

# **SUMMARY | Mid-County Groundwater Stakeholder Meeting**

December 10, 2015, Santa Cruz, CA

## **Background and Action Items**

Mid-County Groundwater Stakeholder Meetings offer opportunities for community discussions among private well owners and other community stakeholders within the Soquel-Aptos Groundwater Management Area. These meetings are sponsored by the Soquel-Aptos Groundwater Management Committee (S-AGMC) with assistance from the California Department of Water Resources (DWR) and the State Water Resources Control Board (SWRCB). S-AGMC consists of three private well owners and representatives of SqCWD, CWD, the City of Santa Cruz, the County of Santa Cruz (County), Soquel Creek Water District (SqCWD), and the Central Water District (CWD).

These meetings aim to cover a broad spectrum of issues such as groundwater studies, groundwater management, and the Sustainable Groundwater Management Act (SGMA). The objective for this particular meeting was to share and invite questions and feedback on steps being taken to establish a sustainable groundwater supply in Mid-County area.

Presenters' slides are included as Appendix A. A handout on Mid-County groundwater management can be found at Appendix B. A handout on GSA legal agreement options can be found at Appendix C. Please see <http://www.midcountygroundwater.org/node/38> for a video recording of the meeting.

## **1. Welcoming Remarks**

John Ricker, Santa Cruz County Water Resources Division Director, welcomed attendees, explained the above meeting objectives, and provided context. He asked newcomers to raise their hands. He noted the many hands that went up, and suggested this reflected the extra outreach that preceded this particular meeting. (The County mailed about 1,700 meeting notification postcards to private well owners.)

## **2. Steps Being Taken to Establish Sustainable Groundwater Supply in Mid-County Area**

### **SGMA Requirements Recap**

Mr. Ricker provided a general overview of the SGMA basin management requirements. SGMA requires the Mid-County area to form a Groundwater Sustainability Agency (GSA) by June 2017 and a Groundwater Sustainability Plan (GSP) by 2020. Mr. Ricker said he believes the basin's groundwater management work is well ahead of the SGMA target dates due to proactive S-AGMC efforts.

The S-AGMC intends to form the GSA for the Santa Cruz Mid-County groundwater management area by establishing a Joint Powers Agreement between the agencies represented on the S-AGMC (SqCWD, CWD, City of Santa Cruz, and the County); private well-owners also are expected to be represented in the GSA structure. The GSA must develop and implement a GSP to prevent various undesirable effects such as water quality degradation (e.g., sea water intrusion). The overall goal is that the basin achieves sustainability 20 years after GSP adoption.

Mr. Ricker said that SGMA grants GSAs several authorities such as monitoring and managing groundwater extraction and imposing management fees. SGMA also requires stakeholder engagement and coordination with land use agencies regarding land use plans. Ultimately, if the GSA cannot manage its groundwater sustainably, the SWRCB will have to intervene and manage the groundwater until the GSA can demonstrate it can do so.

Mr. Ricker said that the S-AGMC will submit a request for a basin boundary modification to more accurately reflect the hydro-geologic morphology of the basin. He referred attendees to the County website for more detailed technical reports on the underlying geology used to develop the boundary modification request. He added that the S-AGMC is developing a comprehensive hydrologic model of the groundwater basin, which will help agencies test management approaches under various scenarios.

### Questions – SGMA Requirements

Attendees asked the following clarifying questions:

- Do you define the groundwater basin by geological features?
  - Response: The proposed boundaries are a mixture of physical and jurisdictional boundaries, but they are primarily based on the geology and hydrology of the basin.
- Why is San Lorenzo Valley excluded from the basin boundaries?
  - Response: San Lorenzo Valley itself is not a groundwater basin; however, the groundwater that feeds into the San Lorenzo River is covered by the Santa Margarita basin.
- Where are you detecting sea water intrusion?
  - Response: Primarily near La Selva Beach and a little bit by Pleasure Point.
- Given the drought and threatened groundwater conditions, why has there not been a groundwater emergency declaration?
  - Response: SqCWD declared a groundwater emergency and cut back on its pumping significantly. Due to those efforts, the groundwater along the coast has somewhat recovered.

### Formation of New Groundwater Agency

Jon Kennedy, Chair of the S-AGMC's GSA Formation Subcommittee (Subcommittee), provided a progress report on the S-AGMC's efforts to form a GSA for the Mid-County area. The Subcommittee consists of private well owners and representatives from the County, SqCWD, CWD, and the City of Santa Cruz. The Subcommittee has met eight times since April, developing a proposed GSA governance framework, including specific responsibilities and powers.

Members have discussed management scenarios that the GSA may have to address, and the appropriate level of management and governance structure needed to handle those scenarios. The Subcommittee recommended to the S-AGMC that the same entities that are members of the S-AGMC would be the appropriate members of the GSA. In essence, they recommended that the S-AGMC legally morph into the GSA by establishing a Joint Powers Agreement. Once the GSA is formalized, it will have additional responsibilities and authorities provided by SGMA; it will be required to manage all groundwater extraction, including that undertaken by private well owners, and it will have the ability to levy assessments to support groundwater management activities.

Mr. Kennedy emphasized that Mid-County needs proactive groundwater management. SqCWD is the largest Mid-County basin groundwater user; other groundwater users include CWD, the City of Santa Cruz, agriculture, institutions like Cabrillo College and local golf courses, and rural residential users (e.g., private well owners). Although well pumping decreased dramatically due to the community's conservation efforts, previous intense pumping (1983-2014) created a major deficit. With the additional threats of sea level rise, drought conditions, and population growth, the GSA will need to use a variety of management approaches to attain sustainability (e.g., intense conservation and alternative water supplies).

Mr. Kennedy then reviewed the anticipated timeline for SGMA implementation. S-AGMC members hope that DWR will approve the basin boundary modification by March 2016, and the new GSA by summer of 2016. Then the S-AGMC can focus its efforts on developing the GSP, which is likely to take 12-18 months. He added that the local agencies are not waiting for GSA formation/GSP development to start exploring others strategies to augment water supply.

### Questions – GSA Formation

Attendees asked the following clarifying questions and comments:

- Does the groundwater usage pie chart reflect net or gross well pumping?
  - Response: Net.
- Who is funding the hydrologic model development?
  - Response: The S-AGMC is funding it. SqCWD and CWD are paying for the majority of its development.
- Will individual wells be required to have meters?
  - Response: SGMA exempts metering for de minimus users (defined as domestic use less than 2 acre feet of water per year). The GSA probably will use an estimate (e.g., 0.2-0.4 acre feet per year) to calculate the approximate groundwater impact by de minimus users. Non-de minimus users (e.g., schools, camps, small water systems, and farms) may be required to have meters on their wells.
- Who regulates the S-AGMC and under what laws?
  - Responses:
    - DWR and SWRCB are responsible for overseeing how the GSAs implement sustainable groundwater management under SGMA.

- The S-AGMC consists mostly of elected officials, so you have the option to not elect them if you are dissatisfied with their decisions.
- The GSP will guide the work of the GSA, and we invite your input to help craft that GSP.

### **Efforts Already Underway**

Representatives from the local agencies highlighted efforts currently underway to address some of the groundwater sustainability challenges, as follows:

#### ***Soquel Creek Water District***

Tom LaHue, SqCWD Board Member, said the Board's main priority is to protect the groundwater supply for future generations. To repay the deficit created by over-pumping in the last few decades, SqCWD must use supplemental supplies in addition to its conservation efforts. Mr. LaHue extended his gratitude to SqCWD customers, whose conservation efforts are allowing the groundwater levels to begin to recover. He said SqCWD intends to use several strategies to address groundwater issues:

1. Continue strong conservation efforts.
2. Continue to insist any new development has a neutral (or better) effect.
3. Continue to support collaborative efforts with other agencies and well owners.
4. Develop the groundwater model to make more informed management decisions;
5. Find reliable and safe water storage.
  - a. Best options thus far are advanced water purification and groundwater replenishment.
  - b. Other options may include purchasing water from desalination plant.

Mr. LaHue emphasized the importance of holding public meetings such as these to gain public input and share information as we move forward towards a sustainable water supply.

#### ***City of Santa Cruz***

Rosemary Menard, City of Santa Cruz Water Director, summarized the recommendations of the Water Sustainability Advisory Committee (WSAC) to the City Council on how to ensure a more stable and reliable water supply. She explained that the City's major water challenge is a lack of storage options. The WSAC worked for eighteen months to evaluate supply alternatives, ultimately recommending that the City:

1. Augment conservation efforts (e.g., increased rebates and better management of peak season demand).
2. Store excess winter flows using in-lieu water exchanges and actively recharge the aquifer for future use in dry years. (This depends on whether recharged water can be reliably obtained later.)
3. Utilize an adaptive management approach to periodically evaluate water issues, and if necessary, explore back-up plans such as advanced treated recycled water. If recycled water is insufficient, consider desalination.

### **Central Water District**

Ralph Bracamonte, CWD District Manager, explained that CWD has been working with SqCWD since 1998 under AB 3030 to better manage groundwater. With major groundwater threats such as sea level rise and prolonged drought, SGMA has provided much-needed authorities to ensure the basin is sustainable. He commended CWD customers for their conservation efforts, which have reduced pumping by 50% since 2013. He said everyone is contributing, and groundwater levels have begun to recover, but more management strategies are necessary to achieve sustainability.

### **Questions – Current Efforts**

Attendees were invited to ask clarifying questions.

- What is University of California, Santa Cruz’s (UCSC) water demand?
  - UCSC gets its water solely from the City of Santa Cruz, and UCSC’s water usage per person has decreased due to their demand management. Therefore, the overall demand has been flat. Even though we expect population growth for UCSC and the City of Santa Cruz, we expect overall demand to be flat over the next couple of decades because per-person demand will decrease due to conservation, increased rates, etc..

## **3. Open Forum**

### **Open Q/A with Panel**

Dr. Marci DuPraw, Managing Senior Facilitator and Mediator with California State University Sacramento’s Center for Collaborative Policy (CCP), invited attendees to provide their input on issues and information presented tonight. A panel of community water leaders were available to provide responses. Panelists included:

- Tom LaHue – S-AGMC, SqCWD
- Bruce Jaffe – S-AGMC Chair, SqCWD
- Micah Posner – S-AGMC, City of Santa Cruz
- Jon Kennedy – S-AGMC, GSA Formation Subcommittee Chair, private well owner
- Jim Kerr – S-AGMC, private well owner
- John Ricker – Santa Cruz County
- Rosemary Menard – City of Santa Cruz
- Ralph Bracamonte – CWD
- Ron Duncan – SqCWD

Additionally, SWRCB staff Gita Kapahi and Katheryn Landau, County Supervisor/S-AGMC member John Leopold, and Chris Coburn of the Resource Conservation District of Santa Cruz County were in the audience.

