

Temescal Basin Public Workshop 3

Workshop Summary



Home Gardens
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1. Background

On September 16, 2014, the Governor of California signed into law a legislative package comprised of three bills: Assembly Bill (AB) 1739, Senate Bill (SB) 1168, and SB 1319. These laws are collectively known as the Sustainable Groundwater Management Act (SGMA). SGMA (pronounced sigma) defines sustainable groundwater management as the “management and use of groundwater in a manner that can be maintained without causing undesirable results.” This means keeping balanced levels of pumping and recharge of groundwater while assuring reliable water quality. SGMA provides a comprehensive framework for basin sustainability, additional technical analysis, and quantification of many aspects of basin sustainability and management. This includes extensive and detailed descriptions of the basin setting and conditions and more comprehensive monitoring of groundwater use, quality, and levels, including metering of groundwater usage.

SGMA requires the formation of a locally controlled Groundwater Sustainability Agency (GSA), which is responsible for developing and implementing a Groundwater Sustainability Plan (GSP). The GSP outlines how to achieve groundwater sustainability within 20 years of its adoption. The City of Corona, City of Norco, and Home Gardens County Water District have formed the Temescal Basin Groundwater Sustainability Agency (Temescal GSA) to create a GSP for the Temescal Basin.

GSAs must consider the interests of all beneficial uses and users of groundwater. The GSA must provide opportunities for public engagement and active involvement of diverse social, cultural, and economic elements of the population. The Temescal GSA recognizes that stakeholder and public engagement is critical to ensuring that the full range of interests of all beneficial uses and users of groundwater are represented during GSP development.

To share information and get input from stakeholders and the public, the Temescal GSA has been holding a series of public workshops, of which this is the third. Public Workshop 1, conducted on September 29, 2020, focused on communicating basic information about SGMA, the Temescal Basin, GSP development, and what sustainability means in a GSP. Participants were asked for input about their groundwater interests and what they thought was important for the future of groundwater in the Temescal Basin.

The second Public Workshop, conducted on March 2, 2021, focused on providing updates on the Temescal GSP development and introducing the hydrogeologic conceptual model, groundwater conditions, and water budget. Participants were asked for their input on what they thought the most important uses of groundwater were and if they knew of any current or historical problems regarding the use of groundwater in the Temescal Basin.

Public Workshop 3, conducted on July 8, 2021, focused on providing further updates on the Temescal GSP development and presenting the sustainability management criteria, projects and management actions, and implementation plan. Participants were asked to provide input on the sustainable management criteria, how the volume for groundwater in the Temescal Basin could be increased, and ideas for making groundwater more sustainable.

This summary documents the outreach methods, time and location, attendance, and major topics presented and discussed at this third public workshop.



2. Pre-Workshop Outreach

The Temescal GSA used a variety of methods to inform stakeholders and community members about the workshop and encourage participation, as shown in Table 1.

Table 1: Pre-Workshop Outreach Methods

Method	Description
Social Media Posts	The City of Corona and City of Norco posted information about the workshop on their Facebook pages.
Emails	Invitation emails were sent to those on the interested parties list.
Community Leader Meetings	Two meetings were held on June 29 and July 1. The purpose was to provide information on local water supply to community leaders, learn about needs and perspectives related to the Temescal GSP in vulnerable communities, and get input on what other stakeholders to invite.

3. When and Where

The workshop was held on July 8, 2021 from 4:00 to 6:00 p.m.

The workshop was held virtually on the Zoom platform. People also had the option to view and participate from the City of Corona Council Chambers. The workshop was streamed on the City of Corona’s website, Facebook, and YouTube channels and on Corona TV, viewable on Channel 29 on Time Warner Spectrum and Channel 99 on AT&T.

4. Attendance and Social Media Views

Approximately 18 people attended the Zoom virtual meeting, including six stakeholder participants. Spanish interpretation was available for participants to access during the Zoom virtual meeting. Others viewed the workshop on Facebook Live, YouTube, and Corona TV. Post-workshop statistics indicated 18 views on YouTube.

5. Summary

Welcome and Introductions

Jack Hughes, facilitator from Kearns & West, welcomed everyone to the third public workshop for the Temescal GSP. Hughes reviewed the workshop purpose, which was to provide Temescal GSP development updates and present the sustainable management criteria, projects and management actions, and implementation plan. Additionally, the consultant team wanted to hear input from participants on the sustainable management criteria, how the volume for groundwater in the Temescal Basin could be increased, and ideas for making groundwater more sustainable.

Hughes invited the workshop attendees to introduce themselves using the Zoom chat and recognized the Temescal GSA representatives in attendance. Hughes then introduced the additional workshop presenters: Chad Taylor, Principal Hydrogeologist at Todd Groundwater, and Madison Rasmus, Environmental Engineer at Carollo.



Review of Groundwater Sustainability Plan Development

Taylor first reviewed background information on GSP development (see the Appendix for presentation slides for this and the following sections). SGMA is landmark legislation established in 2014 following a long period of statewide drought. SGMA has altered how water is managed in California by providing local agencies with authority and guidance for how to assess sustainability and critical tools to help achieve or maintain sustainability in areas where groundwater is an important water source. Taylor explained that GSPs are detailed road maps for how groundwater basins will achieve or maintain long-term sustainability.

Taylor described the Temescal Basin area, which covers most of the City of Corona, about half of the City of Norco, and the western part of the Home Gardens County Water District. One GSA, the Temescal GSA, was formed for the Temescal Basin because the area is hydrologically connected and has historically been managed as one unit. The California Department of Water Resources has designated the Temescal Basin as a medium priority basin, which required the Temescal GSA to prepare the Temescal GSP.

Taylor next described the organization of the Temescal GSA. The City of Corona, the City of Norco, and Home Gardens County Water District formed the Temescal GSA in 2017 through a memorandum of understanding. The City of Corona is leading the GSP effort with support from Corona Department of Water and Power staff and additional consultants. The Technical Advisory Committee (TAC) has provided input during GSP preparation and includes members that represent public agencies, local businesses, well owners, and community interests. The GSP process is founded on public engagement and stakeholder outreach, which is the purpose of the public workshops.

Groundwater Sustainability Plan Development Update

Taylor provided a status update on the Temescal GSP. The individual chapters that have been prepared are the Introduction, Plan Area, Hydrogeologic Conceptual Model, Groundwater Conditions, Monitoring Network, Projects and Management Actions, and Implementation Plan chapters. Most of these chapters are available online for public review; some chapters are currently being reviewed by the TAC and will be uploaded to the GSA website shortly for public review. The consultant team is finalizing the Water Budget and Sustainability Management Criteria chapters. A draft of the Temescal GSP will be compiled and prepared for public release later in summer 2021.

Discussion/Q&A

Hughes opened the floor for questions and comments. There were no questions or comments from participants after this presentation.

Sustainable Management Criteria

Taylor presented the draft sustainable management criteria for the Temescal Basin. He first defined sustainable management as the management and use of groundwater without causing undesirable results. Taylor explained that the first part of defining sustainability locally is to establish a sustainability goal. The sustainability goal helps to provide a framework for how the sustainability indicators are assessed. The Temescal GSA and TAC worked together to develop the following goal:

To sustain groundwater resources for the current and future beneficial uses of the Temescal Basin in a manner that is adaptive and responsive to the following objectives:



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- Provide a long-term, reliable, and efficient groundwater supply for municipal, industrial, and other uses;
- Provide reliable storage for water supply resilience during droughts and shortages;
- Protect groundwater quality;
- Support beneficial uses of interconnected surface waters; and
- Support integrated and cooperative water resource management.

Taylor provided an overview of the six indicators for evaluating groundwater sustainability in a basin: chronic lowering of groundwater levels, reduction of groundwater storage, degradation of water quality, depletion of interconnected surface water affecting beneficial uses, land subsidence affecting land uses, and seawater intrusion, which is not applicable in the Temescal Basin.

Thresholds need to be developed for the five applicable sustainable management criteria for the Temescal Basin. First, undesirable results, or conditions that should be avoided, are defined for each indicator. Once undesirable results are defined, they are used to develop minimum thresholds for assessing each of the sustainability indicators. Next, measurable objectives are set. Beneficial uses in the Temescal Basin also need to be evaluated and considered for each of the sustainability indicators. These include the following:

- Municipal Water Supply
- Industrial Water Supply
- Small Community Water Supply
- Small Commercial Water Supply
- Groundwater Dependent Ecosystems
- Recreational Surface Water Supply

Taylor next explained how the sustainable management criteria were established for each indicator, starting with chronic lowering of groundwater levels. Since there is no record of wells being dry in the Temescal Basin during the range of historic groundwater levels, the assumption was made that historic low groundwater levels could be repeated in the future. The consultant team established a set of representative key wells in the Temescal Basin. These key wells have a long history for monitoring groundwater levels and will continue to be used for monitoring in the future. Taylor explained that the minimum threshold for defining undesirable results relative to chronic lowering of groundwater levels is defined at each key well by the historic minimum static groundwater elevation (or maximum historical depth to groundwater).

Taylor then presented the sustainable management criteria for reduction of groundwater storage, noting that storage is related to groundwater levels. He explained that GSP regulations allow the use of groundwater level minimum thresholds and measurable objectives as a proxy, and that the historic minimum-based groundwater level threshold is well-suited for use as a proxy for groundwater storage. The minimum threshold for groundwater storage is fulfilled by the minimum threshold for groundwater levels (using the historical minimum).

