SANTA CRUZ MID-COUNTY GROUNDWATER AGENCY (MGA)
Thursday, May 16, 2019 - 6:30 p.m.
Simpkins Family Swim Center
979 17th Avenue, Santa Cruz, California

BOARD MEETING AND JOINT MEETING OF THE BOARD AND THE GROUNDWATER SUSTAINABILITY PLAN (GSP) ADVISORY COMMITTEE

AGENDA

MGA BOARD MEETING (6:30 p.m.)

1. **Call to Order**

2. **Roll Call**

3. **Oral Communications -** Community members may address matters not on the agenda and within the purview of the MGA. Guidelines are attached.

4. **Consent Agenda** (Page 4)
   - 4.1 Approve Minutes from March 21, 2019 Board Meeting (No Memo)

5. **General Business** (Page 13)
   - 5.1 Approve Revised MGA Email Policy
   - 5.2 Approve Annual Budget for Fiscal Year (FY) 2019-2020
   - 5.3 Approve Contract for Administrative and Staff Support from the Regional Water Management Foundation in FY 2019-2020
   - 5.4 Accept Semi-Annual Groundwater Monitoring Report

6. **Informational Updates** (Page 78)
   - 6.1 Treasurer's Report
   - 6.2 GSP Advisory Committee Meeting Summaries for February 27, 2019 and March 27, 2019
   - 6.3 Staff Reports (time permitting)

JOINT MEETING OF THE MGA BOARD AND THE GROUNDWATER SUSTAINABILITY PLAN ADVISORY COMMITTEE (7:00 p.m.)

7. **Welcome to GSP Advisory Committee**

8. **Oral Communications -** Community members may address matters not on the agenda and within the purview of the MGA. Guidelines are attached.

9. Overview of the GSP Advisory Committee's Charge, Process, Progress, and Desired Outcomes of this Joint Meeting (Page 99)

9.1 Overview of the GSP Advisory Committee's Charge and Summary of the Committee's Process and Status of Work to Date

10. Review and Discuss the GSP Sustainability Goal (Page 117)

10.1 Groundwater Sustainability Plan (GSP) – Administrative Draft Sustainability Goal (GSP Section 1.2)

10.2 Presentation Slides - Sustainability Goal

11. Public Comment

12. Review and Discuss the Sustainable Management Criteria, Indicators, and Modeling (Page 126)

12.1 Sustainable Management Criteria, Indicators, Modeling

12.2 Presentation Slides - Sustainability Management Criteria & Modeling

13. Review and Discuss the GSP Review and Approval Process and Timeline, Ongoing Funding Approach (Page 186)

13.1 Groundwater Sustainability Plan (GSP) Overview of Review and Approval Process and Timeline

13.2 GSP Implementation Ongoing Funding Approach

13.3 Presentation Slides - GSP Release, Review, and Approval Process Timeline

14. Public Comment

15. Adjournment

SANTA CRUZ MID-COUNTY GROUNDWATER AGENCY (MGA)

Guidance for Public Input during MGA Board Meetings

All information furnished to the MGA Board of Directors with this agenda is provided on the MGA website located here: http://www.midcountygroundwater.org/committee-meetings.

Submittal of Written Correspondence and Informational Materials

Submittal of written correspondence, informational materials, or handouts must be received by 5:00 pm on the Monday of the week prior to the scheduled board meeting (10 days prior to the meeting) to be included in the meeting materials for board review (commonly referred to as the board packet). Due to holidays and other factors there may be instances when even the above deadline is not adequate. Submittals received after the deadline but prior to the start of the board meeting will be included in the meeting materials for the next board meeting. Submittals received after the deadline may not have time to reach board members or be read by them prior to the consideration of an item. Materials may also be submitted in-person immediately preceding the start of a board meeting by giving those materials directly to the Board Chair. Organized groups wishing to make a presentation are asked to contact Laura Partch at lpartch@cfscc.org or 831.662.2053 prior to the meeting. Soquel Creek Water District serves as the designated administrative headquarters of the MGA. Written correspondence and materials may be directed to: Santa Cruz Mid-County Groundwater Agency, c/o Soquel Creek Water District, Attention: Emma Olin, Executive Secretary/Board Clerk, 5180 Soquel Drive, Soquel, CA 95073.

Public Comments

Non-Agenda Items

At the outset of the meeting, during the time set aside for public comment, members of the public can comment on any item not on the agenda as long as it is related to the subject matter of the MGA. Each speaker will be limited to a single presentation of up to three minutes. The maximum time set aside for public comment will be 15 minutes total for all speakers. Time limits may be increased or decreased at the Board Chair's discretion. Those wishing to speak should come to the front of the room and be recognized by the Board Chair. Speakers must address the entire board: dialogue will not be permitted either between speakers and board members or amongst board members.

Items on the Agenda

Comments may also be given during the remainder of the meeting pertaining to each agenda item. For items listed on the agenda, the board will deliberate and take action after speakers have concluded their remarks. Each speaker will be limited to up to three minutes per agenda item. The maximum time set aside for public comment will be 15 minutes total for all speakers. Time limits may be increased or decreased at the Board Chair's discretion. Additional comments may be given at the Board Chair's discretion related to specific items listed on the agenda. Additional public comment will not be allowed during the board's deliberation unless the Board Chair specifically calls on someone in the audience.

Disability Access

The meeting room is wheelchair accessible. Please contact Laura Partch at lpartch@cfscc.org or 831.662.2051 if you need assistance in order to participate in a public meeting or if you need the agenda and public documents modified as required by Section 202 of the Americans with Disabilities Act.

SANTA CRUZ MID-COUNTY GROUNDWATER AGENCY
Thursday, March 21, 2019 - 7:00 p.m.
Simpkins Family Swim Center
979 17th Avenue, Santa Cruz, California

DRAFT MINUTES

1. Call to Order
The meeting was called to order at 7:00 p.m. by Chair LaHue.

2. Roll Call
Board members present: Mr. Abramson, Mr. Baskin, Dr. Daniels, Dr. LaHue, Mr. Kennedy, Supervisor Leopold, Mr. Kerr, Mr. Marani, Ms. Matthews, Mr. Romanini.

Staff present: Mr. Bracamonte, Mr. Carson, Mr. Duncan, Ms. Menard, Ms. Partch, Ms. Pruitt, Mr. Ricker, Ms. Ryan.

Others present: Approximately 5 members of the public.

3. Public Comments
None.

4. Consent Agenda
Item 4.1 was pulled from the Consent Agenda.

4.2 Accept Audited 2017/18 Financial Statements
4.3 Acknowledge Member Agency Board Appointments
4.4 Authorize Contract Amendment to Include Applicable Grant Conditions
4.5 Approve Meeting Schedule for 2019

MOTION: Dr. Daniels; Second: Supervisor Leopold. To approve the Consent Agenda except for Item 4.1. Motion carries.

4.1 Approve Minutes from November, 15, 2018 Board Meeting

MOTION: Ms. Matthews; Second: Mr. Kennedy. To approve minutes from the November 15, 2018 meeting. Motion carries with abstentions by Dr. LaHue, Supervisor Leopold, and Mr. Romanini.

5. General Business

5.1 Review Budget for Fiscal Year (FY) 2018-2019 and Preliminary Budget for FY 2019-2020

Staff reported the budget is presented in a new format to better reflect the overall fiscal condition of the Santa Cruz Mid-County Groundwater Agency (MGA), and includes the annual reserves.

Table 1 shows reserves of $325,357 at the beginning of FY 2018–2019, expense projections for FY 2018-2019, and the significant increase in cash reserves in FY 2019-2020 to $588,476.

What will the MGA be doing in the first half of 2020 after the Groundwater Sustainability Plan (GSP or Plan) has been submitted?

- The MGA will be submitting the first annual report in April, be engaged in outreach, and likely be involved with implementation activities such as monitoring wells or gaging stations. There are unknowns ahead, which is why it is helpful to have the reserves.

A staff report was requested on expected MGA responsibilities and activities once the Plan has been submitted.

- The Plan will provide a list of activities, including monitoring, so this report should be provided after the draft Plan is complete.

Returning to the budget, to date member agency contributions have been the bulk of operating revenue. The grant will fund up to $1.5 million related to Plan development, but the state withholds 10% until the grant is closed out. While this 10% may become available in 2020, staff has not included it in the FY 2019–2020 budget.

The proposed member agency contributions are reduced by 40% from the prior year, which reflects a shift to the later stages of planning. This trend is expected to continue although there will still be ongoing responsibilities and costs.

Operating expenses are set forth in Table 2. Administrative costs are expected to decrease next year as grant reporting is completed and the MGA moves from planning to implementation.

It is anticipated the MGA will need hydrologic technical support from Montgomery and Associates (M&A) next year related to management of the MGA basin (Basin).

The $105,000 for the groundwater model is expected to be fully expended this year and completes a $219,000 multi-year contract. The $25,000 in the

budget for next year is a placeholder, and if needed would require a new scope of work.

Semiannual groundwater monitoring updates will be replaced by the annual reports required by Sustainable Groundwater Management Act in the specific format required by the Department of Water Resources (DWR).

Money allocated for monitoring wells and stream gages has not been spent as work is still underway to identify and evaluate potential locations. M&A and the GSP Advisory Committee will identify suitable monitoring locations. This work is funded in part by the grant and will be expended in FY 2019-2020.

All technical support funds for M&A should be expended in FY 2019-2020.

Graphical support funds are expected to be used for a user-friendly version of the Plan with graphics to show both the process and the findings of the Plan.

Community outreach funds have been used for various outreach activities and before the end of the fiscal year will also be used to support a postcard mailer and an online survey in preparation for the roll out of the Plan.

Who will the postcard go out to?

- This will be the first postcard going out under the MGA umbrella and will go to every person and business within the Basin, an estimated 34,000 parcels. It is intended to make sure people are aware of the MGA, direct them to an online survey, describe projects under development, and let them know that the member agencies are working together towards a sustainable Basin.

Will it go to residents or property owners?

- Residents, property owners, and businesses.

The MGA received a $1.5 million grant, but in FY 2019-20 the proposed member agency contributions ($715,415) appear to be fully covering the proposed operating expenses ($715,415), so it appears the grant funding is only going towards operating reserves. Why isn't the grant funding offsetting FY 2019-20 contributions?

- The grant will fund up to $1.5 million for the GSP development, and the MGA has budgeted to receive $1.34 million in FY 2019-20. The MGA must meet its local funding match contribution of $1.5 million before the grant funds are released. The grant funding is not anticipated to be received until later 2019 or 2020, so the MGA

still needs the member agency contributions to pay expenses in the meantime.

Public Comments

Member of the public Becky Steinbruner requested information on an outreach meeting, along with other questions regarding the agenda.

- Staff clarified that the earlier discussion regarded an outreach postcard, which would be addressed more fully under Staff Reports.

MOTION: Supervisor Leopold; Second Ms. Matthews. To accept the Financial Report for the period ending June 30, 2018. Motion carries.

5.2. Approve Revised Email Policy

A proposed MGA Email Policy (Policy) came to the Board in July. The Board directed staff to revise the Policy to make it optional for non-member agency-related Board and Advisory Committee members to use an MGA email account. The Board also requested that the Policy state that staff support will be available for managing MGA emails and MGA email accounts.

After coordination with legal counsel, a revised Policy states that the use of an MGA email account is optional, and provides guidance regarding emails under the Brown Act. A recent ethics training offered by the Soquel Creek Water District (District) provided additional guidance on the use of emails under the Brown Act.

The revised Policy provides information on the California Public Records Act (CPRA) so those using personal email accounts for MGA business are aware that, in the event of a request under the CPRA, they will be required to search personal email accounts for MGA records. A Verification form, based upon a County of Santa Cruz (County) form, is attached to the revised Policy.

The revised Policy provides that emails that are not proactively saved for retention are automatically deleted after 60 days. Staff explained this follows the policy of the County, and reflects that emails are intended as a communication tool rather than a records storage system, so emails will need to be saved to be retained.

The Policy provides for staff support in using the MGA Email System.

Has the 60-day retention period been tested in court, since it might result in the routine destruction of a select group of public records?

- The email protocol and retention period is based upon the County's policy which was vetted by the County Counsel.

It was explained that the County went through an extensive process in developing its policy to establish procedures that were both reasonable and feasible, and that the County understood that other jurisdictions have adopted this practice.

Further discussions were had on whether other means of archiving emails might be relatively easy and not require extensive storage space, and if this Policy reflects current technology where storage is generally not a problem and most items can be retrieved.

Staff was directed to correct the third sentence of the third paragraph of Page 1 to read "Any Board or Committee member may request MGA administrative support related to the use and management of the MGA Email System and public inquiries submitted to MGA email accounts."

A concern was raised by language that emails and attachments were the "sole property" of the MGA. A discussion followed regarding either the removal of the word "sole" or use of the word "copies" instead.

- Staff stated that if the Board intended to approve the Policy, staff would need the specific language changes stated in the motion. If not, changes would need to come back to the Board for approval.

A suggestion was made to request the discussed changes and bring the policy back to the Board on the next consent agenda. A request was made to address the "sole" property language and to also to check with legal counsel about the archiving of MGA emails.

Other Board members suggested approving the revised Policy with the directed changes, since one was grammatical, the other clarifying, and that the motion direct staff to contact counsel about questions that had been raised.

A member of the public asked questions regarding the revised Policy, the retrieval of MGA records, prior requests for information from the MGA, and contact with the Advisory Committee.

- Staff stated that the MGA is a public agency subject to the CPRA. The MGA is required to respond to public records requests. The intent of the email Policy is to establish agency email accounts in order to facilitate communication with the public.

MOTION: Ms. Matthews, Second Dr. LaHue. To approve the MGA Email Policy with the two amendments discussed and with direction to ask legal counsel about the archiving of MGA emails and whether a 60-day automatic deletion of emails not saved as records has been upheld by a California court. Motion carries with 10 members in favor, one opposed.

6. Informational Updates

6.1 Treasurer's Report

The Treasurer's Report indicates that the MGA is in good financial shape. Treasurer Leslie Strohm was unable to attend the meeting, but any questions could be forwarded to her.

A member of the public questioned a specific expenditure and requested use of the "memo description" column for a brief explanations of payments.

- Staff responded that one expenditure was for website updates.

A Board member agreed the use of the "memo description" column in the future would be helpful. Staff will coordinate with District's finance staff to see if this request can be accommodated.

6.2 Notice of Intent to File Amended CEQA Petition

Member of the public Becky Steinbruner described the legal action she has filed in pro per.

MOTION: Supervisor Leopold; Second Ms. Matthews. To acknowledge Notice of Intent. Motion passed unanimously.

6.3 Outreach Reports (Oral)

Staff reported that in addition to regular outreach efforts, in February the MGA presented an enrichment session on the model with a discussion led by Cameron Tana of M&A. Participation was in-person at the Community Foundation or online. A recording of the presentation is on the MGA website.

A second enrichment session is set for April on water demand forecasting, which informs both the model and the Plan. Participation will again be available online or in-person, and the recording posted on the MGA website.

For the outreach postcard, a group with representatives from each agency has met to get started and has hired Miller Maxfield to design the postcard.

Staff is planning a second online survey although the scope has yet to be fully developed. While an earlier survey went to private well owners, this next one will go to everyone in the Basin. Information about the survey will be on the postcard and distributed via other means. The postcard and survey will help lead to the roll out of the Plan. Staff is currently discussing this with DWR.

Sierra Ryan recently presented at a Groundwater Sustainability Agency (GSA) forum on outreach in Sacramento and reported that the MGA seems to be somewhat ahead of the game in terms of both the Plan and outreach. The MGA received positive feedback on outreach from DWR and other GSAs.

Will the online survey include demographic information so that it is clear the responses are representative of the whole population?

- Staff will consider this in the design of the survey. The results may not be statistically significant, but will be designed to avoid skewed results. Phone surveys are more expensive, and it is not clear that would be more valuable.

Once the Board gets the draft Plan, will there be an additional public meeting for presentation and feedback?

- Those plans have not been finalized, but there are plans for a user-friendly summary guide to the Plan.

How much money does the MGA expect to spend on a consultant for the online survey?

- About $20,000.

Would a scientifically valid poll be that much more expensive?

- The City recently did a statistically valid poll for $32,000.

A discussion was held based on the experience of Board members and staff with polling and demographics. Staff was encouraged to pursue a survey that would be scientifically valid.

Member of the public Becky Steinbruner asked additional questions about the survey.

- Staff responded that consultants, staff and executive team will likely be devising the survey questions. The survey will be used to inform the next steps for outreach.

6.4 Board Member Reports

Director Daniels spoke on climate change to the Santa Margarita Groundwater Agency (SMGWA) as part of their third outreach session.

Board members were encouraged to attend Pat McCormick's final LAFCO meeting in early May in recognition of his many years of service.

6.5 Groundwater Sustainability Plan Advisory Committee

The Advisory Committee met several times since the last Board meetings, the Plan is taking shape and is on schedule with a few issues still to resolve.

A presentation on modeling from a recent Advisory Committee meeting would be helpful for Board members to view. It was encouraging that modeling shows projects coming in over time are projected to do what they are intended to do.

- Board members are welcome to sit in on upcoming presentations at Advisory Committee meetings, and power point presentations with sound are available on the MGA website. A link to the recordings will be sent to Board members.

6.6 Groundwater Sustainability Plan Advisory Committee Meeting Summaries from December 2018 and January 2019

6.7 Staff Reports

6.7.1 Updates from the City of Santa Cruz and Soquel Creek Water District

The City has a Water Commission meeting in April with former members of the Water Supply Advisory Committee (WSAC). It will include major updates on progress on the WSAC's recommendations and present the latest

information on recycled water, in lieu, and Aquifer Storage and Recovery (ASR). Presentations will be informative, but no decisions will be made.

6.7.2 Coordination with Neighboring Basins

Two MGA members are also members of the Santa Margarita Groundwater Agency (SMGWA), so the MGA has a good sense of what is happening with SMGWA. SMGWA will be hiring technical consultants soon. The three SMGWA information sessions are available on the SMGWA website.

Staff reported that Brian Lockwood of Pajaro Valley Water Management Agency indicated they may use grant funds to extend their boundary further north, which could provide some benefits to the MGA Basin.

6.7.3 Reminder on Annual Form 700 Filing Requirement

6.7.4 Groundwater Sustainability Planning Grant Update

The grant was formally executed in late November. The MGA will be filing quarterly reports starting in 2019.

Public member questions: what is the grant money earmarked for?

- The grant is funding the development of the GSP and related activities including outreach to the community.

7. Written Communications and Correspondence

7.1 Email communication from G. Lindstrum, dated March 10, 2019.

8. Future Agenda Items

No requests from the Board.

Member of the public Jerry Paul requested that the Board address aquifers that are in vulnerable states and a presentation on in lieu versus injection.

The next meeting is May 16th and is a Joint Meeting of the MGA Board and the GSP Advisory Committee. The Board meeting starts at 6:30, the Joint meeting at 7:00 p.m.

Adjournment

Meeting adjourned by Chair LaHue at 8:23 p.m.

May 16, 2019

MEMO TO THE MGA BOARD OF DIRECTORS

Subject: Agenda Item 5.1

Title: Approve Revised MGA Email Policy

Attachments:
1. Revised MGA Email Policy

On March 21, 2019, a revised Santa Cruz Mid-County Groundwater Agency (MGA Email Policy (Policy) came before the Board. The Policy establishes MGA Email System with MGA email addresses for those Board and Advisory Committee members not affiliated with an MGA member agency who used a personal email account to conduct MGA communications or business. The Board previously approved the Policy with direction that it be revised to make the use of an MGA email account optional rather than mandatory.

At the March 21 meeting, the Board directed staff make changes to the language of the Policy. Per Board direction, the third sentence of the paragraph on Page 1 of the Policy has been corrected to read "Any Board or Committee member may request MGA administrative support related to the use and management of the MGA Email System and public inquiries submitted to MGA email accounts."

With regard to the Board's requested change regarding emails and attachments in the MGA Email System being the "sole" property of the MGA, the Board discussion included references to the removal of the word "sole". The language in the Policy has been amended accordingly.

At the March 21 meeting, a Board member commented that the Policy's proposed retention was out of step with technological advances in terms of electronic file storage capacity and commented that is difficult to permanently delete any electronic record. The MGA Email System operates on Google's G-Suite platform. The platform's email management tools provide for deleting emails after a specified retention period. It is staff's understanding that an email deleted after the specified period is not be retrievable.

By motion, the Board approved the Policy as revised by the Board at the March 21 meeting. As part of the motion, the Board also directed staff to consult with legal counsel and to report back to the Board on whether an email retention policy that included a protocol to automatically delete emails not proactively saved (i.e., moved by user in to a designated electronic folder for retention) after a specified period

(e.g., 60 days) had ever been upheld by a California court. A Board member inquired why the MGA's Email Policy did require that all emails are retained permanently.

Counsel responded that she is aware that many public agencies in California have designated email retention periods. Counsel was not aware that any California court had ruled on a required retention period for email communications. The Policy specifies that an email intended to be saved is to be proactively moved into an email folder or printed and saved in hard copy. The proposed Policy establishes that messages within the MGA Email System not proactively saved for retention will be deleted after 60 days on a rolling basis. This protocol is consistent the practices in use by the County of Santa Cruz.

Counsel noted that because the Policy would return to the Board at the May 16 meeting, the 60-day retention period need not delay establishing email accounts. Staff proceeded with issuing MGA email accounts to Board and Advisory Committee members in April 2019. Counsel noted that the MGA could set a longer time period or another protocol that suited the needs of the MGA.

Recommended Action(s):

BY MOTION, approve the Policy as revised at the March 21, 2019 meeting, or

BY MOTION, provide specific language for additional revisions to the Policy.

By T. Carson
_____
Tim Carson
Program Director
Regional Water Management Foundation

SANTA CRUZ MID-COUNTY GROUNDWATER AGENCY

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Electronic Mail (Email) Policy

PURPOSE AND APPLICABILITY

The intent of this policy is to encourage the use of MGA member-agency or Santa Cruz Mid-County Groundwater Agency (MGA) email accounts for all MGA business. The policy establishes the MGA Email System to make available MGA email accounts for MGA Board of Directors or Committee members not affiliated with an MGA member agency.[1]

The policy provides brief guidance related to the use of email and the Ralph M. Brown Act. It also provides a brief summary of the California Public Records Act (CPRA) and notifies Board or Committee members of their possible obligation, in the event of CPRA request, to search for and provide MGA pubic records located in private email accounts, on cell phones or other devices, or in hard copy files.

THE MGA EMAIL SYSTEM

The MGA Email System establishes individual MGA email accounts with the domain @midcountygroundwater.org aviable to MGA Board or Committee members that do not utilize an email address provided by their MGA member agency. Email accounts will also be established for MGA agency purposes (e.g., contact@; admin@). Any Board or Committee member may request MGA administrative support related to the use and management of the MGA Email System and public inquiries submitted to MGA email accounts.

All messages, attachments, and images sent or received within the MGA Email System are the property of the MGA. There is no expectation of privacy for any communication within the MGA Email System.

The MGA has an obligation to ensure that the MGA Email System operates efficiently in a secure environment free from unauthorized use and virus/malware attacks. If necessary, with advance notice, the MGA may limit the type of email attachments and apply unsolicited commercial email (UCE) blocking.

The MGA Email System is intended for the transmission and short-term storage of information. Best email management practices encourage reading, responding to, and deleting emails that do not need to be preserved. An email intended to be saved

[1] Only Committees subject to the Brown Act under California Government Code Section 54952(b).

should be moved into an email folder or printed and saved in hard copy. All email messages within the MGA Email System not stored in email folders will be deleted on a rolling basis after 60 days. If necessary, with advance notice, the MGA may limit the storage capacity of MGA email accounts.

Email messages within the MGA Email System may constitute a public record subject to disclosure. In the event of a CPRA request, the MGA will search for responsive records in individual email accounts within the MGA Email System. The MGA will not be liable for the disclosure of any information located within the MGA Email System.

In the event of a CPRA request, any Board or Committee who has used or continues to use a private email account for MGA business will be required to follow the procedures below regarding the search of a private email account for MGA records.

The following guidelines apply to individual MGA email accounts:

- Email communications within MGA Email System shall be appropriate, courteous and professional in nature. Messages of a personal, confidential or sensitive nature should not be exchanged through the MGA Email System.

- Email communications within the MGA Email System shall not to be used for intentionally misleading, inaccurate, intimidating, embarrassing, sexually explicit, profane, obscene, or defamatory remarks. Email communications shall not be used to discriminate against or harass any person on the basis of race, religion, color, creed, age, marital status, national origin, ancestry, gender, sexual orientation, medical condition or disability.

- While the use of an MGA email account may result in incidental personal use, account holders are responsible for exercising good judgment regarding the reasonableness of any personal use.

If the MGA Member Agency Executive Team has reason to believe that the guidelines governing the MGA Email System have been violated, the MGA may randomly examine the contents of emails to ensure compliance with this policy. Any apparent violations of the policy will be reviewed by the MGA Executive Team. Any established violation may result in the suspension of an individual MGA email account.

EMAIL AND THE BROWN ACT

The information in this section is based upon guidance in *Open and Public V: A Guide to the Brown Act* by the League of California Cities (April 2016).

The purpose of the Brown Act is to assure that local government agencies conduct the public's business openly and publicly. The Brown Act applies to meetings among a majority of the members of a government body regarding the subject matter of the government body's business. While the Brown Act does not generally apply to the conduct of individual decision-makers, Board and Committee members are advised to exercise caution in the use of email to ensure it is used in a manner consistent with the Brown Act. The Brown Act prohibits a majority of the members of a legislative body using a series of communications of any kind to privately discuss, deliberate, or take action on any item of business within the subject matter of the jurisdiction of the legislative body. Common practices such as forwarding and replying to email messages regarding deliberations or decision-making on agency-business could constitute a "serial meeting" prohibited by the Brown Act. The MGA advises Board and Committee members to generally avoid the use of the "reply to all" option in responding to emails on matters of agency business as it may inadvertently result in a Brown Act violation. Board and Committee members are encouraged to review the League of California Cities *A Guide to the Brown Act* and consult with MGA administrative support staff if they have any related questions.

PUBLIC RECORDS LOCATED IN PERSONAL EMAIL ACCOUNTS, CELL PHONES OR OTHER PERSONAL DEVICES, OR IN HARD COPY FILES

The California Public Records Act

The CPRA defines a public record as any writing that contains information relating to the conduct of the public's business that is prepared, owned, used, or retained by a state or local agency. In 2017, the California Supreme Court held that public records located on the private email account of a public employee or public official may be deemed to be retained by the public agency and are subject to disclosure.

The MGA Response to CPRA Request

If the MGA reasonably believes that MGA records identified in a CPRA request may be located within a Board or Committee member's personal email accounts, cell phone or other personal device, or hard-copy files, the Board or Committee member will be notified by MGA.

A Board or Committee member will be required to conduct a search for any records identified in the CPRA request and provide electronic and hard copies of responsive records to the MGA for review and possible production.

Verification

A Board or Committee member will be required to sign a Verification stating that he or she has searched all private email accounts, cell phones or other personal devices and hard copy files for MGA public records. The Verification requires the disclosure of each responsive MGA public record, along with its location, or a statement that no public records were found, along with a factual basis for that determination.

A sample MGA Verification form is attached to this policy.

In the event litigation arises over the records produced pursuant to a CPRA request, Verifications may be presented to a court as part of those proceedings.

SANTA CRUZ MID-COUNTY GROUNDWATER AGENCY

Groundwater is a vital resource, together let's protect it.

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VERIFICATION

California Public Records Act – Response

Santa Cruz Mid-County Groundwater Agency (MGA)

CPRA Request Name: _____*(To be filled in by MGA staff)*

To (Name and Title): _____*(To be filled in by MGA staff)*

Records Requested: _____*(To be filled in by MGA staff)*

Please return this completed verification form and all responsive records to the MGA by the following date:_____

Please return a completed version of this form to the sender as an electronic PDF with your signature or provide signed hard copy to MGA staff. The Verification must be completed and returned even if you do not have any responsive material. You must also provide all responsive records (electronic and hard copy) to MGA staff for review and possible production**.** If you are not able to return the completed Verification and the responsive records by the date requested, please contact MGA staff.

Complete the table below to indicate whether or not you have responsive records, to describe the records you think you might have, and to identify the location of those documents. If something is not applicable, please write "N/A" in the far right column and state why (i.e. "do not use personal email to conduct MGA business", etc.)

Please provide the search terms used to find responsive records (write "N/A" if not applicable):_____

_____

_____

_____

LOCATION	SEARCH DATE	RECORDS RELATED TO THE REQUEST FOUND?(Yes/No) GENERAL DESCRIPTION OR TYPES OF RECORDS
Personal Computers (records saved locally to your computer or on any file server)		
Personal E-mail		
Personal E-mail Trash Bin or Desktop Recycle Bin		
Personal cell phone or other device (includes emails, texts, photos)		
Removable Storage Media (such as USBs, CDs, and other external drives)		
Hard copy files (including archived files and potentially files in storage)		
Any work computer		

The following people may also have records responsive to this CPRA request:

_____

_____

_____

By completing this Verification, I certify that a reasonable search was conducted using best efforts to identify records responsive to this PRA request. If someone other than myself conducted the search required by this Verification, that person's name and signature are included below.

I understand and acknowledge that it may be necessary for me to preserve and continue to preserve all paper documents and files, tangible things, and electronically-stored data that may be potentially relevant to the CPRA Request or subsequent litigation, if informed to do so by MGA staff or counsel. I further verify that since receiving this Verification, I have not altered, discarded, or destroyed any responsive records related to the request in either paper or electronic form.

_____ _____

Signature of the person who completed the Verification Date

_____

Name of the person who conducted the search for records
(Please print clearly)

_____ _____

Signature of the person who conducted the search for records Date

May 16, 2019

MEMO TO THE MGA BOARD OF DIRECTORS

Subject: Agenda Item 5.2

Title: Approve Annual Budget for Fiscal Year (FY) 2019-2020

Attachments

1. Table 1. Budget Summary FY 2018/19 and proposed FY 2019/20
2. Table 2. Operating Expenses FY 2018/19 and proposed FY 2019/20

At the March 21, 2019 Board meeting the draft budget for Fiscal Year 2019-2020 (FY 19/20) for the Santa Cruz Mid-County Groundwater Agency (MGA) budget was presented. Based upon Board direction at that meeting, the proposed final budget for FY 19/20 was prepared (Attachment 1). The proposed Annual Budget for FY 19/20 is consistent with the draft budget presented in March with minor modifications. The 2018/19 projected operating expenses has increased by $66,870 and the projected operating expenses for 2019/20 has decreased by $65,000.

The following narrative summarizes the MGA's beginning cash reserves, operating revenue, operating expenses, and ending reserves.

BEGINNING RESERVES

Beginning cash reserves for the MGA for FY 19/20 are projected to be $325,357. The beginning reserves amount is the surplus of revenue collected from the prior year over the actual expenses incurred during that year.

OPERATING REVENUE

Operating revenue in the proposed FY 19/20 budget is $2,000,415. The source of this revenue is agency membership revenue and an awarded grant. Membership revenue is collected from the member agencies and is based on a percentage allocation of the projected operating expenses for the fiscal year. Operating revenue in FY 19/20 is proposed to include contributions from the four member agencies, and the proposed total amount is $650,415.

Operating revenue will include grant funding from the Department of Water Resources (DWR) for the development of the Groundwater Sustainability Plan (GSP). The total grant award is $1,500,000; the grant revenue in FY 19/20 is estimated at $1,350,000 because (DWR) withholds 10% of the award until the grant is formally closed-out. To budget conservatively, the retention reimbursement is estimated to occur in FY 2020/21.

OPERATING EXPENSES

Administration

The tasks and proposed budget is consistent with the draft budget presented in March. In FY 19/20 the proposed cost of this category is estimated at $139,415, a decrease of 17% from the prior year. This budget category includes the costs related to the administration of the MGA, including administrative staff support, finance staff support and related expenses, insurance, organizational memberships and conferences, miscellaneous supplies and materials.

Legal Support

The proposed budget is consistent with the draft budget presented in March. Legal counsel from the County of Santa Cruz will continue as needed. If legal counsel specific to groundwater or the Sustainable Groundwater Management Act (SGMA) is necessary, or if there is a conflict of interest, then the MGA will seek other legal support services.

Technical Work

The proposed FY 19/20 budget is consistent with the draft budget presented in March. This category includes hydrologic technical support and the development and use of the groundwater model.