## Questions – Open Forum

The issues raised by attendees during this open forum encompassed public engagement, S-AGMC governance, usage fees and metering, water quality and supply, desalination, and land use planning. The following summarizes attendees' questions, issues, and suggestions, as well as panelists' responses:

### Working with the public

- Will the public have opportunities for recourse if they have concerns, such as the California Environmental Quality Act (CEQA) process?
  - Response: SGMA specifically exempts *GSP development and adoption* from the CEQA process; however, *projects* mentioned in the GSP and/or proposed by the GSA would be subject to CEQA.
- Many well owners did not receive the postcards, and several are receiving inaccurate information. S-AGMC will need to conduct more outreach and engagement to ensure all well owners are on the same page and earn the public's trust.
  - Response: We intend to have future private well owner meetings. Be sure to get on our mailing list for future meeting notices. (A sign-up sheet was available at the back of the room.)
- We appreciate that the S-AGMC held this meeting, sent postcards, and tried to ensure this meeting did not conflict with other major community meetings.

### Conservation

- The public has adjusted and made compromises for many years to conserve water. Did that really make a significant difference?
  - Response: Resoundingly, yes. Conservation efforts have saved hundreds of millions of gallons of water!

### S-AGMC Governance

- How will S-AGMC make decisions (e.g., equal voting rights)?
  - Response: Each member will have equal voting rights for non-financial decisions. For major financial decisions, it is proposed that decisions will have to have unanimous approval of all agency members. Private well owners will not participate in major financial voting because each well owner would not be contributing significant funding. However, private well owners are part of the groundwater management process and have the opportunity to influence the discussions.
- How were the private well owner representatives appointed to the S-AGMC, and how long is a term? Many well owners were unaware agencies offered this opportunity to participate on the S-AGMC.
  - Response: S-AGMC solicited for nominations, and any well owner could apply. Nominees underwent an extensive interview and vetting process. The term is 2 years. Originally the S-AGMC had only one well owner representative, but the S-AGMC wanted a broader representation and increased this sector's representation on the committee to three private well owner representatives.

## **Fees & Incentives**

- Some areas offer incentives such as rebates for above-ground storage capturing systems. Would the S-AGMC offer rebates for customers within the entire JPA's jurisdiction?
  - Response: In the past the County has not offered rebates because the County does not receive funds from water users. However, the S-AGMC can certainly consider incentive programs in the future.
- How will the S-AGMC allocate funds to the member agencies, and how will that affect levy assessments on individual well owners? We should not have to pay a fee for another jurisdiction's groundwater program that does not benefit us.
  - Response: If the fee does not benefit the well owner, that person would not pay. However, if someone's groundwater use is impacting the basin, that person would benefit from reduced groundwater use and would help pay for that effort. S-AGMC would also provide the tools to help reduce that groundwater use.
- How will the S-AGMC levy assessments on wells that may not be on County record? Off-record wells could use groundwater without contributing funds and increase our fees.
  - Response: We want to make the fee schedule equitable. We are currently updating our well and water use records. If there is water use on a parcel that is not hooked up to a water system, then that parcel would be subject to water use fees.
- How does the S-AGMC intend to issue levies (e.g., fixed cost, variable cost, or dependent on property taxes), and would those levies be the same for all?
  - Response: We do not have the answers to that yet. The GSP will address those details. Any levy would need to be based on sufficient justification and undergo a Prop 218 approval process (i.e., a public vote).

## **Metering and De Minimus Users**

- What are the parameters for well owners to be exempted from metering according to SGMA?
  - Response: SGMA exempts de minimus users (defined as domestic use of less than 2 acre feet per year) from metering. Our information indicates rural residential users typically use 0.2-0.4 acre feet per year on average depending on the actual site use. Almost all individual rural residential well owners are expected to qualify as de minimus users.
- Does property size affect the water usage assumptions?
  - Response: We found that little correlation exists between larger land and more water use. Even if you have a large property, your water use will tend to concentrate around your home. Unless it appears that you are using your land for other purposes (e.g., have an orchard or significant irrigation), you are likely to be considered a de minimus user.

- Some property owners have surface water catchment systems and/or gray water systems. Agencies should not assume people are all irrigating with groundwater.
  - Response: We do not know exactly how we will determine whether a mixed-use property should be considered de minimus or not; that discussion will occur during GSP development. However, it is likely that large groundwater users who currently pump groundwater with no management controls will be required to install meters and pay a fee.

### **Water Quality**

- SqCWD is embracing the recycled water strategy too quickly. We still do not know enough about how recycled water and pharmaceuticals may affect our groundwater quality. Do the agencies really believe recycled water is safe?
  - Response: Yes, we believe recycled water would be safe. We want to ensure safe water, too, because our families will use the same water. Legally, we cannot put anything into the groundwater that reduces water quality.
  - Response: If conservation and water transfers do not work, the City's only remaining alternatives are recycled water and desalination. It would be too costly to connect to other major water supply opportunities such as the State Water Project. We acknowledge your concerns about water quality. We want to explore whether water re-use offers a more sustainable approach to ensuring water supply of good quality.
  - Response: Currently, industries have to properly dispose of hazardous materials as outlined in their permits. The County recently set in motion an ordinance to have pharmaceutical companies and drug stores ensure they take back unused pharmaceuticals so people do not dispose of these via trash or toilet. Outreach and education about proper disposal are the most manageable strategies for changing individuals' behavior. Many of the compounds of concern are found everywhere, so we have to focus on the levels that are dangerous to human health and act accordingly.
- The Watsonville recycling plant said it could not remove the pesticides or pharmaceuticals from the water. We should not inject our groundwater with such harmful materials. We should address the source of the problem and avoid using pesticides and pharmaceuticals.
  - Response: Watsonville treats only to a tertiary level, so that water can only be re-used for irrigation. Advanced water purification requires several additional steps such as micro-filtering, reverse osmosis, and disinfection.
- What standards exist for septic systems?
  - Response: Septic systems, when sited and used correctly, can remove most constituents by biologically treating organic compounds. The water quality issue we usually encounter with septic systems is high nitrates, especially in sandy soils.
  - Response: Many restrictions exist for siting septic systems to prevent dangerous impacts.



## Other Health Concerns

- The emitted radiation from wireless metering may cause serious biological and environmental damages (see bioinitiative.org). What type of metering does the S-AGMC plan to use?
  - Response: We understand your concerns; many of the meters are far from buildings. These wireless meters help compensate for our limited staff resources.

## Water Supply

- The agencies should store water in dams and reservoirs.
  - Response: We considered a water collection project about ten years ago (Soquel Creek Diversion Project), but the proposed project could not provide reliable water flows for wildlife. Currently we are exploring recharge projects.
  - Response: The City plans to store extra winter water, treat it, and store it in the aquifer.

## Desalination

- The City and SqCWD spent \$17 million on desalination studies and severely underestimated the cost for a desalination project. The City developed these studies and cost estimates based on flawed information and involved people who may have major conflicts of interest. Given that history, people have trouble trusting these agencies when they recommend desalination.
  - Response: In the past, the Santa Cruz City Council pursued desalination because Council members believed that was an appropriate strategy to address our groundwater issues. However, Santa Cruz voters decided they were not confident in the desalination strategy (Measure P); therefore, the City did not move forward with that project.

## Land-Use Planning and Demand Management<sup>1</sup>

- Why do the agencies not issue an immediate moratorium on new hook-ups?
  - Response: Our groundwater problems are rooted in historical over-pumping and the resulting deficit, as opposed to projected population growth and development. We predict overall usage to be flat because water use per person continues to decrease over time. We believe that we can significantly recover the aquifer using strategies such as conservation and recharge.
- Water use would decrease even further if agencies issued a moratorium on new hook-ups.
- Is one of the underlying management strategies growth control?
  - Response: SGMA links GSPs and land-use planning by requiring both the GSA and land-use agencies to ensure the GSP and land use plans are aligned. The community decides what its population and development growth should be and

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• <sup>1</sup> The following question was submitted in writing, but time did not permit it to be read aloud for a response: “Why is the growth not limited on large developments given our water problems? SqCWD said that since their customers were so good at conserving water, they approved the Aptos Village Plan. How can we keep lowering our overdraft with this kind of decision-making?”

the water agencies work to provide water to meet those needs; we encourage you to contact your land use agency if you disagree with their projected growth plans. Growth really is not the major groundwater issue as the projected new demand is small compared to the current deficit; we must address the major groundwater supply deficit whether there is growth or not. No matter what we do about demand, we must enhance our supply.

- Why does the County not issue a groundwater emergency and limit development until we have better control over our groundwater issues?
  - Response: The County Well Ordinance has specific criteria before considering a groundwater emergency declaration (e.g., significant increase in water use and inadequate steps to address the situation). Since overall demand is flat and we are already pursuing these efforts to enhance supply and improve groundwater management, the County believes an emergency declaration would not significantly expedite the solution.

#### **Technical Information**

- Where can we find the original technical reports (in high quality resolution) used to reach your conclusions?
  - Response: Several of the original reports are available in .pdf format on the SqCWD website.
- How much water from a septic system actually goes into the aquifer?
  - Response: Estimates vary depending on the soil conditions (e.g., depth of leach field, clay or sandy layers, and overlying vegetation). The County assumes a general estimate that 50% of that water reaches the aquifer; we hope the groundwater model will help improve those estimates.
- How does the detected gravity anomaly in the Branciforte watershed area affect the groundwater issues?
  - Response: The gravity anomaly indicates dense rock (granitic impermeable basement material). We have used gravity contour maps and well logs to estimate the shape of that granitic ridge. The ridge slopes toward Soquel Creek, directing groundwater movement southeast. The revised basin boundaries include this whole area east of the underlying granitic ridge.
- Where can we find a more detailed map to determine whether our property is within the proposed basin boundary?
  - Response: You can find Geographic Information Systems (GIS) maps on the County GIS website. The boundaries will be based on parcels, so your property will either be within the Mid-County GSA boundaries or within the neighboring GSA (e.g., Pajaro Valley Water Management Agency).

## **4. Adjourn**

Bruce Jaffe, S-AGMC Chair, thanked attendees for their input and encouraged them to continue to participate in the sustainable groundwater management planning process. The S-AGMC wants to support and maintain this excellent dialogue with well owners and the community

going forward. Mr. Jaffe said that Mid-County is one of the first areas to adopt a regional approach to groundwater management and embark on the SGMA effort. The next step is to form the GSA, and he encourages attendees to participate in that process. He referred attendees to the S-AGMC website ([www.midcountygroundwater.org/](http://www.midcountygroundwater.org/)) for more information and future updates.

Gita Kapahi, SWRCB Director of Public Participation, thanked attendees for coming to the meeting. She explained SWRCB sees the engagement and collaborative efforts in Mid-County as a great model for other groups. Ms. Kapahi said she applauds the community's efforts and feels encouraged such public participation opportunities will continue into the future.