Taylor presented the sustainable management criteria for degradation of water quality. He explained that the Temescal GSA is not responsible for local groundwater quality problems or degradation caused by others. Groundwater quality is under regulatory oversight by state agencies. However, the Temescal GSA is responsible for undesirable results associated with increased concentrations of water quality



contaminants of concern due to groundwater management, such as through recharge and changes in pumping patterns related to groundwater management. The primary contaminants of concern in the Temescal Basin (historically and currently) are total dissolved solids (TDS) and nitrate. The minimum threshold is defined as a statistically significant increase in the percentage of wells with averages exceeding the maximum contaminant level for TDS and/or nitrate, relative to current conditions. Statistically significant is defined as more than a 10 percent increase in the number of wells in a 5-year period.

Taylor next presented the sustainable management criteria for depletions of interconnected surface water affecting beneficial uses. He explained that groundwater close to the ground surface can interact with vegetation or stream flows. Vegetation that relies on groundwater as its primary source of water is called riparian vegetation. Ecosystems that rely on groundwater are referred to as groundwater dependent. Impacts associated with reductions of stream flow, which affect groundwater dependent ecosystems, and potential impacts to riparian vegetation are assessed. Taylor displayed a map showing the maximum depth to water of wells in the Temescal Basin. Groundwater levels in all the wells in the main portion of the Temescal Basin have never been less than 40 feet deep. Water levels in wells in and near the Prado Basin area have never been deeper than 15 feet. Because riparian vegetation roots typically reach 20 to 30 feet at most, it is unlikely that the main part of the basin supports any riparian vegetation; however, the Prado Basin area likely supports riparian vegetation with its shallow groundwater levels. Depths in all wells around the Prado Basin and trends for groundwater levels, groundwater pumping, river flow, and rainfall were analyzed to determine if the Prado wetlands were supported by groundwater. The conclusion is that the Prado wetlands are more dependent on surface inflows than groundwater inflow. Changes in surface inflows have much more influence than changes in groundwater pumping or levels to the north or south. More monitoring is needed in the southern Prado Basin between the Prado wetlands and pumping centers in the Temescal Basin. Taylor explained that the minimum threshold for depletion of interconnected surface water is the historical maximum depth to water in shallow monitoring wells in the southern Prado area, correlated with Temescal Basin pumping or groundwater levels.

Finally, Taylor presented the sustainable management criteria for land subsidence affecting land uses, explaining that when water is removed from an aquifer, fine-grain materials can compact and the ground surface can decline. Ground surface elevation changes that may be related to subsidence statewide has been estimated by satellite measurements in data provided by the California Department of Water Resources dating from 2015 to 2019. This includes ground surface elevation changes in the Temescal Basin. This method has a margin of error of approximately 0.1 feet. The satellite data estimates show ground surface change in the Temescal Basin ranging between a rise of 0.08 feet to a fall of 0.08 feet. This is very small and within the margin of error. Taylor presented the minimum threshold for subsidence, defined as a rate of decline equal to or greater than 0.2 feet in any 5-year period. This has been considered in terms of a cumulative decline equal to or greater than 1.0 foot of decline since 2015, which represents current conditions and aligns with the SGMA start date.

Discussion/Q&A

Hughes opened the floor for questions and comments. There were no questions or comments from participants after this presentation.



Projects and Management Actions

Rasmus presented the draft projects and management actions for the Temescal GSP. She explained the three groupings of actions: baseline, planned, and potential future. Baseline refers to existing or established commitments to projects or actions. Planned actions are developed and evaluated projects or actions. Potential future actions describe projects or actions to be implemented later to achieve sustainability goals.

Rasmus began by describing the baseline projects. The first is groundwater treatment at the Temescal Desalter to reduce nitrates, total suspended solids (TSS), TDS, and other contaminants of concern for the drinking water supply. The second project is water reclamation facility (WRF) percolation ponds that discharge from City of Corona-owned WRFs to percolation ponds that recharge the Temescal Basin. The third project includes water-level quality assurance and quality control activities that maintain the reliability of ongoing groundwater elevation data. The final project Rasmus presented was the Western Riverside County Regional Authority (WRCRWA) plant that will soon supply recycled water for local irrigation use.

Rasmus next reviewed the baseline management actions. These include Water Shortage Contingency Plans, which are plans that detail the stages of water shortage and conservation response based on an agency's available supply and deficit, and Water Conservation Programs, which include response actions to reduce water use in the stages of a water shortage. Additional management actions include the Western Municipal Water District Integrated Regional Water Management Plan, which is a coordinated, long-range regional water quantity and quality management strategy, and the Temescal GSA's involvement in the Santa Ana Watershed Project, which is a coordinated management group formed to protect the Santa Ana River Basin and associated water resources.

Rasmus then reviewed the three projects included in planned actions. First, the Potable Reuse Feasibility Study will look at the possible use of future reclaimed water supply. Second, the mountain runoff capture investigation would explore options for operational changes allowing for additional benefit of groundwater recharge by using storm event runoff that is collected in Riverside County Flood Control and Water Conservation District basins. This would be at the edges of the basin adjacent to the Santa Ana mountains. Lastly, the interconnected surface water monitoring wells project would include three shallow monitoring wells drilled into the Prado Management Area to allow for groundwater elevation monitoring.

Rasmus provided more information on the interconnected surface water monitoring wells project since its implementation date is within the first year of Temescal GSP adoption. Wells will be sited in the southern area of the Prado Management Area. There is no active groundwater monitoring in this location so drilling wells will allow the Temescal GSA to better understand the relationship between the basin and interconnected water in the Prado Wetlands. The project will consist of three groundwater wells about 40-60 feet deep that will allow for continuous groundwater elevation data collection in the area. The data will be incorporated in the 5-year GSP update and these monitoring wells will inform future management actions in the Santa Ana River Watershed.

Lastly, Rasmus presented potential future actions. Data collected from the Prado Management Area monitoring wells will be used as part of monitoring for undesirable results to interconnected surface water in Prado. If this monitoring identifies potential undesirable results to interconnected surface water



in the Prado Management Area, then coordination will be needed with upstream Santa Ana River partners as a management action. If groundwater levels in the Prado Management Area are falling, this approach will allow for coordinated solutions.

There are two additional future management actions. One is for future groundwater treatment, which would entail implementing advanced treatment for previously detected per- and polyfluoroalkyl substances (PFAS), TDS, nitrate, and trichloropropane (TCP). Other future management actions are for urban stormwater treatment, capture, and recharge, which is an exploration of urban stormwater harvesting to offset water supply and/or provide for groundwater recharge.

Discussion/Q&A

Hughes opened the floor for questions and comments. Participants were encouraged to answer the following question verbally or using the chat:

- Are there other potential groundwater related projects we should consider?
- Do you have ideas for how the volume of groundwater in the Temescal Basin could be increased?
- Do you have ideas for making groundwater more sustainable in the Temescal Basin?

The following are the questions and comments received in the chat box from participants:

- Could you confirm that Western Municipal Water District (WMWD) has an Integrated Regional Water Management Plan (IRWMP)?
- Since the 2008 WMWD IRWMP is a bit dated, I would recommend also citing the 2018 Santa Ana Watershed Project Authority (SAWPA) One Water One Watershed (OWOW) Plan.
- If the GSA is not responsible for impacts to groundwater dependent ecosystems resulting from reductions in surface water flow beyond its control, how does the Temescal GSA intend to determine if reductions in Western Riverside County Regional Wastewater Authority (WRCWRA) flows are impacting groundwater dependent ecosystems in the Prado Basin?
- I would recommend that the groundwater basin planning reflect the storage project called Santa Ana River Conservation and Conjunctive Use Program (SARCCUP) of which WMWD is a member.

Groundwater Sustainability Plan Implementation

Taylor presented for discussion four categories of GSP implementation: monitoring of groundwater conditions and use, annual reports, carrying out of projects and management actions, and periodic evaluations/GSP updates. First, monitoring of groundwater conditions and use will occur often throughout the basin. This includes groundwater levels, water quality, stream flow, subsidence, and water use. Second, the data collected through this monitoring will be compiled into annual reports. Annual reports include groundwater level data, storage change, water use, and sustainability progress. Third, carrying out projects and management actions will be an important part of GSP implementation and will be updated and modified over time. Last, periodic evaluations will occur at least every 5 years and GSP updates can occur based on new information becoming available, new projects being added, or the need to modify sustainable management criteria. All modifications should be made to ensure that the GSP continues to provide a reliable roadmap for sustainability for the groundwater basin.

Discussion/Q&A

Hughes opened the floor for questions and comments. There were no questions or comments from participants after this presentation.



How to Stay Involved

Hughes explained how members of the public could be involved throughout the remainder of the Temescal GSP preparation. Once all chapters are completed later in summer 2021, the draft Temescal GSP will be released for a 90-day period where the public can review and comment on the draft plan. The public will also have the opportunity to attend and make comments at the Adoption Hearing for the final GSP in winter 2021 before the final GSP is sent to the California Department of Water Resources by January 2022.

Draft chapters and other materials such as fact sheets can be found on the project website hosted by the City of Corona Department of Water and Power: CoronaCA.gov/Groundwater. Members of the public can use the form on the website to provide comments. Information on attending the Temescal GSP Adoption Hearing will also be posted on the website. Anyone who wants to be included on the mailing list to receive communication about the Temescal GSP should email Groundwater@CoronaCA.gov.

6. Wrap Up and Closing

Hughes thanked everyone for participating.