Hydrologic Technical Support

The proposed budget includes Montgomery & Associates continuing to provide, as needed, hydrologic technical support to inform Basin management. The budget allocated for this task is $10,000.

Groundwater Model

The proposed budget includes $25,000 for Montgomery & Associates to provide additional groundwater modeling and simulations to inform planning and Basin management.

Monitoring and Reporting

The FY 18/19 budget is unchanged but the projected actual expenses in FY 18/19 increased from $10,000 to $35,000 as the monitoring related work may occur this fiscal year. The FY 19/20 budget is reduced by $25,000 as this work is anticipated to occur in FY 18/19.

Annual Groundwater Report
The proposed budget includes $50,000 for the completion of the first annual Groundwater Report due in April 2020 and is a requirement under SMGA. It is anticipated that Montgomery & Associates will support completion of this task. This proposed work would require that a new contract be approved by the Board.

Monitoring: Wells and Stream Gages
These funds will be used, as needed, to identify and establish new sites for new monitoring well(s) and stream gages to measure stream flow in critical reaches to better document stream/groundwater interactions, establish streamflow targets, and monitor long term attainment of streamflow goals.

FY 18/19: A modification from the draft budget presented in March is that the projected expenses for FY 18/19 were increased from $0 to $25,000. The FY 18/19 budget allocated $75,000 for this task, so the projected increase in actual expenses is within budget. This will support such preliminary work on the proposed monitoring as location access and potential easement acquisition, permits, preliminary system designs, and other work necessary prior to the installation of surface water-groundwater monitoring system(s). It is anticipated this work would be performed by consultant(s) working in coordination with member agency staff.

FY 19/20: The modification from the draft budget presented in March reduces the anticipated roll-over amount from $75,000 to $50,000 for work related to the installation of surface water-groundwater monitoring systems.

Groundwater Sustainability Plan Development
This category includes the technical, process planning, facilitation, and outreach tasks that will support the development of the GSP.

Senior Planner
The proposed budget is consistent with the draft budget presented in March. The ongoing level of support needed for the Senior Planner will be evaluated as the MGA shifts from GSP planning to implementation.

Technical Support for Groundwater Sustainability Plan (GSP) Development
In September 2017, the MGA Board approved a contract with Montgomery & Associates (formerly HydroMetrics WRI, Inc.) (2017-04; $508,000) to provide technical support and assist with the development of sections of the GSP.

FY 18/19: A proposed modification increases the FY 18/19 budget by $20,000 from $320,000 to $340,000 for Montgomery & Associates for work on this task.

FY 19/20: A proposed modification decreases the FY 19/20 budget by $20,000 from $69,000 to $49,000 for Montgomery & Associates to continue technical support for completion of the GSP through submittal of the GSP to DWR by the end of January 2020. The proposed budget would fully expend the total contract amount ($508,000) including contingency funds.

GSP Advisory Committee Facilitation Support
In September 2017, the MGA Board approved a contract with Kearns & West (K&W) (2017-03; $420,492) to provide process planning and facilitation support related to the GSP development. The final GSP Advisory Committee meeting is currently anticipated to be in June 2019.

The FY 19/20 budget includes $28,000 to allow for potential K&W planning and facilitation support after June 2019. It is not determined at this point if this support will be needed, however it is prudent budget practice to include the possible expense to allow for the possibility. Based upon activity to date and projected expenses, K&W is not projected to expend the full contract amount.

Graphical Support
The proposed budget is consistent with the draft budget presented in March. The $50,000 allocated for this task is intended to support the development of graphics to inform decision making and to convey complex information in a manner that is more accessible and understandable to non-technical users of the information.

Engineering Support for Project Evaluations
The proposed budget is consistent with the draft budget presented in March. This task is not included in the proposed FY 19/20 budget. The prior year (FY 18/19) budget included $100,000 for engineering support and analyses on project(s) and management scenarios. MGA member agency staff compiled information on projects and management actions related to this task but the additional engineering consultant support was determined not to be necessary at this time.

Community Outreach
The proposed budget is consistent with the draft budget presented in March.
The proposed FY 19/20 budget includes $45,000 to support stakeholder engagement and outreach. The community outreach efforts will include target efforts on the roll-out of the draft GSP to provide opportunities for public engagement and information sharing.

ENDING RESERVES

General Reserves

Prudent financial management requires that the agency carry a general reserve in order to help manage cash flow and mitigate the risk of expense overruns in case actual expenses are greater than anticipated in the budget. The general reserves at year end of FY 18/19 are projected to be $458,477; this is less than projected in the preliminary budget presented in March as the projected operating expenses have increased, though remain within the FY 18/19 budget.

Contingency Fund

A 5% contingency amount is included in the budget in recognition that the MGA and the GSP planning is still relatively new and there is the potential for unanticipated expenses.

Member Agency Contribution

As done in the prior years, the MGA continues to utilize the cost share allocations established by its precursor entity, the Soquel Aptos Groundwater Management Committee (SAGMC) which were set at 70% for Soquel Creek Water District and 10% for the three other member agencies. In FY 19/20, there is no proposed change to these allocations. In the future, as additional information and data are available to inform and support a recalculation of the pro-rata cost share allocations, it is anticipated that these allocations may change.

The below presents the FY 19/20 budget total, the cost share allocations, and the recommended contribution amounts for each member agency.

FY 2019/20 Proposed Agency Contribution Total	$650,415.00
FY 2019/20 Proposed Cost Share Total (estimate)	
Soquel Creek Water District (70%) *(estimate)*	$455,290.50
Central Water District (10%) *(estimate)*	$65,041.50
City of Santa Cruz (10%) *(estimate)*	$65,041.50
County of Santa Cruz (10%) *(estimate)*	$65,041.50

The actual unspent rollover funds will be determined following the conclusion of the financial statement audit for the fiscal year ending June 30, 2019.

Recommended Board Actions:

1. By MOTION, approve the proposed Santa Cruz Mid-County Groundwater Agency (MGA) Planning Budget, and

2. By MOTION, reconfirm the proposed approach for the cost share allocation percentage as presented in this memo for Fiscal Year 2019/20.

By 

Tim Carson, Program Director
Regional Water Management Foundation

Prepared on behalf of the MGA Executive Team: Ron Duncan, Ralph Bracamonte, Rosemary Menard, and John Ricker.

Table 1. BUDGET SUMMARY

SANTA CRUZ MID-COUNTY GROUNDWATER AGENCY
BUDGET SUMMARY
STATEMENT OF REVENUES, EXPENSES AND CHANGES IN RESERVES
FISCAL YEAR 2018/2019 AND PROPOSED FISCAL YEAR 2019/20 BUDGET

	2018/19 BUDGET	2018/19 PROJECTED ACTUAL	2019/20 BUDGET (PROPOSED)	INCREASE (DECREASE) OVER PRIOR YEAR BUDGET	% CHANGE OVER PRIOR YEAR BUDGET
Beginning Reserves					
Beginning Cash Reserves	$ 325,357	$ 325,357	$ 521,606	$ 196,249	60%
Total Beginning Reserves	***$ 325,357***	***$ 325,357***	***$ 521,606***	***$ 196,249***	***60%***
Operating Revenue					
Agency Contributions	$ 1,190,420	$ 1,190,420	$ 650,415	$ (540,005)	-45%
Awarded Grants	-	-	1,350,000	$ 1,350,000	
Total Operating Revenue	***$ 1,190,420***	***$ 1,190,420***	***$ 2,000,415***	***$ 809,995***	***68%***
Operating Expense					
Administration	$ 167,500	$ 156,464	$ 139,415	$ (28,085)	-17%
Legal	20,000	5,000	20,000	$ -	0%
Technical Work	120,000	110,000	35,000	$ (85,000)	-71%
Monitoring and Reporting	85,000	35,000	150,000	$ 65,000	76%
GSP Development	825,490	643,107	261,000	$ (564,490)	-68%
Community Outreach	44,600	44,600	45,000	$ 400	1%
Total Operating Expense	***$ 1,262,590***	***$ 994,171***	***$ 650,415***	***$ (612,175)***	***-48%***
Ending Reserves					
Contingency	63,130	63,130	32,521	$ (30,609)	-48%
General Reserve	190,058	458,477	1,839,085	$ 1,649,028	868%
Total Ending Reserves	***$ 253,187***	***$ 521,606***	***$ 1,871,606***	***$ 1,618,419***	***639%***

Table 2. OPERATING EXPENSES

SANTA CRUZ MID-COUNTY GROUNDWATER AGENCY
OPERATING EXPENSES
FISCAL YEAR 2018/2019 AND PROPOSED FISCAL YEAR 2019/20 BUDGET

	2018/19 BUDGET	2018/19 PROJECTED ACTUAL	2019/20 BUDGET (PROPOSED)	INCREASE (DECREASE) OVER PRIOR YEAR BUDGET	% CHANGE OVER PRIOR YEAR BUDGET
Operating Expense					
Administration	**$ 167,500**	**$ 156,464**	**$ 139,415**	**$ (28,085)**	**-17%**
Legal	**20,000**	**5,000**	**20,000**	**$ -**	**0%**
Technical Work	**120,000**	**110,000**	**35,000**	**$ (85,000)**	**-71%**
Hydrologic Technical Support	15,000	5,000	10,000	(5,000)	
Groundwater model	105,000	105,000	25,000	(80,000)	
Monitoring and Reporting	**85,000**	**35,000**	**150,000**	**$ 65,000**	**76%**
Groundwater monitoring updates	10,000	10,000	-	(10,000)	
Groundwater Annual Report	-	-	50,000	50,000	
Monitoring: Wells and Stream Gages	75,000	25,000	100,000	25,000	
GSP Development	**825,490**	**643,107**	**261,000**	**$ (564,490)**	**-68%**
Senior Planner	154,000	154,000	154,000	-	
Technical Support for GSP	320,000	340,000	29,000	(291,000)	
GSP Advisory Committee Facilitation Support	201,490	149,107	28,000	(173,490)	
Graphical Support	50,000	-	50,000	-	
Engineering Support for Project Evaluations	100,000	-	-	(100,000)	
Community Outreach	**44,600**	**44,600**	**45,000**	**$ 400**	**1%**
Total Operating Expense	*$ 1,262,590*	*$ 994,171*	*$ 650,415*	*$ (612,175)*	*-48%*

May 16, 2019

MEMO TO THE MGA BOARD OF DIRECTORS

Subject: Agenda Item 5.3

Title: Approve Contract for Administrative and Staff Support from the Regional Water Management Foundation in FY 2019/20

Attachment: Contract with Regional Water Management Foundation

The Regional Water Management Foundation (RWMF) proposes to continue providing administrative and staff support to the Santa Cruz Mid-County Groundwater Agency (MGA) in FY 2019/20. The proposed services are consistent with the support provided in the prior year. As presented in the preliminary FY 2019/20 budget presented to the MGA Board in March 2019, the budget includes $275,000 for RWMF staff to provide administrative support, grant administration, planning support, and related direct expenses. The budget includes the fully burdened annual salary of the Senior Planner position at approximately $154,000. The role of this position as the MGA shifts from the GSP development into implementation in 2020 is still to be determined by the MGA Executive Staff representatives and the Board. Accordingly, the FY 2019/20 has been budgeted conservatively in the event that the MGA continues to have ongoing need for support from this position. The proposed services for FY 2019/20 are consistent with the intent of Memorandum of Agreement (MOA) between the RWMF and the MGA in May 2016. The MOA set the framework and general duties for staff support including: Senior Planner; Program Director; administrative staff.

A summary of the proposed tasks in FY 2019/20 includes:

<u>Administrative Support</u>
This task involves support for the administration of the MGA. This includes support related to the Board of Directors' meeting preparation and logistics, such as the distribution of meeting notices, compilation of packets and agendas, meeting materials, room set-up, and the preparation of minutes. This task also includes support related to soliciting, selecting, and contracting with consultants and contractors. Routine coordination and communications with the MGA executive staff representatives on administrative matters and coordination, as needed, with the MGA counsel is part of this task. The task also includes support on the management of electronic and hard-copy files of the MGA. This task includes meetings and communications in the course of providing the administrative and staff support to the MGA. Routine meetings and communications with the following are anticipated: MGA executive staff representatives; MGA staff working group;

Board of Directors and Alternates; MGA committees; Department of Water Resources (DWR); consultants; local agencies; members of the public.

Groundwater Sustainability Plan Development

This task includes the preparation and development of the narrative and related content of the MGA's initial Groundwater Sustainability Plan (GSP). The narrative content will address the required elements of the GSP consistent with the SGMA guidelines. This task will include the review and incorporation of content developed by consultants and staff for inclusion in the GSP. This task includes document review and research relevant to the development of the GSP such as SGMA legislation, GSP guidelines, best management practices, relevant prior and current planning documents of MGA member agencies, as well as other local, regional, state agency documents and consultant reports.

This task includes meetings and communications during the development of the GSP. Routine meeting and communications with the following are anticipated: MGA executive staff representatives; MGA staff working group; Board of Directors and Alternates; MGA committees; Department of Water Resources; consultants; local agencies; and members of the public. This task is scheduled to be completed in 2019 with the GSP submittal to DWR no later than January 2020.

GSP Advisory Committee Support (if necessary)

The Groundwater Sustainability Plan Advisory Committee's final meeting is currently scheduled for June 2019. If the Advisory Committee's work extends into FY 2019/20, RWMF support would continue to be provided on an as-needed basis. Advisory Tasks would be consistent with prior efforts and include coordination with facilitation consultants, technical consultants, MGA Executive Team and member agency staff in meeting planning and preparation. Prior support on this task included staff and administrative support on meeting preparation and logistics including participation in the development of meeting agendas and materials, distribution of meeting notices, compilation of packets and agendas, supporting meeting materials, room set-up, meeting audio recordings, and related activities.

Stakeholder Engagement and Outreach

This task includes planning and conducting stakeholder engagement and outreach, such as, monthly stakeholder drop-in sessions, meetings, workshops, and events related to the GSP public roll-out anticipated for summer and fall 2019. Work may include activities such as participation in the planning, review, and/or development of outreach materials and/or providing input to member agency staff/consultants supporting stakeholder outreach. This task includes assisting with and supporting member agency staff/consultants in the distribution of outreach materials through

various media such as electronic newsletter (e-blast), brochures, the MGA website, and social media.

GSP Planning Grant Administration and Reporting
The task is to administer the GSP grant on behalf of the MGA. The RWMF serves as the lead administrative contact and coordinates with DWR on the grant administration. Tasks include: management of the grant agreement and any amendments with DWR; collection of information to complete quarterly progress reports and invoices; review, compilation and submittal of invoices; tracking grant budget and payments; compiling grant compliance documentation; participating in meetings and/or conference calls with DWR, the MGA member agencies, and consultants; maintaining grant related records and grant deliverables. This work is scheduled to be completed no later than April 2020.

Groundwater Sustainability Plan Implementation
This task includes staff support as the MGA shifts from the GSP development phase with the completion of the GSP in 2019 into GSP Implementation in 2020. Groundwater Sustainability Agencies are responsible for implementation of the GSP. It is anticipated the MGA will require staff support as it transitions from the planning into the implementation phase. The specific tasks and support are to be based upon needs determined by the MGA Executive Team and Board.

Other
This task is less defined by intention as it is anticipated there will be miscellaneous activities that do not align with the other categories but that are relevant and consistent with the agreed upon intent to provide administrative and staff support for the MGA. Included is participation in workshops, conferences, and related events that pertain to the Sustainable Groundwater Management Act and are relevant to the MGA.

The annual estimated cost by position, estimated hours, and hourly rates are below. Services are provided on a time (hours worked) and materials basis. The cost will not exceed the total below without written authorization of the MGA.

Position Classification	Hourly Rate	Hours (estimated)	Amount
Program Director	$115	480	$55,000
Senior Planner	$95	1620	$154,000
Administrative Officer	$65	975	$63,500
Expenses			$2,500
		Total	$275,000

Staff recommends continued use of the RWMF as a sole source provider of the agency administrative support, GSP planning staff support, and the grant administration services. The reasons for this recommendation include:

1. The proposed services are consistent with the intent of the 2016 Memorandum of Agreement (MOA) between the MGA and the RWMF, a subsidiary of the Community Foundation Santa Cruz County. The proposed approach is consistent with the intent for administrative support and collaborative staffing approach in the MGA Bylaws.

2. Further, it would be costly and time consuming to bring another entity up to speed on the status of the GSP planning efforts in the Santa Cruz Mid-County Basin.

Staff recommends that the Board approve the contract (Attachment 1).

RECOMMENDED ACTIONS:

1. By MOTION, authorize the Board Chair to execute the contract in the amount of $275,000 with the RWMF for the scope of work in Attachment 1; *and*

2. By MOTION, authorize the General Manager of Soquel Creek Water District to sign a purchase order for the work to be performed by the RWMF in the amount indicated in the above motion.

By 

Ron Duncan
General Manager
Soquel Creek Water District

SANTA CRUZ MID-COUNTY GROUNDWATER AGENCY

Groundwater is a vital resource, together let's protect it.

5180 Soquel Drive • Soquel, CA 95073 • (831) 454-3133 • midcountygroundwater.org

Contract No. 2019-01

INDEPENDENT CONTRACTOR AGREEMENT

This Contract, which is effective on the date it is fully executed, is between the SANTA CRUZ MID-COUNTY GROUNDWATER AGENCY, hereinafter called MGA, and REGIONAL WATER MANAGEMENT FOUNDATION, hereinafter called CONTRACTOR. The parties agree as follows:

1. DUTIES. CONTRACTOR agrees to exercise special skill to accomplish the following results: administrative staff and groundwater sustainability planning support services and grant administration for the MGA. The services to be performed under this Agreement are as described in Appendix One attached and made a part hereof. CONTRACTOR agrees to submit an electronic version of all data files and an electronic file of any and all reports.

2. COMPENSATION. In consideration for CONTRACTOR accomplishing said result, MGA agrees to pay CONTRACTOR an amount not to exceed $275,000. Payment for the services hereinabove described shall be made upon a schedule and with the limit or limits shown in Appendix Two attached hereunto and made a part hereof, and such payment shall be considered as full compensation for all personnel, materials, supplies and equipment used in carrying out the work. Unless otherwise specified in Appendix Two, CONTRACTOR'S fees shall be payable on monthly statements; such statements shall give a detail of time worked by each class of employee and the expenses incurred for which billing is made.

It is understood and agreed that payment is not to exceed the total amount in Appendix Two without prior written MGA Board approval consistent with MGA policy.

3. TERM. The term of this Contract shall be: July 1, 2019 through June 30, 2020. The schedule for completion of the work shall be as shown in Appendix Three attached and made a part hereof.

4. EARLY TERMINATION. Either party hereto may terminate this Contract at any time by giving thirty (30) days written notice to the other party.

5. INDEMNIFICATION FOR DAMAGES, TAXES AND CONTRIBUTIONS. To the fullest extent permitted by applicable law, CONTRACTOR shall exonerate, indemnify, defend, and hold harmless MGA (which for the purpose of paragraphs 5 and 6 shall include, without limitation, its officers, agents, employees and volunteers) from and against:

A. Any and all claims, demands, losses, damages, defense costs, or liability of any kind or nature which MGA may sustain or incur or which may be imposed upon it as a result of, arising out of, or in any manner connected with the CONTRACTOR'S performance under the terms of this Contract, excepting any liability arising out of the sole negligence of the MGA. Such indemnification includes any damage to the person(s), or property(ies) of CONTRACTOR and third persons.

B. Any and all Federal, State, and Local taxes, charges, fees, or contributions required to be paid with respect to CONTRACTOR and CONTRACTOR'S officers, employees and agents engaged in the performance of this Contract (including, without limitation, unemployment insurance, social security and payroll tax withholding).

6. INSURANCE. CONTRACTOR, at its sole cost and expense, for the full term of this Contract (and any extensions thereof), shall obtain and maintain, at minimum, compliance with all of the following insurance coverage(s) and requirements. Such insurance coverage shall be primary coverage as respects MGA and any insurance or self-insurance maintained by MGA shall be considered in excess of CONTRACTOR'S insurance coverage and shall not contribute to it. If CONTRACTOR normally carries insurance in an amount greater than the minimum amount required by the MGA for this Contract, that greater amount shall become the minimum required amount of insurance for purposes of this Contract. Therefore, CONTRACTOR hereby acknowledges and agrees that any and all insurances carried by it shall be deemed liability coverage for any and all actions it performs in connection with this Contract. Insurance is to be obtained from insurers reasonably acceptable to the MGA.

If CONTRACTOR utilizes one or more subcontractors in the performance of this Contract, CONTRACTOR shall obtain and maintain Contractor's Protective Liability insurance as to each subcontractor or otherwise provide evidence of insurance coverage from each subcontractor equivalent to that required of CONTRACTOR in this Contract, unless CONTRACTOR and MGA both initial here _____ /_____.

A. Types of Insurance and Minimum Limits

(1) Workers' Compensation Insurance in the minimum statutorily required coverage amounts. This insurance coverage shall be required unless the CONTRACTOR has no employees and certifies to this fact by initialing here _____.

(2) Automobile Liability Insurance for each of CONTRACTOR'S vehicles used in the performance of this Contract, including owned, non-owned (e.g. owned by CONTRACTOR'S employees), leased or hired vehicles, in the minimum amount of $500,000 combined single limit per occurrence for bodily injury and property damage. This insurance coverage is required unless the CONTRACTOR does not drive a vehicle in conjunction with any part of the performance of this Contract and CONTRACTOR and MGA both certify to this fact by initialing here ____/____.

(3) Comprehensive or Commercial General Liability Insurance coverage at least as broad as the most recent ISO Form CG 00 01 with a minimum limit of $1,000,000 per occurrence, and $2,000,000 in the aggregate, including coverage for: (a) bodily and personal injury, (b) broad form property damage, (c) contractual liability, and (d) cross-liability.

(4) Professional Liability Insurance in the minimum amount of $1,000,000 per occurrence or claim, $2,000,000 aggregate, if, and only if, this Subparagraph is initialed by CONTRACTOR and MGA here ____ /____.

B. Other Insurance Provisions

(1) If any insurance coverage required in this Contract is provided on a "Claims Made" rather than "Occurrence" form, CONTRACTOR agrees that the retroactive date thereof shall be no later than the date first written above (in the first paragraph on page 1), and that it shall maintain the required coverage for a period of three (3) years after the expiration of this Contract (hereinafter "post Contract coverage") and any extensions thereof. CONTRACTOR may maintain the required post Contract coverage by renewal or purchase of prior acts or tail coverage. This provision is contingent upon post Contract coverage being both available and reasonably affordable in relation to the coverage provided during the term of this Contract. For purposes of interpreting this requirement, a cost not exceeding 100% of the last annual policy premium during the term of this Contract in order to purchase prior acts or tail coverage for post Contract coverage shall be deemed to be reasonable.

(2) All policies of Comprehensive or Commercial General Liability Insurance shall be endorsed to cover the MGA, its board members, employees, agents and volunteers as additional insureds with respect to liability arising out of the work or operations and activities performed by or on behalf of CONTRACTOR, including materials, parts or equipment furnished in connection with such work or operations. Endorsements shall be at least as broad as ISO Form CG 20 10 11 85, or both CG 20 10 10 01 and CG 20 37 10 01 covering ongoing operations.

(3) All required policies shall be endorsed to contain the following clause: "This insurance shall not be canceled until after thirty (30) days' prior written notice (10 days for nonpayment of premium) has been given to:

Santa Cruz Mid-County Groundwater Agency
c/o Soquel Creek Water District
Attn: Emma Olin
5180 Soquel Drive
Soquel, CA 95073

Should CONTRACTOR fail to obtain such an endorsement to any policy required hereunder, CONTRACTOR shall be responsible to provide at least thirty (30) days'

notice (10 days for nonpayment of premium) of cancellation of such policy to the MGA as a material term of this Contract.

(4) CONTRACTOR agrees to provide its insurance broker(s) with a full copy of these insurance provisions and provide MGA on or before the effective date of this Contract with Certificates of Insurance and endorsements for all required coverages. However, failure to obtain the required documents prior to the work beginning shall not waive the CONTRACTOR's obligation to provide them. All Certificates of Insurance and endorsements shall be delivered or sent to:

Santa Cruz Mid-County Groundwater Agency
c/o Soquel Creek Water District
Attn: Emma Olin
5180 Soquel Drive
Soquel, CA 95073

(5) CONTRACTOR hereby grants to MGA a waiver of any right of subrogation which any insurer of said CONTRACTOR may acquire against the MGA by virtue of the payment of any loss under such insurance. CONTRACTOR agrees to obtain any endorsement that may be necessary to affect this waiver of subrogation, but this provision applies regardless of whether or not the MGA has received a waiver of subrogation endorsement from the insurer.

7. EQUAL EMPLOYMENT OPPORTUNITY. During and in relation to the performance of this Contract, CONTRACTOR agrees as follows:

A. The CONTRACTOR shall not discriminate against any employee or applicant for employment because of race, color, creed, religion, national origin, ancestry, physical or mental disability, medical condition (including cancer-related and genetic characteristics), marital status, sexual orientation, age (over 18), veteran status, gender, pregnancy, or any other non-merit factor unrelated to job duties. Such action shall include, but not be limited to, the following: recruitment, advertising, layoff or termination, rates of pay or other forms of compensation, selection for training (including apprenticeship), employment, upgrading, demotion, or transfer. The CONTRACTOR agrees to post in conspicuous places, available to employees and applicants for employment, notice setting forth the provisions of this non-discrimination clause.

B. If this Contract provides compensation in excess of $50,000 to CONTRACTOR and if CONTRACTOR employs fifteen (15) or more employees, the following requirements shall apply:

(1) The CONTRACTOR shall, in all solicitations or advertisements for employees placed by or on behalf of the CONTRACTOR, state that all qualified applicants will receive consideration for employment without regard to race, color, creed, religion, national origin, ancestry, physical or mental disability, medical condition (including cancer-related and genetic characteristics), marital status, sexual orientation,

age (over 18), veteran status, gender, pregnancy, or any other non-merit factor unrelated to job duties. Such action shall include, but not be limited to, the following: recruitment, advertising, layoff or termination, rates of pay or other forms of compensation, selection for training (including apprenticeship), employment, upgrading, demotion, or transfer. In addition, the CONTRACTOR shall make a good faith effort to consider Minority/Women/Disabled Owned Business Enterprises in CONTRACTOR'S solicitation of goods and services. Definitions for Minority/Women/Disabled Owned Business Enterprises are available from the U.S. Small Business Administration.

(2) In the event of the CONTRACTOR'S non-compliance with the non-discrimination clauses of this Contract or with any of the said rules, regulations, or orders said CONTRACTOR may be declared ineligible for further contracts with the MGA.

(3) The CONTRACTOR shall cause the foregoing provisions of subparagraphs 7B(1) and 7B(2) to be inserted in all subcontracts for any work covered under this Contract by a subcontractor compensated more than $50,000 and employing more than fifteen (15) employees, provided that the foregoing provisions shall not apply to contracts or subcontracts for standard commercial supplies or raw materials.

8. INDEPENDENT CONTRACTOR STATUS. CONTRACTOR and MGA have reviewed and considered the principal test and secondary factors below and agree that CONTRACTOR is an independent contractor and not an employee of MGA. CONTRACTOR is responsible for all insurance (workers' compensation, unemployment, etc.) and all payroll related taxes. CONTRACTOR is not entitled to any employee benefits. MGA agrees that CONTRACTOR shall have the right to control the manner and means of accomplishing the result contracted for herein.

PRINCIPAL TEST: The CONTRACTOR rather than MGA has the right to control the manner and means of accomplishing the result contracted for.

SECONDARY FACTORS: (a) The extent of control which, by agreement, MGA may exercise over the details of the work is slight rather than substantial; (b) CONTRACTOR is engaged in a distinct occupation or business; (c) In the locality, the work to be done by CONTRACTOR is usually done by a specialist without supervision, rather than under the direction of an employer; (d) The skill required in the particular occupation is substantial rather than slight; (e) The CONTRACTOR rather than the MGA supplies the instrumentalities, tools and work place; (f) The length of time for which CONTRACTOR is engaged is of limited duration rather than indefinite; (g) The method of payment of CONTRACTOR is by the job rather than by the time; (h) The work is part of a special or permissive activity, program, or project, rather than part of the regular business of MGA; (i) CONTRACTOR and MGA believe they are creating an independent contractor relationship rather than an employer-employee relationship; and (j) The MGA conducts public business.

It is recognized that it is not necessary that all secondary factors support creation of an independent contractor relationship, but rather that overall there are significant secondary factors that indicate that CONTRACTOR is an independent contractor.

By their signatures on this Contract, each of the undersigned certifies that it is his or her considered judgment that the CONTRACTOR engaged under this Contract is in fact an independent contractor.

9. NONASSIGNMENT. CONTRACTOR shall not assign the Contract without the prior written consent of the MGA.

10. ACKNOWLEDGMENT. CONTRACTOR shall acknowledge in all reports and literature that the Santa Cruz Mid-County Groundwater Agency has provided funding to the CONTRACTOR.

11. RETENTION AND AUDIT OF RECORDS. CONTRACTOR shall retain records pertinent to this Contract for a period of not less than five (5) years after final payment under this Contract or until a final audit report is accepted by MGA, whichever occurs first. CONTRACTOR hereby agrees to be subject to the examination and audit by the MGA's outside auditor, the Auditor General of the State of California, or the designee of either for a period of five (5) years after final payment under this Contract.

12. ATTACHMENTS. Should a conflict arise between the language in the body of this Contract and any attachment to this Contract, the language in the body of this Contract controls. This Contract includes the following attachments:

- Appendix One – Scope of Work
- Appendix Two – Budget
- Appendix Three – Schedule
- Appendix Four – Grant Conditions

13. MISCELLANEOUS. This written Contract, along with any attachments, is the full and complete integration of the parties' agreement forming the basis for this Contract. The parties agree that this written Contract supersedes any previous written or oral agreements between the parties, and any modifications to this Contract must be made in a written document signed by all parties. The unenforceability, invalidity or illegality of any provision(s) of this Contract shall not render the other provisions unenforceable, invalid or illegal. Waiver by any party of any portion of this Contract shall not constitute a waiver of any other portion thereof. Any arbitration, mediation, or litigation arising out of this Contract shall occur only in the County of Santa Cruz, notwithstanding the fact that one of the contracting parties may reside outside of the County of Santa Cruz. This Contract shall be governed by, and interpreted in accordance with, California law.

MGA reserves the right to approve the project manager assigned by CONTRACTOR to said work. This Agreement shall not be assigned without first obtaining the express written consent of the MGA. CONTRACTOR is employed to render a service only and any payments made to CONTRACTOR are compensation solely for such services as CONTRACTOR may render. Any discretion or right to approve given to any party herein shall be exercised in a reasonable manner. All work performance pursuant hereto shall, upon completion, become the property of MGA. In the event the work is not completed, the completed portion thereof shall become the property of the MGA. However, MGA agrees that any reuse of any materials so furnished by CONTRACTOR shall be at

MGA's own risk unless prior written approval has been given by CONTRACTOR for such reuse. No representative of MGA is authorized to obligate MGA to pay the cost or value of services beyond the scope thereof as herein described; such authority is retained solely by MGA's Board of Directors.

SIGNATURE PAGE

Contract No. 2019-01

INDEPENDENT CONTRACTOR AGREEMENT

IN WITNESS WHEREOF, the parties hereto have set their hands the day and year first above written.

REGIONAL WATER MANAGEMENT FOUNDATION

By:_____
Signed

_____
Printed

SANTA CRUZ MID-COUNTY GROUNDWATER AGENCY

By:_____
Signed

_____
Printed

Company Name:

Regional Water Management Foundation

Address: 7807 Soquel Drive, Aptos, CA

Telephone: 831-662-2000

APPROVED AS TO FORM:

_____
Counsel to MGA

DISTRIBUTION:

- *Contractor*

APPENDIX ONE - SCOPE OF WORK

CONTRACTOR'S scope is to provide administrative and planning support services on behalf the Santa Cruz Mid-County Groundwater Agency (MGA) at the direction of the Board and member agency executive staff representatives.

Administrative Support

This task involves support for the administration of the MGA. This includes support related to the Board of Directors' meeting preparation and logistics, such as the distribution of meeting notices, compilation of packets and agendas, meeting materials, room set-up, and the preparation of minutes. This task also includes support related to soliciting, selecting, and contracting with consultants and contractors. Routine coordination and communications with the MGA executive staff representatives on administrative matters and coordination, as needed, with the MGA counsel is part of this task. The task also includes support on the management of electronic and hard-copy files of the MGA. This task includes meetings and communications in the course of providing the administrative and staff support to the MGA. Routine meetings and communications with the following are anticipated: MGA executive staff representatives; MGA staff working group; Board of Directors and Alternates; MGA committees; Department of Water Resources (DWR); consultants; local agencies; members of the public.