### Upcoming Meetings

#### **S-AGMC Meetings**

January 17, 7:00 PM, and March 21, 7:00 PM  
City of Capitola Community Room

#### **Working Together on Water: Connecting the Drops**

Hosted by the County Water Forum  
January 28, 7:00 – 9:00 PM  
New Brighton Middle School Auditorium  
250 Washburn Ave, Capitola

## 5. Appendices

A - Presentation Slides

B – Management of Mid-County Groundwater Basin Handout

C – Memorandums of Agreement, Joint Powers Authorities, and Coordination Agreements Handout

# Mid-County Groundwater Stakeholder Meeting

Eighth Meeting  
December 10, 2015

# Meetings are Sponsored by:

- ▶ Soquel–Aptos Groundwater Management Committee
  - Soquel Creek Water District
  - Central Water District
  - City of Santa Cruz
  - County of Santa Cruz
- ▶ With assistance from:
  - California Department of Water Resources
  - Water Resources Control Board
- ▶ Eight Meetings since May, 2014

# Purpose of Groundwater Stakeholder Meetings

- ▶ Convene Mid-County groundwater basin users in a series of discussions.
- ▶ Share information about groundwater hydrology, groundwater rights, water use efficiency, basin sustainability and management approaches.
- ▶ Develop common understanding of issues.
- ▶ Include groundwater pumpers in Sustainable Groundwater Management Process:
  - Basin Boundary Definition
  - Groundwater Sustainability Agency Formation
  - Groundwater Sustainability Plan development.

# Sustainable Groundwater Management Act (SGMA)

- ▶ Develop and implement a plan that will prevent undesirable results:
  - Chronic lowering of groundwater levels
  - Significant, unreasonable reductions in storage
  - Significant, unreasonable degradation of water quality, seawater intrusion
  - Significant, unreasonable depletion of surface water
- ▶ Groundwater Sustainability Agency may be a single agency or combination of agencies under a Joint Powers Agreement
- ▶ The GSA has authority and responsibility to:
  - Measure and potentially limit extraction (except for de-minimis users)
  - Levy fees to pay the cost of basin management and supplemental supply
  - Implement and enforce terms of the groundwater sustainability plan
- ▶ Requires consultation and involvement of stakeholders
- ▶ State oversight and action if locals fail to act

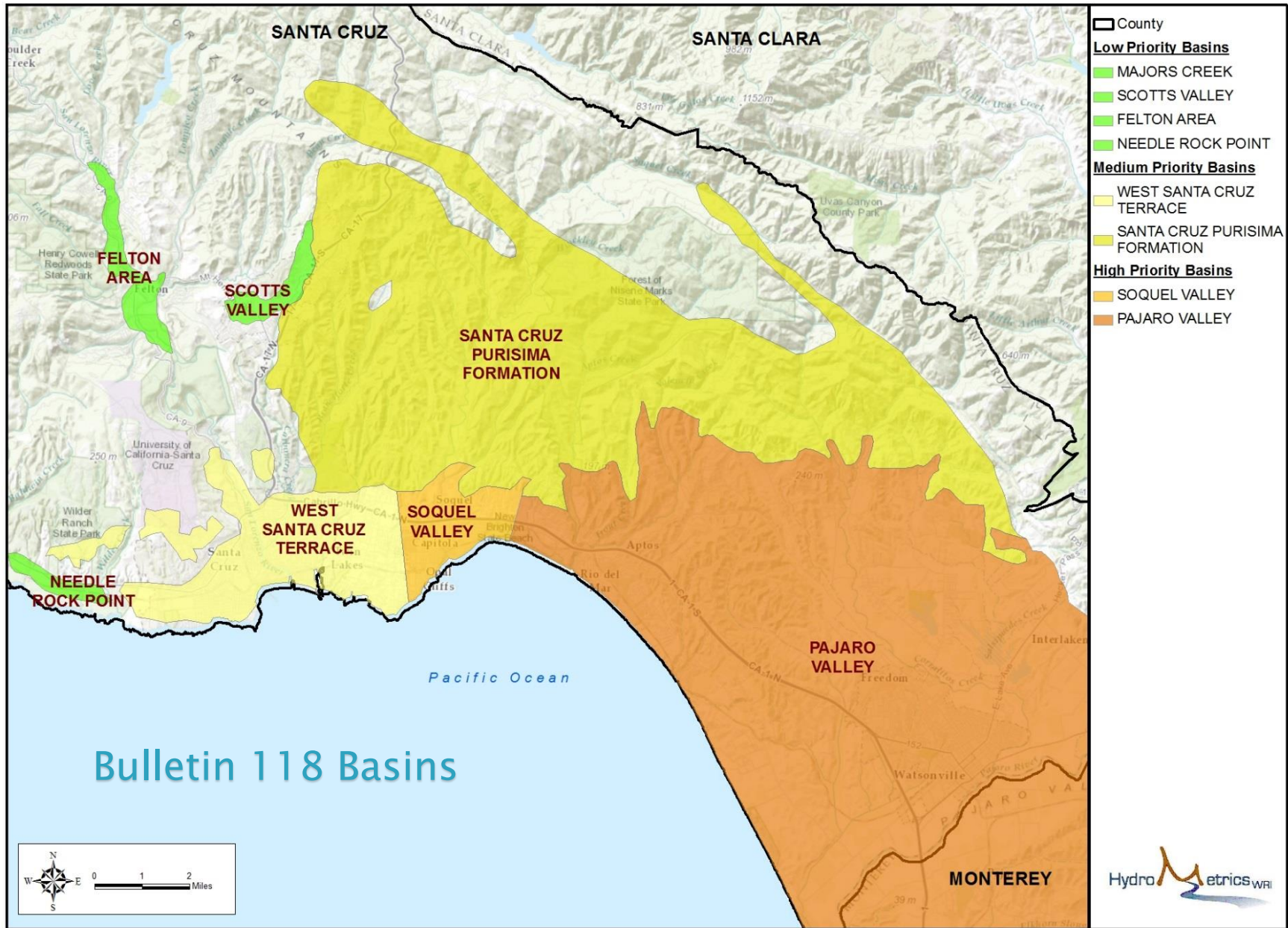
# SGMA Status in Santa Cruz County

- ▶ Three Groundwater Basins of Concern in Santa Cruz County
  - Pajaro – PVWMA
  - Santa Cruz Mid-County
  - Santa Margarita
- ▶ Basin Modification Requests for Santa Margarita and Mid-County
- ▶ Management Committees already established by MOU or JPA
- ▶ Joint Powers Agreement for Santa Cruz Mid-County Groundwater Agency, March 2016
- ▶ Development of Groundwater Sustainability Plans by 2020, with Stakeholder input



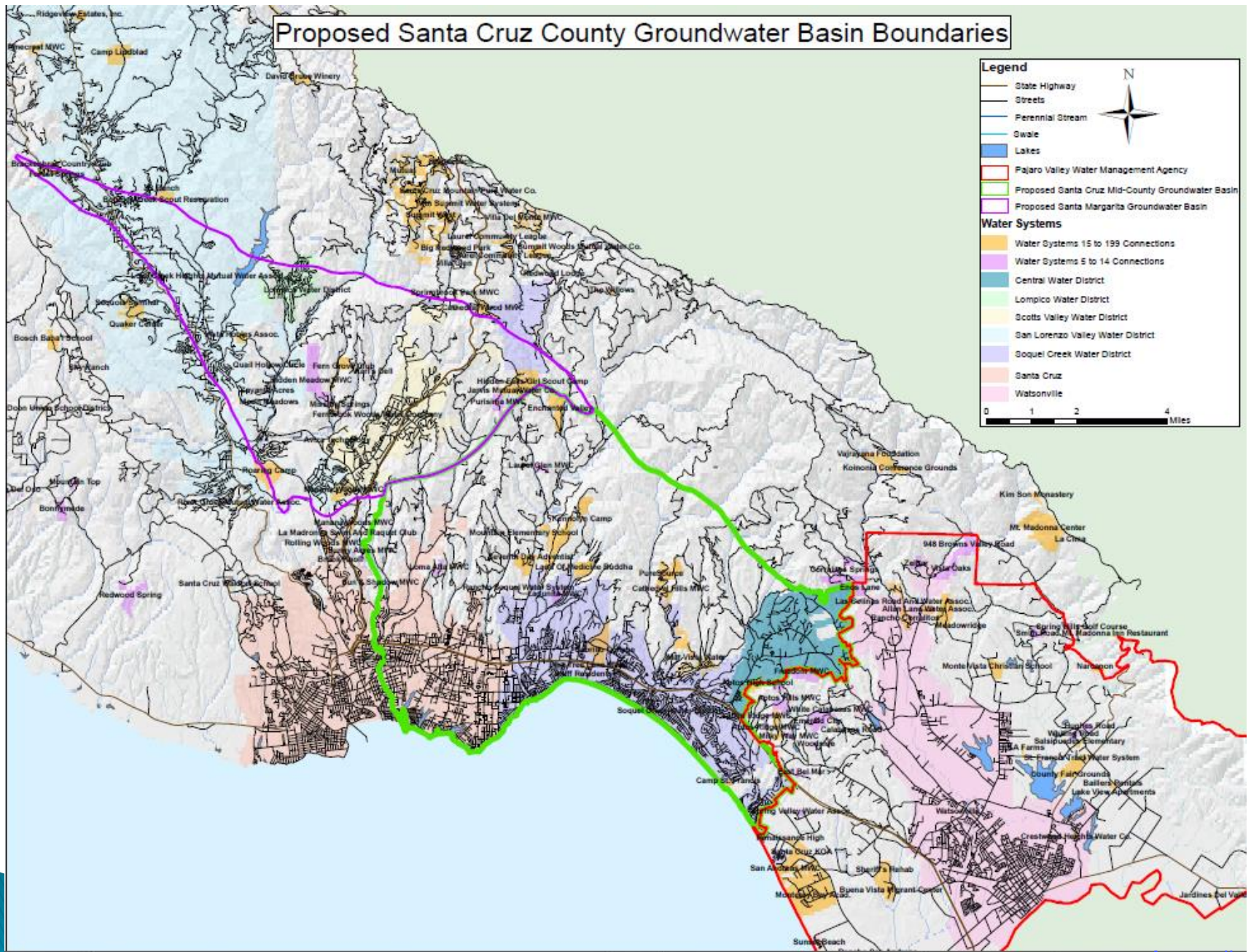
# SGMA Efforts in Mid-County

- ▶ Work with State on Regulations for Boundaries, GSA, and Plans
- ▶ Update Basin Boundary and Priority – January–March 2016
- ▶ Form Soquel–Aptos Groundwater Management Committee
  - SqCWD
  - CWD
  - City of Santa Cruz
  - County
- ▶ Engage with stakeholders, users
- ▶ Form Groundwater Sustainability Agency – by June 2017
- ▶ Evaluate groundwater use and model groundwater basin conditions
- ▶ Update Groundwater Plan to meet requirements of a Groundwater Sustainability Plan – 2020
- ▶ Implement Plan for Sustainability by 2040