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Appendix

Presentation Slides



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TEMESCAL GSP PUBLIC WORKSHOP 3

TEMESCAL GSP TALLER COMUNITARIO 3

About the Groundwater Sustainability Plan (GSP)

The Sustainable Groundwater Management Act or "SGMA" is a California law that gives local agencies new tools for managing groundwater and planning for the future. The City of Corona, City of Norco, and Home Gardens County Water District have formed the Temescal Groundwater Sustainability Agency (Temescal GSA) in order to make a **Groundwater Sustainability Plan** for the Temescal Basin. Since groundwater is such an important resource for everyone, we need your help!



Un poco sobre el plan de sostenibilidad de las aguas subterráneas (GSP)

La Ley de Gestión Sostenible de Aguas Subterráneas o "SGMA", por sus siglas en inglés, es una ley de California que otorga a las agencias locales nuevas herramientas para gestionar las aguas subterráneas y planificar para el futuro. La Ciudad de Corona, la Ciudad de Norco y el Distrito Hídrico del Condado de Home Gardens han formado la Agencia de Sostenibilidad de Aguas Subterráneas de la Cuenca de Temescal (Temescal Groundwater Sustainability Agency) o Temescal GSA a fin de crear un **Plan de Sostenibilidad de Aguas Subterráneas** para la Cuenca de Temescal. Dado que las aguas subterráneas son un recurso muy importante para todos, ¡necesitamos su ayuda!

TEMESCAL GROUNDWATER SUSTAINABLY PLAN (GSP) PUBLIC WORKSHOP 3

PLAN DE SOSTENIBILIDAD DE LAS AGUAS SUBTERRÁNEAS (GSP) DE TEMESCAL TALLER COMUNITARIO 3 DE TEMESCAL

JULY 8, 2021 / 8 DE JULIO DE 2021



WELCOME BIENVENIDOS

Interpretación española

You are viewing Jack Hughes' s screen

View Options

Speaker View

Exit Full Screen

TEMESCAL GSA

TEMESCAL GSP PUBLIC WORKSHOP 3

July 8, 2021



TEMESCAL GROUNDWATER SUSTAINABILITY PLAN

- Off
- EN English
- ES Spanish
- Mute Original Audio



Jack Hughes

Aly Scurlock

Mute

Start Video

Participants 2

Chat

Share Screen

Record

Spanish

Leave

This public workshop is being recorded and
will be posted on the website:

www.CoronaCA.gov/Groundwater

Este taller público sera grabado y
sera publicado en el sitio web:

www.CoronaCA.gov/Groundwater

WORKSHOP PURPOSE PROPÓSITO DE TALLER COMUNITARIO

- » Give Temescal Groundwater Sustainability Plan development updates.
Proporcionar actualizaciones del desarrollo del Plan de Sostenibilidad de Aguas Subterráneas de Temescal.
- » Present the sustainability criteria, projects and management actions, and implementation plan.
Presentar los criterios de sostenibilidad, proyectos y acciones de gestión, y plan de implementación.

WORKSHOP PURPOSE PROPÓSITO DE TALLER COMUNITARIO

- » Hear input on sustainability criteria, and how the volume for groundwater in the basin could be increased and ideas for making groundwater more sustainable.

Escuche comentarios sobre criterios de sostenibilidad y cómo se podría aumentar el volumen de agua subterránea en la cuenca e ideas para hacer que el agua subterránea sea más sostenible

HOW TO USE ZOOM CÓMO UTILIZAR ZOOM

The image shows a Zoom meeting window. At the top, a green banner reads "You are viewing Jack Hughes' screen". The main content area displays a slide titled "TEMESCAL GSA" and "TEMESCAL GSP PUBLIC WORKSHOP 3". A video thumbnail of Jack Hughes is visible on the right. The bottom toolbar contains icons for Mute, Start Video, Participants, Chat, Share Screen, Record, Spanish, Raise Hand, and Leave. The "Raise Hand" icon is circled in green. On the right side, the "Participants (2)" list shows "Aly Scurlock (Me)" and "Jack Hughes (Host)". The "Raise Hand" button in the participant list is also circled in green. The "Zoom Group Chat" section shows a message from "Aly Scurlock" asking "Did you lose your audio?". The Windows taskbar at the bottom shows the search bar and various application icons. The system tray in the bottom right corner displays the time "1:41 PM" and date "9/11/2020".



INTRODUCTIONS

INTRODUCCIONES

TEMESCAL GSA



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CONSULTANT TEAM EQUIPO DE CONSULTORES



Chad Taylor
Todd Groundwater



Madison Rasmus
Carollo Engineers



Jack Hughes
Kearns & West

TIPS FOR A PRODUCTIVE DISCUSSION

CONSEJOS PARA UNA DISCUSIÓN PRODUCTIVA

- » One speaker at a time
Solo una persona habla a la vez
- » Keep input concise
Sea conciso al hablar
- » Actively listen
Escuche activamente
- » Offer solutions
Ofrezca soluciones

YOUR INPUT MATTERS

SU OPINIÓN ES IMPORTANTE

- » The planning team will consider your comments as they prepare the Groundwater Sustainability Plan.
El equipo de planificación considerará sus comentarios mientras preparan el Plan de Sostenibilidad de aguas subterráneas.
- » Your input will be recorded, organized thematically, and presented in a workshop summary on the project website.
Sus comentarios serán registrados, organizados temáticamente y presentados en el resumen del taller en el sitio web del proyecto.

REVIEW OF GROUNDWATER SUSTAINABILITY PLAN DEVELOPMENT REPASO DEL PLAN DE SOSTENIBILIDAD DE LAS AGUAS SUBTERRÁNEAS

SUSTAINABLE GROUNDWATER MANAGEMENT ACT (SGMA) GESTIÓN SOSTENIBLE DE AGUAS SUBTERRÁNEAS (SGMA)

Landmark legislation in 2014

- » Recognizes that groundwater management in California is best accomplished locally

Legislación histórica en 2014

- » Reconoce que la gestión de las aguas subterráneas en California se logra mejor a nivel local

GROUNDWATER SUSTAINABILITY PLANS PLANES DE SOSTENIBILIDAD DE LAS AGUAS SUBTERRÁNEAS

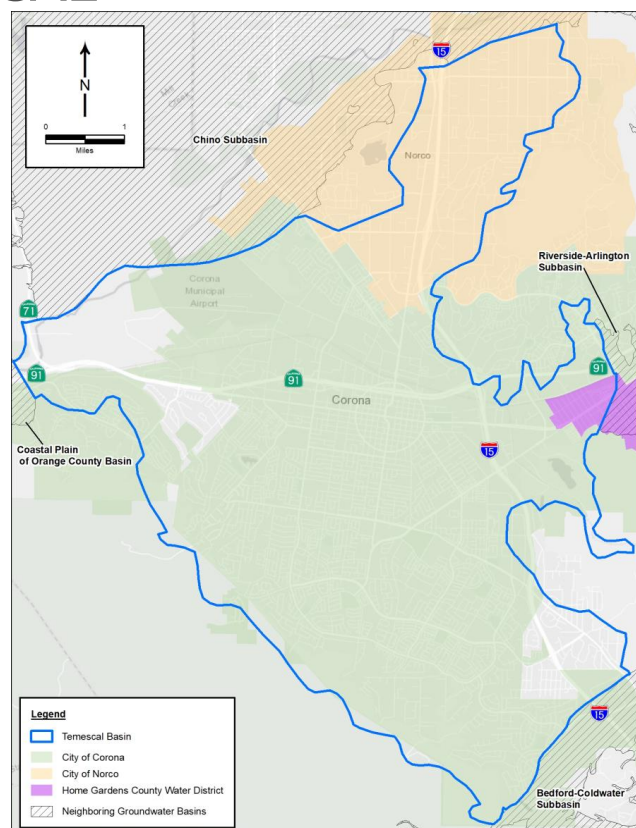
- » Groundwater sustainability plans are detailed road maps for how groundwater basins will achieve long term sustainability.
- » Los planes de sostenibilidad de las aguas subterráneas actúan como mapas que detallan la ruta que hay que seguir para que cuencas de aguas subterráneas logren la sostenibilidad a largo plazo.

