37: Water Meters (2016 to 2020)

Year	Total Water Meters in the City	Total Water Meters Replaced
2016	15,222	236
2017	15,353	156
2018	15,430	458
2019	15,651	311
2020	15,846	907
Five-Year Average of Water Meters Replaced		414

Source: City of San Luis Obispo Utilities Department, 2021.

Annually, the Utilities Department calibrates the effluent meters at the City's Water Treatment Plant to ensure accurate accounting of the water going to the water distribution system. Additionally, the City tests approximately 1 to 2 percent of its retired water meter inventory annually for a baseline of performance of the existing metering infrastructure.

The City is currently piloting a cellular based automatic metering infrastructure (AMI) system in partnership with Cal Poly. The pilot is designed to monitor all water used by Cal Poly both on campus and at offsite facilities in 15-minute increments, to better understand the impact of the University's demand on the City's potable water system.

7.6 WATER RATE STRUCTURE AND COST OF SERVICE

According to the DWR 2020 UWMP Guidebook, retail water agencies need to describe the pricing structure that is used by the water agency. The City's water rates were developed as part of a comprehensive cost-of-service methodology that fairly apportions costs to all customers prepared by HDR Engineering, Inc. (HDR) in 2017. HDR developed the City's water rates based on the American Water Works Association M1 Manual methodology to meet the requirements of California constitution article XIII D, section 6, commonly referred to as Proposition 218 (Prop 218).

City Council 2018 Water Rate Structure Goals

- ✓ Revenue Stability and Predictability
- ✓ Discourage Wasteful Use
- ✓ Stability and Predictability of the Rates
- ✓ Fair Allocation of Total Cost of Service Among Customer Classes
- ✓ Reflect all Present and Future Costs

The City's Cost of Service Study describes customer class characteristics, identifies unit costs, and equitably allocates costs among the City's customer classes to establish the cost-basis of the water rates. This analysis looked at water consumption, seasonal usage patterns, water meter sizes, and other factors to determine service-related cost factors.

Subsequent water rate confirmation studies were completed by HDR for the City in 2019 and 2021 to support proposed rate increases.

7.7 PUBLIC EDUCATION AND OUTREACH

The City has used public education and outreach as a mechanism for decreasing water use in the City and for promoting water conservation since the 1970s. The City's public outreach and education programs currently include the following:

1. Annual Water Resource Status Report
2. Publication of the quarterly Resource Newsletter
3. Social media use (Facebook, Twitter, Instagram)
4. Billing inserts
5. Streaming “how-to” videos
6. Direct mail
7. High water use outreach
8. Water conservation portal on City website
9. Weekly reservoir level updates on the City’s webpage
10. Funding for SLO Waterwise Landscaping website
11. Various newspaper articles
12. Booth at public events such as Earth Day and the SLO Preparedness Expo
13. Booth at Thursday downtown Farmers Market (26 times a year)
14. School education programs (K-12)
15. Meetings with local homeowners associations
16. Meetings with local business groups

The City is committed to reviewing and modifying the public education and outreach program to ensure that messaging stays effective and relevant.

7.8 PROGRAMS TO ASSESS AND MANAGE DISTRIBUTION SYSTEM REAL LOSS

The City has been conducting annual AWWA water loss audits since 2009. Water loss statistics identified from the AWWA water audits can be viewed in detail in Chapter 3 and Appendix IV.

To continue to reduce water loss, the City conducts service line replacement projects based on service line age and condition, along with extensive programs to replace defective polybutylene service lines that have been identified to have a high likelihood of failure. Water meter replacement programs exist to replace meters based on age, consequence of failure, and likelihood of failure. Along with these maintenance programs, the City also implements a valve exercising program that ensures water mains can be isolated during repairs to minimize the amount of water lost during water main breaks and repairs.

In 2015, the City completed its *Potable Water Distribution System Operations Master Plan* which identifies and prioritizes future maintenance and capital improvement projects which will reduce future water loss due to infrastructure failure. That work effort included development of a comprehensive hydraulic model of the City’s water distribution system. The hydraulic model is used to determine available service pressure and is maintained annually to keep it current with waterline replacement project, new water main installations, zone consolidations, etc.

In 2019, the City began using acoustic correlation equipment where acoustic sensors are attached to water valves to measure the speed at which sounds waves travel along the pipe. These sensors effectively listen to water flowing through the pipe and can detect when water is escaping through a leak. The location can then be pinpointed within about two feet, which helps reduce excavation costs. Using this tool regularly the City can:

- More accurately locate small leaks, resulting in less damage to surrounding infrastructure
- Further optimize its capital spending

- Minimize water main breaks, water loss, and damage from leaks
- Better manage aging water infrastructure

The City will continue to work to reduce real and apparent water losses by:

- ✓ Replacing aging infrastructure to prevent pipe breaks and leaks.
- ✓ Implementing a comprehensive meter testing and calibration program to ensure water meters are functioning per manufacturers' specifications.
- ✓ Continuing with its comprehensive meter replacement strategy to ensure water used at homes and businesses is correctly recorded.
- ✓ Performing routine billing audits to reduce data handling errors.

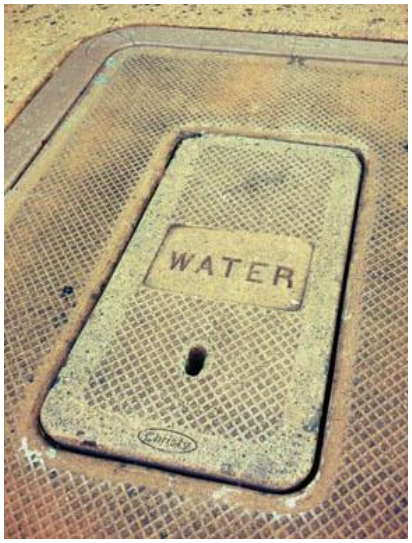
Real Water Loss		***Apparent Water Loss***		***Total Water Loss***
Leaks in distribution system infrastructure, pipeline breaks, and water tank overflows.	**+**	*Unauthorized consumption (water theft), water metering inaccuracies, and data handling errors.*	**=**	

7.9 WATER CONSERVATION PROGRAM COORDINATION AND STAFFING SUPPORT

The Water Resources section of the Utilities Department manages and implements water conservation programs for the City. This section consists of a manager who coordinates the conservation programs, two full time Water Resource Technicians, and temporary staffing as needed. Many support services such as the school education program and elements of the public outreach program are provided by professional services contract to ensure the City meets its conservation goals and promotes responsible water use.

7.10 OTHER DEMAND MANAGEMENT MEASURES

For over twenty years, the City has implemented cost-effective programs to increase water efficiency citywide. The City implemented the following demand management measures and plans to continue implementing these measures into the future. The following is a description of these additional programs.



Customer Water Audits

The Utilities Department's Water Resources section offers no-cost indoor and outdoor water audits to customers who have high water use or would like to reduce their water consumption. Water resource technicians examine the property with the customer to identify potential water saving opportunities and provide information about irrigation reduction methods, proper property maintenance, low flow fixtures installation, and general information on methods for reducing water use. This service is often offered proactively to customers who have unexplained high use, water waste violations, or other instances where audits could provide potential water savings. Customers can also request a water audit on the City's website.

Rebate Programs

During the past drought in 2015, the City Council authorized $100,000 in support of effective rebate programs. $100 dollar rebates were provided for qualified toilet and washing machine replacements. Going forward, staff will be examining effective rebate programs to offer the community in the future.

Retrofit Upon Sale Program

The City's *Retrofit Upon Sale Program* requires the replacement of high flow indoor water fixtures when a home has a change of ownership or had a major remodel. This program has been in place since the early 1990's and, along with several other fixture replacement programs, has reduced the City's long-term water demand by an estimated 1,500 acre-feet per year. All properties that have been certified to have low-flow fixtures are shown via a user-friendly online mapping tool at slowater.org, shown below in Figure 6. This tool also provides the City with a database that can be used to help project the effectiveness of future indoor water fixture rebate, offset, and replacement programs.

FIGURE 6: Online Toilet Retrofit Certification Mapping Tool

Source: City of San Luis Obispo Utilities Department website, 2021.

Appendix I: Notification to Agencies, Public Hearing Notice, and Plan Adoption

Public Utilities
879 Morro Street, San Luis Obispo, CA 93401-2710
805.781.7215
slocity.org

March 31, 2021

Mr. John Diodati
Department Administrator
Department of Public Works
County of San Luis Obispo
County Government Center, Room 207
San Luis Obispo, CA 93408

RE: City of San Luis Obispo, 2020 Urban Water Management Plan

Dear Mr. Diodati:

The City of San Luis Obispo is in the process of updating its *Urban Water Management Plan* as required by California state law. There are two provisions in the law which requires the City to 1) notify the County at least 60 days prior to the public hearing to adopt the plan and 2) provide a wholesale agency which supplies water to the City with water use projections from that water supply for at least 20 year period. The County of San Luis Obispo is considered a wholesale agency based on the contractual agreements between the City of San Luis Obispo and the San Luis Obispo County Flood Control and Water Conservation District relative to deliveries of Nacimiento water supplies.

Per section 10642 of the Urban Water Management Planning Act (Act), a public hearing to adopt the Urban Water Management Plan has been scheduled for Tuesday, June 15, 2021 at 6:00 p.m. in the City Council chamber located 990 Palm Street. The text from the Act related to this requirement is as follows:

> *Every urban water supplier required to prepare a plan pursuant to this part shall, at least 60 days prior to the public hearing on the plan required by Section 10642, notify any city or county within which the supplier provides water supplies that the urban water supplier will be reviewing the plan and considering amendments or changes to the plan. The urban water supplier may consult with, and obtain comments from, any city or county that receives notice pursuant to this subdivision (10621(b)),*

The second provision of the law requires that the City provide to a wholesale water agency the projected amount of water the City will use from the wholesaler's water supply in five year increments for at least 20 year period. The following table is the projected amount of water that the City will request from the County to the year 2040.

Wholesale Source	Contracted Volume	2025	2030	2035	2040
Nacimiento Reservoir	5,482 AF	5,482 AF	5,482 AF	5,482 AF	5,482 AF

The text from the Act related to this requirement is as follows:

> *Urban water suppliers that rely upon a wholesale agency for a source of water shall provide the wholesale agency with water use projections from that agency for that source of water in five-year increments to 20 years or as far as data is available. The wholesale agency shall provide information to the urban water supplier for inclusion in the urban water supplier's plan that identifies and quantifies, to the extent practicable, the existing and planned sources of water as required by subdivision (b), available from the wholesale agency to the urban water supplier over the same five-year increments, and during various water-year types in accordance with subdivision (c). An urban water supplier may rely upon water supply information provided by the wholesale agency in fulfilling the plan informational requirements of subdivisions (b) and (c) (10631(k)).*

As indicated in this subsection, the County will need to respond to the City with information that verifies the County's intent to deliver the identified quantity of water in the table over the same planning period. Please send the County's response to this request to:

City of San Luis Obispo Utilities Department
Attn: Mychal Boerman
879 Morro Street
San Luis Obispo, CA. 93401

Or via email at: mboerman@slocity.org

A reply by April 15, 2021 would be greatly appreciated. If you have any questions or would like to discuss further, please contact me at 805-781-7237.

Sincerely,

Mychal Boerman
Utilities Deputy Director - Water

Cc: File
Jennifer Metz
Via email to: jdiodati@co.slo.ca.us
kballantyne@co.slo.ca.us

COUNTY OF SAN LUIS OBISPO
Department of Public Works
John Diodati, *Interim Director*

April 15, 2021

City of San Luis Obispo Utilities Department
Attn: Mychal Boerman, Utilities Deputy Director Water
879 Morro Street
San Luis Obispo, CA 93401
Email: mboerman@slocity.org

Subject: The City of San Luis Obispo, 2020 Urban Water Management Plan

Dear Mychal Boerman:

The purpose of this letter is to address the District's requirement to respond to the wholesale supplier's water supply demand request, in accordance with the Urban Water Management Planning Act.

The District is in receipt of City of San Luis' projected Nacimiento Water Project demand through the year 2040. In accordance with the Urban Water Management Planning Act and the District's contractually obligation to the City, the District intends to deliver the identified quantity of water in the table below, consistent with the attached letter from the City dated March 31, 2021.

Wholesale Source	Contracted Volume	2025	2030	2035	2040
Nacimiento Reservoir	5,482 AFY	5,482 AFY	5,482 AFY	5,482 AFY	5,482 AFY

Please feel free to contact me if you have any questions.

Sincerely,

LAURA HOLDER
Utilities Division Program Manager

File: 622.300.01

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Appendix II: Water Resource Status Reports (2016-2020)

CITY OF SAN LUIS OBISPO

2016 Water Resources Status Report

This Report Covers October 1, 2015 through September 30, 2016

Whale Rock Reservoir. 2016
Photo credit: City of San Luis Obispo

PREPARED BY:

Jennifer Metz, Utilities Projects Manager
Aaron Floyd, Utilities Deputy Director-Water
Mychal Boerman, Water Resources Program Manager

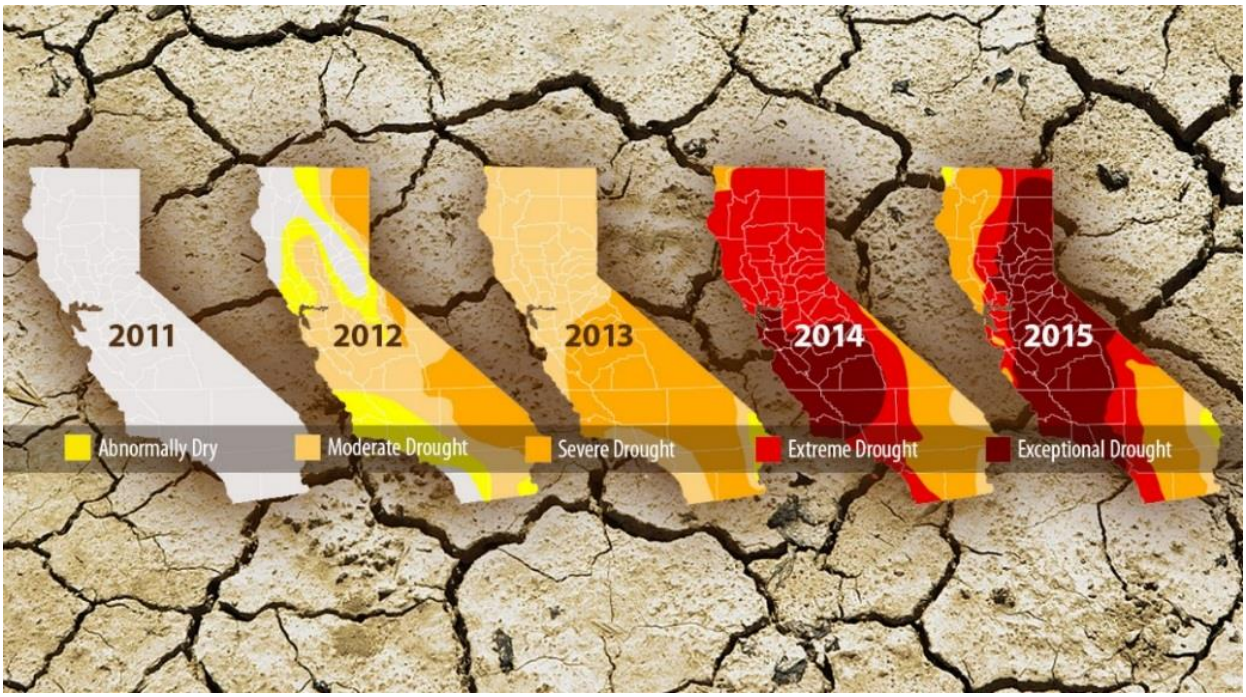
The City of San Luis Obispo 2016 Water Resources Status Report includes water production and water consumption data for October 1, 2015 through September 30, 2016 and was prepared in accordance with the *General Plan, Water and Wastewater Management Element*, Policy A5.3.1. The reporting period corresponds to the Water Year (October 1 through September 30), the 12-month period for which precipitation totals are measured. The water year is designated by the calendar year in which it ends. This report covers Water Year 2016. The Report is organized as follows:

I. Drought Update
II. Water Policy Update
III. Water Supply
IV. Water Demand
V. Water Resource Availability
VI. Water Supply Accounting
VII. Water Demand Management

I. DROUGHT UPDATE

The statewide drought emergency continued during the 2016 Water Year, with the drought now into its fifth year during 2016. State drought regulations that began in 2014, were expanded in 2015, and continued through the 2016 Water Year. On May 9, 2016, the Governor issued an Executive Order that directed the State Water Resources Control Board to adjust and extend its emergency water conservation regulations through the end of January 2017 in recognition of the differing water supply conditions for many communities, and to develop proposed emergency water restrictions for 2017 if the drought persists.

The Governor's latest drought-related Executive Order (B-37-16) established a new water use efficiency framework for California by aiming to "Make Conservation a California Way of Life."



The 2016 Executive Order bolsters the state's drought resilience and preparedness by establishing longer-term water conservation measures that include:

- Permanent monthly water use reporting,
- New urban water use targets,
- Reducing system water loss,
- Eliminating clearly wasteful practices, and
- Strengthening urban drought contingency plans.

These updated measures aim to not only reduce immediate water use but to establish a long-term change in the way Californians think about water.

LOCAL RESPONSE

The drought brought about unprecedented regulatory action from the State of California which required a mandatory 12 percent reduction in City water use when compared with 2013 water use. To comply with this mandate, the City Council adopted a drought response strategy in June 2015. This strategy is still in place and includes the following:

- Adoption of a resolution declaring a drought emergency;
- Adoption of a resolution to defer new landscape installation or the use of modified landscape plans during the drought emergency;
- Adoption of an ordinance amending Chapter 13.07 of the City's Municipal Code to include two-day-a-week and time-of-day restrictions for outdoor watering;
- Approval of an incentive program for high efficiency toilets and washing machines; and
- Adoption of a resolution establishing a permit fee for the use of the Corporation Yard groundwater well.

The community continues to do an outstanding job in reducing water consumption in response to the regulations. The City is on target to meet State requirements, as shown in the table below, achieving an average 21 percent reduction in the 2016 Water Year over 2013 water usage.

	2015 Water Year Reduction	**2016 Water Year Reduction**
Total Water Year Reduction from 2013 Usage	16%	21%

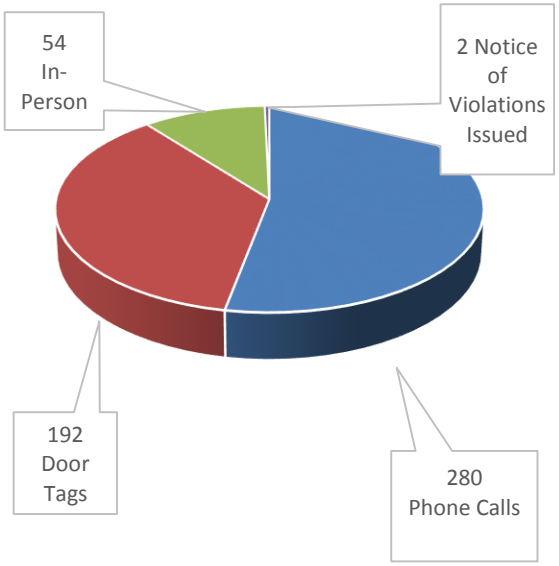
Note: The *reduction* represents the total water reduction achieved in the Water Year from water usage in 2013. The City's mandatory 12 percent reduction went into effect in June 2015, so were not in place during the full 2015 Water Year. Data does not include recycled water.
Source: City of San Luis Obispo, 2016.

The City's enforcement strategy has relied on active enforcement of water waste prohibitions, with a focus on providing information and resources to the public in order to encourage the correction of existing violations and to encourage voluntary compliance.

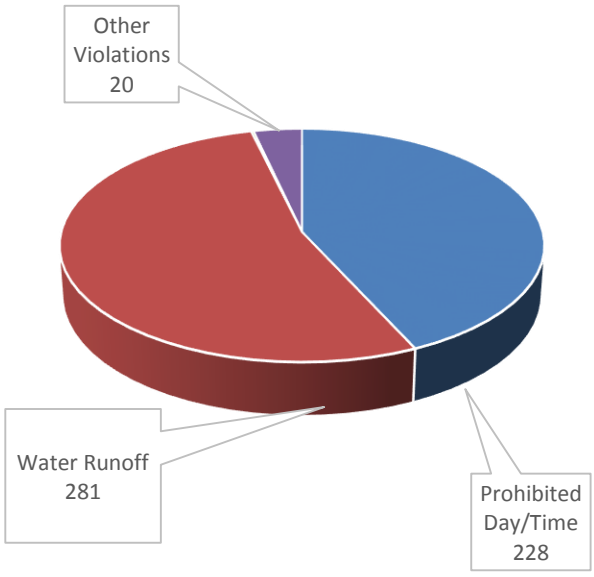
During Water Year 2016, City staff issued 528 formal and informal violation notifications. Of the 528 violations recorded, only 55 were repeat violations with only 12 total properties being contacted more than two times throughout the course of the year. Violations throughout the year were predominantly related to issues with irrigation systems. 281 of the violations recorded were related to water runoff from irrigation systems while another 228 violations were due to irrigating on a prohibited day or during prohibited hours. The remaining 20 violations were related to issues such as watering within 48-hours of measurable rainfall, washing a vehicle without a shutoff nozzle, and using a hose to wash down a driveway or sidewalk.

Given the strong relationship between irrigation and water waste violations, most violations occur during peak irrigation season (from May through October) and become nearly non-existent during winter months. As shown in the Violations Heat Map, there are several areas of town where violations occur most frequently. Given advanced reporting and tracking efforts, efforts are focused on areas of town with high likelihood of violations. When violations occur they are geocoded and permanently recorded with information such as type of violation, customer contact method, and outcome of contact. This recording of data helps track frequency of violation and if response to violations needs to be escalated due to repeated violations.

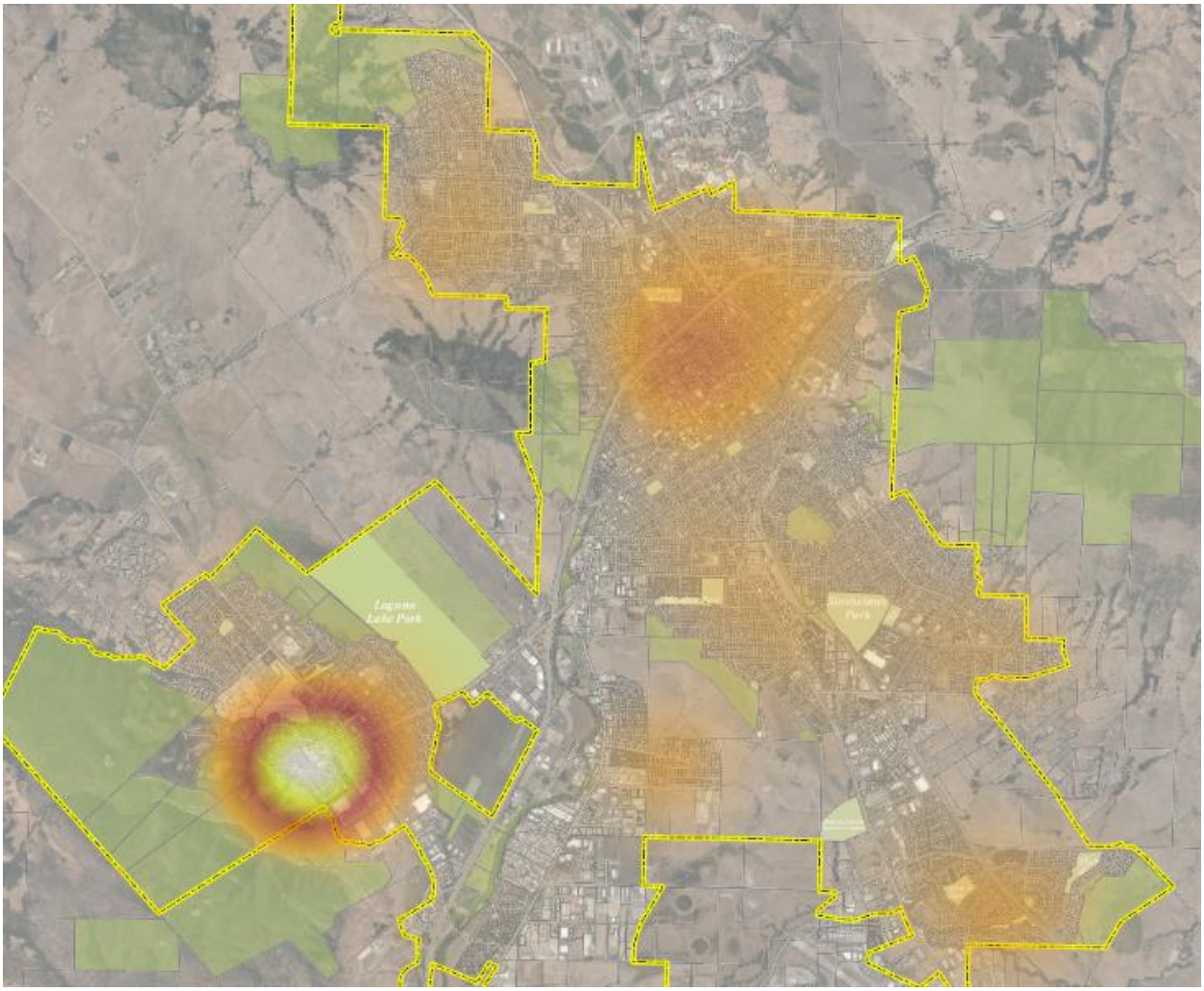
Violation Response Methods



Violation Types



Water Waste Violations Heat Map



Source: City of San Luis Obispo, 2016.

The Water Waste Violations Heat Map shows locations in the City that experienced the highest number of water waste violations during the 2016 Water Year. These violations include watering within 48-hours of measurable rainfall, washing a vehicle without a shutoff nozzle, and using a hose to wash down a driveway or sidewalk.

II. WATER POLICY UPDATE

The City's guiding water policy document for water resource planning is the General Plan *Water and Wastewater Management Element (WWME)*. The *WWME* was updated on June 16, 2016 along with the *2015 Urban Water Management Plan*. As part of the 2016 update, the City changed the factor used in water supply accounting and demand projections to use the per capita potable water use rate allowed under Senate Bill X7-7 (Water Conservation Act of 2009) of 117 gallons per capita per day (gpcd).

The updated policy language reads as follows:

> *The City will utilize the per capita water use rate allowed by SB X7-7 for projecting future potable water demand established as 117 gallons per capita per day.*

Prior to this update, the City used a water use rate based on a 10-year running average of gpcd. Using 117 gpcd is a more conservative approach as a 10-year average can be influenced by drought years where the City can experience a significant reduction in potable water demand.

In June of 2016, the City updated its Urban Water Management Plan. This update is required by the State of California Urban Water Management Planning Act to occur every five years. The preparation of the *2015 Urban Water Management Plan* (*2015 Plan*) was unique in that it took place during unprecedented drought conditions statewide. As part of the *2015 Plan*, changes were made to the City's Water Shortage Contingency Plan. Water shortage contingency planning allows for the City to be prepared for and respond to water shortages such as a drought or a catastrophic supply interruption such as a break in a transmission pipeline. To provide more time to respond to water shortages, a six-staged demand management response was included in the plan with a "Monitoring" stage in place at all times.

The update to the Water Shortage Contingency Plan in the *2015 Urban Water Management Plan* includes implementation of mandatory water conservation measures when the City's water supplies are projected to last five years or less. This change from the prior plan's three year or less plan allows for more time to incrementally implement water shortage response strategies. The policy language is as follows:

> *Mandatory water conservation measures as described in the City's Water Shortage Contingency Plan will be implemented when the City's water supplies are projected to last <u>five</u> years or less.*

III. WATER SUPPLY

Per WWME Policy A2.2.1, the City uses multiple water sources to meet its water supply needs. The city has four primary water supply sources including Whale Rock Reservoir, Salinas Reservoir, Nacimiento Reservoir, and recycled water (for landscape irrigation and construction water), with groundwater serving as a fifth supplemental source. The supply per source for Water Year 2016 (October 1, 2015 to September 30, 2016) is summarized below.

City of San Luis Obispo Water Supply Sources

- ✓ Nacimiento Reservoir
- ✓ Whale Rock Reservoir
- ✓ Recycled Water
- ✓ Salinas Reservoir
- ✓ Groundwater

2016 City Water Supply by Source (Acre Feet)

Nacimiento Reservoir	Whale Rock Reservoir [2]	Recycled Water	Salinas Reservoir	Groundwater [3]	Total City Water Demand
3,834.5	685.92	201.92	8.19	0	4,730.53
81.06%	14.50%	4.27%	0.17%	0 %	100%

Notes:
1. All Values are rounded.
2. Water delivered to Cal Poly State University is excluded from the City's water demand.
3. Groundwater was not used for potable purposes during the 2016 Water Year.

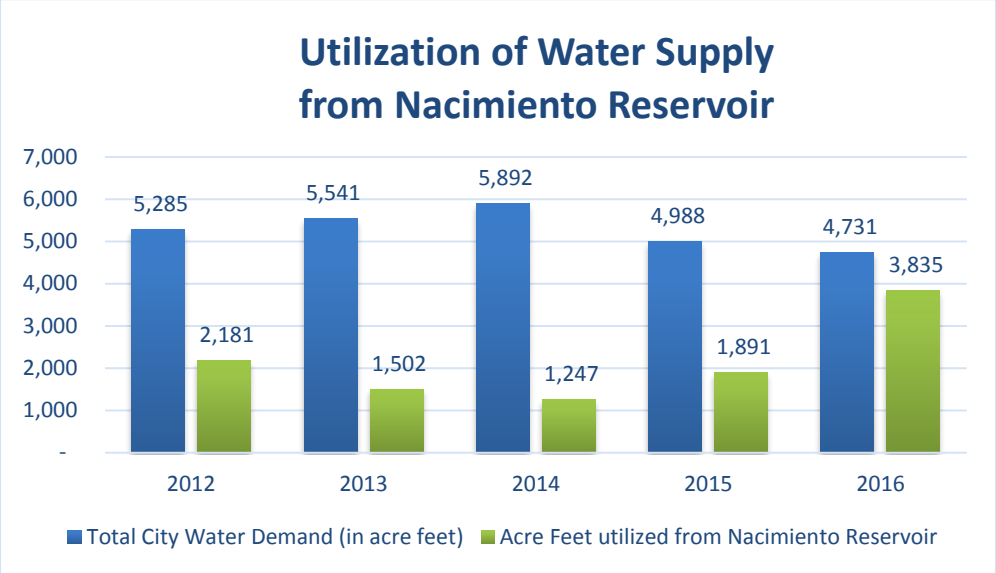
NACIMIENTO RESERVOIR

Water deliveries to the City of San Luis Obispo from Nacimiento Reservoir began in January 2011. San Luis Obispo County operates and maintains the delivery of water from Nacimiento Reservoir to participating agencies (currently the cities of Paso Robles and San Luis Obispo, Atascadero Mutual Water Company, Templeton Community Services District, County Service Area 10A [Cayucos], Santa Margarita Ranch, and Bella Vista Mobile Home Park). The Nacimiento Project Commission provides oversight to project operations, maintenance, and the project budget. The Commission is made up of representatives from each of the four agencies' governing boards and a County Representative who is a member of the County Board of Supervisors which also sits as the Board of Directors for the Flood Control District.

In March 2016, the City Council approved the addition of 2,102 afy from Nacimiento Reservoir to the City's secondary water supply, referred to as the "full allocation" of Nacimiento. This addition brought the City's contractual right to Nacimiento Reservoir from 3380 afy to 5,482 afy. The City uses secondary water supplies to meet short-term water supply losses due to events such as drought, pipeline maintenance, and repair of infrastructure. With uncertainty of future climatic conditions, regulation and aging infrastructure, the additional supply of water from Nacimiento Reservoir to the City's portfolio reduces pressure on use of water supplies in Whale Rock and Salinas reservoirs serving to extend these stored supplies during future critical water shortage periods.

Nacimiento Reservoir, 2016.
Photo credit: City of San Luis Obispo.

Since the full allocation was approved in March 2016 and the budget amendment to cover the expense associated with the additional pumping costs was approved in June, the City has significantly increased the volume of water it utilized from Nacimiento to serve the community's water demand. During the 2016 Water Year, over 81 percent of the City's total water demand was met by Nacimiento Reservoir. The City utilized twice as much water from Nacimiento Reservoir during the 2016 Water Year than the prior year.



SALINAS & WHALE ROCK RESERVOIRS

Salinas and Whale Rock Reservoirs served as the City's primary water supplies for over 50 years. The City pays the County of San Luis Obispo Flood Control and Water Conservation District (County) to provide oversight, operations, and maintenance of the Salinas Dam and related water delivery facilities. The City provides the oversight, operations, and maintenance of the Whale Rock Reservoir for the benefit of the Whale Rock Commission, a joint powers agency made up of Cal Poly State University, California Men's Colony, and the City.

During the 2016 Water Year, the City utilized a total of 694.11 acre feet from Salinas and Whale Rock reservoirs.

RECYCLED WATER

For the 2016 Water Year, the City delivered 202 acre feet of recycled water, up from 168 acre feet for the 2015 Water Year. The biggest increase in recycled water use during the 2016 Water Year was construction water. Total construction water use in the 2016 Water Year was 20 acre feet, up from 10 acre feet during the 2015 water year. The City has had a Construction Water Permit Program since 2010.

The design phase for the City's Water Resource Recovery Facility (WRRF) Project is underway in 2016 which is planned to maximize recycled water production. The upgrade will enable the City to consider potable reuse, part of a *One Water* concept, in the future.

The City is currently updating to the 2004 Water Reuse Master Plan which is scheduled to be complete in 2017. The City is also reviewing the rate it charges for recycled water, which has been set at 90 percent of the City's potable rate since the program's inception.

The upgrade of the Water Resource Recovery Facility will enable the City to consider potable reuse in the future, part of a One Water concept.

GROUNDWATER

The City transitioned from utilizing groundwater for potable purposes with the last withdrawal occurring in April 2015. The City's groundwater wells remain in an operable, stand-by position should the use of groundwater be required. Other existing well casings are being revitalized to provide greater drought resiliency. The City is also working with a hydrogeologist to site a future well field for a potential groundwater program expansion and for siting of the withdrawal of highly treated wastewater for an indirect potable reuse system.

With the emergency drought declaration in 2015, the City established a permit fee and procedures for use of the Corporation Yard groundwater well. The program was started in recognition of the drought and the importance of the groundwater resources and the management of this resource to community and others within the San Luis Groundwater Basin. During the 2016 water year, that permit program entered its second year and has 40 participants.

Non-potable well water is also used at the Laguna Lake Golf Course for landscape irrigation.

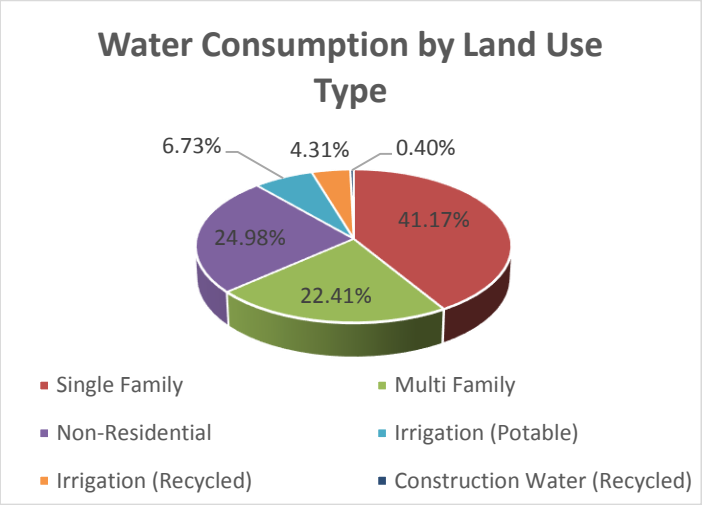
WATER MODELING

The City performs water planning through the use of different models. The Water Projection Model, or Wet Water Model, is used to inform the amount of water the City has available during the water year. This model inputs include an annual one percent population increases, current total water demand (in gallons per capita per day), current levels of Salinas and Whale Rock Reservoir, contractual water received from Nacimiento Reservoir, and climate data associated with each reservoir in terms of lack of precipitation and increase in evaporation for the worst years of the drought (2012-14). These drought-year climate impacts are assumed for every year moving forward, even in more "normal" years such as 2015 and 2016. With this model, the City is able to analyze the effects of more severe climatic conditions, such as increased evaporation and decreased precipitation, in our stored water reservoirs.

In March 2016, the model was updated to include the additional water supply from the full allocation of Nacimiento Reservoir. While the last model run shows the City having more than five years of available water, the uncertainty of when the drought will end and what impact future climate change may have still remain.

IV. WATER DEMAND

During Water Year 2016, over 63 percent of total water use in the City was to support single and multi-family residential uses. Historical water use is summarized below, as well as corresponding population, per capita use rate, and precipitation. The 2016 per capita water use was 91.6 gallons per capita per day (gpcd). Based on WWME policies, the City uses 117 gpcd to project water required to serve build-out population.



Population, Water Use & Rainfall

Year	Population	Total Water Use (acre feet)	Per Capita (gpcd)	Rainfall[1,2,3] (inches)
2007	44,433	6,493	130.5	12.7
2008	44,579	6,359	127.3	18.1
2009	44,829	6,134	122.2	18.9
2010	44,948	5,489	109.0	36.0
2011	45,418	5,285	103.9	18.9
2012	45,308	5,541	109.2	21.5
2013	45,541	5,892	115.5	3.8
2014	45,473	5,524	108.5	14.2
2015	45,802	4,990	97.3	11.8
2016	**46,117 [4]**	**4,731**	**91.6**	**17.8**

Notes:

1. Rainfall amounts for 2005–2012 calendar year source: Cal Poly CIMIS Weather Station.
2. Rainfall amount for calendar year 2013-2015: SLO Reservoir.
3. Data for 2007 through 2014 presents calendar year rainfall data. 2015 and 2016 rainfall data covers the Water Year (October through September).
4. http://www.dof.ca.gov/Forecasting/Demographics/Estimates/e-1/

With the City's multi-source water supply, its reservoirs are in different watersheds, therefore rainfall throughout San Luis Obispo County can benefit the City. Average rainfall at various sites within San Luis Obispo is described below.

Location	Annual Average Rainfall (in inches)	2016 Water Year Total Rainfall (in inches)
Rock Butte	39	26.89
Hwy 46 and W 7 Mile Road in Cambria, CA	30	19.93
SLO Reservoir	25	17.80
Salinas Dam	23	13.46

Source: http://www.slocountywater.org/site/Water%20Resources/Data/maps/precipitation-real-time.htm

V. WATER RESOURCE AVAILABILITY

The following table summarizes the Water Resource Availability based on WWME Section 3. Water availability for 2016 is 12,109 acre feet, an increase of 2,124 acre feet over 2015 due to the full allocation of Nacimiento Reservoir and increased recycled water usage.

2016 Water Resource Availability

Water Resource	Acre Feet	Description	2016 Increase
Salinas & Whale Rock Reservoirs	6,940	Safe Annual Yield [1]	-
Nacimiento Reservoir	5,482	Dependable Yield [2]	2,102 acre feet
Recycled Water	187	2015 Annual Usage [3]	22 acre feet
Siltation from 2010 to 2060	(500)	WWME Policy A 4.2.2 [4]	-
	12,109	**2016 Annual Availability**	**2,124 acre feet**

NOTES:

1. Safe Annual Yield determined from computer model, which accounts for siltation loss through 2010 (per WWME Policy A 4.2.1).
2. Dependable Yield is the contractual amount of water the City has rights to from Nacimiento Reservoir.
3. The quantity of recycled water included is the actual prior year's recycled water usage (calendar year 2015) per WWME Policy A 7.2.2.
4. Reservoir siltation is a natural occurrence that reduces storage capacity over long periods, resulting in the reduction of safe annual yield.

Source: City of San Luis Obispo, 2015. *View of San Luis Obispo from Tassajara Peak.*

VI. WATER SUPPLY ACCOUNTING

Per WWME Section 5, the City accounts for water supplies necessary to meet three specific community needs:

- Primary water supply
- Reliability reserve
- Secondary water supply

The City's primary water supply is defined as the amount of water needed to serve the build-out population identified in the *General Plan*, *Land Use Element (2014)*. Table 3 in the *Land Use Element* identifies an urban reserve capacity of 57,200 people. The quantity of water needed for the primary water supply is calculated per WWME Policy A 5.2.2, using 117 gallons per capita per day (gpcd).

The reliability reserve provides a buffer for future unforeseen or unpredictable long-term impacts to the City's water supply. The quantity of water for the reliability reserve is established using 20 percent of the existing City population (46,117, 2016 population) at 117 gpcd, thus the reliability reserve will increase over time as population increases. The reliability reserve concept is included in the City's Charter (Section 909) which identifies that the water may not be used to serve future development, and is defined per WWME Policy A 5.2.3.

Primary Water Supply

= 117 gpcd x City Build-out Population

= 117 gpcd x 57,200 x 365 day/year x Acre-Ft/325,853 gal

7,496 Acre-Ft/year

Reliability Reserve

= 117 gpcd x 2015 City Population x 20%

= 117 gpcd x 46,117 x 365 day/year x Acre-Ft/325,853 gal x 20%

1,499 Acre-Ft/year

Secondary Water Supply

= Current Annual Availability – Primary Water Supply – Reliability Reserve

= 12,109 Acre-Ft/year [A] – 7,496 Acre-Ft/year – 1,499 Acre-Ft/year

3,114 Acre-Ft/year

[A] 2016 Annual Availability

The secondary water supply is the amount of water remaining from the City's available water resources above those needed to meet the primary water supply and reliability reserve. The secondary supply is identified to meet peak water demand periods or short-term loss of City water supply sources, per WWME Policy A 5.2.4.

Water supply accounting is summarized in the table below.

2016 Water Supply Accounting (acre feet)

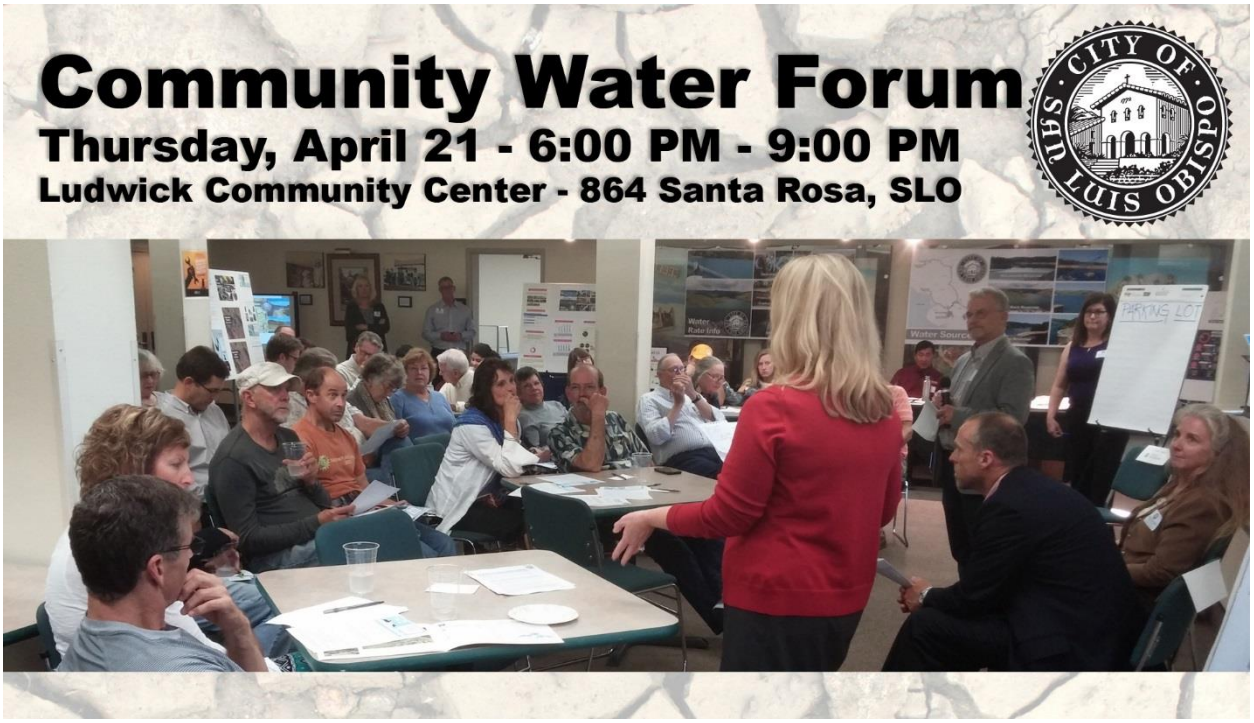
Total	Primary Water Supply	Reliability Reserve	Secondary Water Supply
12,109	7,496	1,499	3,114

VII. WATER DEMAND MANAGEMENT

The City's water conservation program is an integral part of its overall water management strategy. In the late 1980's, the City implemented effective water efficiency programs and policies that allowed for continued community growth and economic development during water-constrained periods. Through strong conservation efforts, the community has reduced its annual average per capita water use from over 180 gallons in 1987 to 91.6 for the 2016 Water Year.

With the lack of local drought relief from El Nino, the City continued its message related to water conservation while much of the media was declaring the drought "over" due to high quantities of rainfall in the northern half of the state. Along with its continued face-to-face contact with customers, the City continued to implement water conservation rebate programs, school education programs, and increased public outreach related to the ongoing drought. The outreach program currently consists of messaging on the City's social media platforms and website along with traditional printed media such as the quarterly Resource Newsletter.