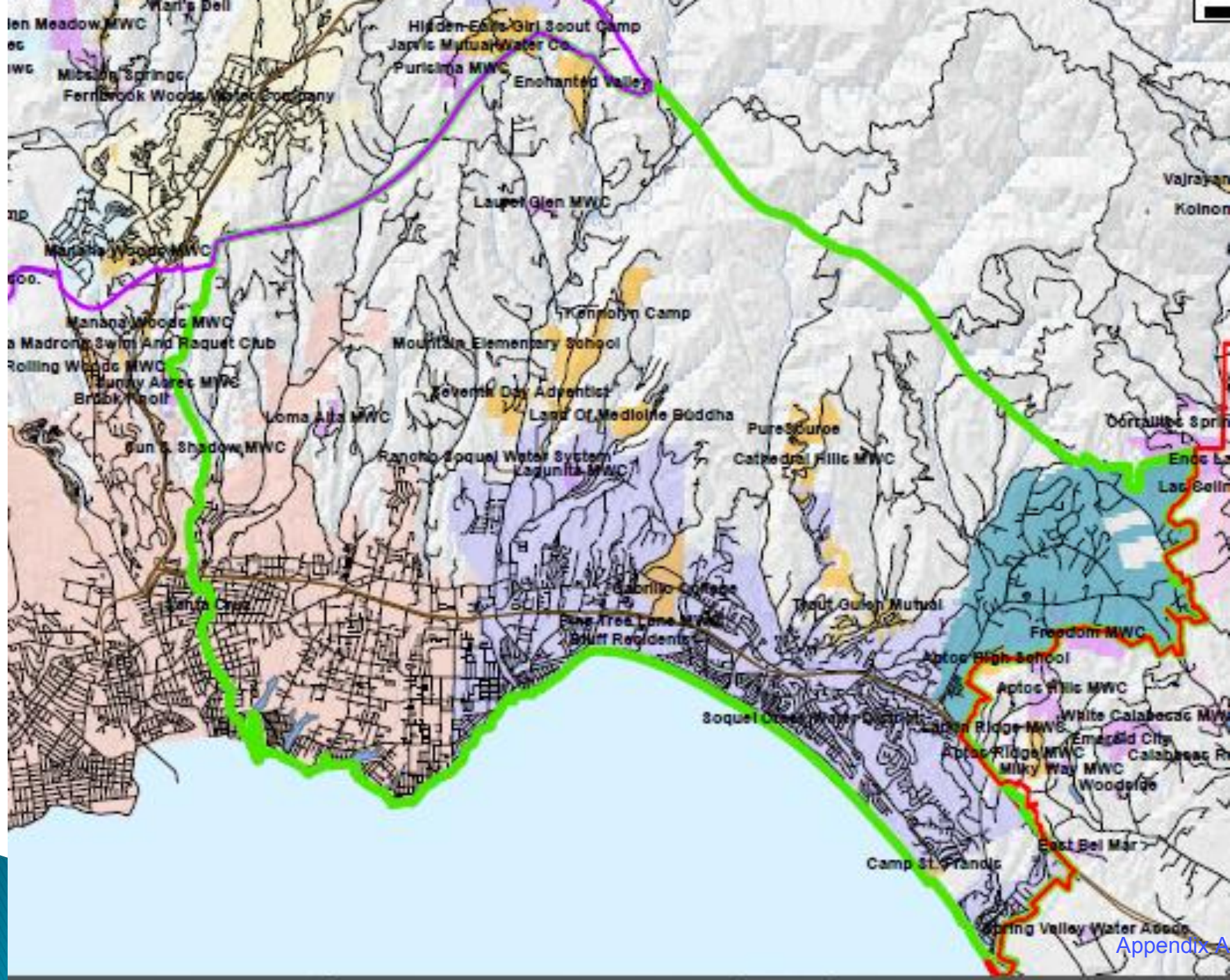




# Proposed Santa Cruz County Groundwater Basin Boundaries







# GSA Formation

- Formation subcommittee work
  - April 2015 – now
  - Consider powers, scenarios, models
  - Start w similar model to existing SAGMC
- Drafted Joint Powers Agreement
- New agency by end February
- State approval by summer
- Then, Sustainability Plan development

# What's Different?

- State mandate to regulate all groundwater
- Measure & report on usage
- Requirement to bring basin into sustainable condition by 2040
- Ability to levy assessments
- Coordinate with other GSAs, planning agencies

# Sustainability Agency Timeline

BIG already working...