Groundwater Sustainability Plan Development

This task includes the preparation and development of the narrative and related content of the MGA's initial Groundwater Sustainability Plan (GSP). The narrative content will address the required elements of the GSP consistent with the SGMA guidelines. This task will include the review and incorporation of content developed by consultants and staff for inclusion in the GSP. This task includes document review and research relevant to the development of the GSP such as SGMA legislation, GSP guidelines, best management practices, relevant prior and current planning documents of MGA member agencies, as well as other local, regional, state agency documents and consultant reports.

This task includes meetings and communications during the development of the GSP. Routine meeting and communications with the following are anticipated: MGA executive staff representatives; MGA staff working group; Board of Directors and Alternates; MGA committees; Department of Water Resources; consultants; local agencies; and members of the public. This task is scheduled to be completed in 2019 with the GSP submittal to DWR no later than January 2020.

GSP Advisory Committee Support (if necessary)

The Groundwater Sustainability Plan Advisory Committee's final meeting is currently scheduled for June 2019. If the Advisory Committee's work extends into FY 2019/20, RWMF

support would continue to be provided on an as-needed basis. Advisory Tasks would be consistent with prior efforts and include coordination with facilitation consultants, technical consultants, MGA Executive Team and member agency staff in meeting planning and preparation. Prior support on this task included staff and administrative support on meeting preparation and logistics including participation in the development of meeting agendas and materials, distribution of meeting notices, compilation of packets and agendas, supporting meeting materials, room set-up, meeting audio recordings, and related activities.

Stakeholder Engagement and Outreach

This task includes planning and conducting stakeholder engagement and outreach, such as, monthly stakeholder drop-in sessions, meetings, workshops, and events related to the GSP public roll-out anticipated for summer and fall 2019. Work may include activities such as participation in the planning, review, and/or development of outreach materials and/or providing input to member agency staff/consultants supporting stakeholder outreach. This task includes assisting with and supporting member agency staff/consultants in the distribution of outreach materials through various media such as electronic newsletter (e-blast), brochures, the MGA website, and social media.

GSP Planning Grant Administration and Reporting

The task is to administer the GSP grant on behalf of the MGA. The RWMF serves as the lead administrative contact and coordinates with DWR on the grant administration. Tasks include: management of the grant agreement and any amendments with DWR; collection of information to complete quarterly progress reports and invoices; review, compilation and submittal of invoices; tracking grant budget and payments; compiling grant compliance documentation; participating in meetings and/or conference calls with DWR, the MGA member agencies, and consultants; maintaining grant related records and grant deliverables. This work is scheduled to be completed no later than April 2020.

Groundwater Sustainability Plan Implementation

This task includes staff support as the MGA shifts from the GSP development phase with the completion of the GSP in 2019 into GSP Implementation in 2020. Groundwater Sustainability Agencies are responsible for implementation of the GSP. It is anticipated the MGA will require staff support as it transitions from the planning into the implementation phase. The specific tasks and support are to be based upon needs determined by the MGA Executive Team and Board.

Other

This task is less defined by intention as it is anticipated there will be miscellaneous activities that do not align with the other categories but that are relevant and consistent with the agreed upon intent to provide administrative and staff support for the MGA. Included is participation in workshops, conferences, and related events that pertain to the Sustainable Groundwater Management Act and are relevant to the MGA.

APPENDIX TWO - BUDGET

The Santa Cruz Mid-County Groundwater Agency shall provide compensation to the CONTRACTOR in an amount not to exceed $275,000 for the services to be performed under this Agreement as described in Appendix One. The budgets presented below are based upon the anticipated level of effort by job classification. It is mutually understood by the MGA and the CONTRACTOR that the hours per task and position classification may vary from the amounts below.

The CONTRACTOR proposes to provide services for the above tasks on a time and materials basis. The actual cost will be determined upon a time and materials basis upon the hours worked and expenses. Costs incurred for miscellaneous expenses such as professional conference fees, meeting related expenses (e.g., travel) and other expenses will be invoiced to the MGA.

The annual estimated cost by position classification and hourly billing rates are below. The total cost will not exceed the amounts below without written authorization of the MGA.

Position Classification	Hourly Rate	Amount
Program Director	$115	$55,000
Senior Planner	$95	$154,000
Administrative Officer	$65	$63,500
Expenses		$2,500
	Total	$275,000

APPENDIX THREE - SCHEDULE OF COMPLETION

Services defined in the scope in Appendix One shall be provided in fiscal year 2019-2020 from July 1, 2019 through June 30, 2020. Any adjustment to the schedule is subject to approval authorized by the MGA Board or an representative of the MGA.

APPENDIX 4
Proposition 1 Grant Conditions

The following is to comply with the 2017 Proposition 1 Sustainable Groundwater Planning Grant Agreement between the State of California (DWR) and the Agency.

The CONTRACTOR agrees to be bound by all applicable provisions of the Labor Code regarding prevailing wages and shall monitor all contracts subject to reimbursement from this Agreement to assure that the prevailing wage provisions of the Labor Code are being met.

The CONTRACTOR shall maintain books, records, and other documents pertinent to their work in accordance with generally accepted accounting principles and practices.

Pursuant to Government Code §8546.7, the CONTRACTOR shall be subject to the examination and audit by the State for a period of three years after final payment under the Grant Agreement with respect to all matters connected with the Grant Agreement. All records of CONTRACTOR shall be preserved for this purpose for at least three (3) years after project completion or final billing, whichever comes later.

The CONTRACTOR is subject to State and Federal conflict of interest laws. Failure to comply with these laws, including business and financial disclosure provisions, will result in the contract being rejected and any subsequent contract being declared void. Other legal action may also be taken. Applicable statutes include, but are not limited to, Government Code, §1090 and Public Contract Code, §10410 and §10411, for State conflict of interest requirements.

The CONTRACTOR, its contractors or subcontractors hereby certify, under penalty of perjury under the laws of State of California, compliance with the requirements of the Drug-Free Workplace Act of 1990 (Government Code §8350 et seq.) and have or will provide a drug-free workplace.

The CONTRACTOR affirms that it is aware of the provisions of §3700 of the Labor Code, which requires every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that code, and the CONTRACTOR affirms that it will comply with such provisions before commencing the performance of the work under this Grant Agreement and will make its contractors and subcontractors aware of this provision.

The CONTRACTOR agrees to expeditiously provide throughout the term of the Grant Agreement, such reports, data, information, and certifications relating to the CONTRACTOR's scope of work as may be reasonably required by State.

The CONTRACTOR shall name the State, its officers, agents and employees as additional insureds by separate endorsement on their liability insurance for activities undertaken pursuant to this Agreement.

CONTRACTOR shall comply with the provisions of the Fair Employment and Housing Act (Government Code §12990 (a-f) et seq.) and the applicable regulations promulgated there under (California Code of Regulations, Title 2, §7285 et seq.). The applicable regulations of the Fair Employment and Housing Commission implementing Government Code §12990 (a-f), set forth in Chapter 5 of Division 4 of Title 2 of the California Code of Regulations, are incorporated into this Agreement by reference and made a part hereof as if set forth in full. CONTRACTOR shall give written notice of their obligations under this clause to labor organizations with which they have a collective bargaining or other agreement. CONTRACTOR shall include the nondiscrimination and compliance provisions of this clause in all subcontracts to perform work under the Grant Agreement.

May 16, 2019

MEMO TO THE MGA BOARD OF DIRECTORS

Subject: Agenda Item 5.4

Title: Accept Semi-Annual Groundwater Monitoring Report

Attachments:

1. Santa Cruz Mid-County Basin Groundwater Monitoring Update through March 31, 2018

The attached technical memorandum prepared by Cameron Tana and Nick Byler of Montgomery & Associates (M&A) provides the semi-annual groundwater monitoring status report for the Santa Cruz Mid-County Groundwater Basin (Basin) for Water Year 2018. The semi-annual groundwater monitoring report for the Basin includes updates on groundwater level and salt concentration for the City of Santa Cruz (City) and Soquel Creek Water District (District) coastal monitoring wells where target and protective elevations have been defined.

M&A concludes that Water Year 2018 data show groundwater level declines along much of the coast as the District's pumping increased for the second straight year after historically low pumping in Water Year 2016. Groundwater levels declined in Water Year 2018 as a result of an increase in groundwater pumping after multiple years of groundwater level recovery. Groundwater levels are at protective elevations established by District and the City at a majority of coastal monitoring wells. However, groundwater levels dropped below protective elevations at one coastal monitoring well (SC-9C) in Water Year 2018. With five coastal wells in the Basin not meeting protective elevations, the Basin continues to be in a state of overdraft. Full groundwater level recovery will not be achieved until groundwater levels are at protective elevations at all coastal monitoring wells.

Groundwater quality trends do not indicate new seawater intrusion or an increase in seawater intrusion. Coastal well locations where seawater intrusion has not been observed continue to show no indication of seawater intrusion. Seawater intrusion where it has been observed is either stable or decreasing with the exception of SC-A2B where an increasing trend has been observed over the last two years.

Recommended Action:

1. By MOTION, accept Semi-Annual Groundwater Monitoring Report for the Santa Cruz Mid-County Basin.

By _____

Ron Duncan
General Manager
Soquel Creek Water District

MONTGOMERY & ASSOCIATES
Water Resource Consultants

www.elmontgomery.com
1814 Franklin Street, Ste. 501
Oakland, CA 94612
510.903.0458

TECHNICAL MEMORANDUM

DATE: May 9, 2019 **PROJECT #**: 9000.03

TO: Ron Duncan, Soquel Creek Water District on behalf of the Santa Cruz Mid-County Groundwater Agency

CC: Ralph Bracamonte, Central Water District
Darcy Pruitt, Santa Cruz Mid-County Groundwater Agency
John Ricker, Santa Cruz County Environmental Health
Isidro Rivera, City of Santa Cruz Water Department

FROM: Cameron Tana and Nick Byler

PROJECT: Santa Cruz Mid-County Basin Groundwater Monitoring

SUBJECT: Update through Water Year 2018

Introduction

This technical memorandum (memo) is the semi-annual groundwater monitoring report for the Santa Cruz Mid-County Groundwater Basin (Basin) with updates through Water Year 2018 on the attached groundwater level and salt concentration plots for the City of Santa Cruz (City) and Soquel Creek Water District's (SqCWD) coastal monitoring wells where target and protective elevations have been defined. These wells, shown on **Figure 1**, include three City wells in the Purisima area (Moran Lake Medium, Soquel Point Medium, and Pleasure Point Medium), five SqCWD wells in the Purisima area (SC-1A, SC-3A, SC-5A, SC-9C and SC-8D) and five SqCWD well clusters in the Aromas area (SC-A1A and B, SC-A8A and B, SC-A2A and B, SC-A3A and B, and SC-A4A and B). These wells are the key wells for assessing risk of seawater intrusion, and the status of recovery in the Basin. Protective elevations[1] estimated to protect productive aquifer units from seawater

[1] *Target elevations for non-critically dry years for the City's wells and SC-1A are listed in the cooperative monitoring/adaptive groundwater management agreement between the City and SqCWD (2015). They are based on the generalized and conservative Ghyben-Herzberg relationship as seaward cross-sectional models have not been developed for the City wells. The target elevations for non-critically dry years represent the long-term recovery goals for that part of the basin. Protective elevations for the other SqCWD wells representing long-term recovery goals are based on seaward cross-sectional models. In the remainder of this report, protective elevations refer to both target elevations and*

intrusion and secondary drinking water standards (MCLs) for chloride and total dissolved solids (TDS) are shown on the plots.

Groundwater level data through September 2018 are evaluated, which includes manual groundwater level measurements taken at least quarterly as well as logger data. Chloride and TDS data are included through January 2019 in order to bracket conditions for Water Year 2018. At City wells and SC-1A, sampling for chloride and TDS is quarterly. For City wells and SC-1A, the last sampling event occurred in October 2018 for the City wells and January 2019 for SC-1A. Sampling at other SqCWD Purisima area monitoring wells occurs semi-annually. The last sampling event occurred in October 2018. Sampling at Aromas area wells occurs quarterly with the last sampling event occurring in December 2018.

Groundwater Level Logger Averages

Groundwater level loggers are installed in monitoring wells reported on in this memo. Loggers are set to record groundwater levels at least hourly. This memo includes calculations of annual averages at each well. Logger data are used for these calculations where available with manual measurements used to fill in logger data gaps. Using logger data to calculate averages better represents average conditions over the year than using averages of manual measurements during the year. Manual measurement data can be skewed by the timing of the measurement especially in coastal wells that show tidal variation.

The annual averages are compared with protective groundwater elevations. Protective elevations are calculated as the long-term groundwater levels for protecting the productive aquifers of the basin from seawater intrusion. Therefore, a full year average is appropriate for comparison to protective elevations in evaluating Basin recovery. **Table 1** shows the calculated averages for coastal wells. Only the results from the A or B screen with lower annual averages are shown for the Aromas wells.

As discussed in the biennial report for Water Years 2015-2016 (HydroMetrics WRI, 2017), SqCWD set protective elevations at its monitoring wells (names beginning with "SC") based on cross-sectional models of density dependent flow to simulate the long term seawater interface resulting from the groundwater level set at each monitoring well (HydroMetrics LLC, 2009, and HydroMetrics WRI, 2012). Due to lack of offshore data for calibration, an uncertainty analysis was performed using runs of each cross-sectional model with 100 different sets of hydrologic parameters within documented ranges.

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protective elevations. Target elevations and protective elevations have been proposed as groundwater level proxies for seawater intrusion minimum thresholds in the Groundwater Sustainability Plan.

SqCWD based its protective elevations on groundwater levels that protect against seawater intrusion in at least 70 percent of the runs. Although protective elevations have been proposed as groundwater level proxies for seawater intrusion minimum thresholds in the Groundwater Sustainability Plan (GSP), **Table 1** shows the percentage of the runs that protect against seawater intrusion based on available modeling for the observed yearly average for groundwater levels presented below to provide a more detailed picture of the current level of seawater intrusion risk.

Table 1. Groundwater Level Averages Calculated from Logger Data at Coastal Monitoring Wells

Well	Data Through	365 Day Avg (ft msl)	Protective Elevation (ft msl)	Percent Runs Protective
Moran Lake Medium	9/30/2018	6.0	5.0	>GH[2]
Soquel Point Medium	9/30/2018	5.4	6.0	<GH
Pleasure Point Medium	9/30/2018	8.6	6.1	>GH
SC-1A	9/30/2018	10.2	6.2 (4[3])	>99
SC-3A	9/30/2018	10.6	10	>70
SC-5A	9/30/2018	9.5	13	<50
SC-9C	9/30/2018	9.5	10	<70
SC-8D	10/10/2018[4]	13.3	10	>99
SC-A1B	9/30/2018	7.9	3	>99
SC-A8A	9/30/2018	4.9	6	<50
SC-A2A	9/30/2018	6.6	3	>99
SC-A3A	9/30/2018	2.8	3	<60
SC-A4A[5]	9/30/2018	1.4	3	<50

Coastal monitoring wells in the Purisima with yearly averages through September 30, 2018 above the protective elevations set by the City and SqCWD are Moran Lake, Pleasure Point, SC-1A, SC-3A, and SC-8D. The coastal monitoring wells in the Aromas with yearly averages through September 30, 2018 above the protective elevations set by

[2] *Protective elevations at City of Santa Cruz wells based on Ghyben-Herzberg (GH) relationship as opposed to 100 sets of cross-sectional model runs so percentage runs protective are not calculated. Instead, it is noted whether 365 day average is greater or less than Ghyben-Herzberg calculation.*

[3] *The protective elevation based on 70th percentile of cross-sectional models at SC-1A is 4 feet msl.*

[4] *Date of last logger recording February 2, 2017 so based on quarterly manual measurements*

[5] *SC-A4A is in the Pajaro Valley Subbasin, not the Santa Cruz Mid-County Basin.*

SqCWD are SC-A1 and SC-A2. However, annual averages through September 30, 2018 are below protective elevations at Soquel Point, SC-5A, SC-9C, SC-A8A, and SC-A3A within the Basin so we do not consider the Basin to be fully recovered and thus the Basin continues to be in overdraft.

Groundwater Level Trends

After multiple years of coastal groundwater level increases throughout the Basin that coincides with pumping reductions in the Basin as well as SqCWD's declaration of a groundwater emergency (green shading on hydrographs), groundwater levels generally declined in Water Year 2018 compared to Water Year 2017.

- At the City's coastal monitoring wells and SqCWD's SC-1A in the western Purisima area, average groundwater levels in Water Year 2018 were up to 0.4 feet lower than Water Year 2017.
- Further east, SqCWD's monitoring wells SC-3A and SC-5A show a decrease of approximately 2 feet in average groundwater levels for Water Year 2018 compared to Water Year 2017.
- In the central Purisima area, SqCWD's monitoring wells SC-9C and SC-8D show a decrease of 2-4 feet in average groundwater levels for Water Year 2018 compared to Water Year 2017. Groundwater levels dropped below protective elevations at SC-9C.
- In the Aromas area, SqCWD's monitoring wells SC-A1, SC-A2, and SC-A8 show a slight decrease of average groundwater levels for Water Year 2018 compared to Water Year 2017 with the largest decrease at SC-A2 of approximately 0.8 feet.
- In the Aromas area, SqCWD's monitoring wells SC-A3 and SC-A4 have stable groundwater levels over the last two years but both remain below protective elevations.

Groundwater Pumping

Overall, Basin groundwater levels had been recovering over multiple years through Water Year 2017 due to decreased groundwater production (**Figure 2**). In Water Year 2016, municipal pumping in the Basin was the lowest recorded since 1977. The decrease corresponds with increased public awareness about the importance of sustained water conservation through conservation and curtailment programs instituted by local water agencies and drought related actions by the state of California. Municipal pumping has increased since Water Year 2016 with municipal pumping in Water Year 2018 totaling an estimated 4,360acre-feet per year, an increase of 9% compared to Water Year 2017 and 11% compared to Water Year 2016.

Rainfall and Recharge

Figure 3 shows rainfall totals for the NOAA Cooperative station in Santa Cruz (station number 047916). Rainfall in Water Year 2018 at the Santa Cruz station was 19.6 inches, which is below the average annual rainfall of 29.4 inches. This is also considerably less than Water Year 2017 where rainfall was 51.1 inches. A relationship between rainfall at this station and deep recharge in the Basin area has been derived from the calibrated PRMS simulation of Water Years 1984-2009 (HydroMetrics WRI, 2011) based on a best fit of rainfall and simulated deep recharge (HydroMetrics WRI, 2013). Although estimated for a slightly different area than the Basin, the annual and biennial reports present these recharge estimates to evaluate changes to recharge over time.

Evaluations in the annual and biennial reports based on the historical record have concluded that the effect of annual changes in recharge are not observed in coastal groundwater levels. Therefore, we do not attribute the decline in coastal groundwater levels observed in Water Year 2018 to the lower rainfall and recharge that occurred in Water Year 2018.

Changes in long-term recharge are more likely to affect Basin conditions than year to year changes. Accordingly, **Figure 3** shows how the long-term average annual recharge for the period since Water Year 1984 has been updated based on annual rainfall at the Santa Cruz station for each year since Water Year 2009. For example, the value plotted for Water Year 2018 of approximately 10,500 acre-feet per year represents an updated estimate for average between Water Years 1984 and 2018. This updated estimate is slightly below the average of 10,800 acre-feet per year for Water Years 1984-2009 derived from the PRMS simulation.

Salt Concentration Trends

When groundwater quality data through Water Year 2018 are evaluated, trends of salt concentrations indicating seawater intrusion have not changed substantially from the descriptions in the biennial report for Water Years 2015-2016 with one exception.

- TDS and chloride concentrations in one of the City's monitoring wells (Soquel Point Medium) indicate seawater intrusion in the westernmost Purisima area (Purisima A Unit). However, concentrations in this monitoring well show a decreasing trend. Concentrations in the Moran Lake Medium monitoring well indicate seawater intrusion in the past, but now has a decreasing trend, which suggests seawater intrusion is no longer occurring in this area of the Purisima A Unit

- TDS and chloride concentrations do not indicate seawater intrusion at the City's Pleasure Point Medium monitoring well and SqCWD's monitoring wells SC-1A, SC-3A, and SC-5A in the Purisima A Unit in the western Purisima area. Concentrations at these wells are stable or decreasing.

- TDS and chloride concentrations do not indicate seawater intrusion at SqCWD's monitoring wells SC-9C and SC-8D in the central Purisima area (Purisima BC and DEF-units). Concentrations at these wells are stable or decreasing.

- TDS and chloride concentrations continue to indicate seawater intrusion in deep monitoring wells SC-A8A, SC-A2A, SC-A3A, and SC-A4A installed below the freshwater-saltwater interface in the Aromas area but concentrations are stable or decreasing.

- At Aromas area monitoring wells SC-A2B and SC-A3B installed above the saltwater interface, TDS and chloride concentrations now indicate seawater intrusion as the saltwater interface has since risen into portions of the Purisima F-unit and Aromas Red Sands screened by these wells. Concentrations at SC-A2B show an increasing trend over the last two years despite groundwater levels being above protective elevations. The December 2018 concentration of 470 mg/L exceeded the maximum chloride concentration for 2013-2017 at this well. As the maximum chloride concentration for 2013-2017 is currently proposed as the minimum threshold for intruded wells such as SC-A2B, it would be considered an undesirable result if any of the next three samples from the well also exceed the proposed minimum threshold. Concentrations at SC-A3B have been stable.

- At other Aromas area monitoring wells SC-A1A, SC-A1B, SC-A8B, and SC-A4B where TDS and chloride concentrations have not indicated seawater intrusion, concentrations are stable (Purisima DEF-unit, F-unit and Aromas Red Sands).

- Salt concentrations remain consistent relative to SkyTEM seawater intrusion results as described in a March 8, 2018 technical memorandum (HydroMetrics WRI, 2018).

Summary

In summary, groundwater levels declined in Water Year 2018 as a result of an increase in groundwater pumping after multiple years of groundwater level recovery. Groundwater levels are at protective elevations established by SqCWD and the City at a majority of coastal monitoring wells. However, groundwater levels dropped below protective elevations at one coastal monitoring well in Water Year 2018. Full groundwater level recovery will not be achieved until groundwater levels are at protective elevations at all coastal monitoring wells. To achieve long-term sustainability, groundwater levels will

need to be maintained above protective elevations after recovery. Therefore, the basin continues to be in a state of overdraft.

Groundwater quality trends do not indicate new seawater intrusion. Coastal well locations where seawater intrusion has not been observed continue to show no indication of seawater intrusion. Seawater intrusion where it has been observed is either stable or decreasing with the exception of one well. At SC-A2B, an increasing trend has been observed over the last two years and the latest sample exceeded the proposed minimum threshold. If any of the following three samples exceed the proposed minimum threshold, that would be considered an undesired result based on the proposal for the GSP.

Attachment: City of Santa Cruz and Soquel Creek Water District coastal monitoring well hydrographs and chemographs.

References

HydroMetrics LLC, 2009, Groundwater levels to protect against seawater intrusion and store freshwater offshore, prepared for Soquel Creek Water District, January.

HydroMetrics WRI, 2011, Estimation of Deep Groundwater Recharge Using a Precipitation-Runoff Watershed Model, prepared for Soquel Creek Water District, Central Water District, and the City of Santa Cruz, August.

———, 2012, Revised Protective Groundwater Elevations and Outflows for Aromas Area and Updated Water Balance for Soquel-Aptos Groundwater Basin, letter to Laura Brown, Soquel Creek Water District, March 30.

———, 2013, Rainfall-Recharge Relationship Based on PRMS Model Results, Technical Memorandum to Taj Dufour, Soquel Creek Water District, from C. Tana and G. King, April 12.

———, 2017, Santa Cruz Mid-County Basin Groundwater Management Biennial Review and Report, Water Years 2015-2016, prepared for Santa Cruz Mid-County Groundwater Agency, July.

———, 2018, Management Implications of SkyTEM Seawater Intrusion Results, Technical Memorandum to Ron Duncan for Santa Cruz Mid-County Groundwater Agency, from C. Tana, March 8.

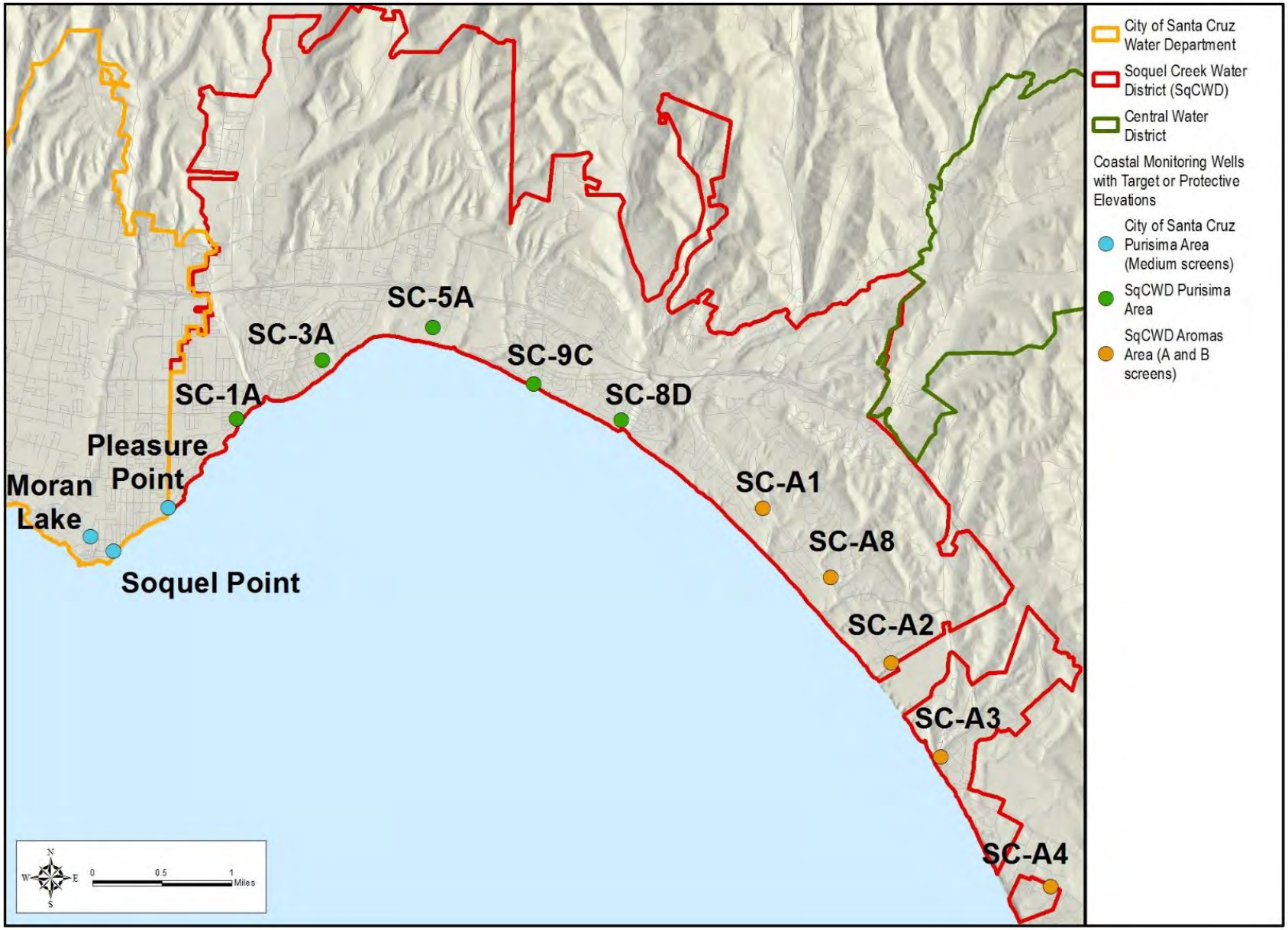


Figure 1. Locations of Coastal Monitoring Wells Where Target or Protective Groundwater Elevations Have Been Estimated

