



East Contra Costa Groundwater Sustainability Workshop

Wednesday, June 23, 2021 3:30 – 5:30 PM

Workbook

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Meeting Agenda
Wednesday, June 23, 2021
3:30 – 5:30 PM

#	Time	Content	Presenter
1.	3:30 p.m.	Formal Convening <ul style="list-style-type: none"> • Welcome and Greetings • Introductions • Ground Rules • Introduction to SGMA 	Contra Costa County Supervisor Diane Burgis and Lisa Beutler, Stantec
2.	3:45 p.m.	East Contra Costa Subbasin and SGMA <ul style="list-style-type: none"> • ECC GSAs • GSP Process • Existing Basin Condition 	Ryan Hernandez, Contra Costa County Water Agency
3.	3:52 p.m.	Introduction and Key Findings in the GSP <ul style="list-style-type: none"> • Basin Setting • Basin Conditions: Groundwater levels and quality • Basin Conditions: Subsidence and seawater intrusion • Q&A 	Tom Elson, Luhdorff & Scalmanini, Consulting Engineers (LSCE)
4.	4:10 p.m.	Understanding Undesirable Results in the context of the ECC GSP (Section 7) <ul style="list-style-type: none"> • Q&A 	Dan Muelrath, Diablo Water District (DWD)
5.	4:20 p.m.	Technical Work and Findings to Date <ul style="list-style-type: none"> • Water Budget (Section 5) • Monitoring (Section 6) • Sustainable Management Criteria (Section 7) • Projects and Management Actions (Section 8) • GSP schedule • Q&A 	Tom Elson (LSCE)
6.	4:55 p.m.	GSP Implementation (Section 9) <ul style="list-style-type: none"> • Emerging ideas 	Aaron Trott, East Contra Costa Irrigation District
7.	5:05 p.m.	Additional Public Comment	Lisa Beutler, Stantec
8.	5:20 p.m.	Closing Comments and Next Steps	Paul Seger, Board President, DWD
9.	5:30 p.m.	Adjourn	Lisa Beutler, Stantec

Working Group Representatives

This workshop is sponsored by the eight local agencies that overlay the East Contra Costa (ECC) Groundwater Subbasin.

On May 9, 2017, the agencies entered into a Memorandum of Understanding to collaborate and develop a single Groundwater Sustainability Plan (GSP) for the subbasin. The member agencies designated a representative to participate in a Working Group responsible for shepherding the plan development. The points of contact for the GSP Working Group follow:

City of Antioch	Scott Buenting	sbuenting@ci.antioch.ca.us	(925) 779-6129
City of Brentwood	Eric Brennan	ebrennan@brentwoodca.gov	(925) 516-6020
Byron Bethany Irrigation District	Rick Gilmore	r.gilmore@bbid.org	(209) 835-0375
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Contra Costa Water District	Jill Mosley	jmosley@ccwater.com	(925) 688-8127
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Diablo Water District	Paul Seger	ps Seger@diablowater.org	(714) 504-0838
Town of Discovery Bay	Mike Davies	mdavies@todb.ca.gov	925-625-6159
East Contra Costa Irrigation District	Aaron Trott	atrott@eccid.org	(925) 634-3544

Common Terms

ECC Subbasin – East Contra Costa Subbasin

GSA – Groundwater Sustainability Agency

GSP – Groundwater Sustainability Plan

MO – Measurable Objective

MT – Minimum Threshold

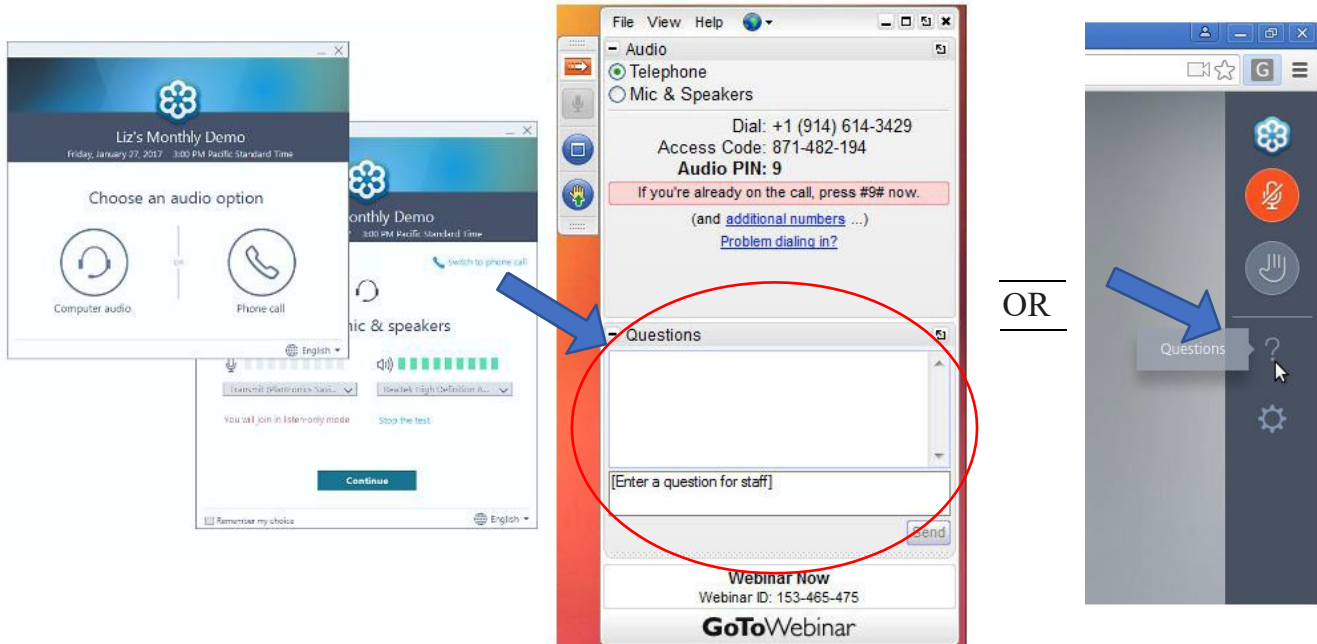
SGMA – Sustainable Groundwater Management Act

A copy of the PRESENTATION POWERPOINT and VIDEO RECORDING will be available after the session. Links to materials will be sent via email to everyone that sent an RSVP to the meeting. It will also be available at:

<https://www.eccc-irwm.org/about-sgma>

Participation Practices

Participants are invited to submit questions and comments via the webinar written question box.