New Law: SGMA

SAGMC expands

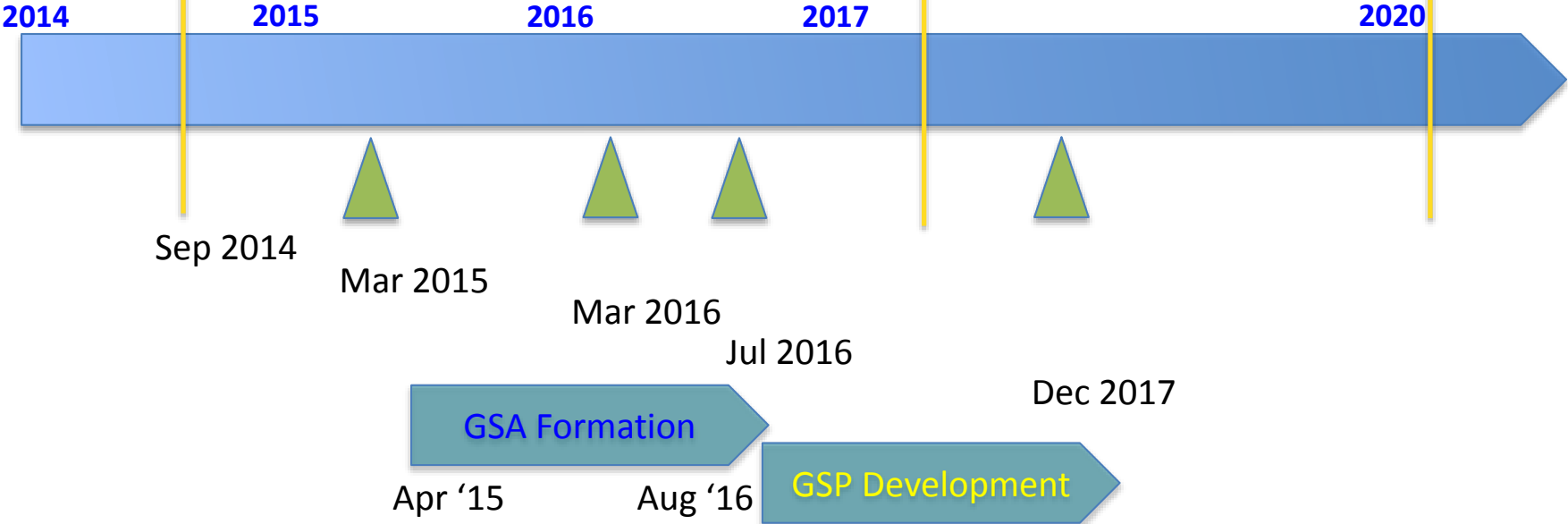
GSA notice of intent

GSP development begins

State required GSA

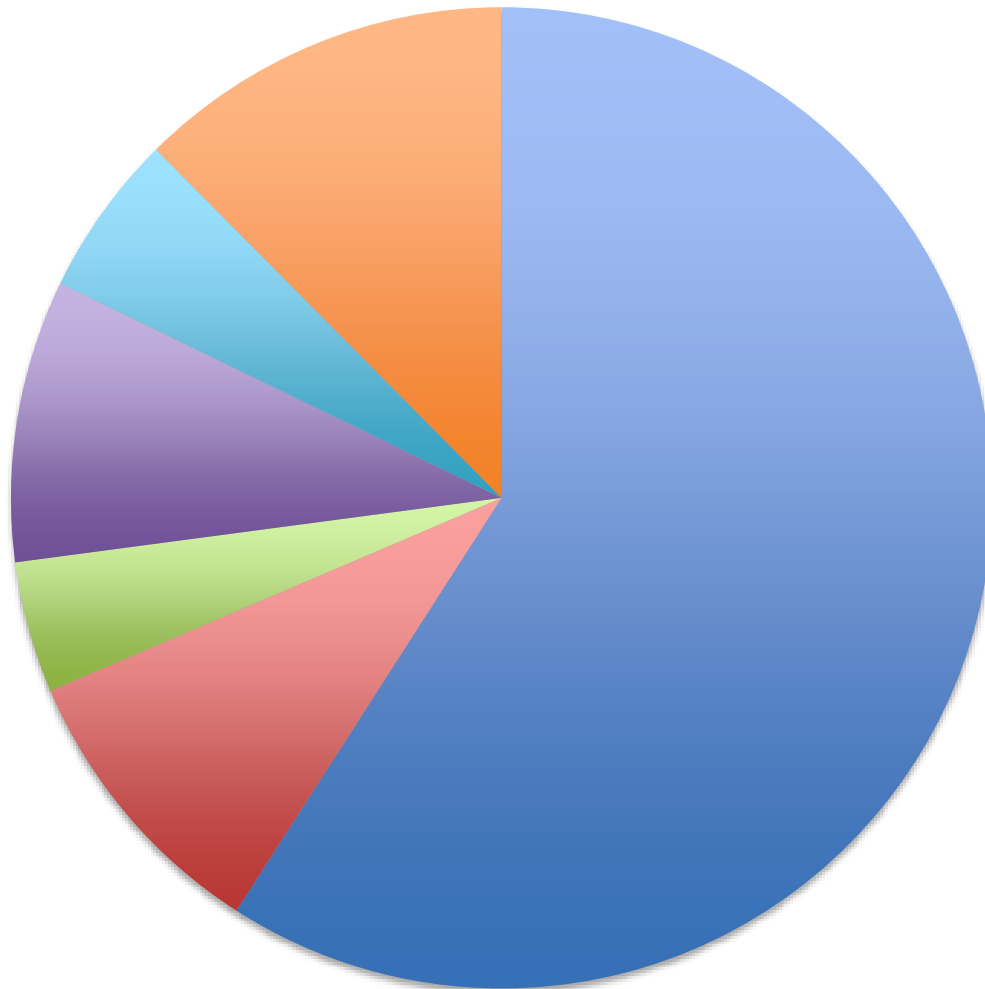
Initial GSP in place

State required GSP



# Total Area 2014

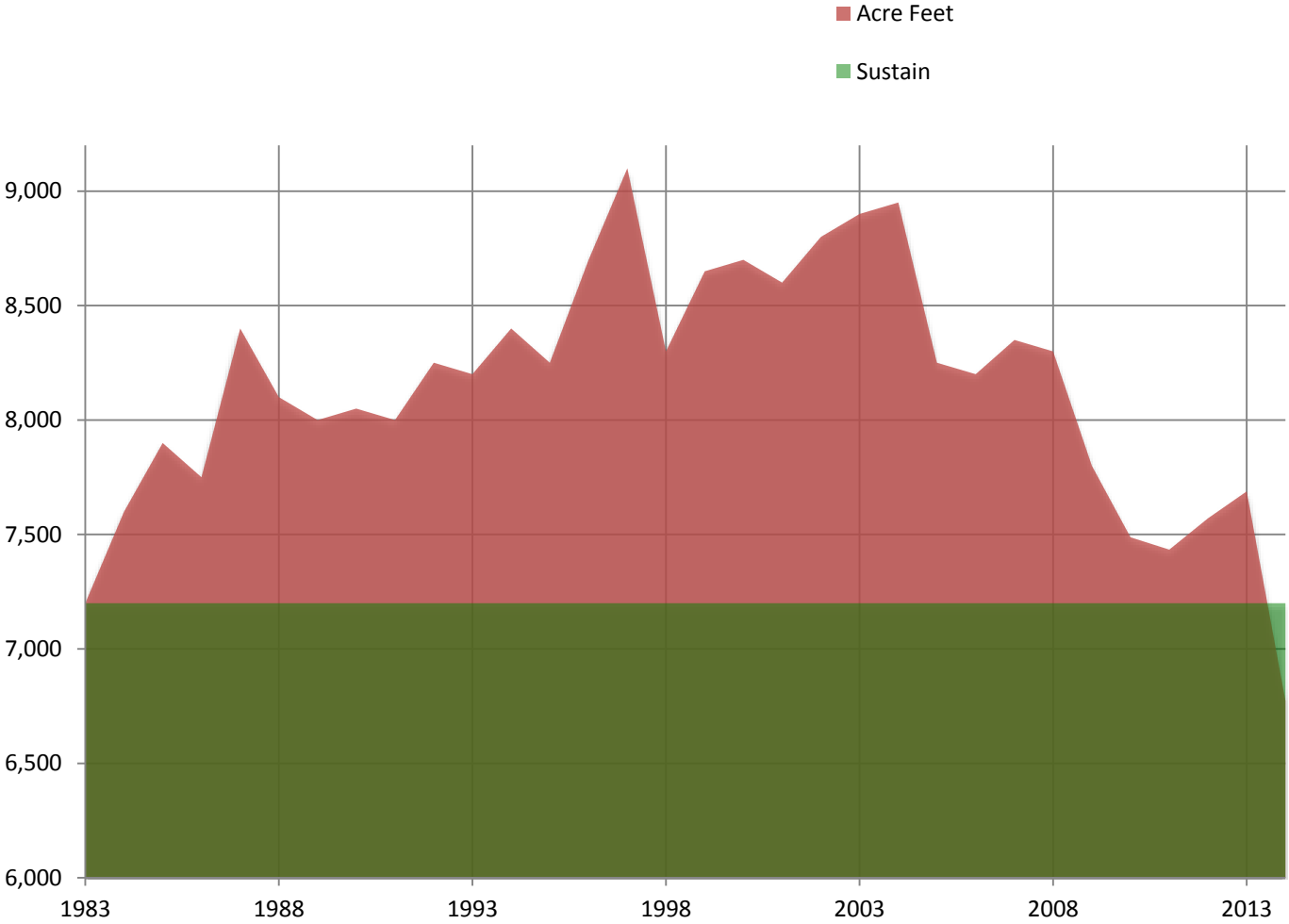
After return flow



- SqCWD
- SCzWD Beltz
- Central WD
- Agricultural
- Institutional
- Rural Residential

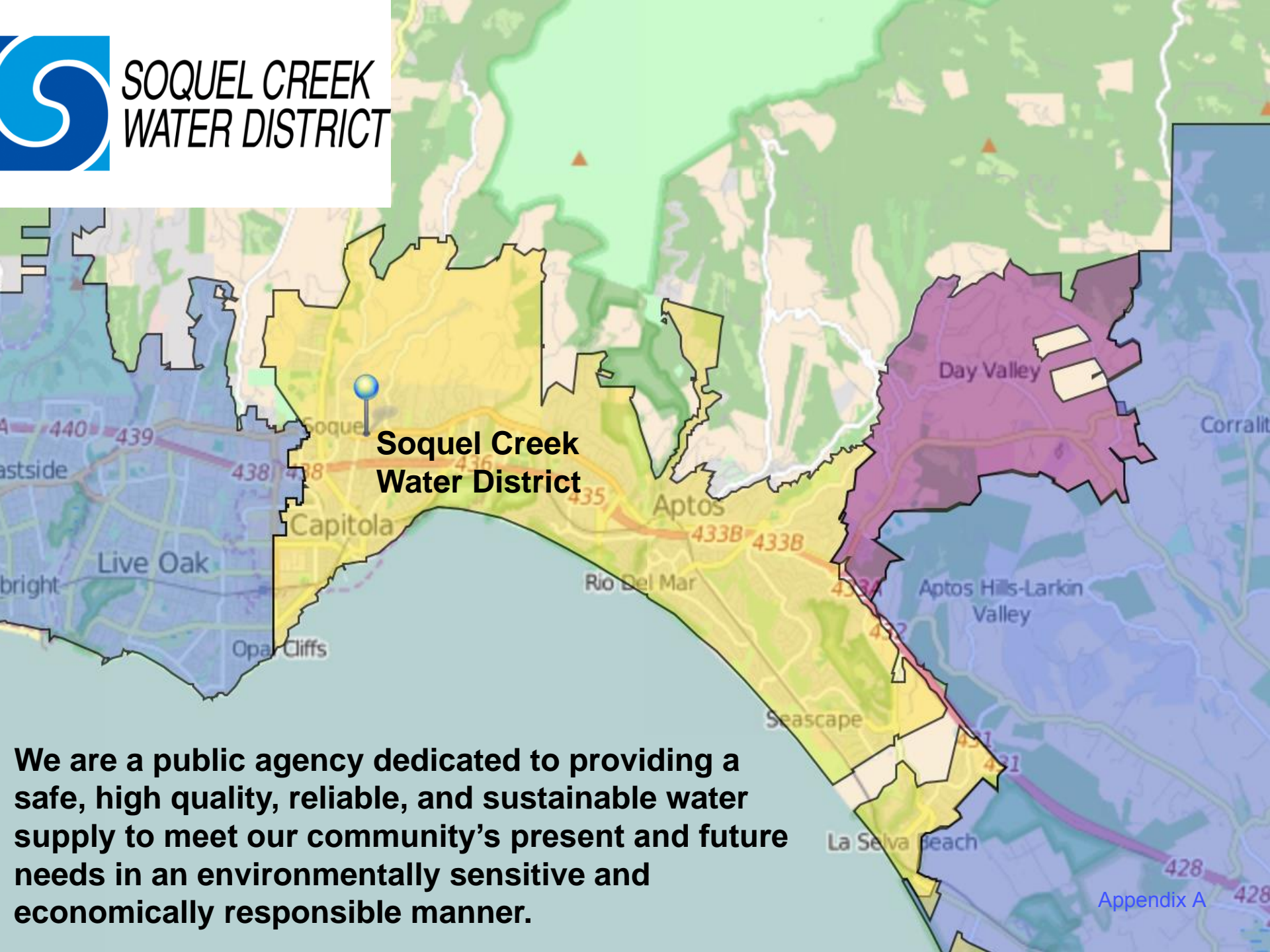


# Area Pumping History





**SOQUEL CREEK  
WATER DISTRICT**



**Soquel Creek  
Water District**

**We are a public agency dedicated to providing a safe, high quality, reliable, and sustainable water supply to meet our community's present and future needs in an environmentally sensitive and economically responsible manner.**



# Who We Are



Appendix A

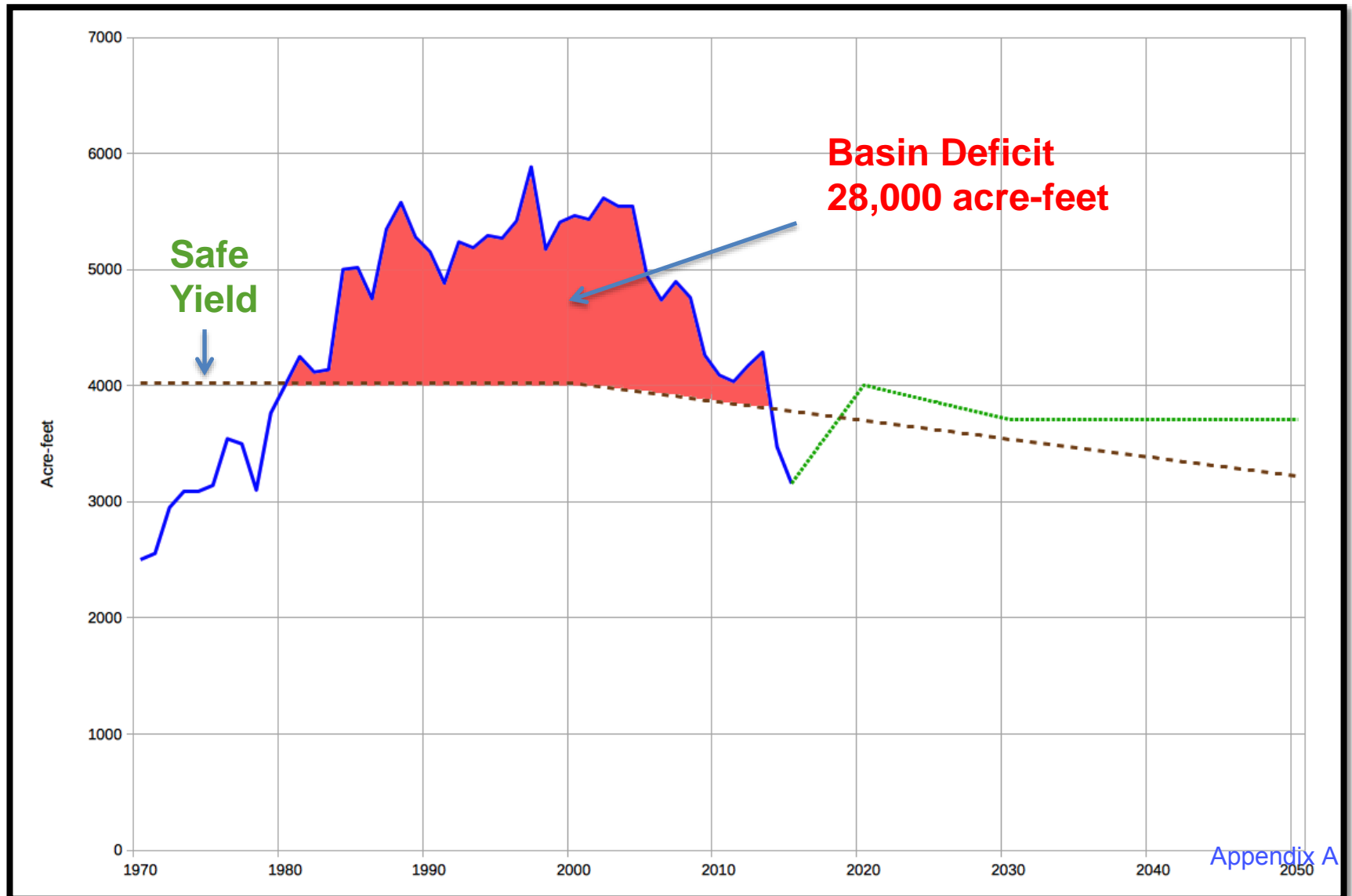
**Thank you Rick  
Meyer for your  
dedication to  
making a positive  
difference for our  
water supply**