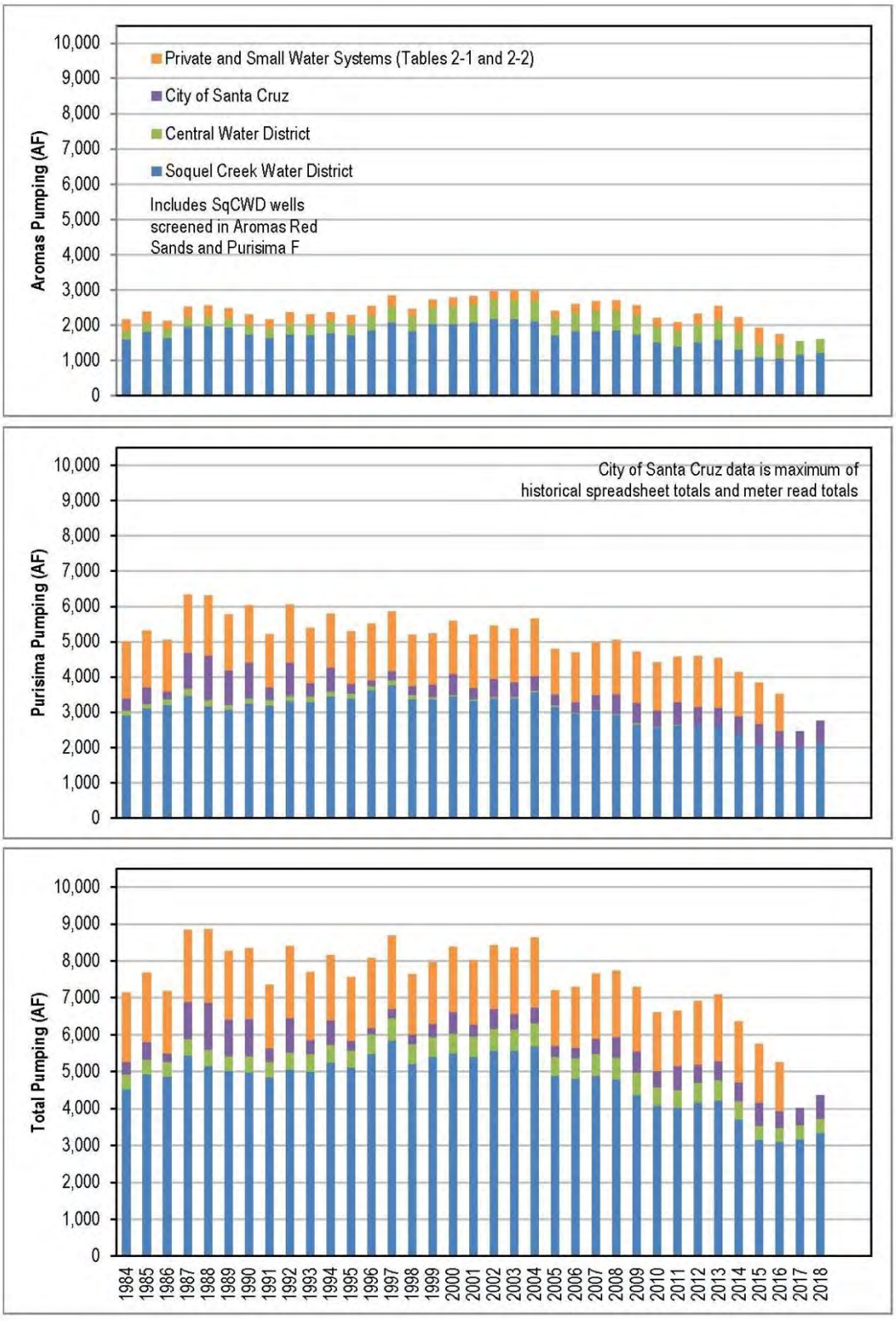


Figure 2. Santa Cruz Mid-County Basin Pumping by Water Year in Acre-Feet

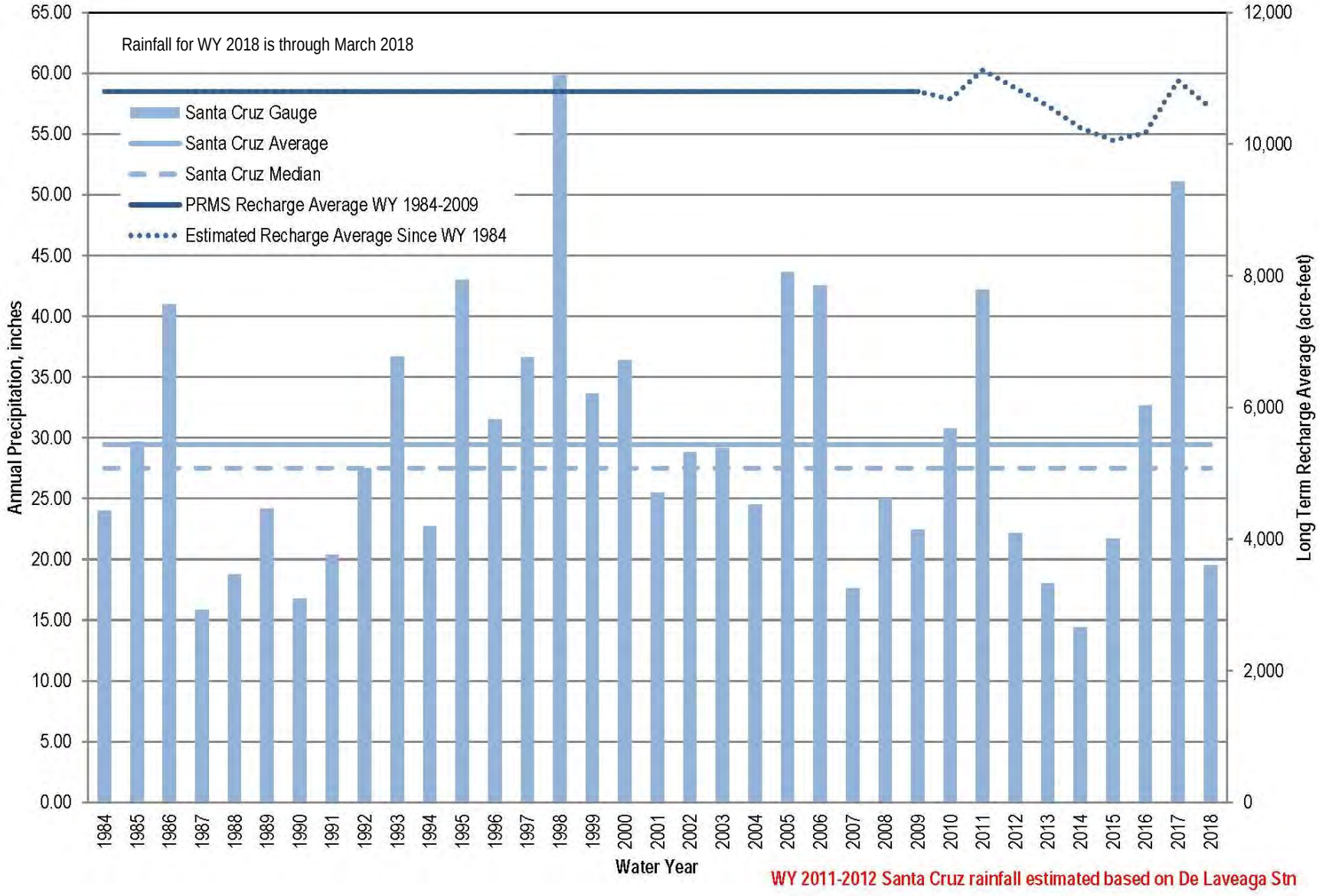
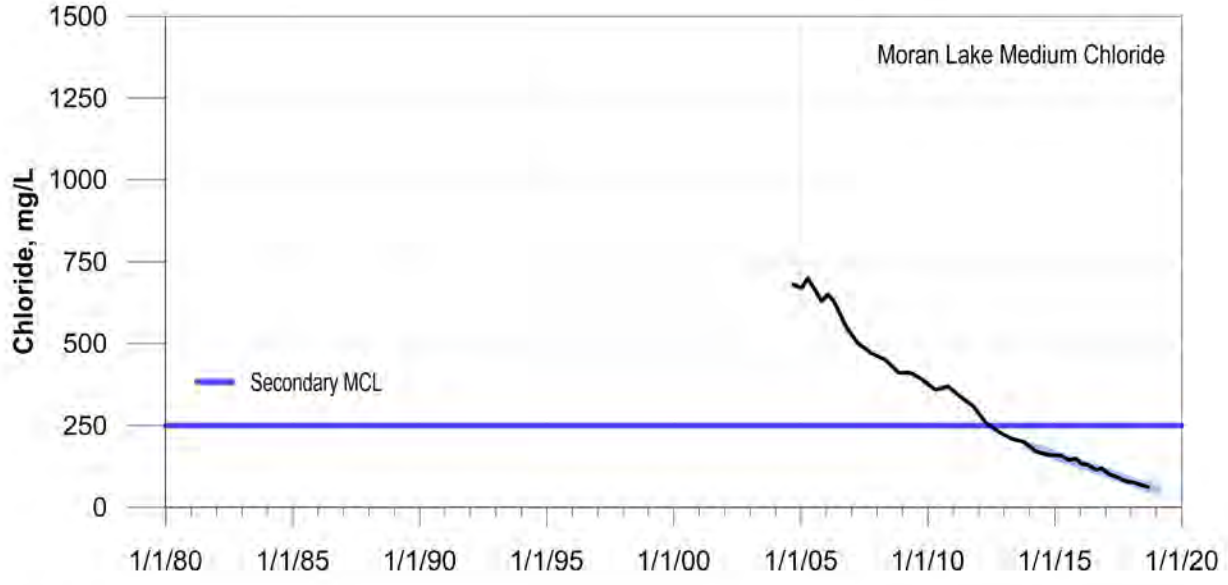
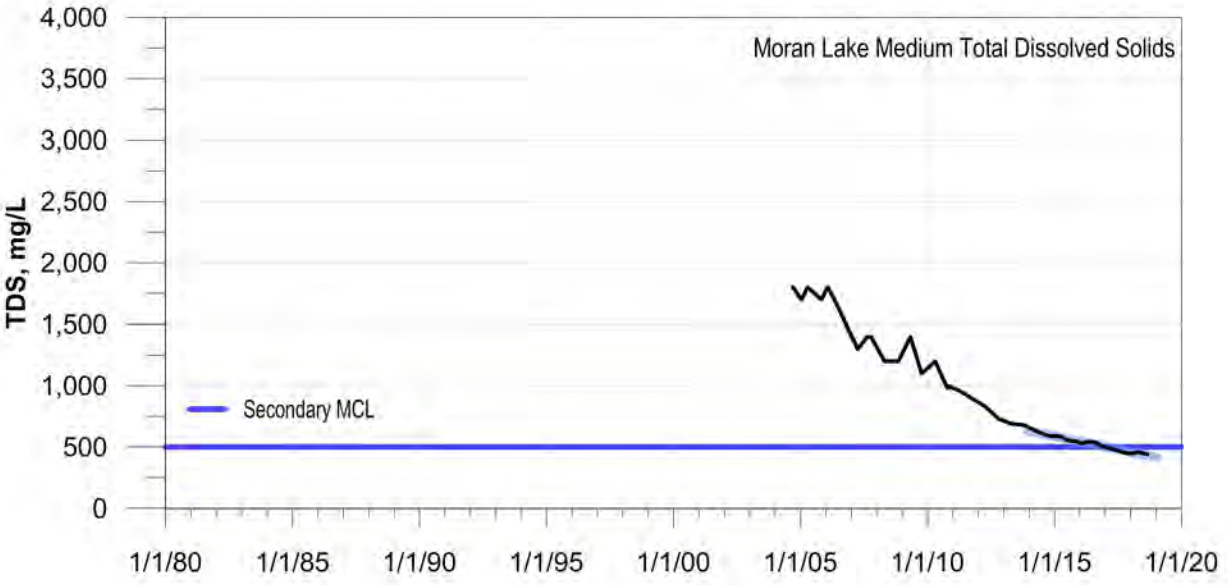
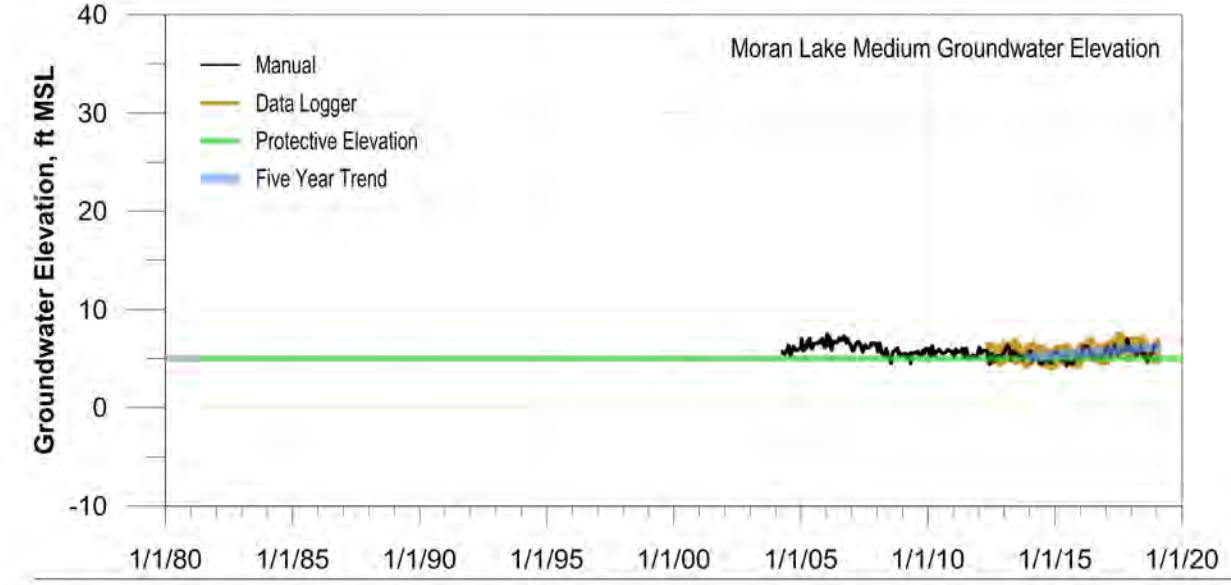
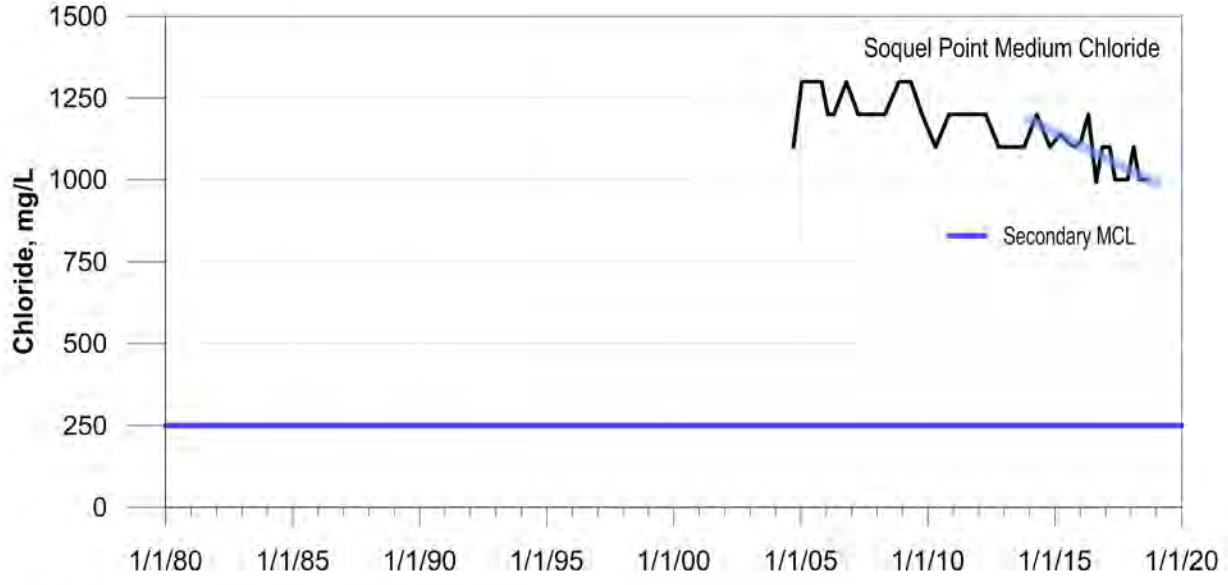


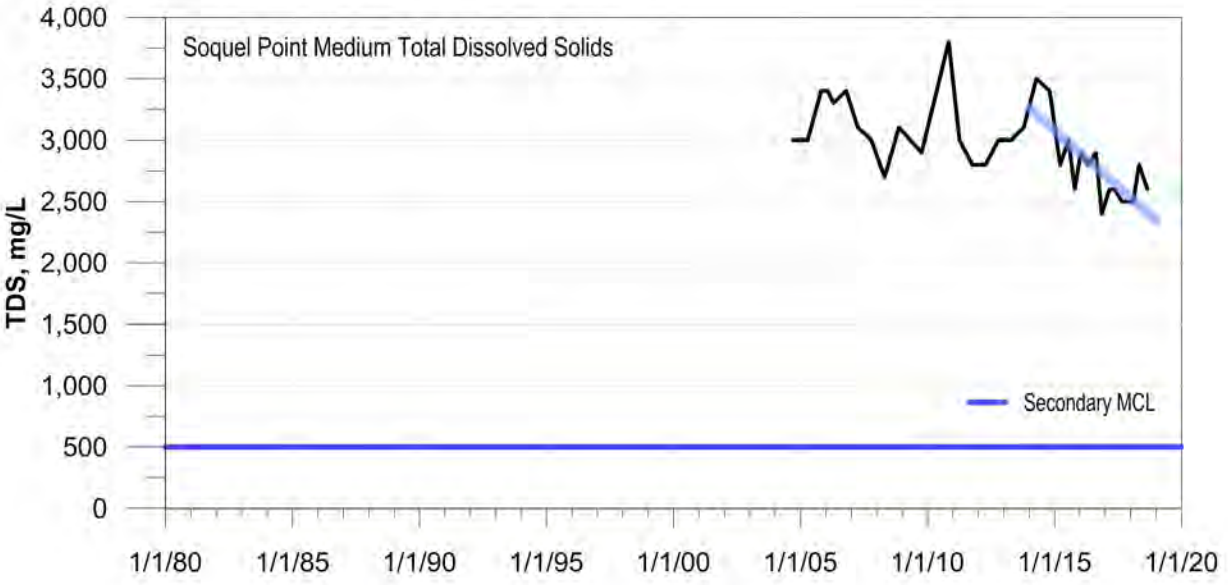
Figure 3. Rainfall at Santa Cruz Co-op Station and Estimated Long-Term Recharge

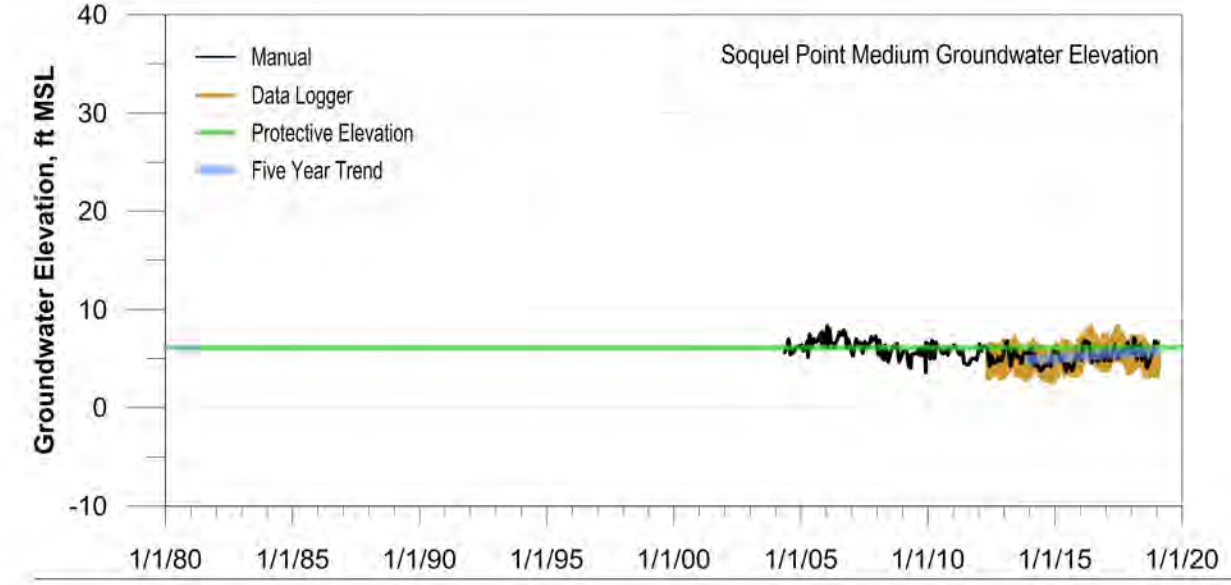

Moran Lake Medium Chloride
Chloride, mg/L
1500
1250
1000
750
500
250
0
Secondary MCL
1/1/80
1/1/85
1/1/90
1/1/95
1/1/00
1/1/05
1/1/10
1/1/15
1/1/20

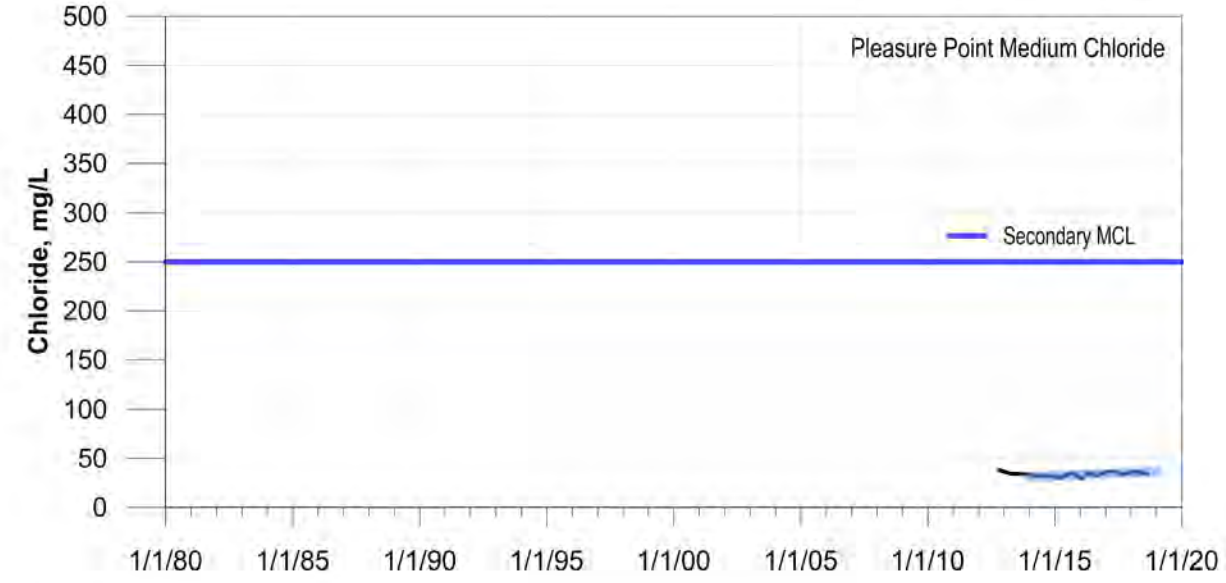

Moran Lake Medium Total Dissolved Solids
TDS, mg/L
4,000
3,500
3,000
2,500
2,000
1,500
1,000
500
0
Secondary MCL
1/1/80
1/1/85
1/1/90
1/1/95
1/1/00
1/1/05
1/1/10
1/1/15
1/1/20

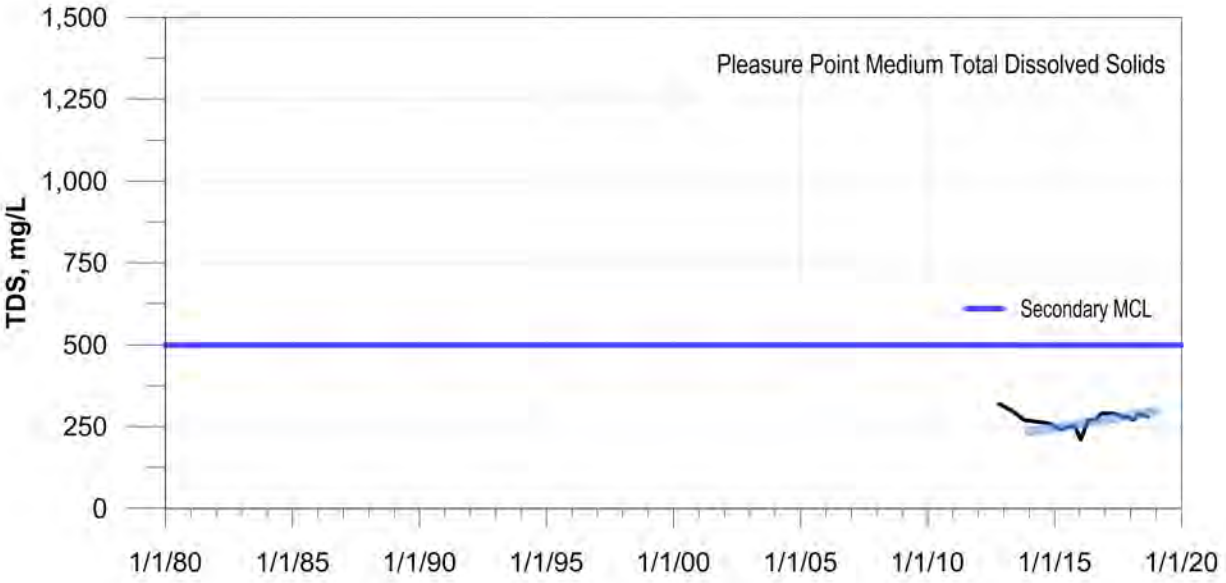

Moran Lake Medium Groundwater Elevation
Groundwater Elevation, ft MSL
40
30
20
10
0
-10
Manual
Data Logger
Protective Elevation
Five Year Trend
1/1/80
1/1/85
1/1/90
1/1/95
1/1/00
1/1/05
1/1/10
1/1/15
1/1/20

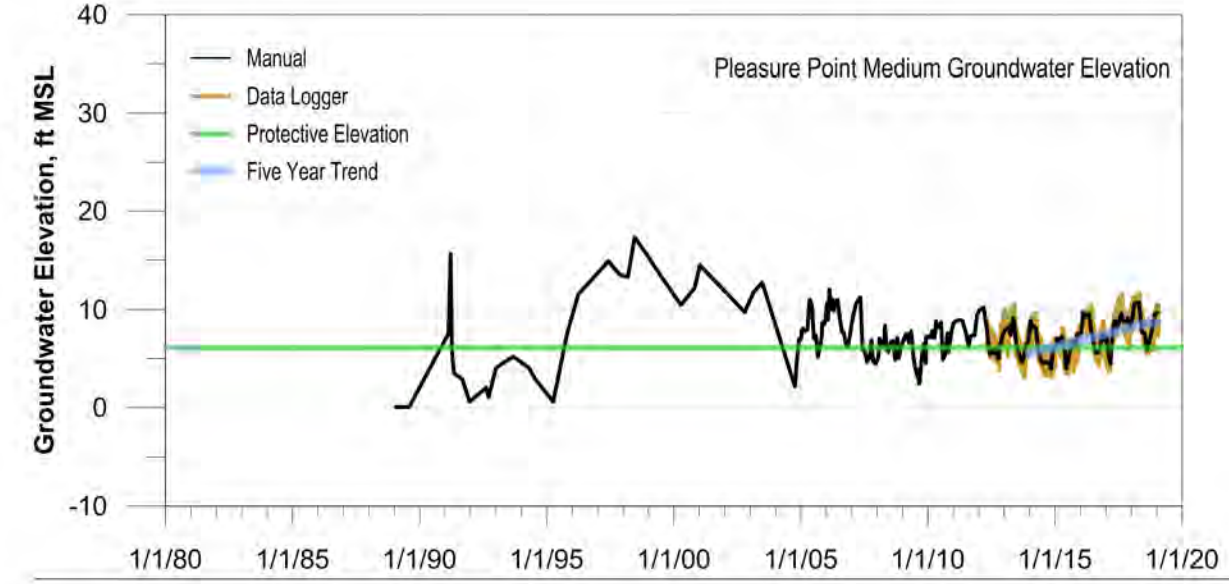

Soquel Point Medium Chloride
Chloride, mg/L
1500
1250
1000
750
500
250
0
Secondary MCL
1/1/80
1/1/85
1/1/90
1/1/95
1/1/00
1/1/05
1/1/10
1/1/15
1/1/20

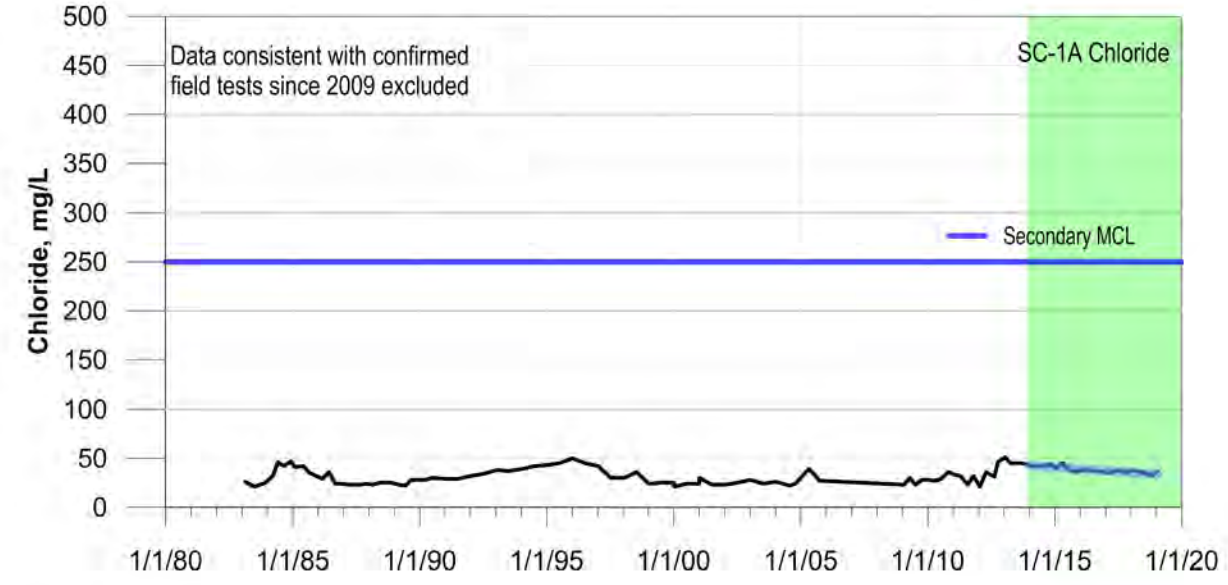

Soquel Point Medium Total Dissolved Solids
TDS, mg/L
4,000
3,500
3,000
2,500
2,000
1,500
1,000
500
0
Secondary MCL
1/1/80
1/1/85
1/1/90
1/1/95
1/1/00
1/1/05
1/1/10
1/1/15
1/1/20


Soquel Point Medium Groundwater Elevation
Groundwater Elevation, ft MSL
40
30
20
10
0
-10
Manual
Data Logger
Protective Elevation
Five Year Trend
1/1/80
1/1/85
1/1/90
1/1/95
1/1/00
1/1/05
1/1/10
1/1/15
1/1/20

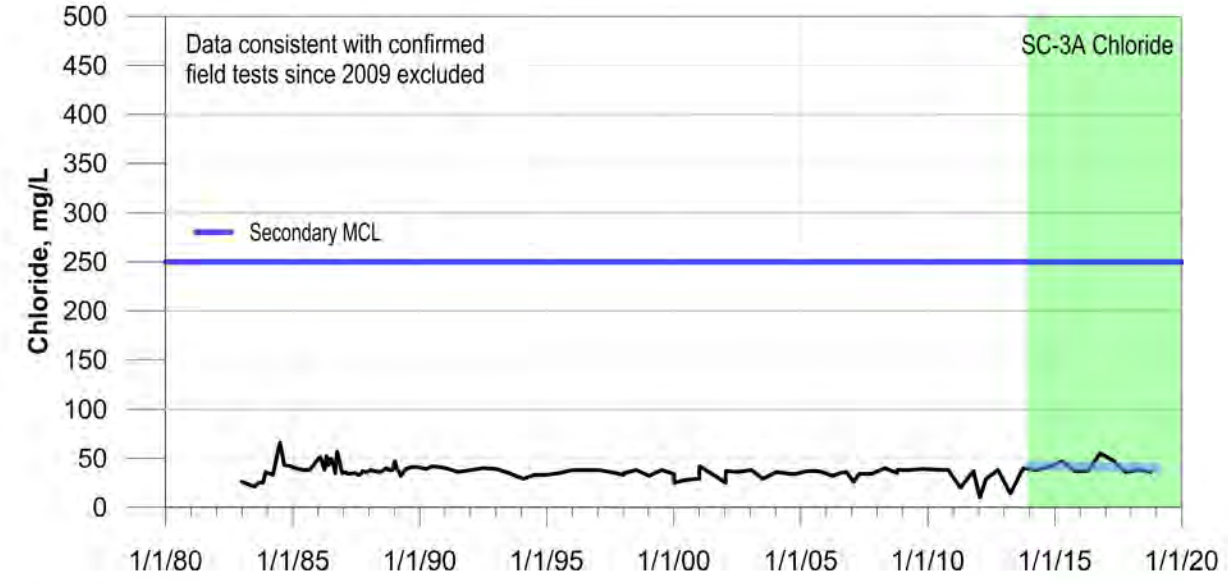

Pleasure Point Medium Chloride
Chloride, mg/L
500
450
400
350
300
250
200
150
100
50
0
Secondary MCL
1/1/80
1/1/85
1/1/90
1/1/95
1/1/00
1/1/05
1/1/10
1/1/15
1/1/20

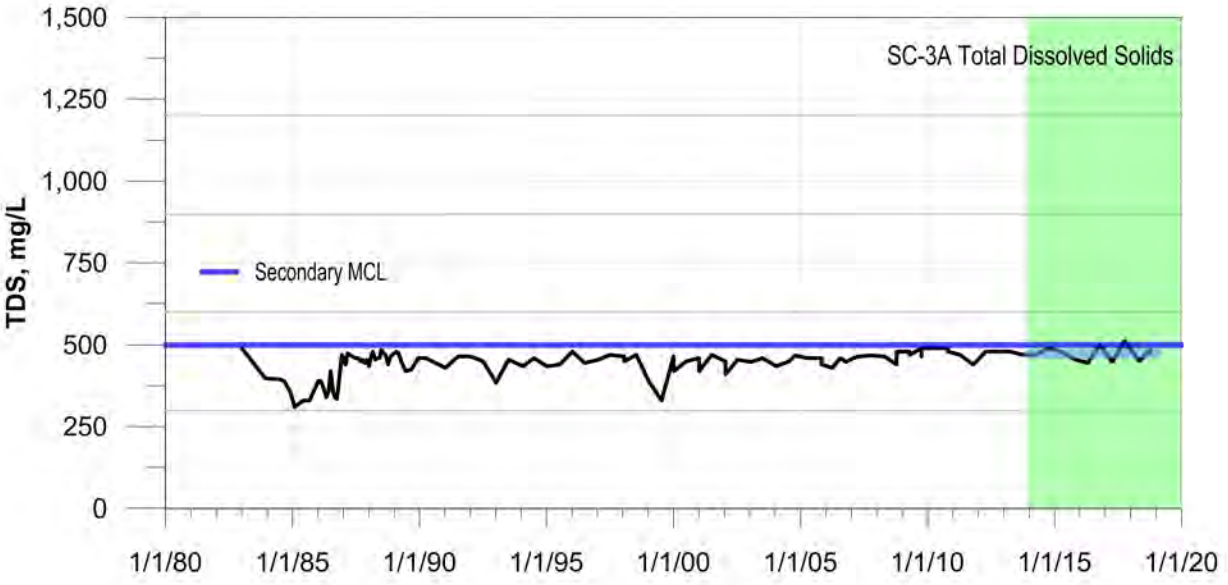

Pleasure Point Medium Total Dissolved Solids
TDS, mg/L
1,500
1,250
1,000
750
500
250
0
Secondary MCL
1/1/80
1/1/85
1/1/90
1/1/95
1/1/00
1/1/05
1/1/10
1/1/15
1/1/20

