



# OVERVIEW OF LOMPOC'S WATER OPERATIONS AND CONSERVATION EFFORTS IN RESPONSE TO STATEWIDE DROUGHT CONCERNS

Lompoc City Council Meeting

July 6, 2021

# SANTA BARBARA COUNTY DROUGHT STATUS

February 2021 was the 4<sup>th</sup> driest February over the past 127 years in Santa Barbara County

-4.09 inches of rainfall from normal

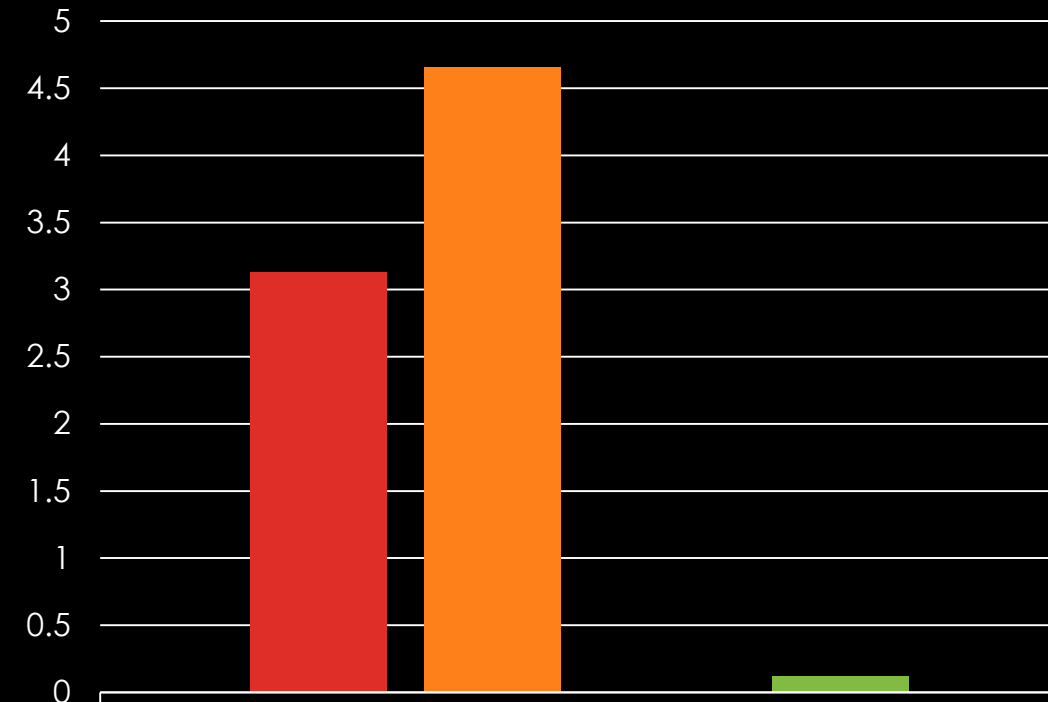
2020-2021 was the 56<sup>th</sup> driest year to date in 127 years (SB County)

-2.44 inches of rainfall from normal

Per the U.S. Drought Monitor, 96.37% of Santa Barbara County (including Lompoc) is classified to be experiencing a D2 – “Severe Drought” condition. Entailments of this condition include the following:

- Landscapes and gardens need irrigation earlier than normal
- Wildlife patterns begin to change
- Stock ponds and creeks are lower than usual

Rainfall in Lompoc



■ Feb. 1950-2005 (avg.)	3.13
■ Feb. 2019	4.66
■ Feb. 2020*	0
■ Feb. 2021	0.12

Rainfall (in.)