In order to reach all local demographics, City staff diversified outreach efforts by attending local events such as Farmers Market, the SLO Home Expo, the Disaster Preparedness Expo, and the Community Water Forum. Adding to traditional media outlets, staff was interviewed on local radio, advertised on broadcast media, and created a video explaining the history of the City's water resource and conservation programs.



REGIONAL WATER RESOURCE PLANNING

Beyond the involvement in the Nacimiento Water Project, the City continues to participate as a member of the Water Resources Advisory Council and Regional Water Management Group, which promotes collaborative, integrated management of water resources within San Luis Obispo County and provides policy recommendations to the County Board of Supervisors. In addition, the City participates in the regional water conservation group *Partners in Water Conservation*.

The Sustainable Groundwater Management Act (SGMA) is a statewide policy that empowers local agencies to adopt groundwater management plans that relate to the needs and resources of their communities. In the future, the City sees groundwater continuing to play an important and useful role in the balancing of its overall water supply portfolio. Associated with SGMA is the requirement to form a Groundwater Sustainability Agency by mid-2017 and create a Groundwater Sustainability Plan by 2022.

2017
Water Resources Status Report

For the Time Period October 1, 2016 through September 30, 2017

Salinas Reservoir (2015)

Salinas Reservoir (2017)

Photo Credit: City of San Luis Obispo.

PREPARED BY:

Jennifer Metz, Utilities Projects Manager
Aaron Floyd, Utilities Deputy Director - Water
Mychal Boerman, Water Resources Program Manager

The City's 2017 Water Resources Status Report includes water production and water consumption data for October 1, 2016 through September 30, 2017 and was prepared in accordance with the *General Plan, Water and Wastewater Management Element*, Policy A5.3.1. The reporting period corresponds to the Water Year (October 1 through September 30), the 12-month period for which precipitation totals are measured designated by the calendar year in which it ends. This report for Water Year 2017 is organized as follows:

I. Drought Declaration Rescinded and Water Policy Update
II. Water Supply
III. Water Demand
IV. Water Resource Availability
V. Water Supply Accounting
VI. Water Demand Management

I. DROUGHT DECLARATION RESCINDED AND WATER POLICY UPDATE

Following abundant rainfall this past winter, on April 7, 2017 Governor Brown issued Executive Order B-40-17 ending the drought state of emergency in California and eliminating the City's mandated 12 percent water use reduction. The City Council adopted resolutions to rescind the drought emergency locally on June 20, 2017.

A 2016 Executive Order (B-37-16), approved by Governor Brown on May 9, 2016, bolsters California's drought resilience and preparedness by establishing longer-term water conservation measures that include permanent monthly water use reporting, new urban water use targets, reducing system water loss, eliminating clearly wasteful practices, and strengthening urban drought contingency plans. These measures aim to not only reduce immediate water use but to establish a long-term change in the way Californians think about water.

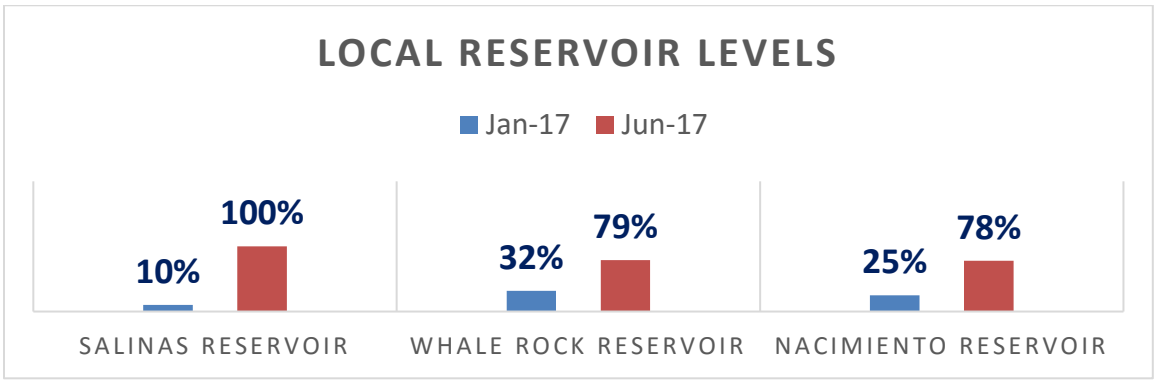
This conservation measure that originated with the drought became a permanent requirement under the 2016 Executive Order

What a Difference a Year Makes – For California and San Luis Obispo

The California Department of Water Resources Water Year 2017 report, subtitled "What a Difference a Year Makes," noted that the water year *"dramatically illustrated the variability in California's annual precipitation, ending the state's 5-year drought and coming in at second place for statewide runoff, behind the wettest year of 1983."* On the hydrologic impacts of a wet 2017, the statewide report states:

> *Many of the hydrologic impacts of California's prior five-year drought were remedied by the wet conditions. For the first time since 2011, runoff in major river basins exceeded 150 percent of average, in some cases exceeding 200 percent of average. The abundant runoff replenished depleted soil moisture. Depleted surface water storage in most of the state's major reservoirs was refilled (excepting Lake Oroville, due to emergency repairs and reconstruction of its spillways).*

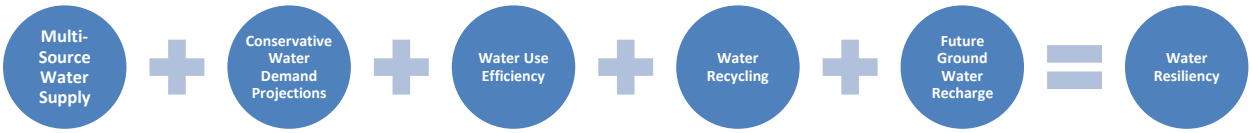
Locally, the City saw its surface water reservoirs recover between January and June of 2017. Since the end of the drought the City has seen a slight increase in overall consumption from 2016 to 2017, from 92 gallons per capita day (gpcd) in Water Year 2016 to 95 gpcd in Water Year 2017. For potable water only, the increase was from 88 gpcd in Water Year 2016 to 91 gpcd in Water Year 2017.



Water Resiliency Planning

The City declared Climate Action a top priority during its January 2017 major city goal-setting workshop and identified objectives focused on energy efficiency and greenhouse gas reductions within City facilities, such as the City's Water Treatment Plant. The City is in the study phase of an energy efficiency project at the Water Treatment Plant to utilize photovoltaic panels and install a hydropower turbine that would convert the energy in the high-pressure water line from Nacimiento Reservoir into electricity. The electricity generated on-site would offset the Water Treatment Plant's overall power demand. Concurrently, the energy efficiency project will assess several projects identified in the adopted 2015 Potable Water Master Plan such as: pump efficiencies within plant, the primary disinfection system, water quality in storage tanks, distribution main inter-ties between service zones, and settings of related controls needed for control system (SCADA-Supervisory Control and Data Acquisition) integration. The assessment will make recommendations to replace aging infrastructure in a holistic manner from the surface water source, to the treatment plant, and within the distribution system.

Although it is not clear exactly how San Luis Obispo and its watersheds will be affected, climate change will impact future water supplies. To ensure water supply resiliency under worse-case scenarios, the City utilizes a multi-source water supply discussed further in this report, makes conservative water demand projections, and continues to pursue increased water use efficiency, increased water recycling, and groundwater recharge.



Formula for Water Resiliency

Water Loss Audit Regulation

Even the most efficiently managed water systems across the country experience unavoidable water loss from leaks, water main breaks, meter inaccuracies, and a variety of other causes. Despite efforts to minimize water loss, according to the US Environmental Protection Agency, the average water system sees a difference of about 15 percent between water produced and water sold each year. The City is working to reduce both real and apparent water losses. Senate Bill 555, approved by Governor Brown in October 2015, requires retail water suppliers in California with 3,000 or more connections, or an annual water demand of over 3,000 acre-feet, to conduct an annual audit of their distribution system to quantify water loss. The standardized audit must be validated by a certified third party to ensure data accuracy and consistency in reporting. The City submitted its first annual water loss audit to the Department of Water Resources in October 2017

Calendar Year 2016 Water Loss	
Apparent Losses	102.8 AF
Real Losses	412.9 AF
Water Losses	**515.7 AF**
Non-revenue water as percent by volume of water supplied	11.7%
Non-revenue water as percent by cost of operating system	2.8%

By "benchmarking" this data and setting water loss efficiency goals, the City will continue to work to reduce real and apparent water losses by:

- ✓ Installing a computer system to monitor water system data such as pressure, flow, and tank levels for early detection of abnormalities in the water distribution system.
- ✓ Replacing aging infrastructure to prevent pipe breaks and leaks.
- ✓ Implementing a comprehensive meter testing and calibration program to ensure water meters are functioning per manufacturers' specifications.
- ✓ Implementing a comprehensive meter replacement strategy to ensure water used at homes and businesses is correctly recorded.
- ✓ Performing routine billing audits to reduce data handling errors.

Real Water Loss *Leaks in distribution system infrastructure, pipeline breaks, and water tank overflows.*	**+**	***Apparent Water Loss*** *Unauthorized consumption (water theft), water metering inaccuracies, and data handling errors.*	**=**	***Total Water Loss***

Sustainable Groundwater Management Act and Formation of a Groundwater Sustainability Agency

The Sustainable Groundwater Management Act (SGMA) is a statewide law that empowers local agencies to adopt groundwater management plans that relate to the needs and resources of their communities. Although currently banking its groundwater resources, the City envisions groundwater playing an important role in ensuring continued resiliency in its water supply portfolio.

During the 2017 Water Year, the City became a Groundwater Sustainability Agency over the area of the San Luis Obispo Valley Groundwater Basin that lies beneath and within its jurisdictional boundaries. The San Luis Obispo Valley Groundwater Basin "eligible entities" (City, County, Golden State Water Company, Edna Ranch Mutual Water Company-East, Varian Ranch Mutual Water Company, and Edna Valley Growers Mutual Water Company) are all working collaboratively to comply with SGMA requirements for the entire

groundwater basin. The GSA structure includes a Groundwater Sustainability Commission which is an advisory body to the City Council and the Board of Supervisors. The Commission consists of one member from the City Council, one County Supervisor and a representative of each of the identified water companies. The City, County, and eligible entities are required by SGMA to work together to create Groundwater Sustainability Plans by January 31, 2022.

II. WATER SUPPLY

Per the *General Plan Water and Wastewater Management Element*, Policy A2.2.1, the City uses multiple water sources to meet its water supply needs. The City has four primary water supply sources including Whale Rock Reservoir, Salinas Reservoir, Nacimiento Reservoir, and supplies recycled water for landscape irrigation and construction water. Groundwater serves as a fifth supplemental source. The supply per source for Water Year 2017 (October 1, 2016 to September 30, 2017) is summarized below.

City of San Luis Obispo Water Supply Sources

- ✓ Nacimiento Reservoir
- ✓ Whale Rock Reservoir
- ✓ Recycled Water
- ✓ Salinas Reservoir
- ✓ Groundwater

2017 City Water Supply by Source (Acre Feet)

Nacimiento Reservoir	Whale Rock Reservoir [2]	Recycled Water	Salinas Reservoir	Groundwater [3]	Total City Water Demand
3,383	1,150	229	213	0	4,975
68%	23%	5%	4%	0 %	100%

Notes:
1. All values are rounded.
2. Water delivered to Cal Poly State University is excluded from the City's water demand.
3. Groundwater was not used for potable purposes during the 2017 Water Year.

NACIMIENTO RESERVOIR

Water deliveries to the City from Nacimiento Reservoir began in January 2011. During the 2017 Water Year, 68 percent of the City's total water demand was met by Nacimiento Reservoir. San Luis Obispo County operates and maintains the water delivery system from Nacimiento Reservoir to participating agencies (currently the cities of Paso Robles and San Luis Obispo, Atascadero Mutual Water Company, Templeton Community Services District, County Service Area 10A [Cayucos], Santa Margarita Ranch, and Bella Vista Mobile Home Park). The Nacimiento Project Commission provides oversight to project operations, maintenance, and the project budget. The Commission is made up of representatives from each of the four agencies' governing boards and a County Representative who is a member of the County Board of Supervisors which also sits as the Board of Directors for the Flood Control District.

Since 2010, San Luis Obispo County Flood Control District, the Nacimiento Regional Water Management Advisory Committee, Monterey County Parks, and Monterey County Water Resources Agency have worked together to plan, advise, and organize a Mussel Prevention Program at Lake Nacimiento. On July 29, 2017, an inspector noticed hundreds of invasive mussels attached to a boat and prevented the owner from launching at the Heritage Ranch boat ramp. Inspections are conducted as part of the on-going

program. Invasive mussels have not been found in any local San Luis Obispo County lakes to-date, due in part to inspection program efforts, along with responsible boat owners' prevention efforts.

SALINAS & WHALE ROCK RESERVOIRS

Prior to receiving water from Nacimiento Reservoir, Salinas and Whale Rock Reservoirs served as the City's primary water supplies for over 50 years. The City pays the County of San Luis Obispo Flood Control and Water Conservation District (County) to provide oversight, operations, and maintenance of the Salinas Reservoir and related water delivery facilities. The City provides the oversight, operations, and maintenance of the Whale Rock Reservoir for the benefit of the Whale Rock Commission, a joint powers agency made up of Cal Poly State University, California Men's Colony, and the City. During the 2017 Water Year, the City utilized 1,373-acre feet from Salinas and Whale Rock reservoirs, meeting 27 percent of total City water demand.

Safe Annual Yield Update

Safe annual yield analyses of available water supply sources are based on rainfall, evaporation, and stream flow experienced during a historical period. Although future conditions are unlikely to occur in the precise sequence and magnitudes as have occurred historically, this technique provides a conservative estimate of the future water supply capability of the existing sources, and provides a tool for observing the impacts of increased temperature, evaporation, and decreased precipitation.

Whale Rock Reservoir Level Gauge.

In 1988, the City contracted with engineering firm Leedshill-Herkenhoff, Inc., to prepare a detailed analysis of the coordinated operation of Salinas and Whale Rock Reservoirs and create a model to determine the safe annual yield. The report was completed in 1989 and utilized data from 1943 through 1991 including drought periods in 1946-51, 1959-61, and 1976-77. Key assumptions used in the model were that the "controlling drought period" was from 1946 to 1951, that the City only used Whale Rock Reservoir when Salinas Reservoir was below minimum pool or could not meet the City's monthly demand, and that minimum pool at Salinas and Whale Rock of 400 and 500 acre-feet, respectively. The minimum pool at each lake is the amount of water that must be left in the lake for fishery and habitat resources (in 2017, minimum pool for each lake is 2,000-acre feet). Under those assumptions, the study estimated the City's total safe annual yield from the two reservoirs to be 9,080 acre-feet per year.

In 1991, staff updated the safe annual yield model to examine the impact of the 1986-91 drought and revise the assumptions on the amount of water used from Whale Rock Reservoir each year to more accurately reflect the way the City used that resource. The analysis determined that the 1986-91 drought was the critical drought of record for the two reservoirs. When siltation is included, these revised assumptions resulted in a reduction in the safe annual yield estimate to the 6,940-acre feet recognized today.

The most recent drought data is currently being analyzed and peer-reviewed to determine if reductions to the City's current safe annual yield will be necessary going forward. Reductions are anticipated as the recent drought is now the critical drought of record. Revisiting the safe annual yield model will also

consider revision to the assumptions on the amount of water used from Salinas and Whale Rock Reservoirs each year to accurately reflect the way the City uses its available water resources.

Spillway Assessment

As a result of the spillway failure at Oroville Dam, the Department of Water Resources (DWR) is requiring detailed analyses of dams that have large spillways at high hazard dams. Though there are no known deficiencies in the Whale Rock spillway, in May 2017, the City received a letter from the DWR requesting preparation of a work plan for a comprehensive spillway condition assessment by August 1, 2017. By conducting an analysis of design, current conditions, and underlying or adjacent geology, any deficiencies in the spillway will be identified. If required, corrective action will be planned and projects implemented to ensure the ability of Whale Rock Reservoir's spillway to function as designed.

Whale Rock Reservoir Spillway

The Work Plan for Whale Rock Reservoir's Comprehensive Spillway Condition Assessment was approved in September. The intent of the assessment is to evaluate the ability of the spillway to function as intended during normal operations as well as during a flood event. The tasks listed in the work plan include:

- Review of the spillway's design features using available as-built drawings, design and construction records
- Evaluation of the existing conditions of the spillway
- Geologic inspection
- Evaluation of all inspection and repair records

The City's Utilities Department staff is developing a scope of work for the comprehensive spillway analysis based on the approved Work Plan. The scope of work will be the basis for a request for proposals to identify qualified consultants to perform the spillway analysis.

Pipeline Reliability Analysis

The 18-mile long Whale Rock pipeline was constructed in the late 1950s and has served the City well since 1960, requiring minimal maintenance and repairs. A pipeline reliability analysis was prioritized as part of the Whale Rock Reservoir capital improvement program for 2017-19. The analysis is expected to be completed during the 2018 Water Year. By determining the true condition of the pipeline utilizing modern technology, it is expected the Commission will be able to focus resources on needed point repairs to the pipeline and avoid full-scale replacement based on pipe age.

30-inch Whale Rock Pipeline Repair Conducted in June 2017

RECYCLED WATER

For the 2017 Water Year, the City delivered 229-acre feet of recycled water, up from 202-acre feet for the 2016 Water Year. The City Council adopted a resolution approving the *2017 Recycled Water Master Plan* on March 21, 2017 and authorized staff to negotiate an agreement for delivery of recycled water outside the city limits consistent with policies and findings identified in the City's *General Plan*.

The design phase for the City's Water Resource Recovery Facility (WRRF) Project continued through Water Year 2017. Construction is planned to begin in October 2018 and continue through 2021. When complete, the WRRF Project will maximize recycled water production. The project will also enable the City to consider potable reuse, part of a *One Water* concept, in the future.

As part of a larger property upgrade, the Irish Hills Hamlet, a 146-unit apartment complex on Los Osos Valley Road originally constructed in the 1970s, retrofitted its landscape and irrigation system to utilize recycled water. The property has almost 76,000 square feet of landscaped area and is estimated to offset five-acre feet of potable water use with the retrofit.

Irish Hills Hamlet became the City's latest recycled water customer in August 2017

GROUNDWATER

The City stopped using groundwater for potable purposes in April 2015. The City's groundwater wells remain in an operable, stand-by position should the use of groundwater be required. During the 2017 Water Year, the City continued its work with a hydrogeologist to site a future well field for a potential groundwater program expansion.

III. WATER DEMAND

During Water Year 2017, 67 percent of total water use in the City was to support single and multi-family residential uses, 25 percent was to support commercial and other non-residential development, and eight percent was to support landscape irrigation (separately metered). Historical water use is summarized below, as well as corresponding population, per capita use rate, and precipitation. The 2017 per capita water use was 95 gallons per capita per day (gpcd). Based on the City's General Plan Water and Wastewater Management Element policies, the City uses 117 gpcd to project water required to serve build-out population.

Population, Water Use & Rainfall

Year	Population	Total Water Use (acre feet)	Per Capita Water Use (gpcd)	Rainfall[1,2,3] (inches)
2008	44,579	6,359	127	18.1
2009	44,829	6,134	122	18.9
2010	44,948	5,489	109	36.0
2011	45,418	5,285	104	18.9
2012	45,308	5,541	109	21.5
2013	45,541	5,892	116	3.8
2014	45,473	5,524	109	14.2
2015	45,802	4,990	97	11.8
2016	46,117	4,731	92	17.8
2017	**46,724** [4]	**4,975**	**95**	**35.1**

Notes:

1. Rainfall amounts for 2005–2012 calendar year source: Cal Poly CIMIS Weather Station.
2. Rainfall amount for calendar year 2013-2015: SLO Reservoir.
3. Data for 2008 through 2014 presents calendar year rainfall data. 2015 and 2016 rainfall data covers the Water Year (October through September).
4. http://www.dof.ca.gov/Forecasting/Demographics/Estimates/e-1/

As the City's reservoirs are located in different watersheds, described below, rainfall at various sites within San Luis Obispo County benefits us. All locations exceeded the annual average during the 2017 water year.

2017 Water Year Rainfall Totals

Rainfall Measurement Location	Watershed	Annual Average Rainfall (in inches)	2017 Water Year Total Rainfall (in inches)
Rocky Butte	Nacimiento Reservoir	39	87.1
Hwy 46 and W 7 Mile Road in Cambria, CA	Whale Rock Reservoir	30	38.0
SLO Reservoir	City	25	35.1
Salinas Dam	Salinas Reservoir	23	33.6

Source: http://www.slocountywater.org/site/Water%20Resources/Data/maps/precipitation-real-time.htm

San Luis Obispo and surrounding watersheds experienced impressive rainfall totals during the 2017 Water Year

IV. WATER RESOURCE AVAILABILITY

The following table summarizes the Water Resource Availability based on *Water and Wastewater Management Element,* Section 3. Water availability for 2017 is 12,115-acre feet, an increase of six-acre feet over 2016 due to increased recycled water usage.

2017 Water Resource Availability

Water Resource	Acre Feet	Description
Salinas & Whale Rock Reservoirs	6,940	Safe Annual Yield [1]
Nacimiento Reservoir	5,482	Dependable Yield [2]
Recycled Water	193	2016 Annual Usage [3]
Siltation from 2010 to 2060	(500)	WWME Policy A 4.2.2 [4]
	12,115	**2017 Annual Availability**

NOTES:

1. Safe Annual Yield determined from computer model, which accounts for siltation loss through 2010 (per WWME Policy A 4.2.1).
2. Dependable Yield is the contractual amount of water the City has rights to from Nacimiento Reservoir.
3. The quantity of recycled water included is the actual prior year's recycled water usage (calendar year 2016) per *General Plan Water and Wastewater Management Element* Policy A 7.2.2.
4. Reservoir siltation is a natural occurrence that reduces storage capacity over long periods, resulting in the reduction of safe annual yield.

V. WATER SUPPLY ACCOUNTING

Per *General Plan Water and Wastewater Management Element,* Section 5, the City accounts for water supplies necessary to meet three specific community needs:

- Primary water supply
- Reliability reserve
- Secondary water supply

The City's primary water supply is defined as the amount of water needed to serve the build-out population identified in the *General Plan*, *Land Use Element (2014)*. Table 3 in the *Land Use Element* identifies an urban reserve capacity of 57,200 people. The quantity of water needed for the primary water supply is calculated per WWME Policy A 5.2.2, using 117 gallons per capita per day (gpcd).

The reliability reserve provides a buffer for future unforeseen or unpredictable long-term impacts to the City's water supply. The quantity of water for the reliability reserve is established using 20 percent of the existing City population (46,724, 2017 population) at 117 gpcd, thus the reliability reserve will increase over time as population increases. The reliability reserve concept is included in the

Primary Water Supply

= 117 gpcd x City Build-out Population

= 117 gpcd x 57,200 x 365 day/year x Acre-Ft/325,851 gal

7,496 Acre-Ft/year

Reliability Reserve

= 117 gpcd x City Population x 20%

= 117 gpcd x 46,724 x 365 day/year x Acre-Ft/325,851 gal x 20%

1,225 Acre-Ft/year

Secondary Water Supply

= Current Annual Availability – Primary Water Supply – Reliability Reserve

= 12,115 Acre-Ft/year [A] – 7,496 Acre-Ft/year – 1,225 Acre-Ft/year

3,394 Acre-Ft/year

[A] 2017 Annual Availability

City's Charter (Section 909) which identifies that the water may not be used to serve future development, and is defined per WWME Policy A 5.2.3.

The City's secondary water supply is the amount of water remaining from available water resources above those needed to meet the primary water supply and reliability reserve. The secondary supply is identified to meet peak water demand periods or short-term loss of City water supply sources, per *General Plan Water and Wastewater Management Element,* Policy A 5.2.4. Water supply accounting is summarized in the table below.

2017 Water Supply Accounting (acre feet)

Total	Primary Water Supply	Reliability Reserve	Secondary Water Supply
12,115	7,496	1,225	3,394

VI. WATER DEMAND MANAGEMENT

The water conservation program is an integral part of the City's overall water management strategy. In the late 1980's, the City implemented effective water efficiency programs and policies that allowed for continued community growth and economic development during water-constrained periods. It is estimated that 90 percent of residential toilets in the City have been retrofitted to 1.6 gallons per flush or more efficient. The City's Toilet Retrofit Program is still active, requiring replacement of inefficient toilets upon change of ownership of a home. Through strong conservation efforts, the community has reduced its annual average per capita water use from over 180 gallons in 1987 to 95 for the 2017 Water Year.

To reach all local demographics, outreach efforts were expanded by attending local events such as Farmers Market, Earth Day, and the Disaster Preparedness Expo. Conservation messaging also continued through traditional media sources as well as new avenues such as on-line "How To" videos available at the City's website (slowater.org) explaining common areas around the house where leaks occur and unnecessarily consume water.

During the 2017 Water Year, the City's Water Efficient Landscape Ordinance was updated with new climate data which reduced the acceptable amount of irrigation demand at newly constructed and landscaped properties.

Utilities Department information booth at 2017 Disaster Preparedness Expo.

REGIONAL WATER RESOURCE PLANNING

The City continues to participate as a member of the Water Resources Advisory Committee and Regional Water Management Group, which promotes collaborative, integrated management of water resources within San Luis Obispo County and provides policy recommendations to the County Board of Supervisors. In addition, the City participates in the regional *Partners in Water Conservation* group which is made up of water conservation professionals from local agencies. The group meets every other month to discuss trends in the industry, upcoming changes to regulations, and to work together on regional messaging related to water conservation and water use efficiency.

2018 Water Resources Status Report

For the Time Period October 1, 2017 through September 30, 2018

Prepared by the Water Division of the City of San Luis Obispo, Utilities Department

The City's 2018 Water Resources Status Report was prepared in accordance with the *General Plan, Water and Wastewater Management Element*, Policy A5.3.1. The reporting period corresponds to the Water Year (October 1, 2017 through September 30, 2018), the 12-month period for which precipitation totals are measured designated by the calendar year in which it ends. This report for Water Year 2018 is organized as follows:

I. Water Projects and Policy Update
II. Water Supply
III. Water Demand
IV. Water Resource Availability
V. Water Supply Accounting

I. WATER PROJECTS AND POLICY UPDATE

2018 Update to General Plan, Water and Wastewater Management Element

In May 2018, the City Council approved text amendments to the City's Water and Wastewater Management Element (WWME) of the General Plan. The primary focus of the amendment was to provide updated water supply information from the City's safe annual yield model. No policy changes were made as part of the amendment.

The City defines the terminology "safe annual yield" as the amount of water which can be reliably withdrawn annually from coordinated operation of Salinas and Whale Rock Reservoirs. A previous key assumption used in the model was the "controlling drought period" from 1986-1991. The 2018 update to the safe annual yield model added data from the most recent drought that ended in 2016 consistent with WWME program A 3.3.2 and analyzed three climate change scenarios. Based on the updated modeling and analysis of climate change scenarios, safe annual yield from Salinas and Whale Rock Reservoirs was reduced from 6,940-acre feet to 4,910-acre feet as part of the amendment.

Change in Annual Water Supply Availability

	2017 Annual Availability	2018 Annual Availability
Salinas Reservoir and Whale Rock Reservoir	6,940 AF	**4,910 AF**[1]
Nacimiento Reservoir	5,482 AF	**5,482 AF**
Recycled Water	193 AF	**238 AF**
Siltation to 2060	(500 AF)	**(500 AF)**
TOTAL	12,115 AF	**10,130 AF**

NOTES:
1. Reflects reduction in Safe Annual Yield as determined by the City's model.
2. Water supply accounting data is in "AF" or acre feet.

Although this is a significant reduction in the safe annual yield from these reservoirs, the City has a multi-source water supply to meet the City's future water demand. Data provided in Section IV of this report on Water Resource Availability, reflects the updated WWME.

Water Resiliency Planning – Water Energy Efficiency Project

The City declared Climate Action a Major City Goal in the 2017-19 Financial Plan and identified objectives focused on energy efficiency and greenhouse gas reductions within City facilities, such as the City's Water Treatment Plant. In April, the City Council approved Resolution 10878 authorizing participation in Pacific Gas and Electric's Sustainable Solutions Turnkey Program for the Water Energy Efficiency Project. The Project is analyzing both the use of photovoltaic panels and a hydropower turbine that would convert the energy in the high-pressure water line from Nacimiento Reservoir into electricity. The electricity generated would offset the Water Treatment Plant's overall power demand (Water = Energy). The Project is also assessing pump efficiencies within the Water Treatment Plant, the primary disinfection system, water quality in storage tanks, water distribution main inter-ties between service zones, and settings of related controls needed for control system (SCADA-Supervisory Control and Data Acquisition) integration. Recommendations will be presented to the City Council in 2019 on alternative energy generation opportunities as well as replacing aging infrastructure in a holistic manner from the surface water source, to the treatment plant, and within the distribution system.

Water = Energy
Water Energy Efficiency Project, 2018.

2018 State Legislation on Water Conservation and Drought Planning

The California State Legislature (Legislature) enacted two policy bills in 2018 – Senate Bill (SB) 606 and Assembly Bill (AB) 1668 – to establish a new foundation for long-term improvements in water conservation and drought planning to adapt to climate change and the resulting longer and more intense droughts in California. These two bills amend existing law to provide expanded and new authorities and requirements to enable permanent changes and actions for those purposes, improving the state's water future for generations to come.

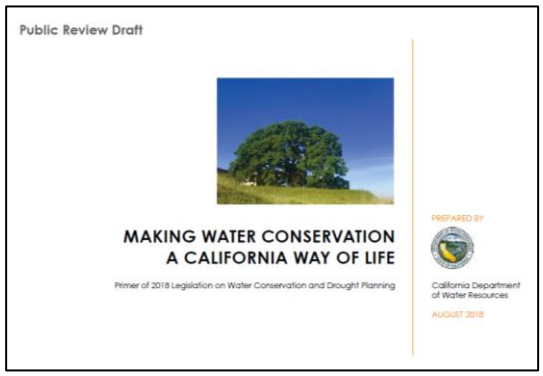
In August 2018, the State made the Public Review Draft of *Making Water Conservation a California Way of Life* available addressing the four primary goals in Executive Order B-37-16 and the 2017 Framework:

(1) use water more wisely,
(2) eliminate water waste,
(3) strengthen local drought resilience, and
(4) improve agricultural water use efficiency and drought planning.

Goals 1 through 3 will apply to the City's water planning. The bills include changes in Urban Water Management Plan (UWMP) preparation requirements as well as schedule and content provisions for the most critical reporting requirement – the annual water use report. Under the new authorities and requirements, the City would be required to prepare, adopt, and submit a Water Shortage Contingency Plan (WSCP) and conduct a Drought Risk Assessment (DRA) every five years in addition to conducting an annual water supply and demand assessment. The City already has adopted a WSCP and prepares this WRSR annually. However, these documents will need to align with new State requirements with the 2020 update to the City's UWMP.

Making Water Conservation a California Way of Life is available at the following link:

https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/Water-Use-And-Efficiency/Make-Water-Conservation-A-California-Way-of-Life/Files/PDFs/Primer-of-2018-Legislation-on-Water-Conservation-and-Drought-Planning.pdf



II. WATER SUPPLY

Per the *General Plan Water and Wastewater Management Element*, Policy A2.2.1, the City uses multiple water sources to meet its water supply needs. The City has four primary water supply sources including Whale Rock Reservoir, Salinas Reservoir, Nacimiento Reservoir, and supplies recycled water for landscape irrigation and construction water. Groundwater serves as a fifth supplemental source. The supply per source for Water Year 2018 (from October 1, 2017 to September 30, 2018) is summarized below.

City of San Luis Obispo Water Supply Sources

- ✓ Nacimiento Reservoir
- ✓ Whale Rock Reservoir
- ✓ Recycled Water
- ✓ Salinas Reservoir
- ✓ Groundwater

2018 City Water Supply by Source (Acre Feet)

Nacimiento Reservoir	Whale Rock Reservoir [2]	Recycled Water	Salinas Reservoir	Groundwater [3]	Total City Water Demand
3,848	410	244	723	0	5,225
73%	8%	5%	14%	0%	**100%**

Notes:
1. Values are rounded.
2. Water delivered to Cal Poly State University is excluded from the City's water demand.
3. Groundwater was not used for potable purposes during Water Year 2018.

During Water Year 2018, 73 percent of the City's total water demand was met by Nacimiento Reservoir. San Luis Obispo County operates and maintains the water delivery system from Nacimiento Reservoir to participating agencies (currently the cities of Paso Robles and San Luis Obispo, Atascadero Mutual Water Company, Templeton Community Services District, County Service Area 10A [Cayucos], Santa Margarita Ranch, and Bella Vista Mobile Home Park). The Nacimiento Project Commission provides oversight to project operations, maintenance, and the project budget. The Commission is made up of representatives from each of the four agencies' governing boards and a County Representative who is a member of the County Board of Supervisors which also sits as the Board of Directors for the Flood Control District.

During Water Year 2018, the City utilized a total of 1,133-acre feet from Salinas and Whale Rock reservoirs, meeting 22 percent of total City water demand. The City pays the County of San Luis Obispo Flood Control and Water Conservation District (County) to provide oversight, operations, and maintenance of the Salinas Reservoir and related water delivery facilities. The City provides the oversight, operations, and maintenance of the Whale Rock Reservoir for the benefit of the Whale Rock Commission, a joint powers agency made up of Cal Poly State University, California Men's Colony, and the City.

For Water Year 2018, the City delivered 244-acre feet of recycled water for landscape irrigation and construction water, up from 229-acre feet in Water Year 2017 and five percent of total City water demand. New recycled water customers include the Homeless Services Center located on Prado Road and the new Park and Ride located on Calle Joaquin. Construction water use increased from 19-acre feet in Water Year 2017 to 36-acre feet in Water Year 2018.

Recycled Water for Construction
(in acre feet)

2017	2018
19	36

Note: Values are rounded.

The design phase for the City's Water Resource Recovery Facility (WRRF) Project continued through Water Year 2018. Construction of the Project is planned to begin in 2019 and will take approximately three years. When complete, the new technology used at the WRRF will reduce overall treatment time from approximately 28 hours to eight hours.

With increasing demand for recycled water, the City has developed a recycled water production model to simulate future recycled water supply and demand. This model will assist in developing parameters for how much recycled water is available for in-City customers and excess recycled water that may be available for outside-City deliveries.

Although the City stopped using groundwater for potable purposes in April 2015, groundwater wells remain in an operable, stand-by position should the use of groundwater be required. During Water Year 2018, the City continued its work with a hydrogeologist to site a future well field for a potential groundwater program expansion. The City submitted a Concept Proposal in August 2018, to be considered for the Proposition 1 Groundwater Grant Program. The City received notice from the State Water Resources Control Board inviting the City to submit a full proposal for consideration in 2019.

The City's permit program for the use of the Corporation Yard well expired December 31, 2018 and the well will be closed to the public starting January 1, 2019. After several years of close coordination with County of San Luis Obispo Public Works staff, a County-owned potable water filling station is scheduled to open to the public on January 1, 2019. This filling station is intended to supply the needs of those currently utilizing the City's Corporation Yard well.

III. WATER DEMAND

During Water Year 2018, 62 percent of total water use in the City was to support single and multi-family residential uses, 24 percent was to support commercial and other non-residential development, and 14 percent was to support landscape irrigation that is separately metered. Historical water use is summarized below, as well as corresponding population, per capita use rate, and rainfall. The 2018 per capita water use was 100 gallons per capita per day (gpcd). Per capita water use is calculated by dividing total water use in the City by the City's population. Total water use includes residential and daytime population needs for all uses such as restaurants, hotels, industrial/manufacturing, government/schools, and irrigation. Based on the City's *General Plan Water and Wastewater Management Element* policies, the City uses a factor of 117 gpcd to project water required to serve the General Plan's estimated population in 2035.

Population, Water Use, and Rainfall

Year	Population[3]	Total Water Use (acre feet)	Per Capita Water Use (gpcd)	Rainfall[1,2] (inches)
2009	44,829	6,134	122	18.9
2010	44,948	5,489	109	36.0
2011	45,418	5,285	104	18.9
2012	45,308	5,541	109	21.5
2013	45,541	5,892	116	3.8
2014	45,473	5,524	109	14.2
2015	45,802	4,990	97	11.8
2016	46,117	4,731	92	17.8
2017	46,424	4,975	95	35.1
2018	**46,548**	**5,225**	**100**	**12.9**

NOTES:

1. Rainfall for 2009 through 2012 calendar year source was from Cal Poly CIMIS Weather Station. Rainfall for calendar year 2013 through 2018 was from SLO Reservoir.
2. Rainfall data for 2009 through 2014 is for the calendar year; 2015 through 2018 data covers the Water Year (October through September).
3. Population data is available at: http://www.dof.ca.gov/Forecasting/Demographics/Estimates/e-1/

The City's water supply reservoirs are in different watersheds, therefore rainfall at various locations within San Luis Obispo County benefits the City. During Water Year 2018, the majority of area rainfall occurred in March. All reservoir locations received less than the annual average during Water Year 2018.

Water Year 2018 Rainfall Totals

Rainfall Measurement Location	Watershed	Annual Average Rainfall (in inches)	Water Year 2018 Total Rainfall (in inches)
Rocky Butte	Nacimiento Reservoir	40	29.4
Hwy 46 and W 7 Mile Road, Cambria, CA	Whale Rock Reservoir	30	16.9
SLO Reservoir	City	24	12.9
Salinas Dam	Salinas Reservoir	22	12.3

Source: https://wr.slocountywater.org/list.php?sensor_class=11&mode=sensor&cache=1&refresh=off

IV. WATER RESOURCE AVAILABILITY

The following table summarizes the Water Resource Availability based on *Water and Wastewater Management Element,* Section 3. Water availability for 2018 is 10,130-acre feet.

2018 Water Resource Availability

Water Resource	Acre Feet	Description
Salinas & Whale Rock Reservoirs	4,910	Safe Annual Yield [1]
Nacimiento Reservoir	5,482	Dependable Yield [2]
Recycled Water	238	2017 Annual Usage [3]
Siltation from 2010 to 2060	(500)	WWME Policy A 4.2.2 [4]
	10,130	**2018 Annual Availability**

NOTES:

1. The City's Safe Annual Yield model was updated in 2018.
2. Dependable Yield is the contractual amount of water the City has rights to from Nacimiento Reservoir.
3. The quantity of recycled water included is the actual prior year's recycled water usage (calendar year 2017) per *General Plan Water and Wastewater Management Element* Policy A 7.2.2.
4. Reservoir siltation is a natural occurrence that reduces storage capacity over long periods, resulting in the reduction of safe annual yield.

V. WATER SUPPLY ACCOUNTING

Per *General Plan Water and Wastewater Management Element,* Section 5, the City accounts for water supplies necessary to meet three specific community needs:

- Primary water supply
- Reliability reserve
- Secondary water supply

The City's primary water supply is defined as the amount of water needed to serve the build-out population identified in the *General Plan*, *Land Use Element (2014)*. Table 3 in the *Land Use Element* identifies an urban reserve capacity of 57,200 people. The quantity of water needed for the primary water supply is calculated per WWME Policy A 5.2.2, using 117 gallons per capita per day (gpcd).

The City's reliability reserve provides a buffer for future unforeseen or unpredictable long-term water supply impacts. The quantity of water for the reliability reserve is defined in WWME Policy A 5.2.3, using 20 percent of the existing City population (46,548, 2018 population) at 117 gpcd. The reliability reserve will change over time as the City's population changes. The reliability reserve concept is included in the City's Charter (Section 909) which identifies that the water may not be used to serve future development.

Primary Water Supply

= 117 gpcd x City Build-out Population

= 117 gpcd x 57,200 x 365 day/year x Acre-Ft/325,851 gal

7,496 Acre-Ft/year

Reliability Reserve

= 117 gpcd x City Population x 20 percent

= 117 gpcd x 46,548 x 365 day/year x Acre-Ft/325,851 gal x 20 percent

1,220 Acre-Ft/year

Secondary Water Supply

= Current Annual Availability – Primary Water Supply – Reliability Reserve

= 10,130 Acre-Ft/year[A] – 7,496 Acre-Ft/year – 1,220 Acre-Ft/year

1,414 Acre-Ft/year

[A] 2018 Annual Availability

The City's secondary water supply is the amount of water remaining from available water resources above those needed to meet the primary water supply and reliability reserve. The secondary supply is identified to meet peak water demand periods or short-term loss of City water supply sources, per *General Plan Water and Wastewater Management Element,* Policy A 5.2.4. The amendment to the City's WWME to reflect the update to the City's Safe Annual Yield model, discussed in Section I of this report, led to the reduction in the City's available secondary water supply for Water Year 2018.

Water supply accounting is summarized in the table below.

2018 Water Supply Accounting (acre feet)

Total	Primary Water Supply	Reliability Reserve	Secondary Water Supply
10,130	7,496	1,220	1,414

In summary, despite a significant reduction in safe annual yield from the combined operation of Whale Rock and Salinas Reservoirs, the City maintains a robust water supply portfolio with greater than five years of water available. Per capita water use (obtained from adding up all water used by visitors, residents, commercial uses, etc.) has increased to 100 gallons per capita per day (gpcd) from 95 gpcd the prior year. Recycled water use continues to rise over time.

2019 Water Resources Status Report

For the Time Period October 1, 2018 through September 30, 2019

Whale Rock Reservoir, August 2019.

Prepared by the Water Division of the City of San Luis Obispo, Utilities Department

The City's 2019 Water Resources Status Report was prepared in accordance with the *General Plan, Water and Wastewater Management Element*, Policy A5.3.1. The reporting period corresponds to the Water Year (October 1, 2018 through September 30, 2019), the twelve-month period for which precipitation totals are measured designated by the calendar year in which it ends. This report for Water Year 2019 is organized as follows:

I. Regulatory and Water Projects Update
II. Water Supply
III. Water Demand
IV. Water Resource Availability
V. Water Supply Accounting

I. REGULATORY AND WATER PROJECTS UPDATE

America's Water Infrastructure Act

America's Water Infrastructure Act of 2018 (AWIA) was signed on October 23, 2018. AWIA is an update to the Bioterrorism Act of 2002 of the Safe Drinking Water Act. AWIA outlines that community water systems serving 3,300 persons must:

- Conduct a Risk and Resilience Assessment (RRA),
- Revise Emergency Response Plans (ERP),
- Submit a certification letter to EPA,
- Review and update at least every five years.

The Act requires the City to certify the RRA by June 30, 2021 and the ERP December 30, 2021.

Preparation for PSPS Events

To protect communities from wildfire, Pacific Gas & Electric (PG&E) notified its customers of its plans to implement precautionary measures during fire season. If extreme fire danger conditions threaten a portion of the PG&E electrical system, high-risk transmission lines may be turned off, resulting in potentially widespread power outages to San Luis Obispo County. PG&E refers to this as a Public Safety Power Shutoff, or PSPS event. According to PG&E, a PSPS event may be necessitated by strong winds, low humidity levels, and critically dry vegetation. PG&E advises these outages will not be localized; regional solutions will be limited because resources are likely going to be scarce on a local, regional and possibly a statewide scale. Nearby communities have already experienced similar PSPS events from their power supplier.

Electrical power is the greatest dependency of water systems, with heavy reliance on electricity to run pumps and other system components.

Since being informed by PG&E of the potential for PSPS events, the City has worked to prepare for power outages lasting up to seven days or more. In the past, the City has been able to continue to provide uninterrupted water and wastewater service during short-duration power outages and when limited areas were affected by utilizing existing water storage tanks with limited emergency power generation - some of the City's water and wastewater facilities have permanent emergency generators in place, while others utilized a limited number of mobile generators. With the PSPS notification from PG&E and the changing climate, staff identified additional emergency power resources for the City's water and wastewater systems to meet this increased duration.

With the support of the City Council in August, the Utilities Department worked to quickly acquire additional temporary emergency generators and make necessary electrical improvements for the Water Treatment Plant, Whale Rock Reservoir, and other water pump stations and sewer lift stations. The City has also been working closely with the County of San Luis Obispo to acquire a generator for the Salinas Booster station that provides water from Salinas reservoir to the City. Installation of permanent generators are planned for 2020. These efforts will bolster the resiliency of the City's water and wastewater services from any event that could result in loss of electricity.

Temporary Generator and the City's Stenner Canyon Water Treatment Plant.

Whale Rock Dam Spillway Assessment

The Whale Rock Reservoir and dam are located in San Luis Obispo County at the east boundary of the town of Cayucos. The dam is 266 feet tall with a crest length of 850 feet and crest width of 30 feet impounding Whale Rock Reservoir. The top of dam elevation is 232.2 feet. The Reservoir covers an area of 600 acres and has a maximum storage capacity of 38,967 acre-feet. Dam construction was completed in 1961. Whale Rock was constructed to provide municipal and agricultural water supplies, and fish and wildlife preservation. Over the 58-year life of the Whale Rock Reservoir and dam, the lake has filled to capacity and the spillway has been used 12 times, last spilling in 2005.