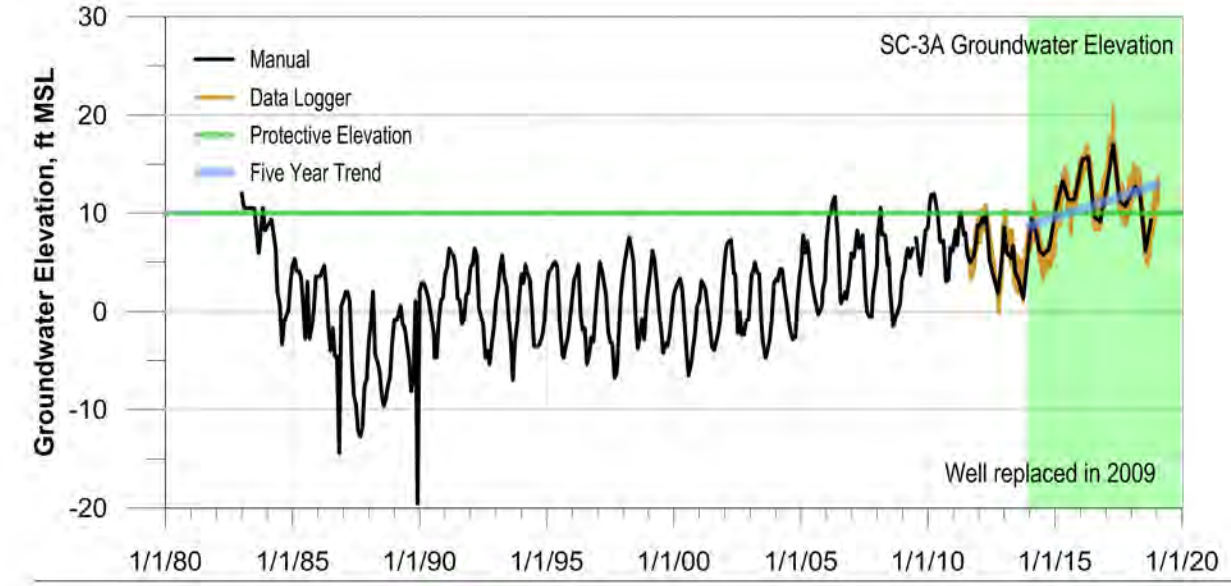

Pleasure Point Medium Groundwater Elevation
Groundwater Elevation, ft MSL
40
30
20
10
0
-10
Manual
Data Logger
Protective Elevation
Five Year Trend
1/1/80
1/1/85
1/1/90
1/1/95
1/1/00
1/1/05
1/1/10
1/1/15
1/1/20



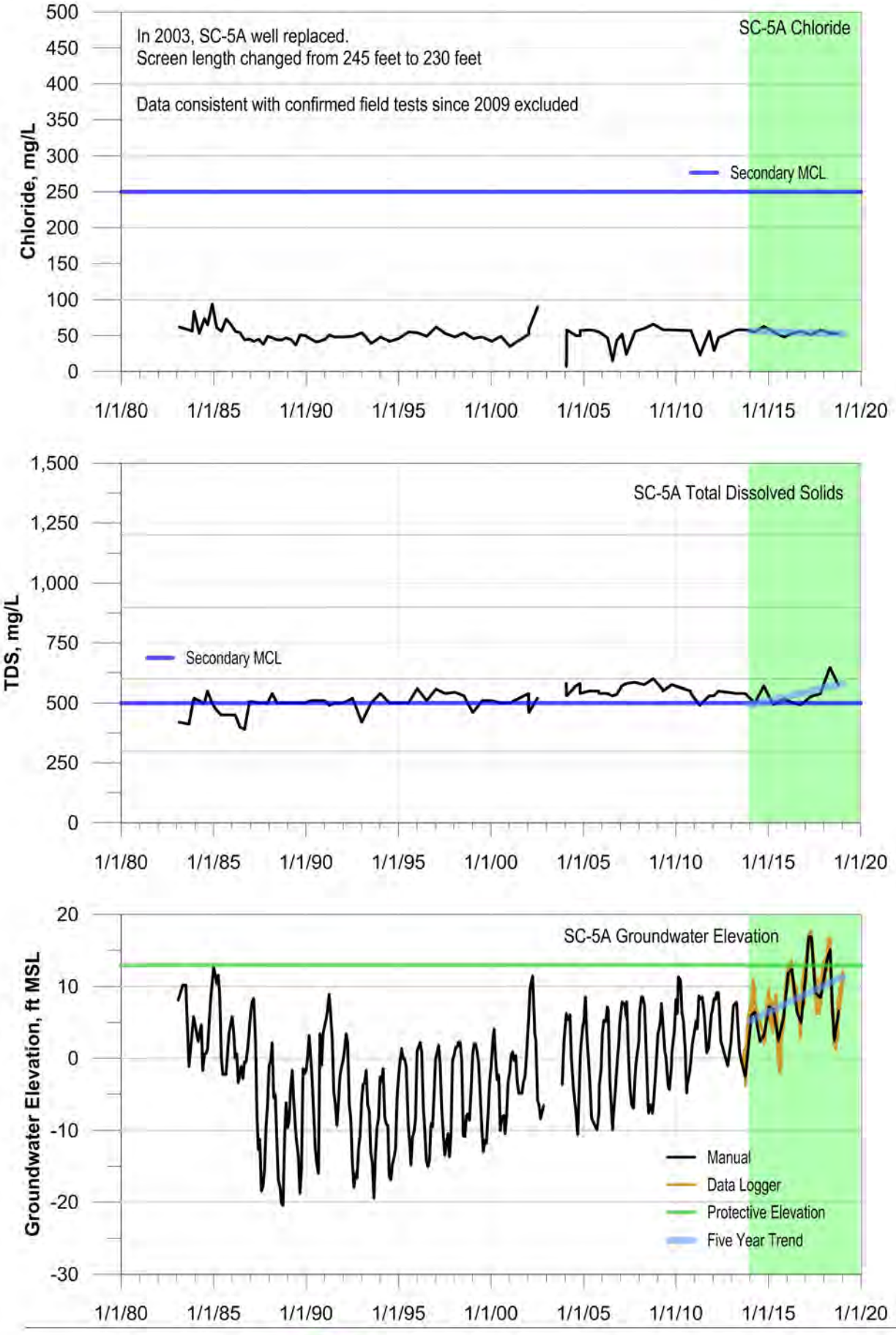
SqCWD Groundwater Emergency Declared

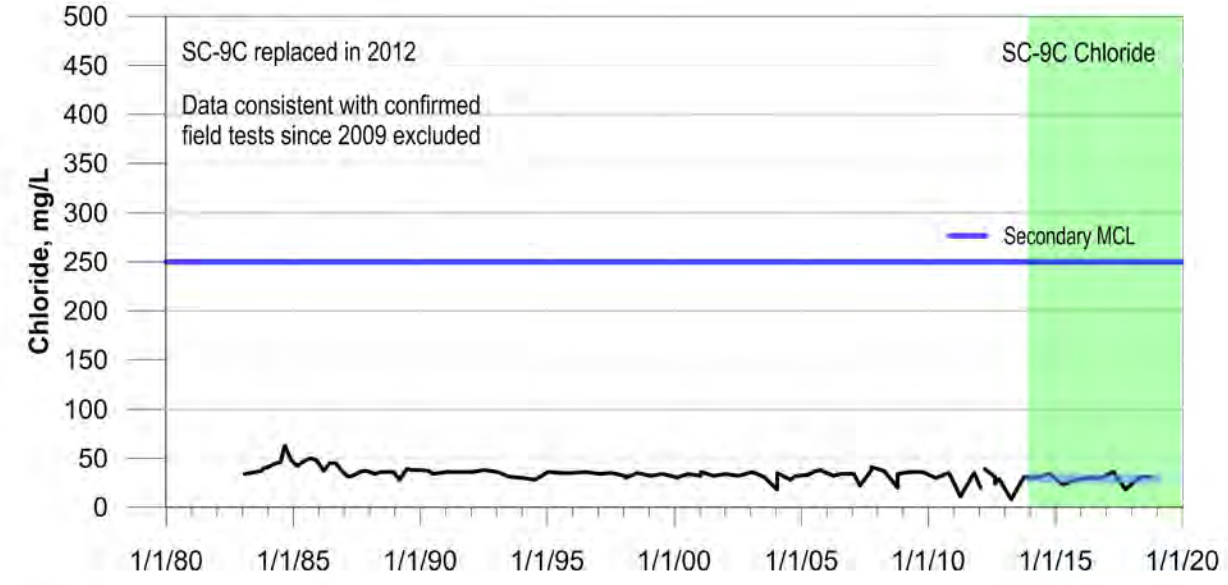


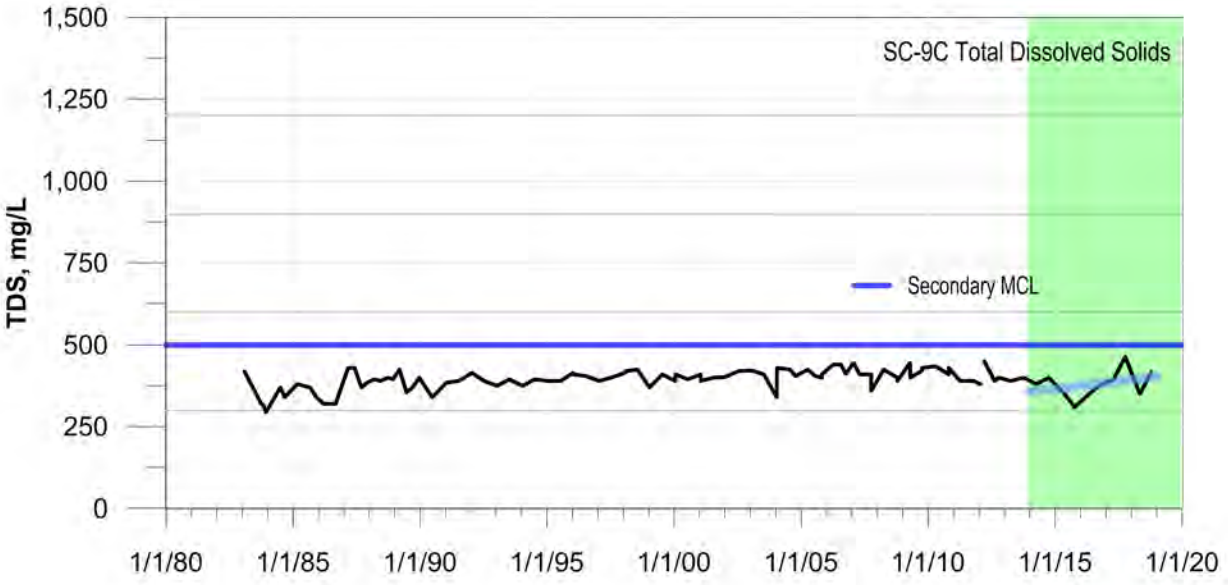


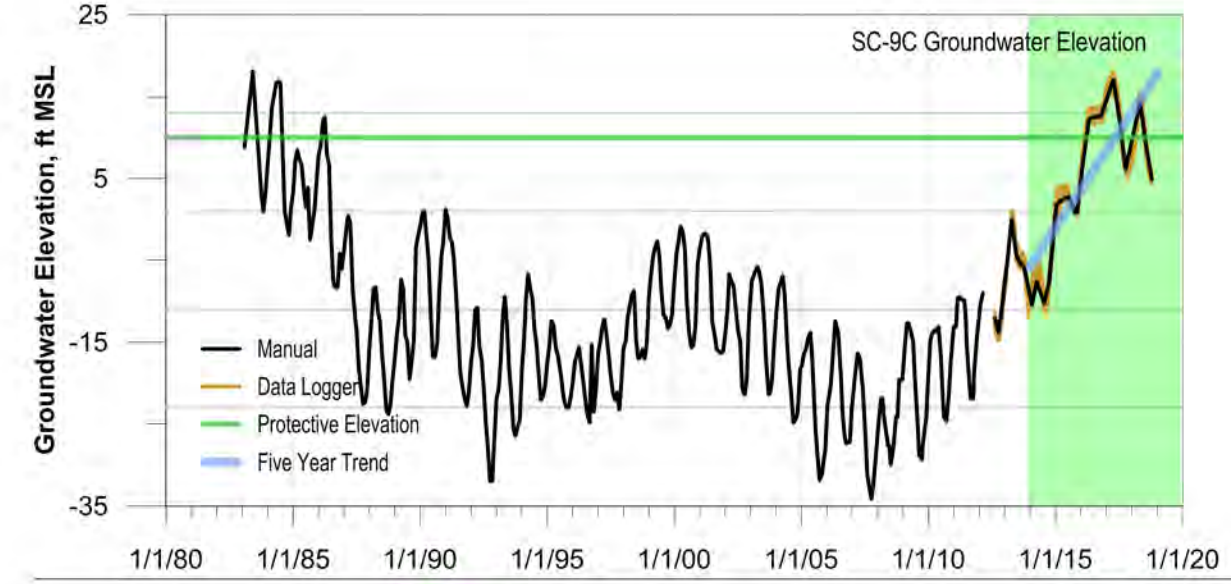


SqCWD Groundwater
Emergency Declared

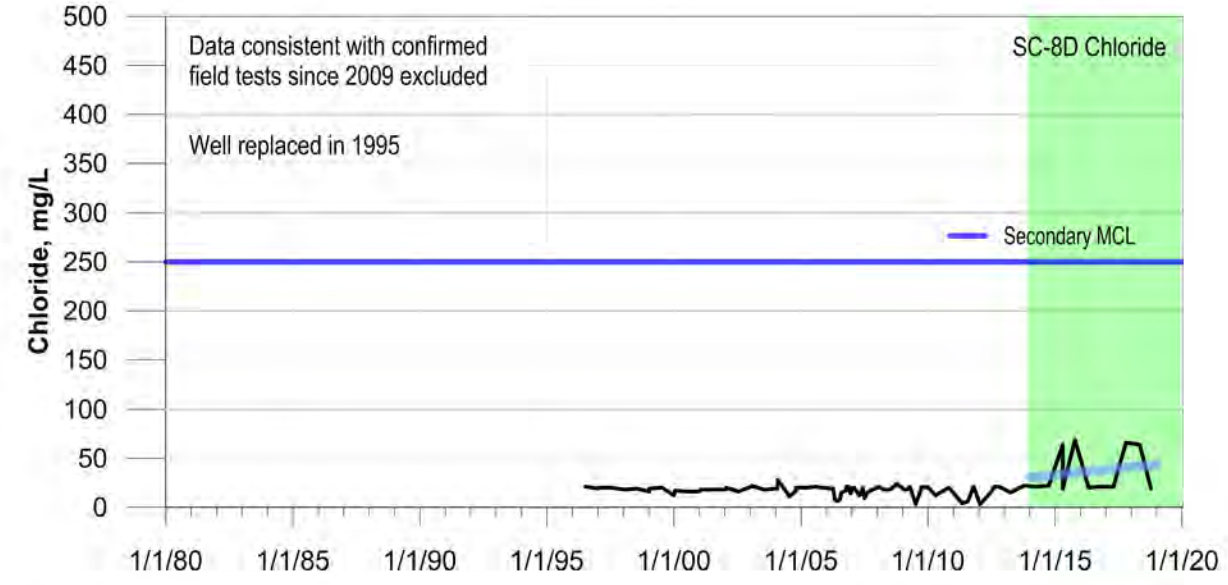

SC-5A Chloride
In 2003, SC-5A well replaced.
Screen length changed from 245 feet to 230 feet
Data consistent with confirmed field tests since 2009 excluded
Secondary MCL
Chloride, mg/L
500
450
400
350
300
250
200
150
100
50
0
1/1/80
1/1/85
1/1/90
1/1/95
1/1/00
1/1/05
1/1/10
1/1/15
1/1/20
SC-5A Total Dissolved Solids
Secondary MCL
TDS, mg/L
1,500
1,250
1,000
750
500
250
0
SC-5A Groundwater Elevation
Groundwater Elevation, ft MSL
20
10
0
-10
-20
-30
Manual
Data Logger
Protective Elevation
Five Year Trend
SqCWD Groundwater Emergency Declared