3.13

4.66

0

0.12

# DROUGHT RESPONSE STAGES OF REDUCTION

The City adopted an update 2020 Water Shortage Contingency Plan on June 15, 2021. This plan illustrates Mandatory Water Waste Prohibitions in all five of the following stages:

Stage	Condition	Reduction Objective
1 – Threatened Water Supply Conditions	<ul style="list-style-type: none"> <li>Gallons Per Capita Per Day (GPCD) greater than 117 (SB x 7-7 Baseline Target)</li> </ul>	Mandatory 15% Reduction
2 – Moderately Restricted Water Supply Conditions	<ul style="list-style-type: none"> <li>Rainfall below the mean average for two consecutive years and no Cachuma Reservoir expected that year.</li> </ul>	15-30% Mandatory Reduction in total water demands from baseline
3 – Severely Restricted Water Supply Conditions	<ul style="list-style-type: none"> <li>Rainfall below the mean average for 3 or more consecutive years, 15% drop in static well levels relative to previous year, and no Cachuma Reservoir Dam release expected that year.</li> </ul>	30-40% Mandatory Reductions in total water demands from baseline
4 – Critical Water Supply Conditions	<ul style="list-style-type: none"> <li>Undesirable Results as defined by Minimum Thresholds exceedances at Representative Monitoring Points per Western Management Agency Groundwater Sustainability Plan. Average Pumping from Lompoc Plain subarea for the past 5 years exceeded the Sustainable Yield. 67% of the active wells have Variable Frequency Drive running restrictions, and more than 1 well is unable to pump water under normal conditions.</li> </ul>	Up to 50% Mandatory Reduction in total demands from baseline
5 – Catastrophic Water Supply Conditions	<ul style="list-style-type: none"> <li>Loss of 1 or more wells.</li> </ul>	Adjustments to actions from previous stages as necessary in coordination with the Emergency Response Plan



# URBAN WATER MANAGEMENT PLAN



## 2020 Urban Water Management



The City has an Urban Water Management Plan that is updated every 5 years. City Council adopted the 2020 version of the plan on June 15, 202.

This plan provides information on the amount of water residents are using and the amount of water the city needs to process and distribute to ensure current and new residents have a reliable water supply.

The Urban Water Management Plan is reviewed by the public and is updated with public comments.

# SUSTAINABLE GROUNDWATER MANAGEMENT ACT

The City of Lompoc is part of the Western Management Agency (WMA), which is writing a Sustainable Groundwater Management Plan as required by the Sustainable Groundwater Management Act (SGMA) for the Lompoc Water Basin. The plan is revisited every 5 years to ensure that our groundwater is maintained in a sustainable manner, ensuring overall aquifer longevity and preventing overdraft drought conditions.

All of the water residents use in Lompoc is supplied by the Lompoc Plain Groundwater basin.

The public is able to comment on each section of the plan as it is written. Additionally, newsletters are published regularly for the public to be kept up-to-date about the Groundwater Plan's progress.

Three WMA newsletters have been published and are posted on the City's website in both English and Spanish. Additionally, the first newsletter was printed for resident customers as a bill insert.

**Sustainable Groundwater Management Quarterly Newsletter No. 1** June 2020

**Santa Ynez River Valley Groundwater Basin (SYRVGB)**

The Sustainable Groundwater Management Act (SGMA), signed into law in 2014, created a new framework for groundwater management in California. SGMA established a new structure for local groundwater management through Groundwater Sustainability Agencies (GSAs). The SYRVGB has three management areas each with their own GSA Committee comprised of local participating Agencies:

- Western Management Area (WMA) GSA Committee**
  - Santa Ynez River Water Conservation District • City of Lompoc
  - Mission Hills CSD • Vandenberg Village CSD
  - Santa Barbara County Water Agency
- Central Management Area (CMA) GSA Committee**
  - Santa Ynez River Water Conservation District • City of Buellton
  - Santa Barbara County Water Agency
- Eastern Management Area (EMA) GSA Committee**
  - Santa Ynez River Water Conservation District • City of Solvang
  - Santa Barbara County Water Agency • Santa Ynez River Water Conservation District, Improvement District No. 1

Each GSA Committee is preparing its own Groundwater Sustainability Plan (GSP) that will describe the path to groundwater sustainability. The GSPs will determine how much groundwater can be used in the future and could include restrictions on pumping.

All three GSPs will be completed in early 2022. Progress updates will be given in each quarterly GSA Committee meeting and draft documents will be available for public review and comment on the website ([www.SantaYnezWater.org](http://www.SantaYnezWater.org)). Participation by members of the community in developing the GSPs is important and each of the GSA Committees has adopted an outreach and engagement plan to guide the public participation process.