In 2018, the City contracted with HDR Engineering, Inc. for inspection and assessment of the Whale Rock Dam 850-foot long spillway. The investgation included:

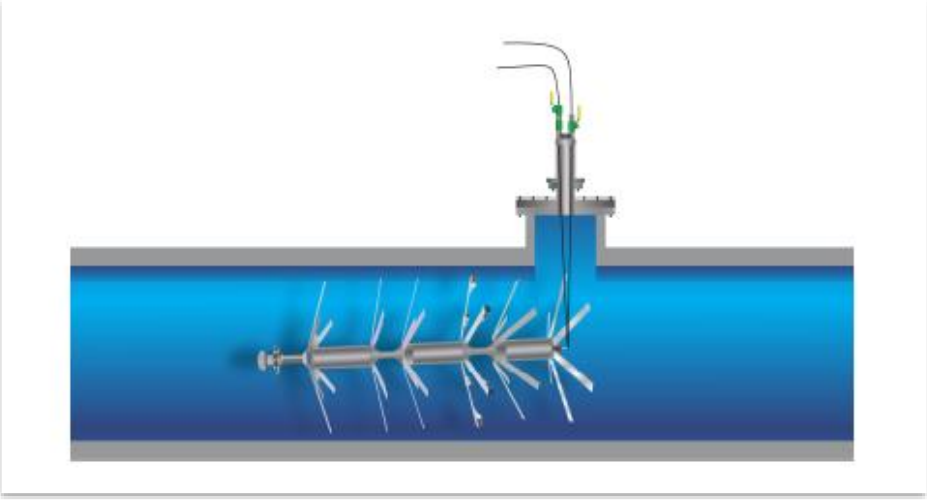

Whale Rock Dam Spillway.

1. Review of design, construction, inspection, analysis, operation and maintenance, and geologic information, as provided by City.
2. Detailed visual inspection of the spillway slabs and walls from upstream of the spillway crest to downstream of the stilling basin.
3. Video/camera inspection of accessible outfall drains and heel drains.
4. Geologic inspection of foundation material adjacent to the spillway.
5. Evaluation of original spillway design versus a modern spillway design.
6. Evaluation of operations, inspection, and surveillance practices.
7. Evaluation of performance of previous repairs.

A report was completed in March 2019 with recommendations including maintenance and repair activities for the drainage system and further engineering investigations. The City and its Whale Rock partners, Cal Poly and the California Men's Colony, will implement corrections as recommended by the California Department of Water Resources, Division of Safety of Dams.

Pipeline Condition Assessments

During the 2019 Water Year, pipeline condition assessments were completed for the Whale Rock Reservoir and Salinas Reservoir (Santa Margarita Lake) water transmission pipelines. The condition assessments used free-swimming electromagnetic inspection technology, shown in the image below, to locate and identify segments of the pipeline in need of repair. Over 16 miles of 30-inch transmission pipeline from Whale Rock Reservoir was analyzed. The assessment found that 2,610 segments had no abnormalities, and 25 segments had varying deficiencies (broken bar wraps or cylinder wall loss). The Salinas pipeline condition assessment analyzed 1.25 miles of pipeline originally installed in 1940s. Results of the assessment were described in a May 2019 report revealing 222 of the total 236 segments had no abnormalities, and 14 segments had varying deficiencies. Funding is programmed to address these pipeline deficiencies in the 2020-21 fiscal year.



Conceptual image of Electromagnetic Inspection Technology used to assess the Whale Rock and Salinas Reservoir transmission pipelines.

Sustainable Groundwater Management Act

The use of groundwater contributes to resiliency in the City's water supply portfolio by offering a potable water source to complement the City's three surface water supplies. The Sustainable Groundwater Management Act (SGMA) is a statewide law that requires Groundwater Sustainability Agencies (GSA) to adopt groundwater management plans that outline actions needed to return groundwater basins to sustainable levels of pumping and recharge. In May 2017, the City Council approved Resolution 10796 authorizing the City to become a Groundwater Sustainability Agency (GSA) for the San Luis Valley Groundwater Basin for the area that lies beneath and within the City's jurisdictional boundaries. In February 2019, the City Council, acting as the San Luis Valley Basin – City of San Luis Obispo Groundwater Sustainability Agency, approved the Notification of Intent to initiate development of a Groundwater Sustainability Plan (GSP) for the San Luis Obispo Valley Groundwater Basin.

The City is working in collaboration with the County of San Luis Obispo GSA to create a single Groundwater Sustainability Plan (GSP) that provides full coverage of the San Luis Valley Groundwater Basin. To get additional information, to sign up for the interested stakeholder email list, or to see materials for past or upcoming meetings related to the GSP development, interested parties are encouraged to visit www.slowaterbasin.com. The San Luis Valley GSP must be submitted to California Department of Water Resources (DWR) by January 31, 2022.

Leak Detection

In September 2019, staff from the City's Water Distribution section field tested acoustic correlation equipment by Echologics on an existing cast iron water main on Bebee Street. Acoustic sensors were attached to water valves to measure the speed at which sounds waves travel along the pipe. These sensors effectively listen to water flowing through the pipe and can hear when water is escaping through a leak. The location can then be identified. Using this tool regularly the City will be able to:

- More accurately locate small leaks, resulting in less damage to surrounding infrastructure
- Further optimize its capital spending
- Minimize water main breaks, water loss, and damage from leaks
- Better manage aging water infrastructure

The City's correlator can identify leaks that have not come to the surface yet, and pinpoint leak location within about two feet. The City's Water Distribution team is looking forward to utilizing this device to reduce water loss, find leaks before they create damage, reduce road repair work, and enhance proactive maintenance of the water distribution system.

Waterline Replacement Projects

Replacement of water distribution pipes and related facilities is an ongoing program aimed to address aging, substandard, and deteriorating infrastructure, with the added benefit of reducing customer impacts associated with emergency repairs. Waterline breaks occur with more frequency with aging waterlines, and the resulting repairs are disruptive to the public and expensive to repair. The main objectives of this program are to ensure reliable water service, reduce the need for emergency repairs, and to enhance available fire flows.

During the 2019 Water Year, the City completed replacement of approximately 5,000 lineal feet of waterline on Pacific (from Nipomo to Walker), Boysen (from Chorro to Hwy. 1), Chorro (from Pismo to Pacific) and Sierra (from Ella to Bishop) streets at a cost of approximately $2.3 million.

The Casa/Stenner/Murray Waterline Replacement Project proposes replacement of over 3,100 lineal feet of aged waterline on Casa, Stenner, Murray (from Hathway to Santa Rosa) and the intersections of Chorro/Meinecke and Chorro/Murray. The construction cost of the project is approximately $2 million. The waterlines replaced with this project are undersized and deteriorated. Their replacement will eliminate capacity limitations for Sierra Vista Hospital, reduce the likelihood of service interruptions due to leaks, and improve water flow for fire protection.

Short-Term Water Sales

At a March 2019 study session, City Council provided direction to staff related to short-term water sales. A potential recipient of this program may be Cal Poly while the university secures a permanent water supply specifically related to housing production. Council supported broadening existing policy language for the City to supply non-potable water (raw water or recycled water) through a short-term agreement for agricultural purposes. Short-term agreements would be crafted to include provisions for service interruption or reduction, due to operational issues or climatic events, low reservoir levels, increased

water demand forecasting, or water quality deterioration. Meaning, during a water shortage emergency, City water deliveries would be prioritized above those included in a short-term sales agreement.
The City is uniquely positioned to assist Cal Poly in meeting its 2035 Master Plan goals as both a regional water partner and in support of City goals, particularly as it relates to additional on-campus housing. Cal Poly currently only has one source of potable water, which is raw water from Whale Rock Reservoir that is treated at the City's water treatment plant and delivered to the campus as part of a contract between the City and Cal Poly. Any contracts for short-term water sales would be brought to the City Council for consideration.

II. WATER SUPPLY

Per the *General Plan Water and Wastewater Management Element*, Policy A2.2.1, the City uses multiple water sources to meet its water supply needs. The City has four primary water supply sources including Whale Rock Reservoir, Salinas Reservoir, Nacimiento Reservoir, and recycled water. Groundwater serves as a fifth supplemental source. The supply per source for Water Year 2019 (from October 1, 2018 to September 30, 2019) is summarized below.

2019 City Water Supply by Source
(in acre feet)

Nacimiento Reservoir	Whale Rock Reservoir [2]	Recycled Water	Salinas Reservoir	Groundwater [3]	Total City Water Demand
3,406	350	201	805	0	4,762
71.5%	7.4%	4.2%	16.9%	0%	100%

Notes:
1. Values are rounded.
2. Water delivered to Cal Poly State University is excluded from the City's water demand.
3. Groundwater was not used for potable purposes during Water Year 2019.

During Water Year 2019, 71.5 percent of the City's total water demand was met by Nacimiento Reservoir. San Luis Obispo County operates and maintains the water delivery system from Nacimiento Reservoir to participating agencies (currently the cities of Paso Robles and San Luis Obispo, Atascadero Mutual Water Company, Templeton Community Services District, County Service Area 10A [Cayucos], Santa Margarita Ranch, and Bella Vista Mobile Home Park). The Nacimiento Project Commission provides oversight to project operations, maintenance, and the project budget. The Commission is made up of representatives from each of the four agencies' governing boards and a County Representative who is a member of the County Board of Supervisors who also sits on the Board of Directors for the Flood Control District.

During Water Year 2019, the City utilized a total of 1,155-acre feet from Salinas and Whale Rock reservoirs, meeting 24.3 percent of total City water demand. The City pays the County of San Luis Obispo Flood Control and Water Conservation District (County) to provide oversight, operations, and maintenance of Salinas Reservoir and related water delivery facilities. The City provides oversight, operations, and maintenance of the Whale Rock Reservoir for the benefit of the Whale Rock Commission, a joint powers agency made up of Cal Poly State University, California Men's Colony, and the City.

For Water Year 2019, the City delivered 201-acre feet of recycled water for landscape irrigation and construction water. This equates to 4.21 percent of total City water demand. New recycled water customers include Coast BMW, HASLO for the Iron Works housing project, and Prado Day Center.

Recycled Water for Construction
(in acre feet)

2017	2018	2019
19	36	20

Note: Values are rounded.

Construction water use decreased from 36-acre feet in Water Year 2018 to 20-acre feet in Water Year 2019.

Construction of the Water Resource Recovery Facility (WRRF) Project began in 2019 and will take approximately three years to complete. When complete, the new technology used at the WRRF will reduce overall wastewater treatment time by approximately 20 hours, from approximately 28 hours to eight hours, providing a shortened timeframe for when wastewater comes into the plant and when it can be sent out into the recycled water system for irrigation use.

Although the City suspended using groundwater for potable purposes in April 2015, groundwater wells remain in an operable, stand-by position should the use of groundwater be needed. During Water Year 2019, the City continued its work with a hydrogeologist to site a future well field for a potential groundwater program expansion. The City received notice from the State Water Resources Control Board inviting the City to submit a full proposal for the Proposition 1 Groundwater Grant Program for consideration in 2019. The City was notified in October 2019 that pending negotiation with the State Board, it will be receiving the $2 million planning-phase grant for installation of monitoring wells and for monitoring groundwater quality. These are necessary steps in reestablishing the City's groundwater program. The planning phase will continue through 2020 with implementation planned for 2021.

Salinas Dam spillway, February 2019.

III. WATER DEMAND

During Water Year 2019, 60.48 percent of total water use in the City was to support single and multi-family residential uses, 28.36 percent was to support commercial and other non-residential development, and 11.16 percent was to support landscape irrigation that is separately metered. Historical water use is summarized below, as well as corresponding population, per capita use rate, and rainfall. The 2019 per capita water use was 91 gallons per capita per day (gpcd). Per capita water use is calculated by dividing total water use in the City by the City's population. Total water use includes residential and daytime population needs for all uses such as restaurants, hotels, industrial/manufacturing, government/schools,

and irrigation. Based on the City's *General Plan Water and Wastewater Management Element* policies, the City uses a factor of 117 gpcd to project water required to serve the General Plan's estimated population in 2035.

Population, Water Use, and Rainfall

Year	Population[3]	Total Water Use (acre feet)	Per Capita Water Use (gpcd)	Rainfall[1,2] (inches)
2010	44,948	5,489	109	36.0
2011	45,418	5,285	104	18.9
2012	45,308	5,541	109	21.5
2013	45,541	5,892	116	3.8
2014	45,473	5,524	109	14.2
2015	45,802	4,990	97	11.8
2016	46,117	4,731	92	17.8
2017	46,424	4,975	95	35.1
2018	46,548	5,225	100	12.9
2019	**46,802**	**4,762**	**91**	**27.1**

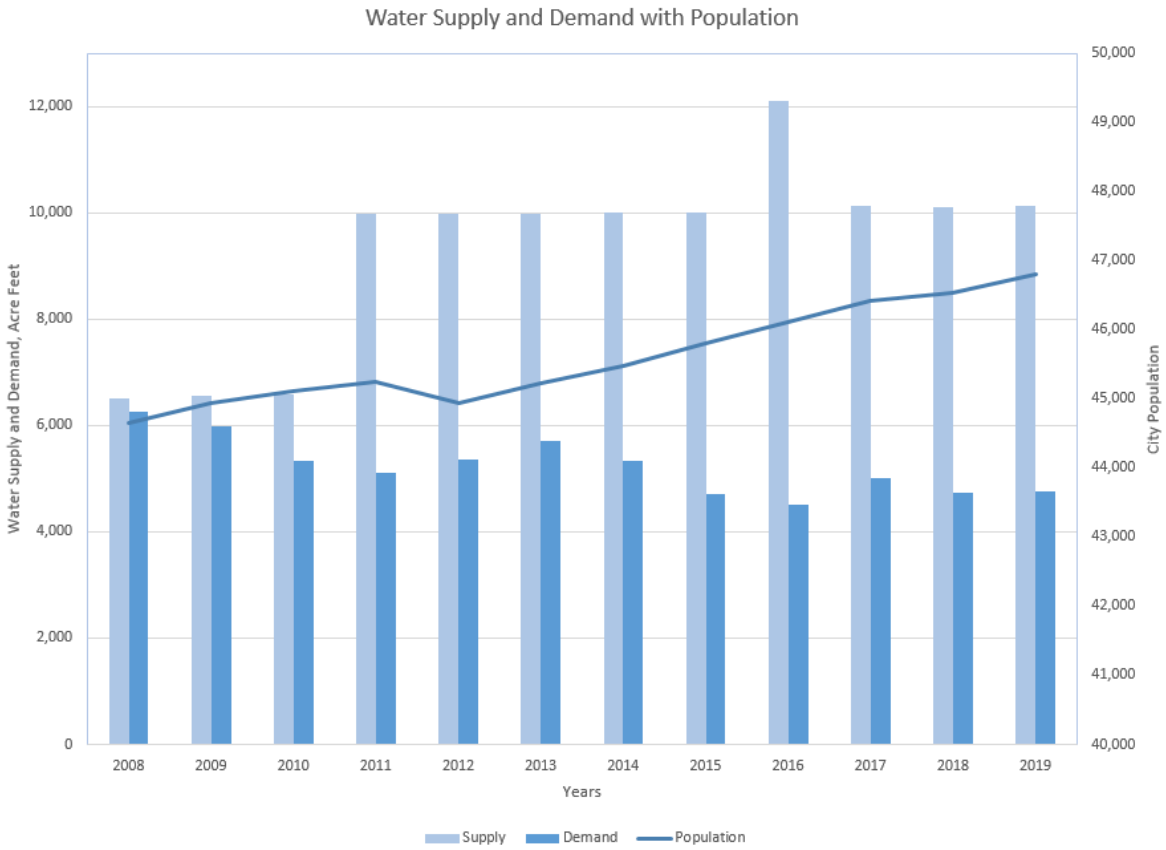
NOTES:
1. Rainfall for 2010 through 2012 calendar year source was from Cal Poly CIMIS Weather Station. Rainfall for calendar year 2013 through 2019 was from SLO Reservoir.
2. Rainfall data for 2000-2014 is for the calendar year; 2015-2019 data covers the Water Year (October 1 to September 30).
3. Population data is available at: http://www.dof.ca.gov/Forecasting/Demographics/Estimates/e-1/

The City's water supply reservoirs are in different watersheds, therefore rainfall at various locations within San Luis Obispo County benefits the City. During Water Year 2019, three reservoir locations (Rocky Butte, SLO Reservoir, and Salinas Dam) received more than the annual average. The remaining location, Hwy 46 and W 7 Mile Road, Cambria, CA, received 92 percent of average rainfall.

Water Year 2019 Rainfall Totals

Rainfall Measurement Location	Watershed	Annual Average Rainfall (in inches)	Water Year 2019 Total Rainfall (in inches)	Water Year 2019 Percent of Average
Rocky Butte	Nacimiento Reservoir	40	52.40	131%
Hwy 46 and W 7 Mile Road, Cambria, CA	Whale Rock Reservoir	30	27.65	92%
SLO Reservoir	City	24	27.10	113%
Salinas Dam	Salinas Reservoir	22	33.25	151%

Source: https://wr.slocountywater.org/list.php?sensor_class=11&mode=sensor&cache=1&refresh=off



IV. WATER RESOURCE AVAILABILITY

The following table summarizes the Water Resource Availability based on *Water and Wastewater Management Element,* Section 3. Water availability for 2019 is 10,136-acre feet.

2019 Water Resource Availability

Water Resource	Acre Feet	Description
Salinas & Whale Rock Reservoirs	4,910	Safe Annual Yield [1]
Nacimiento Reservoir	5,482	Dependable Yield [2]
Recycled Water	244	2018 Annual Usage [3]
Siltation from 2010 to 2060	(500)	WWME Policy A 4.2.2 [4]
	10,136	**2019 Annual Availability**

NOTES:

1. The City's Safe Annual Yield model was updated in 2018.
2. Dependable Yield is the contractual amount of water the City has rights to from Nacimiento Reservoir.
3. The quantity of recycled water included is the actual prior year's usage (calendar year 2018) per *General Plan Water and Wastewater Management Element* Policy A 7.2.2.
4. Reservoir siltation is a natural occurrence that reduces storage capacity over long periods, resulting in the reduction of safe annual yield.

V. WATER SUPPLY ACCOUNTING

Per *General Plan Water and Wastewater Management Element,* Section 5, the City accounts for water supplies necessary to meet three specific community needs:

- Primary water supply
- Reliability reserve
- Secondary water supply

The City's primary water supply is defined as the amount of water needed to serve the build-out population identified in the *General Plan*, *Land Use Element (2014)*. Table 3 in the *Land Use Element* identifies an urban reserve capacity of 57,200 people. The quantity of water needed for the primary water supply is calculated per WWME Policy A 5.2.2, using 117 gallons per capita per day (gpcd).

The City's reliability reserve provides a buffer for future unforeseen or unpredictable long-term water supply impacts. The quantity of water for the reliability reserve is defined in WWME Policy A 5.2.3, using 20 percent of the existing City population (46,802, 2019 population) at 117 gpcd. The reliability reserve will change over time as the City's population changes. The reliability reserve concept is included in the City's Charter (Section 909) which identifies that the water may not be used to serve future development.

The City's secondary water supply is the amount of water remaining from available water resources above those needed to meet the primary water supply and reliability reserve. The secondary supply is identified to meet peak water demand periods or short-term loss of City water supply sources, per *General Plan Water and Wastewater Management Element,* Policy A 5.2.4.

Primary Water Supply

= 117 gpcd x City Build-out Population

= 117 gpcd x 57,200 x 365 day/year x Acre-Ft/325,851 gal

7,496 Acre-Ft/year

Reliability Reserve

= 117 gpcd x 2019 City Population x 20 percent

= 117 gpcd x 46,802 x 365 day/year x Acre-Ft/325,851 gal x 20 percent

1,227 Acre-Ft/year

Secondary Water Supply

= Current Annual Availability – Primary Water Supply – Reliability Reserve

= 10,130 Acre-Ft/year[A] – 7,496 Acre-Ft/year – 1,220 Acre-Ft/year

1,413 Acre-Ft/year

[A] 2018 Annual Availability

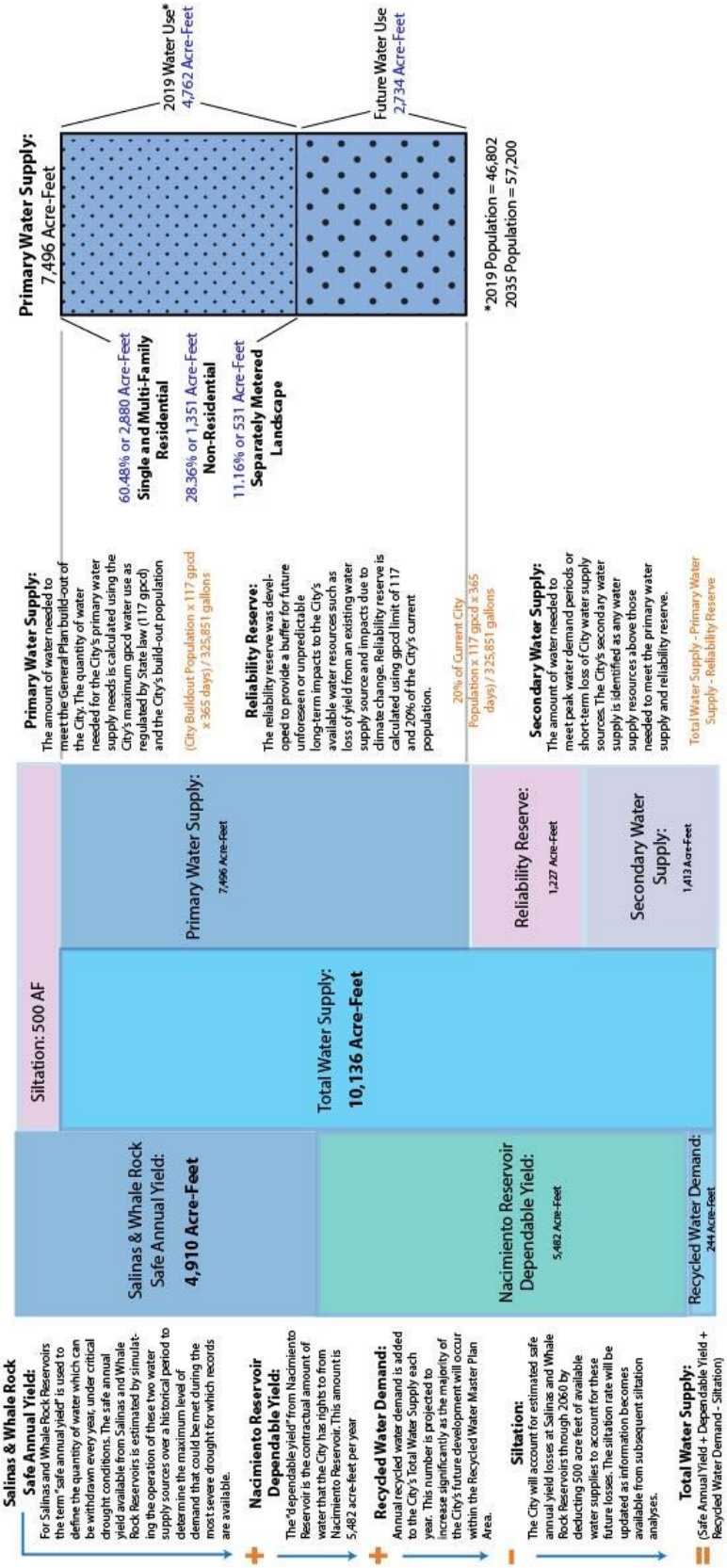
Water supply accounting is summarized in the table below and shown in Appendix A.

2019 Water Supply Accounting (acre feet)

Total	Primary Water Supply	Reliability Reserve	Secondary Water Supply
10,136	7,496	1,227	1,413

In summary, the City maintains a robust water supply portfolio with greater than five years of water available. Per capita water use (obtained from adding up all water used by visitors, residents, commercial uses, etc.) decreased during the 2019 Water Year to 91 gallons per capita per day (gpcd) from 100 gpcd during the 2018 Water Year.

Appendix A.


Salinas & Whale Rock Safe Annual Yield:
For Salinas and Whale Rock Reservoirs the term 'safe annual yield' is used to define the quantity of water which can be withdrawn every year, under critical drought conditions. The safe annual yield available from Salinas and Whale Rock Reservoirs is estimated by simulating the operation of these two water supply sources over a historical period to determine the maximum level of demand that could be met during the most severe drought for which records are available.
Nacimiento Reservoir Dependable Yield:
The "dependable yield" from Nacimiento Reservoir is the contractual amount of water that the City has rights to from Nacimiento Reservoir. This amount is 5,482 acre-feet per year
Recycled Water Demand:
Annual recycled water demand is added to the City's Total Water Supply each year. This number is projected to increase significantly as the majority of the City's future development will occur within the Recycled Water Master Plan Area.
Siltation:
The City will account for estimated safe annual yield losses at Salinas and Whale Rock Reservoirs through 2060 by deducting 500 acre feet of available water supplies to account for these future losses. The siltation rate will be updated as information becomes available from subsequent siltation analyses.
Total Water Supply:
(Safe Annual Yield + Dependable Yield + Recycled Water Demand - Siltation)
Salinas & Whale Rock Safe Annual Yield:
4,910 Acre-Feet
Nacimiento Reservoir Dependable Yield:
5,482 Acre-Feet
Recycled Water Demand:
244 Acre-Feet
Siltation: 500 AF
Total Water Supply:
10,136 Acre-Feet
Primary Water Supply:
7,496 Acre-Feet
Reliability Reserve:
1,227 Acre-Feet
Secondary Water Supply:
1,413 Acre-Feet
Primary Water Supply:
The amount of water needed to meet the General Plan build-out of the City. The quantity of water needed for the City's primary water supply needs is calculated using the City's maximum gpcd water use as regulated by State law (117 gpcd) and the City's build-out population
(City Buildout Population x 117 gpcd x 365 days) / 325,851 gallons
Reliability Reserve:
The reliability reserve was developed to provide a buffer for future unforeseen or unpredictable long-term impacts to the City's available water resources such as loss of yield from an existing water supply source and impacts due to climate change. Reliability reserve is calculated using gpcd limit of 117 and 20% of the City's current population.
20% of Current City Population x 117 gpcd x 365 days) / 325,851 gallons
Secondary Water Supply:
The amount of water needed to meet peak water demand periods or short-term loss of City water supply sources. The City's secondary water supply is identified as any water supply resources above those needed to meet the primary water supply and reliability reserve.
Total Water Supply - Primary Water Supply - Reliability Reserve
Primary Water Supply:
7,496 Acre-Feet
60.48% or 2,880 Acre-Feet
Single and Multi-Family Residential
28.36% or 1,351 Acre-Feet
Non-Residential
11.16% or 531 Acre-Feet
Separately Metered Landscape
2019 Water Use*
4,762 Acre-Feet
Future Water Use
2,734 Acre-Feet
*2019 Population = 46,802
2035 Population = 57,200

2020 Water Resources Status Report

For the Time Period October 1, 2019 through September 30, 2020

Stenner Canyon Water Treatment Plant.

The City's 2020 Water Resources Status Report was prepared in accordance with the *General Plan, Water and Wastewater Management Element*, Policy A5.3.1. The reporting period corresponds to the 2020 Water Year (October 1, 2019 through September 30, 2020), the twelve-month period for which precipitation totals are measured designated by the calendar year in which it ends. This report provides a summary of the following for the 2020 Water Year:

I. Regulatory and Water Capital Projects Update
II. Water Supply
III. Water Demand
IV. Water Resource Availability
V. Water Supply Accounting

I. CAPITAL PROJECTS AND REGULATORY UPDATE

The City completed two large water infrastructure projects during the 2020 Water Year and began the implementation of a third project with capital improvements totaling over $18.7 million. These projects are summarized below along with key regulatory updates related to the Sustainable Groundwater Management Act and the upcoming update to the City's Urban Water Management Plan.

Disinfection Byproduct Reduction & Water Treatment Plant Pipe Gallery Improvement Project

In August, the City completed the approximately $2.6 million Disinfection Byproduct Reduction and Water Treatment Plant (WTP) Pipe Gallery Improvements Project. The Project included modifications at two potable water storage tanks (Clearwell #2 at the WTP and Edna Saddle Tank) for the installation of specialty equipment (mixers, aerators, and ventilators) to effectively reduce disinfection byproducts to improve water quality and meet regulatory requirements. The Project also included replacement of corroded pipe within the pipe gallery at the WTP, and the replacement of a sections of effluent line and additional valving to provide a means for improved maintenance flexibility within the pipe gallery.

Water Energy Efficiency Project

In November 2019, the City Council approved the Water Energy Efficiency project that includes $14.3 million of improvements to the City's Water Treatment Plant. The benefits of the project include:

1. Contribute to the City's sustainability goals and advancement toward Zero Net Energy.
2. Reduce energy consumption and greenhouse gas emissions.
3. Replace obsolete equipment and components.
4. Improve ability to perform maintenance.
5. Improve reliability of achieving permit compliance.
6. Increase operational reliability, flexibility, and redundancy.
7. Reduced staff requirements for manual operation.

It is estimated that implementation of the Water Energy Efficiency Project will result in a reduction of energy usage of over 33 percent annually from 2019 WTP operations. The project is approximately 50 percent complete, with Phase 1

Installation of new Ozone Generators.

Installation of new Dilution Air Dryers.

Commissioning planned for early 2021. The Project is scheduled to be complete in mid-2021.

Waterline Replacement Projects

During the 2020 Water Year, the City completed replacement of over 3,000 lineal feet of waterline on Casa, Stenner, and Murray Streets surrounding Sierra Vista Hospital at a cost of approximately $1.7 million. Replacement of water distribution pipes and related facilities is an ongoing program aimed to address aging, substandard, and deteriorating infrastructure, with the added benefit of reducing customer impacts associated with emergency repairs. Waterline breaks occur with more frequency with aging waterlines, and the resulting repairs are disruptive to the public and expensive to repair. The main objectives of this program are to ensure reliable water service, reduce the need for emergency repairs, and to enhance available fire flows.

Capital Improvements at Whale Rock Reservoir

At the request of the California Department of Water Resources, Division of Safety of Dams, the City began preparing plans and specifications for a Spillway Underdrain Repair project at the Whale Rock dam, as well as the first draft of the Emergency Action Plan update, during the 2020 Water Year. The Plan is under review internally by staff. The City performs this work with its Whale Rock Commission partners, Cal Poly State University and the California Men's Colony.

Ongoing capital improvements aimed at maintaining infrastructure safety and reliability include replacement of pressure relief valves for Whale Rock Pump Station B, replacement of 2,000 feet of fence-line around Whale Rock Reservoir, and replacement of the Reservoir's boathouse structure.

Sunset bike ride at Whale Rock Reservoir.

Sustainable Groundwater Management Act

The use of groundwater will increase resiliency in the City's water supply portfolio by offering a local water source to complement the City's three surface water supplies. The Sustainable Groundwater Management Act (SGMA) is a statewide law that requires Groundwater Sustainability Agencies (GSA) to adopt groundwater management plans that outline actions needed to return groundwater basins to sustainable levels of pumping and recharge.

The City is working with the County of San Luis Obispo GSA to create a single Groundwater Sustainability Plan (GSP) that provides full coverage of the San Luis Valley Groundwater Basin. To-date, the first seven chapters of the GSP have been drafted and released to the public for review. To get additional information, to sign up for the interested stakeholder email list, or to see materials for past or upcoming meetings related to the GSP development, interested parties are encouraged to visit www.slowaterbasin.com. The San Luis Valley GSP must be submitted to California Department of Water Resources (DWR) by January 31, 2022.

2020 Urban Water Management Plan Guidelines

California's Department of Water Resources issued its draft 2020 Urban Water Management Plan Guidelines in August 2020. The State's new requirements include:

1. Water loss audit results that characterize distribution system losses.
2. Procedures for conducting annual water supply and demand assessment.
3. Five-year drought risk asssessment.
4. Energy analysis.
5. A six-phase water shortage contingency plan.

Many of these new State requirements are already part of the City's water planning, including the preparation of this Water Resource Status Report annually. Staff will present more information to the City Council on the new requirements at a March 2021 Study Session, with consideration of the City's 2020 Urban Water Management Plan in June of 2021.

II. WATER SUPPLY

Per the *General Plan Water and Wastewater Management Element*, Policy A2.2.1, the City uses multiple water sources to meet its water supply needs. The City has four primary water supply sources including Whale Rock Reservoir, Salinas Reservoir, Nacimiento Reservoir, and recycled water. Groundwater serves as the City's fifth supplemental water source. Substantial work efforts are being made to better understand the City's groundwater supplies and how they may be fully utilized in the future. The quantity of water supplied by each water source for Water Year 2020 (from October 1, 2019 to September 30, 2020) is summarized in Table 1.

Table 1: City Water Supply by Source during the 2020 Water Year
(in acre-feet)

Nacimiento Reservoir	Whale Rock Reservoir [2]	Recycled Water	Salinas Reservoir	Groundwater [3]	Total City Water Demand
1,562	777	237	2,154	0	4,730
33%	16%	5%	46%	0%	100%

Notes:
1. Values are rounded.
2. Water delivered to Cal Poly State University is excluded from the City's water demand.
3. Groundwater was not used for potable purposes during Water Year 2020.

During Water Year 2020, 33 percent of the City's total water demand was met by Nacimiento Reservoir. San Luis Obispo County operates and maintains the water delivery system from Nacimiento Reservoir to participating agencies (currently the cities of Paso Robles and San Luis Obispo, Atascadero Mutual Water Company, Templeton Community Services District, County Service Area 10A [Cayucos], Santa Margarita Ranch, and Bella Vista Mobile Home Park). The Nacimiento Project Commission provides oversight to project operations, maintenance, and the project budget. The Commission is made up of representatives

from each of the four agencies' governing boards and a County Representative who is a member of the County Board of Supervisors who also sits on the Board of Directors for the Flood Control District.

During Water Year 2020, water demand totaled 4,730 acre-feet, below the ten-year average of 5,004 acre-feet (for 2011 to 2020), and the lowest total water demand since 2015. This is likely due to the impacts of COVID-19. The City utilized a total of 2,931 acre-feet from Salinas and Whale Rock reservoirs, meeting 62 percent of total City water demand. The City pays the County of San Luis Obispo Flood Control and Water Conservation District (County) to provide oversight, operations, and maintenance of Salinas Reservoir and related water delivery facilities. The City provides oversight, operations, and maintenance of the Whale Rock Reservoir for the benefit of the Whale Rock Commission, a joint powers agency made up of Cal Poly State University, California Men's Colony, and the City.

For Water Year 2020, the City delivered 237acre-feet of recycled water for landscape irrigation and construction water. This equates to five percent of total City water demand. New recycled water customers during the 2020 Water Year include several properties in the Orcutt Specific Plan Area.

Although the City suspended using groundwater for potable purposes in April 2015, groundwater wells remain in an operable, stand-by position should the use of groundwater be needed. In July of 2020, the City received a nearly $2 million planning-phase grant, funded through Proposition 1, to study Tetrachloroethylene (PCE) contamination of the groundwater basin. A detailed understanding of the extent of PCE contamination and remediation options are necessary steps in fully utilizing the City's groundwater pumping opportunities. The planning phase will continue through 2021 with implementation planned for 2022.

III. WATER DEMAND

During Water Year 2020, the breakdown of water use in the City by sector is as follows:

- 65.8 percent of water use supported single and multi-family residential uses, or 3,112 acre-feet,
- 20.8 percent of water use supported commercial and other non-residential uses, or 984 acre-feet,
- 8.3 percent of water use supported separately metered landscape irrigation (potable water), or 393 acre-feet,
- 4.4 percent of water use supported separately metered landscape irrigation (recycled water), or 208 acre-feet, and
- 0.7 percent of water use supported construction (recycled water), or 33 acre-feet.

Compared to the prior water year, total City water demand for single and multi-family residential uses increased from 60.5 percent in Water Year 2019 to 65.8 percent in Water Year 2020, likely due to both remote work and remote learning during COVID-19. During the same timeframe, water demand for commercial uses decreased from 28.4 percent in Water Year 2019 to 20.8 percent in Water Year 2020.

Historical water use is summarized in Table 2, as well as corresponding population, per capita use rate, and rainfall. The 2020 per capita water use was 92 gallons per capita per day (gpcd). Per capita water use is calculated by dividing total water use (including recycled water) in the City by the City's population. Total water use includes residential and daytime population needs for all uses such as restaurants, hotels, industrial/manufacturing, government/schools, and irrigation. Based on the City's *General Plan Water*

and Wastewater Management Element policies, the City uses a factor of 117 gpcd to project water required to serve the General Plan's estimated population in 2035.

The City's water supply reservoirs are in different watersheds, therefore rainfall at various locations within San Luis Obispo County benefits the City. As shown in Table 3, during Water Year 2020, two reservoir locations (Rocky Butte and Salinas Dam) received more than the annual average. The remaining location, Hwy 46 and W 7 Mile Road, Cambria, CA, received less than average rainfall.

Table 2: Population, Water Use, and Rainfall, 2011-2020

Year	Population[3]	Total Water Use (acre-feet)	Per Capita Water Use (gpcd)	Rainfall[1,2] (inches)
2011	45,418	5,285	104	18.9
2012	45,308	5,541	109	21.5
2013	45,541	5,892	116	3.8
2014	45,473	5,524	109	14.2
2015	45,802	4,990	97	11.8
2016	46,117	4,731	92	17.8
2017	46,424	4,975	95	35.1
2018	46,548	5,225	100	12.9
2019	45,937[4]	4,762	93	27.1
2020	**45,920**	**4,730**	**92**	**21.59**

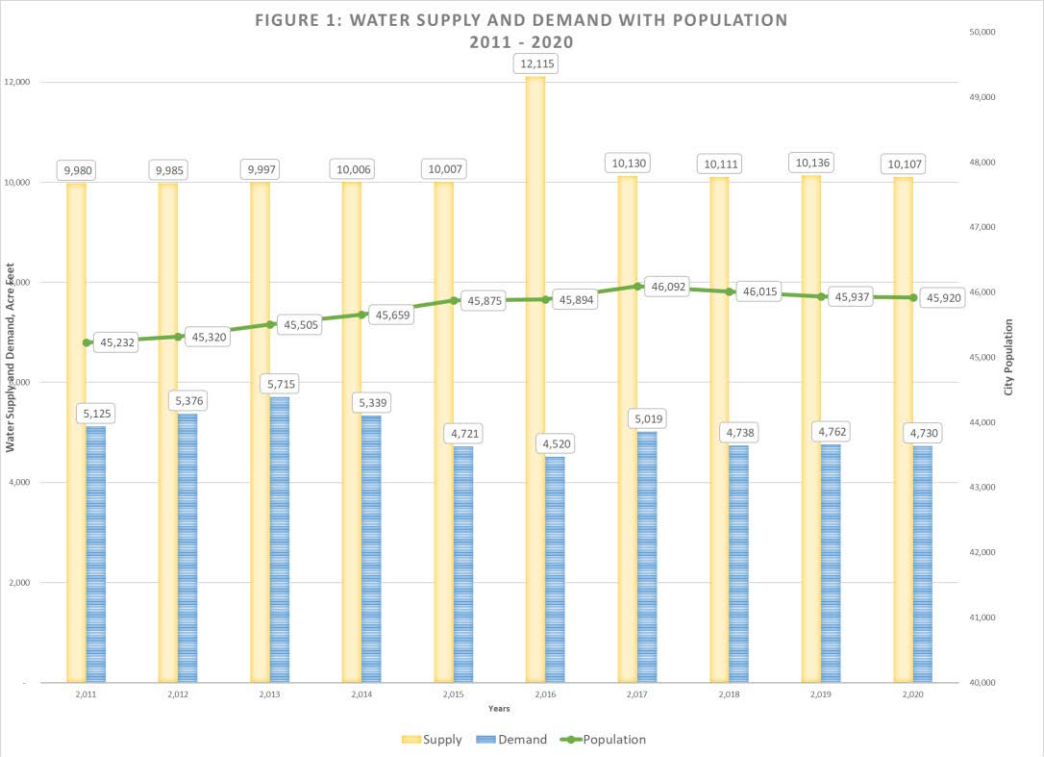
NOTES:

1. Rainfall for 2011 through 2012 calendar year source was from the Cal Poly CIMIS Weather Station. Rainfall for calendar year 2013 through 2020 was from data for SLO Reservoir available from SLO County at: https://wr.slocountywater.org/list/?sensor_class=11&mode=sensor&cache=1&refresh=off
2. Rainfall data for 20011-2014 is for the calendar year; 2015-2020 data covers the Water Year (October 1 to September 30).
3. City population data is available at the CA Department of Finance website at: http://www.dof.ca.gov/Forecasting/Demographics/Estimates/e-1/
4. The City's 2019 population figure reflects the **revised estimate** available from the CA Department of Finance in 2020 since the 2019 Water Resource Status Report.

Table 3: Water Year 2020 Rainfall Totals

Rainfall Measurement Location	Watershed	Annual Average Rainfall (in inches)	Water Year 2020 Total Rainfall (in inches)	Water Year 2020 Percent of Average
Rocky Butte	Nacimiento Reservoir	40	43.38	108%
Hwy 46 and W 7 Mile Road, Cambria, CA	Whale Rock Reservoir	30	17.49	58%
SLO Reservoir	San Luis Obispo Creek	24	21.59	90%
Salinas Dam	Salinas Reservoir	22	23.71	107%

Source: https://wr.slocountywater.org/list/?sensor_class=11&mode=sensor&cache=1&refresh=off



NOTE: In 2016, the City recognized the full allocation of Nacimiento Reservoir increasing the City's contractual water supply from 3,380 acre-feet to 5,482 acre-feet annually (+2,102 acre-feet). Following the end of the drought in 2016, the City updated the Safe Annual Yield model for Whale Rock and Salinas Reservoirs incorporating rainfall data and three climate change scenarios. In 2018, the City recognized the reduction from 6,940 acre-feet to 4,910 acre-feet in Safe Annual Yield (-2,030 acre-feet).

IV. WATER RESOURCE AVAILABILITY

The following table summarizes the Water Resource Availability based on *Water and Wastewater Management Element,* Section 3. Water availability for Water Year 2020 is 10,107 acre-feet.

Table 4: Water Year 2020 Water Resource Availability

Water Resource	Acre-Feet	Description
Salinas & Whale Rock Reservoirs	4,910	Safe Annual Yield [1]
Nacimiento Reservoir	5,482	Dependable Yield [2]
Recycled Water	215	2019 Annual Usage [3]
Siltation from 2010 to 2060	(500)	WWME Policy A 4.2.2 [4]
	10,107	**2020 Availability**

NOTES:

1. The City's Safe Annual Yield model was updated in 2018.
2. Dependable Yield is the contractual amount of water the City has rights to from Nacimiento Reservoir.
3. The quantity of recycled water included (215 acre-feet) is the actual prior year's usage (calendar year 2019) per *General Plan Water and Wastewater Management Element* Policy A 7.2.2.
4. Reservoir siltation is a natural occurrence that reduces storage capacity over long periods, resulting in the reduction of safe annual yield.

V. WATER SUPPLY ACCOUNTING

Per *General Plan Water and Wastewater Management Element (WWME),* Section 5, the City accounts for water supplies necessary to meet three specific community needs:

- Primary water supply
- Reliability reserve
- Secondary water supply

Primary water supply is defined as the amount of water needed to serve the City's future residential and non-residential water demand, based on the population identified in the *General Plan*, *Land Use Element (2014)*. Table 3 in the *Land Use Element* identifies an urban reserve capacity of 57,200 people[1]. The quantity of water needed for the primary water supply is calculated per WWME Policy A 5.2.2, using 117 gallons per capita per day (gpcd).

The City's reliability reserve is defined as the buffer for future unforeseen or unpredictable long-term water supply impacts. The quantity of water for the reliability reserve is defined in WWME Policy A 5.2.3, using 20 percent of the existing City population (45,920, 2020 population) at 117 gpcd. Based on this policy, the reliability reserve will change over time as the City's actual population changes. The reliability reserve concept is included in the City's Charter (Section 909) which identifies that the water may not be used to serve future development.

The City's secondary water supply is defined as the amount of water remaining from available water resources above those needed to meet the primary water supply and reliability reserve. The secondary supply is identified to meet peak water demand periods or short-term loss of City water supply sources, per WWME Policy A 5.2.4.

2020 Water Supply Accounting

Primary Water Supply = 117 gpcd x City Build-out Population, in acre-feet per year
117 gpcd x 57,200 x 365 day/year x acre-ft/325,851 gallons **= 7,496 acre-ft per year**

Reliability Reserve = 117 gpcd x 2020 City Population x 20 percent, in acre-feet per year
117 gpcd x 45,920 x 365 day/year x acre-ft/325,851 gallons x 20 percent **= 1,204 acre-ft per year**

Secondary Water Supply = Current Annual Availability – Primary Water Supply – Reliability Reserve
10,107 acre-ft/year [A] – 7,496 acre-ft/year – 1,204 Acre-Ft/year **= 1,407 acre-ft per year**

[A] 2020 Annual Water Resource Availability from table above.

Water supply accounting for the 2020 Water Year is summarized in the table below and shown in Appendix A.

[1] The City's population projection of 57,200 persons, from the General Plan Land Use Element, is based one percent growth annually between 2014 and 2035. By policy, certain housing types and areas are excluded from this growth rate and projection (affordable housing, etc.). The City's estimated Primary Water Supply need is based on projected population but encompasses all water demand in the City (residential, non-residential, and irrigation). In WY 2020, single-family and multi-family residential water demand was 65.8 percent of total City water demand.