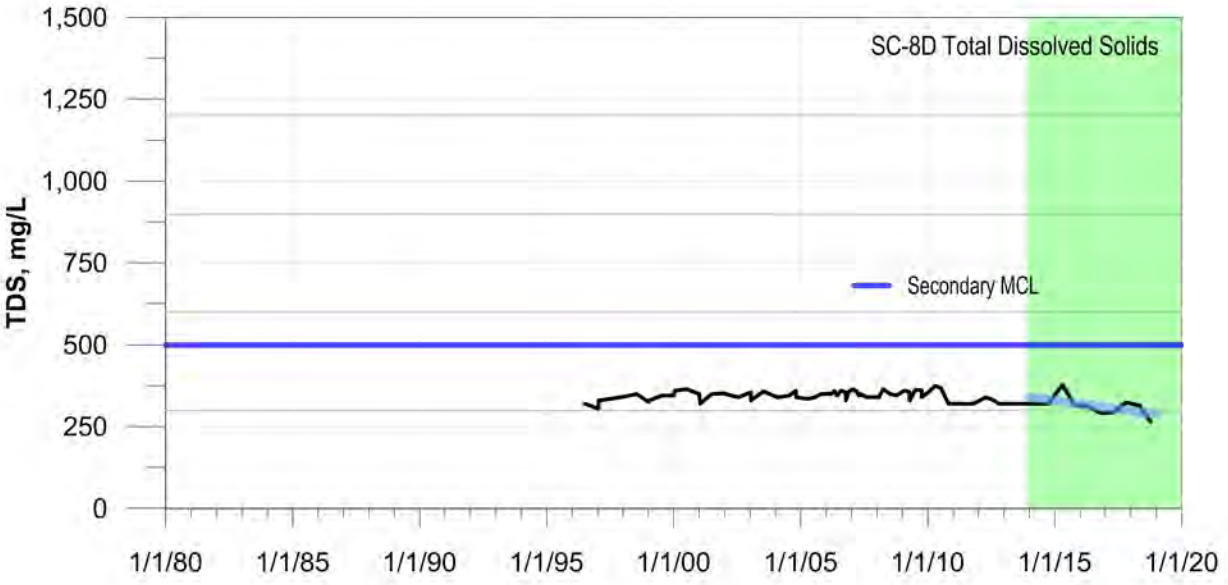


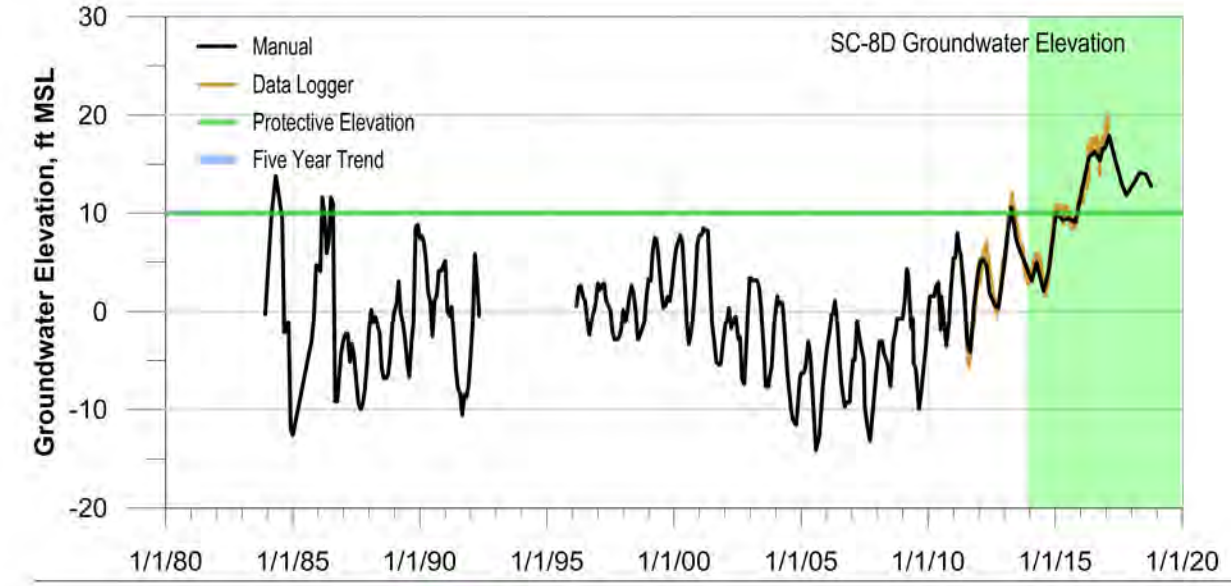




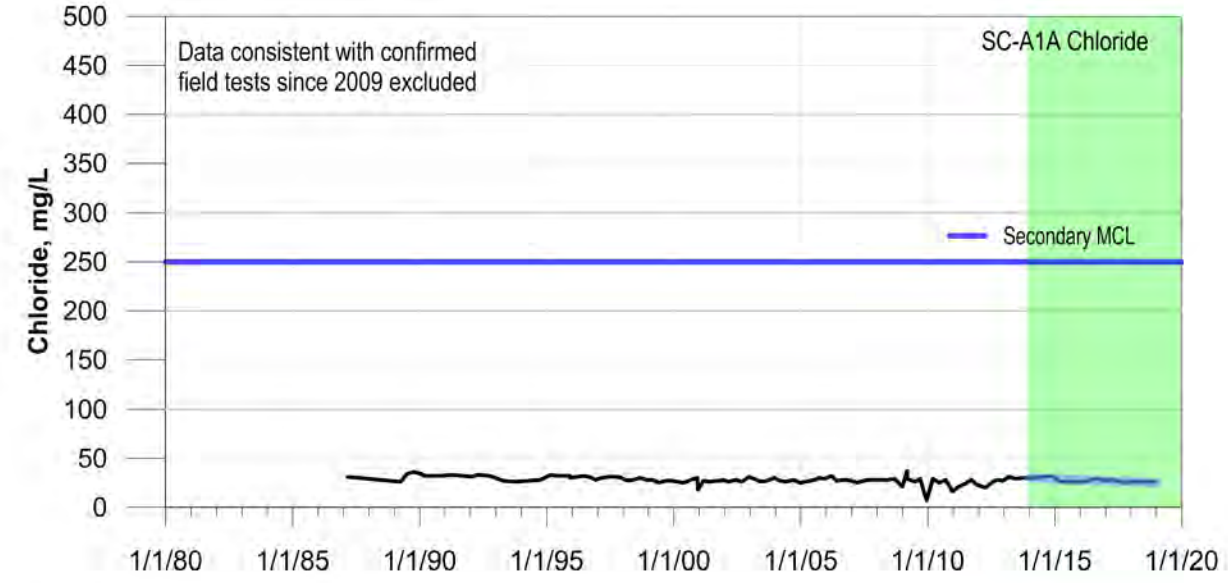
SqCWD Groundwater Emergency Declared

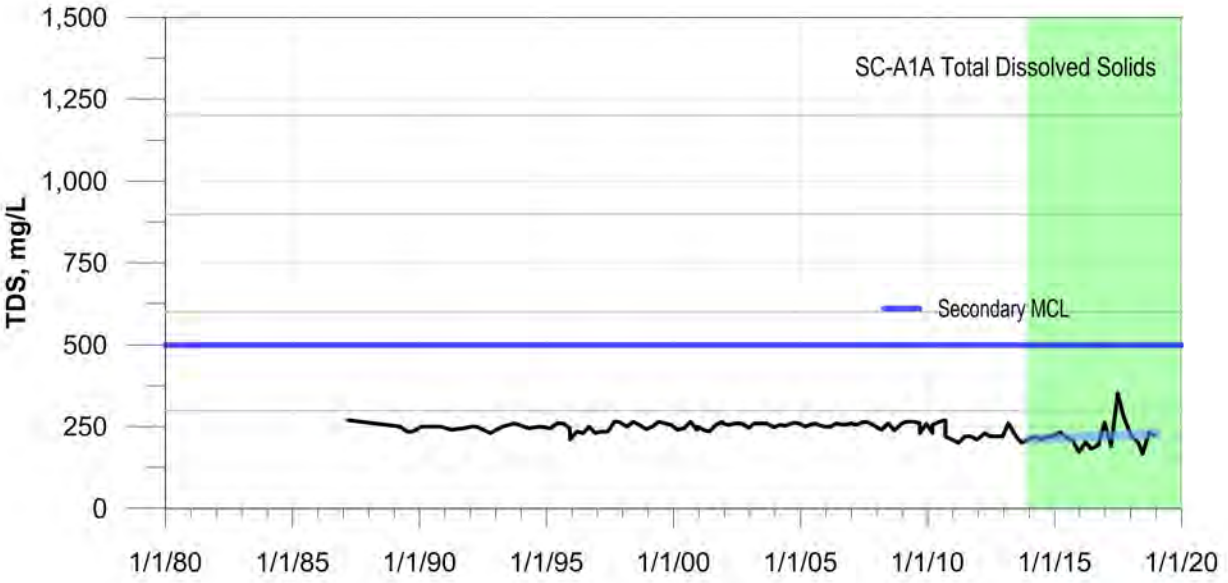


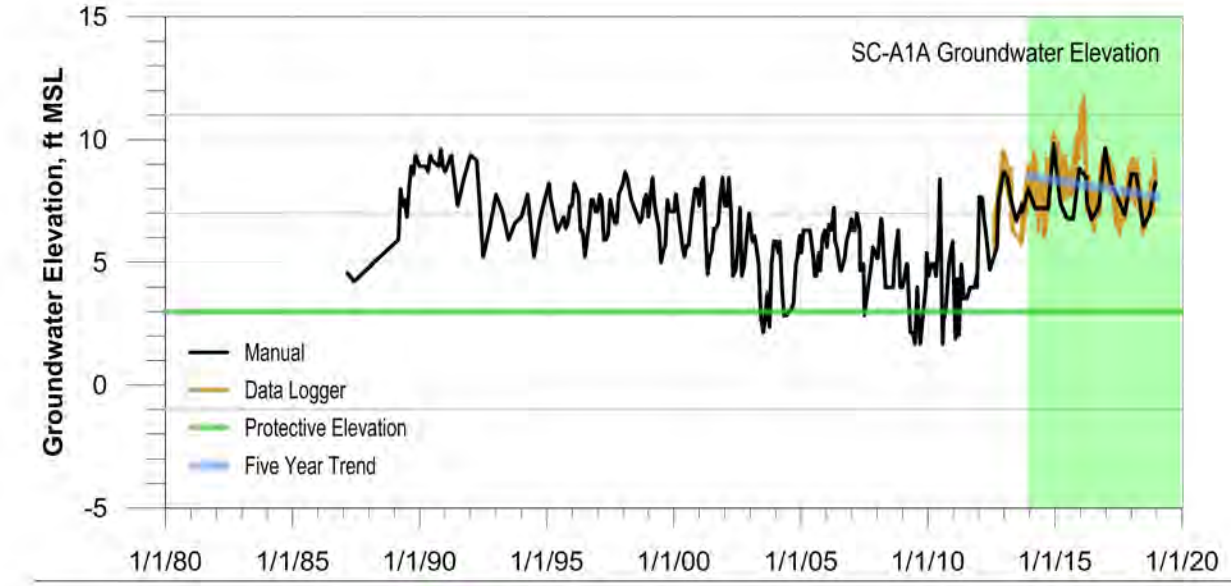




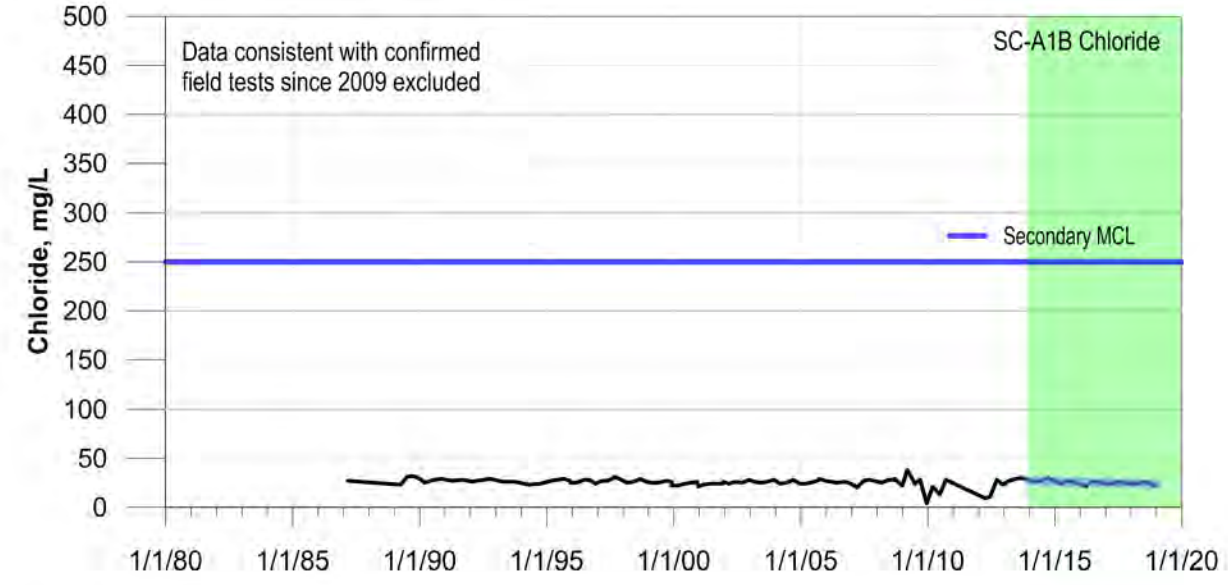
SqCWD Groundwater Emergency Declared

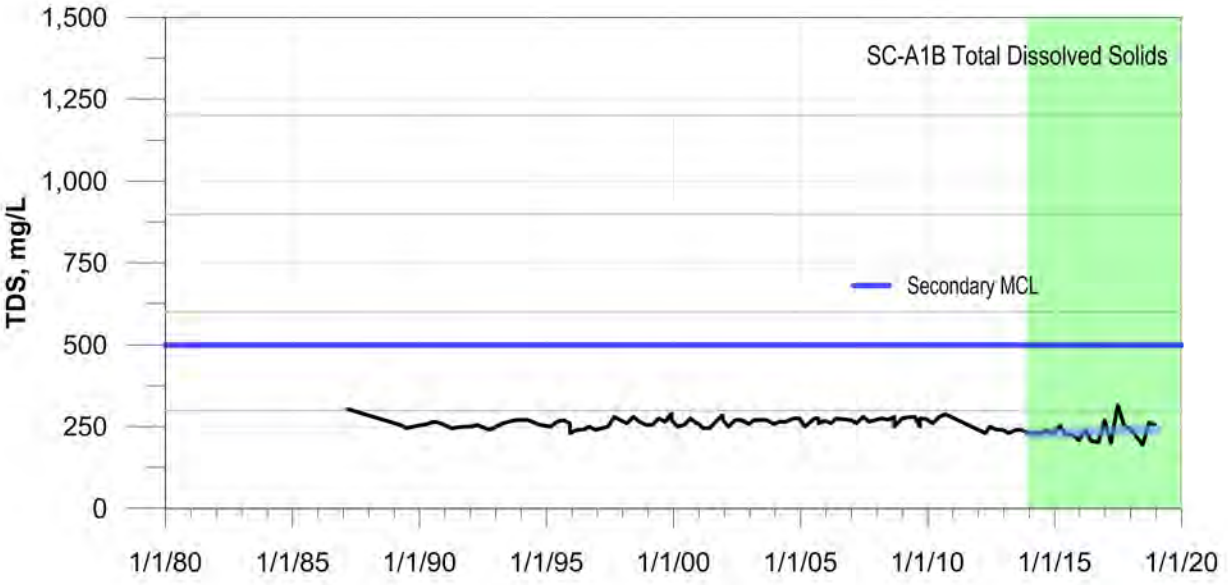


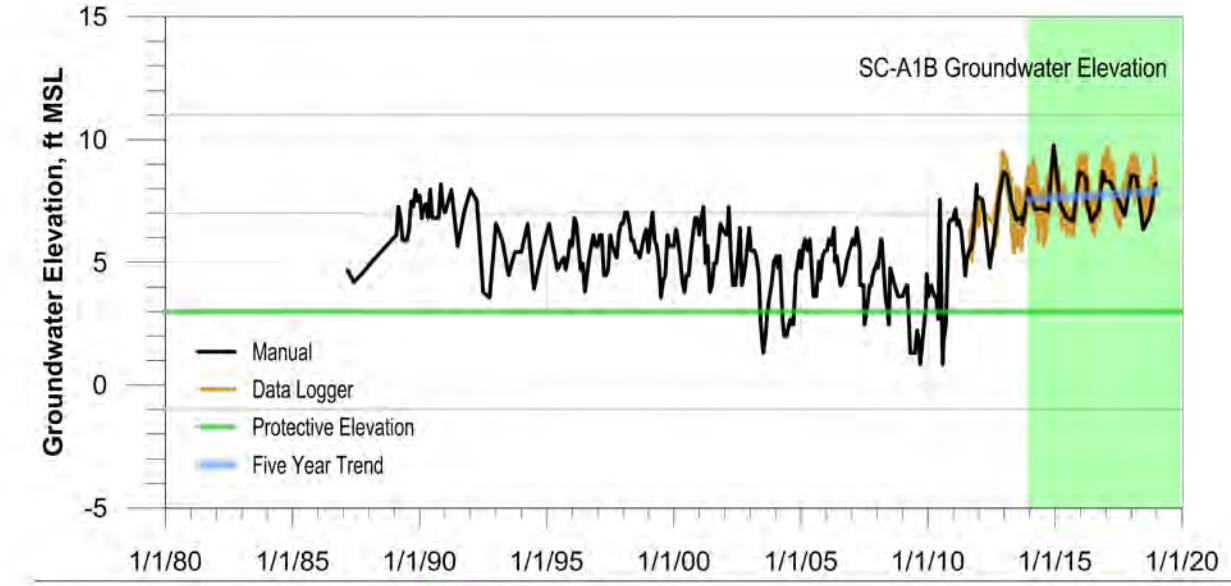




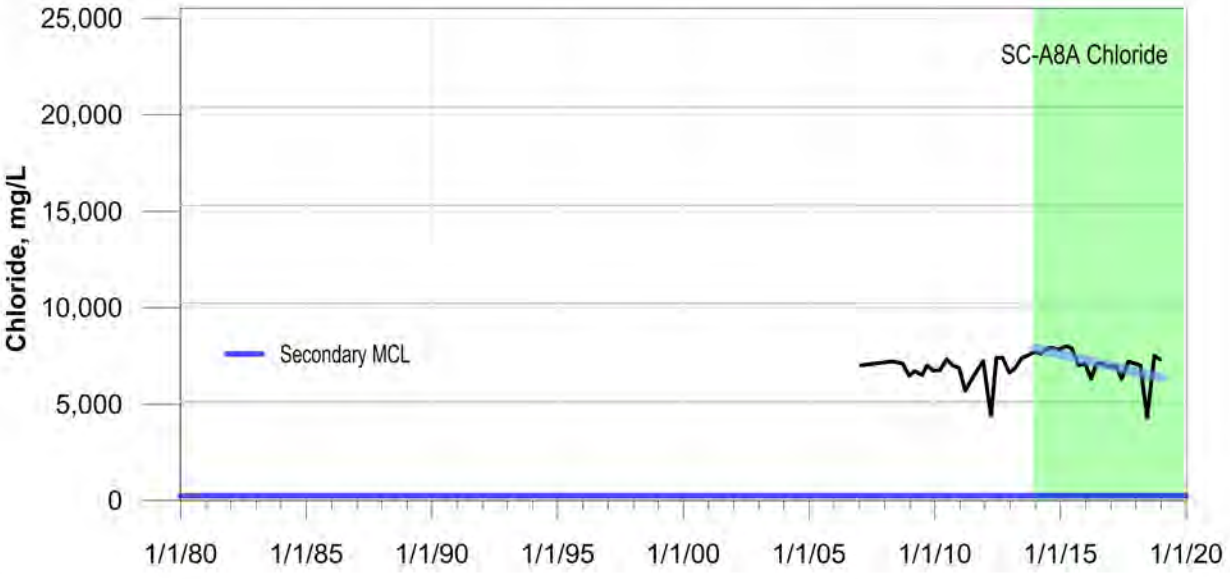
SqCWD Groundwater Emergency Declared

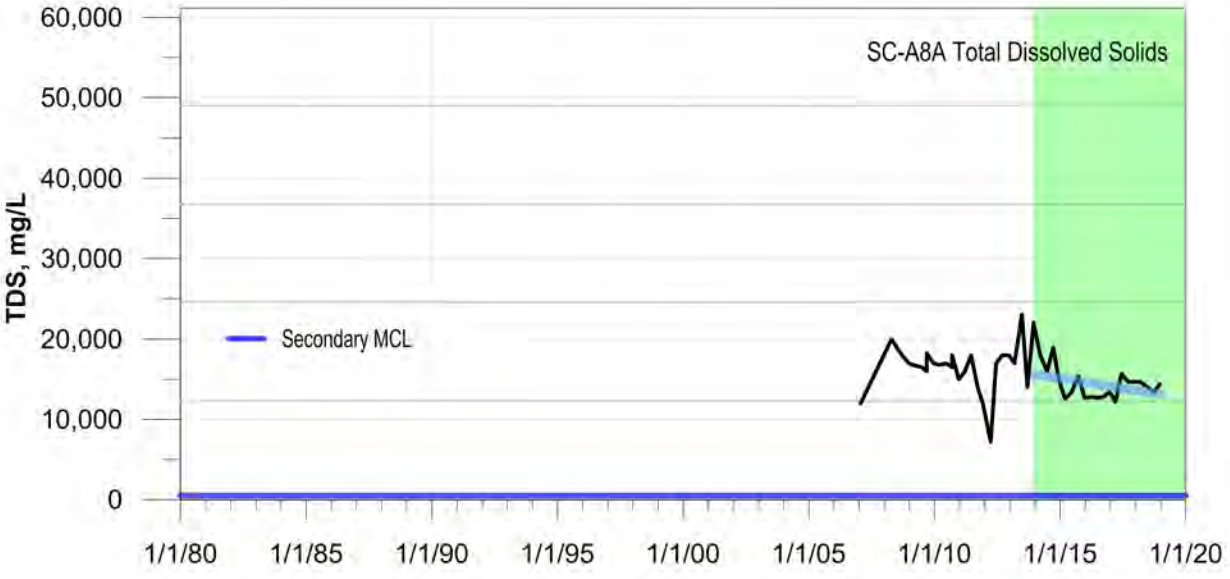




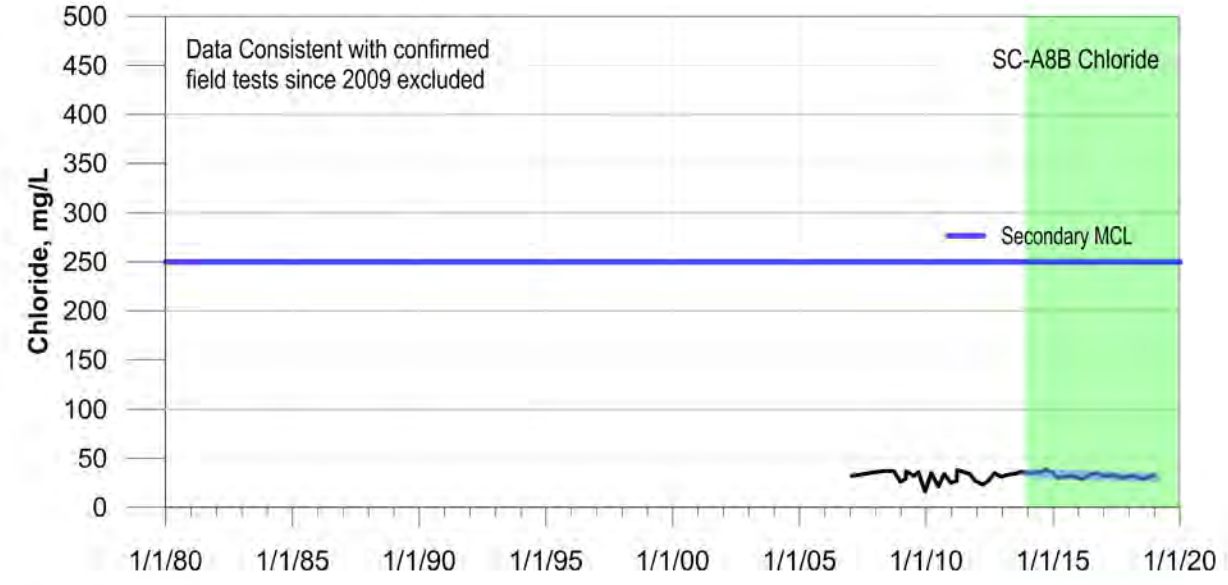


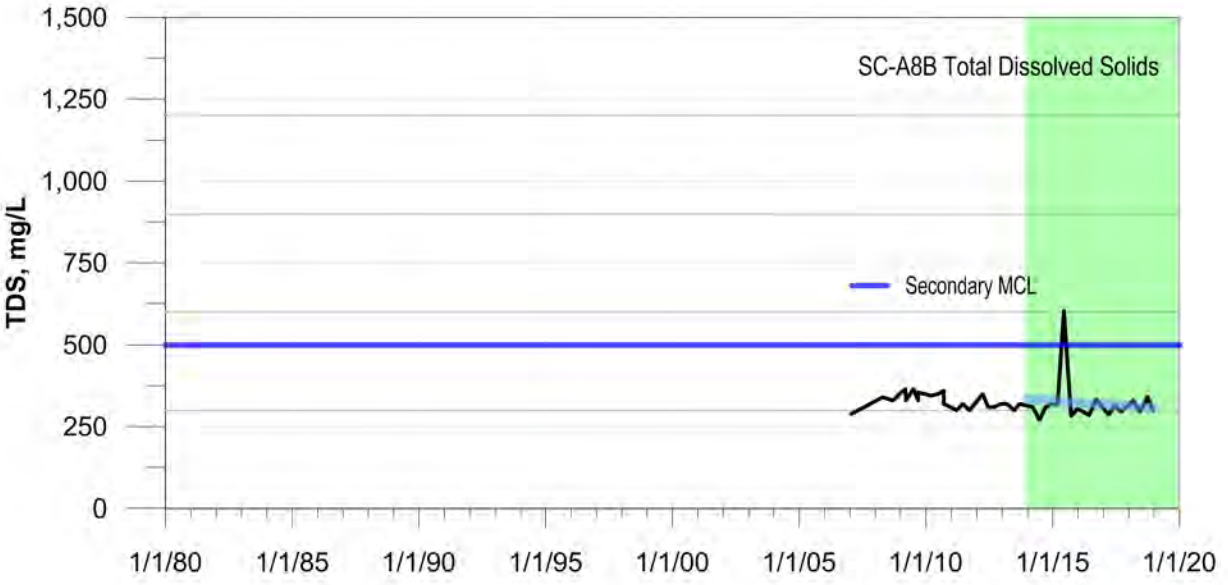
SqCWD Groundwater Emergency Declared

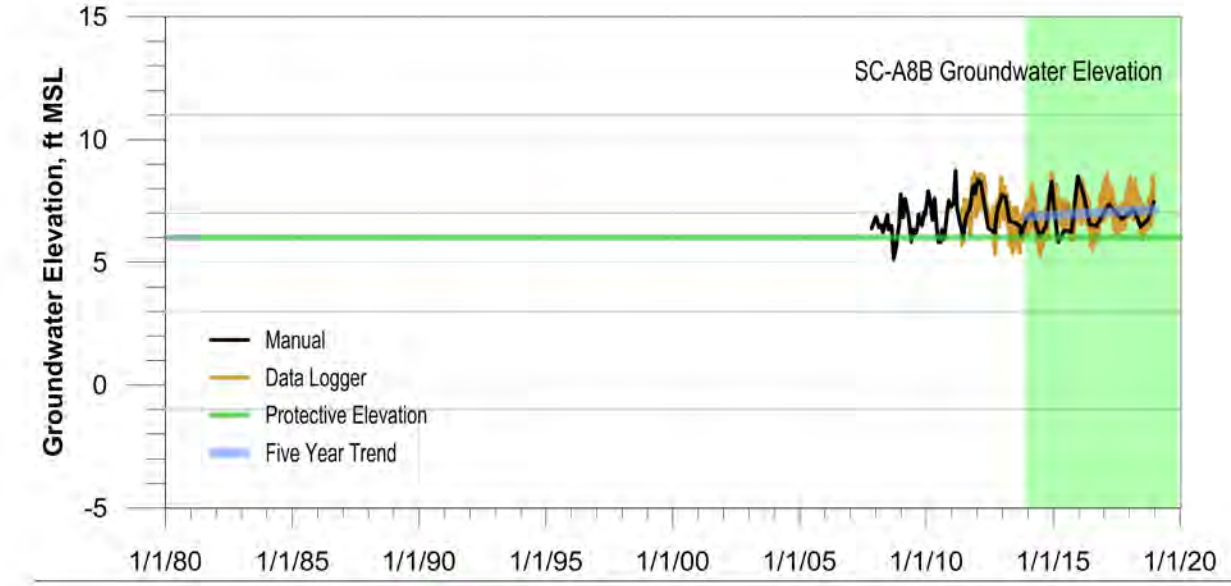




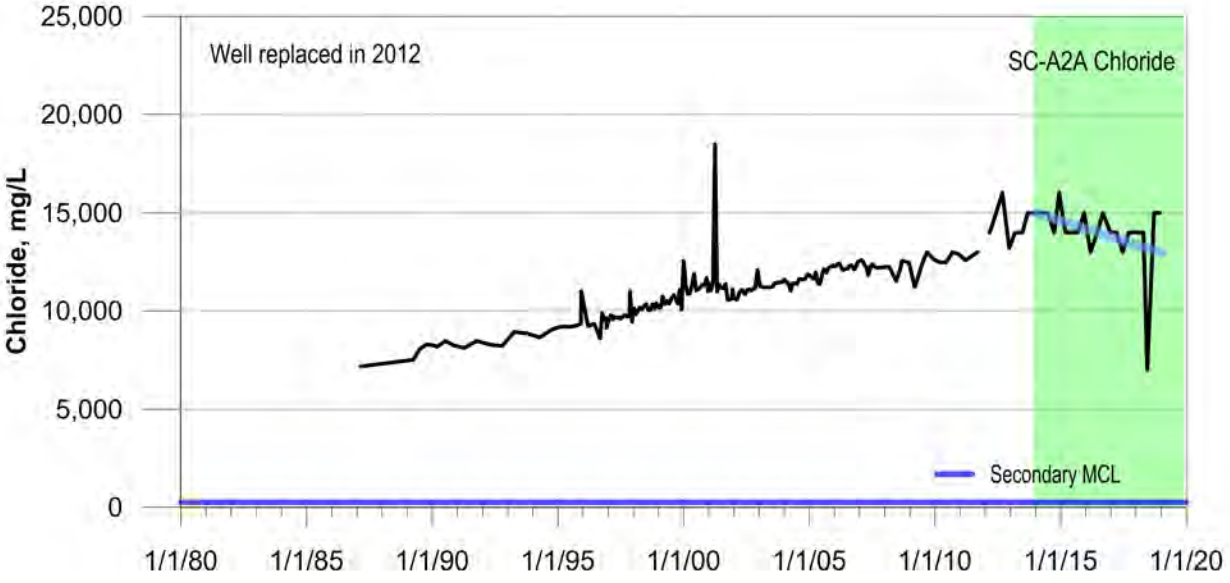
SqCWD Groundwater Emergency Declared

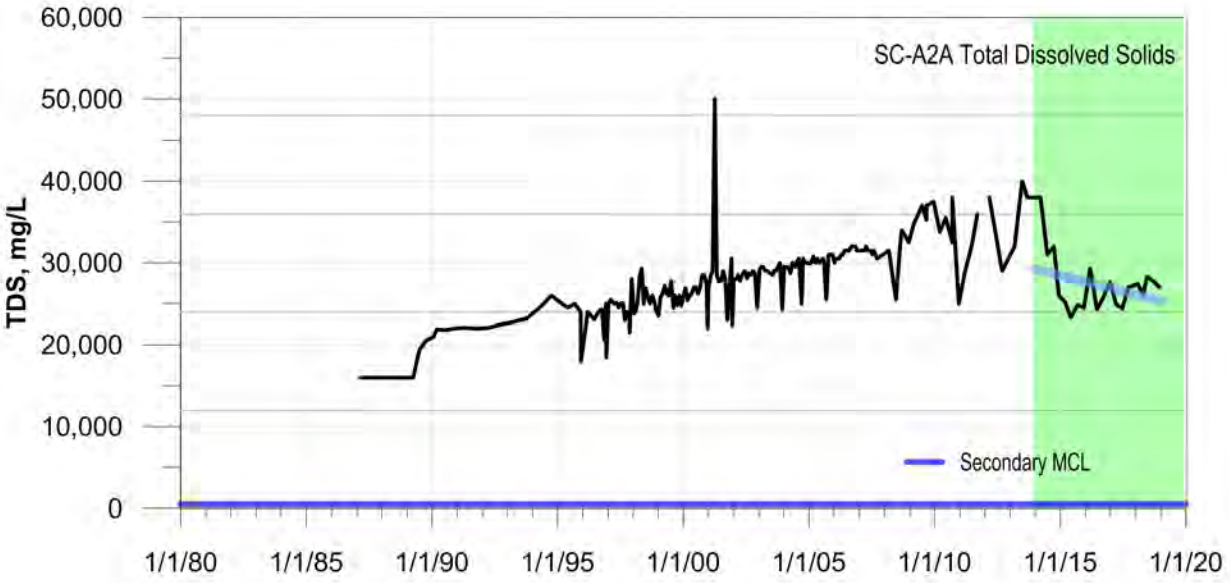


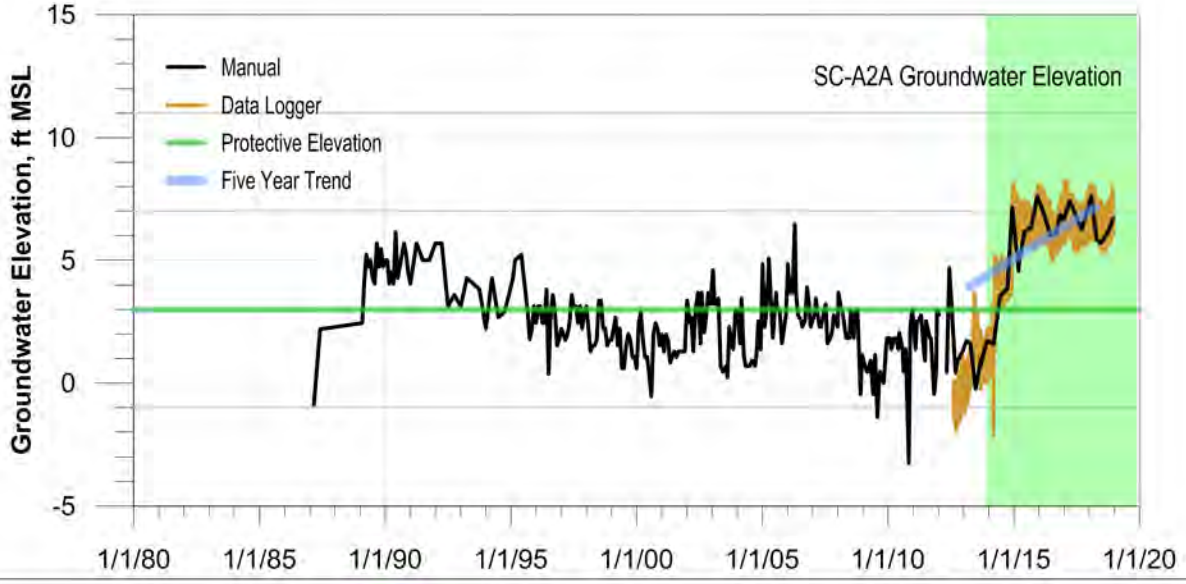




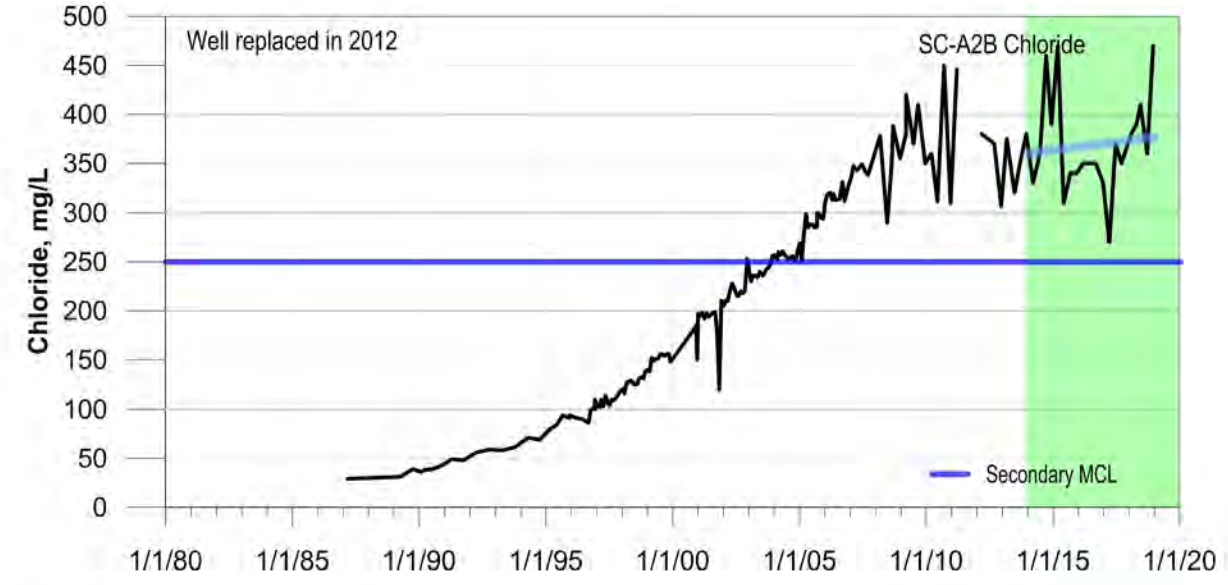
SqCWD Groundwater Emergency Declared

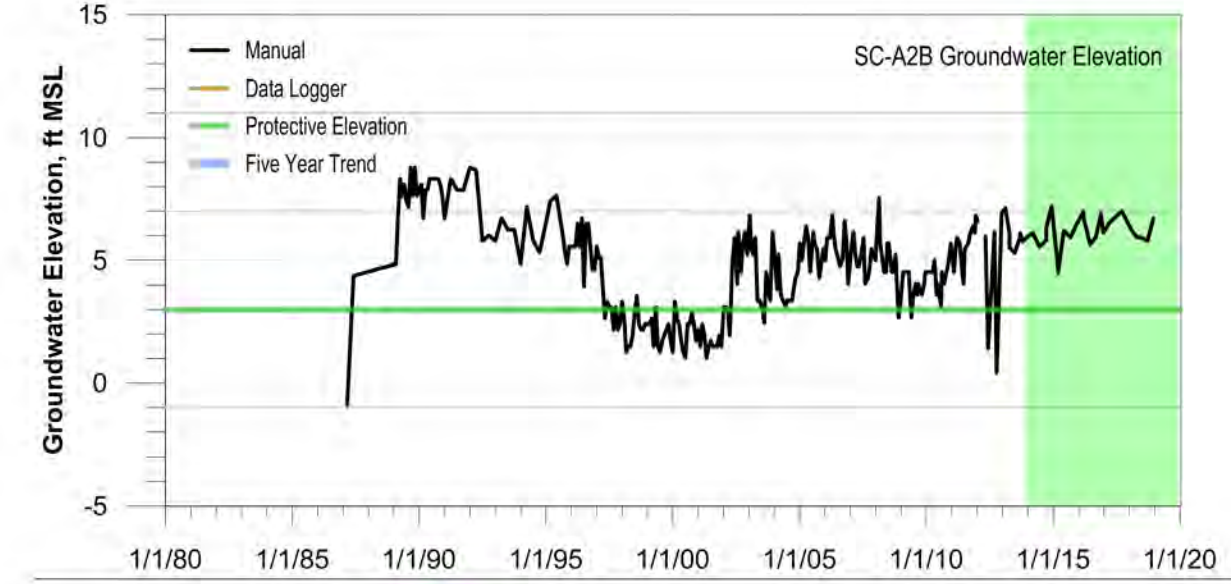




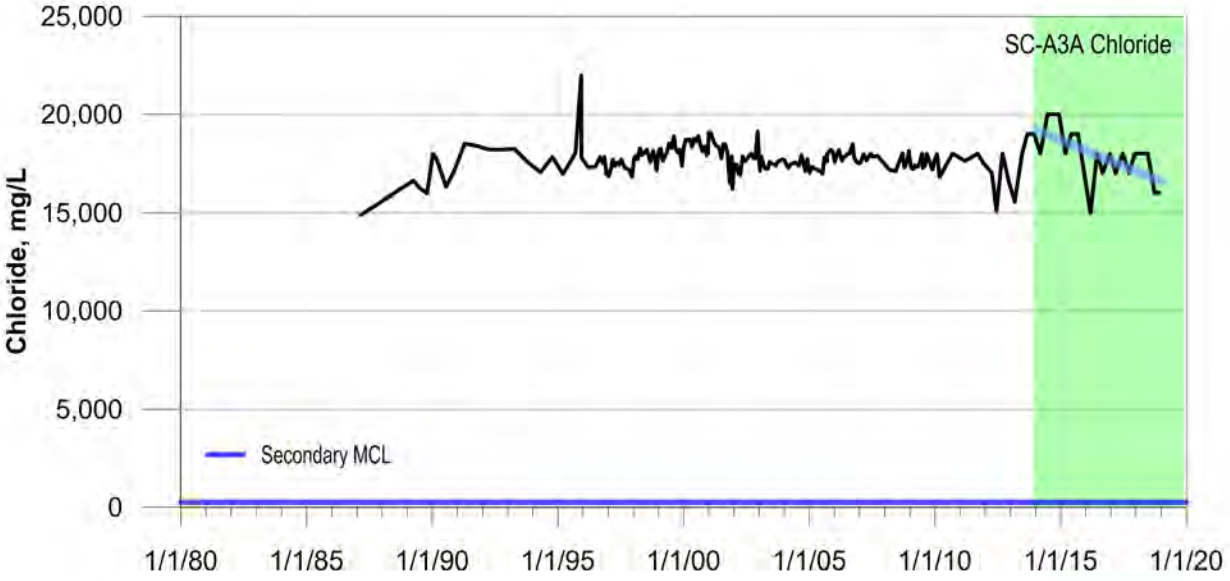


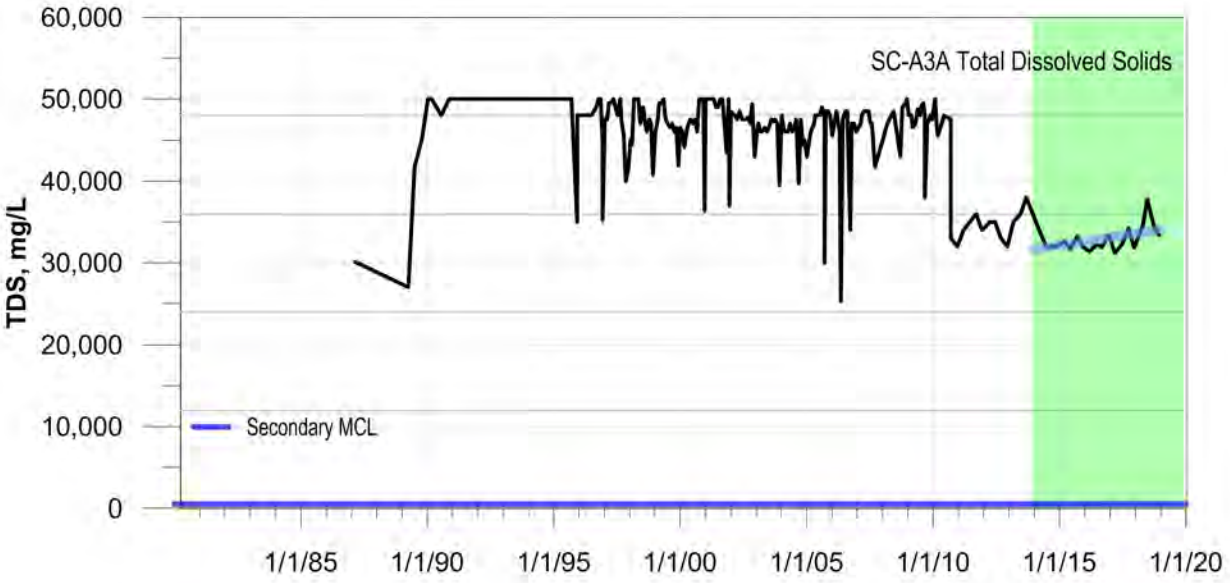
SqCWD Groundwater Emergency Declared



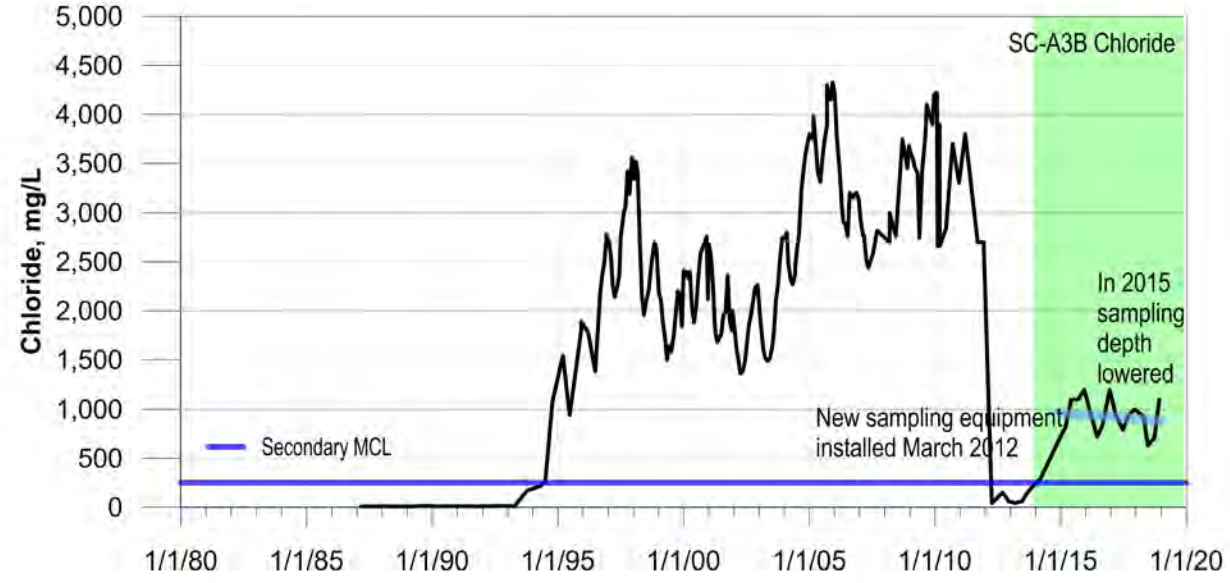


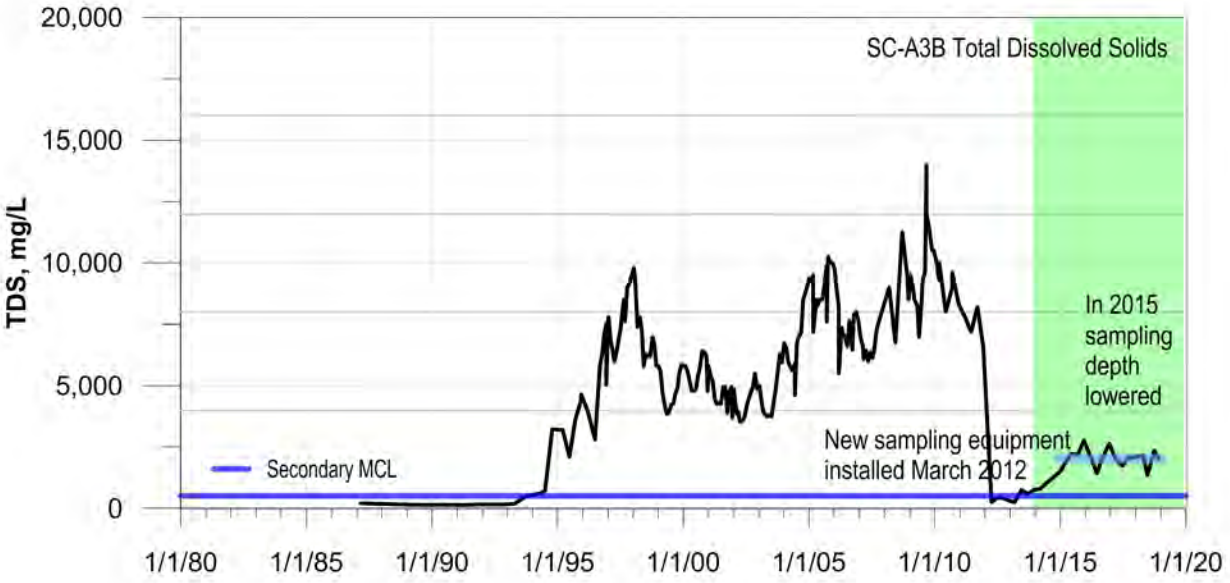
SqCWD Groundwater Emergency Declared

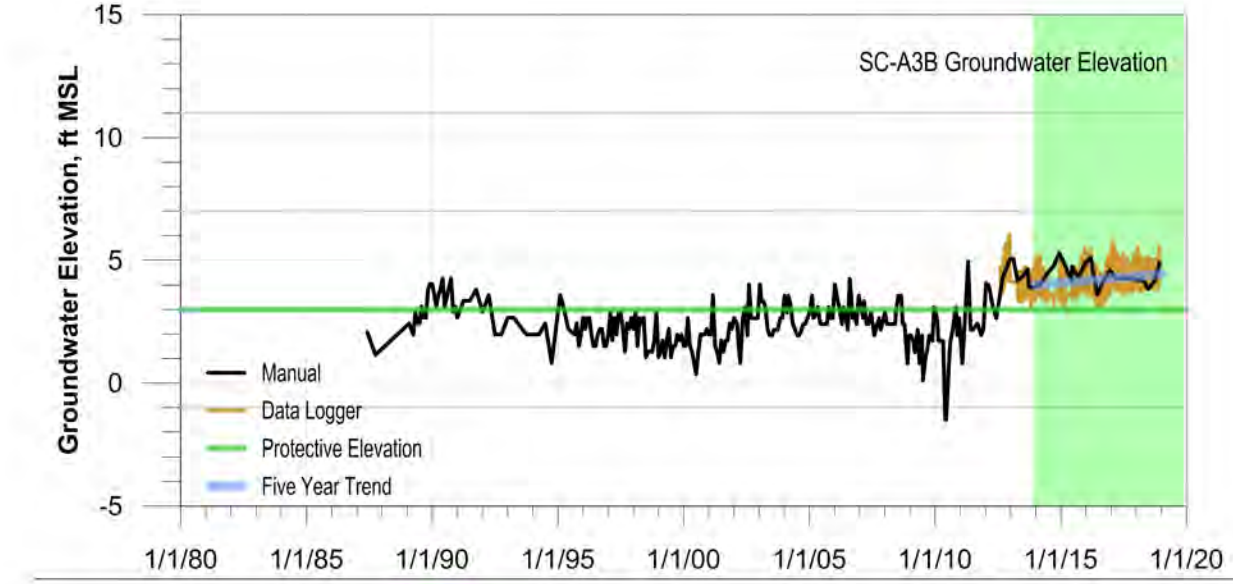




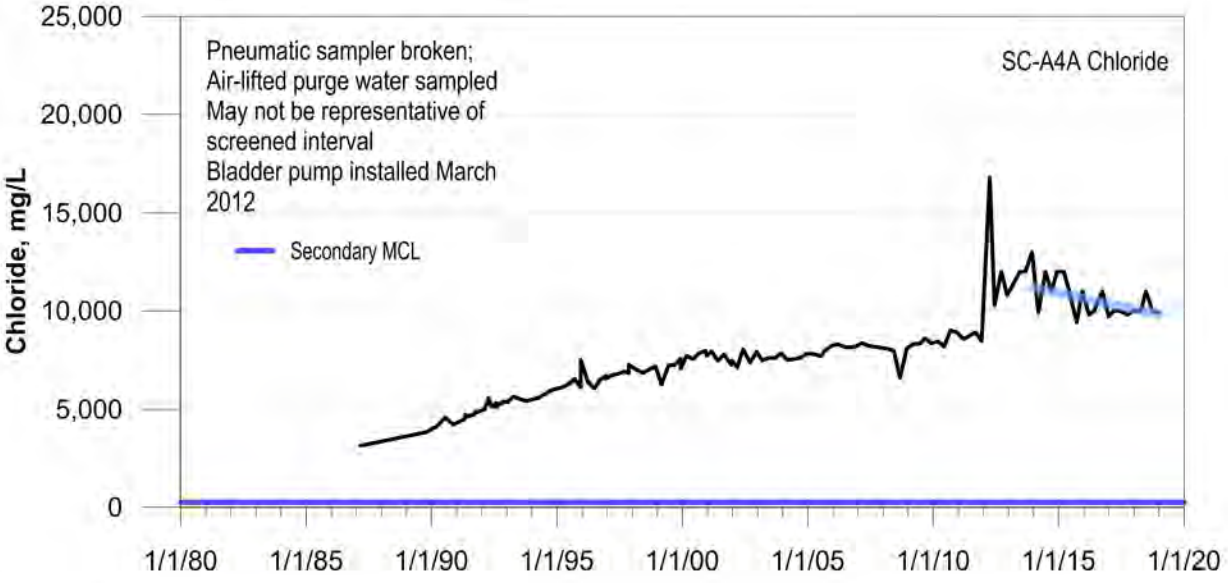
SqCWD Groundwater Emergency Declared

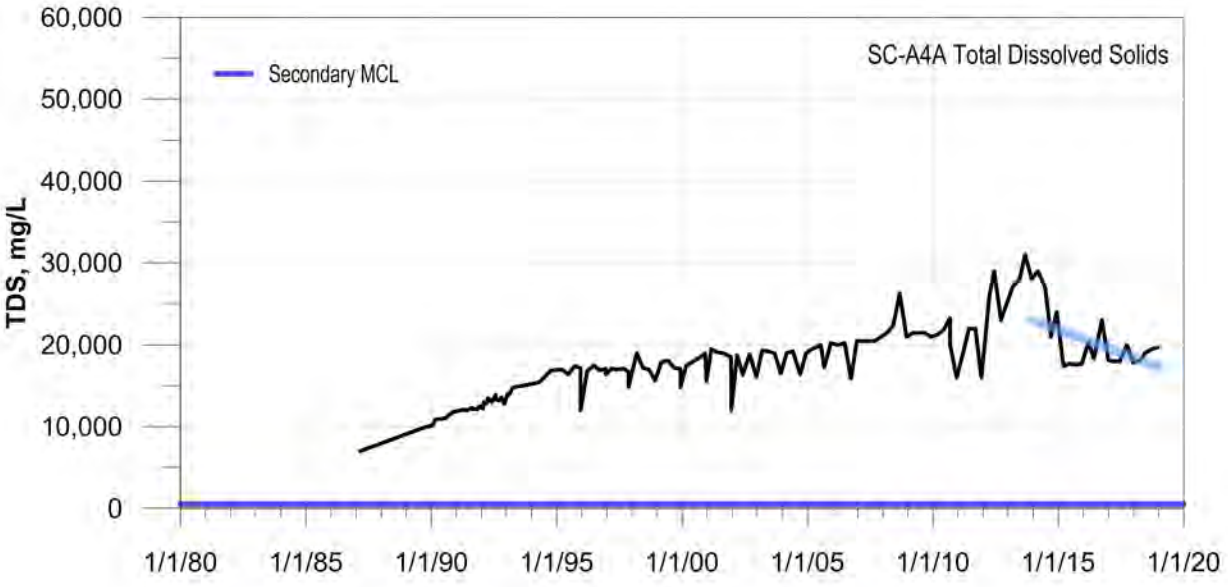






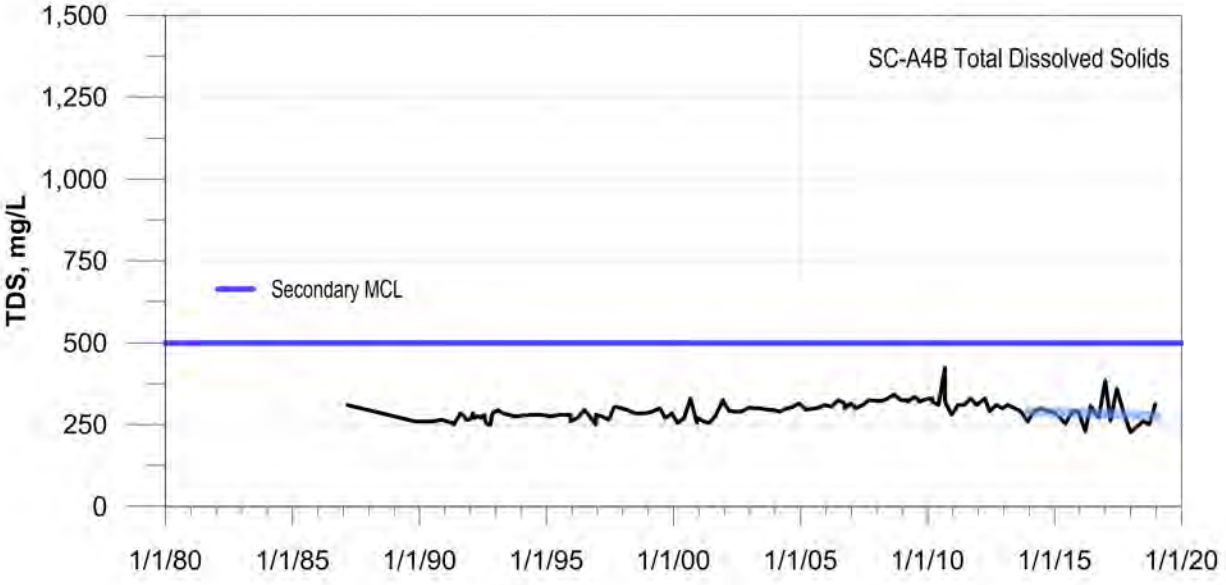
SqCWD Groundwater Emergency Declared

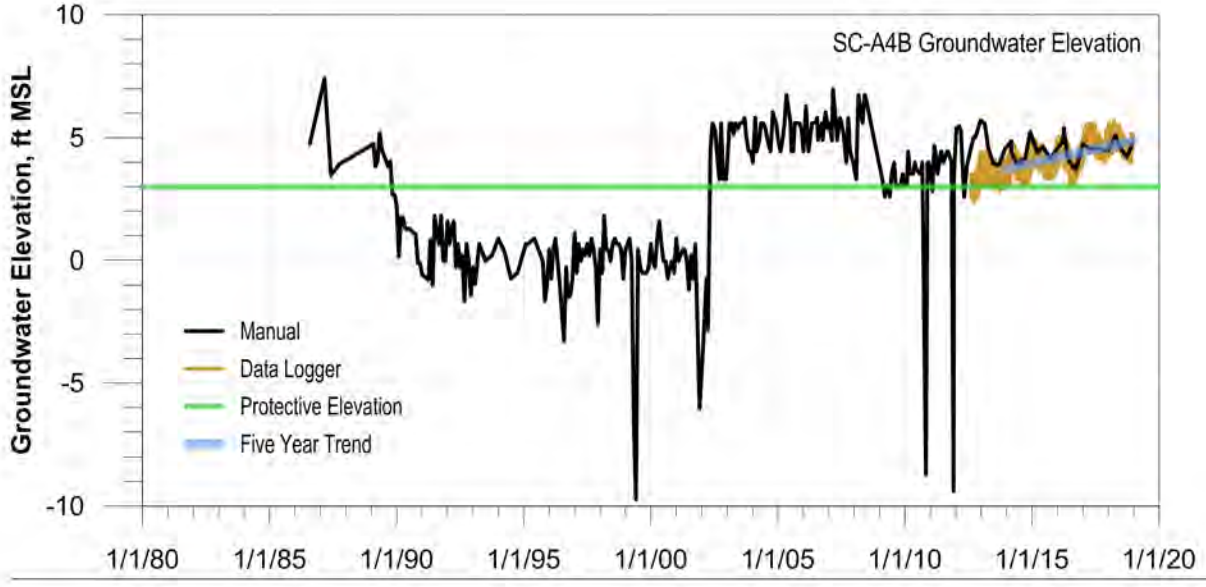

Pneumatic sampler broken;
Air-lifted purge water sampled
May not be representative of
screened interval
Bladder pump installed March
2012
SC-A4A Chloride
Secondary MCL
Chloride, mg/L
25,000
20,000
15,000
10,000
5,000
0
1/1/80
1/1/85
1/1/90
1/1/95
1/1/00
1/1/05
1/1/10
1/1/15
1/1/20


SC-A4A Total Dissolved Solids
Secondary MCL
TDS, mg/L
60,000
50,000
40,000
30,000
20,000
10,000
0
1/1/80
1/1/85
1/1/90
1/1/95
1/1/00
1/1/05
1/1/10
1/1/15
1/1/20


SC-A4A Groundwater Elevation
Manual
Data Logger
Protective Elevation
Five Year Trend
Groundwater Elevation, ft MSL
10
5
0
-5
-10
1/1/80
1/1/85
1/1/90
1/1/95
1/1/00
1/1/05
1/1/10
1/1/15
1/1/20


SC-A4B Chloride
Chloride, mg/L
500
450
400
350
300
250
200
150
100
50
0
Secondary MCL
1/1/80
1/1/85
1/1/90
1/1/95
1/1/00
1/1/05
1/1/10
1/1/15
1/1/20


SC-A4B Total Dissolved Solids
TDS, mg/L
1,500
1,250
1,000
750
500
250
0
Secondary MCL
1/1/80
1/1/85
1/1/90
1/1/95
1/1/00
1/1/05
1/1/10
1/1/15
1/1/20


SC-A4B Groundwater Elevation
Groundwater Elevation, ft MSL
10
5
0
-5
-10
Manual
Data Logger
Protective Elevation
Five Year Trend
1/1/80
1/1/85
1/1/90
1/1/95
1/1/00
1/1/05
1/1/10
1/1/15
1/1/20

May 16, 2019

MEMO TO THE MGA BOARD OF DIRECTORS

Subject: Agenda Item 6.1

Title: Treasurer's Report

Attachments:
1. Treasurer's Report for the Period Ending April 30, 2019

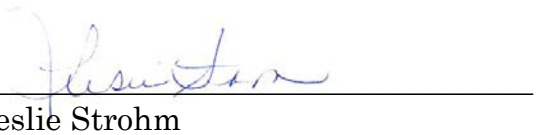
Attached is the Treasurer's Report for March and April 2019. The report contains three sections:

- Statement of Changes in Revenues, Expenses and Net Position
  - This interim financial statement provides information on the revenue that has been invoiced to the member agencies and the expenses that have been recorded as of April 30, 2019.
- Statement of Net Position
  - This interim financial statement details the cash balance at Wells Fargo Bank, the depository institution for the Santa Cruz Mid-County Groundwater Agency (MGA), the membership revenue still owed through accounts receivable, and the resulting net income as reported on the Statement of Changes in Revenues, Expenses and Net Position from the preceding page.
- Warrants
  - The list of warrants reflects all payments made by the MGA, either by check or electronic means, for the period covered by the Treasurer's Report.

The Treasurer's Report will be provided at each board meeting according to statutory requirement and to promote transparency of the agency's financial transactions.

Recommended Action:

1. Informational, no action necessary.

By 

Leslie Strohm
Treasurer
Santa Cruz Mid-County Groundwater Agency

Treasurer's Report

Santa Cruz Mid-County Groundwater Agency
For the period ended April 30, 2019

Prepared on
May 8, 2019

Statement of Revenues, Expenses and Changes in Net Position

March - April, 2019

	Total
INCOME	
Total Income	
GROSS PROFIT	**0.00**
EXPENSES	
5100 Groundwater Management Services	26,521.88
5315 Office Services	277.13
5340 Computer Services	180.00
5415 Outreach Services	493.60
5515 Audit & Accounting Services	1,050.00
Total Expenses	**28,522.61**
NET OPERATING INCOME	**-28,522.61**
NET INCOME	**$ -28,522.61**

Statement of Net Position

As of April 30, 2019

	Total
ASSETS	
Current Assets	
Bank Accounts	
1100 Wells Fargo Business Checking	1,013,747.54
Total Bank Accounts	**1,013,747.54**
Other Current Assets	
1400 Prepaid Expenses	1,398.93
Total Other Current Assets	**1,398.93**
Total Current Assets	**1,015,146.47**
TOTAL ASSETS	**$1,015,146.47**
LIABILITIES AND EQUITY	
Liabilities	
Total Liabilities	
Equity	
Retained Earnings	325,638.35
Net Income	689,508.12
Total Equity	**1,015,146.47**
TOTAL LIABILITIES AND EQUITY	**$1,015,146.47**

Warrants

March - April, 2019

Date	Transaction Type	Num	Name	Memo/Description	Clr	Amount
Bill Payment (Check)						
04/30/2019	Bill Payment (Check)	10146	Kearns & West Inc			-12,698.29
						-12,698.29
04/30/2019	Bill Payment (Check)	10147	Mickey's Cafe & Catering			-493.60
						-493.60
04/30/2019	Bill Payment (Check)	10148	Soquel Creek Water District (2)	0000260		-60.00
						-60.00
04/15/2019	Bill Payment (Check)	10143	Errol L Montgomery & Associates Inc			-2,885.00
						-2,885.00
04/15/2019	Bill Payment (Check)	10144	Fedak & Brown LLP		R	-1,050.00
						-1,050.00
04/15/2019	Bill Payment (Check)	10145	Soquel Creek Water District (2)	0000260	R	-120.00
						-120.00
04/10/2019	Bill Payment (Check)	10141	Kearns & West Inc		R	-13,823.59
						-13,823.59

Date	Transaction Type	Num	Name	Memo/Description	Clr	Amount
04/10/2019	Bill Payment (Check)	10142	Mickey's Cafe & Catering		R	-246.80
						-246.80
03/11/2019	Bill Payment (Check)	10140	Errol L Montgomery & Associates Inc		R	-62,228.99
						-62,228.99
Expense						
04/05/2019	Expense	US001Ekb2O	Google - Online Payments		R	-160.00
				Google Payment - G Suit		160.00
03/05/2019	Expense	US001Dq9Le	Google - Online Payments		R	-117.13
				Google Payment - G Suit		117.13

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Meeting Summary

Santa Cruz Mid-County Groundwater Sustainability Plan
Advisory Committee Meeting #16
February 27, 2019, 5:00 – 8:30 pm

This meeting was the sixteenth convening of the Santa Cruz Mid-County Groundwater Sustainability Planning (GSP) Advisory Committee. It took place on February 27, 2019 from 5:00 - 8:30 p.m. at the Simpkins Family Swim Center in Santa Cruz. This document summarizes key outcomes from Advisory Committee and staff discussions on the following topics: project updates; groundwater modeling results; and proposed draft sustainable management criteria for "surface water interaction." This document also provides an overview of public comment received. It is not intended to serve as a detailed transcript of the meeting.

Meeting Objectives

The primary objectives for the meeting were to:

- Discuss groundwater modeling results for various sustainability strategies, including:
  - Pure Water Soquel, enhanced for Santa Cruz Mid-County Groundwater Agency (MGA) Groundwater Sustainability Plan (GSP)
  - Preliminary combined projects
- Discuss draft proposed Sustainable Management Criteria for "Surface Water Interaction" Sustainability Indicator

Action Items

Key action items from the meeting include the following:

1. Staff to remind Advisory Committee of exact dates for upcoming and remaining Advisory Committee and joint MGA/Advisory Committee meetings.
2. Staff to consider options for convening a land use and water enrichment session and schedule it for some time in April.
3. In finalizing the definition of Significant & Unreasonable for the lowering of groundwater levels connected to surface water, staff to check with NOAA Fisheries regarding the necessity of the time period reference in the definition.
4. Surface Water Working Group to revisit analysis of temperature data relating to impacts on fish.

5. Kearns & West to revise and transmit the confirmed meeting summary for the January 23, 2019 Advisory Committee meeting for inclusion in the Mid-County Groundwater Agency's (MGA) Board meeting packet in March.

Meeting attendance

Committee members in attendance included:

1. John Bargetto, Agricultural Representative
2. David Baskin, City of Santa Cruz
3. Rich Casale, Small Water System Management
4. Keith Gudger, At-Large Representative
5. Bruce Jaffe, Soquel Creek Water District
6. Jon Kennedy, Private Well Representative
7. Jonathan Lear, At-Large Representative
8. Marco Romanini, Central Water District
9. Charlie Rous, At-Large Representative
10. Allyson Violante, County of Santa Cruz
11. Thomas Wyner for Cabrillo College, Institutional Representative

Committee members who were absent included:

1. Kate Anderton, Environmental Representative
2. Dana Katofsky McCarthy, Water Utility Rate Payer

Meeting Key Outcomes (linked to agenda items)

1. Introduction and Discussion of GSP Process Timeline and Project Updates

John Ricker, County of Santa Cruz, opened the meeting and welcomed participants. Mr. Ricker asked the GSP Advisory Committee members, MGA Executive Team, and the consultant support team around the room to introduce themselves. He also addressed members of the public in attendance and asked them for self-introductions.

Eric Poncelet, facilitator, reviewed the agenda and meeting objectives, and provided key updates to the project process for remaining five months of the GSP Advisory Committee process as reflected on the updated timeline. Additionally, Mr. Poncelet reported that staff will be planning an enrichment session on land use and water sometime in late March or early April.

Committee members made the following requests regarding the land use and water enrichment session:

- Invite a staff member from the County's planning department to present.

- Present on the relationship between water and permitting agencies and what happens if there's a conflict between the agencies. How does this tension get resolved and incorporated into GSP development?

With respect to the remaining GSP Advisory meetings, Committee members requested a reminder from staff on the exact dates for the upcoming Advisory meetings. Darcy Pruitt, Regional Water Management Foundation (RWMF), committed to sending out such a reminder.

2. Oral Communications (for items *not* on the agenda)

Mr. Poncelet, facilitator, invited members of the public to make comments on any GSP-related issues not on the agenda.

One participant thanked staff for their recent efforts in the GSP-related work in the Mid-County and Santa Margarita Basins, which has resulted in a good level of coordination between agencies and jurisdictions. The participant also indicated that she had filed a CEQA petition in pro per legal action against the Pure Water Soquel (PWS) project asserting issues with the draft environmental impact report (EIR). The CEQA petition names the MGA as a real party of interest.

3. Project Updates

Mr. Poncelet invited the following project updates:

- **February 11 GSP Modeling Enrichment Session**
  Ms. Pruitt reported that there was good participation for the February 11, 2019 GSP modeling enrichment session. There was positive feedback that it helped participants have a better understanding of the groundwater model. Committee members agreed that details covered during the session were helpful in understanding model inputs and resulting outcomes. Staff reported that the session recording is posted on the MGA website for everyone's reference.

- **Santa Margarita Basin Educational Meeting Series**
  Sierra Ryan, County of Santa Cruz, provided an update on the February 9, 2019 Santa Margarita educational session covering water budgets and how groundwater dependent ecosystems (GDE) are incorporated as users of the system. Ms. Ryan announced that the final session of the educational series in March will cover climate change scenarios and types of management actions, and will include some fact-checking exercises.