For more information, please visit [www.SantaYnezWater.org](http://www.SantaYnezWater.org) or call (805) 693-1156 ext. 403

**Sustainable Groundwater Management Act Newsletter No. 2** December 2020

**Santa Ynez River Valley Groundwater Basin**

The Sustainable Groundwater Management Act (SGMA), enacted January 2015, creates a new framework for groundwater management. The management plan developed by this process will regulate future groundwater use and will be completed in early 2022.

In accordance with SGMA, DRAFT Hydrogeological Conceptual Models (HCM) have been prepared for each management area within the Santa Ynez River Groundwater Basin, including the Eastern Management Area (EMA), the Central Management Area (CMA), and the Western Management Area (WMA). Each HCM describes the basin setting and outlines the physical characteristics of the specific management area, identifies principal aquifers, and the uses and users of groundwater. The HCM documents for the EMA, CMA, and WMA are now available for public review and comment at [SantaYnezWater.org](http://SantaYnezWater.org). Additional DRAFT documents describing groundwater conditions will be released for public review and comment, soon.

Check [SantaYnezWater.org](http://SantaYnezWater.org) for schedule of Public Meetings and Workshops

**Hydrogeological Conceptual Model:** Provides understanding of basin setting, physical characteristics and basin geometry (geology), hydrogeologic conditions, land use, and groundwater uses and users.

HCMs include a series of geologic maps and scaled cross-sections to provide a representation and geographic view of different data sets, as demonstrated by these examples from the draft HCMs.

**Sustainable Management Criteria**

Sustainable Groundwater Management is defined by the management and use of groundwater in a manner that can be maintained during the planning and implementation horizon, 20 years, without causing undesirable results.

Avoidance of undesirable results is measured through six sustainability indicators:

- Lowering GW Levels
- Degraded Quality
- Reduction of Storage
- Land Subsidence
- Seawater Intrusion
- Surface Water Depletion

The Groundwater Sustainability Agency Committees will request public feedback on the six sustainability indicators and associated undesirable results based on findings presented by the basin's consultants. Public feedback to establish undesirable results thresholds will be considered to work toward sustainable groundwater management. Public participation is important at this step to develop appropriate undesirable results thresholds in order to develop a plan for sustainable groundwater management. For meeting announcements and information on how to participate, please visit the website at [SantaYnezWater.org](http://SantaYnezWater.org).

For more information, meeting announcements, and draft documents, please visit [SantaYnezWater.org](http://SantaYnezWater.org) or call (805) 693-1156 ext. 403

**Sustainable Groundwater Management Act Newsletter No. 3** March 2021

**Santa Ynez River Valley Groundwater Basin**

The Sustainable Groundwater Management Act (SGMA), enacted January 2015, creates a new framework for groundwater management. The management plan developed by this process will regulate future groundwater use and will be completed in early 2022.

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The building blocks that inform a Groundwater Sustainability Plan (GSP) are:

<p><b>Basin Setting</b></p> <p>Characterizes the basin, evaluates and assesses current and historical conditions, and quantifies groundwater flows into and out of the basin.</p> <p>Summarized through the Hydrological Conceptual Model, Groundwater Conditions, and Water Budget.</p> <p><b>Drafts Completed</b></p>	<p><b>Numerical Groundwater Model</b></p> <p>A computational method that represents an approximation of the hydrologic system.</p> <p>A useful tool for estimating the potential hydrologic effects of proposed water management activities.</p> <p><b>Pending</b></p>	<p><b>Sustainable Management Criteria (SMC) Workshops</b></p> <p>Emphasizing local control of groundwater management through public engagement.</p> <p>Workshops are utilized to establish appropriate thresholds for undesirable results to develop a plan for sustainable groundwater management.</p> <p><b>Coming Soon</b></p>
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**Groundwater Sustainability Plan Sections**

- Plan Area and Basin Setting**
  - Description of the Plan Area
  - Basin Setting
- Sustainable Management Criteria**
  - Sustainability Goal
  - Measurable Objectives
  - Minimum Thresholds
  - Undesirable Results
  - Monitoring Network
- Actions to Achieve Sustainability Goal**
  - Proposed Projects
  - Proposed Management Actions
- Plan Implementation**
  - Estimate of GSP Costs
  - Schedule
  - Annual Reporting
  - Periodic Evaluations

The various DRAFT documents/chapters released for this plan will be compiled and form the larger GSP document as shown to the left. There are multiple opportunities for the public to comment on the chapters and full GSP before it is finalized in 2022.