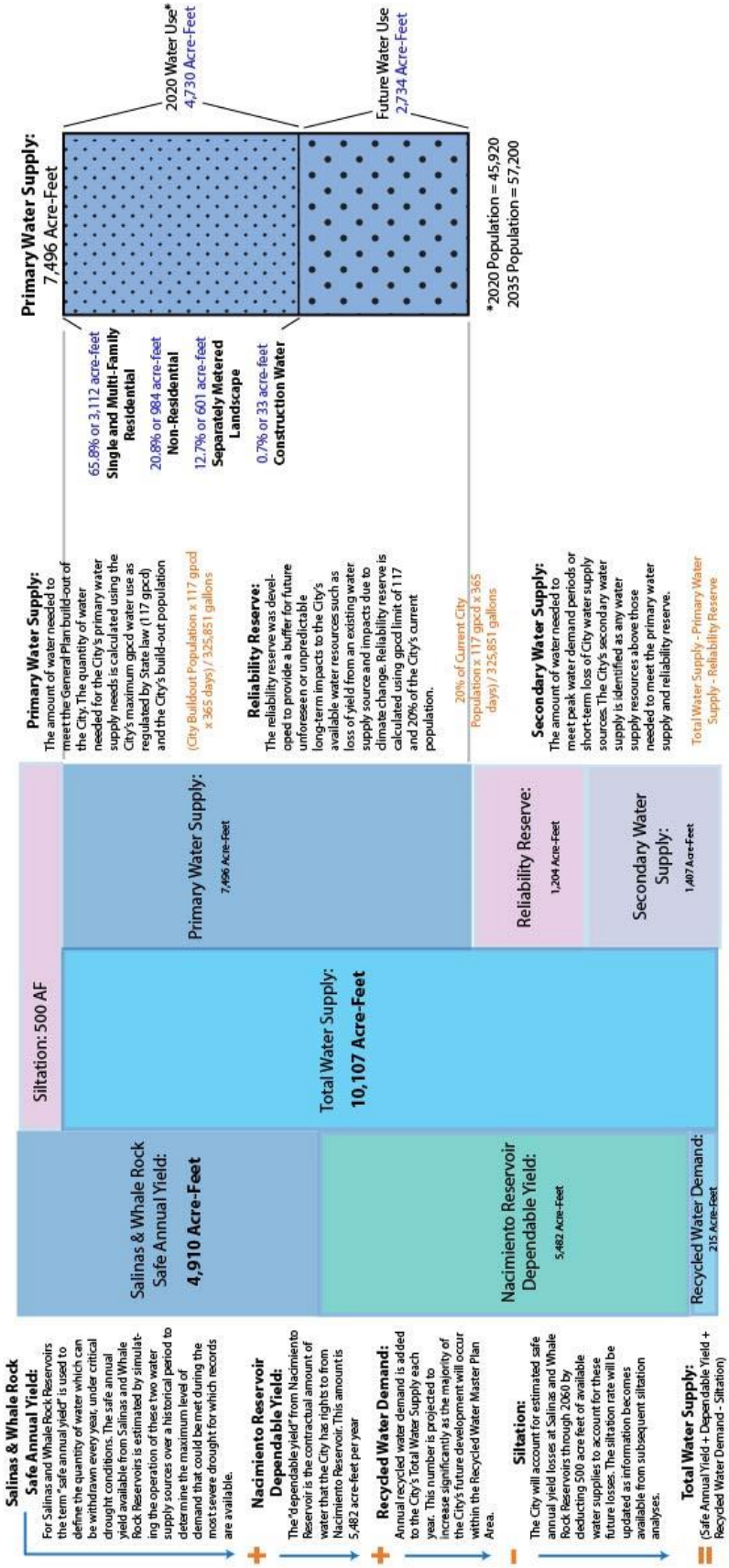
Table 5: 2020 Water Supply Accounting (in acre-feet)

Primary Water Supply	Reliability Reserve	Secondary Water Supply	Total
7,496	1,204	1,407	10,107

SOURCE: Policies related to Water Supply Accounting are found in the City's General Plan Water and Wastewater Management Element (Policies A 5.2.2 through A 5.2.4).

In summary, the City maintains a robust water supply portfolio with greater than five years of water available. Per capita water use (obtained from adding up all water used by visitors, residents, commercial uses, etc.) decreased during the 2020 Water Year to 92 gallons per capita per day (gpcd) from 93 gpcd during the 2019 Water Year. City population figures, and associated gallons per capita per day, reported in the 2019 Water Resource Status Report were updated from Department of Finance data.

Appendix A.


Salinas & Whale Rock Safe Annual Yield:
For Salinas and Whale Rock Reservoirs the term 'safe annual yield' is used to define the quantity of water which can be withdrawn every year, under critical drought conditions. The safe annual yield available from Salinas and Whale Rock Reservoirs is estimated by simulating the operation of these two water supply sources over a historical period to determine the maximum level of demand that could be met during the most severe drought for which records are available.
+
Nacimiento Reservoir Dependable Yield:
The "dependable yield" from Nacimiento Reservoir is the contractual amount of water that the City has rights to from Nacimiento Reservoir. This amount is 5,482 acre-feet per year
+
Recycled Water Demand:
Annual recycled water demand is added to the City's Total Water Supply each year. This number is projected to increase significantly as the majority of the City's future development will occur within the Recycled Water Master Plan Area.
-
Siltation:
The City will account for estimated safe annual yield losses at Salinas and Whale Rock Reservoirs through 2060 by deducting 500 acre feet of available water supplies to account for these future losses. The siltation rate will be updated as information becomes available from subsequent siltation analyses.
=
Total Water Supply:
(Safe Annual Yield + Dependable Yield + Recycled Water Demand - Siltation)
Salinas & Whale Rock Safe Annual Yield:
4,910 Acre-Feet
Nacimiento Reservoir Dependable Yield:
5,482 Acre-Feet
Recycled Water Demand:
215 Acre-Feet
Siltation: 500 AF
Total Water Supply:
10,107 Acre-Feet
Primary Water Supply:
7,496 Acre-Feet
Reliability Reserve:
1,204 Acre-Feet
Secondary Water Supply:
1,407 Acre-Feet
Primary Water Supply:
The amount of water needed to meet the General Plan build-out of the City. The quantity of water needed for the City's primary water supply needs is calculated using the City's maximum gpcd water use as regulated by State law (117 gpcd) and the City's build-out population
(City Buildout Population x 117 gpcd x 365 days) / 325,851 gallons
Reliability Reserve:
The reliability reserve was developed to provide a buffer for future unforeseen or unpredictable long-term impacts to the City's available water resources such as loss of yield from an existing water supply source and impacts due to climate change. Reliability reserve is calculated using gpcd limit of 117 and 20% of the City's current population.
20% of Current City Population x 117 gpcd x 365 days) / 325,851 gallons
Secondary Water Supply:
The amount of water needed to meet peak water demand periods or short-term loss of City water supply sources. The City's secondary water supply is identified as any water supply resources above those needed to meet the primary water supply and reliability reserve.
Total Water Supply - Primary Water Supply - Reliability Reserve
Primary Water Supply:
7,496 Acre-Feet
65.8% or 3,112 acre-feet
Single and Multi-Family Residential
20.8% or 984 acre-feet
Non-Residential
12.7% or 601 acre-feet
Separately Metered Landscape
0.7% or 33 acre-feet
Construction Water
2020 Water Use*
4,730 Acre-Feet
Future Water Use
2,734 Acre-Feet
*2020 Population = 45,920
2035 Population = 57,200

APPENDIX III: Compliance Checklist

The City completed the following checklist of specific UWMP requirements as requested by DWR. The Checklist includes each UWMP requirement by subject, applicable CWC section, and the page number where the required element is addressed in the City's Plan to assist in the DWR review of the City's UWMP.

CWC Section	2020 UWMP Requirement	Subject	Guidebook Location	2020 UWMP Location
10615	A plan shall describe and evaluate sources of supply, reasonable and practical efficient uses, reclamation and demand management activities.	Introduction and Overview	Chapter 1	Chapter 1
10630.5	Each plan shall include a simple description of the supplier's plan including water availability, future requirements, a strategy for meeting needs, and other pertinent information. A supplier may also choose to include a simple description at the beginning of each chapter.	Summary	Chapter 1	Chapter 1 and introduction to Chapters 2 through Chapter 7
10620(b)	Every person that becomes an urban water supplier shall adopt an urban water management plan within one year after it has become an urban water supplier.	Plan Preparation	Section 2.1	Page 1-1
10620(d)(2)	Coordinate the preparation of its plan with other appropriate agencies in the area, including other water suppliers that share a common source, water management agencies, and relevant public agencies, to the extent practicable.	Plan Preparation	Section 2.5.2	Pages 1-2 & 1-3
10642	Provide supporting documentation that the water supplier has encouraged active involvement of diverse social, cultural, and economic elements of the population within the service area prior to and during the preparation of the plan.	Plan Preparation	Section 2.5.2	Page 1-3
10631(h)	Retail suppliers will include documentation that they have provided their wholesale supplier(s) – if any – with water projections from that source.	System Supplies	Section 2.6, Section 6.1	Appendix I
10631(a)	Describe the water supplier service area.	System Description	Section 3.1	Page 2-1
10631(a)	Describe the climate of the service area of the supplier.	System Description	Section 3.3	Page 2-1
10631(a)	Provide population projections for 2025, 2030, 2035, and 2040.	System Description	Section 3.4	Pages 2-2 & 2-3. Table 2
10631(a)	Describe other demographic factors affecting the supplier's water management planning.	System Description	Section 3.4	Pages 2-1 & 2-2
10631(a)	Indicate the current population of the service area.	System Description and Baselines and Targets	Sections 3.4 and 5.4	Page 2-2 Table 2
10631(a)	Describe the land uses within the service area.	System Description	Section 3.5	Page 3-1
10631(d)(1)	Quantify past, current, and projected water use, identifying the uses among water use sectors.	System Water Use	Section 4.2	Page 3-1 Table 4
10631(d)(3)(C)	Retail suppliers shall provide data to show the distribution loss standards were met.	System Water Use	Section 4.2.4	Page 3-2 to 3-3

CWC Section	2020 UWMP Requirement	Subject	Guidebook Location	2020 UWMP Location
10631(d)(4)(A)	In projected water use, include estimates of water savings from adopted codes, plans, and other policies or laws.	System Water Use	Section 4.2.6	Page 3-3
10631(d)(4)(B)	Provide citations of codes, standards, ordinances, or plans used to make water use projections.	System Water Use	Section 4.2.6	Page 3-10
10635(b)	Demands under climate change considerations must be included as part of the drought risk assessment.	System Water Use	Section 4.5	Chapter 6
10631.1(a)	Include projected water use needed for lower income housing projected in the service area of the supplier.	System Water Use	Section 4.4	Pages 3-4 Table 7
10608.20(e)	Retail suppliers shall provide baseline daily per capita water use, urban water use target, interim urban water use target, and compliance daily per capita water use, along with the bases for determining those estimates, including references to supporting data.	Baselines and Targets	Chapter 5	Pages 3-4, 3-5, 3-6, & 3.7 Tables 8, 9, 10, 11, 12,13
10608.24(a)	Retail suppliers shall meet their water use target by December 31, 2020.	Baselines and Targets	Chapter 5	Page 3-8 & Table 14
10608.24(d)(2)	If the retail supplier adjusts its compliance GPCD using weather normalization, economic adjustment, or extraordinary events, it shall provide the basis for, and data supporting the adjustment.	Baselines and Targets	Section 5.2	NA
10608.22	Retail suppliers' per capita daily water use reduction shall be no less than 5 percent of base daily per capita water use of the 5-year baseline. This does not apply if the suppliers base GPCD is at or below 100.	Baselines and Targets	Section 5.5	Page 3-8
10608.40	Retail suppliers shall report on their compliance in meeting their water use targets. The data shall be reported using a standardized form in the SBX7-7 2020 Compliance Form.	Baselines and Targets	Section 5.8 and App E	Page 3-8
10631(b)(1)	Provide a discussion of anticipated supply availability under a normal, single dry year, and a drought lasting five years, as wel as more frequent and severe periods of drought, including changes in supply due to climate change.	System Supplies	Section 6.1 and 6.2	Pges 6-1 to 6-3
10631(b)(2)	When multiple sources of wate supply are identified, describe the management of each supply in relation to other identified supplies	System Supplies	Section 6.1	Pges 6-1 to 6-3
10631(b)(3)	Describe measures taken to acquire and develop planned sources of water.	System Supplies	Section 6.1.1	Page 4-8
10631(b)	Identify and quantify the existing and planned sources of water available for 2020, 2025, 2030, 2035, and 2040.	System Supplies	Chapter 6.2.8	Page 4-10, Table 20 and Table 21
10631(b)	Indicate whether groundwater is an existing or planned source of water available to the supplier.	System Supplies	Section 6.2	Pages 4-7 to 4-9
10631(b)(4)(A)	Indicate whether a groundwater management plan has been adopted by the water supplier or if there is any other specific authorization for groundwater management. Include a copy of the plan or authorization.	System Supplies	Section 6.2.2	Page 4-9
10631(b)(4)(B)	Describe the groundwater basin.	System Supplies	Section 6.2.2	Pages 4-7 to 4-9
10631(b)(4)(B)	Indicate if the basin has been adjudicated and include a copy of the court order or decree and a description of the amount of water the supplier has the legal right to pump.	System Supplies	Section 6.2.2	Page 4-8

CWC Section	2020 UWMP Requirement	Subject	Guidebook Location	2020 UWMP Location
10631(b)(4)(B)	For unadjudicated basins, indicate whether or not the department has identified the basin as overdrafted, or projected to become overdrafted. Describe efforts by the supplier to eliminate the long-term overdraft condition.	System Supplies	Section 6.2.2.1	Page 4-8
10631(b)(4)(C)	Provide a detailed description and analysis of the location, amount, and sufficiency of groundwater pumped by the urban water supplier for the past five years.	System Supplies	Section 6.2.2.4	Page 4-8, Table 19
10631(b)(4)(D)	Provide a detailed description and analysis of the amount and location of groundwater that is projected to be pumped.	System Supplies	Sections 6.2.2	N/A
10631(c)	Describe the opportunities for exchanges or transfers of water on a short-term or long-term basis.	System Supplies	Section 6.2.7	Page 4-10, Table 22
10633	For wastewater and recycled water, coordinate with local water, wastewater, groundwater, and planning agencies that operate within the supplier's service area.	System Supplies (Recycled Water)	Section 6.5.1	Wastewater treatment is also by the City of San Luis Obispo
10633(b)	Describe the quantity of treated wastewater that meets recycled water standards, is being discharged, and is otherwise available for use in a recycled water project.	System Supplies (Recycled Water)	Section 6.5.2.2	Page 5-2
10633(c)	Describe the recycled water currently being used in the supplier's service area.	System Supplies (Recycled Water)	Section 6.5.3 and 6.5.4	Page 5-4
10633(d)	Describe and quantify the potential uses of recycled water and provide a determination of the technical and economic feasibility of those uses.	System Supplies (Recycled Water)	Section 6.5.4	Page 5-4
10633(e)	Describe the projected use of recycled water within the supplier's service area at the end of 5, 10, 15, and 20 years, and a description of the actual use of recycled water compared to uses previously projected.	System Supplies (Recycled Water)	Section 6.5.4	Page 5-3
10633(f)	Describe the actions which may be taken to encourage the use of recycled water and the projected results of these actions in terms of acre-feet of recycled water used per year.	System Supplies (Recycled Water)	Section 6.5.5	Page 5-4
10633(g)	Provide a plan for optimizing the use of recycled water in the supplier's service area.	System Supplies (Recycled Water)	Section 6.5.5	Page 5-4 and 5-7
10631(g)	Describe desalinated water project opportunities for long-term supply.	System Supplies	Section 6.6	Page 4-9
10633(a)	Describe the wastewater collection and treatment systems in the supplier's service area. Include quantification of the amount of wastewater collected and treated and the methods of wastewater disposal.	System Supplies (Recycled Water)	Section 6.5.2	Page 5-1 and 5-2
10631(g)	Describe the expected future water supply projects and programs that may be undertaken by the water supplier to address water supply reliability in average, single-dry, and multiple-dry years.	System Supplies	Section 6.2.8	Page 4-9
10631.2(a)	The UWMP must include energy information, as stated in the code that a supplier can readily obtain.	System Supplies, Energy Intensity	Section 6.4 and Appendix O	Page 4-11, Table 23, Page 5-7, Table 29
10620(f)	Describe water management tools and options to maximize resources and minimize the need to import water from other regions.i	Water Supply Reliability Assessment	Section 7.4	Page 6-1 and 6-2

CWC Section	2020 UWMP Requirement	Subject	Guidebook Location	2020 UWMP Location
10631(c)(1)	Describe the reliability of the water supply and vulnerability to seasonal or climatic shortage.	Water Supply Reliability Assessment	Section 7.1	Page 6-3
10631(c)(1)	Provide data for an average water year, a single dry water year, and multiple dry water years	Water Supply Reliability Assessment	Section 7.2	Tables 32-34
10631(c)(2)	For any water source that may not be available at a consistent level of use, describe plans to supplement or replace that source.	Water Supply Reliability Assessment	Section 7.1	N/A
10634	Provide information on the quality of existing sources of water available to the supplier and the manner in which water quality affects water management strategies and supply reliability	Water Supply Reliability Assessment	Section 7.2	Page 6-3
10635(a)	Service Reliability Assessment: Assess the water supply reliability during normal, dry, and multiple dry water years by comparing the total water supply sources available to the water supplier with the total projected water use over the next 20 years.	Water Supply Reliability Assessment	Section 7.3	Page 6-4 and 6-5, Tables 32-34
10635(a)	Provide a drought risk assessment as part of information considered in developing the demand management measures and water supply projects.	Water Supply Reliability Assessment	Section 7.3	Page 6-4
10635(b)(1)	Include a description of the data, methodology, and basis for one or more supply shortage conditions that are necessary to conduct a drought risk assessment for a drought period that lasts 5 consecutive years.	Water Supply Reliability Assessment	Section 7.3	Page 6-1 to 6-6
10635(b)(2)	Include a determination of the reliability of each source of supply under a variety of water shortage conditions.	Water Supply Reliability Assessment	Section 7.3	Page 6-1 to 6-6
10635(b)(3)	Include a comparison of the total water supply sources available to the water supplier with the total projected water use for the drought period.	Water Supply Reliability Assessment	Section 7.3	Page 6-5 to 6-6
10635(b)(4)	Include considerations of the historical drought hydrology, plausible changes on projected supplies and demands under climate change conditions, anticipated regulatory changes, and other locally applicable criteria.	Water Supply Reliability Assessment	Section 7.3	Page 6-1 to 6-7
10631(e)(1)	Retail suppliers shall provide a description of the nature and extent of each demand management measure implemented over the past five years. The description will address specific measures listed in code.	Demand Management Measures	Sections 9.2 and 9.3	Page 7-1
10608.26(a)	Retail suppliers shall conduct a public hearing to discuss adoption, implementation, and economic impact of water use targets.	Plan Adoption, Submittal, and Implementation	Section 10.3	Appendix I
10621(b)	Notify, at least 60 days prior to the public hearing, any city or county within which the supplier provides water that the urban water supplier will be reviewing the plan and considering amendments or changes to the plan.	Plan Adoption, Submittal, and Implementation	Section 10.2.1	Appendix I
10621(d)	Each urban water supplier shall update and submit its 2015 plan to the department by July 1, 2016.	Plan Adoption, Submittal, and Implementation	Sections 10.3.1 and 10.4	Available Following Adoption by City Council
10642	Provide supporting documentation that the urban water supplier made the plan available for public inspection, published notice of the public hearing, and	Plan Adoption, Submittal, and Implementation	Sections 10.2.2, 10.3, and 10.5 and	Appendix I

CWC Section	2020 UWMP Requirement	Subject	Guidebook Location	2020 UWMP Location
	held a public hearing about the plan.		WSCP	
10642	The water supplier is to provide the time and place of the hearing to any city or county within which the supplier provides water.	Plan Adoption, Submittal, and Implementation	Sections 10.2.2	Appendix I
10642	Provide supporting documentation that the UWMP and WSCP has been adopted as prepared or modified.	Plan Adoption, Submittal, and Implementation	Section 10.3.2 and WSCP	Available Following Adoption by City Council
10644(a)	Provide supporting documentation that the urban water supplier has submitted this UWMP to the California State Library.	Plan Adoption, Submittal, and Implementation	Section 10.4	Following Adoption by City Council
10644(a)(1)	Provide supporting documentation that the urban water supplier has submitted this UWMP to any city or county within which the supplier provides water no later than 30 days after adoption.	Plan Adoption, Submittal, and Implementation	Section 10.4	Available Following Adoption by City Council
10644(a)(2)	The UWMP, or amendments to the UWMP, submitted to the department shall be submitted electronically.	Plan Adoption, Submittal, and Implementation	Sections 10.4.1 and 10.4.2	Available Following Adoption by City Council
10645(a)	Provide supporting documentation that, not later than 30 days after filing a copy of its UWMP with the department, the supplier has or will make the UWMP available for public review during normal business hours.	Plan Adoption, Submittal, and Implementation	Section 10.5	Available Following Adoption by City Council

2020 Water Shortage Contingency Plan (WSCP)

Compliance Checklist

The City completed the following checklist of specific WSCP requirements as requested by DWR. The Checklist includes each WSCP requirement by subject, applicable CWC section, and the page number where the required element is addressed in the City's Plan to assist in the DWR review of the City's 2020 WSCP.

CWC Section	2020 WSCP Requirement	Subject	Guidebook Location	2020 WSCP Location
10632(a)	Provide a water shortage contingency plan (WSCP) with specified elements below.	Water Shortage Contingency Planning	Chapter 8	WSCP-1 through WSCP-12
10632(a)(1)	Provide the analysis of water supply reliability (from Chapter 7 of the Guidebook) in the WSCP.	Water Shortage Contingency Planning	Section 8	Page WSCP-1 to WSCP-3
10632(a)(10)	Describe reevaluation process and improvement procedures for monitoring and evaluation of the WSCP to ensure risk tolerance is adequate and appropriate water shortage mitigation strategies are implemented.	Water Shortage Contingency Planning	Section 8.10	WSCP-2
10632(a)(2)(A)	Provide the written decision-making process and other methods that the supplier will use each year to determine its water reliability.	Water Shortage Contingency Planning	Section 8.2	WSCP-14
10632(a)(2)(B)	Provide data and methodology to evaluate the supplier's water reliability for the current year and one dry year pursuant to factors in the code.	Water Shortage Contingency Planning	Section 8.2	WSCP-1 to WSCP-2
10632(a)(3)(A)	Define six standard water shortage levels of 10, 20, 30, 40, 50 percent shortage and >50 percent shortage. These levels shall be based on supply conditions, including percent reductions in supply, changes in groundwater levels, changes in surface elevation, or other conditions. The shortage levels shall also apply to a catastrophic interruption of supply.	Water Shortage Contingency Planning	Section 8.3	WSCP-8 to WSCP-12
10632(a)(3)(B)	Suppliers with an existing water shortage contingency plan that uses different water shortage levels must cross reference their categories with the six standard categories.	Water Shortage Contingency Planning	Section 8.3	NA
10632(a)(4)(A)	Suppliers with water shortage contingency plans that align with the defined shortage levels must specify locally appropriate supply augmentation actions.	Water Shortage Contingency Planning	Section 8.4	NA
10632(a)(4)(B)	Specify locally appropriate demand reduction actions to adequately respond to shortages.	Water Shortage Contingency Planning	Section 8.4	WSCP-8 to WSCP-12
10632(a)(4)(C)	Specify locally appropriate operational changes.	Water Shortage Contingency Planning	Section 8.4	WSCP-8 to WSCP-12
10632(a)(4)(D)	Specify additional mandatory prohibitions against specific water use practices that are in addition to state-mandated prohibitions are appropriate to local conditions.	Water Shortage Contingency Planning	Section 8.4	WSCP-8 to WSCP-12
10632(a)(4)(E)	Estimate the extent to which the gap between supplies and demand will be reduced by implementation of the action.	Water Shortage Contingency Planning	Section 8.4	WSCP-8 to WSCP-12
10632.5	The plan shall include a seismic risk assessment and mitigation plan.	Water Shortage Contingency Planning	Section 8.4.6	WSCP-15

10632(a)(5)(A)	Suppliers must describe that they will inform customers, the public and others regarding any current or predicted water shortages.	Water Shortage Contingency Planning	Section 8.5	WSCP-8 to WSCP-12
10632(a)(5)(B) 10632(a)(5)(C)	Suppliers must describe that they will inform customers, the public and others regarding any shortage response actions triggered or anticipated to be triggered and other relevant communications.	Water Shortage Contingency Planning	Section 8.5 and 8.6	WSCP-8 to WSCP-12
10632(a)(7)(A)	Describe the legal authority that empowers the supplier to enforce shortage response actions.	Water Shortage Contingency Planning	Section 8.7	WSCP-1
10632(a)(7)(B)	Provide a statement that the supplier will declare a water shortage emergency per Water Code Chapter 3.	Water Shortage Contingency Planning	Section 8.7	WSCP-8 to WSCP-12
10632(a)(7)(C)	Provide a statement that the supplier will coordinate with any city or county within which it provides water for the possible proclamation of a local emergency.	Water Shortage Contingency Planning	Section 8.7	NA
10632(a)(8)(A)	Describe the potential revenue reductions and expense increases associated with activated shortage response actions.	Water Shortage Contingency Planning	Section 8.8	WSCP-13
10632(a)(8)(B)	Provide a description of mitigation actions needed to address revenue reductions and expense increases associated with activated shortage response actions.	Water Shortage Contingency Planning	Section 8.8	WSCP-13
10632(a)(8)(C)	Retail suppliers must describe the cost of compliance with Water Code Chapter 3.3: Excessive Residential Water Use During Drought.	Water Shortage Contingency Planning	Section 8.8	WSCP-13
10632(a)(9)	Retail suppliers must describe the monitoring and reporting requirements and procedures that ensure appropriate data is collected, tracked, and analyzed for purposes of monitoring customer compliance.	Water Shortage Contingency Planning	Section 8.9	WSCP-14
10635(b)	Analyze and define water features that are artificially supplied with water, including ponds, lakes, waterfalls, and fountains, separately from swimming pools and spas.	Water Shortage Contingency Planning	Section 8.11	WSCP-13
10635(c)	Provide supporting documentation that Water Shortage Contingency Plan has been, or will be, provided to any city or county within which it provides water, no later than 60 days after the submission of the plan to DWR.	Water Shortage Contingency Planning	Section 8.12 and Section 10.4.	Available Following Adoption by City Council
10645(b)	Provide supporting documentation that, not later than 30 days after filing a copy of its WSCP with the department, the supplier has or will make the plan available for public review during normal business hours.	Water Shortage Contingency Planning	Section 10.5	Available Following Adoption by City Council
10642	Provide supporting documentation that the urban water supplier made the plan available for public inspection, published notice of the public hearing, and held a public hearing about the plan.	Plan Adoption, Submittal, and Implementation	Sections 10.2.2, 10.3, and 10.5 and WSCP	WSCP Appendix I
10642	Provide supporting documentation that the UWMP and WSCP has been adopted as prepared or modified.	Plan Adoption, Submittal, and Implementation	Section 10.3.2 and WSCP	Available Following Adoption by City Council

Appendix IV: SBx 7-7 2020 Compliance Tables

SENATE BILL X7-7 Standardized Tables:

SB X7-7 Table 0: Units of Measure Used in UWMP*
Acre Feet
**The unit of measure must be consistent with Table 2-3*

SB X7-7 Table-1: Baseline Period Ranges			
Baseline	**Parameter**	**Value**	**Units**
10- to 15-year baseline period	2008 total water deliveries	6,359	Acre Feet
	2008 total volume of delivered recycled water	90	Acre Feet
	2008 recycled water as a percent of total deliveries	1.42%	Percent
	Number of years in baseline period[1, 2]	10	Years
	Year beginning baseline period range	1997	
	Year ending baseline period range[3]	2006	
5-year baseline period	Number of years in baseline period	5	Years
	Year beginning baseline period range	2004	
	Year ending baseline period range[4]	2008	
[1]If the 2008 recycled water percent is less than 10 percent, then the first baseline period is a continuous 10-year period. If the amount of recycled water delivered in 2008 is 10 percent or greater, the first baseline period is a continuous 10- to 15-year period. *[2] The Water Code requires that the baseline period is between 10 and 15 years. However, DWR recognizes that some water suppliers may not have the minimum 10 years of baseline data.*			
[3]The ending year must be between December 31, 2004 and December 31, 2010.			
[4]The ending year must be between December 31, 2007 and December 31, 2010.			

SB X7-7 Table 2: Method for Population Estimates	
Method Used to Determine Population	
☑	**1. Department of Finance** (DOF) DOF Table E-8 (1990 - 2000) and (2000-2010) and DOF Table E-5 (2011 - 2015) when available
	2. Persons-per-Connection Method
	3. DWR Population Tool
	4. Other DWR recommends pre-review

SB X7-7 Table 3: Service Area Population

Year		Population
10 to 15 Year Baseline Population		
Year 1	1997	42,983
Year 2	1998	43,421
Year 3	1999	43,766
Year 4	2000	44,179
Year 5	2001	44,293
Year 6	2002	44,406
Year 7	2003	44,293
Year 8	2004	44,271
Year 9	2005	44,630
Year 10	2006	44,483
5 Year Baseline Population		
Year 1	2004	44,271
Year 2	2005	44,630
Year 3	2006	44,483
Year 4	2007	44,438
Year 5	2008	44,650
2015 Compliance Year Population		
2015		45,802

SB X7-7 Table 4: Annual Gross Water Use *

Baseline Year *Fm SB X7-7 Table 3*		**Volume Into Distribution System** *This column will remain blank until SB X7-7 Table 4-A is completed.*	**Deductions**					**Annual Gross Water Use**
			Exported Water	**Change in Dist. System Storage** (+/-)	**Indirect Recycled Water** *This column will remain blank until SB X7-7 Table 4-B is completed.*	**Water Delivered for Agricultural Use**	**Process Water** *This column will remain blank until SB X7-7 Table 4-D is completed.*	
10 to 15 Year Baseline - Gross Water Use								
Year 1	1997	6,220			-		-	6,220
Year 2	1998	5,853			-		-	5,853
Year 3	1999	6,172			-		-	6,172
Year 4	2000	6,121			-		-	6,121
Year 5	2001	5,886			-		-	5,886
Year 6	2002	6,031			-		-	6,031
Year 7	2003	5,969			-		-	5,969
Year 8	2004	6,239			-		-	6,239
Year 9	2005	6,098			-		-	6,098
Year 10	2006	5,990			-		-	5,990
10 - 15 year baseline average gross water use								**6,058**
5 Year Baseline - Gross Water Use								
Year 1	2004	6,239			-		-	6,239
Year 2	2005	6,098			-		-	6,098
Year 3	2006	5,990			-		-	5,990
Year 4	2007	6,416			-		-	6,416
Year 5	2008	6,269			-		-	6,269
5 year baseline average gross water use								**6,203**
2015 Compliance Year - Gross Water Use								
2015		4,721	-		-		-	**4,721**

* NOTE that the units of measure must remain consistent throughout the UWMP, as reported in Table 2-3

SB X7-7 Table 4-A: Volume Entering the Distribution System(s)				
Name of Source		Salinas Reservoir		
This water source is:				
☑	The supplier's own water source			
	A purchased or imported source			
Baseline Year *Fm SB X7-7 Table 3*		Volume Entering Distribution System	Meter Error Adjustment* *Optional (+/-)*	Corrected Volume Entering Distribution System
10 to 15 Year Baseline - Water into Distribution System				
Year 1	1997	4186.75		4,187
Year 2	1998	5038.24		5,038
Year 3	1999	4951.54		4,952
Year 4	2000	4863.9		4,864
Year 5	2001	3255.14		3,255
Year 6	2002	3169.55		3,170
Year 7	2003	3730.5		3,731
Year 8	2004	3063.1		3,063
Year 9	2005	1083.37		1,083
Year 10	2006	1659.35		1,659
5 Year Baseline - Water into Distribution System				
Year 1	2004	3063.1		3,063
Year 2	2005	1083.37		1,083
Year 3	2006	1659.35		1,659
Year 4	2007	1638.78		1,639
Year 5	2008	2437.43		2,437
2015 Compliance Year - Water into Distribution System				
2015		492		492
** Meter Error Adjustment - See guidance in Methodology 1, Step 3 of Methodologies Document*				

SB X7-7 Table 4-A: Volume Entering the Distribution System(s)				
Name of Source		Whale Rock Reservoir		
This water source is:				
☑	The supplier's own water source			
	A purchased or imported source			
Baseline Year *Fm SB X7-7 Table 3*		Volume Entering Distribution System	Meter Error Adjustment* *Optional (+/-)*	Corrected Volume Entering Distribution System
10 to 15 Year Baseline - Water into Distribution System				
Year 1	1997	1732.84		1,733
Year 2	1998	525.48		525
Year 3	1999	1061.13		1,061
Year 4	2000	991.47		991
Year 5	2001	2383.39		2,383
Year 6	2002	2693.78		2,694
Year 7	2003	2097.79		2,098
Year 8	2004	3036.21		3,036
Year 9	2005	4867.53		4,868
Year 10	2006	4198.09		4,198
5 Year Baseline - Water into Distribution System				
Year 1	2004	3036.21		3,036
Year 2	2005	4867.53		4,868
Year 3	2006	4198.09		4,198
Year 4	2007	4676.77		4,677
Year 5	2008	3744.27		3,744
2015 Compliance Year - Water into Distribution System				
2015		1,743		1,743
** Meter Error Adjustment - See guidance in Methodology 1, Step 3 of Methodologies Document*				

SB X7-7 Table 4-A: Volume Entering the Distribution System(s)				
Name of Source		Groundwater		
This water source is:				
☑	The supplier's own water source			
	A purchased or imported source			
Baseline Year *Fm SB X7-7 Table 3*		Volume Entering Distribution System	Meter Error Adjustment* *Optional (+/-)*	Corrected Volume Entering Distribution System
10 to 15 Year Baseline - Water into Distribution System				
Year 1	1997	300.17		300
Year 2	1998	289.21		289
Year 3	1999	159.46		159
Year 4	2000	265.83		266
Year 5	2001	246.98		247
Year 6	2002	168.11		168
Year 7	2003	140.46		140
Year 8	2004	139.63		140
Year 9	2005	147.52		148
Year 10	2006	133.04		133
5 Year Baseline - Water into Distribution System				
Year 1	2004	139.63		140
Year 2	2005	147.52		148
Year 3	2006	133.04		133
Year 4	2007	100.75		101
Year 5	2008	86.88		87
2015 Compliance Year - Water into Distribution System				
2015		43		43
** Meter Error Adjustment - See guidance in Methodology 1, Step 3 of Methodologies Document*				

SB X7-7 Table 4-A: Volume Entering the Distribution System(s)				
Name of Source		Nacimiento Reservoir		
This water source is:				
	The supplier's own water source			
☑	A purchased or imported source			
Baseline Year *Fm SB X7-7 Table 3*		Volume Entering Distribution System	Meter Error Adjustment* *Optional (+/-)*	Corrected Volume Entering Distribution System
10 to 15 Year Baseline - Water into Distribution System				
Year 1	1997			0
Year 2	1998			0
Year 3	1999			0
Year 4	2000			0
Year 5	2001			0
Year 6	2002			0
Year 7	2003			0
Year 8	2004			0
Year 9	2005			0
Year 10	2006			0
5 Year Baseline - Water into Distribution System				
Year 1	2004			0
Year 2	2005			0
Year 3	2006			0
Year 4	2007			0
Year 5	2008			0
2015 Compliance Year - Water into Distribution System				
2015		2,442		2,442
** Meter Error Adjustment - See guidance in Methodology 1, Step 3 of Methodologies Document*				

SB X7-7 Table 5: Gallons Per Capita Per Day (GPCD)				
Baseline Year *Fm SB X7-7 Table 3*		Service Area Population *Fm SB X7-7 Table 3*	Annual Gross Water Use *Fm SB X7-7 Table 4*	Daily Per Capita Water Use (GPCD)
10 to 15 Year Baseline GPCD				
Year 1	1997	42,983	6,220	129
Year 2	1998	43,421	5,853	120
Year 3	1999	43,766	6,172	126
Year 4	2000	44,179	6,121	124
Year 5	2001	44,293	5,886	119
Year 6	2002	44,406	6,031	121
Year 7	2003	44,293	5,969	120
Year 8	2004	44,271	6,239	126
Year 9	2005	44,630	6,098	122
Year 10	2006	44,483	5,990	120
10-15 Year Average Baseline GPCD				123
5 Year Baseline GPCD				
Baseline Year *Fm SB X7-7 Table 3*		Service Area Population *Fm SB X7-7 Table 3*	Gross Water Use *Fm SB X7-7 Table 4*	Daily Per Capita Water Use
Year 1	2004	44,271	6,239	126
Year 2	2005	44,630	6,098	122
Year 3	2006	44,483	5,990	120
Year 4	2007	44,438	6,416	129
Year 5	2008	44,650	6,269	125
5 Year Average Baseline GPCD				124
2015 Compliance Year GPCD				
2015		45,802	4,721	92

SB X7-7 Table 6: Gallons per Capita per Day	
10-15 Year Baseline GPCD	123
5 Year Baseline GPCD	124
2015 Compliance Year GPCD	92

SB X7-7 Table 7: 2020 Target Method		
Target Method		Supporting Documentation
	Method 1	SB X7-7 Table 7A
	Method 2	SB X7-7 Tables 7B, 7C, and 7D
☑	Method 3	SB X7-7 Table 7-E
	Method 4	Method 4 Calculator
NOTES: Central Coast Hydrologic Region		

SB X7-7 Table 7-A: Target Method 1	
10-15 Year Baseline GPCD	**2020 Target GPCD**
123	98

SB X7-7 Table 7-E: Target Method 3

Agency May Select More Than One as Applicable	Percentage of Service Area in This Hydrological Region	Hydrologic Region	"2020 Plan" Regional Targets	Method 3 Regional Targets (95%)
		North Coast	137	130
		North Lahontan	173	164
		Sacramento River	176	167
		San Francisco Bay	131	124
		San Joaquin River	174	165
☑	100%	Central Coast	123	117
		Tulare Lake	188	179
		South Lahontan	170	162
		South Coast	149	142
		Colorado River	211	200
Target *(If more than one region is selected, this value is calculated.)*				**117**

SB X7-7 Table 7-F: Confirm Minimum Reduction for 2020 Target

5 Year Baseline GPCD *From SB X7-7 Table 5*	Maximum 2020 Target[1]	Calculated 2020 Target[2]	**Confirmed 2020 Target**
124	118	117	117

[1]Maximum 2020 Target is 95% of the 5 Year Baseline GPCD except for suppliers at or below 100 GPCD.
[2]2020 Target is calculated based on the selected Target Method, see SB X7-7 Table 7 and corresponding tables for agency's calculated target.

NOTES: 117 gpcd is from Target Method 3

SB X7-7 Table 8: 2015 Interim Target GPCD

Confirmed 2020 Target *Fm SB X7-7 Table 7-F*	10-15 year Baseline GPCD *Fm SB X7-7 Table 5*	**2015 Interim Target GPCD**
117	123	120

SB X7-7 Table 9: 2015 Compliance

Actual 2015 GPCD	2015 Interim Target GPCD	Optional Adjustments *(in GPCD)* Enter "0" if Adjustment Not Used			TOTAL Adjustments	Adjusted 2015 GPCD	2015 GPCD *(Adjusted if applicable)*	**Did Supplier Achieve Targeted Reduction for 2015?**
		Extraordinary Events	Weather Normalization	Economic Adjustment				
92	120	-	-	-	-	92	92	YES

Appendix V: Technical Memorandum (Safe Annual Yield)

Technical Memorandum

WSC
Water Systems Consulting, Inc.

Date: 1/8/2018

To: Mr. Aaron Floyd
City of San Luis Obispo – Public Utilities
San Luis Obispo, California

Prepared by: Adam Rianda, P.E.

Reviewed by: Jeroen Olthof, P.E.

Project: Safe Annual Yield Analysis Update

SUBJECT: **SALINAS AND WHALE ROCK RESERVOIRS SAFE ANNUAL YIELD**

Section 1: Background

The City of San Luis Obispo (City) maintains a diversified portfolio of water supply sources that it can use to meet potable water demand. Two of these sources are Salinas Reservoir, also known as Santa Margarita Lake, and Whale Rock Reservoir, located near the town of Cayucos. Whale Rock Reservoir is a shared-use reservoir serving the City, the California Polytechnic State University (Cal Poly), the California Men's Colony (CMC), and the town of Cayucos. The City, Cal Poly, and CMC comprise the Whale Rock Commission, which governs reservoir operation. Some characteristics of the two reservoirs are shown in Table 1.

Table 1. Reservoir Attributes

Reservoir	Watershed Size (Square Miles)	Storage Capacity (Acre Feet)	Average Annual Precipitation (Inches)[1]	Average Annual Evaporation (Inches)[1]
Salinas	112.0	23,843	22.1	85.4
Whale Rock	20.3	38,967	18.7	61.6

[1]Average annual precipitation and evaporation depths are based on the verified hydrologic data discussed in Section 2.

Salinas Reservoir and Whale Rock Reservoir are located in different climate regions and have differing characteristics. Whale Rock Reservoir has a larger storage volume than Salinas, but it has a smaller watershed to provide natural recharge. Salinas Reservoir receives more runoff each year, but it also experiences higher temperatures and higher evaporation rates, and it spills more frequently. To maximize the available supply from these two reservoirs, the City has developed operational strategies that recognize the differences between the reservoirs. In general, the strategies involve withdrawing water from Salinas Reservoir when it is available, and using Whale Rock Reservoir as-needed to supplement the supply from Salinas.

To assist with the management of the City's water resources and understand the available supply from Salinas and Whale Rock Reservoirs, the City maintains an Excel-based model that estimates a safe annual yield (SAY) based on historical climatic conditions and reservoir operations. For each reservoir, the model sums the inputs and outputs to calculate the reservoir volume on a monthly time step. As inputs, the model uses the historical

record of inflows, evaporation, precipitation, and downstream releases. The model then calculates, over the period of record, the maximum amount that could be withdrawn each year without drawing the reservoir below its minimum pool constraint. This maximum allowable annual withdrawal is considered to be the SAY.

The City's Excel-based model of the two reservoirs was first developed in 1988. At that time, the critical drought period that controlled the SAY was the 1946-1951 drought. In 1991 the model was updated to incorporate the hydrologic conditions experienced during the 1986-1991 drought. That drought was the most severe in the historical record to that point and became the new controlling condition for estimating SAY. The City estimated the combined SAY from the two reservoirs as 6,940 acre-feet per year (AFY). This estimate included the anticipated loss of storage volume due to siltation through the year 2010. This estimate has been reported in previous City planning documents, including the 2015 Urban Water Management Plan (UWMP) and the 2016 update to the General Plan Water and Wastewater Management Element. The 2015 UWMP, published in June of 2016, was prepared during a period of extended drought, and it noted that the City planned to re-calculate the SAY when the on-going drought came to an end.

During the winter of 2016-2017, California received enough precipitation to provide some drought relief, and the Department of Water Resources phased out its mandatory conservation guidelines. However, the state is still in a period of below-average precipitation. Figure 1 shows historical precipitation recorded at Salinas and Whale Rock Reservoirs. For each month, the graph shows the average precipitation for the previous five-year period. This rolling five-year average can be compared to the long-term average, in this case the period from 1962 to 2016. The 1986-1991 drought was preceded by a period of above-average rainfall, and when the drought ended the subsequent years had above-average rainfall. By contrast, the current dry period has had a much longer duration. Since 2003, the rolling average has been at or below the long-term average, and at the end of 2016 the rolling average reached the lowest value ever at Whale Rock. It remains to be seen whether future years will bring enough precipitation to bring the rolling five-year average back to its historical levels.

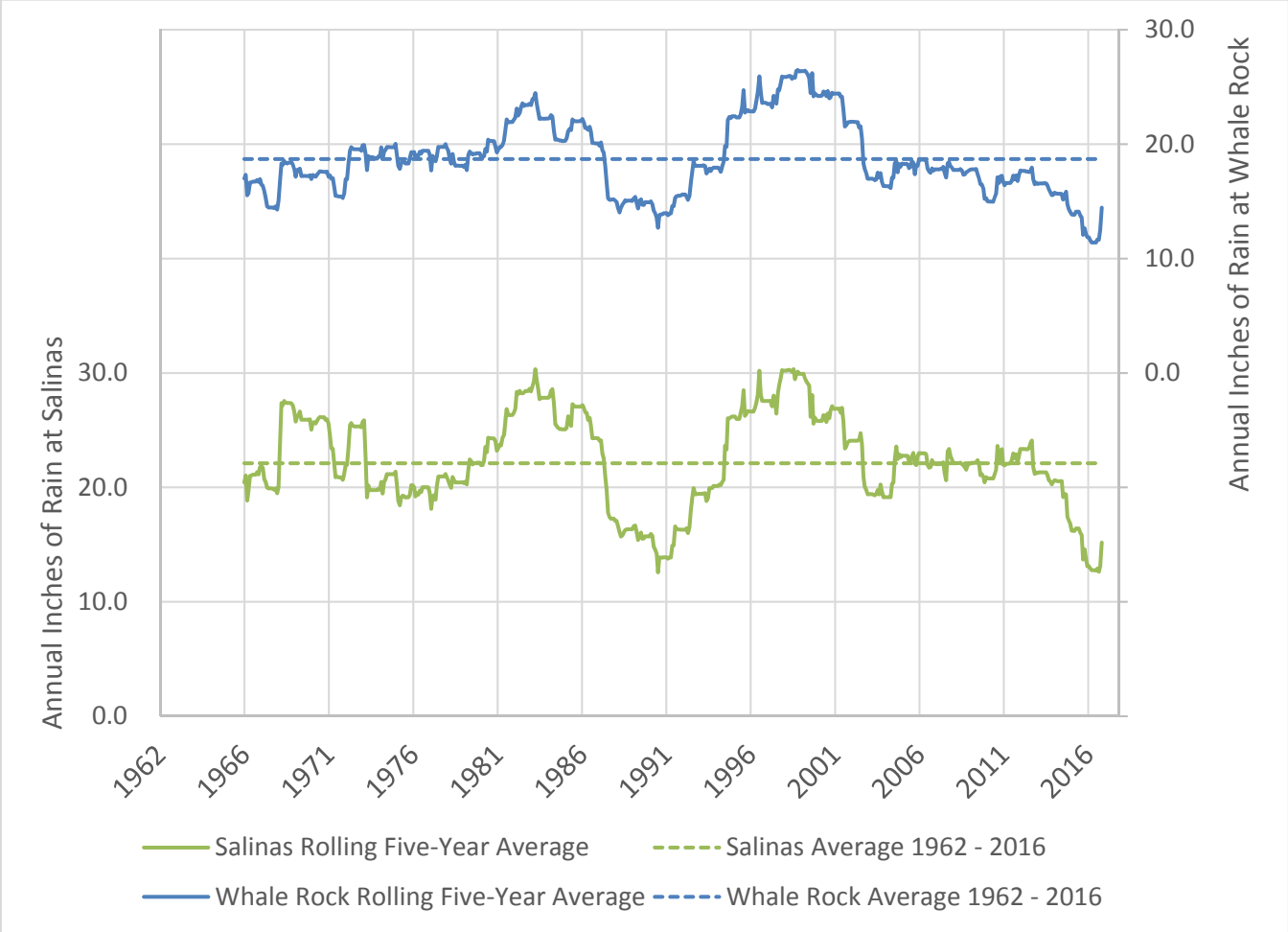


Figure 1. Rolling Five-Year Average Precipitation at Salinas and Whale Rock

In early 2017, the City contracted with Water Systems Consulting, Inc. (WSC) to update the SAY model. The update was intended to verify the historical input data, validate and document the calculations in the model, incorporate the full extent of the 2006-2016 drought, and generate scenarios that accounted for potential climate change impacts.