THE TEMESCAL BASIN LA CUENCA DEL TEMESCAL

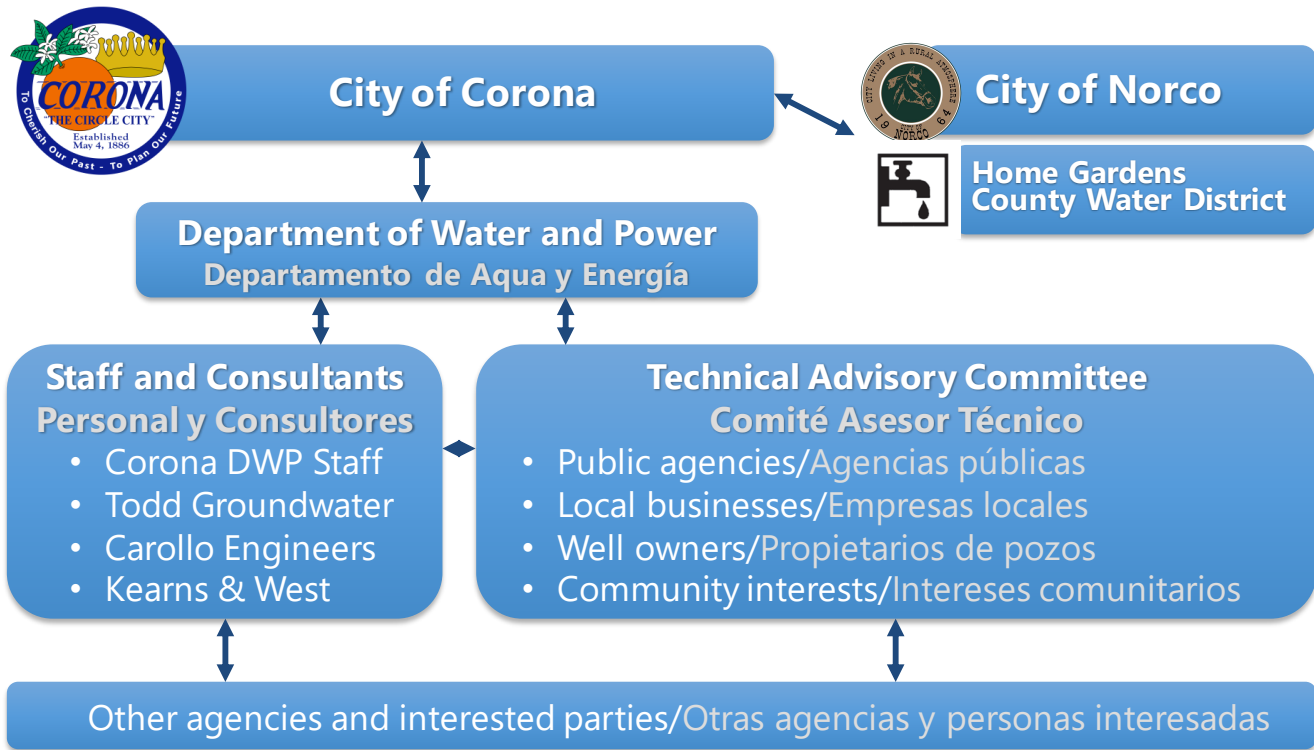
- » DWR categorized Temescal Basin as a Medium Priority Basin

La Cuenca del Temescal fue designada por DWR como Cuenca de Prioridad Media

- » Contiguous and connected
Contigua y conectada



GSA ORGANIZATION / ORGANIZACIÓN



GSP DEVELOPMENT UPDATE ACTUALIZACIÓN DE DESARROLLO DEL SGP

GSP STATUS ESTADO DEL GSP

Individual chapters have been completed:

- » Introduction
- » Plan Area
- » Hydrogeologic Conceptual Model
- » Groundwater Conditions
- » Monitoring Network
- » Projects and Management Actions
- » Implementation Plan

Working on finishing drafts of:

- » Water Budget
- » Sustainability Criteria

Then will be compiling complete GSP for distribution

Se han completado capítulos individuales:

- » Introducción
- » Área del plan
- » Modelo conceptual hidrogeológico
- » Condiciones de las aguas subterráneas
- » Red de supervisión
- » Proyectos y acciones de gestión
- » Plan de ejecución

Estamos trabajando en la finalización de borradores de:

- » Presupuesto del agua
- » Criterios de sostenibilidad

A continuación, se compilará el GSP completo para su distribución

DISCUSSION AND Q&A DISCUSIÓN / PREGUNTAS Y RESPUESTAS

SUSTAINABLE MANAGEMENT CRITERIA

CRITERIOS DE GESTIÓN SOSTENIBLE

WHAT IS SUSTAINABLE MANAGEMENT? ¿QUÉ ES LA GESTIÓN SOSTENIBLE?

The management and use of groundwater without causing undesirable results

El gestión y utilización de las aguas subterráneas sin causar resultados indeseables



Chronic lowering of groundwater levels
Reducción crónica de los niveles de aguas subterráneas



Reduction of groundwater storage
Reducción del almacenamiento de aguas subterráneas



Degradation of water quality
Degradación de la calidad del agua



Depletions of interconnected surface water
Agotamiento de aguas superficiales interconectadas



Land subsidence affecting land uses
Hundimiento de tierras que afectan los usos de las tierras



Seawater intrusion (not applicable here)
Inactividad de aguas marinas (no aplicable aquí)

SUSTAINABILITY GOAL

OBJETIVO DE SOSTENIBILIDAD

To sustain groundwater resources for the current and future beneficial uses of the Temescal Basin in a manner that is adaptive and responsive to the following objectives:

- » Provide a long-term, reliable and efficient groundwater supply for municipal, industrial, and other uses
- » Provide reliable storage for water supply resilience during droughts and shortages
- » Protect groundwater quality
- » Support beneficial uses of interconnected surface waters, and
- » Support integrated and cooperative water resource management.

Sostener los recursos de aguas subterráneas para los usos beneficiosos actuales y futuros de la Cuenca Temescal de manera que sean adaptables y respondan a los siguientes objetivos:

- » Proporcionar un suministro de agua subterránea fiable y eficiente a largo plazo para usos municipales, industriales y de otro tipo
- » Proporcionar almacenamiento fiable para la resistencia del suministro de agua durante sequías y escaseces
- » Proteger la calidad del agua subterránea
- » Apoyar los usos beneficiosos de las aguas superficiales interconectadas y
- » Apoyar los recursos hídricos integrados y cooperativos

HOW DO WE MEASURE SUSTAINABILITY?

¿CÓMO MEDIMOS LA SOSTENIBILIDAD?

Sustainability Criteria

Criterios de sostenibilidad:

- » Undesirable results / Resultados no deseados
 - What are undesirable results that we want to avoid?
 - ¿Cuáles son los resultados no deseados que queremos evitar?
- » Minimum thresholds (MT) / Umbrales mínimos (MT)
 - How low is too low for water levels?
 - ¿Qué tan bajo es demasiado bajo para los niveles de agua?
- » Measurable objectives (MO) / Objetivos mensurables (MO)
 - What is the desired range of water levels?
 - ¿Cuál es el rango deseado de niveles de agua?

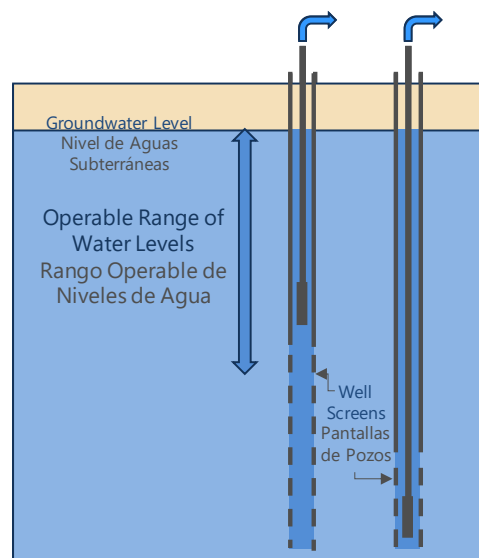
BENEFICIAL USES USOS BENEFICIOSOS

- » Municipal water supply
- » Industrial water supply
- » Small community water systems
- » Small commercial water supply
- » Groundwater dependent ecosystems
- » Recreational surface water use
- » Suministro de agua municipal
- » Agua para procesos industriales
- » Sistemas de agua comunitarios pequeños
- » Agua para uso comercial pequeños
- » Ecosistemas dependientes del agua subterránea
- » Uso de aguas superficiales para fines recreativos

GROUNDWATER LEVELS NIVELES DE AGUA SUBTERRÁNEA



- » Define MT as historical low level in Key Wells
Definir MT como nivel bajo histórico en Key Wells
- » Key Wells are a set of representative monitoring wells that will continue to be monitored
Los pozos clave son un conjunto representativo de pozos de monitoreo que continuarán siendo monitoreados



REDUCTION OF GROUNDWATER STORAGE REDUCCIÓN DEL ALMACENAMIENTO DE AGUAS SUBTERRÁNEAS



- » Groundwater storage is connected to water levels
El almacenamiento de aguas subterráneas está conectado a los niveles de agua
- » GSP regulations allow use of groundwater level Minimum Thresholds and Measurable Objectives as a proxy
Las regulaciones del GSP permiten el uso de umbrales mínimos de nivel de aguas subterráneas y objetivos mensurables como proxy
- » Historical minimum-based water level threshold is well suited to use as a proxy
El umbral histórico de nivel de agua basado en el mínimo es adecuado para su uso como proxy
- » Minimum Threshold for storage is fulfilled by the minimum threshold for groundwater levels
El umbral mínimo para el almacenamiento se cumple con el umbral mínimo para los niveles de aguas subterráneas

WATER QUALITY / CALIDAD DEL AGUA



- » GSA is not responsible for local problems or degradation caused by others.
GSA no es responsable por los problemas locales o la degradación causada por otros.
- » Groundwater quality is under regulatory oversight by State Agencies.
La calidad de las aguas subterráneas está bajo la supervisión reglamentaria de las agencias estatales.
- » The GSA is responsible for increased concentrations in water quality due to management (recharge, pumping, etc.).
La GSA es responsable por el aumento de las concentraciones en la calidad del agua debido a la gestión (recarga, bombeo, etc.).

WATER QUALITY THRESHOLD

UMBRAL DE CALIDAD DEL AGUA



» Minimum Threshold defined as a statistically significant increase in the percentage of wells with averages exceeding the maximum contaminant level (MCL) for total dissolved solids (TDS) and nitrate, relative to current conditions.