You will also have an opportunity to raise your hand and offer ideas verbally.

The important controls look like this:

Make sure to mute yourself when not speaking.

JOIN THE DISCUSSION
The best way to join the session is with a headset. If you are on your phone you must enter the ACCESS code that came with your log in information AND the PIN number that is in your control panel once you log in.

The phone number is also located in the Audio Section on the tool bar on your screen once you are logged in.

AUDIO CHALLENGES?
If you have audio issues it often works to switch to your phone or log-out and log in again.

Key agreements to allow for productive outcomes:

- Use common conversational courtesy.
- All ideas and points of view have value.
- Encourage innovation by listening to all ideas.
- Humor is welcome.
- Be comfortable.

ASKING QUESTIONS AFTER THE MEETING: Email groundwaterinfo@dcd.cccounty.us

The Sustainable Groundwater Management Act

The Sustainable Groundwater Management Act (SGMA), effective January 1, 2015, established a framework of priorities and requirements to facilitate sustainable groundwater management throughout California. The intent of the SGMA mandate is for groundwater to be managed by local public agencies (Groundwater Sustainability Agencies [GSAs]) to ensure a groundwater basin is operated within its sustainable yield through the development and implementation of a Groundwater Sustainability Plan (GSP or Plan).

Groundwater Sustainability Agencies and Groundwater Sustainability Plans

Any local public agency that has water supply, water management, or land use responsibilities in a basin can decide to become a GSA. A single local agency can decide to become a GSA, or a combination of local agencies can decide to form a GSA by using either a Joint Power Authority, a memorandum of agreement, or another legal agreement. If no agency assumes this role the GSA responsibility defaults to the County; however, the County may decline.

A GSP may be any of the following (California Water Code Section 10727[b]):

- A single plan covering the entire basin developed and implemented by one GSA.
- A single plan covering the entire basin developed and implemented by multiple GSAs.

Sustainability Goal

Each GSP must include a sustainability goal for the basin to manage groundwater in a manner that avoids undesirable results within 20 years of the statutory deadline (i.e., by or before January 31, 2042). The ECC Subbasin Sustainability Goal can be found on page 9 of this workbook.

“Undesirable result means one or more of the following effects caused by groundwater conditions occurring throughout the basin” (Water Code §10721.x):

1. Chronic lowering of groundwater levels indicating a significant and unreasonable depletion of supply if continued over the planning and implementation horizon. Overdraft during a period of drought is not sufficient to establish a chronic lowering of groundwater levels if extractions and groundwater recharge are managed as necessary to ensure that reductions in groundwater levels or storage during a period of drought are offset by increases in groundwater levels or storage during other periods.
2. Significant and unreasonable reduction of groundwater storage.
3. Significant and unreasonable seawater intrusion.
4. Significant and unreasonable degraded water quality, including the migration of contaminant plumes that impair water supplies.
5. Significant and unreasonable land subsidence that substantially interferes with surface land uses.
6. Depletions of interconnected surface water that have significant and unreasonable adverse impacts on beneficial uses of the surface water.

SGMA and the East Contra County Subbasin

The ECC Subbasin, also referred to as San Joaquin Valley-East Contra Costa (5-022.19), is a medium priority groundwater basin based on the Groundwater Basin Prioritization by the State Department of Water Resources (DWR) (**Figure 1**). The ECC Subbasin's boundaries are generally defined by the San Joaquin River on the north, Old River on the East, the Contra Costa County boundary on the south, and the non-water bearing geologic units on the west. As mentioned above, the ECC Subbasin is contained entirely within Contra Costa County and underlies all or portions of the Cities of Antioch, Oakley, Brentwood, the Town of Discovery Bay and the communities of Bethel Island, Byron and Knightsen.

Boundary Modification

The original boundary of the Tracy Groundwater Subbasin included the jurisdiction of multiple cities and the counties of Contra Costa and San Joaquin. To streamline the development of the required GSP, the GSAs in Contra Costa and San Joaquin Counties, on September 6, 2018 applied to the State to divide the Tracy Subbasin along the border of Contra Costa and San Joaquin Counties. On February 11, 2019, the Department of Water Resources approved the division and established the East Contra Costa Subbasin.

East Contra Costa Subbasin and GSP Decision Making

Eight local agencies that overlay the Basin entered into a Memorandum of Understanding (MOU) on May 9, 2017 to collaborate and develop a single GSP for the East CC Basin. With the exception of Contra Costa Water District, each member agency has also become Groundwater Sustainability Agency (GSA). Following are the seven GSAs incorporated into the new ECC Subbasin:

1. City of Brentwood GSA
2. East Contra Costa Irrigation District GSA
3. County of Contra Costa GSA
4. Discovery Bay Community Services District GSA
5. Diablo Water District GSA
6. City of Antioch GSA
7. Byron-Bethany Irrigation District GSA

See page 7 (**Figure 1**) for a map of the GSAs and the ECC subbasin.