Section 2: Model Updates

In January 2017, the City and Cal Poly began an update of the SAY model. Two major objectives of the project were to update and verify the hydrologic input data and to develop scenarios that accounted for climate change impacts. The SAY model was last updated in early 2015; therefore, the model that was used as the starting point for this project is referred to as the 2015 model.

Verification of Input Data and Extension of Input Data Through January 2017

The 2015 model contained hydrologic input data for Whale Rock Reservoir and Salinas Reservoir through February of 2015. While this data set contained values beginning in October of 1943, the source of the data had not been documented. Furthermore, the construction of Whale Rock Reservoir was not completed until April of 1961, so there was nearly 18 years of data that predated the reservoir. According to the City's records, the

hydrologic data predating the reservoir was generated through correlations between Salinas and Whale Rock Reservoir lake levels and precipitation.

In order to load the model with verified historical hydrologic data, the City compiled the information that could be traced to verified sources. Table 2 presents the data sets collected for this update as well as the start date of each data series. All data sets were compiled through January of 2017, when the drought of 2006-2016 had subsided.

Table 2. Verified Hydrologic Data Start Date

Reservoir	Precipitation	Evaporation	Inflow[1]	Downstream Releases
Salinas	7/1/1948	7/1/1970	4/1/1942	7/1/1942
Whale Rock	1/1/1962	10/1/1963	2/1/1962	2/1/1962

[1]Inflow for Whale Rock Reservoir calculated by Damsaver begins 6/1/1987. Inflow from 1962 to 1987 was calculated using paper records compiled by City staff.

The inflow data for Whale Rock Reservoir came from two sources: Damsaver and paper records. Damsaver is an Excel-based tool that the City began to use in June 1987 to record and report Whale Rock Reservoir hydrologic data, including the computation of monthly inflow. Prior to 1987, the City utilized a paper form to record monthly precipitation, evaporation, reservoir elevation, reservoir storage, and water releases. To generate a complete data set extending back to 1962, WSC performed mass balance[1] calculations using data from the paper records. The calculated inflows were validated using a 2.5-year overlap period, 1987 to 1989, when the City utilized both Damsaver and the paper forms. While there was variation from month to month, the total calculated inflows over the 2.5-year period were within 10 percent of the total produced using the Damsaver software. Therefore, the pre-1987 inflows calculated from the paper forms were considered acceptable for use in this evaluation.

In general, the verified historical data compiled for this update was not significantly different than the input data in the 2015 model. The exception was in recorded evaporation rates. For this update, historical evaporation data was available for the period beginning July 1, 1970. The historical data in the previous model and the data compiled for this study are shown in Figure 2 and Figure 3.

[1] The mass balance calculation was based on the fact that monthly change in storage volume will be determined by the inputs (precipitation and inflow) and outputs (evaporation and downstream releases) during that month. Historical data for reservoir levels were used to calculate change in storage, and historical data was available for precipitation, evaporation, and downstream releases. The team then solved for the only unknown variable, monthly inflow.

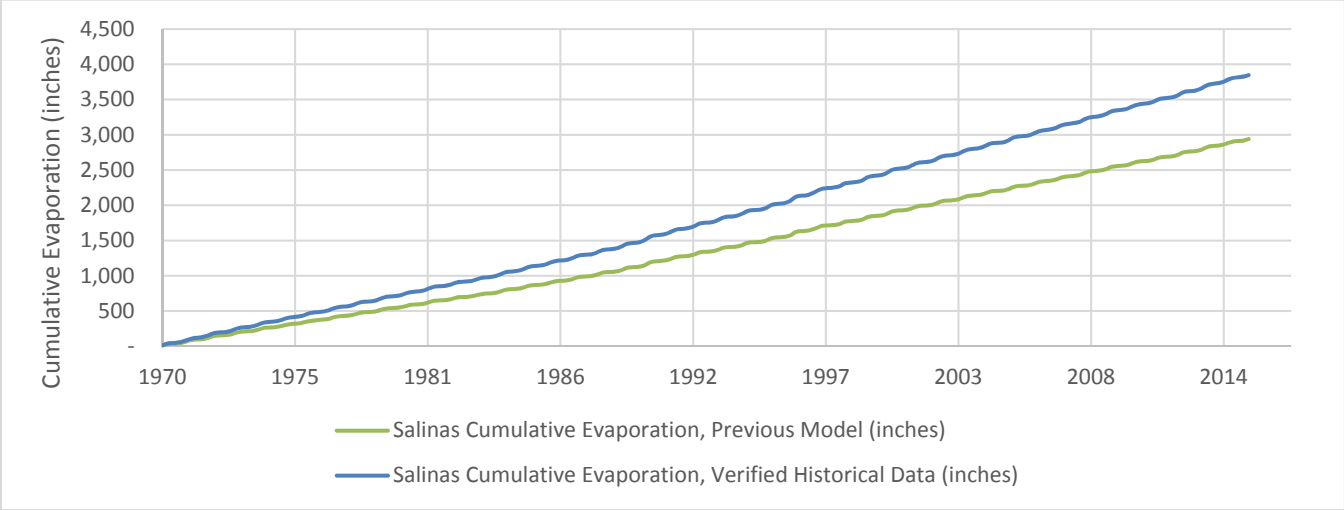


Figure 2. Cumulative Evaporation Data for Salinas Reservoir, 1970-2015

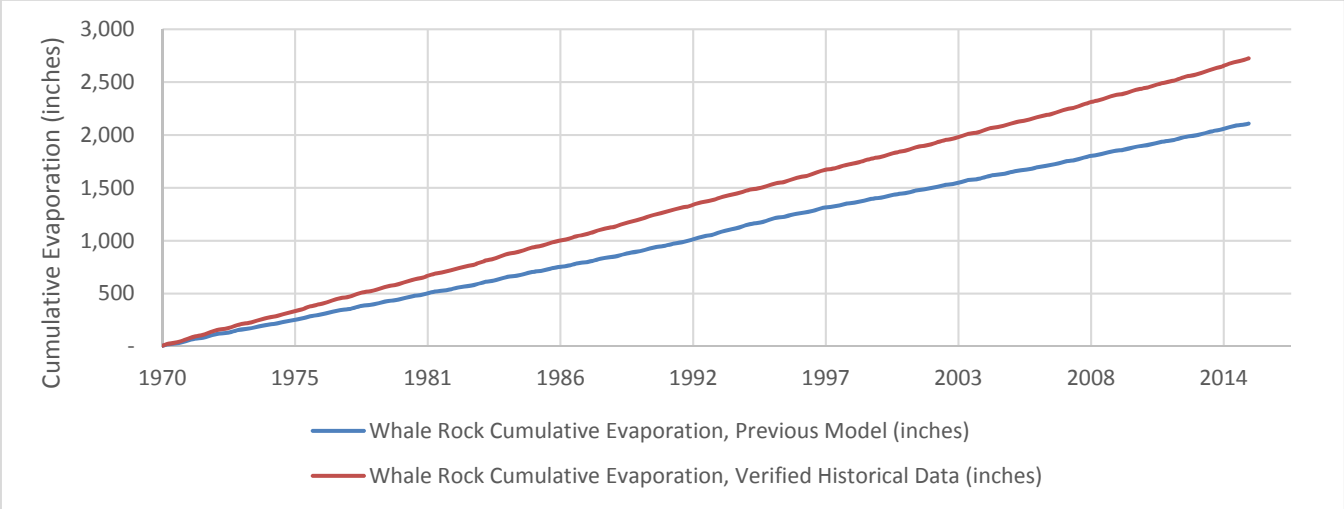


Figure 3. Cumulative Evaporation Data for Whale Rock Reservoir, 1970-2015

For both reservoirs, the updated historical data show consistently higher evaporation rates than the data used in the 2015 model. The difference results in evaporation losses approximately 30 percent higher than the 2015 model, leading to a reduction in the calculated SAY.

Climate Change Impacts

Although previous versions of the model included several scenarios with adjusted climatic patterns, they were based on simple modifications to relatively short data sets. As part of this model update, a range of new scenarios was added based on varying climate change projections identified by the U.S. Environmental Protection Agency (EPA) and the San Luis Obispo Council of Governments (SLOCOG). The estimated changes in climate associated with these scenarios were applied to the historical data set for inflows, precipitation, and evaporation. The model was then used to calculate a revised SAY assuming that these conditions had prevailed during the historical period of record.

Section 3: Scenario Modeling

Scenario 1: 2015 Model

Scenario 1 runs the model using the hydrologic input data used in the 2015 model. As discussed previously, the source of this hydrologic input data was not documented.

Scenario 2: Verified Historical Data

Scenario 2 utilizes the historical hydrological data set compiled for this update. Because this input data has been verified against historical records, Scenario 2 is considered to be the baseline estimate for future conditions.

Scenarios 3 through 8: EPA CREAT Climate Change Projections

Scenarios 3 through 8 are based on climate change projections identified in the EPA's Climate Resilience Evaluation and Awareness (CREAT) Projection Map. CREAT was prepared by the EPA, specifically for drinking water, wastewater and stormwater utility owners and operators, as an informational tool to assist in understanding and addressing climate change risks. Projected changes in CREAT were derived from the evaluation of thirty-eight Global Climate Models recognized by the Intergovernmental Panel on Climate Change (IPCC). Results from each model were recorded on a 0.5- by 0.5-degree (approximately 34- by 34-mile) grid basis and compared to three statistical targets based on the distribution of the models. The five models closest to each target were averaged to generate each projected temperature and precipitation change. The three targets are defined as:

- Hot/dry future conditions – Nearest to the 5th percentile of precipitation and 95th percentile of temperature projections;
- Central future conditions – Nearest to the 50th percentile of both precipitation and temperature projections; and
- Warm/wet conditions – Nearest to the 95th percentile of precipitation and 5th percentile of temperature projections.

Projections are presented for two planning horizons: 2035, the midpoint of a range from 2024 to 2045, and 2060, the midpoint of a range from 2050 to 2070.

For the SAY model, it is assumed that the change in inflow is directly proportional to the change in precipitation. Because of the uncertainty about the exact relationship between higher temperatures and increased evaporation, future evaporation rates were assumed to be five percent higher than the verified historical data. Projected changes are applied to the entire verified historical data set in Scenario 2.

Scenarios 9 through 12: SLOCOG Climate Change Projections

Scenarios 9 through 12 are based on climate change projections identified in the San Luis Obispo Council of Governments (SLOCOG) 2014 Regional Transportation Plan. SLOCOG climate change projections reflect the continuation of current energy-subsidy policies, implying relatively high energy consumption and high greenhouse gas (GHG) emissions. Per the SLOCOG report, this scenario closely followed the global emissions path of the late 1990s. The SLOCOG report states that given a sharp rise in emissions since 2000, the climate projections reflected may underestimate actual climate change.

Like EPA's CREAT tool, the SLOCOG projections are based on IPCC recognized Global Climate Models. However, the SLOCOG study focuses specifically on three models: CSIRO (from Australia), MIROC (from Japan), and HadCM (from the UK). The United States Department of Agriculture (USDA) Forest Service Mapped Atmosphere-Plant-Soil System (MAPSS) team at the Pacific Northwest Research Station then converted the model output to a locally-relevant scale of 8 kilometers (km) using local temperature and precipitation pattern data.

As with the EPA CREAT projections, SLOCOG projections are presented as a percent difference in precipitation and degree difference in temperature, and are assigned to two planning horizons, 2035 to 2045 and 2075 to 2085. The SLOCOG projections, however, are presented as a range for each window of time. Therefore, a scenario was created for the climatic lower bound and upper bound for each planning horizon.

As with Scenarios 3 through 8, Scenarios 9 through 12 apply the respective climate change projections to the verified historical data set (Scenario 2) and adjust the inflow proportionally to the change in precipitation, while evaporation rates were assumed to be five percent higher than historical values.

Scenario 13: Nature Climate Change Evaluation

Nature Communications, a peer-reviewed open access scientific journal published by the Nature Publishing Group, published an article in in July of 2017 that presented an overview of various climate models and their predictions for future precipitation in California. This work found that under future conditions, California could receive more precipitation in response to global warming. It found that the anticipated changes in air circulation patterns were reminiscent of an El Nino event, which can lead to an increase in storm track activity in the east Pacific.

The article concluded that central California could expect on the order of three inches per year in additional rainfall attributable to global warming. The historical average annual rainfall at Salinas Dam is approximately 23 inches, while the annual average at Whale Rock Reservoir is approximately 19 inches. As a conservative estimate, it was assumed that under this scenario, precipitation and runoff values would increase 15 percent over their historical values. Evaporation rates were assumed to be 5 percent higher than historical values.

Section 4: Model Results

The updated spreadsheet model is intended to be a tool that the City can use to evaluate SAY under potential future conditions. Several simulations were run during the development of the spreadsheet, and the results are summarized in the following tables. These preliminary results are intended to show the range of potential values under differing input assumptions. As discussed further in the Appendix, the model is set up to account for loss of reservoir capacity due to siltation up to, and including, the designated simulation year. The model results presented in Tables 3 through 5 account for the estimated siltation through 2017.

The model was first used to determine the impact of using verified historical data as inputs. The results are summarized in Table 3. For consistency with previous estimates, these results do not include the 2006 - 2016 drought. These results are presented for comparison with previously reported values of SAY. Using the raw input data from the 2015 model, the updated model showed that an annual withdrawal of 6,940 AFY could be sustained. With the incorporation of the updated evaporation data, the corresponding value is 6,590 AFY.

Table 3. Safe Annual Yield Model Outputs with Verified Historical Data

	2015 Model SAY (AFY)	Updated Model SAY with Verified Historical Data (AFY)
SAY (Period of record ending 2006; does not include the 2006-2016 drought)	6,940	6,590
Note: These results are the combined City SAY from Salinas and Whale Rock Reservoirs, based on a joint operating strategy		

The model was then used to calculate an updated SAY for the entire period of record, including the 2006 – 2016 drought. These results are shown in Table 4. This drought was more severe than the 1986-1991 drought, and it has become the new controlling condition for the estimation of SAY. The estimated SAY is 4,910 AFY, approximately 2,000 AFY less than the previously used estimate of 6,940 AFY.

Table 4. Safe Annual Yield Model Outputs Incorporating 2006 – 2016 Drought

	Updated Model SAY with Verified Historical Data (AFY)
SAY (Period of record through 2016; includes the 2006-2016 drought)	4,910
Note: These results are the combined City SAY from Salinas and Whale Rock Reservoirs, based on a joint operating strategy	

Finally, the model was used to simulate a range of potential climate change scenarios. These estimates are summarized in Table 5. There is considerable uncertainty about how climate change will impact the precipitation and evaporation patterns on the Central Coast. The range of values provides an indication of potential future conditions that might occur, but it is not yet feasible to identify an expected value for future SAY.

Table 5. Safe Annual Yield Model Outputs for Climate Change Scenarios

	Range of SAY under EPA Climate Change Scenarios (AFY)	Range of SAY under SLOCOG Climate Change Scenarios (AFY)	Nature Climate Change Scenario (AFY)
SAY (Period of record through 2016; includes the 2006-2016 drought)	4,690 – 5,050	4,050 – 5,070	4,950
Note: These results are the combined City SAY from Salinas and Whale Rock Reservoirs, based on a joint operating strategy			

Section 5: Conclusion

The City's spreadsheet model for estimating SAY from Salinas and Whale Rock Reservoirs was updated to incorporate verified historical data and the full extent of the most recent drought (2006 – 2016). The revised estimate for the SAY from these reservoirs is 4,910 AFY, approximately 2,000 AFY less than the value of 6,940 AFY used in previous planning documents. Two factors contributed to this decline. First, the historic evaporation data in the model were revised to match currently available records. Second, the updated model includes the full extent of the 2006-2016 drought. This dry period was more severe than the 1986-1991 drought, and it is the new controlling period for estimating SAY.

The updated spreadsheet model can be used to estimate the SAY under a variety of scenarios. The spreadsheet can also be used to demonstrate the advantages of coordinating the use of the City's water supply sources, rather than analyzing each source in isolation. It is recommended that the City and Cal Poly continue to coordinate their analyses of the expected supply from Whale Rock. The model should also be kept up-to-date with additional hydrological data, as it becomes available.

Appendix A: Model Layout

The updated model has been restructured to provide a more user-friendly and transparent interface. This appendix briefly describes key tabs in the spreadsheet model.

Dashboard Tab

The primary components of the Dashboard tab, circled in blue in Figure A-1, are the Modeled Scenario dropdown list, the City Withdrawal Mode selection, and the Solve buttons. The Modeled Scenario dropdown list allows the user to select the scenario of interest. The City Withdrawal Mode allows the user to calculate separate SAY's for Salinas and Whale Rock Reservoir, or to model them as joint, or coordinated, use. When Joint Use is selected, the model prioritizes withdrawal from Salinas Reservoir and provides a single SAY for the two reservoirs. The Solve buttons allow the user to run the model without having to manually iterate to the desired solution. The Solve buttons count down the SAY from 100,000 AFY until the total unmet demand is equal to zero over the entire time series.

Just above the Modeled Scenario dropdown list is a summary of assumptions and input data. These assumptions and inputs have been discussed with the City and Cal Poly, and therefore likely will not change on a regular basis, but they should always be reviewed prior to a model run.

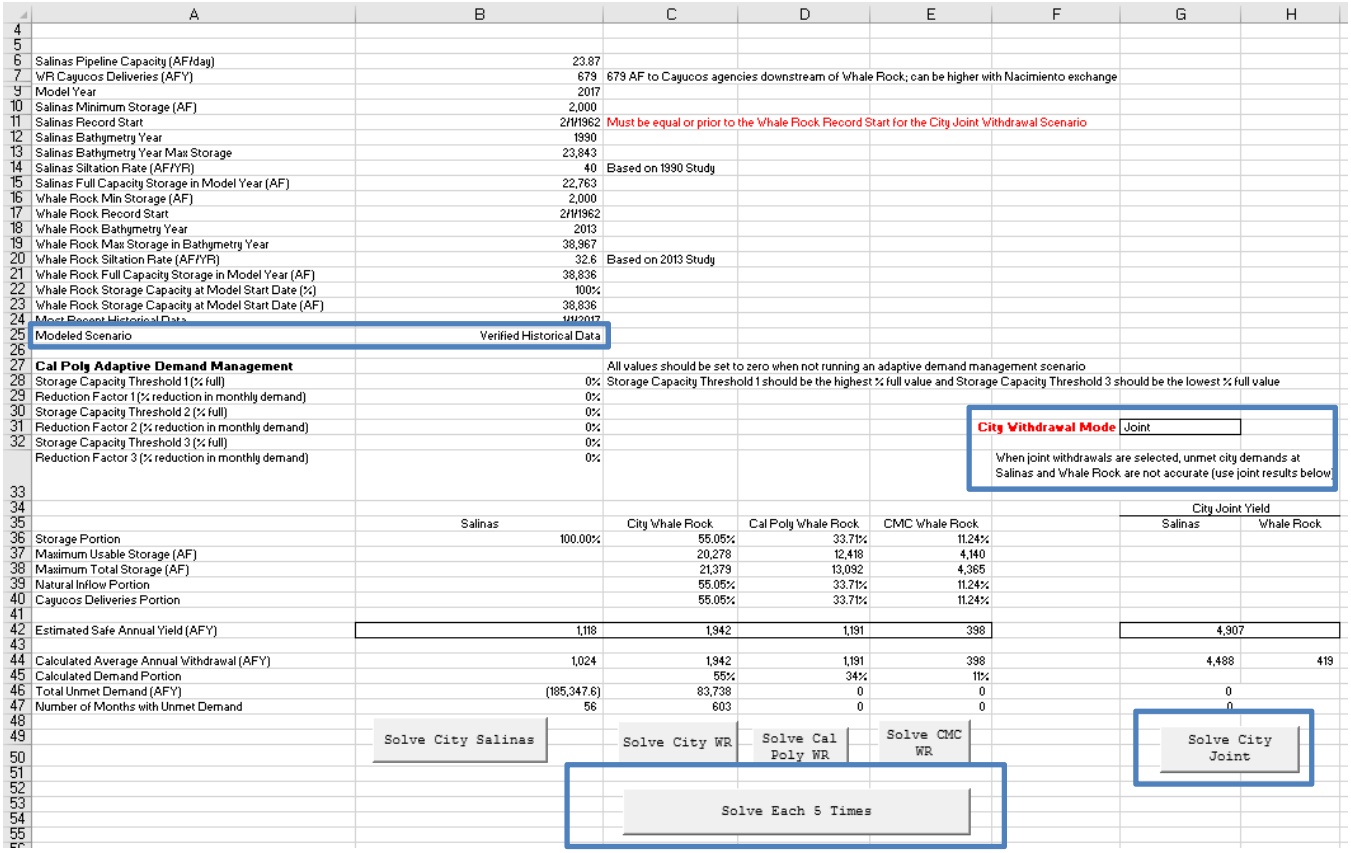


Figure A-1. Dashboard Tab Screenshot

Scenario Tab

As discussed in Section 2, a suite of new scenarios has been incorporated into the updated model. All scenarios are defined on the Scenarios tab, including the scenario number and respective percent change in inflow, precipitation, and evaporation. While a temperature change in degrees Fahrenheit is listed, it is not currently being included in the calculations. All future scenarios are expected to have higher temperatures, which will lead to increased evaporation, but there is uncertainty about how much evaporation will increase. In addition to defining the scenario criteria, this tab is used to manually record the calculated SAY for each scenario.

Bathymetry Tab

The Bathymetry tab houses the stage-storage-area relationships for the two reservoirs. For Salinas Reservoir, the relationship is based on the Salinas Reservoir Bathymetric survey conducted in 1990. The annual siltation was estimated to reduce available storage in Salinas Reservoir by 40 AFY, based on the 1990 bathymetric survey. For Whale Rock Reservoir, the relationship is based on the Whale Rock Reservoir Bathymetry survey conducted in 2013. As part of the 2013 bathymetric survey, the annual siltation was estimated to reduce available storage by 32.6 AFY. These siltation rates can be found on the Dashboard tab along with the year of the associated bathymetric survey.

The user can select a year to run the simulation, and the model will reduce the full capacity of each reservoir to account for the expected siltation between the date of the respective bathymetric survey and the simulation year. The City's water supply planning policy already includes an expected reduction in future water supply of 500 AFY to account for reservoir siltation. Therefore, the model simulations run for this project used a simulation year of 2017 to estimate the SAY under current conditions.

Demand Patterns Tab

The Demand Patterns tab defines the monthly demand multipliers for the City, Cal Poly, CMC, and Cayucos water deliveries. For the updated model, the City demand pattern has remained the same as in the previous model. The State demand pattern has been split into two new Cal Poly demand patterns, domestic and agricultural, and an evenly distributed demand pattern for the CMC. Cal Poly provided domestic and agricultural usage data from 1992 through 2016, which was used to refine the Cal Poly demand patterns. The demand patterns are shown in Figure A-2.

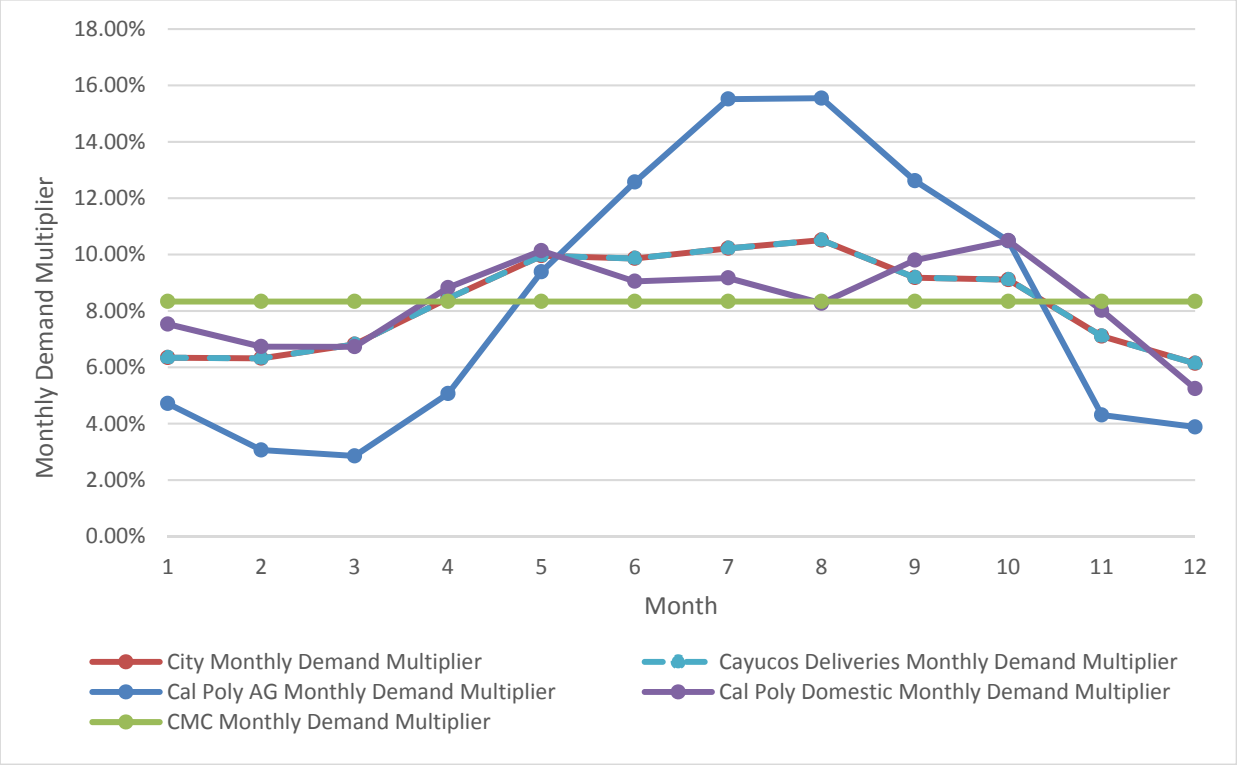


Figure A-2. Demand Patterns

Calculations Tab

The Calculations tab has inputs and formulas organized in a progression from left to right, with one row for every month. Row 7 on the Calculations tab defines whether a column is an input value or a formula. Input values are historical monthly hydrologic inputs including natural inflow volume, precipitation depth, and evaporation depth. Input values should be added to the model as new data is collected over time. As input values are added, the remainder of the cells in that row should be populated by dragging down the formulas from the cell above.

Column Descriptions Tab

This tab contains descriptions for each column on the Calculations tab. Column descriptions include a written description and a display of the respective formula. This tab provides more detailed information about the calculations embedded in the spreadsheet.

Appendix VI: AWWA Water Loss Audits

AWWA Free Water Audit Software:
Reporting Worksheet

WAS v5.0

? Click to access definition
\+ Click to add a comment

Water Audit Report for: City of San Luis Obispo (4010009)
Reporting Year: 2016 | 1/2016 - 12/2016

Please enter data in the white cells below. Where available, metered values should be used; if metered values are unavailable please estimate a value. Indicate your confidence in the accuracy of the input data by grading each component (n/a or 1-10) using the drop-down list to the left of the input cell. Hover the mouse over the cell to obtain a description of the grades

All volumes to be entered as: ACRE-FEET PER YEAR

To select the correct data grading for each input, determine the highest grade where the utility meets or exceeds all criteria for that grade and all grades below it.

Master Meter and Supply Error Adjustments

WATER SUPPLIED

<---------- Enter grading in column 'E' and 'J' ----------> Pcnt: Value:

Volume from own sources:	3	4,990.930	acre-ft/yr		3				acre-ft/yr
Water imported:	n/a		acre-ft/yr						acre-ft/yr
Water exported:	3	471.180	acre-ft/yr		1				acre-ft/yr

Enter negative % or value for under-registration
Enter positive % or value for over-registration

WATER SUPPLIED: **4,519.750** acre-ft/yr

AUTHORIZED CONSUMPTION

Click here: ? for help using option buttons below

Pcnt: Value:

Billed metered:	3	3,990.463	acre-ft/yr			
Billed unmetered:	n/a		acre-ft/yr			
Unbilled metered:	4	2.305	acre-ft/yr			
Unbilled unmetered:	5	11.299	acre-ft/yr		11.299	acre-ft/yr

Use buttons to select percentage of water supplied **OR** value

AUTHORIZED CONSUMPTION: **4,004.067** acre-ft/yr

WATER LOSSES (Water Supplied - Authorized Consumption) **515.683** acre-ft/yr

Apparent Losses

Pcnt: Value:

Unauthorized consumption:		11.299	acre-ft/yr	0.25%		acre-ft/yr

Default option selected for unauthorized consumption - a grading of 5 is applied but not displayed

Customer metering inaccuracies:	2	81.485	acre-ft/yr	2.00%		acre-ft/yr
Systematic data handling errors:		9.976	acre-ft/yr	0.25%		acre-ft/yr

Default option selected for Systematic data handling errors - a grading of 5 is applied but not displayed

Apparent Losses: **102.761** acre-ft/yr

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: **412.923** acre-ft/yr

WATER LOSSES: **515.683** acre-ft/yr

NON-REVENUE WATER

NON-REVENUE WATER: **529.287** acre-ft/yr

= Water Losses + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

Length of mains:	8	176.8	miles
Number of active AND inactive service connections:	1	11,000	
Service connection density:		62	conn./mile main

Are customer meters typically located at the curbstop or property line? Yes

Average length of customer service line:

(length of service line, beyond the property boundary, that is the responsibility of the utility)

Average length of customer service line has been set to zero and a data grading score of 10 has been applied

Average operating pressure:	2	70.0	psi

COST DATA

Total annual cost of operating water system:	10	$17,959,132	$/Year
Customer retail unit cost (applied to Apparent Losses):	8	$8.84	$/100 cubic feet (ccf)
Variable production cost (applied to Real Losses):	4	$265.14	$/acre-ft

☐ Use Customer Retail Unit Cost to value real losses

WATER AUDIT DATA VALIDITY SCORE:

***** YOUR SCORE IS: 43 out of 100 *****

A weighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION:

Based on the information provided, audit accuracy can be improved by addressing the following components:

1: Volume from own sources
2: Billed metered
3: Customer metering inaccuracies

AWWA Free Water Audit Software:
Reporting Worksheet

WAS v5.0

? Click to access definition
\+ Click to add a comment

Water Audit Report for: City of San Luis Obispo (4010009)
Reporting Year: 2017 | 1/2017 - 12/2017

Please enter data in the white cells below. Where available, metered values should be used; if metered values are unavailable please estimate a value. Indicate your confidence in the accuracy of the input data by grading each component (n/a or 1-10) using the drop-down list to the left of the input cell. Hover the mouse over the cell to obtain a description of the grades

All volumes to be entered as: ACRE-FEET PER YEAR

To select the correct data grading for each input, determine the highest grade where the utility meets or exceeds all criteria for that grade and all grades below it.

Master Meter and Supply Error Adjustments

WATER SUPPLIED

<---------- Enter grading in column 'E' and 'J' ---------->

					Pcnt:		Value:	
Volume from own sources:	3	5,296.150	acre-ft/yr	3				acre-ft/yr
Water imported:	n/a		acre-ft/yr					acre-ft/yr
Water exported:	3	435.310	acre-ft/yr	1				acre-ft/yr

Enter negative % or value for under-registration
Enter positive % or value for over-registration

WATER SUPPLIED: 4,860.840 acre-ft/yr

AUTHORIZED CONSUMPTION

Click here: ? for help using option buttons below

				Pcnt:	Value:	
Billed metered:	3	4,281.000	acre-ft/yr			
Billed unmetered:	n/a		acre-ft/yr			
Unbilled metered:	5	9.780	acre-ft/yr			
Unbilled unmetered:	5	12.152	acre-ft/yr		12.152	acre-ft/yr

Use buttons to select percentage of water supplied **OR** value

AUTHORIZED CONSUMPTION: 4,302.932 acre-ft/yr

WATER LOSSES (Water Supplied - Authorized Consumption) 557.908 acre-ft/yr

Apparent Losses

				Pcnt:	Value:	
Unauthorized consumption:		12.152	acre-ft/yr	0.25%		acre-ft/yr

Default option selected for unauthorized consumption - a grading of 5 is applied but not displayed

Customer metering inaccuracies:	3	132.705	acre-ft/yr	3.00%	acre-ft/yr
Systematic data handling errors:		10.703	acre-ft/yr	0.25%	acre-ft/yr

Default option selected for Systematic data handling errors - a grading of 5 is applied but not displayed

Apparent Losses: 155.559 acre-ft/yr

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: 402.349 acre-ft/yr

WATER LOSSES: 557.908 acre-ft/yr

NON-REVENUE WATER

NON-REVENUE WATER: 579.840 acre-ft/yr

= Water Losses + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

Length of mains:	8	178.0	miles
Number of active AND inactive service connections:	1	11,000	
Service connection density:		62	conn./mile main

Are customer meters typically located at the curbstop or property line? Yes

Average length of customer service line: (length of service line, beyond the property boundary, that is the responsibility of the utility)

Average length of customer service line has been set to zero and a data grading score of 10 has been applied

Average operating pressure: 3 | 70.0 psi

COST DATA

Total annual cost of operating water system:	10	$20,152,788	$/Year
Customer retail unit cost (applied to Apparent Losses):	8	$8.15	$/100 cubic feet (ccf)
Variable production cost (applied to Real Losses):	4	$267.36	$/acre-ft

☐ Use Customer Retail Unit Cost to value real losses

WATER AUDIT DATA VALIDITY SCORE:

***** YOUR SCORE IS: 45 out of 100 *****

A weighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION:

Based on the information provided, audit accuracy can be improved by addressing the following components:

1: Volume from own sources
2: Billed metered
3: Customer metering inaccuracies

AWWA Free Water Audit Software:
Reporting Worksheet

WAS v5.0

? Click to access definition
\+ Click to add a comment

Water Audit Report for: City of San Luis Obispo (4010009)
Reporting Year: 2016 | 1/2016 - 12/2016

Please enter data in the white cells below. Where available, metered values should be used; if metered values are unavailable please estimate a value. Indicate your confidence in the accuracy of the input data by grading each component (n/a or 1-10) using the drop-down list to the left of the input cell. Hover the mouse over the cell to obtain a description of the grades

All volumes to be entered as: ACRE-FEET PER YEAR

To select the correct data grading for each input, determine the highest grade where the utility meets or exceeds all criteria for that grade and all grades below it.

Master Meter and Supply Error Adjustments

WATER SUPPLIED

<---------- Enter grading in column 'E' and 'J' ----------> Pcnt: Value:

Volume from own sources:	3	4,990.930	acre-ft/yr		3				acre-ft/yr
Water imported:	n/a		acre-ft/yr						acre-ft/yr
Water exported:	3	471.180	acre-ft/yr		1				acre-ft/yr

Enter negative % or value for under-registration
Enter positive % or value for over-registration

WATER SUPPLIED: 4,519.750 acre-ft/yr

AUTHORIZED CONSUMPTION

Click here: ? for help using option buttons below

Pcnt: Value:

Billed metered:	3	3,990.463	acre-ft/yr			
Billed unmetered:	n/a		acre-ft/yr			
Unbilled metered:	4	2.305	acre-ft/yr			
Unbilled unmetered:	5	11.299	acre-ft/yr		11.299	acre-ft/yr

Use buttons to select percentage of water supplied **OR** value

AUTHORIZED CONSUMPTION: 4,004.067 acre-ft/yr

WATER LOSSES (Water Supplied - Authorized Consumption) 515.683 acre-ft/yr

Apparent Losses

Pcnt: Value:

Unauthorized consumption:		11.299	acre-ft/yr	0.25%		acre-ft/yr

Default option selected for unauthorized consumption - a grading of 5 is applied but not displayed

Customer metering inaccuracies:	2	81.485	acre-ft/yr	2.00%		acre-ft/yr
Systematic data handling errors:		9.976	acre-ft/yr	0.25%		acre-ft/yr

Default option selected for Systematic data handling errors - a grading of 5 is applied but not displayed

Apparent Losses: 102.761 acre-ft/yr

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: 412.923 acre-ft/yr

WATER LOSSES: 515.683 acre-ft/yr

NON-REVENUE WATER

NON-REVENUE WATER: 529.287 acre-ft/yr

= Water Losses + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

Length of mains:	8	176.8	miles
Number of active AND inactive service connections:	1	11,000	
Service connection density:		62	conn./mile main

Are customer meters typically located at the curbstop or property line? Yes

Average length of customer service line: (length of service line, beyond the property boundary, that is the responsibility of the utility)

Average length of customer service line has been set to zero and a data grading score of 10 has been applied

Average operating pressure: 2 | 70.0 psi

COST DATA

Total annual cost of operating water system:	10	$17,959,132	$/Year
Customer retail unit cost (applied to Apparent Losses):	8	$8.84	$/100 cubic feet (ccf)
Variable production cost (applied to Real Losses):	4	$265.14	$/acre-ft

☐ Use Customer Retail Unit Cost to value real losses

WATER AUDIT DATA VALIDITY SCORE:

***** YOUR SCORE IS: 43 out of 100 *****

A weighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION:

Based on the information provided, audit accuracy can be improved by addressing the following components:

1: Volume from own sources
2: Billed metered
3: Customer metering inaccuracies

AWWA Free Water Audit Software:
Reporting Worksheet

WAS v5.0
American Water Works Association.

? Click to access definition
+ Click to add a comment

Water Audit Report for: City of San Luis Obispo (CA4010009)
Reporting Year: 2019 | 1/2019 - 12/2019

Please enter data in the white cells below. Where available, metered values should be used; if metered values are unavailable please estimate a value. Indicate your confidence in the accuracy of the input data by grading each component (n/a or 1-10) using the drop-down list to the left of the input cell. Hover the mouse over the cell to obtain a description of the grades

All volumes to be entered as: ACRE-FEET PER YEAR

To select the correct data grading for each input, determine the highest grade where the utility meets or exceeds all criteria for that grade and all grades below it.

Master Meter and Supply Error Adjustments

WATER SUPPLIED

<---------- Enter grading in column 'E' and 'J' ---------->

					Pcnt:	Value:	
Volume from own sources:	3	5,065.140	acre-ft/yr	3			acre-ft/yr
Water imported:	n/a		acre-ft/yr				acre-ft/yr
Water exported:	3	522.060	acre-ft/yr	1			acre-ft/yr

Enter negative % or value for under-registration
Enter positive % or value for over-registration

WATER SUPPLIED: **4,543.080** acre-ft/yr

AUTHORIZED CONSUMPTION

Click here: ? for help using option buttons below

				Pcnt:	Value:	
Billed metered:	5	4,198.605	acre-ft/yr			
Billed unmetered:	n/a	0.000	acre-ft/yr			
Unbilled metered:	10	2.431	acre-ft/yr			
Unbilled unmetered:	7	2.500	acre-ft/yr		2.500	acre-ft/yr

Use buttons to select percentage of water supplied **OR** value

AUTHORIZED CONSUMPTION: **4,203.536** acre-ft/yr

WATER LOSSES (Water Supplied - Authorized Consumption) **339.544** acre-ft/yr

Apparent Losses

			Pcnt:	Value:	
Unauthorized consumption:		11.358 acre-ft/yr	0.25%		acre-ft/yr

Default option selected for unauthorized consumption - a grading of 5 is applied but not displayed

Customer metering inaccuracies:	4	85.735	acre-ft/yr	2.00%	acre-ft/yr
Systematic data handling errors:		10.497	acre-ft/yr	0.25%	acre-ft/yr

Default option selected for Systematic data handling errors - a grading of 5 is applied but not displayed

Apparent Losses: **107.590** acre-ft/yr

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: **231.954** acre-ft/yr

WATER LOSSES: **339.544** acre-ft/yr

NON-REVENUE WATER

NON-REVENUE WATER: **344.475** acre-ft/yr

= Water Losses + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

Length of mains:	8	164.1	miles
Number of active AND inactive service connections:	8	15,291	
Service connection density:		93	conn./mile main

Are customer meters typically located at the curbstop or property line? Yes

Average length of customer service line: (length of service line, beyond the property boundary, that is the responsibility of the utility)

Average length of customer service line has been set to zero and a data grading score of 10 has been applied

Average operating pressure: 7 | 70.0 psi

COST DATA

Total annual cost of operating water system:	10	$19,323,017	$/Year
Customer retail unit cost (applied to Apparent Losses):	8	$7.62	$/100 cubic feet (ccf)
Variable production cost (applied to Real Losses):	4	$268.77	$/acre-ft

☐ Use Customer Retail Unit Cost to value real losses

WATER AUDIT DATA VALIDITY SCORE:

***** YOUR SCORE IS: 53 out of 100 *****

A weighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION:

Based on the information provided, audit accuracy can be improved by addressing the following components:

1: Volume from own sources
2: Billed metered
3: Customer metering inaccuracies

AWWA Free Water Audit Software:
Reporting Worksheet

WAS v5.0
American Water Works Association.

? Click to access definition
+ Click to add a comment

Water Audit Report for: City of San Luis Obispo (CA4010009)
Reporting Year: 2020 1/2020 - 12/2020

Please enter data in the white cells below. Where available, metered values should be used; if metered values are unavailable please estimate a value. Indicate your confidence in the accuracy of the input data by grading each component (n/a or 1-10) using the drop-down list to the left of the input cell. Hover the mouse over the cell to obtain a description of the grades

All volumes to be entered as: ACRE-FEET PER YEAR

To select the correct data grading for each input, determine the highest grade where the utility meets or exceeds all criteria for that grade and all grades below it.