**Protecting our  
groundwater for the  
future (long term) is  
our top priority.**

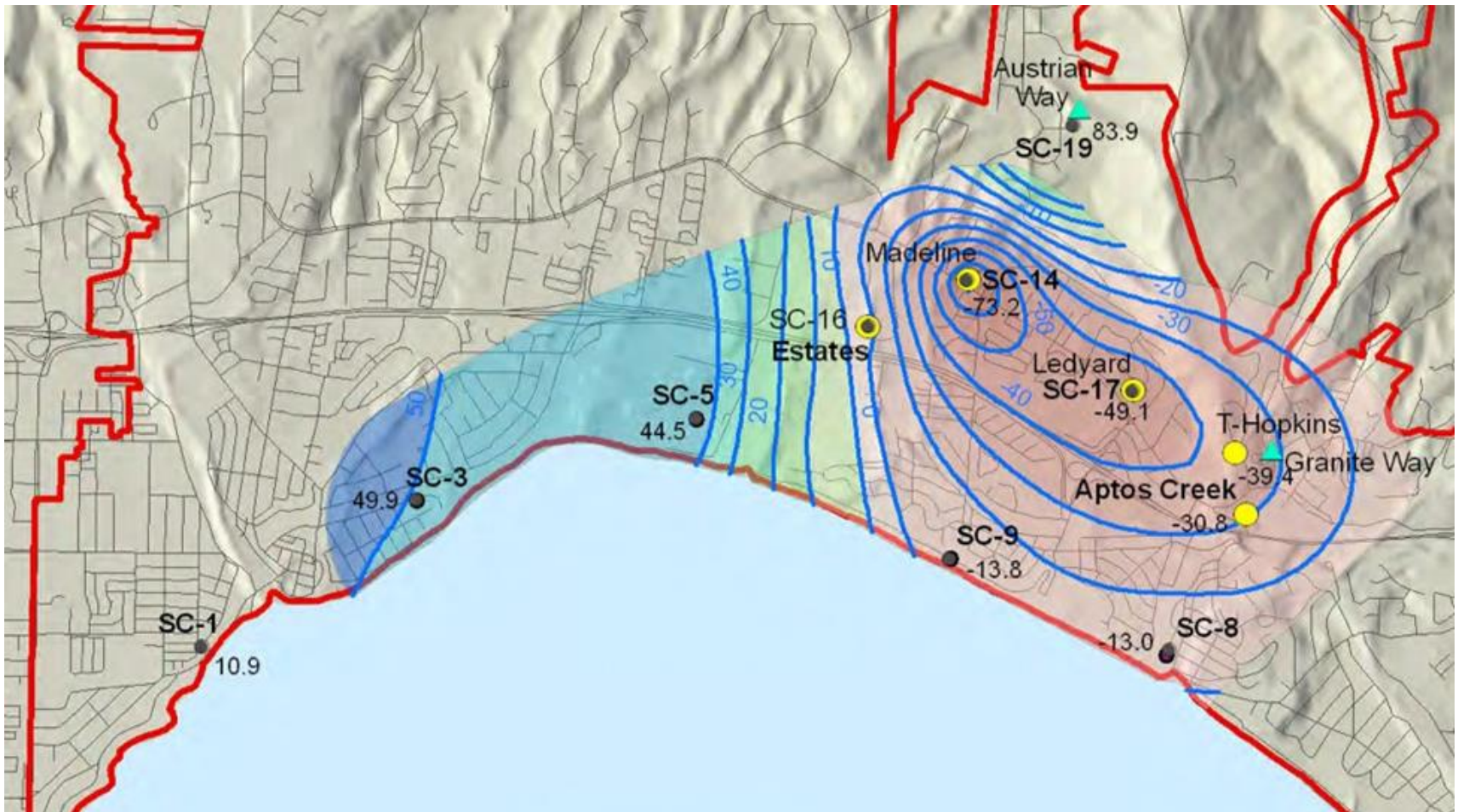
# Current situation with our groundwater supply (and how we got here)