For more information, meeting announcements, and to review and comment on draft documents, please visit [SantaYnezWater.org](http://SantaYnezWater.org) or call (805) 693-1156 ext. 403



# TREATMENT AND DISTRIBUTION

The City uses a conventional treatment process to ensure the safety and quality of our drinking water. Our process consists of disinfection, coagulation, flocculation, sedimentation, and filtration with diatomaceous earth (DE).

The City's Water Division is also responsible for the operation of the Frick Springs treatment plant. This plant consists of a small diatomaceous earth (DE) filtration and disinfection system. The water treated at this plant is collected from seven springs located in the upper hills of Lompoc. The Frick Springs water treatment plant complies with the Surface Water Treatment Rule (SWTR).



## Facts About Lompoc's Water Treatment Plant

- Constructed in 1963
- Originally designed to filter 6 million gallons per day (MGD)
- Enhanced in recent decades to filter approximately 10 MGD
- Serves 9,893 water meters daily (as of 5/12/21)
- 1,337,100,000 gallons filtered and produced in CY20
- Responsible for maintenance of 140 miles of distribution main lines





# WATER CONSERVATION OUTREACH

The City maintains a robust water conservation outreach program designed to increase public awareness and participation in hopes that conservation practices are eventually adopted as cultural norms. The City's water conservation program offers Lompoc residents the following:

1. High Water Use Outreach (High Use Reports)
2. Meter Audits to Proactively Detect Leaks (Leak Reports)
3. Customer Data Assistance (100W ERT Program)
4. Utility Billing Door Hangers and Customer Service
5. Rebates on Water-Saving Fixtures
6. Water Awareness Outreach Events (Library/Outdoor Market events)
7. U.S. EPA's WaterSense Program Alignment (Fix-a-Leak Week)



**City of Lompoc**  
May 8 at 10:37 AM · 🌐

Come say "hi" to our City of Lompoc Conservation Division today until 3 p.m. at the Lompoc Outdoor Community Market, and pick up some goodies.

Thanks to Plantel Nurseries and the the UC Cooperative Extension, we are able to offer these beautiful seedlings for free.

Conservation is also handing out seed packets and conservation goodie bags. Stop by the market in Downtown Lompoc next to the Lompoc Valley Chamber of Commerce & Visitor's Bureau.



👍❤️ 47 4 Comments 5 Shares

👍 Like    💬 Comment    ➦ Share

Most Relevant ▾

Thank you City of Lompoc! Had a great afternoon teaching my son about water conservation and planting our seedlings 🌱

# CONSERVATION PROGRAM METRICS

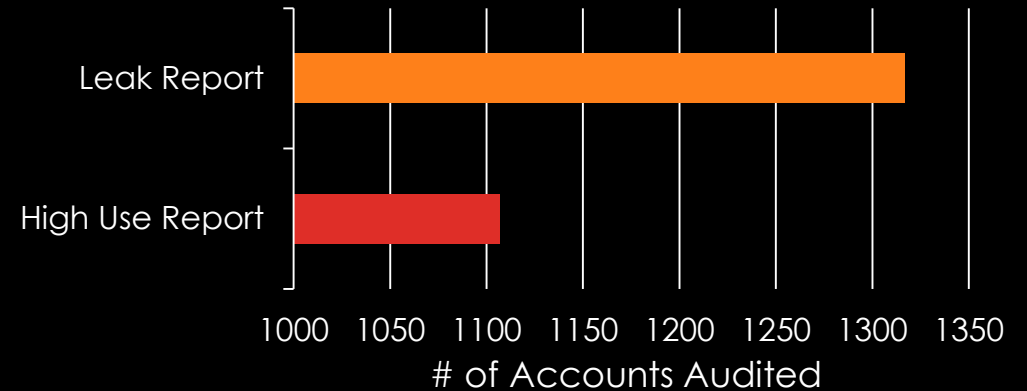
Customers have responded positively to the City's recent uptick in public outreach regarding water conservation.