<---------- Enter grading in column 'E' and 'J' ---------->

Master Meter and Supply Error Adjustments

WATER SUPPLIED

					Pcnt:	Value:	
Volume from own sources:	3	5,261.420	acre-ft/yr	3			acre-ft/yr
Water imported:	n/a		acre-ft/yr				acre-ft/yr
Water exported:	3	444.610	acre-ft/yr	1			acre-ft/yr

Enter negative % or value for under-registration
Enter positive % or value for over-registration

WATER SUPPLIED: 4,816.810 acre-ft/yr

AUTHORIZED CONSUMPTION

Click here: ? for help using option buttons below

				Pcnt:	Value:	
Billed metered:	5	4,348.870	acre-ft/yr			
Billed unmetered:	n/a	0.000	acre-ft/yr			
Unbilled metered:	10	2.431	acre-ft/yr			
Unbilled unmetered:	7	2.500	acre-ft/yr		2.500	acre-ft/yr

Use buttons to select percentage of water supplied **OR** value

AUTHORIZED CONSUMPTION: 4,353.801 acre-ft/yr

WATER LOSSES (Water Supplied - Authorized Consumption) 463.009 acre-ft/yr

Apparent Losses

				Pcnt:	Value:	
Unauthorized consumption:		12.042	acre-ft/yr	0.25%		acre-ft/yr

Default option selected for unauthorized consumption - a grading of 5 is applied but not displayed

Customer metering inaccuracies:	4	88.802	acre-ft/yr	2.00%		acre-ft/yr
Systematic data handling errors:		10.872	acre-ft/yr	0.25%		acre-ft/yr

Default option selected for Systematic data handling errors - a grading of 5 is applied but not displayed

Apparent Losses: 111.716 acre-ft/yr

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: 351.293 acre-ft/yr

WATER LOSSES: 463.009 acre-ft/yr

NON-REVENUE WATER

NON-REVENUE WATER: 467.940 acre-ft/yr

= Water Losses + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

Length of mains:	8	164.1	miles
Number of active AND inactive service connections:	8	15,291	
Service connection density:		93	conn./mile main
Are customer meters typically located at the curbstop or property line?		Yes	
Average length of customer service line:			(length of service line, beyond the property boundary, that is the responsibility of the utility)

Average length of customer service line has been set to zero and a data grading score of 10 has been applied

Average operating pressure:	7	70.0	psi

COST DATA

Total annual cost of operating water system:	10	$19,323,017	$/Year	
Customer retail unit cost (applied to Apparent Losses):	8	$7.62	$/100 cubic feet (ccf)	
Variable production cost (applied to Real Losses):	4	$268.77	$/acre-ft	☐ Use Customer Retail Unit Cost to value real losses

WATER AUDIT DATA VALIDITY SCORE:

***** YOUR SCORE IS: 53 out of 100 *****

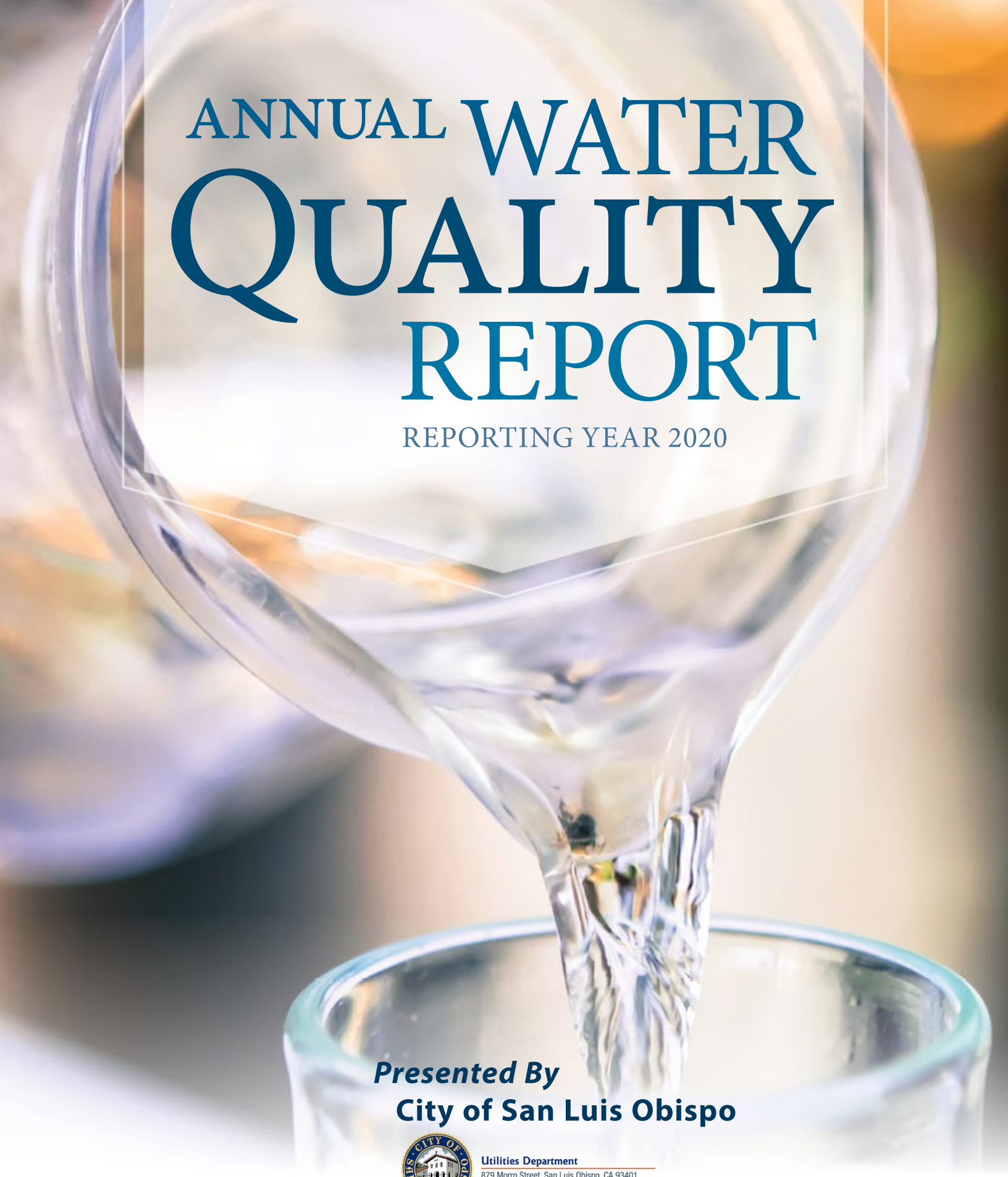
A weighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION:

Based on the information provided, audit accuracy can be improved by addressing the following components:

1: Volume from own sources
2: Billed metered
3: Customer metering inaccuracies

Appendix VII: 2020 Annual Water Quality Report



ANNUAL WATER QUALITY REPORT

REPORTING YEAR 2020

Presented By

City of San Luis Obispo

Utilities Department
879 Morro Street, San Luis Obispo, CA 93401

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien.

PWS ID#: 4010009

Quality First

Once again, we are pleased to present our annual water quality report covering all testing performed between January 1 and December 31, 2020. As in years past, we are committed to delivering the best-quality drinking water possible. To that end, we remain vigilant in meeting the challenges of new regulations, source water protection, water conservation, and community outreach and education while continuing to serve the needs of all our water users. Thank you for allowing us the opportunity to serve you and your family.

We encourage you to share your thoughts with us on the information contained in this report. After all, well-informed customers are our best allies.

Public Meetings

City Council meetings are held on the first and third Tuesday of each month at 6:00 p.m. at City Hall, 990 Palm Street, San Luis Obispo. A public comment period is held at the beginning of each meeting.

Emergency Public Meeting Procedure due to COVID-19

Based on the threat of COVID-19, as reflected in the Proclamations of Emergency issued by the Governor of the State of California, the San Luis Obispo County Emergency Services Director, and the City Council of the City of San Luis Obispo as well as the Governor's Executive Order N-29-20 issued on March 17, 2020, relating to the convening of public meetings in response to the COVID-19 pandemic, the City of San Luis Obispo will be holding all public meetings via teleconference. There will be no physical location for the public to attend the meeting.

Using the most rapid means of communication available at this time, members of the public are encouraged to participate in council meetings in the following ways: View the webinar. Information is available on the city's website at https://www.slocity.org/

Source Water Assessment

Assessments of the drinking water sources for the City of San Luis Obispo have been conducted. These sources include Salinas Reservoir, Whale Rock Reservoir, Nacimiento Lake, and Pacific Beach Well. These sources are considered most vulnerable to the following activities not associated with any detected contaminants: grazing, managed forests, recreational areas, septic systems, sewer collection systems, gas stations.

A copy of the complete assessment is available from the SWRCB Division of Drinking Water, 1180 Eugenia Place, Suite 200, Carpinteria, California, 93013 or the City of San Luis Obispo, 879 Morro Street, San Luis Obispo, California, 93401.

Where Does My Water Come From?

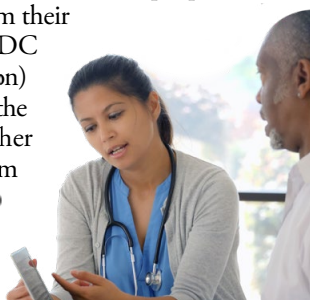
The City of San Luis Obispo is fortunate to have several sources of water. The Salinas Reservoir (also known as Santa Margarita Lake, eight miles east of Santa Margarita), Whale Rock Reservoir (Cayucos), and Nacimiento Lake (16 miles northwest of Paso Robles) are the main supplies. The surface water from the three lakes is treated at the Stenner Creek Water Treatment Plant. During 2020, the treatment plant delivered 1.71 billion gallons of water to San Luis Obispo.

The Benefits of Fluoridation

Our water system treats your water by adding fluoride to the naturally occurring level to help prevent dental caries in consumers. State regulations require the fluoride levels in the treated water be maintained within a range of 0.6 to 1.2 ppm with an optimum dose of 0.7 ppm. Our monitoring showed that the fluoride levels in the treated water ranged from 0.0 to 0.9 ppm with an average of 0.59 ppm. Information about fluoridation, oral health, and current issues is available from http://www.swrcb.ca.gov/drinking_water/certlic/drinkingwater/Fluoridation.shtml.

Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. EPA/CDC (Centers for Disease Control and Prevention) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at (800) 426-4791 or http://water.epa.gov/drink/hotline.



Questions?

For more information about this report, or for any questions relating to your drinking water, please contact Jason Meeks, Water Treatment Plant Supervisor, at (805) 781-7566 or jmeeks@slocity.org.

Substances That Could Be in Water

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material and can pick up substances resulting from the presence of animals or from human activity.

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (U.S. EPA) and the State Water Resources Control Board (State Board) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The U.S. Food and Drug Administration regulations and California law also establish limits for contaminants in bottled water that provide the same protection for public health. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk.

Contaminants that may be present in source water include: Microbial Contaminants, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife; Inorganic Contaminants, such as salts and metals, that can be naturally occurring or can result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming; Pesticides and Herbicides that may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses; Organic Chemical Contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production and which can also come from gas stations, urban stormwater runoff, agricultural applications, and septic systems; Radioactive Contaminants that can be naturally occurring or can be the result of oil and gas production and mining activities.

More information about contaminants and potential health effects can be obtained by calling the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

Water Treatment Process

The treatment process consists of a series of steps referred to as conventional surface water treatment. First, raw water is drawn from our water sources and sent to an ozone contact basin, which provides primary disinfection and oxidation of the high iron levels that are present in the water. The water then goes to a mixing tank, where aluminum sulfate and cationic polymer are added. The addition of these substances causes small particles (called floc) to adhere to one another, making them heavy enough to settle into a basin, from which sediment is removed. At this point, the water is filtered through layers of anthracite and silicate sand. As smaller suspended particles are removed, turbidity disappears and clear water emerges. Chlorine is added as a precaution against any bacteria that may still be present. We carefully monitor the amount of chlorine, adding the lowest quantity necessary to protect the safety of your water without compromising taste. Finally, fluoride (to prevent tooth decay) and a corrosion inhibitor (to protect distribution system pipes) are added before the water is pumped to sanitized underground reservoirs and water tanks and into your home or business.

Lead in Home Plumbing

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. We are responsible for providing high-quality drinking water, but we cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to two minutes before using water for drinking or cooking. (If you do so, you may wish to collect the flushed water and reuse it for another beneficial purpose, such as watering plants.) If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline at (800) 426-4791 or at www.epa.gov/safewater/lead.

Test Results

Drinking water is monitored for many different kinds of substances on a very strict sampling schedule. The water delivered must meet specific health standards. This report only shows substances that were detected in the city's drinking water (a complete list of all analytical results is available upon request). Remember that detecting a substance does not mean the water is unsafe to drink; the goal is to keep all detects below respective maximum allowed levels.

The state recommends monitoring for certain substances less than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

The City of San Luis Obispo participated in the fourth stage of the U.S. EPA's Unregulated Contaminant Monitoring Rule (UCMR4) program by performing additional tests on our drinking water. UCMR4 sampling benefits the environment and public health by providing the U.S. EPA with data on the occurrence of contaminants suspected to be in drinking water in order to determine if U.S. EPA needs to introduce new regulatory standards to improve drinking water quality. Unregulated contaminant monitoring data are available to the public, so please feel free to contact us if you are interested in obtaining that information. If you would like more information on the U.S. EPA's Unregulated Contaminant Monitoring Rule, please call the Safe Drinking Water Hotline at (800) 426-4791.

REGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	PHG (MCLG) [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Aluminum (ppm)	2020	1	0.6	0.079	0.06–0.1	No	Erosion of natural deposits; residue from some surface water treatment processes
Chlorine (ppm)	2020	[4.0 (as Cl2)]	[4 (as Cl2)]	0.81	0.02–1.6	No	Drinking water disinfectant added for treatment
Control of DBP Precursors [TOC][1] (percent removal)	2020	TT	NA	27	3–54	No	Various natural and human-made sources
Fluoride[2] (ppm)	2020	2.0	1	0.59	ND–0.9	No	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Gross Alpha Particle Activity (pCi/L)	2011	15	(0)	0.0145	ND–0.029	No	Erosion of natural deposits
Haloacetic Acids[3] (ppb)	2020	60	NA	39	16–77	No	By-product of drinking water disinfection
Hexavalent Chromium (ppb)	2015	10[4]	0.02	2.0	ND–12.0	No	Discharge from electroplating factories, leather tanneries, wood preservation, chemical synthesis, refractory production, and textile manufacturing facilities; erosion of natural deposits
TTHMs [Total Trihalomethanes][3] (ppb)	2020	80	NA	43	17–74	No	By-product of drinking water disinfection
Turbidity[5] (NTU)	2020	TT	NA	0.18	0.05–0.18	No	Soil runoff
Turbidity (lowest monthly percent of samples meeting limit)	2020	TT = 95% of samples meet the limit	NA	100	NA	No	Soil runoff

Tap water samples were collected for lead and copper analyses from sample sites throughout the community

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	PHG (MCLG)	AMOUNT DETECTED (90TH %ILE)	SITES ABOVE AL/ TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2019	1.3	0.3	0.188	0/30	No	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ppb)	2019	15	0.2	ND	0/30	No	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits

SECONDARY SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	SMCL	PHG (MCLG)	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Aluminum (ppb)	2020	200	NS	0.079	0.06–0.1	No	Erosion of natural deposits; residual from some surface water treatment processes
Chloride (ppm)	2020	500	NS	16	16–16	No	Runoff/leaching from natural deposits; seawater influence
Specific Conductance (µmho/cm)	2020	1,600	NS	467	467–467	No	Substances that form ions when in water; seawater influence
Sulfate (ppm)	2020	500	NS	78.2	78.2–78.2	No	Runoff/leaching from natural deposits; industrial wastes

UNREGULATED AND OTHER SUBSTANCES [6]

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Hardness (ppm)	2020	184	120–300	Polyvalent cations present in the water, generally magnesium and calcium, which are naturally occurring
Sodium (ppm)	2020	23	23–23	Naturally occurring

Definitions

90th %ile: The levels reported for lead and copper represent the 90th percentile of the total number of sites tested. The 90th percentile is equal to or greater than 90% of our lead and copper detections.

AL (Regulatory Action Level): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

MCL (Maximum Contaminant Level): The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs (SMCLs) are set to protect the odor, taste, and appearance of drinking water.

MCLG (Maximum Contaminant Level Goal): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the U.S. EPA.

MRDL (Maximum Residual Disinfectant Level): The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

MRDLG (Maximum Residual Disinfectant Level Goal): The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

NA: Not applicable

ND (Not detected): Indicates that the substance was not found by laboratory analysis.

NS: No standard

NTU (Nephelometric Turbidity Units): Measurement of the clarity, or turbidity, of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

pCi/L (picocuries per liter): A measure of radioactivity.

PDWS (Primary Drinking Water Standard): MCLs and MRDLs for contaminants that affect health, along with their monitoring and reporting requirements and water treatment requirements.

PHG (Public Health Goal): The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California EPA.

ppb (parts per billion): One part substance per billion parts water (or micrograms per liter).

ppm (parts per million): One part substance per million parts water (or milligrams per liter).

TT (Treatment Technique): A required process intended to reduce the level of a contaminant in drinking water.

µmho/cm (micromhos per centimeter): A unit expressing the amount of electrical conductivity of a solution.

[1] Total organic carbon (TOC) has no health effects. However, TOC provides a medium for the formation of disinfection by-products such as TTHMs and HAA5s. The city's TOC reduction requirement was 25 to 35 percent based on a running annual average calculated quarterly.

[2] Our water system treats your water by adding fluoride to the naturally occurring level to help prevent dental caries in consumers. State regulations require the fluoride levels in the treated water be maintained within a range of 0.6 to 1.2 ppm, with an optimum dose of 0.7 ppm. Our monitoring showed that the fluoride levels in the treated water ranged from below detection limits to 0.9 ppm, with an average of 0.59 ppm. Information about fluoridation, oral health, and current issues is available from http://www.swrcb.ca.gov/drinking_water/certlic/drinkingwater/Fluoridation.shtml.

[3] Regulatory compliance is determined based on the locational running annual average (LRAA). Additional sample results are included in this report, along with regulatory compliance results.

[4] There is currently no MCL for hexavalent chromium. The previous MCL of 10 ppb was withdrawn on September 11, 2017.

[5] Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system.

[6] Unregulated contaminant monitoring helps U.S. EPA and the State Water Resources Control Board determine where certain contaminants occur and whether the contaminants need to be regulated.

Appendix VIII: Draft Mandatory Water Conservation Ordinance

Draft ORDINANCE NO. (2021 Series)

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF SAN LUIS OBISPO ESTABLISHING A MANDATORY WATER CONSERVATION PROGRAM

WHEREAS, the City has experienced multiple years of below normal rainfall; and

WHEREAS, the City's reservoirs have an estimated five-year water storage capacity; and

WHEREAS, City policy requires that when there is an estimated five-year water storage capacity remaining in the City's reservoirs that mandatory conservation measures be implemented.

BE IT ORDAINED by the Council of the City of San Luis Obispo as follows:

SECTION 1. The City has established the following water allocation method for each customer classification.

Single-family Residential **-** A per capita allotment of _____ gallons per day will be assigned to each single-family residence based on the water shortage stage the City is entering. The per capita allotment may be reduced in each subsequent water shortage stage. Additional water would be allocated dependent on verification of the actual number of people in a household.

Multi-family Residential **-** A per capita allotment of _____ gallons per day based on a three-person household will be assigned to each multi-family residence. If there are more than three people in the household, additional water would be allocated dependent on verification of the actual number of person in the household.

Commercial **-** Commercial customers will receive an allocation using a percent reduction methodology based on the average of the previous three years of water use. An optional baseline standard allocation will also be available to commercial customers.

Institutional **-** Institutional customers will receive an allocation using a percent reduction methodology based on the average of the previous three years of water use.

Landscape Meters **-** Landscape only metered customers will receive an allocation using a percent reduction methodology based on the average of the previous three years of water use.

Excessive Water Use Penalties **-** Customers exceeding their assigned allocation will pay a 100 percent surcharge of the water portion of their bill. If the customer exceeds the base allocation assigned to their account, a 200 percent surcharge will be assessed.

SECTION 2. A summary of this ordinance, approved by the City Attorney, together with the names of the Council members voting for and against it, shall be published at least five days prior to its final passage, in the New Times, a newspaper published and circulated in this City. This ordinance will go into effect at the expiration of thirty (30) days after its final passage.

INTRODUCED on the _____ day of 2021 AND FINALLY ADOPTED by the Council of the City of San Luis Obispo on the _____day of 2021, on the following roll call vote:

AYES:

NOES:

ABSENT:

_____
Mayor Heidi Harmon

ATTEST:

____
_____
Teresa Purrington, City Clerk

APPROVED AS TO FORM:

_____
J. Christine Dietrick, City Attorney

2020 Water Shortage Contingency Plan

This plan was adopted on June __, 2021
pursuant to
San Luis Obispo City Council Resolution
No. _____ (2021 series).

San Luis Obispo City Council

Heidi Harmon, Mayor
Erica A. Stewart, Vice Mayor
Carlyn Christianson
Jan Marx
Andy Pease

Plan Prepared by:

City of San Luis Obispo, Utilities Department
879 Morro Street
San Luis Obispo, CA. 93401

The City's 2020 Water Shortage Contingency Plan is available for public review at the City's web page at slowater.org

For 2020, the City's Water Shortage Continency Plan is published separately from the 2020 Urban Water Management Plan consistent with State requirements. The 2020 Urban Water Management Plan is also available for public review at the City's web page at slowater.org

Contents

List of Tables

The City's Water Shortage Contingency Plan (WSCP) provides the foundation for a staged response to worsening water shortage conditions. A water shortage could occur due to drought, earthquake, infrastructure failure, or other emergency. Drought may occur with unpredictable frequency, intensity, and duration.

An update to the City's Water Conservation Ordinance (Chapter 13.07 of the Municipal Code), will establish the regulations and procedures for implementing this Plan and update the ordinance to comply with newer requirements under Water Code *Chapter 3.3: Excessive Residential Water Use During Drought.* A preliminary draft Water Conservation Ordinance is provided in Appendix VI.

The California Department of Water Resources defines drought as:

"*A deficiency of precipitation over an extended period of time resulting in a water shortage for some activity, group, or environmental sector.*"

1. WATER SUPPLY RELIABILITY ANALYSIS

Water supply reliability is the City's ability to meet the water needs of its customers under varying conditions. Chapter 6 of the City's Urban Water Management Plan (UWMP) assesses water supply reliability by analyzing the hydrological variability of the City surface water reservoirs (Salinas, Whale Rock, and Nacimiento), regulatory variability, climate conditions, and other factors that may affect the City's water supplies and customer water uses. The analysis applies worst-case drought conditions according to guidelines set forth in the UWMP plan documentation. The following tables provide data on the reliability of the City's water supply during normal, single-dry, and a severe drought period lasting five consecutive years. The City remains confident in the reliability of its multi-source water supply portfolio.

Table 1 lists the years which correlate to the guidelines for the specific water year type and are based on rainfall information. The City's average water year was determined to be 2020 based on review and update of the City's average rainfall total. The City's single dry water year was determined to be 2013 as the rainfall total that year was the lowest on record. The City's multiple dry year scenario was determined to be 2011 to 2015 as the combined rainfall total for those five years was the lowest on record.

Table 2, Table 3, and Table 4 summarize the City's water supplies in a normal year, single dry year and a multiple dry year scenario. To address Water Code Section 10635 (b), Table 5 includes available water supply and demand estimate for 2021 through 2025. These water demand projections were derived using 117 gpcd and population growth levels identified in the City's *General Plan Land Use Element*. Both factors are higher than current gpcd and the current population. The City does not anticipate a water shortage necessitating any water supply augmentation or requiring water use restrictions if the City entered five consecutive years of drought.

TABLE 1: Basis of Water Year Data

Year Type	Base Year(s)	Volume Available
Average Year	2020	10,143
Single-Dry Year	2013	10,143
Consecutive-Dry Years, 1st year	2011	10,143
Consecutive -Dry Years, 2nd year	2012	10,143
Consecutive -Dry Years, 3rd year	2013	10,143
Consecutive -Dry Years, 4th year	2014	10,143
Consecutive -Dry Years, 5th year	2015	10,143

NOTES
1. Volume available includes the City's contractual supply to Nacimiento Reservoir, Safe Annual Yield from Salinas and Whale Rock Reservoirs, and recycled water.
2. Units are in acre-feet per year.

Source: City of San Luis Obispo Utilities Department, 2021.

TABLE 2: Supply and Demand Comparison (Normal Year)

	2020 (actual)	2025	2030	2035	2040
Supply totals	10,143	10,337	10,537	10,587	10,637
Demand totals	4,817	7,272	7,713	8,191	8,624
Difference	5,326	3,166	2,824	2,396	2,013

NOTES
1. Units are in acre-feet per year.
2. Supply total includes the City's contractual supply to Nacimiento Reservoir, Safe Annual Yield from Salinas and Whale Rock Reservoirs, and projected increases in recycled water deliveries.
3. Water demand projections for 2025 through 2040 were derived using 117 gpcd and population growth levels identified in the City's General Plan Land Use Element. Both factors are conservatively higher than the City's 2020 population and actual gpcd (92 gpcd).

Source: City of San Luis Obispo Utilities Department, 2021.

TABLE 3: Single Dry Year Supply and Demand Comparison

	2020 (actual)	2025	2030	2035	2040
Supply totals	10,143	10,337	10,537	10,587	10,637
Demand totals	4,817	7,272	7,713	8,191	8,624
Difference	5,326	3,166	2,824	2,396	2,013

NOTES
1. Units are in acre-feet per year.
2. Supply total includes the City's contractual supply to Nacimiento Reservoir, Safe Annual Yield from Salinas and Whale Rock Reservoirs, and projected increases in recycled water deliveries.
3. Water demand projections for 2025 through 2040 were derived using 117 gpcd and population growth levels identified in the City's General Plan Land Use Element. Both factors are conservatively higher than the City's 2020 population and actual gpcd (92 gpcd).

Source: City of San Luis Obispo Utilities Department, 2021.

TABLE 4: Multiple Dry Year Supply and Demand Comparison

		2020 (actual)	2025	2030	2035	2040
First year	Supply totals	10,143	10,337	10,537	10,587	10,637
	Demand totals	4,817	7,272	7,713	8,191	8,624
	Difference	5,326	3,166	2,824	2,396	2,013
Second year	Supply totals	10,143	10,337	10,537	10,587	10,637
	Demand totals	4,817	7,272	7,713	8,191	8,624
	Difference	5,326	3,166	2,824	2,396	2,013
Third year	Supply totals	10,143	10,337	10,537	10,587	10,637
	Demand totals	4,817	7,272	7,713	8,191	8,624
	Difference	5,326	3,166	2,824	2,396	2,013
Fourth year	Supply totals	10,143	10,337	10,537	10,587	10,637
	Demand totals	4,817	7,272	7,713	8,191	8,624
	Difference	5,326	3,166	2,824	2,396	2,013
Fifth year	Supply totals	10,143	10,337	10,537	10,587	10,637
	Demand totals	4,817	7,272	7,713	8,191	8,624
	Difference	5,326	3,166	2,824	2,396	2,013

NOTES
1. The urban water targets determined in this UWMP were considered when developing the 2020 water demands included in this table.
2. Supply total includes the City's contractual supply to Nacimiento Reservoir, Safe Annual Yield from Salinas and Whale Rock Reservoirs, and projected increases in recycled water deliveries.
3. Water demand projections for 2025 through 2040 were derived using 117 gpcd and population growth levels identified in the City's General Plan Land Use Element. Both factors are conservatively higher than the City's 2020 population and actual gpcd (92 gpcd).

Source: City of San Luis Obispo Utilities Department, 2021

TABLE 5: Five Year Drought Risk Assessment (2021-2025)

2021	Total
Total Water Use	6,276
Total Supplies	10,177
Surplus/Shortfall w/o/ WSCP Action	3,901
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP – supply augmentation benefit	0
WSCP – use reduction savings benefit	0
Revised Surplus/(shortfall)	3,901
Resulting % Use Reduction from WSCP action	0%
2022	**Total**
Total Water Use	6,528
Total Supplies	10,217
Surplus/Shortfall w/o/ WSCP Action	3,689
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP – supply augmentation benefit	0
WSCP – use reduction savings benefit	0
Revised Surplus/(shortfall)	3,689
Resulting % Use Reduction from WSCP action	0%
2023	**Total**
Total Water Use	6,593
Total Supplies	10,257
Surplus/Shortfall w/o/ WSCP Action	3,664
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP – supply augmentation benefit	0
WSCP – use reduction savings benefit	0
Revised Surplus/(shortfall)	3,664
Resulting % Use Reduction from WSCP action	0%
2024	**Total**
Total Water Use	6,659
Total Supplies	10,297
Surplus/Shortfall w/o/ WSCP Action	3,638
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP – supply augmentation benefit	0
WSCP – use reduction savings benefit	0
Revised Surplus/(shortfall)	3,638
Resulting % Use Reduction from WSCP action	0%
2025	**Total**
Total Water Use	6,725
Total Supplies	10,337
Surplus/Shortfall w/o/ WSCP Action	3,612
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP – supply augmentation benefit	0
WSCP – use reduction savings benefit	0
Revised Surplus/(shortfall)	3,612
Resulting % Use Reduction from WSCP action	0%

Notes:

1. Units are in acre-feet per year.
2. Supply total includes the City's contractual supply to Nacimiento Reservoir, Safe Annual Yield from Salinas and Whale Rock Reservoirs, and projected increases in recycled water deliveries.
3. Water demand projections for 2021 through 2025 were derived using 117 gpcd and population growth levels identified in the City's General Plan Land Use Element. Both factors are conservatively higher than the City's 2020 population and actual gpcd (92 gpcd).

Source: City of San Luis Obispo Utilities Department, 2021.

2. ANNUAL WATER SHORTAGE ASSESSMENT

Consistent with the requirements of the 2020 UWMP, the City will perform a water shortage assessment each year to review available water supplies and confirm its approach for the coming year. The degree of the water supply shortage determines the necessary level of response from the City and customers, if any. This water shortage assessment includes evaluation of the following:

a. Current year water demand across customer categories (residential, the "CII" sector which includes commercial, industrial, institutional uses, and irrigation)
b. Water availability at each water supply source
c. Available supplemental water supply options
d. Infrastructure considerations, including planned maintenance, repairs, and upgrades

The City utilizes a Water Projection Model to test both hypothetical and actual water demand scenarios and to forecast how long water supplies will sustain the community under specific conditions. The Water Projection Model accounts for the storage in the City's surface water reservoirs, in conjunction with other available resources (i.e., groundwater and recycled water), needed to meet the City's water demand. The model uses historical hydrologic information (rainfall, evaporation, inflow) based on the average for the worst drought period (2012 to 2014). Other data included in the model is:

a. Water entitlement
b. Current reservoir levels/storage
c. Average gallons per capita per day community water demand
d. Rainfall
e. Temperature
f. Evaporation
g. Existing population
h. Population growth

Utilizing the Water Projection Model as part of its water supply management, the City can foresee whether a water supply shortage is anticipated in any given year, and the severity of a shortage based on the availability of the City's different sources of supply and water demand trends. The City uses the model to study the potential impacts of various intensities of drought conditions, including increased temperature and evaporation rates, along with decreased precipitation.

In accordance with 2018 UWMP requirements, each year the City will prepare a water supply and demand assessment, present it to the City Council for review, and submit its annual Water Shortage Assessment Report to DWR. The Assessment will be conducted based on the use of the City's Water Projection Model and the key data inputs described above to characterize near-term water supply conditions (i.e., for the next 12 months). Using the Water Projection Model described above for 2021, the City has more than ten years of water available under current water supply and demand conditions.

TABLE 6: Reservoir Storage

Reservoir	Volume (Acre-Feet)	Percent of Capacity
Salinas	16,267	68.23%
Whale Rock	30,050	77.12%
Nacimiento	123,365	32.64%

Notes:
1. Reservoir volumes are as of 5/13/2021.
2. Of the total Whale Rock Reservoir volume above, the City's available balance is 15,295 acre-feet.

Source:https://www.slocity.org/government/department-directory/utilities-department/water/water-sources

3. WATER SHORTAGE RESPONSE

The City's water shortage response is dependent on the ability to temporarily augment supply and/or reduce water demand. The City's water shortage response would combine a variety of strategies including outreach, indoor water efficiency regulations, and outdoor irrigation restrictions, each increasing in intensity as the shortage persists and the City's water supplies are further restricted. Implementation of these restrictions is necessary to conserve the City's water supply for the greatest public benefit regarding domestic use, sanitation, and fire protection. This section describes the general strategies the City will employ to mitigate the impacts of water shortage on the community.

Voluntary Reduction Measures
All customers may be asked to voluntarily reduce their water usage during a water shortage. The City may provide water conservation tips and suggestions through various public outreach methods, encourage and distribute conservation devices such as low flow shower heads and faucet aerators, discourage excessive outdoor watering, and encourage landscaping with drought tolerant plants. Voluntary reductions measures are described in more detail in Section 4.

Mandatory Reduction Measures
The City may place mandatory reduction measures on certain uses, such as restricting outdoor watering to prescribed times and number of days per week beginning in the Warning Stage, with days and times for landscape watering further limited in later stages of the plan. Mandatory reduction measures may limit specific inefficient methods of irrigation (i.e., overhead spray/sprinkler ban).

The seasonal increase in water demand underscores the importance of implementing outdoor irrigation-focused reduction programs. Approximately 50 percent of residential water use in San Luis Obispo is for landscape irrigation. Therefore, restrictions on outdoor water use are generally effective in reducing water demand. Many outdoor uses are considered discretionary, or nonessential for health and safety purposes, are highly visible and relatively easy to monitor, and often are a substantial component of water demand, particularly during the summer months when drought conditions are often most severe.

Water Use Prohibitions
Water use prohibitions will vary by drought stage, with the fundamental purpose of restricting or prohibiting non-essential uses that are not required for basic health and safety. During a declared water shortage, specific prohibitions would be described in a Water Shortage Ordinance adopted by the City Council. In the Critical Stage, all non-essential outdoor water use, except recycled water or grey water, may be prohibited.

The City will adopt regulations at the appropriate water shortage stage to promote water conservation, such as posting signage at various establishments, offering water audits to maximize water conservation, and prescribing to customer-specific water budgets (i.e., water allocations).

Supplemental Water Supply Options
During a declared water shortage emergency, the City may also utilize supplemental water supply options, or acquire a new supply as warranted by the current situation. This may include utilizing more groundwater and/or expanding the City's use of recycled water. These water supply options may be less desirable during normal operations due to increased operational costs.

4. WATER SHORTAGE STAGES

The goals of the WSCP are to extend the City's available water resources long enough to gain another winter rainfall period which could serve to add to reservoir storage. Extending available water resources through water demand reduction provides time for the City to bring on supplemental water supplies to meet demand. It is the City's goal to implement water demand reduction programs that will achieve measurable water savings without requiring customers to make significant lifestyle changes. In the more advanced water shortage stages lifestyle and water-use habit changes will be necessary.

This section identifies the measures that may be taken at each stage to achieve desired water use reduction levels. The purpose of establishing water shortage stages is to clearly define the severity of the shortage and establish appropriate targets for demand reductions. Defining these stages allows the City to respond to worsening conditions, with each stage "triggering" different actions. The multi-stage approach provides different levels of response for a water shortage event ranging from a ten percent supply deficiency up to a 50 percent or greater deficiency.

Table 7 provides a quick reference guide to the WSCP, though City Council may adopt variations of these Water Shortage Response Actions, independent from the stage resulting from the use of the Water Projection Model, to strategically address the current water shortage situation. Each stage describes increasing levels of water demand reduction and water supply augmentation methods. As stated previously, during an actual water shortage emergency, other measures may be imposed. The City Council would formally declare a water shortage emergency, per Water Code Chapter 3.

TABLE 7: Water Shortage Response Stages
Quick Reference Guide

STAGE	WATER SUPPLY STATUS[1]	CITY ACTIONS
Monitor	5+ years of available water supply	City maintains existing water conservation staffing levels and budget that supports meeting internal water efficiency goals and regulatory requirements for water conservation, including ongoing public outreach.
Watch	< 5 years of available water supply (up to 10% water shortage)	City increases programs that encourage voluntary water conservation including public outreach, rebate programs, and water efficient fixture giveaways. City examines available alternative water sources (groundwater expansion, recycled water filling stations, water purchase agreements, etc.), City modifies internal operations to focus on decreasing water loss and prepares for subsequent WSCP stages. City ceases any short-term outside-City water sales/leases.
Warning	< 4.5 years of available water supply (up to 20% water shortage)	City implements time of use irrigation restrictions (7:00 PM – 7:00 AM). City increases staffing, budget, and outreach to achieve additional voluntary conservation savings while preparing for Alert-Critical stages.
Alert	< 4 years of available water supply (up to 30% water shortage)	City requires mandatory conservation measures including outdoor irrigation restrictions (four day a week watering) and considers a Water Offset Program for new connections.
Severe	< 3.5 years of available water supply (up to 40% water shortage)	City implements Water Allotment Program. Water Offset Program for new connections may be increased (1.5:1 or 2:1 offset ratio). Allowable irrigation reduced to three days per week.
Extreme	< 3 years of available water supply (up to 50% water shortage)	City continues to implement a Water Allotment Program with reduced allotment levels. Water Offset Program for new connections may be increased (1.5:1 or 2:1 offset ratio). Allowable irrigation reduced to two days per week with optional additional measures limiting turf and spray irrigation.
Critical	< 2.5 year of available water supply (>50% water shortage)	City continues to implement a Water Allotment Program at further reduced levels (minimum for public health and safety). Irrigation no longer permitted. Water Offset Program to cease and no new connections permitted.

NOTE:
The City's Water Supply Status is informed by the Water Projection Model described in Section 2, Annual Water Shortage Assessment, of this WSCP.

Water Shortage Response Stage: MONITOR

The City of San Luis Obispo has made water conservation an integral part of the community's culture and policy context for managing its water resources. The community has demonstrated a high commitment to reducing its water usage during water shortages. Although not an actual declaration of a water shortage, the Water Shortage Contingency Plan's Monitor Stage remains in place at all times along with voluntary conservation.

This stage is focused on achieving voluntary water savings, as opposed to a mandatory demand reduction programs. To ensure the City is using water responsibly and remaining in compliance with water efficiency goals are regulations, the City continually assesses available water supply levels, monitors customer water demand trends, conducts water loss audits, and evaluates potential supplemental supply projects. The following are examples of demand management measures that may be taken to maintain water use efficiency goals:

1. Implement public outreach and communication programs (bill stuffers, social media, etc.)
2. Participate in trade shows, home shows, and special community events
3. Offer complimentary water audits
4. Identify and notify customers of possible leaks and inefficient uses of water
5. Encourage the use of drip irrigation and drought tolerant plants
6. Implement school (K-12) education programs related to water conservation
7. Enforce the water efficiency retrofit program (toilet retrofit upon sale program)

Actions at the Monitor Stage would also include active enforcement of the City's water waste prohibitions, such as those from Chapter 13.07 of the City's Municipal Code, which defines water waste as follow:

City of San Luis Obispo, Municipal Code

13.07.020 – Water runoff prohibited.

A. No person shall cause any water delivered by the city water system to flow away from property owned, occupied or controlled by such person in any gutter, ditch or in any other manner over the surface of the ground, so as to constitute water waste runoff.

B. "Water waste runoff" means water flowing away from property and which is caused by excessive application(s) of water beyond reasonable or practical flow rates, water volumes or duration of application. (Ord. 1089 § 1 (part), 1987)

Water Shortage Response Stage: WATCH

When the City's available water supply would provide **less than five years** of water, staff could recommend to the City Council that they adopt a resolution declaring a water shortage and to enter the Watch Stage and urge the public to reduce water use by approximately ten percent.

During the Watch Stage, the demand management measures utilized during the Monitor Stage above will increase along with a continued focus on voluntary water use reduction. The City will also increase public outreach, implement system and operational changes, increase enforcement actions and patrols, and undertake other administrative actions. These program expansion and changes may include:

1. Water Demand Reduction Programs:

A. Accelerate water audit programs for all customer classes
B. Identify largest water users in each sector and contact for complementary water audits
C. Increase water waste patrols
D. Conduct water use surveys
E. Implement rebate programs
F. Consider the use of irrigation limitations
G. Host workshops on effective irrigation practices

2. Public Outreach Programs:

A. Issue a press release following Watch Stage declaration
B. Include information in quarterly Resource Newsletter
C. Evaluate outreach effectiveness and expand outreach for non-English languages as needed
D. Update City website and create a page dedicated to information on details of WSCP Watch Stage
E. Use billing inserts to notify public of current situation and needs
F. Coordinate with regional partners on messaging and outreach
G. Increase outreach to Cuesta and Cal Poly students and at public events such as Farmers Market, SLO Home Show, homeowners association board meetings, meetings with hospitality industry, etc.
H. Focus social media platforms on issues consistent with needed demand reductions

3. System and Operational Changes:

A. Cease any short-term water sales.
B. Reduce water usage for water main flushing and hydrant flushing
C. Reduce distribution system pressure where feasible
D. Increase leak detection, water meter testing, and water meter replacement
E. Require use of non-potable water sources for all street sweeping and hydrocleaning
F. Activate the Drought Taskforce

4. Enforcement Actions:

A. **First Violation:** Customer Notification and Education

Staff will notify the customer of the particular violation observed, and the demand reduction programs currently in place. Staff will assist the customer in determining resources necessary to comply with requirements. Examples of notification include: door tags containing educational information, mailed letter, and/or personal phone call by staff.

B. **Second Violation:** Issuance of Notice of Violation

Customer will be issued a written notice of violation (NOV), notifying the customer of specific violation, date and time the violation was observed, and consequences of subsequent violations.

C. **Subsequent Violations:** Customer may be issued a penalty/fine for violation.

5. Other Administrative Actions:

A. Begin drafting ordinance revisions and code changes that would go into effect in subsequent water shortage stages.
B. Plan for the funding and implementation of specific conservation programs launched in subsequent water shortage stages.
C. Review potential fiscal impacts of drought (i.e., increased water supply, operational, and capital costs); and demand reductions (reduced revenue).
D. Identify and plan for the need for additional staff. In planning for additional staff, consideration should be given to funding, available office space, vehicles, training, and other needed supplies and support.
E. Consider need for drought surcharge to stabilize revenue.
F. Consider deferring previously scheduled capital projects as necessary to invest in acquisition of needed water supply sources and demand reductions.
G. Review available supplemental water supply options, such as increased use of groundwater, utilization of potable reuse, and implementation of residential recycled water filling stations for landscape irrigation.

Water Shortage Response Stage: WARNING

When the City's available water supply would provide **less than 4.5 years** of water, staff could recommend to the City Council that they adopt a resolution to enter the Warning Stage and urge the public to reduce water use by an additional 10 percent including mandatory conservation measures.

The water conservation measures described in the Monitor and Watch Stages above may increase during the Warning Stage, with an increased focus on limiting outdoor water uses. System and operational changes would remain in place. These increases and additions to programs may include:

1. Water Demand Reduction Programs:

A. Continue implementation of and possible increase of all demand reduction programs listed in Watch Stage.
B. Limit outdoor watering to between the hours of 7:00 PM and 7:00 AM.
C. Require restaurants to only serve water upon request.
D. Restrict use of decorative water features and fountains.

2. Public Outreach Programs:

A. Continue implementation of and possible increase of all public outreach programs listed in Watch Stage.
B. Issue a press release following Warning Stage declaration.
C. Target outreach to customers with large landscapes regarding irrigation restrictions.
D. Use of billing inserts, social media, postcards, and direct mail pieces to inform customers of new requirements and prohibitions.
E. Coordinate with local business groups such as the Chamber of Commerce and landscaping associations to help encourage conservation among commercial customers.
F. Coordinate with homeowners associations, property rental agencies, and other local groups to help encourage conservation among residential customers.

3. Enforcement Actions (Same as previous stage)

4. Other Administrative Actions:

A. Continue implementation of and possible increase of all other administrative actions listed in Watch Stage.
B. Begin preparing for the Alert Stage.

5. Optional Implementation of a Water Demand Offset Program:

During the Warning Stage, staff will begin updating the Water Demand Offset Program and messaging about the program to the development community. The City may consider implementing a water demand offset program during this stage. Water demand offset programs are designed to require new development that causes increased water demand to offset such demand through conservation or acquisition/development of new water supplies. The goal of an offset program is to ensure that new development does not increase current water demands. It should be noted that offset programs simply expedite water efficiency measures and thus create water savings in the short term. Depending on the nature of the offset, long-term savings may not be realized.

At the Warning Stage the City may choose to implement a "net neutral" offset program, requiring that new demands offset usage at a rate of 1:1. Future stages of the WSCP may suggest a more aggressive, "net positive" water demand offset program. A "net positive" water demand offset program would require a positive offset of a project's water demand. An example of this would be a project required to offset its water demand at a ratio higher than 1:1, such as 2:1 or 3:1.

There are several types of offset programs in use across California and the United States. Examples of potential offset programs are listed below.

A. Toilet replacements
B. Smart irrigation controllers
C. Submetering
D. In-lieu fees (fees are used to support new water supply projects)
E. Irrigation system retrofits
F. Waterless urinals
G. Rainwater capture
H. Recycled Water Retrofit Projects

Water Shortage Response Stage: ALERT

When the City's available water supply would provide less than four years of water, staff could recommend to the City Council that they adopt a resolution to enter the Alert Stage and urge the public to reduce water use by an additional 10 percent including mandatory conservation measures.

The water conservation measures described in the stages above may increase during the Alert Stage, with an increased focus on limiting outdoor water uses. System and operational changes would remain in place. These increases and additions to programs may include:

1. Water Demand Reduction Programs:

A. Limit outdoor watering to **four days a week** and only between the hours of 7:00 PM and 7:00 AM.
B. Defer landscape installations for new development or require development to install landscaping that provides a 50 percent reduction in Maximum Applied Water Allowance (MAWA). This would not apply to sites irrigated with recycled water.

2. Public Outreach Programs:

A. Continue implementation of and possible increase of all public outreach programs listed in previous stages.
B. Issue a press release following Alert Stage declaration
C. Utilize water use allocation software to identify inefficient water users and make direct contact with these properties.

3. Enforcement Actions (Same as previous stage)

4. Other Administrative Actions:

A. Continue implementation of and possible increase of all other administrative actions listed in prior stages.
B. Prepare utility billing system and bill format for water allocations and reductions listed in subsequent stages.
C. Establish appeals committee for customers who exceed allotments in subsequent stages, request health and safety variances, or receive fines from violating water waste prohibitions.
D. Increase utility billing training and support to address additional requirements of future stages.
E. Begin preparing for Severe Stage.

Implementation of a Water Demand Offset Program:

At the Alert Stage the City may implement a "net neutral" offset program or increase a previously approved program to a "net positive" program (ex: 1.5:1 or 2:1 offset ratio). Future stages of the WSCP may suggest a more aggressive, "net positive" water demand offset program.

Water Shortage Response Stage: SEVERE

When the City's available water supply would provide **less than 3.5 years** of water, staff could recommend to the City Council that they adopt a resolution to enter the Severe Stage and urge the public to reduce water use by an additional approximately 10 percent.

At this water shortage response stage, the City would continue implementation of demand reduction measures, public outreach, enforcement, and other responses and programs described in prior stages. System and operational changes would remain in place. At the Severe Stage, a water offset program may increase to a "net positive" program, such as 1.5:1 or 2:1 ratio.

Previous Water Demand Reduction Programs should be increased to include:

- Limit outdoor watering to **three days a week** and only between the hours of 7:00 PM and 7:00 AM.

During the Severe, Extreme, and Critical stages of the WSCP the City may adopt a Water Allotment Program, restricting the water use on an account-by-account basis. The following allotment method may be used:

Customer Classification	Severe Stage Allotment
Single-family Residential and Multi-family Residential	A per capita allotment allowing for indoor use and a minimal outdoor irrigation budget. Verification of persons per household may be requested
Commercial and Institutional	Baseline allocation or allocation based on percent reduction from normal usage
Landscape Meters	Allocation based on percent reduction from normal usage

Water Shortage Response Stage: EXTREME

When the City's available water supply would provide **less than three years** of water, staff could recommend to the City Council that they adopt a resolution to enter the Extreme Stage and urge the public to reduce water use by an additional 10 percent.