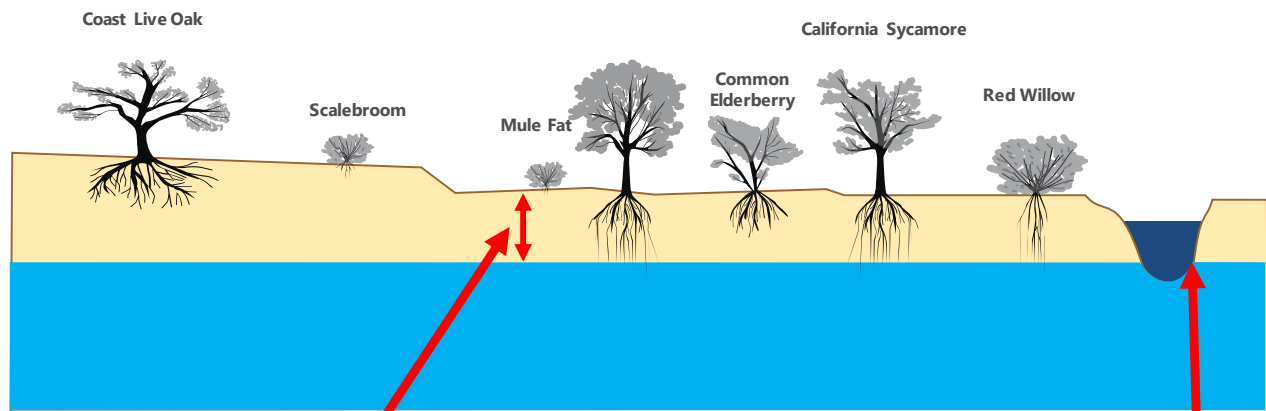
Umbral mínimo definido como un aumento estadísticamente significativo en el porcentaje de pozos con promedios que exceden el nivel máximo de contaminante (MCL) para sólidos disueltos totales (TDS) y nitrato, en relación con las condiciones actuales.

» Statistically significant is defined as more than 10 percent increase in number of wells in 5-year period.

Estadísticamente significativo se define como un aumento de más del 10 por ciento en el número de pozos en un período de 5 años.

INTERCONNECTED SURFACE WATER

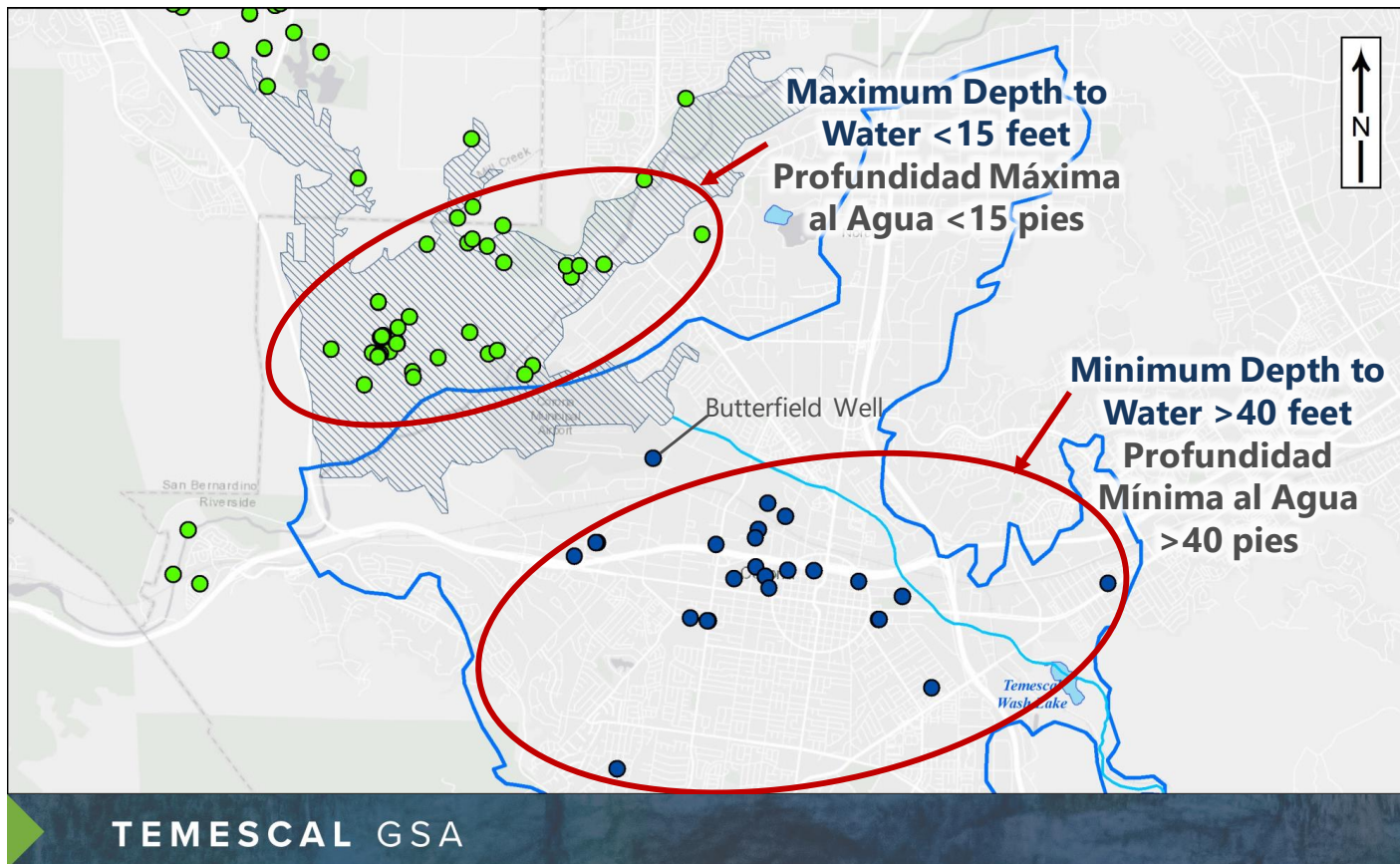
AGUAS SUPERFICIALES INTERCONECTADAS



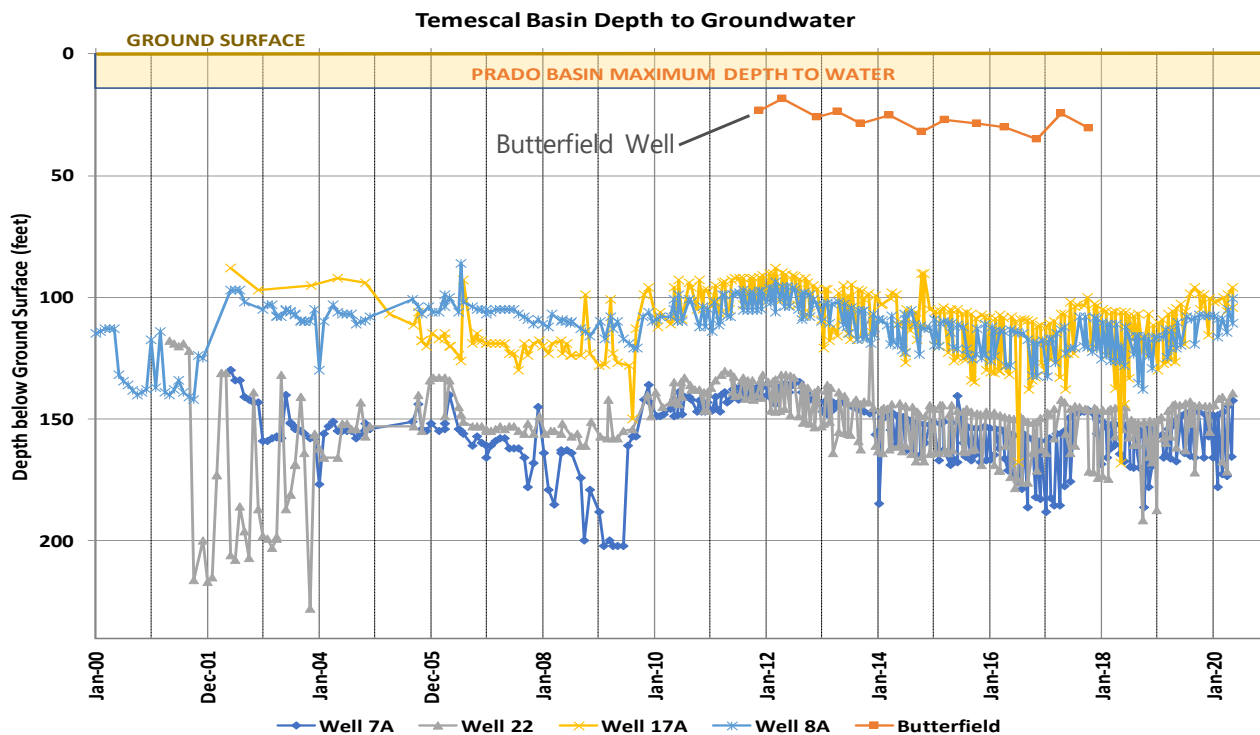
Riparian Vegetation:
About 20 to 30 feet
Riparian Vegetation:
Cerca de 20 a 30 pies

Stream Flow Depletion:
Stream Bed Elevation
Agotamiento del Flujo de la Corriente:
Elevación del Lecho del Arroyo

DEPTH TO GROUNDWATER PROFUNDIDAD A LAS AGUAS SUBTERRÁNEAS



DEPTH TO GROUNDWATER PROFUNDIDAD A LAS AGUAS SUBTERRÁNEAS



INTERCONNECTED SURFACE WATER CONCLUSIONS



CONCLUSIONES SOBRE LAS AGUAS SUPERFICIALES INTERCONECTADAS

- » Prado wetlands are more dependent on surface inflows than groundwater inflow
Los humedales del Prado dependen más de los flujos de entrada superficiales que los flujos de entrada de aguas subterráneas
- » Changes in surface inflows have much more influence than changes in groundwater pumping or levels to the north or south
Los cambios en los flujos de entrada superficiales tienen mucha más influencia que los cambios en el bombeo de aguas subterráneas o los niveles hacia el norte o el sur
- » More monitoring is needed in the southern Prado between the wetlands and pumping centers in Temescal Basin
Se necesita más vigilancia en el sur del Prado entre los humedales y los centros de bombeo en la cuenca Temescal