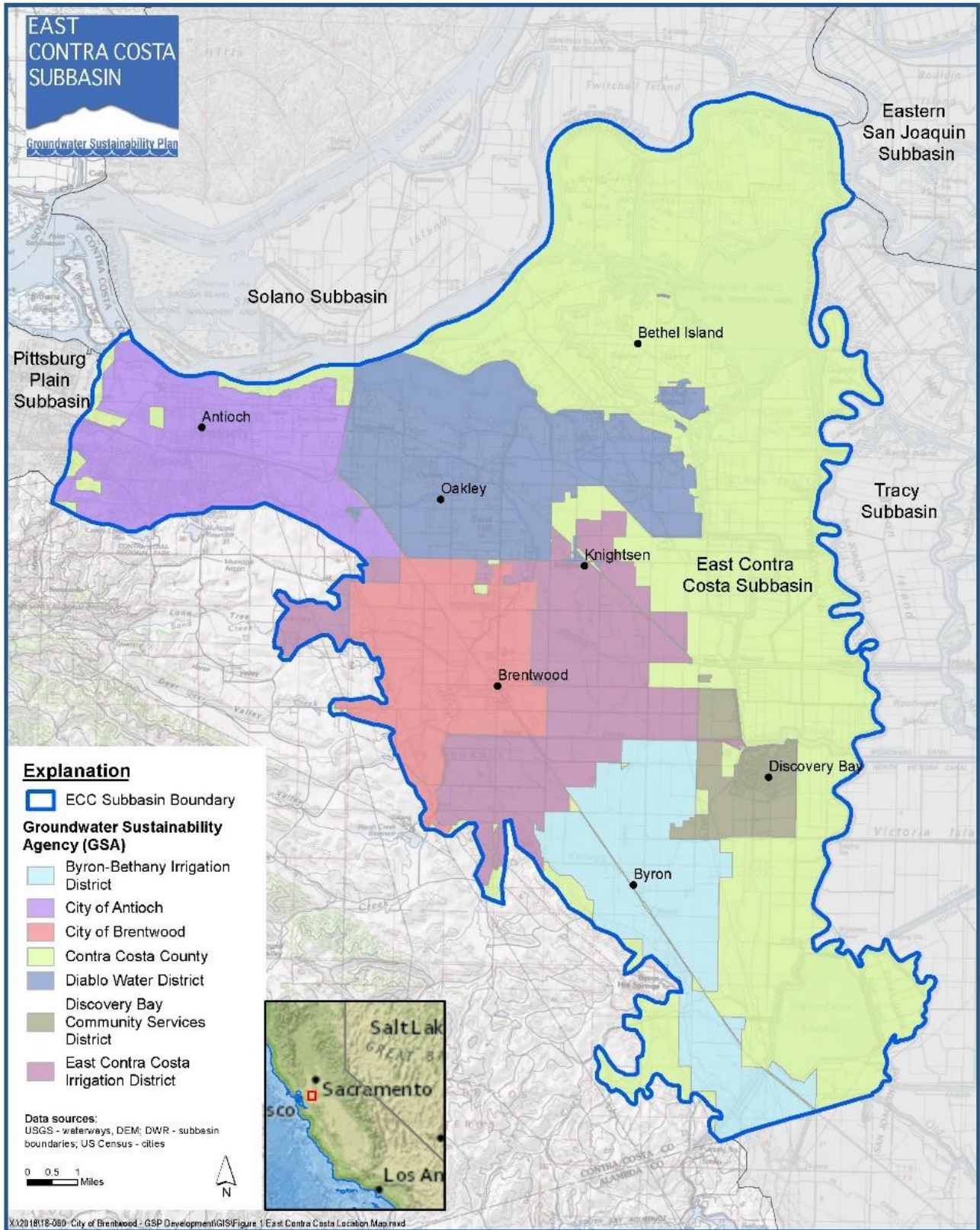


Figure 1. ECC Subbasin and GSAs.

Public Participation

SGMA includes required actions to ensure that GSPs are developed and implemented in close coordination with stakeholders, interested parties, and members of the public. Examples of this legislative intent include required public hearings, public notifications and establishment of an interested party database. These requirements were then rolled up within Water Code Section 10723.8 (a)(4) and obligate each GSA to provide a detailed explanation of how the interests of beneficial users would be considered in the development and operation of the GSA and development and implementation of the GSP.

It is the responsibility of each GSA to conduct outreach to its constituencies and fulfill the outreach and engagement requirements of SGMA. In the ECC Subbasin, a Communications Subcommittee coordinates these activities across the GSAs to engage stakeholders more efficiently and effectively.

Beneficial Users

California Water Code requires each GSA to consider the interests of all beneficial users and users of groundwater within the Subbasin, as well as those responsible for implementing GSPs. Following are the Required Interested Parties for the purpose of mandated outreach:

Holders of overlying groundwater rights, including:

- Agricultural users
- Domestic well owners
- Municipal well operators
- Public water systems
- Local land use planning agencies
- Environmental users of groundwater
- Surface water users, if there is a hydrologic connection between surface and groundwater bodies
- The federal government, including, but not limited to, the military and managers of federal lands
- California Native American tribes
- Disadvantaged communities, including, but not limited to, those served by private domestic wells or small community water systems
- Entities listed in Section 109273 that are monitoring and reporting groundwater elevations in all or a part of a groundwater basin managed by the groundwater sustainability agency.

Groundwater Sustainability Plans (GSPs)

Under SGMA, GSPs must include:

- Basin setting description of groundwater conditions
- Hydrogeologic conceptual model (i.e., how aquifers react to stresses in the basin and the interaction of surface and groundwater systems)
- Determine data gaps and uncertainties
- Water budget accounting for surface and groundwater inflows and outflows
- Baseline conditions for supply, demand, hydrology, and surface water supply reliability
- Sustainable Management criteria
- Establish minimum thresholds and measurable objectives
- Establish monitoring network and protocols for each sustainability indicator
- Identify projects and management actions to achieve or maintain sustainability
- Public communication and engagement

ECC Subbasin Sustainability Goal

The sustainability goal for the ECC Subbasin GSP is to manage the groundwater subbasin to:

- Protect and maintain safe and reliable sources of groundwater for all beneficial uses and users.
- Ensure current and future groundwater demands accounting for changing groundwater conditions due to climate change.
- Establish and protect sustainable yield for the Subbasin by achieving measurable objectives set forth in this GSP in accordance with implementation and planning periods.
- Avoid undesirable results defined under SGMA.