At this water shortage response stage, the City would continue implementation of demand reduction measures, public outreach, enforcement, and other responses and programs described in prior stages. System and operational changes would remain in place. At the Severe Stage, a water offset program may increase to a "net positive" program, such as 1.5:1 or 2:1 ratio.

Previous Water Demand Reduction Programs should be increased to include:

- Limit outdoor watering to **two days a week** and only between the hours of 7:00 PM and 7:00 AM.
- Optional implementation of additional restrictions on turf and/or spray irrigation.

Customer Classification	Extreme Stage Allotment
Single-family Residential and Multi-family Residential	A per capita allotment allowing for indoor use and a reduced outdoor irrigation budget versus the Severe Stage. Verification of persons per household may be requested
Commercial and Institutional	Reduced baseline allocation or allocation based on percent reduction from normal usage
Landscape Meters	Reduced allocation based on percent reduction from normal usage

At this stage, due to the limited water supplies that remain, the City could consider removal of the "courtesy notification."

Water Shortage Response Stage: CRITICAL

When the City's available water supply would provide **less than 2.5 years of** water, staff could recommend to the City Council that they adopt a resolution to enter the Critical Stage and urge the public to reduce water use by an additional approximately 10 percent.

At this water shortage response stage, the City would continue implementation of demand reduction measures, public outreach, enforcement, and other responses and programs described in prior stages. System and operational changes would remain in place. Due to the limited water supplies that remain, the City would consider the cessation of new connections to the City's water system.

Previous Water Demand Reduction Programs should be increased to include:

- Cessation of irrigation for all customers, minus specific exemptions.

Customer Classification	Critical Stage Allotment
Single-family Residential and Multi-family Residential	A per capita allotment allowing for indoor water use. Irrigation not permitted. Verification of persons per household may be requested
Commercial and Institutional	Reduced baseline allocation or allocation based on percent reduction from normal usage. Irrigation not permitted.
Landscape Meters	Not permitted.

5. AERIAL IMAGERY BASED WATER BUDGETS

In 2021, the City is investigating the use of software that would allow for aerial imagery to be used to establish parcel-by-parcel water budgets during the Severe, Extreme, and Critical stages of the WSCP. This software utilizes aerial imagery to identify the irrigated, irrigable, and non-irrigable square footage of every parcel within the City's water service area. These measurements can then be used to establish an outdoor irrigation budget for each property. If the City invests in this technology, day per week irrigation restrictions outlined in the WSCP may be replaced by property-specific outdoor irrigation efficiency goals, requiring that property owners meet increasing efficiency measures at progressive stages of the WSCP. Additionally, many of these aerial imagery software packages allow for indoor water use budgets to be established, generally based on the number of residents living within a home, much like the City's water allocation program identified within the WSCP. The use of this technology in establishing water budgets would require an update to the City's WSCP prior to implementation.

6. EXEMPTIONS AND APPEALS

As the community was impacted by the 2011-2015 drought and irrigation restrictions were put into place, community members advocated for certain exemptions related to water use restrictions. The following series of exemptions will help ensure the health and well-being of the community while not making a substantial impact on available water supplies[1] .

Sites using Recycled Water for Irrigation
Sites utilizing recycled water are exempt from irrigation restrictions due to their reliance on recycled water in place of potable water. These sites include major City parks, such as Damon Garcia Park, French Park, Islay Park, Laguna Lake Park, Laguna Hills Park, De Vaul Park, the Laguna Lake Golf Course, and Laguna Middle School, as well as many multifamily and commercial properties.

Irrigation Exceptions at Specific Facilities
During the recent drought City staff and community members provided feedback that City parks with inadequate irrigation allotments could lead to hazardous conditions at recreation and play environments. To address these concerns, and to provide communal spaces for recreation during times when many homes allowed landscapes to die, in 2016 the City Council approved an amendment to Chapter 13.07.030 of the Municipal Code, allowing for daily irrigation at designated City facilities during turf renovation, and three times per week thereafter. This exemption is recommended to be expanded to include schools within the City's boundaries as they are used for recreation in a similar manner to City parks. This exemption would only go into place in stages of the WSCP requiring irrigation restrictions.

Irrigation of Trees
During the 2011-2015 drought, the City heard from many residents who opted to cease irrigation of their trees in order to reduce their water demand. Unlike turf, shrubs, and other groundcover, trees take a great amount of time to grow and provide substantial ecological, environmental, practical, and economic value to the community. An exemption to irrigation restrictions allowing for the use of a hose and shutoff nozzle to hand water trees will allow the community to preserve this precious multi-benefit resource.

Hospitals, Healthcare Facilities, and other Specific Business Types
Hospitals, healthcare facilities, and other businesses requiring water for the health and safety of at-risk people may apply for an exemption on a case by case-basis. This exemption may be granted at the discretion of the Utilities Director or his/her/their designee.

Appeals
Appeals related to water use restrictions within the WSCP and associated penalties may be appealed to the Utilities Director or his/her/their designee.

[1] The City does not supply potable water to separately metered water features, such as ponds, lakes, waterfalls, and fountains.

7. REVENUE AND EXPENDITURE IMPACTS

During a water shortage, revenues from water sales can be reduced but the City's operations and maintenance costs would not reduce accordingly. In fact, during these periods, the City's operational and staffing budgets can increase due to the implementation of water demand reduction measures, public outreach, increased enforcement, groundwater exploration, and other actions taken by the City during the shortage. The reduction in revenues resulting from decreased water use may also result in the need to raise water rates during that period.

Under the City's existing water rate structure (updated in 2018), water rates include both a base fee and volumetric charge based on customer usage and resulting demand on the water system. To minimize the need to raise rates during water shortages, the City has a policy that requires a minimum reserve of twenty percent of the Water Fund's operating budget. The City also maintains a rate stabilization fund which is ten percent of rate revenue. This rate stabilization fund is designed to help stabilize rate increases and could be used to achieve this purpose of costs went up during a water shortage.

City staff provides ongoing tracking of revenues and evaluates the potential impacts associated with changes in water demand assumptions used in the Water Fund Analysis. The City Council considers the water rates necessary to provide water service to the community on an annual basis and must approve water rate increases in order for them to become effective.

In addition to securing water supplies, Water Fund revenue supports ongoing maintenance and operating programs needed to ensure that the water treatment and delivery systems meet all federal and state water treatment regulations and are operated and maintained to provide safe and reliable service.

During the 2012-2015 drought, the City utilized a drought surcharge to help with revenue shortfalls that occurred due to the State of California's mandatory conservation measures. This drought surcharge was subject to Proposition 218 and expired upon the end of the State of Emergency related to the drought. The adoption of a temporary drought surcharge remains an option for meeting future drought-related revenue shortfalls.

8. MONITORING, REPORTING, AND REFINEMENT PROCEDURES

The City reads water meters monthly to ensure water consumption data is collected for tracking, analysis, and to meet state reporting requirements. Monitoring and reporting key water use metrics is fundamental to water supply planning and management. Monitoring is also essential to ensure that the response actions are achieving their intended water use reduction purposes, or if new actions need to be considered. Compliance tracking is also necessary for an effective enforcement program.

To evaluate the functionality of the WSCP and ensure strategies are effective, staff will monitor community response to water demand reduction measures, public outreach, enforcement, and other administrative actions at each water shortage response stage. This will include review of monthly water consumption data for each customer class and monitoring associated revenue and expenditure impacts. Staff will make recommendations on program refinements to the City Council with water shortage stage progression.

9. CATASTROPHIC WATER SUPPLY INTERRUPTION

The City's Local Hazard Mitigation Plan (LHMP) was completed in 2019 as part of a countywide effort. The LHMP was adopted by the City Council in 2020. This work included risk assessment related to seismic risk (earthquakes, faults, and liquefaction). The LHMP will be submitted with the 2020 UWMP to satisfy the requirements of CWC Section 10632.5.

The City has an Emergency Response Plan (ERP) to cover a variety of potential disasters including earthquakes, floods, wildland fires, etc. The ERP identifies resources available to the City from other agencies or private companies in the area. Additionally, the City of Morro Bay and the Whale Rock Commission (of which the City of San Luis Obispo is a member) executed an agreement in June of 2000 which provides for Mutual Aid between the agencies during disruption of water deliveries or lack of available water supplies. The agreement provides a general framework for exchanging water between agencies in the event of emergencies or other water disruptions. The agreement is voluntary based on each agency's ability to assist at any point in the future.

In relation to providing water service, the City would utilize both on-site and portable generators to minimize water disruptions during an extended power outage. These generators are available to the City at any time and actively maintained to ensure they are functioning adequately.

The City is a member of the Water Agency Response Network (WARN). WARN is a statewide organization of water agencies and companies that have entered into a mutual aid agreement to assist other water agencies during emergencies or other water related situations. The agreement provides the framework for providing assistance and provides a key contact to initiate a multiple agency response to a water emergency situation.

10. REQUIRED STANDARDIZED TABLES

Water Shortage Contingency Plan Levels		
Shortage Level	**Percentage Shortage Range**	**Shortage Response Actions**
1	Up to 10%	City increases programs that encourage voluntary water conservation including public outreach, rebate programs, and water efficient fixture giveaways. City examines available alternative water sources (groundwater expansion, recycled water filling stations, water purchase agreements, etc.), City modifies internal operations to focus on decreasing water loss and prepares for subsequent WSCP stages. City ceases any outside-City water sales/leases.
2	Up to 20%	City implements time of use irrigation restrictions (7:00 PM – 7:00 AM). City increases staffing, budget, and outreach to achieve additional voluntary conservation savings while preparing for Alert-Critical stages (Stages 3-6).
3	Up to 30%	City requires mandatory conservation measures including outdoor irrigation restrictions (four day a week watering) and considers a Water Offset Program for new connections.
4	Up to 40%	City implements Water Allotment Program. Water Offset Program for new connections may be increased (1.5:1 or 2:1 offset ratio). Allowable irrigation reduced to three days per week.
5	Up to 50%	City continues to implement a Water Allotment Program with reduced allotment levels. Water Offset Program for new connections may be increased (1.5:1 or 2:1 offset ratio). Allowable irrigation reduced to two days per week with optional additional measures limiting turf and spray irrigation.
6	>50%	City continues to implement a Water Allotment Program at further reduced levels (minimum for public health and safety). Irrigation no longer permitted. Water Offset Program to cease and no new connections permitted.

Council Agenda Report

Department Name: Utilities
Cost Center: 6001
For Agenda of: April 13, 2021
Placement: Study Session
Estimated Time: 45 Minutes

FROM: Aaron Floyd, Utilities Director
Prepared By: Mychal Boerman, Deputy Director - Water
Nick Teague, Water Resources Program Manager
Jennifer Metz, Utilities Projects Manager

SUBJECT: 2020 URBAN WATER MANAGEMENT PLAN AND WATER SHORTAGE CONTINGENCY PLAN

RECOMMENDATION

1. Receive a presentation on the 2020 Urban Water Management Plan and Water Shortage Contingency Plan; and
2. Provide comments and direction to guide final Water Shortage Contingency Plan development.

REPORT-IN-BRIEF

As an urban water supplier serving more than 3,000 water service connections, the City is required to adopt and submit to the state Department of Water Resources (DWR) an Urban Water Management Plan (UWMP) every five years. The City Council adopted the 2015 UWMP on June 14, 2016 and is scheduled to consider the 2020 UWMP for adoption on June 15, 2021.

In this Study Session, staff will present 2020 UWMP and Water Shortage Contingency Plan (WSCP) requirements, including a new requirement for a six-stage WSCP. Focus areas for City Council discussion include water shortage management actions by stage, enforcement actions, exemptions, and requirements for new development.

DISCUSSION

Current City Water Supply Status

With the recent rains, the City has over 17,000 acre-feet of water in storage at Salinas Reservoir and its proportional share of Whale Rock Reservoir is 15,553 acre-feet. The City has also requested its full contractual allocation of 5,482 acre-feet of water from Nacimiento Reservoir for 2021. Although the region has seen below average rainfall recently, the City has a diverse and reliable water supply with more than ten years of water available under today's water supply and demand conditions.

Table 1 - Reservoir Storage

Reservoir	Current Volume (Acre-Feet)	Percent of Capacity
Salinas	17,285	72.5%
Whale Rock	30,450	78.5%
Nacimiento	154,400	40.9%

NOTES: Reservoir volumes are as of 3/14/2021.

Background

The California Urban Water Management Planning Act is a part of California Water Code sections §10610-10656 and §10608 and requires urban water suppliers to adopt and submit an updated plan to DWR every five years. Urban water suppliers are defined as agencies that provide water for municipal purposes to more than 3,000 customers or supply more than 3,000 acre-feet of water annually (the City meets both criteria).

The City adopted its first UWMP in November 1994 and updated the UWMP in 2000, 2005, 2010, and 2016.[1] The City Council adopted the 2015 UWMP by Resolution 10726 (Attachment A) on June 14, 2016. By adopting a technically compliant UWMP, the City remains eligible for State grants, low interest loans, and other assistance.

2020 UWMP Requirements

State legislation adopted in 2018 established new requirements for 2020 UWMPs, including standardized requirements for water shortage contingency planning and drought risk assessments. Under the State requirements, water suppliers must now plan for a dry period that lasts for five consecutive years, an increase from the previous requirement of three years. Other required elements of UWMPs include:

1. Assessment of the reliability of water supply sources over a 20-year time frame
2. A description of demand management measures, also known as conservation measures
3. A discussion of local water supplies, with a long-term forecast for each source, including climate change
4. Demonstrated compliance with - Senate Bill X7-7 2020[2]
5. A lay person's description of water reliability
6. Incorporation of projected land use changes in demand forecasting
7. Seismic risk assessment and mitigation
8. A water energy analysis
9. Water savings from codes/standards/etc.
10. Five previous years of system water losses

The California Water Code requires that 2020 UWMPs are consistent with Groundwater Sustainability Plans (GSP) in areas where those plans have been completed. As the City's Groundwater Sustainability Plan is not scheduled to be complete until 2022, and the City does not depend on groundwater at this time, staff plans to include a schedule for GSP completion within the 2020 UWMP, as well as the link to the City's SGMA website.

Projecting Water Demand

To comply with State requirements, the City's 2020 UWMP will look ahead twenty years to project water demand through 2040. As this period extends beyond the 2035 horizon of the City's General Plan, staff will use population projections from the City's Land Use Element of 57,200 persons in 2035 and assume a one percent population growth annually for five years to 2040. This projection yields a future population of 60,118 in 2040.

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[1] For the 2015 UWMP, the state legislature extended the filing deadline to July 1, 2016.

[2] Senate Bill X7-7 is a California state law that requires the state to reduce urban water consumption by 20 percent by the year 2020.

Consideration of Climate Change
To comply with State requirements, the 2020 UWMP must consider climate change as it relates to water use, water supply, resiliency, and drought risk. The City is well positioned to meet these requirements by utilizing prior work efforts. The City first declared Climate Action a Major City Goal during its 2017-19 Financial Plan.

On May 15, 2018, the City Council adopted Resolution 10893 amending the General Plan WWME to reflect a 2,030-acre-foot per year reduction in available City water supply. The amendment was a result of the 2018 update to the City's safe annual yield computer model for Whale Rock and Salinas Reservoirs which updated the model with climatic data from the drought that ended in 2016 and local impacts of climate change[3], consistent with WWME program A 3.3.2[4] and program A 3.3.3[5].

Although this was a significant reduction in safe annual yield, the City has a multi-source water supply capable of meeting the City's future water demand (primary water supply and reliability reserve) under the City's General Plan. This analysis will be reflected in the 2020 UWMP as it relates to climate change.

Water Shortage Contingency Plan (WSCP)
As part of the 2015 UWMP, the City modified its WSCP (Attachment B) which had not been updated since 2000. The existing WSCP includes a monitoring stage and a five-staged demand management response with each stage requiring more stringent Water Shortage Response Actions (i.e., escalating water demand reductions). While the City's WSCP is an important tool to help plan for period of drought or loss of supply, it provides the flexibility for Council to take the appropriate type and level of action needed in relation to the specifics of any type of water shortage.

It is anticipated that as conservation programs mature, sources of supply are expanded, and the community is engaged regarding drought, the WSCP will provide guidance on how to appropriately respond to a water shortage. A specific scenario may require a mix of actions contained within the plan or actions not considered within this plan.

The WSCP describes the City's use of a water projection model to test both hypothetical and actual water demand scenarios, to analyze current water storage at each reservoir, and to predict how long the water supplies are available. The model accounts for the storage in the three reservoirs, in conjunction with other available resources, needed to meet the City's water demand. The model uses historical hydrologic information based on the worst drought period (2012 to 2014).

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[3] The City analyzed three climate change scenarios as part of the 2018 update to the safe annual yield model by the U.S. Environmental Protection Agency, San Luis Obispo Council of Governments, and Nature Communications. Each climate projection was applied to the historical dataset for Whale Rock and Salinas reservoir's inflow, precipitation, and evaporation. The City's 2018 model was then used to calculate a revised safe annual yield assuming these conditions had prevailed during the historical period of record.

[4] WWME program A 3.3.2 states *"The City will update the safe annual yield computer model for Salinas and Whale Rock Reservoirs following severe drought periods to determine if any changes are necessary to the safe annual yield amount."*

[5] WWME program A 3.3.3 states *"The City will monitor ongoing research on the potential for long-term impacts associated with climate change to water supply resources."*

The Water Code now includes standardized requirements for the 2020 WSCP including the following:

1. A Water Supply Reliability Analysis
2. Annual Water Supply and Demand Assessment Procedures
3. Six Standard Water Shortage Stages[6]
4. Shortage Response Actions
5. Communication Protocols
6. Legal Authority, Compliance, and Enforcement
7. Financial Consequences of WSCP
8. Monitoring and Reporting
9. WSCP Update Procedures
10. Special Water Feature Distinction
11. Plan Adoption, Submittal, and Availability

The City's existing WSCP will need to be modified to comply with the 2020 requirements. As shown in Table 3, staff proposes the addition of an Alert stage and the alignment with State required reduction stages.

Table 2 - Proposed WSCP Stages in Alignment with State Requirements

WSCP Stages from 2015 UWMP	Proposed WSCP Stages	State Required WSCP Stages (% Reduction in available water supply)	Available City Water Supplies
Monitor (5+ Years)	Monitor	-	> 5 years of water supply remains
Watch (< 5 Years)	Watch	10%	5 years or less[7]
Warning (< 4 Years)	Warning	20%	4.5 years or less
Severe (< 3 Years)	**Proposed Stage** Alert	30%	4 years or less
Extreme (< 2 Year)	Severe	40%	3.5 years or less
Critical (< 1 Year)	Extreme	50%	3 years or less
	Critical	>50%	2.5 years or less

FOCUS AREAS FOR COUNCIL DISCUSSION

Although many of the legal mandates found in the UWMP and WSCP are highly prescriptive in nature, the City has control over many elements of the two plans. Below are suggested focus areas for City Council discussion at the Study Session.

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[6] Like in the 2015 UWMP, the City's Monitor Stage is in place at all times to continue to monitor the City's compliance with water conservation mandates and goals.

[7] General Plan, Water and Wastewater Management Element, Policy A 6.3.2 related to Short-term Water Shortages states that *"Mandatory water conservation measures as described in the City's Water Shortage Contingency Plan, included in the City's Urban Water Management Plan, may be implemented when the City's water supplies are projected to last five years or less."*

Equitable Water Shortage Management Actions
When the City has less than five years of water available the WSCP requires Water Shortage Management Actions (Management Actions) that increasingly reduce the community's water demand as water supplies are further stressed. Management Actions can also include bringing new water supplies online such as an expansion of the City's groundwater pumping program or recycled water system expansion. The City has focused on Management Actions that are equitable between residential and non-residential customer classes while ensuring that new development being considered during drought periods does not further reduce the City's available water supplies. A comprehensive list of Management Actions, as well as additional details about the proposed Water Shortage Contingency Plan, can be found in (Attachment C).

During the "Watch" and "Warning" stages, which occur when less than five and less than four and one-half years of water supplies remain, the City focuses efforts on increased public outreach and water conservation messaging to the community. Concurrently, the City implements internal measures to ensure adequate staffing levels, budgets, rates, and work programs are in place leading into the next four stages. The main differentiation between the "Watch" and "Warning" stages is the implementation of time of use irrigation restrictions (No irrigation between 7:00 AM and 7:00 PM) and the option to begin the Water Demand Offset Program (Offset Program) within the "Warning" stage. The Offset Program requires development projects that have not yet been through the entitlement process to offset their water demand prior to connecting to the City's water system. More detail on the Offset Program can be found within the "New Development" focus item below.

The "Alert" stage, which is designated when the City has less than four years of available water supply, provides additional irrigation restrictions. Specifically, this stage limits outdoor irrigation to four days per week and requires new development that has not been through the entitlement process to either defer landscape installations or to install landscaping that provides a 50 percent or greater reduction in Maximum Applied Water Allowance (MAWA). This stage also includes large public outreach efforts to the community as staff prepare for more restrictive measures in the final three stages.

The "Severe" stage occurs when the City's available water supplies provide less than three and one-half years of water to the community. During this stage, major changes include a reduction in allowable watering days from four days per week to three days per week, the option for Council to require a more stringent Offset Program (1.5:1 or 2:1 offset ratio), and the initiation of the City's Water Allotment Program. The Water Allotment Program sets a maximum water use for each residential property based on the number of residents living in that home and allows businesses to reduce water use by a percentage based on their business category or to a "baseline consumption". The intent of the initial stage of the Water Allotment Program is to restrict the water use of the City's most inefficient water users. It is important to understand that this program does not give a larger volume of water to properties with larger yards or more irrigation but rather ties the allotment to the number of people living within the home.

The "Extreme" stage occurs when the City has less than three years of water supply available. Notable actions in this stage include a reduction in allowable watering days from three days a week to two days a week and a smaller per-person water allotment. A reduced per-person water allotment would be based upon already achieved demand reduction and specific rainfall forecasts and time of year.
The final stage of the WSCP, the "Critical Stage" occurs when the City has two and one-half years or less of available water supply. Notable actions within this stage include the option to cease outdoor irrigation and prohibit new connections to the City's water system, as well as a reduction in the City's Water Allotment Program, allowing each residential property the minimum amount of water to ensure the health and safety of the occupants.

Community Priorities and Water Shortage Action Exemptions
As the community was impacted by the 2011-2015 drought and irrigation restrictions were put into place, community members advocated for certain exemptions related to water use restrictions. Staff believes that a series of minor exemptions will help ensure the health and well-being of the community while not making a substantial impact on available water supplies. Staff supports the following water use restriction exemptions and variances:

Sites Using Recycled Water
Per the existing WSCP, sites utilizing recycled water are exempt from irrigation restrictions. These sites include major City parks, such as Damon Garcia Park, French Park, Islay Park, Laguna Lake Park, Laguna Hills Park, De Vaul Park, the Laguna Lake Golf Course, and Laguna Middle School, as well as many multifamily and commercial properties. It is important to acknowledge that all of the City's recycled water customers are located on the southern side of the City due to delivery limitations of the City's recycled water system, thus not providing equal opportunities for safe play and recreation across the community.

Irrigation Exceptions at Specific Facilities
During the most recent drought, Public Works Parks Maintenance staff and community members provided feedback that City parks with inadequate irrigation allotments could lead to hazardous conditions at recreation and play environments. To address these concerns, and to provide communal spaces for recreation during times when many homes allowed landscapes to die, in 2016 the City Council approved an amendment to Chapter 13.07.030 of the Municipal Code, allowing for daily irrigation at designated City facilities during turf renovation, and three times per week thereafter (Attachment D). Staff recommends that this exemption be expanded to include schools within the City's boundaries as they are used for recreation in a similar manner to City parks, specifically during school hours. As proposed, this exemption would only go into place in the stages of the WSCP when irrigation days are restricted. It is anticipated that this exemption would constitute a net increase of under 75 acre-feet per year versus no exemption. This constitutes approximately 1.5 percent of the City's total water use.

Irrigation of Trees
During the 2011-2015 drought, the City heard from many customers who opted to cease irrigation of their trees to reduce their water demand. Unlike turf, shrubs, and other groundcover, trees take a great amount of time to grow and provide substantial ecological, environmental, practical, and economic value to the community. Staff recommends an exemption to irrigation restrictions to allow for the use of a hose and shutoff nozzle to hand water trees.

Hospitals, Healthcare Facilities, and other Specific Business Types
Staff proposes that hospitals, healthcare facilities, and other businesses requiring water for the health and safety of at-risk people may apply for an exemption or allocation adjustment for indoor water use on a case-by-case basis. This exemption may be granted at the discretion of the Utilities Department Director or his/her/their designee.

New Development
The City utilized water demand offset programs in the past to continue to permit new development during periods of restricted water availability. Water offset programs require new development to conduct water savings projects within the City in order to offset the new demand that is created by the project. An example of a highly successful water offset program was the toilet retrofit offset program implemented by the City in the 1990s. As a result of this highly successful program, most toilets in the City today meet low-flow requirements, thus limiting the potential of future toilet retrofit offset programs.

While water offsets are identified in the City's existing WSCP, staff is proposing an offset program that begins as a "net neutral" water savings program in which new water demand must be offset at a 1:1 ratio. During later stages of the WSCP staff recommends that the City Council retain the ability to require a 1.5:1 and 2:1 "net benefit" water offset ratio. Examples of water offsets include an in-lieu fee to support the City's water supply expansion projects, indoor water fixture replacements, and turf replacements. During the Critical stage of the WSCP, staff recommends that no new connections to the City's water system be permitted since water offsets do not technically create more water, they simply expedite water supply and water conservation programs, essentially making them happen sooner. The City must meet Water Code Section 350 and Government Code Section 65858 requirements to trigger a cessation in new connections, otherwise commonly referred to as a "building moratorium". While legally complex, for a building moratorium to be legally sound, specific findings must be made to demonstrate a "current and immediate threat to the public health, safety, or welfare, and that the approval of additional subdivisions, use permits, variances, building permits, or any other applicable entitlement for use which is required in order to comply with a zoning ordinance would result in that threat to public health, safety, or welfare."

Outreach to the Community
Communication on water resources remains important both during times of adequate water availability and during water shortages. The community will benefit equally during robust water supply periods, and any possible water shortage periods that may be experienced. Broadened communication will be accomplished through expanded public outreach programs aimed at educating and informing the public about the City's water supplies and water resource availability, planning and housing policies, and water resource and infrastructure resiliency.

Methods staff utilize for public outreach include use of the City's website and social media platforms, attendance at community events such as Farmers' Market, the SLO Home Exposition, the Disaster Preparedness Exposition, and Earth Day, and in-person meetings with community members to help them meet their water conservation goals. Additionally, staff will include regular outreach on video and audio streaming services, television, radio, and through other paid advertising and direct mail pieces such as the Resource Newsletter.

When entering periods of drought or water shortage, one of the most essential roles the City plays is to ensure that the community has an overall awareness of the current situation and the need for voluntary conservation measures in order to avoid more strict mandatory measures. During a water shortage, defined as the City having less than five years of water available, the City would expand its existing outreach program and more directly focus this outreach on customer classes and water users with the largest potential for water savings. Increased outreach is a time intensive activity and would require additional funding associated with this expanded work effort.

Examples of the type of measures the City would take to increase outreach to the community include but are not limited to the following:

- Increased presence at public events (Home Expo, Farmers Market, Earth Day, etc.)
- Increased direct contact with residential advocacy groups, business advocacy groups, and irrigation industry groups
- Increased use of printed advertising such as newspapers, billing inserts, direct mail
- Use of radio and digital audio streaming service advertising (Spotify/Pandora)
- TV and digital video streaming advertising (YouTube)
- Use of visual cues such as banners, flyers, and signs in public spaces such as parks and City offices

Enforcement Actions

Utilities Department staff is seldom required to assess financial penalties to customers who are in violation of the City's Municipal Code as most violations are not intentional and are easily resolved. However, as the City learned in the 2011-2015 drought, more stringent restrictions can result in customers choosing to not follow the City's more restrictive demand reduction measures during a water shortage, especially in the stages that require significant reductions in outdoor irrigation.

The current process for reaching out to customers who are in violation is as follows:

First Violation (Courtesy Notification): Customer receives a "courtesy notification" by staff regarding the violation that was observed, and the Water Shortage Response Actions currently in place. The customer is provided with educational material and resources to help them comply with the requirements, if possible. Examples of a "courtesy notification" include door tags containing educational information, educational pamphlets, mailed letters, and/or a phone call by staff.

Second Violation (Issuance of Notice of Violation): Customer is issued a written notice of violation (NOV), which describes the specific violation, date, and time the violation was observed, and consequences of subsequent violations.
Subsequent Violations (Penalty/Fine): Customer may be issued a penalty/fine for violation in accordance with the City's Municipal Code.

As water supply declines and the community has more opportunity to understand and implement new restrictions, staff recommends a penalty structure in which penalties for violations double within the final two WSCP stages. Staff also recommends ceasing the use of a "Courtesy Notification" during the final two WSCP stages.

Policy Context
The City's General Plan Water and Wastewater Management Element Program A 5.3.3 requires the City to *"Prepare and update the Urban Water Management Plan every five years as required by the State."*

The requirements for UWMPs are found in two sections of California Water Code, §10610-10656 and §10608, which are available at the links below:

https://leginfo.legislature.ca.gov/faces/codes_displayexpandedbranch.xhtml?lawCode=WAT&division=6.&title=&part=2.6.&chapter=1.&article=&goUp=Y

https://leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?sectionNum=10608.&lawCode=WAT

The 2020 UWMP and WSCP are consistent with the City's Charter and General Plan. Added in 1996, Section 909 ("Use of Reliability Reserve") of the City's Charter states:

> *As identified in the Water Management Element of the General Plan, the City shall strive to acquire additional water supplies as a "reliability reserve" to protect the City from future water shortages. Once the City has acquired a portion or all of the reliability reserve, the additional water supply shall only be used to meet City needs during unpredictable changes such as a new worst-case drought, loss of one of the City's water sources, contamination of a source, or failure of a new source to provide projected yield, and not to allow additional development.*

The City's General Plan, Water and Wastewater Management Element, Policy A 5.2.3 provides the methodology for determining the City's reliability reserve. The policy states *"The City will establish a reliability reserve that is 20-percent of the water use rate established in Policy A 5.2.1*[8] *multiplied by the current population. The water supply designated as the reliability reserve may not be used to serve future development."*

[8] General Plan, Water and Wastewater Management Element, Policy A 5.2.1 states *"The City will utilize the per capita water use rate allowed by Senate Bill X7-7 for projecting future potable water demand established as 117 gallons per capita per day."*

Previous Council Action
On June 14, 2016, Council adopted the City's 2015 UWMP by Resolution 10726 (Attachment B).

Public Engagement
The City's water planning documents including the 2015 Urban Water Management Plan, 2020 Water Resources Status Report, and General Plan Water and Wastewater Management Element are provided on the Utilities Department webpage, under Documents and Files, at the link below:

https://www.slocity.org/government/department-directory/utilities-department/documents-and-files

This study session intends to serve as an opportunity to receive feedback from the City Council and the community regarding the UWMP and WSCP. The Utilities Department will place a link to the draft WSCP and study session material on its website once the agenda material is made publicly available. A complete draft of the City's 2020 UWMP is expected to be released in early June 2021. The City Council is expected to consider adoption of the final plan in June 2021. The 2020 plans must be submitted to the state by July 1, 2021.

CONCURRENCES

Utilities staff have worked with Community Development, Parks and Recreation, and Public Works Department staff on aspects of the 2020 UWMP and WSCP. Those staff concur with the approach described in this report.

ENVIRONMENTAL REVIEW

No environmental review is required for this study session. Per California Water Code §10652, urban water management planning is statutorily exempt from the California Environmental Quality Act (CEQA).

FISCAL IMPACT

Budgeted: Yes Budget Year: 2020-21
Funding Identified: Yes

Fiscal Analysis:

There is no fiscal impact associated with Council participation in this study session. Budget for the preparation of the UWMP is funded by the Water Fund and, similar to the City's prior UWMPs, the 2020 UWMP is being prepared by in-house Utilities Department staff.

Funding for the on-going implementation of the UWMP was approved as part of the 2019-2021 Financial Plan in the Water Fund, Water Administration and Water Resource Program section operating budgets. Any project or program that would stem from the information contained in the City's 2020 UWMP would be brought back to the City Council for approval as appropriate.

ALTERNATIVES

Council could provide feedback in areas other than the focus areas listed above.

Attachments:

a - Resolution No. 10726 (2016 Series) - Approving the 2015 Urban Water Management Plan

b - 2015 Urban Water Management Plan - Water Shortage Contingency Plan

c - 2020 Water Shortage Contingency Plan

d - COUNCIL READING FILE - Council Agenda Report dated 11/15/2016 amending Municipal Code 13.07.030

RESOLUTION NO. 10726 (2016 Series)

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF SAN LUIS OBISPO, CALIFORNIA, ADOPTING THE REVISED URBAN WATER MANAGEMENT PLAN

WHEREAS, the California Legislature enacted Assembly Bill 797 during the 1983-1984 Regular Session, and as amended subsequently, which mandates that every supplier providing water for municipal purposes to more than 3,000 customers or supplying more than 3,000 acre feet of water annually, prepare an Urban Water Management Plan (the "Plan"); and

WHEREAS, the City is an urban supplier of water providing water to approximately 15,000 customers; and

WHEREAS, the Plan shall be periodically reviewed at least once every five years, and that the City shall make any amendments or changes to its plan which are indicated by the review; and

WHEREAS, the Plan must be adopted, after public review and hearing, and filed with the California Department of Water Resources within thirty days of adoption; and

WHEREAS, the City has therefore prepared for public review a draft Urban Water Management Plan, and a properly noticed public hearing regarding the Plan was held by the City Council on June 14, 2016.

NOW, THEREFORE, BE IT RESOLVED, by the Council of the City of San Luis Obispo that the Urban Water Management Plan, consisting of text with tables, figures and appendices presented to the Council on June 14, 2016, on file in the City Clerk's Office, is hereby adopted and staff is hereby authorized to make any necessary changes to make the Urban Water Management Plan internally consistent with changes to Table 1.

BE IT FURTHER RESOLVED that the Utilities Director is hereby directed to distribute the Urban Water Management Plan to the California State Library, the County of San Luis Obispo and make available for public review as prescribed by state law.

Upon motion of Council Member Ashbaugh, seconded by Council Member Rivoire, and on the following roll call vote:

AYES:	Council Members Ashbaugh, Christianson and Rivoire, Vice Mayor Carpenter and Mayor Marx
NOES:	None
ABSENT:	None

The foregoing resolution was adopted this 14th day of June 2016.

Mayor Jan Marx

ATTEST:

Lee Price, MMC
Interim City Clerk

APPROVED AS TO FORM:

J. Christine Dietrick
City Attorney

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the official seal of the City of San Luis Obispo, California, this 27th day of June, 2016.

Lee Price, MMC
Interim City Clerk

Chapter 8: Water Shortage Contingency Plan

Developing and maintaining a multi-source water supply portfolio to increase resiliency against water shortages has been a City priority for many years. A water shortage occurs when water supplies are insufficient to support demand. A water shortage could occur due to drought, earthquake, infrastructure failure, or other emergency. Droughts occur with unpredictable frequency, intensity, and duration. The Department of Water Resources defines drought as "*A deficiency of precipitation over an extended period of time resulting in a water shortage for some activity, group, or environmental sector.*"

This Water Shortage Contingency Plan (WSCP) provides the foundation for a staged response to worsening water shortage conditions. A draft Water Conservation Ordinance, to update Chapter 13.07 of the City's Municipal Code, is proposed to establish the regulations and procedures for implementing this Plan. The draft Water Conservation Ordinance is provided in Appendix VI.

8.1 WATER SHORTAGE DETERMINATION

The degree of the water supply shortage determines the necessary level of response from the City and customers. When determining a water shortage stage the City evaluates the following:

- Water demand across customer categories
- Water availability at each supply source
- Available water supply options including supplemental water supplies

The City utilizes a water projection model, testing both hypothetical and actual water demand scenarios, to analyze current water storage at each reservoir and to predict how long the water supplies are available. The model accounts for the total storage in the three reservoirs, in conjunction with other available resources, needed to meet the City's water demand. The model uses historical hydrologic information based on the average for the worst drought period (2012 to 2014). Other data included in the model are:

- Water Entitlement (contractual or percentage)
- Current reservoir level
- Gallons per capita per day water demand
- Rainfall
- Temperature
- Evaporation
- Existing population
- Future population growth

Utilizing a water projection model as part of its water supply management enables the City to foresee whether a water supply shortage is anticipated in any given year, and the severity of a shortage based on the availability of the City's different sources of supply and water demand trends. The City uses the model to study the potential impacts of climate change using increased temperature and evaporation rates, along with decreased precipitation.

Whale Rock Reservoir.

8.2 WATER SHORTAGE RESPONSE

A water shortage response relies on the City's ability to temporarily augment supply and/or reduce water demand. The City's water shortage response would combine a variety of elements from outreach to enforcement, each increasing in intensity as the shortage persists. The City's demand reduction targets focus on water use limits and prohibitions that will reduce non-essential use, such as imposition of restrictions on outdoor irrigation. Implementation of these restrictions is necessary to conserve the City's water supply for the greatest public benefit regarding domestic use, sanitation and fire protection. This section reviews the general strategies the City will employ to mitigate the impacts of water shortage on the community.

Voluntary Reduction Measures

All customers may be asked to voluntarily reduce their water usage during a water shortage. The City may provide water conservation tips and suggestions through various public outreach methods, encourage and distribute conservation devices such as low flow shower heads and faucet aerators, discourage excessive outdoor watering, and encourage landscaping with drought tolerant plants. Voluntary reductions measures are described in more detail in Section 8.3

Mandatory Reduction Measures

The City may place mandatory reduction measures on certain uses, such as restricting outdoor watering to prescribed times and number of days per week beginning in the Watch Stage, with days and times for landscape watering further limited in later stages. Mandatory reduction measures may limit specific methods of irrigation (i.e., sprinkler ban).

The seasonal increase in water demand underscores the importance of implementing outdoor landscape-focused reduction programs. An average of approximately 50 percent of residential water use in San Luis Obispo is for landscape irrigation. Therefore, restrictions on outdoor water use are generally highly effective in reducing water demand. Outdoor uses are typically considered to be discretionary or nonessential for health and safety purposes, are highly visible and relatively easy to monitor, and often are a substantial component of water demand, particularly during the summer months when drought conditions are often most severe.

Prohibitions

Prohibitions will vary by drought stage, with the fundamental purpose of prohibiting non-essential uses not required for basic health and safety. During a declared water shortage, specific prohibitions would be described in a Water Shortage Ordinance adopted by the City Council. In the Critical Stage, all non-essential outdoor water use, except recycled water or grey water, may be prohibited.

The City will adopt regulations at the appropriate water shortage stage that require customers to take certain measures to promote water conservation, such as posting signage at various establishments, undergoing a water audit to maximize or demonstrate water conservation, and prescribing to customer-specific water budgets.

Supplemental Water Supply Options

During a water shortage emergency, the City may also utilize supplemental water supply options, or acquiring a new supply as warranted by the current situation. Currently, this might include requesting all 5,482 afy of the City's Nacimiento Reservoir allocation. In the future, this may include utilizing more groundwater and/or utilizing highly treated wastewater in a potable reuse system. These water supply options may be less desirable during normal operations due to increased operation costs.

8.3 WATER SHORTAGE STAGES

The goals of the City's Water Shortage Contingency Plan are to extend the City's available water resources long enough to gain another winter rainfall period which could serve to add to reservoir storage. Extending available water resources through water demand reduction provides time for the City to bring on supplemental water supplies to meet demand. It is the City's goal to implement water demand reduction programs that will achieve measurable water savings without affecting customers' lifestyles. In the higher water shortage stages lifestyle and habit changes will be necessary.

This section identifies the measures that may be taken at each stage to achieve desired water use reduction levels. The purpose of establishing water shortage stages is to clearly define the severity of the shortage and establish appropriate targets for demand reductions. Defining these stages allows the City to respond to worsening conditions, with each stage "triggering" different actions. The multi-stage approach provides different levels of response for a water shortage event ranging from a ten percent supply deficiency up to a 50 percent or greater deficiency.

Table 32 provides a quick reference guide to the City's Water Shortage Contingency Plan, though City Council may adopt variations of these stages, independent from the stage resulting from the use of the Water Projection Model, to strategically address the current water shortage situation. Each stage describes increasing levels of water demand reduction and water supply augmentation methods. As stated previously, during an actual water shortage emergency, other measures may be imposed.

Water Shortage Response Stage: MONITOR

San Luis Obispo has made water conservation an integral part of the community's culture and policy context for managing its water resources. The community has demonstrated a high commitment to reducing its water usage during water shortages. Although not a true declaration of a water shortage, the Water Shortage Contingency Plan's Monitor Stage remains in place at all times along with voluntary conservation and implementation of the California Urban Water Conservation Council's Best Management Practices. A complete description of the City's water conservation program is included in Chapter 7.

This stage is focused on achieving voluntary compliance, as opposed to a mandatory demand reduction programs. To ensure the City is using water responsibly and remains in compliance with the SB X7-7 requirement to not exceed 117 gpcd, the City continually assesses available water supply levels, monitors customer water demand trends, conducts water loss audits, and evaluates potential supplemental supplies. The following are examples of measures that may be taken to facilitate water conservation consistent with CUWCC best management practices:

- Implement public outreach and communication programs (bill stuffers, social media, etc.)
- Participate in trade shows, home shows, and special community events
- Identify largest water users in each sector and offer complementary water audits
- Identify and notify customers of possible leaks and inefficient uses of water
- Encourage the use of drip irrigation and drought tolerant plants
- Implement school (K-12) education programs related to water conservation
- Enforce the toilet retrofit upon sale program
-

Actions at the Monitor Stage would also include active enforcement of the City's water waste prohibitions, such as those adopted by the Governor in 2016, from Chapter 13.07 of the City's Municipal Code, which defines water waste as follow (See also Table 32):

13.07.020 – Water runoff prohibited.

A. *No person shall cause any water delivered by the city water system to flow away from property owned, occupied or controlled by such person in any gutter, ditch or in any other manner over the surface of the ground, so as to constitute water waste runoff.*

B. *"Water waste runoff" means water flowing away from property and which is caused by excessive application(s) of water beyond reasonable or practical flow rates, water volumes or duration of application. (Ord. 1089 § 1 (part), 1987)*

TABLE 32: Water Shortage Response Stages
Quick Reference Guide

STAGE	WATER SUPPLY STATUS[1]	CITY ACTIONS	PER CAPITA GOAL (GPCD)
Monitor	5+ years of available water supply	City maintains conservation messaging at levels that ensure compliance with SB X7-7 maximum of 117 gpcd.	117[2]
Watch	< 5 years of available water supply	City increases conservation messaging. City examines available alternative water sources (groundwater, Nacimiento full allocation, etc.) and takes action based on current circumstances to meet demand. City may implement mandatory conservation measures to meet per capita reduction target.	107
Warning	< 4 years of available water supply	City implements mandatory conservation measures including outdoor irrigation restrictions (examples: 3 or 2 days a week watering and only serving water upon request at restaurants) and consider a Water Offset Program for new connections.	95
Severe	< 3 years of available water supply	City implements Water Allotment Program. Water Offset Program for new connections may be increased. Additional outdoor irrigation restrictions may be added (such as no spray irrigation). Outdoor irrigation may be prohibited for all uses. Cessation of all new connections may be considered.	90
Extreme	< 2 years of available water supply	City continues to implement a Water Allotment Program with reduced levels. Water Offset Program for new connections may be increased. Outdoor irrigation may be prohibited for all uses. Cessation of all new connections may be considered.	85
Critical	< 1 year of available water supply	City continues to implement a Water Allotment Program at further reduced levels (minimum for public health and safety). Outdoor irrigation prohibited for all uses. Water Offset Program to cease and no new connections permitted.	75

NOTES:
1. The City's Water Supply Status is informed by the Water Projection Model and per Section 8.2 of Chapter 8.
2. The City's per capita goal of 117 gpcd is the City's SB X7-7 2020 Target, see Chapter 3.
3. Recycled water is not subject to demand reduction programs, water allocations or other drought response programs. The City's recycled water program is described in further detail in Chapter 5.

Water Shortage Response Stage: WATCH

When the City's available water supply would provide less than five years of water, a recommendation would be made to the City Council that a water shortage be declared. The City Council would be asked to adopt a resolution declaring the City enter the Watch Stage and urge the public to reduce water use by approximately 8.5 percent **from 117 gpcd to 107 gpcd**.