# Issue: Basin Pumping Deficit



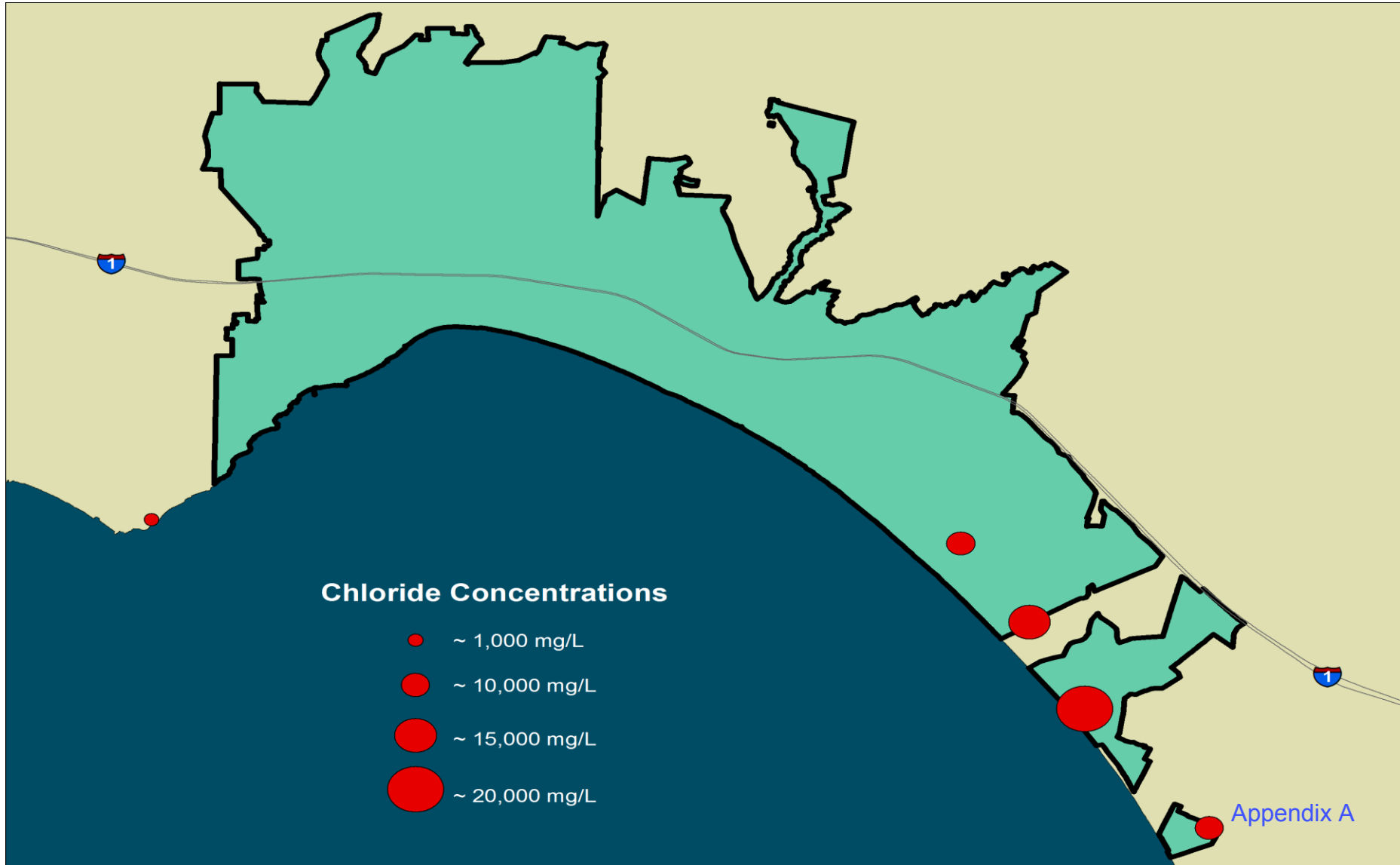


# Issue: Groundwater Lost

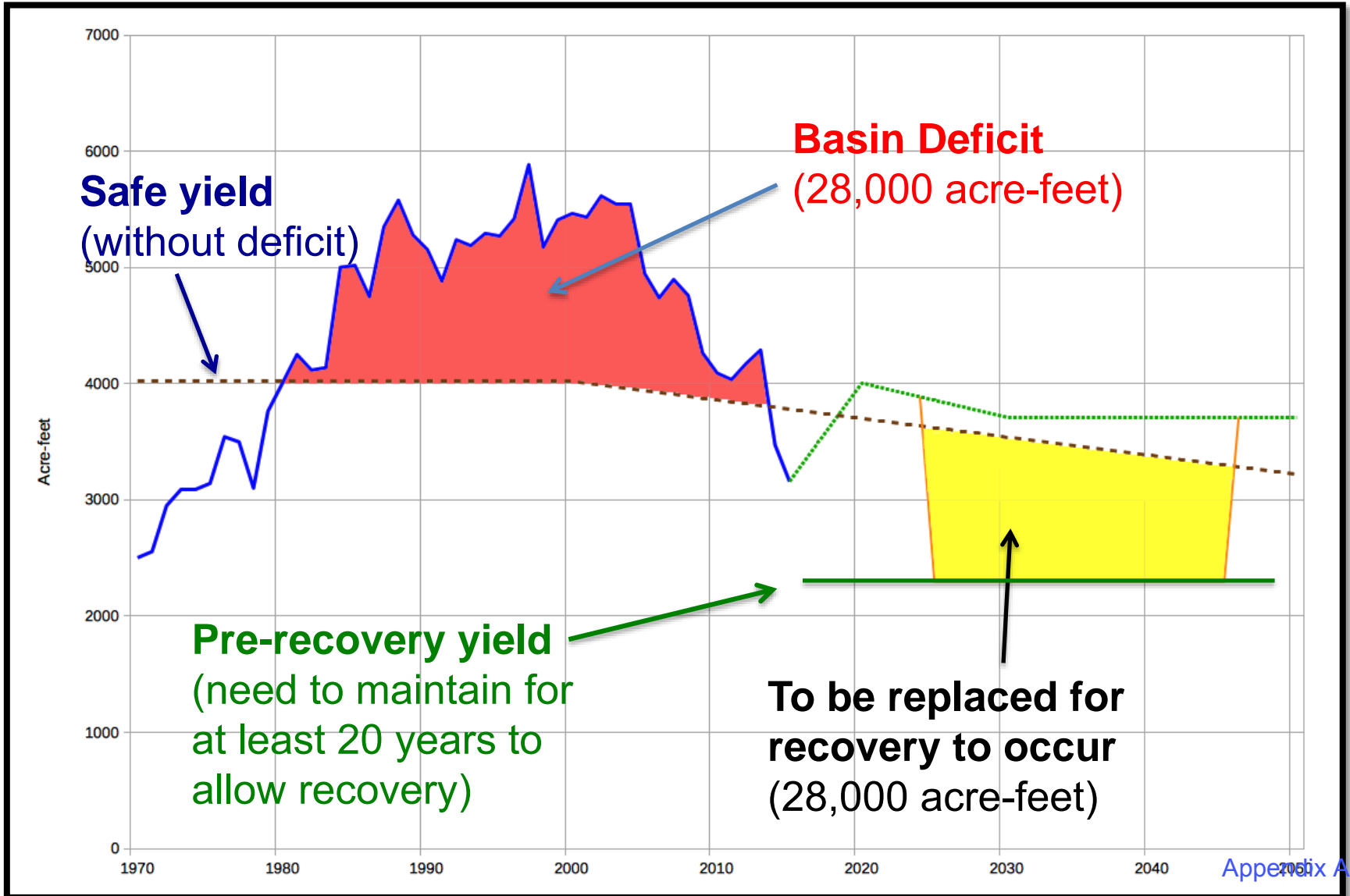




# Problem – Sea water intrusion

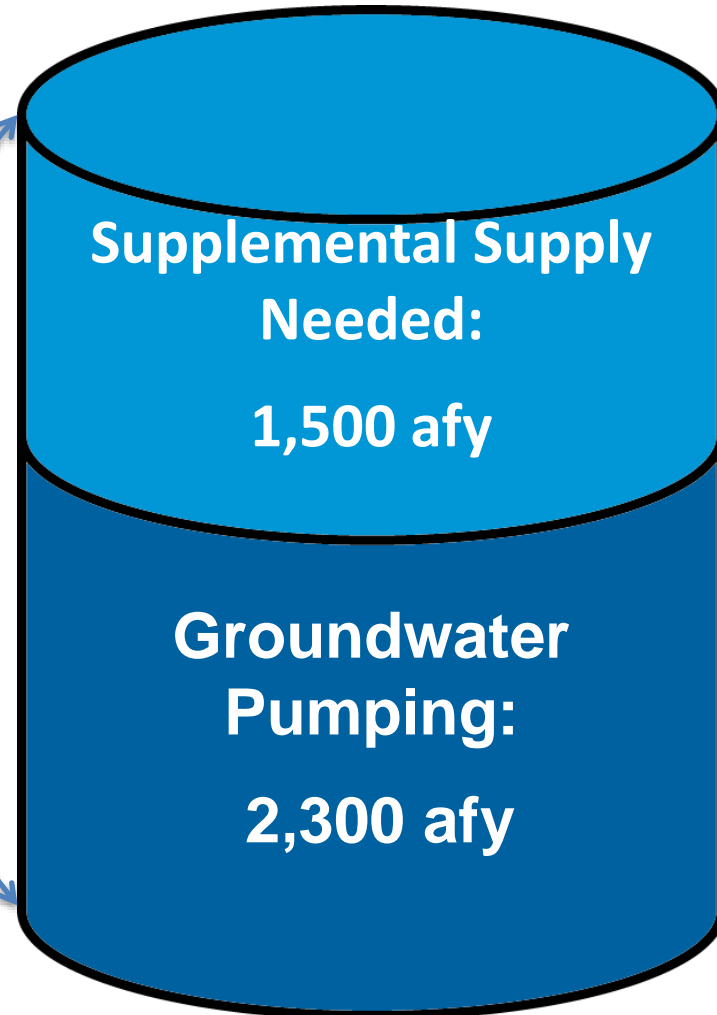


# Need: Basin Recovery



# Need: Supplemental Supply

Projected Water Demand  
3,800 acre-feet per year



# So what's the plan to achieve basin recovery?



**Continue improving  
our strong  
conservation efforts**

**Continue insisting on  
Water Neutral  
Development  
(or better) – Water  
Demand Offset (WDO)**

# Groundwater Management

- Monitoring well program
- Collaboration
  - SAGMC & formation of Groundwater Sustainability Agency
  - Groundwater model
  - Seawater-freshwater interface

**Find a reliable, high  
quality supplemental  
supply for the long  
term**



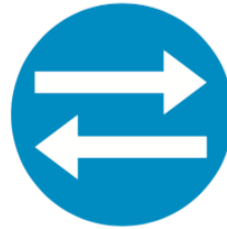


**With groundwater replenishment  
Feasibility study in progress  
(preferred option)**



## **Desalination**

**Keeping this option open  
with Deep Water Desal -  
Memorandum of interest**



## **River Water Transfer/Purchase**

**Pilot project to purchase a  
small amount could begin  
in late winter or spring.**

**Public input and sharing of information (like this meeting) is extremely important as we move forward towards a sustainable water supply**

A landscape photograph of a sunset. The sky is filled with dramatic, colorful clouds in shades of orange, red, and blue. The sun is low on the horizon, creating a bright yellow glow. In the foreground, a dark path leads towards a single, silhouetted tree on a grassy hill. The overall mood is peaceful and contemplative.

# Thank you

www.midcountygroundwater.org

Home Groundwater Issues News FAQs Resource Library Calendar SAGMC Agendas

# Soquel-Aptos Groundwater Management Committee

## GROUNDWATER IS A VITAL RESOURCE

TOGETHER - LET'S PROTECT IT!

please join us

### Upcoming Events

12/10/2015 - 7:00pm to 9:00pm  
Groundwater Stakeholder Meeting at Live Oak Grange

#### Our problem

### Seawater Intrusion

We rely only on groundwater, but our aquifers have been overpumped. For more information, [click here](#).

#### The State Requirements

### The CA Sustainable Groundwater Management Act

effective January 1, 2015

#### What you need to know

A new law requires basin-wide sustainable management for all water users. For more information, [click here](#).

#### Current activities

Upcoming public meetings and how you can get involved. For more information, [click here](#).

SIGN UP FOR OUR NEWSLETTER

Next SAGMC meetings:  
Jan. 21 and March 17,  
Capitola City Hall, 7pm

Stay tuned for next public workshop



# Management of Santa Cruz Mid-County Groundwater Basin

## Overview

The Mid-County (Soquel Aptos) Groundwater Basin is currently in a state of overdraft with depressed groundwater levels, seawater intrusion and diminished streamflow. Local agencies have been taking steps to address the overdraft since 1995. These efforts will be bolstered by passage of the Sustainable Groundwater Management Act of 2014 (SGMA), which provides local agencies the authority and the responsibility to eliminate groundwater overdraft by 2040. Under SGMA the local agencies will:

- Define the boundaries of our groundwater basin
- Form a Groundwater Sustainability Agency (GSA) to manage the basin
- Develop a Groundwater Sustainability Plan (GSP), which will likely involve a combination of water conservation, increased groundwater recharge and supplemental supply, with equitable allocation of costs among users based on impact on the groundwater basin.

**If local agencies fail to act, the State will step in.**

## Basin Boundaries

A boundary modification request is being submitted to the state to define the basin boundaries of the Santa Cruz Mid-County Groundwater Basin to reflect the entire local area of concern. Public comment may be submitted until March 30, 2016. ([www.midcountygroundwater.org](http://www.midcountygroundwater.org))

## About the Groundwater Sustainability Agency (GSA)

- The GSA will be responsible for developing and implementing a plan to manage use of water within the Basin.
- The GSA can be a single public agency or a Joint Powers Authority (JPA) consisting of multiple public agencies.
- Currently the Soquel-Aptos Groundwater Management Committee (SAGMC) is a JPA that is already coordinating planning efforts in the Basin.
- SAGMC includes the Soquel Creek Water District, the Central Water District, the City of Santa Cruz, the County of Santa Cruz, plus private well representatives.
- The GSA will likely look like the SAGMC, but with more powers consistent with SGMA
- The SAGMC has prepared a draft Joint Powers Agreement, which should be ready for approval by each member agency by early 2016.
- Approval of this JPA would create the new Santa Cruz Mid-County Groundwater Agency.
- The Mid-County Groundwater Agency must conduct a public hearing and solicit stakeholder comment prior to filing a notice with the state that it will be the GSA for the Mid-County Groundwater Basin.
- We anticipate that that the Mid-County Groundwater Agency will be fully established as the GSA by July 2016
- The GSA is required to monitor and report on groundwater extraction and develop and implement a groundwater sustainability plan (GSP).
- The GSA can levy assessments on water users to fund its activities, subject to the taxpayer approval process provided for in the Right to Vote on Taxes Act (Proposition 218).