GSP Principles

The following points reflect principles embodied in the ECC Subbasin GSP:

- Continued public outreach to all interested parties and stakeholders.
- Adaptively manage the ECC monitoring networks.
- Prioritize environmental justice and groundwater dependent ecosystems.
- Protect the groundwater supply of potentially underrepresented communities.
- View the use and protection of groundwater as an integral part of long-term water management strategies.
- Protect and maintain sufficient groundwater storage to provide operational flexibility...
- Acknowledge that within the ECC Subbasin there are criteria and solutions that are regionally appropriate.
- Continued cooperative water resources management by GSAs and other water agencies.

GSP Table of Contents

Below is the East Contra Costa Subbasin GSP Table of Contents. Sections 1, 2, 3, 4, 6, 7, 8, and 9 are now available online [here](#) and you may comment on Sections 1, 2, 3, and 6 by responding to the associated survey. A survey for Sections 7, 8, and 9 will be on the website in the coming weeks. Sections 5 will be available for public review at the beginning of Quarter 3.

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Contact: groundwaterinfo@dcc.cccounty.us
Website: https://www.ecc-irwm.org/sgma

Protecting Groundwater in the East Contra Costa Subbasin

A Vital Resource

Families, farms and businesses throughout the East Contra Costa Subbasin rely on our critically important groundwater supply. Groundwater supports fish, wildlife, and natural habitats as well.

Groundwater is water below ground contained in formations known as aquifers, which supply significant quantities of water to wells and springs. It is essential that we:

- Preserve the quality and availability of local and imported water supplies;
- Sustain groundwater supplies and meet water needs during future droughts;
- Anticipate and avoid negative environmental impacts due to groundwater use;
- Protect the long-term availability and quality of groundwater through collaborative, proactive local management.

Our Collective Commitment

Counties and agencies within the East Contra Costa Subbasin have monitored groundwater resources for decades. With long-term data and recent studies providing key guidance, we're committed to:

- Develop and implement refined groundwater data collection procedures;
- Provide detailed reporting on annual groundwater conditions and trends and;
- Work together to implement an action plan as required by the Sustainable Groundwater Management Act (SGMA).

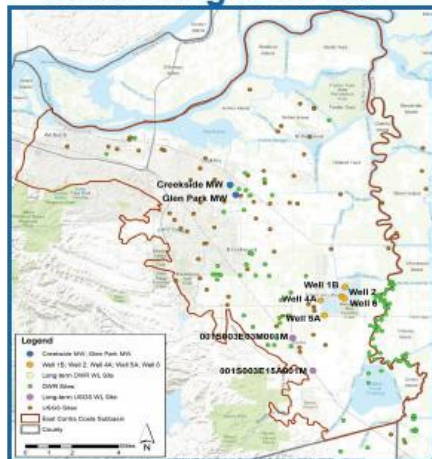
Providing for the Future

SGMA provides us with an opportunity to gain a deeper understanding of our local groundwater, ensuring we sustainably manage this important supply for future generations.

We will focus on the following issues:

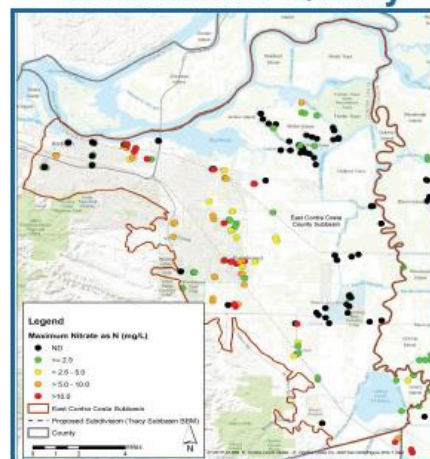
- How does groundwater move through our aquifer system?
- What is the overall status of the groundwater aquifers within the subbasin?
- What are the amounts of loss and replenishment to creeks, rivers, and aquifers?
- What are the key relationships between groundwater and surface water in our creeks, rivers and other bodies of water?

Monitoring Network



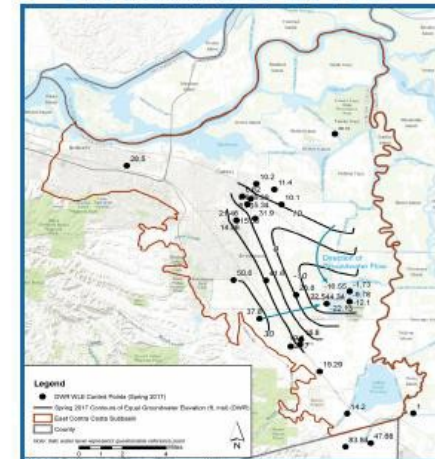
A combination of municipal wells, agricultural wells, dedicated monitoring wells, & other surface water or groundwater monitoring sites across multiple agencies can be used for monitoring and understanding surface water and groundwater conditions.

Groundwater Quality



California has an enforceable drinking water regulation for Nitrate as Nitrogen, (e.g. Maximum Contaminant Level of 10 mg/L [10 ppm]) that is based on the best available science to prevent potential health problems.