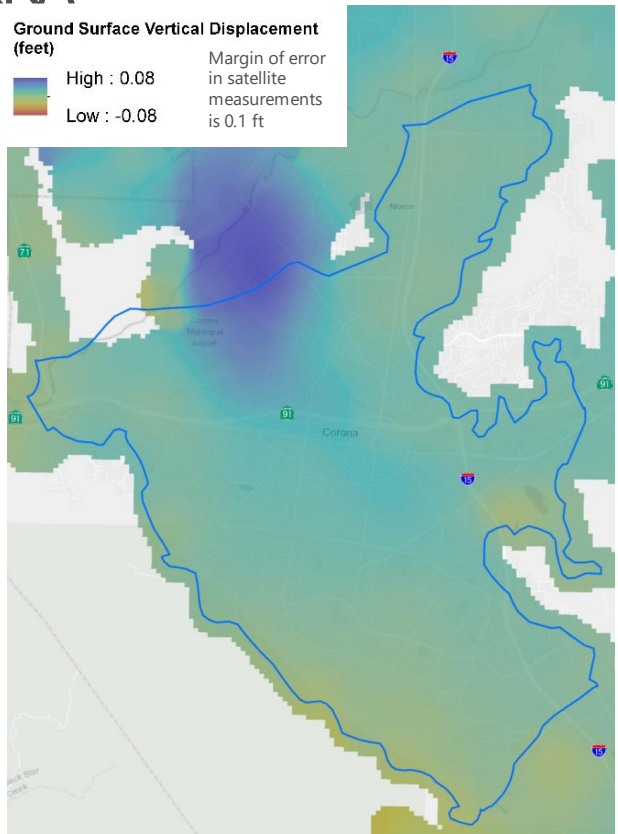
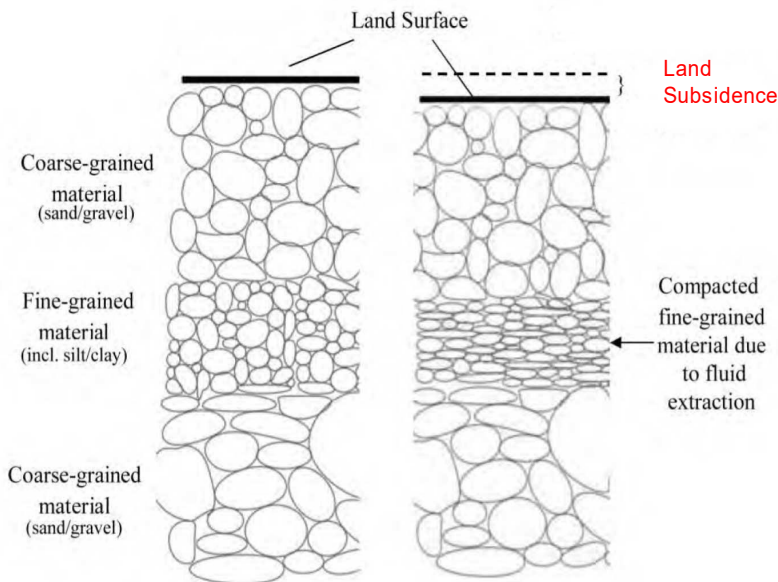
INTERCONNECTED SURFACE WATER THRESHOLD



UMBRAL DE AGUAS SUPERFICIALES INTERCONECTADAS

- » Minimum Threshold for depletion of interconnected surface water is historical maximum depth to water in shallow monitoring wells in the southern Prado area, correlated with Temescal Basin pumping or water levels
El umbral mínimo para el agotamiento del agua superficial interconectada es el nivel mínimo histórico del agua (profundidad máxima al agua) en pozos de monitoreo poco profundos en el área sur del Prado, correlacionado con el bombeo de la Cuenca Temescal o los niveles del agua

SUBSIDENCE HUNDIMIENTO DE LA TIERRA



SUBSIDENCE THRESHOLD UMBRAL DE HUNDIMIENTO DE LA TIERRA



» Defined as rate of decline equal to or greater than 0.2 feet in any five-year period

Definido como una tasa de disminución igual o superior a 0.2 pies en cualquier período de cinco años

» This has been considered in terms of a cumulative decline equal to or greater than one foot of decline since 2015

Esto se ha considerado en términos de una disminución acumulada igual o mayor a un pie de disminución, desde el 2015

DISCUSSION AND Q&A
DISCUSIÓN / PREGUNTAS Y RESPUESTAS

PROJECTS AND MANAGEMENT
ACTIONS
PROYECTOS Y ACCIONES DE
GESTIÓN

PROJECT MANAGEMENT/ACTION GROUPINGS

- » Group 1: Baseline Actions
Grupo 1: Acciones de línea de base
- » Group 2: Planned Actions
Grupo 2: Acciones planeadas
- » Group 3: Potential Future Actions
Grupo 3: Posibles acciones futuras

GROUP 1 PROJECTS PROYECTOS DEL GRUPO 1

- » Groundwater Treatment: Treatment at the Temescal desalter to reduce nitrates, TDS, TSS and other contaminants for the City's drinking water supply
Tratamiento de aguas subterráneas: tratamiento en la desaladora de Temescal para reducir los nitratos, TDS, TSS y otros contaminantes para el suministro de agua potable de la ciudad.
- » Water Reclamation Facility Percolation Ponds: Discharge from percolation ponds that recharge the Basin
Estanques de percolación de instalaciones de recuperación de agua: descarga de estanques de percolación que recargan la cuenca

GROUP 1 PROJECTS

PROYECTOS DEL GRUPO 1

- » Water Level QA/QC: Maintaining the reliability of groundwater elevation data

Control de calidad / control de calidad del nivel del agua: mantenimiento de la confiabilidad de los datos de elevación del agua subterránea

- » WRCRWA Recycled Water: This plant will soon produce recycled water for local irrigation use

Agua reciclada de WRCRWA: esta planta pronto producirá agua reciclada para uso de riego local.

GROUP 1 MANAGEMENT ACTIONS

ACCIONES DE GESTIÓN DEL GRUPO 1

- » Water Shortage Contingency Plans: Stages of water shortage and conservation response based on available water supply

Planes de contingencia de escasez de agua: Etapas de escasez de agua y respuesta de conservación en función del suministro de agua disponible

- » Water Conservation Programs: Response actions to reduce water use in accordance with water shortage

Programas de conservación de agua: acciones de respuesta para reducir el uso de agua de acuerdo con la escasez de agua

GROUP 1 MANAGEMENT ACTIONS

ACCIONES DE GESTIÓN DEL GRUPO 1

- » WMWD IRWMP: Coordinated, long-range regional water quality and management strategy

WMWD IRWMP: Estrategia regional coordinada de gestión y calidad del agua a largo plazo

- » Santa Ana Watershed Involvement: Coordinated management group to protect the Santa Ana River basin and associated water resources

Participación de la cuenca de Santa Ana: grupo de gestión coordinado para proteger la cuenca del río Santa Ana y los recursos hídricos asociados

GROUP 2 PROJECTS

PROYECTOS DEL GRUPO 2

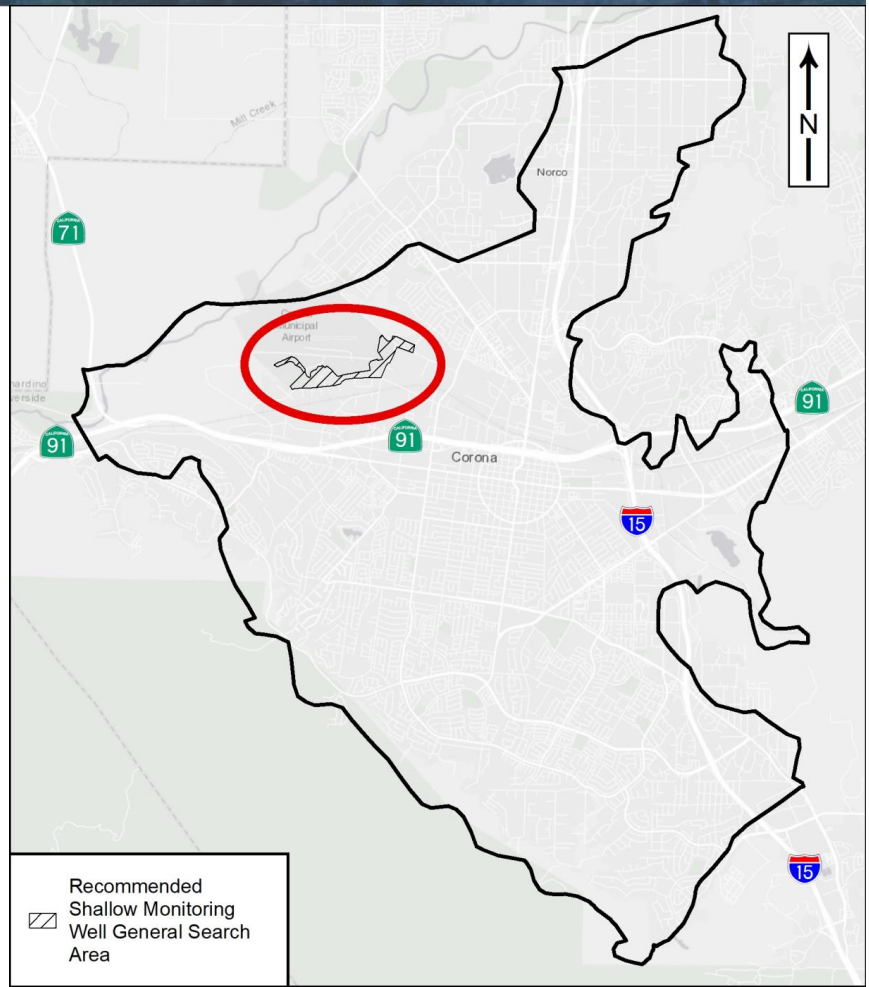
- » Potable Reuse Feasibility Study: Study to look at use potential for near to future reclaimed water supply

Estudio de viabilidad de reutilización de agua potable: estudio para analizar el potencial de uso del suministro de agua recuperada en el futuro cercano

- » Mountain Runoff Capture Investigation: Runoff during storm events is collected into existing RCFCWCD basins to mitigate flooding. This study would explore options for operational changes to allow for additional benefit of groundwater recharge.