## About the Groundwater Sustainability Plan (GSP)

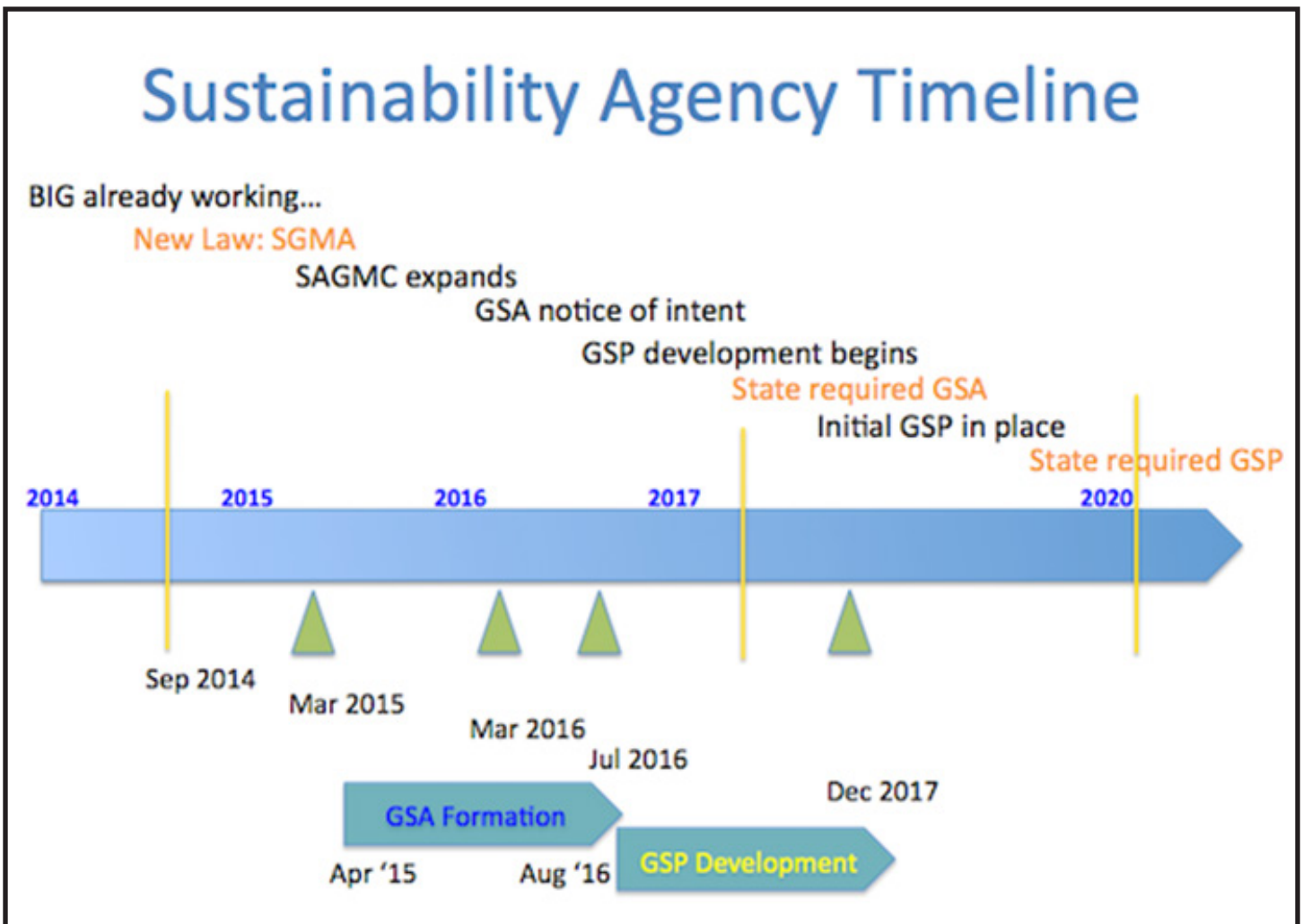
- The GSP must be developed by 2020 and must be fully implemented to eliminate adverse impacts of groundwater overdraft, including long term groundwater depletion, seawater intrusion, reduction in water quality, and reduction in streamflow by 2040.
- The GSP must also take into account projected impact of climate change, including sea level rise, increased irrigation demand and reduced groundwater recharge.
- Methods to achieve sustainability may include managing pumping, increasing water conservation, creating supplemental supplies, and increasing recharge.

- The GSP will also evaluate and recommend a funding mechanism to allocate the costs of achieving sustainability among basin water users based on their impact on the basin.
- The GSP will be developed by the GSA, based on technical information and input from all involved stakeholders and water users.
- Work will build on the existing Groundwater Management Plan for the Soquel-Aptos Area, developed in 1996 by Soquel Creek and Central Water Districts, which must be updated and strengthened to meet the requirements of SGMA.
- A detailed groundwater model is being developed to better characterize the effects of groundwater pumping and evaluate the expected benefits of potential management scenarios.
- Stakeholder involvement in GSP development will include water supply agencies, land use agencies, regulatory agencies, environmental concerns, private well users, and other water users in the basin.
- Ultimately the GSP must be approved by the GSA, including all member agencies, as well as the State.

### What can individual basin users do right now to reduce overdraft?

- Reduce pumping by practicing water conservation and eliminating any unnecessary water extraction; request a water use audit.
- Volunteer to have your groundwater level measured or to install a water meter
- Stay engaged by signing up for emails, visiting the website, attending meetings, offering comments

For more information on SGMA requirements, background information on the issues, basin boundary maps, process for GSA formation, GSP development, and future public meetings, visit: [www.midcountygroundwater.org](http://www.midcountygroundwater.org)



# Memorandums of Agreement, Joint Powers Authorities, and Coordination Agreements

## Sustainable Groundwater Management Act (SGMA)

Reaching agreement on who will manage a groundwater basin is a critical step in achieving sustainable management, and there a number of ways that agencies may enter into agreements for managing groundwater. The following information may be useful for local public agencies or other groups interested in learning more about legal agreements between agencies for the Sustainable Groundwater Management Act (SGMA) compliance activities.

*[Note: the information contained in this document does not indicate a preference, either in terms of content or in terms of process, for any specific legal agreement or coordination effort. The references and citations are provided strictly as informational material. The following information incorporates the 2015 legislative changes outlined in SB13.]*

### Forming a Groundwater Sustainability Agency

One of the most important SGMA requirements is the formation of one or more groundwater sustainability agencies (GSAs). The GSA is responsible for developing a sustainability plan for the groundwater basin. SGMA allows any local agency to become a GSA; in some cases, there may be multiple agencies that are interested in jointly managing the groundwater resources. SGMA allows multiple local agencies to act as a single GSA through a **memorandum of agreement (MOA), a joint powers agreement (JPA), or any other legal agreement** (California Water Code, Section [§] 10723.6 (a)).<sup>1</sup> A water corporation regulated by the PUC or a mutual water company may also participate in a GSA through a memorandum of agreement or other legal agreement (§ 10723.6 (b)). Additionally, although Tribes cannot form GSAs, they can participate in SGMA through a JPA or other agreement (§ 10720.3 (c)).

Every groundwater basin must have a GSA for all areas of the basin, by June 30, 2017. Submitting a GSA notification to the Department of Water Resources (DWR) initiates a 90-day period after which the submitting agency is presumed to be the exclusive GSA in the area covered by the notification. If local agencies submit GSA notifications for overlapping areas, no agency will become the GSA until the agencies reach agreement on sharing the authority to manage the basin (§ 10723.8 (c)). If the local agencies cannot reach agreement, the basin may be designated as a probationary basin and the state may develop an interim plan for managing the basin until the agencies can reach agreement and identify a GSA or GSAs (§ 107352.2(a)(1)).

Some local agencies have entered into a non-binding memorandum of understanding to forbear submittal of a GSA notification until all interested local agencies have an opportunity to meet and agree on which agencies will manage the groundwater basin. Taking the necessary time to negotiate and reach agreement among the local agencies prior to submitting a GSA notification may lead to a more productive and less costly process for achieving sustainable groundwater management.

### Developing Coordinated Sustainability Plans

Where multiple agencies agree to act as a single GSA, the agencies will develop a single groundwater sustainability plan (§ 10727(b)(1)). Multiple GSAs may also work together to develop a single sustainability plan (§ 10727(b)(2)), or to develop multiple sustainability plans for a single basin. When there is more than one sustainability plan for a groundwater basin, the responsible GSAs must

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<sup>1</sup> All subsequent citations are to the California Water Code.

coordinate management of the basin through a single **coordination agreement** that covers the entire basin (§ 10727(b)(3)). The coordination agreement, defined as a legal agreement between two or more GSAs for coordinating multiple agencies or sustainability plans within a basin (§ 10721 (d)), must be submitted to DWR for review with the submission of the groundwater sustainability plans. SGMA requires that each coordinated sustainability plan utilize the same data and methodologies for groundwater elevation data, extraction data, surface water supply, total water use, change in storage, water budget, and sustainable yield (§ 10727.6). DWR will adopt regulations for evaluating coordination agreements by June 1, 2016 (§ 10733.2(a)(1)).

## References and Available Documents

The California Water Foundation recently published a *Guide to Forming Groundwater Sustainability Agencies* (Guide), which includes chapters on “Governance Through an MOA,” and “GSA Formation through a JPA.” The Guide includes a table comparing the differences between the two types of agreements. The Guide can be found on the California Water Foundation Website:

[http://californiawaterfoundation.org/wp-content/uploads/2015/09/CF\\_GSA\\_Guide\\_09.30.15\\_web.pdf](http://californiawaterfoundation.org/wp-content/uploads/2015/09/CF_GSA_Guide_09.30.15_web.pdf)

## Sample Memorandum of Agreement and Joint Powers Agreements

Several basins or groups have developed Memorandums of Agreement (MOAs) and JPAs to help guide their SGMA efforts, including GSA formation and development of sustainability plans. Several sample MOAs/JPAs establishing relationships between interested agencies are presented below. The State Water Resources Control Board and DWR do not intend this list to indicate preference, approval, or legal merit, and do not intend that a GSA should or must follow the content or intent of any of the agreements listed below.

- Ventura Basin: [www.cityofventura.net/files/file/meetings/city\\_council/2015/03-16-15/item%2010.pdf](http://www.cityofventura.net/files/file/meetings/city_council/2015/03-16-15/item%2010.pdf)
- Kings County: [www.co.fresno.ca.us/ViewDocument.aspx?id=63946](http://www.co.fresno.ca.us/ViewDocument.aspx?id=63946)
- Monterey County: [www.mpwmd.dst.ca.us/asd/board/boardpacket/2003/20030828/07/item7\\_exh7b.pdf](http://www.mpwmd.dst.ca.us/asd/board/boardpacket/2003/20030828/07/item7_exh7b.pdf)
- Sacramento Central Basin Groundwater Authority JPA: <http://www.scgah2o.org/documents/Sacramento%20Central%20JPA.pdf>
- Soquel-Aptos JPA: [http://sccounty01.co.santa-cruz.ca.us/BDS/Govstream2/Bdsvdata/non\\_legacy\\_2.0/agendas/2015/20150519-658/PDF/036.pdf](http://sccounty01.co.santa-cruz.ca.us/BDS/Govstream2/Bdsvdata/non_legacy_2.0/agendas/2015/20150519-658/PDF/036.pdf)
- Eastern San Joaquin County JPA: [http://www.ci.lathrop.ca.us/agenda/pdf/18-09-2015\\_11-16-09-23\\_Report.pdf](http://www.ci.lathrop.ca.us/agenda/pdf/18-09-2015_11-16-09-23_Report.pdf)
- Madera Groundwater Authority JPA: [http://www.cityofmadera.org/c/document\\_library/get\\_file?uuid=4837dba9-975e-4b53-b8a7-9ac69f4a9ee2&groupId=10128](http://www.cityofmadera.org/c/document_library/get_file?uuid=4837dba9-975e-4b53-b8a7-9ac69f4a9ee2&groupId=10128)