Staff has noted the following outreach figures from CY20:

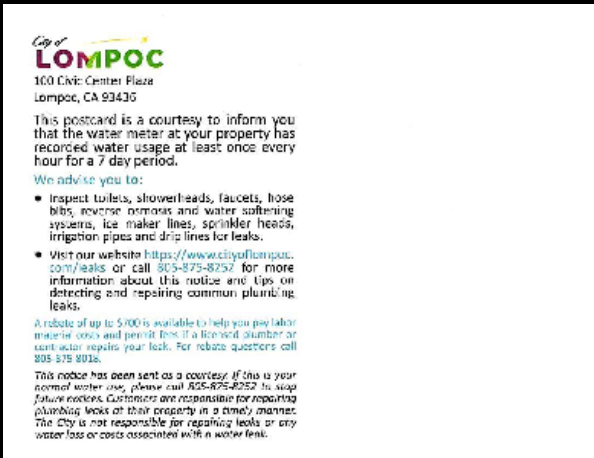
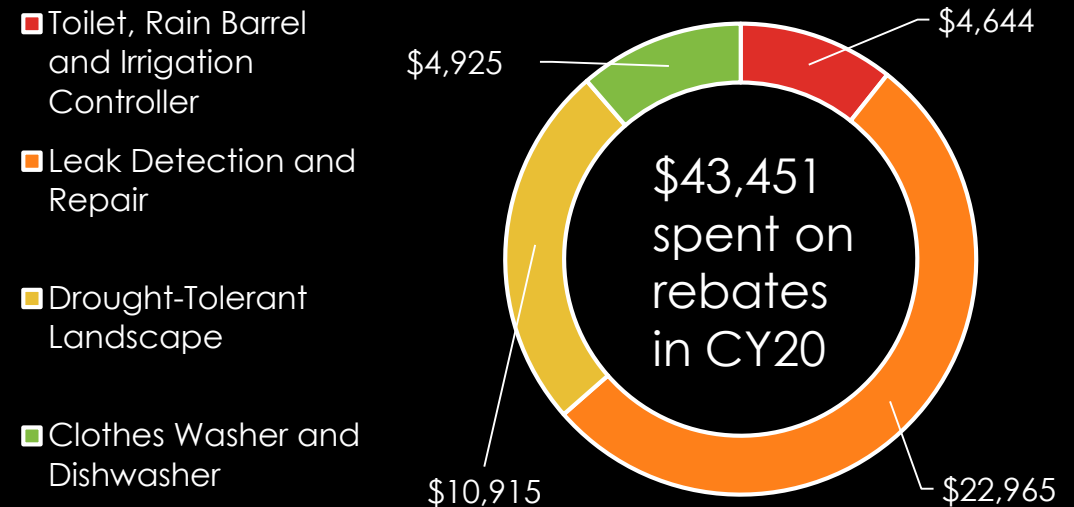
- 1,317 water accounts audited due to leak signifying data
- 1,107 water accounts audited due to higher than normal usage
- 136 water-saving rebates processed and credited to utility customers' accounts

The City's Water Leak Detection and Repair Rebate Program offers customers up to \$700 to help offset the cost of locating and repairing water leaks requiring the services of a professional. This program helped 39 customers find and fix water leaks in 2020.

## Water Conservation Outreach (CY20)



## Water-Saving Rebates





# STAFF RECOMMENDATION

In summary, Lompoc's residents are excelling in making water conservation a "way of life" and are keeping the City's GPCD well below 117 GPCD. If Lompoc residents begin to use more than 117 GPCD, the Utility Director could mandate Stage 1, triggering a mandatory 15% reduction per the City's Water Shortage Contingency Plan.

Even though our Stage 2, a mandatory reduction of 15-30%, has a trigger of rainfall below the mean average for two consecutive years, the Utility Director doesn't need to declare a water supply shortage if conditions are such that a water emergency declaration would not be the best approach to maintaining the public's trust and partnership.

Staff recommends publicizing Lompoc's current water levels and status of the basin's supply, while continuing to promote the importance of water and common conservation practices in lieu of punitive actions to enforce water wasting restrictions.

The Utility Director or designee will continue to monitor drought conditions and recommend to the City Council additional procedures, rules and regulations to carry out effective water conservation programs and equitable allocation of water resources.