Groundwater Levels

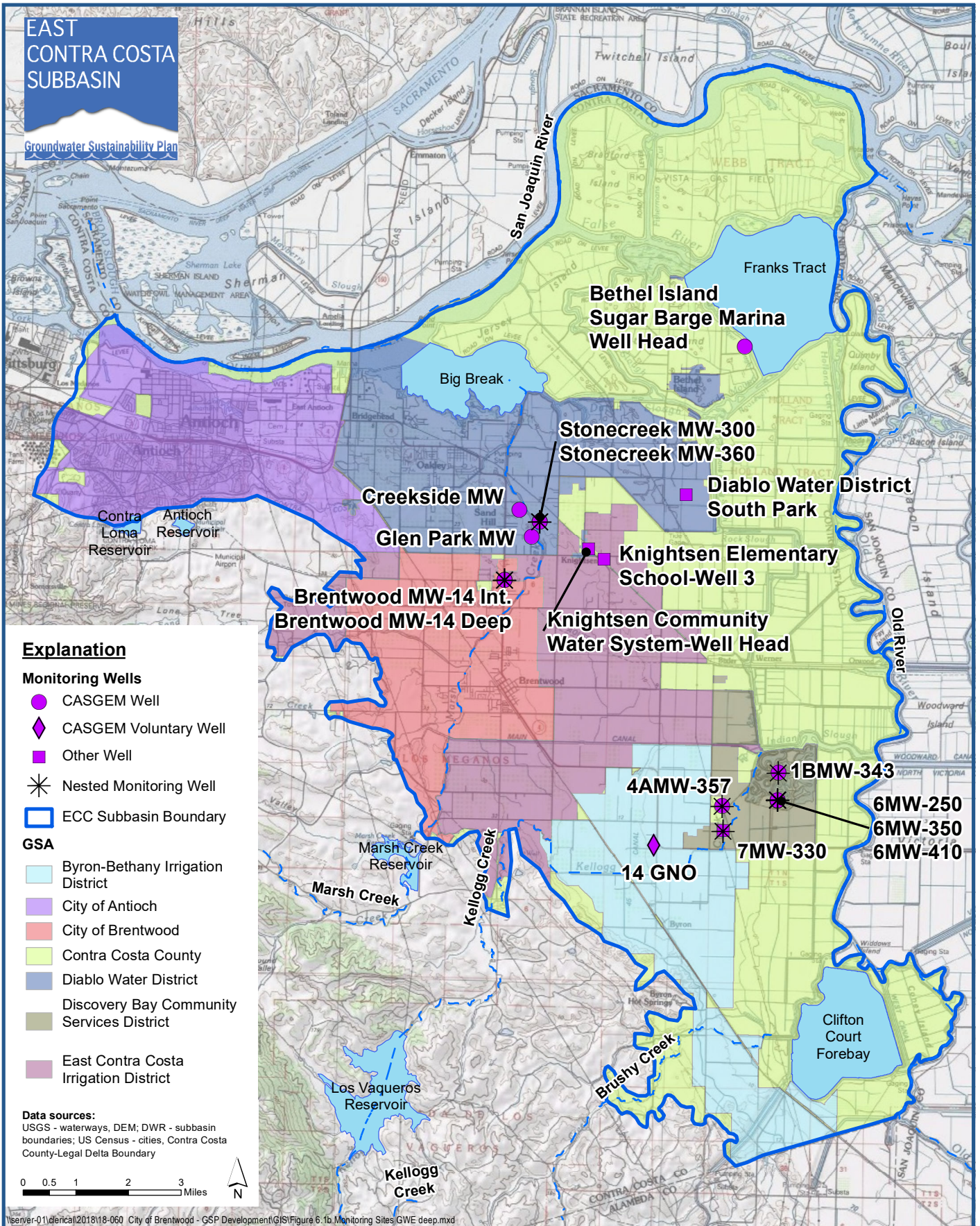


The California Department of Water Resources maintains the California Statewide Groundwater Elevation Monitoring (CASGEM) Program since 2009 to track seasonal and long-term groundwater elevation trends in groundwater basins statewide. Additional groundwater level monitoring data are also collected in the East Contra Costa Subbasin by local entities.

Groundwater Monitoring

EAST CONTRA COSTA SUBBASIN

Groundwater Sustainability Plan



Explanation

Monitoring Wells

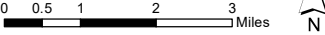
- CASGEM Well
- ◆ CASGEM Voluntary Well
- Other Well
- ✱ Nested Monitoring Well
- ECC Subbasin Boundary

GSA

- Byron-Bethany Irrigation District
- City of Antioch
- City of Brentwood
- Contra Costa County
- Diablo Water District
- Discovery Bay Community Services District
- East Contra Costa Irrigation District

Data sources:

USGS - waterways, DEM; DWR - subbasin boundaries; US Census - cities, Contra Costa County-Legal Delta Boundary



Server-01\clerical\2018\18-060 City of Brentwood - GSP Development\GIS\Figure 6.1b Monitoring Sites\GWE deep.mxd