Investigación de captura de escorrentía de montaña: La escorrentía durante tormentas se recolecta en las cuencas RCFCWCD existentes para mitigar las inundaciones. Este estudio exploraría opciones para cambios operativos que permitan un beneficio adicional de la recarga de agua subterránea.

**GROUP 2 –
MONITORING
WELLS
PROJECT**
GRUPO 2 -
PROYECTO DE
POZOS DE
MONITOREO



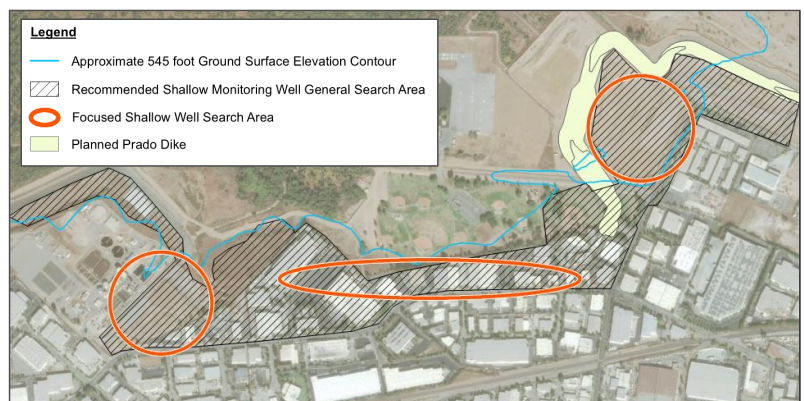
GROUP 2 – MONITORING WELLS PROJECT
GRUPO 2 - PROYECTO DE POZOS DE MONITOREO

- » 3 wells, 40-60 feet deep
- 3 pozos, de 40 a 60 pies de profundidad
- » Continuous groundwater elevation data collection to be used in 5-year GSP update

Recopilación continua de datos de elevación del agua subterránea que se utilizará en la actualización del GSP en 5 años

- » Data will inform future management actions

Los datos informarán las acciones de gestión futuras



GROUP 3 MANAGEMENT ACTIONS

ACCIONES DE GESTIÓN DEL GRUPO 3

- » Santa Ana River Wastewater Discharge Coordination for Shallow Groundwater Conditions: Contingent on Prado monitoring well installation. If groundwater levels in Prado are falling, this approach will entail coordination with upstream partners for solutions

Coordinación de descarga de aguas residuales del río Santa Ana para condiciones de aguas subterráneas poco profundas: depende de la instalación del pozo de monitoreo de Prado. Si los niveles de agua subterránea en Prado están cayendo, este enfoque implicará la coordinación con los socios del alrededor para encontrar soluciones

GROUP 3 PROJECTS

PROYECTOS DEL GRUPO 3

- » Future Groundwater Treatment: Implementation of advanced treatment to treat for PFAS as well as TDS, nitrate, and TCP

Tratamiento de aguas subterráneas en el futuro: Implementación de tratamiento avanzado para tratar agua de PFAS al mismo tiempo que TDS, nitrato, y TCP

- » Urban Stormwater Treatment, Capture, and Recharge: Exploration of urban stormwater harvesting to offset water supply and/or provide for groundwater recharge

Tratamiento, captura y recarga de aguas pluviales urbanas: exploración de la captación de aguas pluviales urbanas para compensar el suministro de agua y / o proporcionar recarga de aguas subterráneas

DISCUSSION AND Q&A

DISCUSIÓN / PREGUNTAS Y RESPUESTAS

- » Are there other potential groundwater related projects we should consider?
¿Hay otros proyectos potenciales relacionados con las aguas subterráneas que deberíamos considerar?

- » Do you have ideas for how the volume of groundwater in the Basin could be increased?
¿Tiene ideas sobre cómo se podría aumentar el volumen de aguas subterráneas en la cuenca?

- » Do you have ideas for making groundwater more sustainable in the Basin?
¿Tiene ideas para hacer que las aguas subterráneas sean más sostenibles en la cuenca?

GSP IMPLEMENTATION

IMPLEMENTACIÓN DEL GSP

WHAT IS GSP IMPLEMENTATION? ¿QUÉ ES LA IMPLEMENTACIÓN DEL GSP?

- » Monitoring groundwater conditions and use
Monitoreo de las condiciones y el uso de las aguas subterráneas
- » Annual Reports
Reportes Anuales
- » Carrying out projects and management actions
Realización de proyectos y acciones de gestión
- » Periodic Evaluations / GSP Updates
Evaluaciones Periódicas / Actualizaciones del GSP

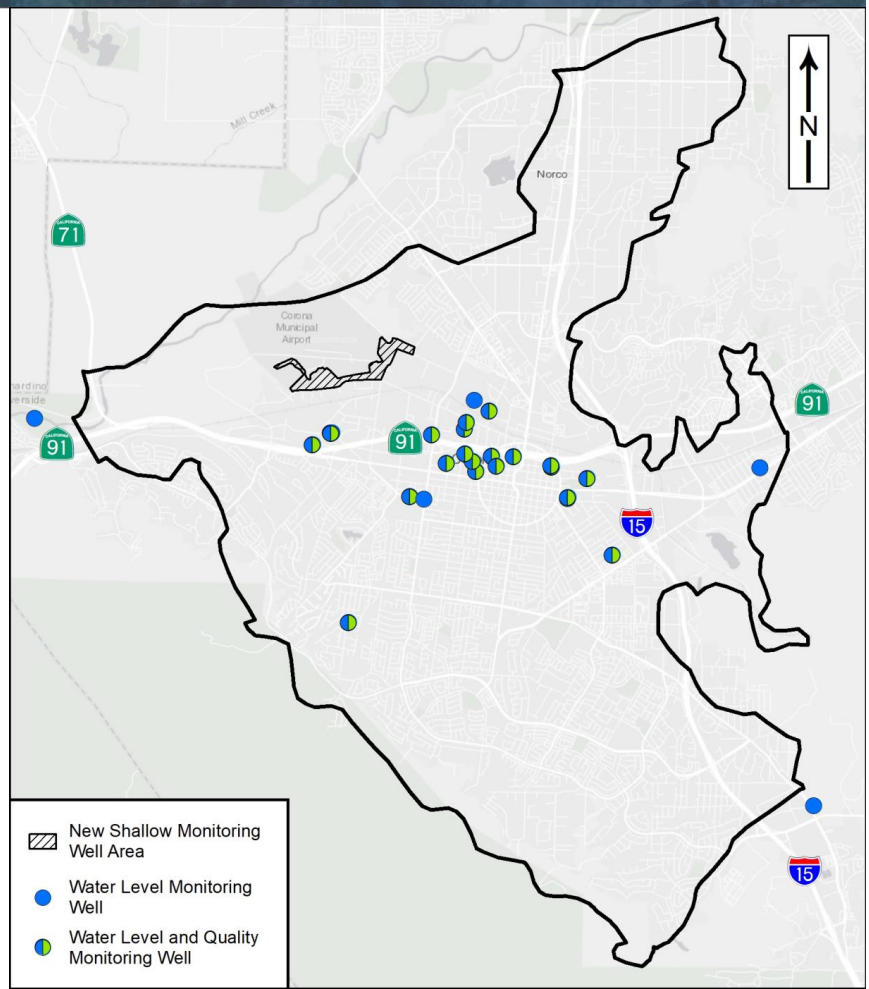
MONITORING MONITOREO

Includes:

- » water levels,
- » water quality,
- » streamflow,
- » subsidence, and
- » water use

Incluye:

- » los niveles de agua,
- » la calidad del agua,
- » el flujo de corrientes,
- » el hundimiento y
- » el uso del agua