During the "Watch" Stage, the demand management measures utilized during the Monitor Stage above will increase along with a continued focus on voluntary compliance. The City will also increase public outreach, implement system and operational changes, increase enforcement actions, and undertake other administrative actions. These program expansions and changes may include:

Water Demand Reduction Programs:

- Accelerate water audit programs for all customer classes
- Identify largest water users in each sector and contact for complementary water audits
- Increase water waste patrols
- Conduct water use surveys
- Implement rebate programs
- Consider the use of irrigation limitations

Public Outreach Programs:

- Issue a press release following Watch Stage declaration
- Include information in quarterly Resource Newsletter
- Update City website and create a page dedicated to information on details of WSCP Watch Stage
- Consider use of billing inserts to notify public of current situation and needs
- Coordinate with regional partners on messaging and outreach
- Develop outreach program for City staff to promote consistent messaging related to water supply and water conservation
- Increase outreach at public events such as Farmers Market, SLO Home Show, and home owners association board meetings
- Focus social media platforms on issues consistent with needed demand reductions

System and Operational Changes:

- Reduce water usage for main flushing and hydrant flushing
- Reduce distribution system pressure where feasible
- Increase leak detection, water meter testing, and water meter replacement
- Decrease allowable time for repairing leaks in distribution system
- Require use of non-potable water sources for all street sweeping and hydrocleaning
- Activate the Drought Taskforce

Enforcement Actions:

- Actively enforce water waste prohibitions
- Update online forms for reporting water waste and move forms to front page of website
- Continue to follow City's policy for code violations and issue Notices of Violation and Administrative Citations where deemed necessary

Other Administrative Actions:

- Begin drafting ordinance revisions and code changes that would go into effect in subsequent water shortage stages
- Plan for the funding and implementation of specific conservation programs launched in subsequent water shortage stages

- Review potential fiscal impacts of drought (i.e., increased water supply, operational, and capital costs); and demand reductions (reduced revenue)
- Prepare for implementation of next water shortage stage
- Identify and plan for the need for additional staff. In planning for additional staff, consideration should be given to funding, available office space, vehicles, training, and other needed supplies and support
- Consider need for drought surcharge to stabilize revenue
- Consider deferring previously scheduled capital projects as necessary to invest in acquisition of needed water supply sources and demand reductions
- Review available supplemental water supply options, such as increased use of groundwater, utilization of potable reuse, and implementation of a recycled water filling station

Water Shortage Response Stage: WARNING

When the City's available water supply would provide less than four years of water, a recommendation would be made to the City Council to move to the next water shortage stage. The City Council could be asked to adopt a resolution declaring the City enter the Warning Stage and urge the public to reduce water use by an additional approximately 11 percent **from 107 gpcd to 95 gpcd** including mandatory conservation measures.

The water conservation measures described in the Monitor and Watch Stages above may increase during the Warning Stage, with an increased focus on limiting outdoor water uses. System and operational changes would remain in place. These increases and additions to programs may include:

Water Demand Reduction Programs:

- Continue implementation of and possible increase of all demand reduction programs listed in Watch Stage
- Limit outdoor watering to two or three days a week and only between the hours of 7:00 p.m. and 7:00 a.m.
- Defer landscape installations for new development or require development to install landscaping that provides a significant reduction in water demand (e.g. a minimum of 50%) as compared to a conventional drought tolerant landscaping during normal water years
- Require hotels/motels/inns to offer the option to opt out of laundry services
- Require restaurants to only serve water upon request
- Restrict use of decorative water features and fountains
- No watering within 48 hours of measureable rainfall
- No washing down of sidewalks, driveways, parking lots or other hardscape areas unless necessary to protect public health and safety
- No exterior washing of buildings, dwelling and other structures, except for pre-approved uses
- No vehicles washing except at commercial car washing facilities or by use of a bucket and/or hose equipped with a shut off nozzle

Public Outreach Programs:

- Continue implementation of and possible increase of all public outreach programs listed in Watch Stage
- Issue a press release following Warning Stage declaration
- Target outreach to customers with large landscapes regarding irrigation restrictions
- Use of billing inserts, postcards, and direct mail pieces to inform customers of new requirements and prohibitions
- Coordinate with local business groups such as the Chamber of Commerce and landscaping associations to help encourage conservation among commercial customers

- Coordinate with home owners associations, property rental agencies, and other local groups to help encourage conservation among residential customers

Increased Enforcement Actions:

- **First Violation:** Customer notification and education
  Customer will be notified by staff of the particular violation observed, and the demand reduction programs currently in place. The customer will be provided with needed resources to help them comply with requirements. Examples of notification include: door tags containing violation information, mailed letter, and/or personal phone call by staff
- **Second Violation:** Issuance of Notice of Violation
  Customer will be issued a written notice of violation (NOV), notifying the customer of specific violation, date and time the violation was observed, and consequences of subsequent violations
- **Subsequent Violations:** Customer may be issued a penalty/fine for violation

Other Administrative Actions:

- Continue implementation of and possible increase of all other administrative actions listed in Watch Stage
- Prepare utility billing system and bill format for water allocations and reductions listed in subsequent stages.
- Establish appeals committee for customers who exceed allotments in subsequent stages or receive fines from violating water waste prohibitions
- Increase utility billing training and support to address additional requirements of Warning Stage and future stages
- Begin preparing for Severe Stage

Implementation of a Water Demand Offset Program:
During the Warning Stage, the City may consider implementing a water demand offset program. Water demand offset programs are designed to require new development that causes increased water demand to offset such demand through conservation or acquisition/development of new supplies. The goal of an offset program is to ensure that a new development does not increase current and future water demands.

At the Warning stage the City may choose to implement a neutral offset program, requiring that new demands offset usage at a rate of 1:1. Future stages of the WSCP may suggest a more aggressive, "net positive" water demand offset program. A "net positive" water demand offset program would require a positive offset of a project's water demand. An example of this would be a project required to offset its water demand at a ratio higher than 1:1, such as 1.5:1 or 2:1.

There are several types of offset programs in use across California and the United States. Examples of potential offset programs are listed below.

- Toilet replacements
- Smart irrigation controllers
- Onsite reuse systems
- Submetering
- In-lieu fee
- Irrigation system retrofits
- Waterless urinals
- Rainwater capture

Water Shortage Response Stage: SEVERE

When the City's available water supply would provide less than three years of water, a recommendation would be made to the City Council to move to the next water shortage stage. The City Council would be asked to adopt a resolution declaring the City enter the Severe Stage and urge the public to reduce water use by an additional approximately five percent **from 95 gpcd to 90 gpcd**.

At this water shortage response stage, the City would continue implementation of demand reduction, public outreach, and enforcement programs described in prior stages. System and operational changes would remain in place. At the Severe Stage, a water offset program may increase to a "net positive" program, such as 1.5:1 or 2:1 and the City may implement a water allotment program. The following allotment method may be used:

Customer Classification	Severe Stage Allotment
Single Family Residential and Multi-family Residential	A per capita allotment of 64 gppd, verification of persons per household may be requested
Commercial and Institutional	Baseline allocation or allocation based on percent reduction from normal usage
Landscape Meters	Allocation based on percent reduction from normal usage; the City could consider prohibiting outdoor irrigation

Excessive water use penalties may be imposed as outlined in the City's Municipal Code.

At this stage, due to the limited water supplies that remain, the City could consider prohibiting outdoor irrigation and the cessation of new connections to the water distribution system.

Water Shortage Response Stage: EXTREME

When the City's available water supply would provide less than two years of water, a recommendation would be made to the City Council to move to the next water shortage stage. The City Council would be asked to adopt a resolution declaring the City enter the Extreme Stage and urge the public to reduce water use by an additional approximately five percent **from 90 gpcd to 85 gpcd**.

At this water shortage response stage, the City would continue implementation of demand reduction, public outreach, and enforcement programs described in prior stages. System and operational changes would remain in place. At the Extreme Stage, a "net positive" water offset program may continue to be offered and outdoor irrigation may be prohibited. The following allotment method may be used:

Customer Classification	Extreme Stage Allotment
Single Family Residential and Multi-family Residential	A per capita allotment of 56 gppd, verification of persons per household may be requested
Commercial and Institutional	Baseline allocation or allocation based on percent reduction from normal usage

Excessive water use penalties may continue to be imposed as outlined in the City's Municipal Code.

At this stage, due to the limited water supplies that remain, the City could consider the cessation of new connections to the water distribution system.

Water Shortage Response Stage: CRITICAL

When the City's available water supply would provide less than one year of water, a recommendation would be made to the City Council to move to the next water shortage stage. The City Council would be asked to adopt a resolution declaring the City enter the Critical Stage and urge the public to reduce water use by an additional approximately 12 percent **from 85 gpcd to 75 gpcd**.

At this water shortage response stage, the City would continue implementation of demand reduction, public outreach, and enforcement programs described in prior stages. System and operational changes would remain in place. At the Critical Stage, a water offset program may no longer be offered and outdoor irrigation may continue to be prohibited. The following allotment method may be used:

Customer Classification	Critical Stage Allotment
Single Family Residential and Multi-family Residential	A per capita allotment of 48 gppd, verification of persons per household may be requested
Commercial and Institutional	Baseline allocation or allocation based on percent reduction from normal usage

Excessive water use penalties may continue to be imposed as outlined in the City's Municipal Code.

At this stage, due to the limited water supplies that remain, the City would consider the cessation of new connections to the water distribution system.

8.4 REVENUE AND EXPENDITURE IMPACTS

During a water shortage, revenues from water sales can be reduced but the City's operations and maintenance costs would not reduce accordingly. In fact, during the these periods, the City's operations budgets can increase due to the implementation of water demand reduction measures, public outreach, enforcement, groundwater exploration, water quality concerns, and other actions taken by the City during the crisis. The reduction in revenues resulting from decreased water use may result in the need to raise water rates during that period.

Under the City's water rate structure, bills are based mainly on customer usage choices and resulting demand on the water systems. Water Fund revenue is collected from multiple sources, but approximately 90 percent of revenue is directly tied to water service charges including the base fee.

To minimize the need to raise rates during water shortages, the City has a policy that requires a minimum reserve of twenty percent of the Water Fund's operating budget. While this is a minimum amount, the reserve amount is typically above this minimum policy level.

City staff provides ongoing tracking of revenues and evaluates the potential impacts associated with changes in water demand assumptions used in the Annual Water Fund Analysis. The City Council considers the water rates necessary to provide water service to the community on an annual basis and approves water rate changes as needed.

As part of the 2015-17 Financial Plan, the City included a base fee and tiered drought surcharge as water demand was projected to reduce by 12 percent as a result of State water use reduction mandates. The surcharge was proposed to offset the loss in revenue associated with the State order as the City was still responsible for the costs of the City's multi-source water supply and debt payments. In addition to water supply, Water Fund revenue supports ongoing maintenance and operating programs needed to ensure

that the water treatment and delivery systems meet all federal and state water treatment regulations and are operated and maintained to provide safe and reliable service.

8.5 CATASTROPHIC WATER SUPPLY INTERRUPTION

The City has an Emergency Response Plan to cover a variety of potential disasters including: earthquakes, floods, wildland fires, etc. The Plan identifies resources available to the City from other agencies or private companies in the area. Additionally, the City of Morro Bay and the Whale Rock Commission (of which the City of San Luis Obispo is a member) executed an agreement in June of 2000 which provides for Mutual Aid between the agencies during disruption of water deliveries or lack of available water supplies. The agreement provides a general framework for exchanging water between agencies in the event of emergencies or other water disruptions. The agreement is voluntary based on each agency's ability to assist at any point in the future.

In relation to providing water service, the City would utilize portable generators to minimize water disruptions during an extended power outage. These generators are maintained and available to the City at any time and are stored at the City Corporation Yard.

The City is a member of the Water Agency Response Network (WARN). WARN is a statewide organization of water agencies and companies that have entered into a mutual aid agreement to assist other water agencies during emergencies or other water related situations. The agreement provides the frame work for providing assistance and provides a key contact to initiate a multiple agency response to a water emergency situation.

8.6 MINIMUM SUPPLY NEXT THREE YEARS

Consistent with section 6.6, Water Supply Reliability Analysis, in Chapter 6, the City's multiple dry year scenario was determined to be 2012 to 2014 as the combined rainfall total for those three years was the lowest on record. Available water supplies during this period assume the City's safe annual yield from Salinas and Whale Rock Reservoirs, contractual supply from Nacimiento Reservoir, and recycled water supply are available totaling 12,622 acre feet of available supply, as shown in Table 33.

As directed by DWR, this section was prepared based on what is known by the City at the time the UWMP was prepared. After the current drought has a "bookend" the safe annual yield of Salinas and Whale Rock reservoirs will be recalculated. Related changes to safe annual yield will be incorporated into planning scenarios.

TABLE 33: Minimum Supply Next Three Years

	2016	2017	2018
Available Water Supply	12,622	12,622	12,622

NOTES:
1. Department of Water Resources, Table 8-4.
2. Units are in acre-feet per year.
3. Volume available includes the City's contractual supply to Nacimiento Reservoir, Safe Annual Yield from Salinas and Whale Rock Reservoirs, and recycled water.

Source: City of San Luis Obispo Utilities Department, 2016.

8.7 REQUIRED UWMP STANDARDIZED TABLES:

Stages of Water Shortage Contingency Plan		
Stage	Complete Both	
	Percent Supply Reduction[1]	Water Supply Condition
Monitor	0	City maintains conservation messaging at levels that ensure compliance with maximum 117 gallons per capita per day (gpcd).
Watch	10	City increases conservation messaging. City examines available alternative water sources (groundwater, Nacimiento full allocation, etc.) and takes action based on current circumstances to meet demand. City may implement mandatory conservation measures to meet per capita reduction target.
Warning	20	City implements mandatory conservation measures including outdoor irrigation restrictions (examples: 3 or 2 days a week watering and only serving water upon request at restaurants) and consider a Water Offset Program for new connections.
Severe	30	City implements Water Allotment Program. Water Offset Program for new connections may be increased. Additional outdoor irrigation restrictions may be added (such as no spray irrigation). Outdoor irrigation may be prohibited for all uses. Cessation of all new connections may be considered.
Extreme	40	City continues to implement a Water Allotment Program with reduced levels. Water Offset Program for new connections may be increased. Outdoor irrigation may be prohibited for all uses. Cessation of all new connections may be considered.
Critical	50	City continues to implement a Water Allotment Program at further reduced levels (minimum for public health and safety). Outdoor irrigation prohibited for all uses. Water Offset Program to cease and no new connections permitted.
[1] *One stage in the Water Shortage Contingency Plan must address a water shortage of 50%.*		
NOTES: Table 8-1 R.		

Restrictions and Prohibitions on End Uses		
Stage	**Restrictions and Prohibitions on End Users**	**Penalty, Charge, or Other Enforcement?**
Monitor	Landscape - Restrict or prohibit runoff from landscape irrigation	Yes
Monitor	Other - Customers must repair leaks, breaks, and malfunctions in a timely manner	Yes
Monitor	Other - Prohibit use of potable water for construction and dust control	Yes
Watch	Other - Require automatic shut of hoses	Yes
Warning	Landscape - Limit landscape irrigation to specific times	Yes
Warning	Landscape - Limit landscape irrigation to specific days	Yes
Warning	Water Features - Restrict water use for decorative water features, such as fountains	Yes
Warning	CII - Lodging establishment must offer opt out of linen service	Yes
Warning	CII - Restaurants may only serve water upon request	Yes
Warning	Water Features - Restrict water use for decorative water features, such as fountains	Yes
Critical	Landscape - Other landscape restriction or prohibition	Yes
NOTES: Table 8-2 (R).		

Stages of Water Shortage Contingency Plan - Consumption Reduction Methods	
Stage	**Consumption Reduction Methods by Water Supplier**
All	Expand Public Information Campaign
Watch	Offer Water Use Surveys
Watch	Provide Rebates on Plumbing Fixtures and Devices
Watch	Provide Rebates for Landscape Irrigation Efficiency
Watch	Decrease Line Flushing
NOTES: Table 8-3 R.	

Minimum Supply Next Three Years			
	2016	**2017**	**2018**
Available Water Supply	12,622	12,622	12,622
NOTES: Table 8-4 R.			

Draft 2020 Water Shortage Contingency Plan

Developing and maintaining a multi-source water supply portfolio to increase resiliency against water shortages has been a City priority for many years. A water shortage could occur due to drought, earthquake, infrastructure failure, or other emergency. Droughts may occur with unpredictable frequency, intensity, and duration. The Department of Water Resources defines drought as "*A deficiency of precipitation over an extended period of time resulting in a water shortage for some activity, group, or environmental sector.*"

This Water Shortage Contingency Plan (WSCP) provides the foundation for a staged response to worsening water shortage conditions. A draft Water Conservation Ordinance, to update Chapter 13.07 of the City's Municipal Code, will be proposed to establish the regulations and procedures for implementing this Plan.

1. WATER SUPPLY RELIABILITY ANALYSIS

Assessing water supply reliability is the fundamental purpose of the City's Urban Water Management Plan (UWMP). Water service reliability is the City's ability to meet the water needs of its customers under varying conditions. Chapter 6 of the City's UWMP assesses water supply reliability by analyzing plausible hydrological variability, regulatory variability, climate conditions, and other factors that may affect the City's water supplies and customer water uses. The analysis looks beyond the City's past experience and considers what could be reasonably foreseeable in the future.

2. ANNUAL WATER SHORTAGE ASSESSMENT

The City performs a water shortage assessment each year, and more frequently in drought conditions, to review available water supplies and confirm its approach for the coming year. The degree of the water supply shortage determines the necessary level of response from the City and customers, if any. This assessment includes evaluation of the following:

a. Current year water demand across customer categories
b. Water availability at each supply source
c. Available supplemental water supply options
d. Infrastructure considerations, including planned maintenance, repairs, and upgrades

The City utilizes a water projection model, testing both hypothetical and actual water demand scenarios to analyze and predict how long the water supplies will be available under specific conditions. The model accounts for the storage in the three reservoirs, in conjunction with other available resources, needed to meet the City's water demand. The model uses historical hydrologic information based on the average for the worst drought period (2012 to 2014). Other data included in the model is:

a. Water Entitlement (contractual or percentage)
b. Current reservoir levels
c. Average gallons per capita per day community water demand
d. Rainfall
e. Temperature
f. Evaporation
g. Existing population
h. Population growth

Utilizing a water projection model as part of its water supply management enables the City to foresee whether a water supply shortage is anticipated in any given year, and the severity of a shortage based on the availability of the City's different sources of supply and water demand trends. The City uses the model to study the potential impacts of various intensities of drought conditions, including increased temperature and evaporation rates, along with decreased precipitation.

In accordance with new UWMP requirements, each year the City will prepare a water supply and demand assessment, present it to the City Council for review, and submit its annual Water Shortage Assessment

Report to DWR. The Assessment will be conducted based on the use of the City's water projection model and the key data inputs described above to characterize near-term water supply conditions (i.e., for the next 12 months).

3. WATER SHORTAGE RESPONSE

A water shortage response is dependent on the City's ability to temporarily augment supply and/or reduce water demand. The City's water shortage response would combine a variety of elements from outreach to enforcement, each increasing in intensity as the shortage persists. The City's demand reduction targets focus on water use limits and prohibitions that will reduce non-essential use, such as imposition of restrictions on outdoor irrigation. Implementation of these restrictions is necessary to conserve the City's water supply for the greatest public benefit regarding domestic use, sanitation, and fire protection. This section reviews the general strategies the City will employ to mitigate the impacts of water shortage on the community.

Voluntary Reduction Measures
All customers may be asked to voluntarily reduce their water usage during a water shortage. The City may provide water conservation tips and suggestions through various public outreach methods, encourage and distribute conservation devices such as low flow shower heads and faucet aerators, discourage excessive outdoor watering, and encourage landscaping with drought tolerant plants. Voluntary reductions measures are described in more detail in Section 3.

Mandatory Reduction Measures
The City may place mandatory reduction measures on certain uses, such as restricting outdoor watering to prescribed times and number of days per week beginning in the Warning Stage, with days and times for landscape watering further limited in later stages. Mandatory reduction measures may limit specific methods of irrigation (i.e., sprinkler ban).

The seasonal increase in water demand underscores the importance of implementing outdoor irrigation-focused reduction programs. An average of approximately 50 percent of residential water use in San Luis Obispo is for landscape irrigation. Therefore, restrictions on outdoor water use are generally highly effective in reducing water demand. Many outdoor uses are considered discretionary, or nonessential for health and safety purposes, are highly visible and relatively easy to monitor, and often are a substantial component of water demand, particularly during the summer months when drought conditions are often most severe.

Water Use Prohibitions
Water use prohibitions will vary by drought stage, with the fundamental purpose of restricting or prohibiting non-essential uses that are not required for basic health and safety. During a declared water shortage, specific prohibitions would be described in a Water Shortage Ordinance adopted by the City Council. In the Critical Stage, all non-essential outdoor water use, except recycled water or grey water, may be prohibited.

The City will adopt regulations at the appropriate water shortage stage to promote water conservation, such as posting signage at various establishments, offering water audits to maximize water conservation, and prescribing to customer-specific water budgets (i.e., water allocations).

Supplemental Water Supply Options
During a declared water shortage emergency, the City may also utilize supplemental water supply options, or acquire a new supply as warranted by the current situation. This may include utilizing more groundwater and/or utilizing highly treated wastewater in a potable reuse system. These water supply options may be less desirable during normal operations due to increased operational costs.

4. WATER SHORTAGE STAGES

The goals of the WSCP are to extend the City's available water resources long enough to gain another winter rainfall period which could serve to add to reservoir storage. Extending available water resources through water demand reduction provides time for the City to bring on supplemental water supplies to meet demand. It is the City's goal to implement water demand reduction programs that will achieve measurable water savings without requiring customers to make significant lifestyle changes. In the more advanced water shortage stages lifestyle and habit changes will be necessary.

This section identifies the measures that may be taken at each stage to achieve desired water use reduction levels. The purpose of establishing water shortage stages is to clearly define the severity of the shortage and establish appropriate targets for demand reductions. Defining these stages allows the City to respond to worsening conditions, with each stage "triggering" different actions. The multi-stage approach provides different levels of response for a water shortage event ranging from a ten percent supply deficiency up to a 50 percent or greater deficiency.

Table 1 provides a quick reference guide to the WSCP, though City Council may adopt variations of these Water Shortage Response Actions, independent from the stage resulting from the use of the Water Projection Model, to strategically address the current water shortage situation. Each stage describes increasing levels of water demand reduction and water supply augmentation methods. As stated previously, during an actual water shortage emergency, other measures may be imposed.

TABLE 1: Water Shortage Response Stages
Quick Reference Guide

STAGE	WATER SUPPLY STATUS[1]	CITY ACTIONS
Monitor	5+ years of available water supply	City maintains existing water conservation staffing levels and budget that supports meeting internal water efficiency goals and regulatory requirements for water conservation, including ongoing public outreach.
Watch	< 5 years of available water supply	City increases programs that encourage voluntary water conservation including public outreach, rebate programs, and water efficient fixture giveaways. City examines available alternative water sources (groundwater expansion, recycled water filling stations, water purchase agreements, etc.), City modifies internal operations to focus on decreasing water loss and prepares for subsequent WSCP stages.
Warning	< 4.5 years of available water supply	City implements time of use irrigation restrictions (7:00 PM – 7:00 AM). City increases staffing, budget, and outreach to achieve additional voluntary conservation savings while preparing for Alert-Critical stages.
Alert	< 4 years	City requires mandatory conservation measures including outdoor irrigation restrictions (four day a week watering) and considers a Water Offset Program for new connections.
Severe	< 3.5 years of available water supply	City implements Water Allotment Program. Water Offset Program for new connections may be increased (1.5:1 or 2:1 offset ratio). Allowable irrigation reduced to three days per week.
Extreme	< 3 years of available water supply	City continues to implement a Water Allotment Program with reduced allotment levels. Water Offset Program for new connections may be increased (1.5:1 or 2:1 offset ratio). Allowable irrigation reduced to two days per week with optional additional measures related to turf and spray irrigation.
Critical	< 2.5 year of available water supply	City continues to implement a Water Allotment Program at further reduced levels (minimum for public health and safety). Irrigation no longer permitted. Water Offset Program to cease and no new connections permitted.

NOTES:
1. The City's Water Supply Status is informed by the Water Projection Model described in section 2, Annual Water Shortage Assessment, of this WSCP.

Water Shortage Response Stage: MONITOR

San Luis Obispo has made water conservation an integral part of the community's culture and policy context for managing its water resources. The community has demonstrated a high commitment to reducing its water usage during water shortages. Although not a true declaration of a water shortage, the Water Shortage Contingency Plan's Monitor Stage remains in place at all times along with voluntary conservation.

This stage is focused on achieving voluntary water savings, as opposed to a mandatory demand reduction programs. To ensure the City is using water responsibly and remaining in compliance with water efficiency goals are regulations, the City continually assesses available water supply levels, monitors customer water demand trends, conducts water loss audits, and evaluates potential supplemental supply projects. The following are examples of measures that may be taken to maintain water use efficiency goals:

1. Implement public outreach and communication programs (bill stuffers, social media, etc.)
2. Participate in trade shows, home shows, and special community events
3. Offer complimentary water audits
4. Identify and notify customers of possible leaks and inefficient uses of water
5. Encourage the use of drip irrigation and drought tolerant plants
6. Implement school (K-12) education programs related to water conservation
7. Enforce the water efficiency retrofit program (toilet retrofit upon sale program)

Actions at the Monitor Stage would also include active enforcement of the City's water waste prohibitions, such as those from Chapter 13.07 of the City's Municipal Code, which defines water waste as follow (See also Table 1):

> ***City of San Luis Obispo, Municipal Code***
>
> *13.07.020 – Water runoff prohibited.*
>
> *A. No person shall cause any water delivered by the city water system to flow away from property owned, occupied or controlled by such person in any gutter, ditch or in any other manner over the surface of the ground, so as to constitute water waste runoff.*
>
> *B. "Water waste runoff" means water flowing away from property and which is caused by excessive application(s) of water beyond reasonable or practical flow rates, water volumes or duration of application. (Ord. 1089 § 1 (part), 1987)*

Water Shortage Response Stage: WATCH

When the City's available water supply would provide **less than five years** of water, a recommendation would be made to the City Council that a water shortage be declared. The City Council would be recommended to adopt a resolution declaring the City enter the Watch Stage and urge the public to reduce water use by approximately ten percent.

During the "Watch" Stage, the demand management measures utilized during the Monitor Stage above will increase along with a continued focus on voluntary water use reduction. The City will also increase public outreach, implement system and operational changes, increase enforcement actions and patrols, and undertake other administrative actions. These program expansions and changes may include:

1. **Water Demand Reduction Programs:**

   A. Accelerate water audit programs for all customer classes
   B. Identify largest water users in each sector and contact for complementary water audits
   C. Increase water waste patrols
   D. Conduct water use surveys
   E. Implement rebate programs
   F. Consider the use of irrigation limitations

2. **Public Outreach Programs:**

   A. Issue a press release following Watch Stage declaration
   B. Include information in quarterly Resource Newsletter
   C. Update City website and create a page dedicated to information on details of WSCP Watch Stage
   D. Use billing inserts to notify public of current situation and needs
   E. Coordinate with regional partners on messaging and outreach
   F. Increase outreach at public events such as Farmers Market, SLO Home Show, homeowners association board meetings, etc.
   G. Focus social media platforms on issues consistent with needed demand reductions

3. **System and Operational Changes:**

   A. Reduce water usage for water main flushing and hydrant flushing
   B. Reduce distribution system pressure where feasible
   C. Increase leak detection, water meter testing, and water meter replacement
   D. Require use of non-potable water sources for all street sweeping and hydrocleaning
   E. Activate the Drought Taskforce

4. **Enforcement Actions:**

   A. **First Violation:** Customer notification and education

      Customer will be notified by staff of the particular violation observed, and the demand reduction programs currently in place. The customer will be provided with needed resources to help them comply with requirements. Examples of notification include: door tags containing educational information, mailed letter, and/or personal phone call by staff.

   B. **Second Violation:** Issuance of Notice of Violation

      Customer will be issued a written notice of violation (NOV), notifying the customer of specific violation, date and time the violation was observed, and consequences of subsequent violations

   C. **Subsequent Violations:** Customer may be issued a penalty/fine for violation

5. **Other Administrative Actions:**

   A. Begin drafting ordinance revisions and code changes that would go into effect in subsequent water shortage stages
   B. Plan for the funding and implementation of specific conservation programs launched in subsequent water shortage stages
   C. Review potential fiscal impacts of drought (i.e., increased water supply, operational, and capital costs); and demand reductions (reduced revenue)
   D. Identify and plan for the need for additional staff. In planning for additional staff, consideration should be given to funding, available office space, vehicles, training, and other needed supplies and support
   E. Consider need for drought surcharge to stabilize revenue
   F. Consider deferring previously scheduled capital projects as necessary to invest in acquisition of needed water supply sources and demand reductions

G. Review available supplemental water supply options, such as increased use of groundwater, utilization of potable reuse, and implementation of a recycled water filling station

Water Shortage Response Stage: WARNING

When the City's available water supply would provide **less than 4.5 years** of water, a recommendation would be made to the City Council to move to the Warning water shortage stage. The City Council could be recommended to adopt a resolution declaring the City enter the Warning Stage and urge the public to reduce water use by an additional 10 percent including mandatory conservation measures.

The water conservation measures described in the Monitor and Watch Stages above may increase during the Warning Stage, with an increased focus on limiting outdoor water uses. System and operational changes would remain in place. These increases and additions to programs may include:

1. **Water Demand Reduction Programs:**

   A. Continue implementation of and possible increase of all demand reduction programs listed in Watch Stage
   B. Limit outdoor watering to between the hours of 7:00 p.m. and 7:00 a.m.
   C. Require restaurants to only serve water upon request
   D. Restrict use of decorative water features and fountains

2. **Public Outreach Programs:**

   A. Continue implementation of and possible increase of all public outreach programs listed in Watch Stage
   B. Issue a press release following Warning Stage declaration
   C. Target outreach to customers with large landscapes regarding irrigation restrictions
   D. Use of billing inserts, postcards, and direct mail pieces to inform customers of new requirements and prohibitions
   E. Coordinate with local business groups such as the Chamber of Commerce and landscaping associations to help encourage conservation among commercial customers
   F. Coordinate with homeowners associations, property rental agencies, and other local groups to help encourage conservation among residential customers

3. **Enforcement Actions** (Same as previous stage)

4. **Other Administrative Actions:**

   A. Continue implementation of and possible increase of all other administrative actions listed in Watch Stage
   B. Begin preparing for the Alert Stage.

5. **Optional Implementation of a Water Demand Offset Program:**

   During the Warning Stage, staff will begin updating the Water Demand Offset Program and messaging about the program to the development community. The City may consider implementing a water demand offset program during this stage. Water demand offset programs are designed to require new development that causes increased water demand to offset such demand through conservation or acquisition/development of new water supplies. The goal of an offset program is to ensure that new development does not increase current water demands. It should be noted that offset programs simply expedite water efficiency measures and thus create water savings in the short term. Depending on the nature of the offset, long-term savings may not be realized.

   At the Warning stage the City may choose to implement a "net neutral" offset program, requiring that new demands offset usage at a rate of 1:1. Future stages of the WSCP may suggest a more aggressive,

"net positive" water demand offset program. A "net positive" water demand offset program would require a positive offset of a project's water demand. An example of this would be a project required to offset its water demand at a ratio higher than 1:1, such as 2:1 or 3:1.

There are several types of offset programs in use across California and the United States. Examples of potential offset programs are listed below.

A. Toilet replacements
B. Smart irrigation controllers
C. Submetering
D. In-lieu fees (fees are used to support new water supply projects)
E. Irrigation system retrofits
F. Waterless urinals
G. Rainwater capture
H. Recycled Water Retrofit Projects

Water Shortage Response Stage: ALERT

When the City's available water supply would provide **less than four years** of water, a recommendation would be made to the City Council to move to the Alert water shortage stage. The City Council could be recommended to adopt a resolution declaring the City enter the Alert Stage and urge the public to reduce water use by an additional 10 percent including mandatory conservation measures.

The water conservation measures described in the Stages above may increase during the Alert Stage, with an increased focus on limiting outdoor water uses. System and operational changes would remain in place. These increases and additions to programs may include:

1. **Water Demand Reduction Programs:**

   A. Limit outdoor watering to **four days a week** and only between the hours of 7:00 PM and 7:00 AM.
   B. Defer landscape installations for new development or require development to install landscaping that provides a 50 percent reduction in Maximum Applied Water Allowance (MAWA). This would not apply to sites irrigated with recycled water.

2. **Public Outreach Programs:**

   A. Continue implementation of and possible increase of all public outreach programs listed in previous stages
   B. Issue a press release following Alert Stage declaration
   C. Utilize water use allocation software to identify inefficient water users and make direct contact with these properties.

3. **Enforcement Actions** (Same as previous stage)

4. **Other Administrative Actions:**

   A. Continue implementation of and possible increase of all other administrative actions listed in prior stages
   B. Prepare utility billing system and bill format for water allocations and reductions listed in subsequent stages.
   C. Establish appeals committee for customers who exceed allotments in subsequent stages, request health and safety variances, or receive fines from violating water waste prohibitions
   D. Increase utility billing training and support to address additional requirements of future stages
   E. Begin preparing for Severe Stage

Implementation of a Water Demand Offset Program:

At the Alert stage the City may choose to implement a "net neutral" offset program or increase a previously approved program to a "net positive" program (ex: 1.5:1 or 2:1 offset ratio). Future stages of the WSCP may suggest a more aggressive, "net positive" water demand offset program.

Water Shortage Response Stage: SEVERE

When the City's available water supply would provide **less than 3.5 years** of water, a recommendation would be made to the City Council to move to the Severe water shortage stage. The City Council would be recommended to adopt a resolution declaring the City enter the Severe Stage and urge the public to reduce water use by an additional approximately 10 percent.

At this water shortage response stage, the City would continue implementation of demand reduction measures, public outreach, and other responses and programs described in prior stages. System and operational changes would remain in place. At the Severe Stage, a water offset program may increase to a "net positive" program, such as 1.5:1 or 2:1 ratio.

Previous Water Demand Reduction Programs should be increased to include:

- Limit outdoor watering to **three days a week** and only between the hours of 7:00 PM and 7:00 AM.

During the Severe, Extreme, and Critical stages of the WSCP the City may adopt a Water Allotment Program, restricting the water use on an account-by-account basis. The following allotment method may be used:

Customer Classification	Severe Stage Allotment
Single Family Residential and Multi-family Residential	A per capita allotment allowing for indoor use and a minimal outdoor irrigation budget. Verification of persons per household may be requested
Commercial and Institutional	Baseline allocation or allocation based on percent reduction from normal usage
Landscape Meters	Allocation based on percent reduction from normal usage;

Water Shortage Response Stage: EXTREME

When the City's available water supply would provide **less than three years** of water, a recommendation would be made to the City Council to move to the Extreme water shortage stage. The City Council would be recommended to adopt a resolution declaring the City enter the Extreme Stage and urge the public to reduce water use by an additional 10 percent.

At this water shortage response stage, the City would continue implementation of demand reduction measures, public outreach, and other responses and programs described in prior stages. System and operational changes would remain in place. At the Severe Stage, a water offset program may increase to a "net positive" program, such as 1.5:1 or 2:1 ratio.

Previous Water Demand Reduction Programs should be increased to include:

- Limit outdoor watering to **two days a week** and only between the hours of 7:00 PM and 7:00 AM.
- Optional implementation of additional restrictions on turf and/or spray irrigation.

Customer Classification	Extreme Stage Allotment
Single Family Residential and Multi-family Residential	A per capita allotment allowing for indoor use and a reduced outdoor irrigation budget versus the Severe stage. Verification of persons per household may be requested
Commercial and Institutional	Reduced baseline allocation or allocation based on percent reduction from normal usage
Landscape Meters	Reduced allocation based on percent reduction from normal usage;

At this stage, due to the limited water supplies that remain, the City could consider removal of the "courtesy notification".

Water Shortage Response Stage: CRITICAL

When the City's available water supply would provide **less than 2.5 years of** water, a recommendation would be made to the City Council to move to the Critical water shortage stage. The City Council would be recommended to adopt a resolution declaring the City enter the Critical Stage and urge the public to reduce water use by an additional approximately 10 percent.

At this water shortage response stage, the City would continue implementation of demand reduction measures, public outreach, and other responses and programs described in prior stages. System and operational changes would remain in place. At the Severe Stage, a water offset program may increase to a "net positive" program, such as 1.5:1 or 2:1 ratio.

Previous Water Demand Reduction Programs should be increased to include:

- Cessation irrigation for all customers, minus specific exemptions.

Customer Classification	Critical Stage Allotment
Single Family Residential and Multi-family Residential	A per capita allotment allowing for indoor water use. Irrigation not permitted.

	Verification of persons per household may be requested
Commercial and Institutional	Reduced baseline allocation or allocation based on percent reduction from normal usage. Irrigation not permitted.
Landscape Meters	Not Permitted

At this stage, due to the limited water supplies that remain, the City would consider the cessation of new connections to the City's water system.

5. WSCP EXEMPTIONS AND APPEALS

As the community was impacted by the 2011-2015 drought and irrigation restrictions were put into place, community members advocated for certain exemptions related to water use restrictions. The following series of exemptions will help ensure the health and well-being of the community while not making a substantial impact on available water supplies.

Sites using Recycled Water for Irrigation
Sites utilizing recycled water are exempt from irrigation restrictions due to their reliance on recycled water in place of potable water. These sites include major City parks, such as Damon Garcia Park, French Park, Islay Park, Laguna Lake Park, Laguna Hills Park, De Vaul Park, the Laguna Lake Golf Course, and Laguna Middle School, as well as many multifamily and commercial properties.

Irrigation Exceptions at Specific Facilities
During the recent drought City staff and community members provided feedback that City parks with inadequate irrigation allotments could lead to hazardous conditions at recreation and play environments. To address these concerns, and to provide communal spaces for recreation during times when many homes allowed landscapes to die, in 2016 the City Council approved an amendment to Chapter 13.07.030 of the Municipal Code, allowing for daily irrigation at designated City facilities during turf renovation, and three times per week thereafter. This exemption is recommended to be expanded to include schools within the City's boundaries as they are used for recreation in a similar manner to City parks. This exemption would only go into place in stages of the WSCP requiring irrigation restrictions.

Irrigation of Trees
During the 2011-2015 drought, the City heard from many residents who opted to cease irrigation of their trees in order to reduce their water demand. Unlike turf, shrubs, and other groundcover, trees take a great amount of time to grow and provide substantial ecological, environmental, practical, and economic value to the community. An exemption to irrigation restrictions allowing for the use of a hose and shutoff nozzle to hand water trees will allow the community to preserve this precious multi-benefit resource.

Hospitals, Healthcare Facilities, and other Specific Business Types
Hospitals, healthcare facilities, and other businesses requiring water for the health and safety of at-risk people may apply for an exemption on a case by case-basis. This exemption may be granted at the discretion of the Utilities Director or his/her/their designee.

Appeals
Appeals related to water use restrictions within the WSCP and associated penalties may be appealed to the Utilities Director or his/her/their designee.

6. REVENUE AND EXPENDITURE IMPACTS

During a water shortage, revenues from water sales can be reduced but the City's operations and maintenance costs would not reduce accordingly. In fact, during these periods, the City's operations budgets can increase due to the implementation of water demand reduction measures, public outreach, enforcement, groundwater exploration, water quality concerns, and other actions taken by the City during the crisis. The reduction in revenues resulting from decreased water use may result in the need to raise water rates during that period.

Under the City's water rate structure, bills are based predominately on customer usage and resulting demand on the water system.

To minimize the need to raise rates during water shortages, the City has a policy that requires a minimum reserve of twenty percent of the Water Fund's operating budget.

City staff provides ongoing tracking of revenues and evaluates the potential impacts associated with changes in water demand assumptions used in the Water Fund Analysis. The City Council considers the water rates necessary to provide water service to the community on an annual basis and approves water rate changes as needed.

In addition to securing water supplies, Water Fund revenue supports ongoing maintenance and operating programs needed to ensure that the water treatment and delivery systems meet all federal and state water treatment regulations and are operated and maintained to provide safe and reliable service.

7. MONITORING, REPORTING, AND REFINEMENT PROCEDURES

The City reads water meters monthly to ensure water consumption data is collected for tracking, analysis, and to meet state reporting requirements. Monitoring and reporting key water use metrics is fundamental to water supply planning and management. Monitoring is also essential to ensure that the response actions are achieving their intended water use reduction purposes, or if new actions need to be considered. Compliance tracking is also necessary for an effective enforcement program.

To evaluate the functionality of the WSCP and ensure strategies are effective, staff will monitor community response to water demand reduction measures, public outreach, enforcement, and other administrative actions at each water shortage response stage. This will include review of monthly water consumption data for each customer class and monitoring associated fiscal and expenditure impacts. Staff will make recommendations on program refinements to the City Council with water shortage stage progression.

8. CATASTROPHIC WATER SUPPLY INTERRUPTION

The City has an Emergency Response Plan to cover a variety of potential disasters including earthquakes, floods, wildland fires, etc. The Plan identifies resources available to the City from other agencies or private companies in the area. Additionally, the City of Morro Bay and the Whale Rock Commission (of which the City of San Luis Obispo is a member) executed an agreement in June of 2000 which provides for Mutual Aid between the agencies during disruption of water deliveries or lack of available water supplies. The agreement provides a general framework for exchanging water between agencies in the event of emergencies or other water disruptions. The agreement is voluntary based on each agency's ability to assist at any point in the future.

In relation to providing water service, the City would utilize electrical portable generators to minimize water disruptions during an extended power outage. These generators are available to the City at any time.

The City is a member of the Water Agency Response Network (WARN). WARN is a statewide organization of water agencies and companies that have entered into a mutual aid agreement to assist other water agencies during emergencies or other water related situations. The agreement provides the framework for providing assistance and provides a key contact to initiate a multiple agency response to a water emergency situation.

RESOLUTION NO. _____ (2021 SERIES)

A RESOLUTION OF THE COUNCIL OF THE CITY OF SAN LUIS OBISPO, CALIFORNIA, ADOPTING THE 2020 URBAN WATER MANAGEMENT PLAN

WHEREAS, the California Legislature enacted Assembly Bill 797 during the 1983-1984 Regular Session, and as amended subsequently, which mandates that every supplier providing water for municipal purposes to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually, prepare an Urban Water Management Plan; and

WHEREAS, the City is an urban supplier of water providing water to approximately 15,700 customers; and

WHEREAS, the City's Urban Water Management Plan shall be periodically reviewed at least once every five years, and that the City shall make any amendments or changes to its plan which are indicated by the review; and

WHEREAS, the 2020 Urban Water Management Plan must be adopted, after public review and hearing, and filed with the California Department of Water Resources by July 1, 2021; and

WHEREAS, the City has therefore prepared for public review a draft 2020 Urban Water Management Plan, and a properly noticed public hearing regarding the Plan was held by the City Council on June 15, 2021.

NOW, THEREFORE, BE IT RESOLVED by the Council of the City of San Luis Obispo as follows:

SECTION 1. The 2020 Urban Water Management Plan for the City of San Luis Obispo, consisting of text, tables, and appendices presented to the Council on June 15, 2021, on file in the City Clerk's Office, is hereby adopted.

SECTION 2. The Utilities Director is hereby directed to distribute the 2020 Urban Water Management Plan to the California State Library, the County of San Luis Obispo, and make available for public review as prescribed by state law.

SECTION 3. The adoption of the City's 2020 Urban Water Management Plan is hereby determined to be statutorily exempt from the requirements of the California Environmental Quality Act pursuant to California Water Code §10652.

Upon motion of _____, seconded by _____, and on the following roll call vote:

AYES:
NOES:
ABSENT:

The foregoing resolution was adopted this _____ day of _____, 2021.

_____
Mayor Heidi Harmon

ATTEST:

_____
Teresa Purrington,
City Clerk

APPROVED:

_____
J. Christine Dietrick,
City Attorney

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the official seal of the City of San Luis Obispo, California, on _____.

_____
Teresa Purrington,
City Clerk

R _____

RESOLUTION NO. _____ (2021 SERIES)

A RESOLUTION OF THE COUNCIL OF THE CITY OF SAN LUIS OBISPO, CALIFORNIA, ADOPTING THE 2020 WATER SHORTAGE CONTINGENCY PLAN

WHEREAS, the California Legislature enacted Assembly Bill 797 during the 1983-1984 Regular Session, and as amended subsequently, which mandates that every supplier providing water for municipal purposes to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually, prepare an Urban Water Management Plan and separate Water Shortage Contingency Plan; and

WHEREAS, the City is an urban supplier of water providing more than 3,000 acre-feet of water annually to approximately 15,700 customers; and

WHEREAS, the 2020 Water Shortage Contingency Plan includes planned response actions during six water shortage levels to manage and mitigate potential water supply shortages; and

WHEREAS, the 2020 Water Shortage Contingency Plan includes the written process the City will use each year to determine its water reliability; and

WHEREAS, the 2020 Water Shortage Contingency Plan must be adopted, after public review and hearing, and filed with the California Department of Water Resources by July 1, 2021; and

WHEREAS, the City has therefore prepared for public review a draft 2020 Water Shortage Contingency Plan, and a properly noticed public hearing regarding the Plan was held by the City Council on June 15, 2021.

NOW, THEREFORE, BE IT RESOLVED by the Council of the City of San Luis Obispo as follows:

SECTION 1. The 2020 Water Shortage Contingency Plan for the City of San Luis Obispo, consisting of text, tables, and appendices presented to the Council on June 15, 2021, on file in the City Clerk's Office, is hereby adopted.

SECTION 2. The Utilities Director is hereby directed to distribute the 2020 Water Shortage Contingency Plan to the California State Library, the County of San Luis Obispo, and make available for public review as prescribed by state law.

SECTION 3. The adoption of the City's 2020 Water Shortage Contingency Plan is hereby determined to be statutorily exempt from the requirements of the California Environmental Quality Act pursuant to California Water Code §10652.

Upon motion of _____, seconded by _____, and on the following roll call vote:

AYES:
NOES:
ABSENT:

The foregoing resolution was adopted this _____ day of _____, 2021.

_____
Mayor Heidi Harmon

ATTEST:

_____
Teresa Purrington,
City Clerk

APPROVED:

_____
J. Christine Dietrick,
City Attorney

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the official seal of the City of San Luis Obispo, California, on _____.

_____
Teresa Purrington,
City Clerk