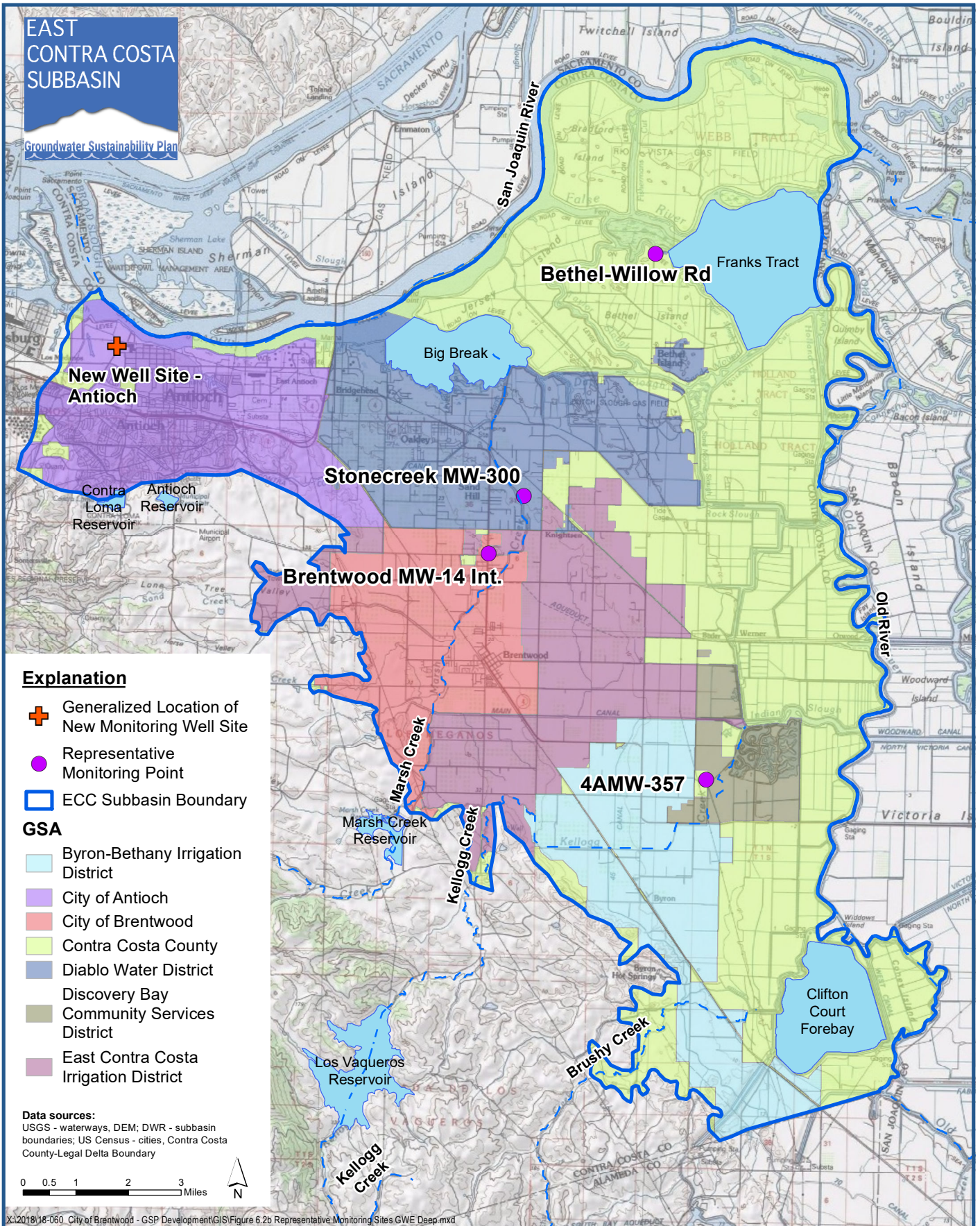
Basin-wide Groundwater Level Monitoring Network - Deep Zone

East Contra Costa Subbasin Groundwater Sustainability Plan
Contra Costa County, California

Figure 6-1b

EAST CONTRA COSTA SUBBASIN

Groundwater Sustainability Plan



Explanation

- + Generalized Location of New Monitoring Well Site
- Representative Monitoring Point
- ECC Subbasin Boundary

GSA

- Byron-Bethany Irrigation District
- City of Antioch
- City of Brentwood
- Contra Costa County
- Diablo Water District
- Discovery Bay Community Services District
- East Contra Costa Irrigation District

Data sources:
 USGS - waterways, DEM; DWR - subbasin boundaries; US Census - cities, Contra Costa County-Legal Delta Boundary



X:\2018\18-060_City of Brentwood - GSP Development\GIS\Figure 6.2b Representative Monitoring Sites GWE Deep.mxd