- **DWR Update**
  Amanda Peisch-Derby, Department of Water Resources (DWR), shared that DWR will be hosting a Groundwater Sustainability Agency (GSA) forum on March 21, 2019 from 10 am – 3:00 pm, at the Civic Center Galleria in Sacramento. She indicated that the intended audience includes all

stakeholders and is focused on outreach. She added that Ms. Ryan will be serving as a forum panelist.

4. Groundwater Modeling Results for Sustainability Strategies

In this segment, Cameron Tana, Montgomery & Associates, described the Pure Water Soquel (PWS) project, including design components and modeling for environmental review, and provided an evaluation of the potential for benefits to the Mid-County Groundwater Basin from the project. In the second part of this segment, Mr. Tana gave a preview of modeling that Montgomery and Associates will be doing simulating a combination of PWS and the City of Santa Cruz Aquifer Storage and Recovery (ASR) project. In the final portion of this segment, Mr. Tana discussed climate change scenario selection for the GSP.

Following Mr. Tana's presentation, Committee members discussed following key points with respect to the groundwater modeling results for PWS:

- Modeling shows that recharge needs to continue in order for there to be benefits against seawater intrusion.
- The causal relationship between climate scenarios and groundwater levels is minor relative to the effects of projects and management actions
- The model shows increased groundwater levels from Pure Water Soquel in some areas when there is increased pumping. The effect of recharge at the seawater intrusion prevention wells outweighs the effect of increased pumping.
- The fact that the model design accounts for different pumping distribution scenarios and does not have political boundaries is a positive result for managing seawater intrusion in the Purisima.
- The model shows that recharge levels at 1,500 AFY is maintaining sustainability for the Basin. As such, the model could be used to evaluate more pumping redistribution.
- The timeframe to set up, assess and run different modeling scenarios is about one month.
- Mr. Tana responded to a question about why model simulation results showed a drop in groundwater levels around Water Year 2020. Mr. Tana incorrectly described the drop as resulting from a simulated increase in groundwater demand and pumping. Total municipal pumping is not simulated to increase in this year. Instead, the simulation implements a pumping redistribution beginning in this year – three years prior to commencement of Pure Water Soquel in the simulation. This helps display the effect of pumping redistribution without recharge from Pure Water Soquel seawater intrusion prevention wells.

The Committee exchanged the following ideas with respect to the ASR preview and climate scenario selection for the GSP:

- With respect to simulation of climate change, the worst case scenario (primarily from droughts) is not currently being modeled for the City's ASR or the GSP. Staff should consider it going forward.
- In the climate change scenario selection process, the catalog climate approach takes into account many dry years to model for longer drought periods.
- With the infrastructure in place for modeling different projects, it would be useful to build in sensitivity analysis to determine the best climate change modeling for the GSP.
- Climate change approaches either provide estimates of potential evapotranspiration or estimates of temperature for the model to calculate potential evapotranspiration. . The Santa Cruz Mid-County Basin model calculates potential evapotranspiration and then actual evapotranspiration based on rainfall and soil moisture.

5. Public Comment

Mr. Poncelet, facilitator, invited members of the public to comment on Mr. Tana's presentation on groundwater modeling results on sustainable strategies, the Advisory Committee's reflections on the presentation, and any other Advisory Committee work.

One participant asked for further explanation on why PWS is not considering in-lieu recharge, water demand offset policies and the scientific basis for the 1500 AFY recharge threshold for the Soquel Creek Water District.

Another participant asked whether the energy demand associated with redistributing pumping was factored into the PWS modeling.

6. Proposed Draft Sustainable Management Criteria for "Surface Water Interaction" Sustainability Indicator

In this segment, Ms. Ryan reported on the outcomes of the January 30, 2019 surface water interaction working group meeting. Her report was followed by Mr. Tana's presentation on surface water connection to groundwater in the Mid-County Basin and staff's request for the Committee to provide initial input on proposed minimum thresholds and measurable objectives.

Key discussion points on the topic of surface water interaction sustainable management criteria included:

- The surface water interaction analysis is variable for different areas and basins. Conclusions for the Mid-County Basin should not be extrapolated for other basins (e.g., Santa Margarita).
- It is necessary to conduct monitoring at different locations and at different groundwater levels as a way to adaptively manage for GDEs or other species. Further, DWR regulations require that GSAs incorporate varying levels of monitoring to demonstrate and justify the use of the groundwater level proxy for surface water and groundwater interactions.
- Some Committee members suggested the following revised language for Significant & Unreasonable conditions: "*Lowering of groundwater levels adjacent to interconnected streams due to groundwater extraction that results in a significant decrease in depletion of stream baseflow*." [Omits timeframe.]
- The definition of significant and unreasonable (e.g., what constitutes a "significant decrease") can be qualitative, but the minimum threshold and measurable objective criteria must be quantitative.
- Staff should further analyze temperature data relating to fish survival.

7. Public Comment

During this final public comment session, Mr. Poncelet invited members of the public to provide comments on the Committee's discussion of the working group's work on surface water connection to groundwater in the Mid-County Basin, the preliminary sustainable management criteria for surface water interconnections, and on any other Advisory Committee work.

One participant noted a few areas for further investigation with respect to surface water interconnections, including well data showing similar conditions, correlation of streamflow to groundwater levels under dry conditions, the effect of evapotranspiration, reconciliation of data gaps, and how to monitor around private wells.

8. Confirm the January 23, 2019 Advisory Committee Meeting Summary

There were no comments on the January 23, 2019 Advisory Committee meeting summary, which was therefore considered confirmed for forwarding to the MGA Board.

9. Next Steps

In closing, Mr. Poncelet provided a recap of the GSP process timeline for March through July 2019, focusing on objectives for the March and April meetings, and discussed general next steps. He also confirmed that staff will be providing exact dates for all upcoming meetings, particularly the meetings dates that will be changed.

Committee members expressed concern that there may not be sufficient time to adequately address the topic of funding tools and the implementation plan in the remaining GSP Advisory Committee meetings.

Staff indicated that these topics will be introduced to frame the potential approaches but that the detailed evaluation of strategies is being deferred until there is more direction from the state related to fees that we anticipate is likely be coming over the next several years as a result of anticipated SGMA-related legal proceedings as SGMA is implemented across the state.

Executive Team members closed the meeting by thanking the attendees for their participation.

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Meeting Summary

Santa Cruz Mid-County Groundwater Sustainability Plan
Advisory Committee Meeting #17
March 27, 2019, 5:00 – 8:30 pm

This meeting was the seventeenth convening of the Santa Cruz Mid-County Groundwater Sustainability Plan (GSP) Advisory Committee. It took place on March 27, 2019 from 5:00 - 8:30 p.m. at the Simpkins Family Swim Center in Santa Cruz. This document summarizes key outcomes from Advisory Committee and staff discussions on the following topics: project updates; groundwater modeling results for sustainable strategies; staff proposals on sustainable management criteria for Seawater Intrusion (updated) and Groundwater Storage; MGA Board funding approach; and representative monitoring wells for all Sustainability Indicators. This document also provides an overview of public comment received. It is not intended to serve as a detailed transcript of the meeting.

Meeting Objectives

The primary objectives for the meeting were to:

- Discuss groundwater modeling results for various sustainability strategies, including for combined projects
- Discuss draft proposed Sustainable Management Criteria for "Groundwater Storage" Sustainability Indicator and updated Sustainable Management Criteria for "Seawater Intrusion" Sustainability Indicator
- Receive primer and share initial reflections on the topic of "who pays for what?"
- Review and confirm representative monitoring wells for each sustainability indicator

Action Items

Key action items from the meeting include the following:

1. Staff to provide the Advisory Committee with more details on the input process for the pertinent GSP sections before the July Santa Cruz Mid-County Groundwater Agency (MGA) Board meeting.

2. Staff to ensure inclusion of an item on the July MGA Board meeting agenda for the Advisory Committee to discuss their recommendations and deliberations on the pertinent GSP sections to the MGA Board.

3. Sierra Ryan, County of Santa Cruz, to post details of the April 18 Water Use Forecasting enrichment session on the MGA website.
4. Technical staff to confirm the Santa Cruz Aquifer and Storage Recovery (ASR) project recharge average.

Meeting attendance

Committee members in attendance included:

1. Kate Anderton, Environmental Representative
2. John Bargetto, Agricultural Representative
3. David Baskin, City of Santa Cruz
4. Keith Gudger, At-Large Representative
5. Bruce Jaffe, Soquel Creek Water District
6. Dana Katofsky McCarthy, Water Utility Rate Payer
7. Jon Kennedy, Private Well Representative
8. Jonathan Lear, At-Large Representative
9. Allyson Violante, County of Santa Cruz
10. Thomas Wyner for Cabrillo College, Institutional Representative

Committee members who were absent included:

1. Rich Casale, Small Water System Management
2. Marco Romanini, Central Water District
3. Charlie Rous, At-Large Representative

Meeting Key Outcomes (linked to agenda items)

1. Introduction and Discussion of GSP Process Timeline and Project Updates

Ralph Bracamonte, Central Water District, opened the meeting and welcomed participants. Mr. Bracamonte asked the GSP Advisory Committee members, MGA Executive Team, and the consultant support team to introduce themselves. He also addressed members of the public in attendance and asked them for self-introductions.

Eric Poncelet, facilitator, reviewed the agenda and meeting objectives, and provided key updates to the project process for the remaining four months of the GSP Advisory Committee process as reflected on the updated timeline.

Committee members requested clarification on how staff plans for the Committee to provide input on the pertinent sections of the GSP to the Mid-County Groundwater Agency (MGA) Board members and the plan for staff to address Committee GSP-related questions after the June meeting. Committee members offered the following suggestions to staff:

- Develop a consolidated document containing the Committee's GSP-related input on the Sustainable Management Criteria for the Sustainability Indicators for the Committee's reference.
- Agendize discussion of Committee's recommendations/deliberations for the July MGA Board meeting.