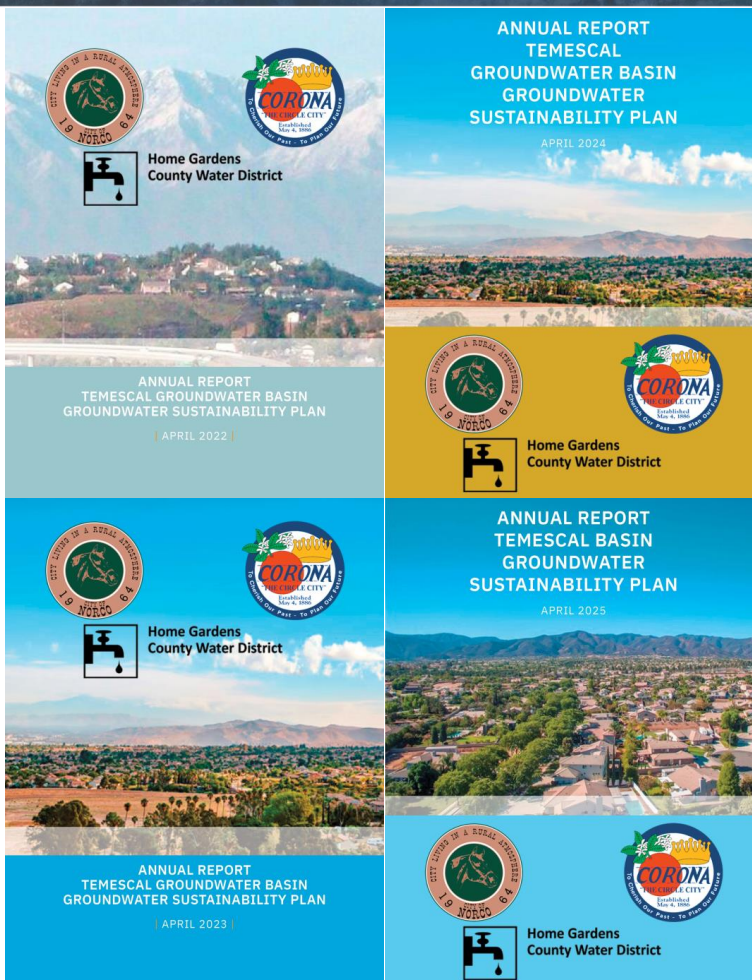
ANNUAL REPORTS INFORMES ANUALES

Include:

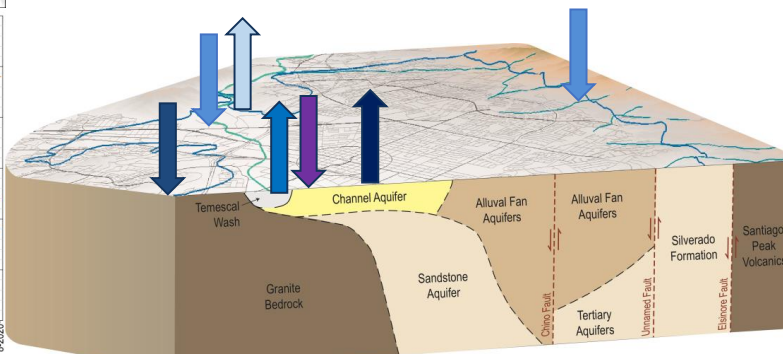
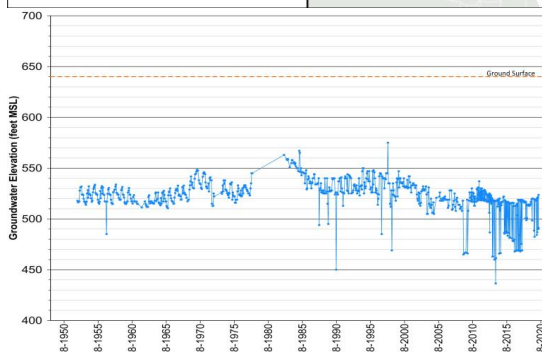
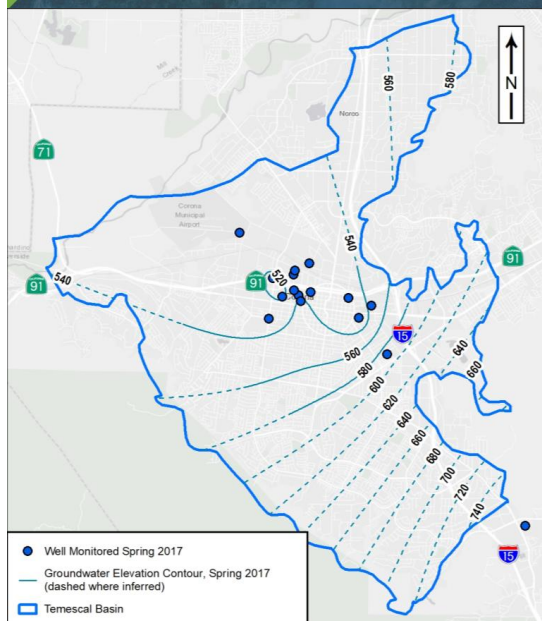
- » water level data,
- » storage change,
- » water use,
- » sustainability progress

Incluye:

- » dado de nivel de agua,
- » cambio de almacenamiento,
- » el uso agua,
- » progreso de la sostenibilidad



PERIODIC EVALUATIONS / GSP UPDATES EVALUACIONES PERIÓDICAS / ACTUALIZACIONES DEL GSP



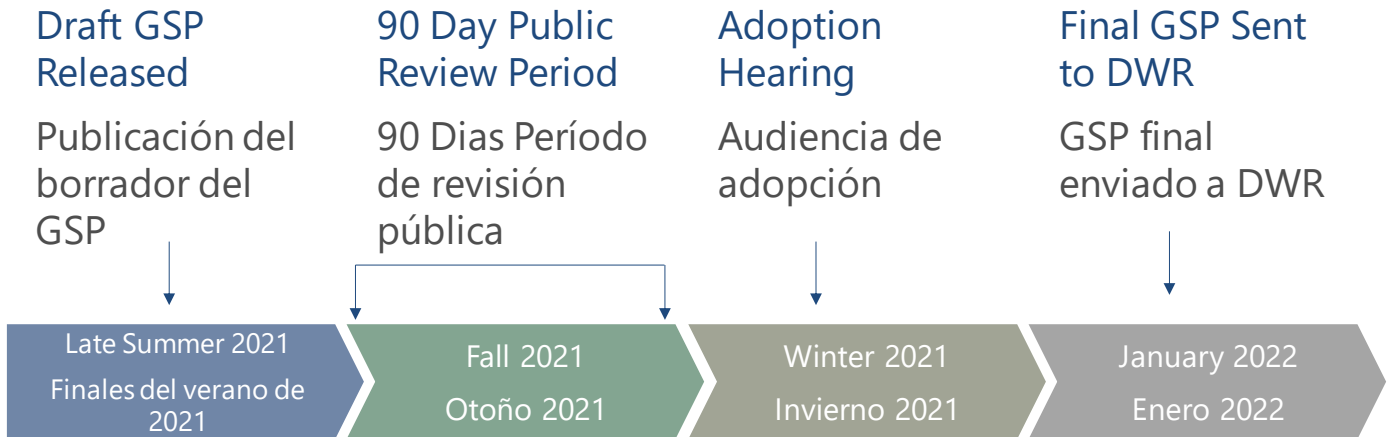
DISCUSSION AND Q&A

DISCUSIÓN / PREGUNTAS Y RESPUESTAS

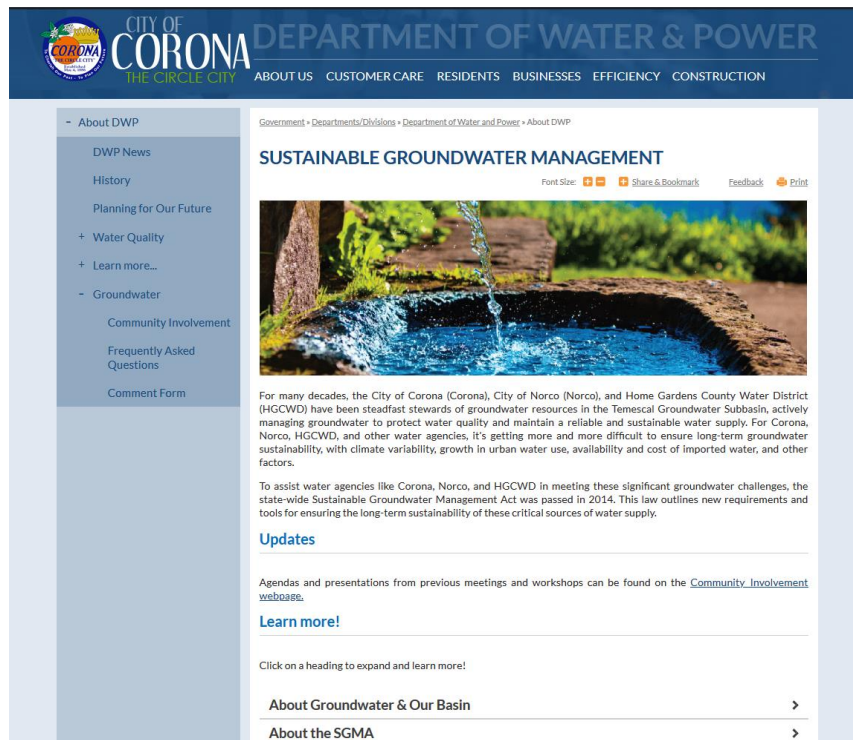
HOW TO STAY INVOLVED

CÓMO MANTENERSE INVOLUCRADO

REVIEW AND ADOPTION REVISIÓN Y ADOPCIÓN



WEBSITE SITIO WEB



HOW TO KEEP IN TOUCH CÓMO MANTENERSE EN CONTACTO

- » Sign up for the mailing list by emailing groundwater@coronaca.gov
Regístrese en la lista de correo enviando un correo electrónico a groundwater@coronaca.gov
- » Visit the website to view information, review draft chapters and other materials, and to submit comments : www.CoronaCA.gov/Groundwater
Visite el sitio web para ver información, revisar borradores de capítulos y otros materiales, y enviar comentarios: www.CoronaCA.gov/Groundwater

THANK YOU
GRACIAS