Representative Groundwater Level Monitoring Network - Deep Zone

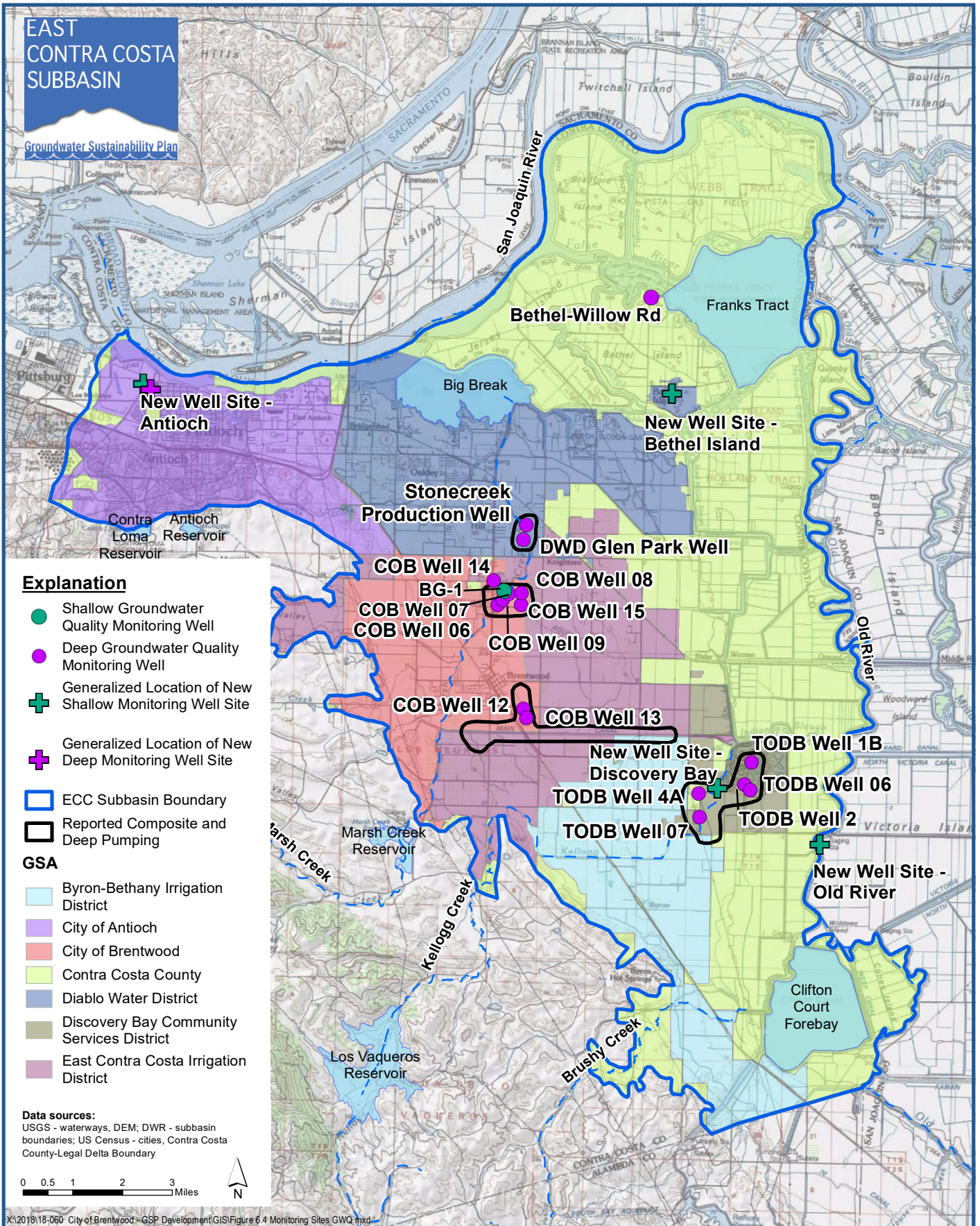


East Contra Costa Subbasin Groundwater Sustainability Plan
 Contra Costa County, California

Figure 6-2b

EAST CONTRA COSTA SUBBASIN

Groundwater Sustainability Plan



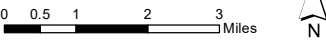
Explanation

- Shallow Groundwater Quality Monitoring Well
- Deep Groundwater Quality Monitoring Well
- + Generalized Location of New Shallow Monitoring Well Site
- + Generalized Location of New Deep Monitoring Well Site
- ECC Subbasin Boundary
- Reported Composite and Deep Pumping

GSA

- Byron-Bethany Irrigation District
- City of Antioch
- City of Brentwood
- Contra Costa County
- Diablo Water District
- Discovery Bay Community Services District
- East Contra Costa Irrigation District

Data sources:
 USGS - waterways, DEM; DWR - subbasin boundaries; US Census - cities, Contra Costa County-Legal Delta Boundary



X:\2018\18-060 City of Brentwood - GSP Development\GIS\Figure 6.4 Monitoring Sites GWQ.mxd



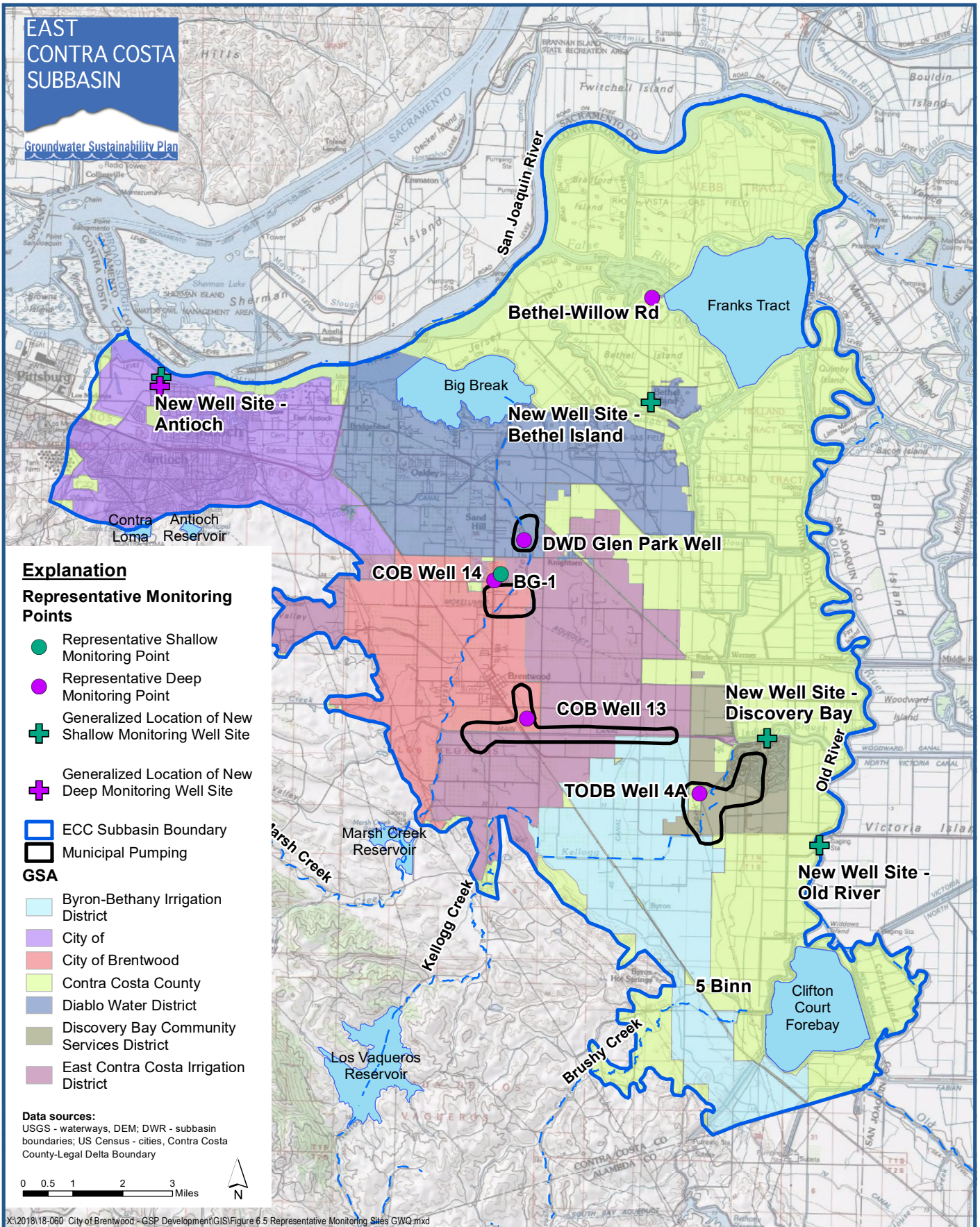
Basin-wide Groundwater Quality Monitoring Network

East Contra Costa Subbasin Groundwater Sustainability Plan
 Contra Costa County, California

Figure 6-4

EAST CONTRA COSTA SUBBASIN

Groundwater Sustainability Plan



EAST CONTRA COSTA SUBBASIN

Groundwater Sustainability Plan

Explanation

- Nested Well
- Surface Water Gaging Station

Groundwater Monitoring Wells

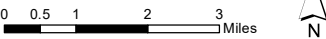
- Existing Shallow Zone Well
- Generalized Location of new Shallow Zone Monitoring Well
- ECC Subbasin Boundary
- GDEs

GSA

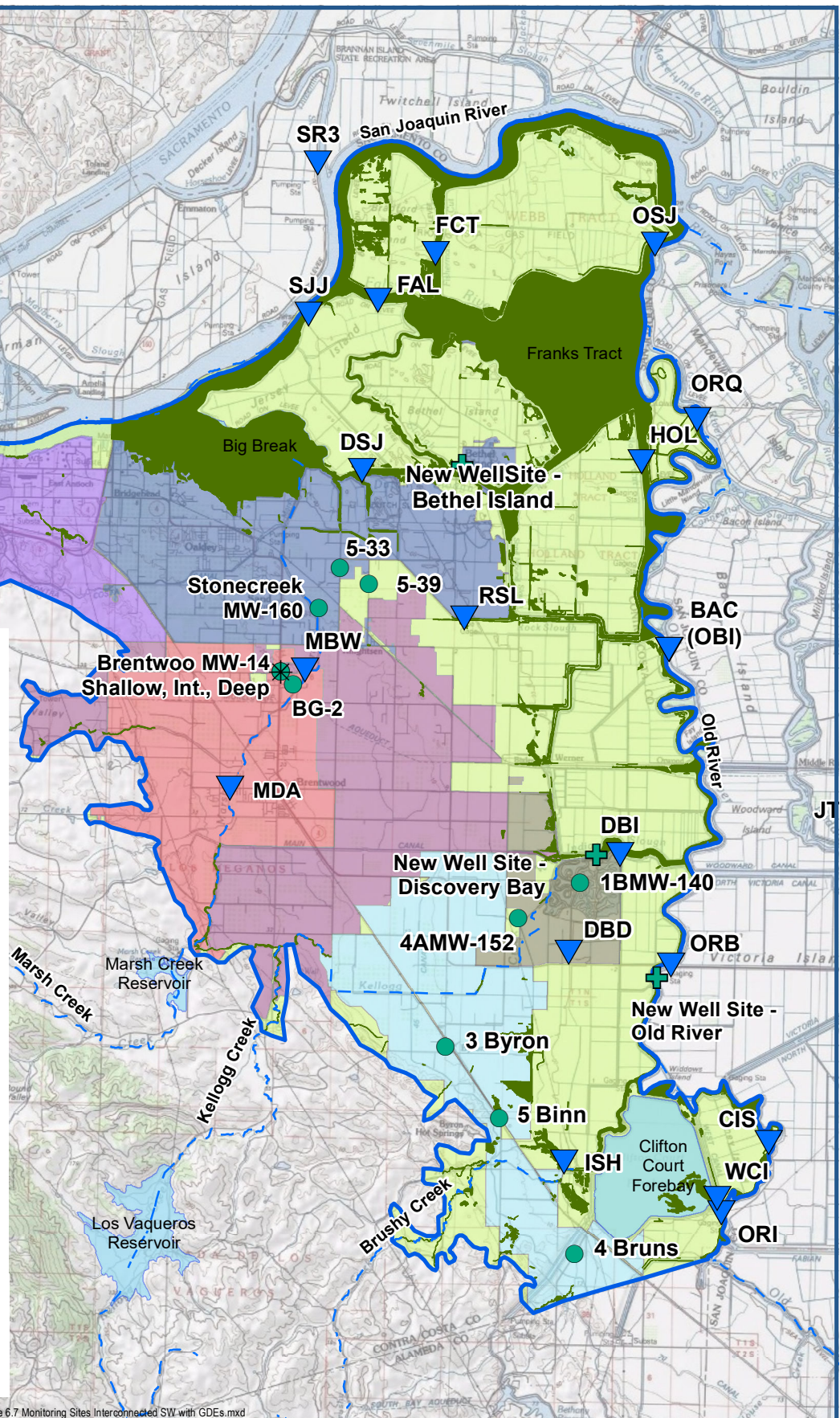
- Byron-Bethany Irrigation District
- City of Antioch
- City of Brentwood
- Contra Costa County
- Diablo Water District
- Discovery Bay Community Services District
- East Contra Costa Irrigation District

Data sources:

USGS - waterways; DWR - subbasin boundaries, SW gaging sites; US Census - Contra Costa County-Legal Delta Boundary



X:\2018\18-060 City of Brentwood - GSP Development\GIS\Figure 6.7 Monitoring Sites Interconnected SW with GDEs.mxd



Interconnected Surface Water Monitoring Network

East Contra Costa Subbasin Groundwater Sustainability Plan
Contra Costa County, California

Figure 6-7

Schedule for GSP Adoption