Staff indicated that the opportunity for the Committee to provide additional input to the pertinent GSP sections would come at the July MGA Board meeting, but that the review of the full GSP was outside of its scope. Staff also indicated that it would provide the Advisory Committee with more details on the input process for the pertinent GSP sections before the July MGA Board meeting.

2. Oral Communications (for items *not* on the agenda)

Mr. Poncelet, facilitator, invited members of the public to make comments on any GSP-related issues not on the agenda.

One participant announced that an upcoming meeting of the City of Santa Cruz Water Commission will review progress to date on the Water Supply Advisory Committee's (WSAC) recommendations will be held at the City of Santa Cruz, on April 1 at 7 pm. The participant also gave an update on the legal action against Soquel Creek Water District regarding issues related to approval of the Pure Water Soquel (PWS) project.

3. Project Updates

Mr. Poncelet invited the following project updates:

- **Upcoming GSP Advisory Committee meeting schedule**
  Darcy Pruitt, Regional Water Management Foundation (RWMF) provided updates to the upcoming Advisory Committee meeting schedule verbally and on a handout, emphasizing the following:

  - The May meeting will occur on May 16 as it is a joint meeting with the MGA Board.
  - The June meeting will occur earlier, on June 19 in order to accommodate Committee members who had conflicts with the regular 4th Wednesday schedule, since this is the last official Committee meeting.

- **March 21 2019 DWR GSA Forum**
  Ms. Ryan reported on the DWR-hosted GSA Forum at which she presented as a panelist on the topic of GSP-related stakeholder outreach and engagement. She indicated that the Forum was a

good opportunity for the GSAs in Basins to share information on their stakeholder engagement efforts.

- **Santa Margarita Groundwater Agency (SMGWA) Educational Series**
  Ms. Ryan also provided an update on the last of the Santa Margarita informational meetings, at which the deputy director from the State Water Resources Control Board presented the state perspective on issues related to GSPs (e.g., climate change scenarios, projects). Local representatives discussed climate change impacts and possible projects that could be implemented in the Santa Margarita Basin. She added that all of the meetings in the series were recorded and available for viewing on the SMGWA website.

- **April 8 2019 Surface Water Working Group Meeting and Updated Approach for Depletion of Interconnected Surface Water**
  Ms. Ryan explained that as surface water is a complex sustainability indicator, the working group is still working on finalizing the sustainable management criteria proposal and will be meeting again on April 8 to discuss it. Georgina King, Montgomery & Associates provided a brief update on the approach to linking groundwater elevation proxy with depletion of interconnected surface water.

- **April 18 2019 Enrichment Session: Forecasting Water Use from Land Use and Population**
  Ms. Ryan announced that the enrichment session on the topic of forecasting water use from land use and population will occur on April 18 and she will post details of the session on the MGA website shortly.

4. **Groundwater Modeling Results for Sustainability Strategies**
   Cameron Tana, Montgomery & Associates, discussed modeling results for a combination of projects, including Pure Water Soquel (PWS) and City ASR. He also described possible future iterations of the model, which would include reconfigured ASR, in-lieu compatible with PWS, redistribution of PWS pumping, and evaluating City ASR and combined projects using the Catalog Climate approach.

   Following Mr. Tana's presentation, Committee members discussed the following key points with respect to the combined project groundwater modeling results:

   - The strategy behind the PWS project is to conduct recharge in specific locations to protect groundwater levels in those areas, and have the benefits ultimately distributed to a larger area.

- Currently, for City ASR pilot project, the only well used is the City Beltz 12 well. More reconfigured locations are being considered, including use of existing infrastructure, some of which will need rehabilitation before use.
- In structuring the process for the reconfigured City ASR that would meet the goal of addressing the City's water supply shortage, the technical team needs to determine factors such as the availability of water supply, capacity of wells, demand on particular wells, and other operational implications.
- Another key component of the projects is collaboration among all of the pumpers in the Basin, especially between the City and water districts to achieve sustainability.
- The technical team will confirm the City ASR average water injection amount, the current range of which is up to 1900 AFY.

5. Public Comment

Mr. Poncelet, facilitator, invited members of the public to comment on Mr. Tana's presentation on groundwater modeling results on sustainable strategies, the Advisory Committee's reflections on the presentation, and any other Advisory Committee work.

One participant asked staff to consider the effects of accumulation of salt from seawater inflows and outflows into the aquifers.

Another participant offered a number of comments on Mr. Tana's presentation and observed that recharge has primarily been used to increase surface streamflow, not to raise groundwater levels. The participant stated that this effect from the City ASR project reinforces that PWS is not needed.

A participant offered endorsement of the previous participant's comments and asked staff to consider incorporating the Lochquifer project.

6. Proposed Draft Sustainable Management Criteria for "Seawater Intrusion" and "Groundwater Storage" Sustainability Indicators

Georgina King, Montgomery & Associates, presented a staff proposal on updated Sustainability Management Criteria for the Seawater Intrusion Sustainability Indicator. This proposal contained updates to the proposal originally presented in May 2018 and included the addition of Representative Monitoring Wells for the Purisima AA/Tu units and their associated minimum thresholds, plus Measurable Objectives previously discussed in September 2018.

Ms. King asked the Committee for feedback on the staff recommendation to use five-year (versus 10-year previously proposed) average groundwater elevations relative to protective groundwater elevations in coastal monitoring wells for any coastal monitoring well by which undesirable results would be evaluated.

Key input from the Committee on the five-year average for groundwater elevations include:

- If any average is to be used in evaluating undesirable results for Seawater Intrusion, the following needs to be addressed:
    - The problem needs to be clearly stated.
    - Provide an estimate of how much Seawater Intrusion is being underestimated if it falls below the average and what the impact on sustainability will be.

Ms. King also requested Committee feedback on staff's proposal for the Measurable Objective isocontour to be the same as the Minimum Threshold isocontour, but reduced concentration from 250 mg/L (Minimum Threshold) to 100 mg/L (Measurable Objective).

Committee members provided feedback on this proposal as follows:

- The 250 mg/L chloride minimum threshold standard is too high; 150 mg/l would be a more reasonable level. This level needs to be monitored very closely.
- As there are areas (e.g., Moran Lake) that register higher chloride levels than 100 mg/L, it is necessary to explain these higher levels in the GSP.
- Include levels in the GSP that would ensure against undesirable results, requiring State intervention.

In the second part of this agenda item, Ms. King presented a proposal on Groundwater Storage and requested that the Committee provide feedback on proposed theoretical approach to Sustainability Management Criteria, and representative monitoring points used to measure the Minimum Threshold and Measurable Objective metrics.

Key discussion points on Ms. King's proposal on Groundwater Storage included:

- With respect to Significant and Unreasonable Conditions, Committee members suggested that staff should consider water budget figures and changing the language regarding the volume of water "escaped" or "extracted" rather than "pumped."
- Regarding the proposed Undesirable Results, Committee members requested that staff consider all variables to come up with the most efficient way to maximize sustainability and keep in mind other Undesirable Results the basin would want to avoid.
- On Minimum Threshold, the Committee generally supported using the sustainable yield, but also recommended dividing up the data by aquifer and doing more than the regulations require.
- With respect to the proposed Measurable Objective, the Committee discussed the following:
    - The maximum pumping number can be recalculated and varied every five years, if needed.

- The Measurable Objective levels are not enforceable, whereas the Minimum Threshold levels are enforceable. Sustainability should still be evaluated based on the Measurable Objective, taking into account the previous five years.

- Regarding the Representative Monitoring Points, staff clarified that leakage is included in the Sustainable Yield figure.

7. Santa Cruz MGA Ongoing Funding

The MGA will require ongoing funding to implement its Groundwater Sustainability Plan once it has been accepted by the State. Ms. Ryan presented on considerations and approaches on the potential Santa Cruz MGA ongoing funding and next steps. She requested initial reflections from the Committee.

The Committee's discussion on the funding considerations focused on the following key points:

- There are pros and cons to metering and charging a fee to *de minimus* pumpers. The Board should continue to monitor and analyze evaluation methods.
- The MGA Board is exploring metering for large volume water users.
- The rate of development in rural parts of the basin very minimal currently. Therefore, trend data for well installations has not been assessed.

8. Representative Monitoring Wells for Each Sustainability Indicator

Ms. King presented on the representative monitoring wells proposed for each sustainability indicator, including a discussion of data gaps for each indicator. The Committee requested that staff share this information again once the analysis for the Sustainability Indicators are finalized. Ms. King indicated that information on representative monitoring wells will be included in the appropriate chapter of the GSP.

9. Public Comment

During this final public comment session, Mr. Poncelet invited members of the public to provide comments on the Committee's discussion of Seawater Intrusion and Groundwater Storage technical staff proposals, the proposed funding approach, representative monitoring wells, and any other aspect of Advisory Committee work.

One participant provided general comments on various sections of the presentation under agenda items 7 and 8 and encouraged the MGA staff to hold public meetings regarding its decision to assess fees under Proposition 26 and Proposition 218.

Another participant encouraged staff to consider projects other than ASR and PWS for the Basin.

10. Confirm the February 27, 2019 Advisory Committee Meeting Summary

This item was deferred to the next meeting on April 24, 2019.

11. Next Steps

In closing, Mr. Poncelet provided a recap of the GSP process timeline for April through July 2019, focusing on objectives for the April enrichment session, the April, May and June meetings.

Executive Team members closed the meeting by thanking the attendees for their participation.

May 16, 2019

MEMO TO THE MGA BOARD OF DIRECTORS AND GSP ADVISORY COMMITTEE

Subject: Agenda Item 9.1

Title: Overview of the GSP Advisory Committee's Charge and Summary of the Committee's Process and Status of Work to Date

Attachments:

1. Charter, Santa Cruz Mid-County Groundwater Sustainability Plan Advisory Committee, March 28, 2018

In the spring of 2017, the Mid-County Groundwater Agency (MGA) Board took action to initiate the development of the Groundwater Sustainability Plan required to be submitted to the State by the end of January 2020. As part of those actions, the Board decided to create a Groundwater Sustainability Plan Advisory Committee (Advisory Committee or Committee) to be composed of several representatives of the MGA Board and basin stakeholders representing additional beneficial users of the Basin's groundwater resources.

The Board created a Board Sub-Committee to conduct an open recruitment process for Advisory Committee members and the Sub-Committee received and screened applications, interviewed candidates and recommended Committee membership to the full Board for appointment. Committee members were appointed in September 2017 and participated in an orientation process during the fall of that year.

In parallel with the orientation process that took place in the fall of 2017, the Committee met twice to develop its Charter. The Committee's final Charter is included as Attachment 1.

Included in the Charter is the Committee's Charge (see Section B-1, page 3 of Attachment 1) as provided by the MGA Board. The Charge is excerpted below:

> *The Groundwater Sustainability Plan Advisory Committee will provide guidance to staff and the Santa Cruz MGA Board for the creation of the Groundwater Sustainability Plan. The Committee will analyze and provide recommendations to the MGA Board on key policy issues that will form the Plan. The Committee's final presentation to the MGA Board will take place* no later than *the MGA's July 2019 Board Meeting.*
>
> *Committee members will represent diverse interest groups within the Basin. They will deliberate based on scientific data to understand current and projected basin conditions. The Committee will work collaboratively in an open and public process to ensure community concerns are addressed within the Plan.*

The Committee will recommend strategies to the MGA Board to achieve a sustainable groundwater basin by 2040. Responsibilities include:

- *Evaluate scientific information and recommendations from staff on the impacts to the Basin, and assess various management approaches to reach sustainability,*
- *Consider the effect of changing climate and sea level on groundwater conditions,*
- *Establish objectives and thresholds for State mandated sustainability indicators,*
- *Analyze options and recommend supplemental water supply alternatives to meet projected demand,*
- *Promote public education about Plan decisions and the Basin's sustainability, and*
- *Recommend approaches to funding projects and allocation of project costs.*

The Advisory Committee will be tasked to work with staff and consultants to support development of the Plan. They will provide the MGA Board with recommendations on how to address key policy issues required by the State's legal mandate. The Committee will make periodic reports to the MGA Board for input and feedback. They will report on key milestones in the development of the Plan, including: groundwater pumping impacts, key alternatives to reach groundwater sustainability, thresholds and measurable objectives for each sustainability indicator, possible program funding strategies, and recommendations for Plan implementation.

Other topics covered in the Committee's Charter include an explicit description of the method for Determining Levels of Support and Committee Recommendations (see Section E on page 7 of the attachment).

Beginning in January 2018, the Committee has met monthly to receive briefings and provide feedback and has used an iterative process in its work. The graphic below

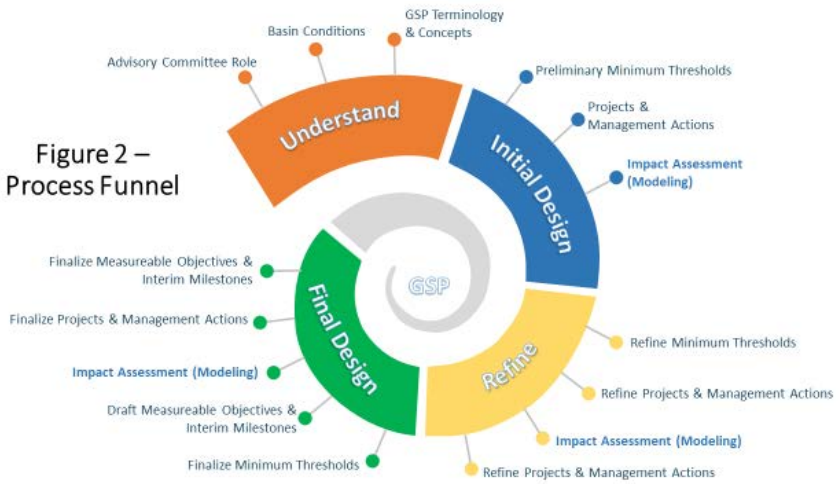


Figure 2 – Process Funnel

was developed to describe the iterative process the Committee used, and it very accurately reflects the learning, testing, refining, and coming to conclusion process that Committee members (and human beings, for that matter) have gone through and are going through as they have done their work.

In the early months of the Committee process, Montgomery & Associates, the technical consultant for the Groundwater Sustainability Plan, provided detailed briefings about each of the Sustainability Indicators and worked with the Committee to identify initial undesirable results, and minimum thresholds. These initial results were used as targets for the MGA groundwater model. Over much of the last year, Committee members have become adept at receiving and engaging with results of groundwater modeling analyses, and have worked together to understand the implications of the initial ideas about the minimum thresholds and provide feedback to Montgomery & Associates for subsequent rounds of modeling and analysis.

The Committee's work has been heavily focused on identifying undesirable results, minimum thresholds, and measurable objectives for the five Sustainability Indicators[1] that must be addressed in the plan. These indicators include the following:

1. Significant and Unreasonable Reductions of Groundwater Storage
2. Chronic Lowering of Groundwater Levels
3. Significant and Unreasonable Degradation of Water Quality
4. Significant and Unreasonable Seawater Intrusion
5. Depletion of Interconnected Surface Waters

Not surprisingly, the Committee's work has focused on the Seawater Intrusion Sustainability Indicator. While all of the Sustainability Indicators have been evaluated and undesirable results, minimum threshold and measurable objectives identified, the key criterion, the one that drives decision making in the basin is Seawater Intrusion. All the analyses indicate that if protective groundwater elevations at the coast, as measured at an existing, robust set of coastal monitoring wells, are maintained, seawater intrusion will be held at bay. The challenge then is how to plan for and operate the basin in a manner that meets both the protective groundwater elevations and meets the needs of the Basin's beneficial users.

Beginning in the fall of 2018 and continuing to date, the Committee began to receive and provide feedback on predictive groundwater modeling results that considered the implication of various future projects and management actions on the groundwater basin. Modeling looked at management actions such as moving pumping inland, and

[1] Note: the Subsidence Sustainability Indicator has been determined not to be relevant in the Santa Cruz Mid-County Basin and after initial analysis has not been pursued.

reducing pumping. Projects that have been modeled include the Pure Water Soquel Project and the City of Santa Cruz's surface water augmentation through passive or active recharge (in-lieu recharge or aquifer storage and recovery, respectively) of the Mid-County Basin with available surface water, typically during the wet season.

The purpose of modeling projects and management actions is to evaluate how these actions impact the basin and help to achieve basin sustainability, particularly in terms of impacts on the groundwater elevations at the coast. Groundwater elevations at the coast are important because these levels are being used as a one part of the minimum threshold for the Seawater Intrusion Sustainability Criteria. Groundwater modeling has been a critical tool to support the iterative process the Committee has been using, and the Montgomery and Associates staff have been doing an excellent job preparing and presenting groundwater modeling analyses to the Committee and facilitating the Committee's review and feedback on those analyses.

As of its April 2019 meeting, the Committee has received and reviewed information related to each of the five applicable Sustainability Indicators, including undesirable results, minimum thresholds, and measurable objectives. In addition the Committee has worked on an overall Sustainability Goal for the Basin. At the Board's May 16, 2019 meeting the plan is for the Committee's work to date on these two topics to be shared with the Board and for there to be feedback from the Board and the community on that work. At the Committee's final scheduled meeting on June 19, 2019, the Committee will work to incorporate that feedback into the planning elements it has been charged to provide advice to the Board on.

Recommended Action: Informational only, no action required.

By _____

Rosemary Menard, Director
City of Santa Cruz Water Department

SANTA CRUZ MID-COUNTY GROUNDWATER AGENCY
Groundwater is a vital resource, together let's protect it.
5180 Soquel Drive • Soquel, CA 95073 • (831) 454-3133 • midcountygroundwater.org

Charter

Santa Cruz Mid-County Groundwater Sustainability Plan Advisory Committee

Amended by the Advisory Committee: March 28, 2018

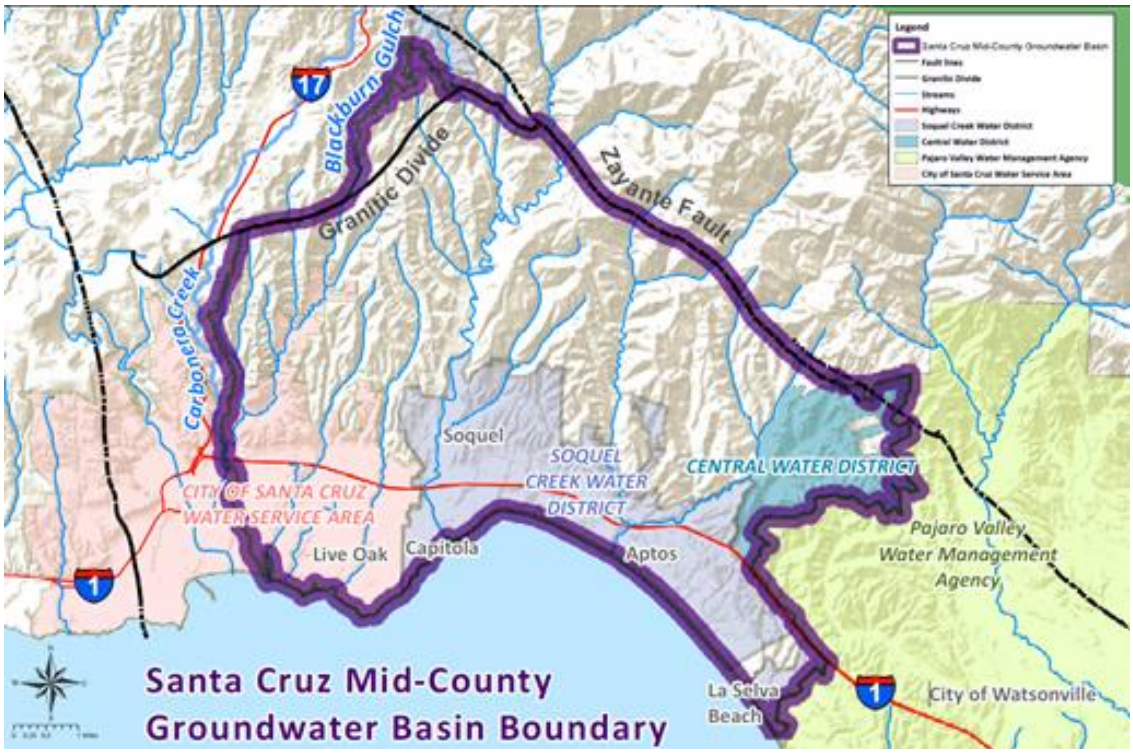
This Charter outlines the charge and operating protocols for the Santa Cruz Mid-County Groundwater Sustainability Plan (GSP) Advisory Committee (Advisory Committee). The purpose of this Charter is to clarify the roles and responsibilities of the Advisory Committee during the GSP process. In this GSP process, the Charter is being used to create common expectations about how the Committee will work together to foster and reinforce constructive interaction throughout their deliberations. Its intent is to emphasize clear communication, trust building, respect for divergent views, creative thinking, the pursuit of mutual gains, and use of best available information. The Advisory Committee can reconsider and revise this Charter if it appears not to serve the Advisory Committee process.

Outline

A. Introduction

1. **Problem Statement – from the Santa Cruz Mid-County Groundwater Agency** (adopted text in italics)

Our *primary source of drinking water in the Mid-County Basin (see map below) is groundwater. Our Basin has been in overdraft for over 30 years. Lowered groundwater levels have allowed seawater intrusion and pose the threat of more widespread saltwater contamination if left unabated. Local streams are losing water flow, which adversely impacts aquatic ecosystems. We need to ensure safe, reliable, and sufficient water resources to support our community and the natural environment.*



2. Background

California's Sustainable Groundwater Management Act (SGMA) became law on January 1, 2015. SGMA required the Department of Water Resources (DWR) to designate groundwater basins into High, Medium, Low and Very Low priority classifications. DWR's Basin classifications are based on a variety of criteria, including the local population's dependence on groundwater and local groundwater levels. All basins classified as medium and high priority must prepare a Groundwater Sustainability Plan (GSP) by 2022. High priority basins that are also classified in critical overdraft must complete their GSPs by January 31, 2020. GSPs will replace groundwater management plans that were required under AB3030. Groundwater Management Plans had some of the features of a GSP, but did not include State mandated sustainability indicators or mandatory deadlines to reach sustainable groundwater management goals. In contrast, SGMA requires medium and high priority basins to make measurable progress toward sustainability, to report that progress annually, and to achieve ongoing sustainability. Basins in critical overdraft must achieve sustainability by 2040. The Santa Cruz Mid-County Groundwater Basin is a high priority basin in critical overdraft.

During the work of the Soquel-Aptos Groundwater Management Committee's Groundwater Sustainability Agency Formation Subcommittee (GSA Formation Subcommittee), the Subcommittee considered several possible approaches to meeting the SGMA's requirement for broad stakeholder engagement in the development and implementation of GSPs.

The agencies that formed the Santa Cruz Mid-County Groundwater Agency (MGA) Board purposefully included three positions on the Board as a first step to meeting the SGMA's requirements for stakeholder involvement. However, the GSA Formation Subcommittee recognized that even with those Board slots, it would be desirable to expand the engagement of stakeholders in the GSP development process.

Under a grant provided by the State Water Resources Control Board, resources from the California State University and Sacramento's Center for Collaborative Policy were made available to the SAGMC to create a Community Engagement Plan. As part of the GSA Formation Subcommittee's process, it considered a range of options of broadening engagement of stakeholders in the development of the GSP. The recommendation included in the Community Engagement Plan was to create an advisory committee with expanded representation of key interests as well as MGA Board members. This committee would be tasked with working with staff and consultants to develop the Groundwater Sustainability Plan (GSP) and provide the Board with recommendations on how to address key policy issues that will need to be covered by the plan.

After considering the range of relevant stakeholders and interests that it would be desirable to include in a committee to advise the Board on the GSP, the MGA Working Group recommended that the Board create a committee representing the following interests: MGA Member Agencies, MGA Board Member Private Well Owners Representative, Institutional Users, Agricultural Users, Business Interests, Environmental Interests, Small Water System Management, Water Utility Rate Payers, and Representatives of the Community At Large. These particular interests were chosen for inclusion in the GSP Advisory Committee by the MGA Working Group because they cover the key user groups and interests. Tribal and state or federal fish and wildlife agencies were not included because the MGA Working Group provided for their involvement on an as needed basis through the use of short term working groups that would operate during the planning process.

As a committee that is advisory to the MGA Board, the GSP Advisory Committee is subject to the (State of California) Brown Act (see additional details below).

3. Groundwater Sustainability Plans

Groundwater sustainability plans contain, among other things, the following information: a description of the plan area, a description of current and historical groundwater conditions in the basin, a descriptive hydrogeologic conceptual model of the basin, a water budget for the basin, a description of management areas, an articulation of sustainable management criteria and a sustainability goal, identification of undesirable results, a description of minimum thresholds, identification of measurable objectives to achieve the sustainability goal for the basin within 20 years of plan implementation, and description of a monitoring network.

B. Charge and Responsibilities

1. Charge to the Advisory Committee from the MGA (adopted text in italics)

The Groundwater Sustainability Plan Advisory Committee will provide guidance to staff and the Santa Cruz MGA Board for the creation of the Groundwater Sustainability Plan. The Committee will analyze and provide recommendations to the MGA Board on key policy issues that will form the Plan. The Committee's final presentation to the MGA Board will take place no later than *the MGA's July 2019 Board Meeting.*

Committee members will represent diverse interest groups within the Basin. They will deliberate based on scientific data to understand current and projected basin conditions. The Committee will work collaboratively in an open and public process to ensure community concerns are addressed within the Plan.

The Committee will recommend strategies to the MGA Board to achieve a sustainable groundwater basin by 2040. Responsibilities include:

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The Advisory Committee will be tasked to work with staff and consultants to support development of the Plan. They will provide the MGA Board with recommendations on how to address key policy issues required by the State's legal mandate. The Committee will make periodic reports to the MGA Board for input and feedback. They will report on key milestones in the development of the Plan, including: groundwater pumping impacts, key alternatives to reach groundwater sustainability, thresholds and measurable objectives for each sustainability indicator, possible program funding strategies, and recommendations for Plan implementation.

2. Additional Objectives and Responsibilities

The ultimate objective of the Advisory Committee is to contribute to the development of a GSP that satisfies the requirements of SGMA, that can be broadly supported by diverse stakeholder communities in the Mid-County Basin, and that can be successfully implemented.

Additional Advisory Committee responsibilities include:

- **Policy questions:** As part of their deliberations, Advisory Committee members will address policy questions associated with GSP development. Support staff will help in identifying these questions for Advisory Committee consideration and deliberation.
- **Interest-based discussions**. Advisory Committee members will be willing to express fundamental interests (rather than fixed positions)[1] and to clearly convey the interests of one or more constituent groups.
- **Collaborative Approach**. Advisory Committee members will be willing to work collaboratively with each other, seeking to integrate the interests of a broad range of constituencies.
- **Checking back with constituencies**. Advisory Committee members have been recruited based upon their ability to ably represent diverse interests within the Basin. Advisory Committee members are encouraged to coordinate with interested constituents as appropriate throughout the GSP process to bring their views into Advisory Committee discussions. Staff are available to support these coordination efforts as needed.
- **Report back to MGA.** Advisory Committee members may be asked to participate in MGA meetings through, for example, reports to the MGA at its board meetings, periodic joint-study sessions, and issue specific sub-committee meetings. Advisory Committee members

[1] A "position" is a particular stance taken by a party—a preferred solution to an issue. "Interests" are the intangible motivations (fundamental needs, desires, concerns) underlying the preferred solution.

will make every effort to participate in these meetings when requested. Individual presenters to the MGA will be identified by the Advisory Committee as a whole when presentations are warranted.

- **Commitment to the Process**. Advisory Committee members will be committed to achieving all elements of their charge as described above.

C. Membership and Participants

1. Committee Composition

The Advisory Committee was appointed by the MGA to represent a diversity of interests and expertise. The Committee consists of the following members (*=MGA Board representatives):

- Kate Anderton – Environmental Representative
- John Bargetto – Agricultural Representative
- *David Green Baskin – City of Santa Cruz
- Rich Casale - Small Water System Management
- Keith Gudger – At-Large Representative
- *Bruce Jaffe – Soquel Creek Water District
- Dana Katofsky McCarthy - Water Utility Rate Payer
- *Jon Kennedy - Private Well Representative
- Jonathan Lear - At-Large Representative
- *Allyson Violante – County of Santa Cruz
- Douglas P. Ley – Business Representative
- *Marco Romanini – Central Water District
- Charlie Rous - At-Large Representative
- Thomas Wyner for Cabrillo College – Institutional Representative

Committee members are expected to attend all meetings (to the extent feasible). There are no alternate members.

2. Committee Member Additions and Withdrawal

It is not anticipated that new members will be added to the Advisory Committee unless to replace another Committee member.

Advisory Committee members have made the commitment to participate for the duration of the groundwater sustainability planning process. In the event where a member must withdraw from the Advisory Committee, he or she may do so by providing a letter of resignation to the MGA Board Chair, with copies to the facilitators to be distributed to the other members. At that point, the MGA may elect to replace the Committee member to ensure balanced interest representation on the Committee.

If an Advisory Committee member consistently deviates from the operating protocols and ground rules established in this Charter and agreed to by all, that member will meet with the facilitation team and the Executive Team to discuss the transgressions and steps necessary to rectify them. If the behavior does not improve, the matter will be brought to the MGA Board.

D. Meeting Formats and Sub Groups

1. Advisory Committee meetings

The full Advisory Committee will meet twice during the fall of 2017 and then monthly between January 2018 and July 2019. During 2018-2019, Advisory Committee meetings will take place once a month, on a regular basis. The meeting times and locations will be posted on the MGA calendar of events and the Advisory Committee page on the MGA website. All Advisory Committee meetings will be open to the public.

A majority of Committee members must be present to hold a meeting. Committee members who are not able to attend a meeting will inform project staff and facilitators in advance.

Membership on the Committee was designed to provide broad representation of the various interests that need to be considered in the planning process. In order to maximize the potential for all members to participate actively, fully, and equally in the process, Advisory Committee meetings will be organized and run by the Facilitation Team rather than a Committee chair/vice chair. This approach optimizes the opportunity for full participation by all Committee members in the group's deliberations.

As part of their ongoing work, the Advisory Committee will periodically take stock of the Committee's progress and discuss how best to achieve its charge and to stay on schedule. These discussions will take place either in regularly scheduled Advisory Committee meetings or in targeted working group meetings (see below) as appropriate.

2. Issue Area Working Groups

As needed, the Advisory Committee can create ad hoc working groups to address particular issue areas to help drive their work forward. Working groups will have specific, bounded charges and work products; they may make recommendations to the Advisory Committee. They will explore and research scientific, technical and policy issues, and will bring their work products back to the full Advisory Committee for action.

Working groups will not contain a majority of Advisory Committee members and are therefore not subject to the Brown Act. Within reason, the Advisory Committee can invite non Advisory Committee members to participate in these working group meetings. When deciding to convene a specific working group, Advisory Committee members will discuss and recommend invited participants to the full Advisory Committee for approval. When needed, the Advisory Committee may seek assistance from MGA board and staff to identify the people most knowledgeable to participate in specific issue area working groups. Working groups will not speak on behalf of the full Advisory Committee. Ad hoc working groups may be facilitated as needed.

3. Brown Act Requirements

As an advisory committee to the MGA, the GSP Advisory Committee process is subject to the Brown Act. As such, the following procedures (among others) will apply. For a more detailed guide to the Brown Act produced by the California League of Cities, see the link below.[2]

[2] www.cacities.org/Resources-Documents/Resources-Section/Open-Government/Open-Public-2016.aspx

- All meetings of the Advisory Committee will be open and public.
- Advisory Committee meetings will be preceded by a posted agenda that advises the public of the meeting and the matters to be transacted or discussed. The agenda will be posted at least 72 hours before the regular meeting on the MGA website and in a location freely accessible to members of the public. The agenda must state the meeting time and place and must contain a brief general description of each item of business to be transacted or discussed at the meeting, including items to be discussed in closed session.
- All meeting materials distributed prior to or during the meetings will be made publicly available.
- Serial meetings, which could be constituted by Advisory Committee members forwarding or replying all to an email string or referring to the project through social media, are prohibited.

4. MGA Bylaws Requirements

As a subcommittee to the MGA Board, the GSP Advisory Committee is also governed by the applicable sections of the MGA bylaws.[3] The bylaws require capturing of meeting minutes or summaries.

- Minutes of committee meetings shall be recorded by the facilitation team and shared with the Advisory Committee along with the meeting packet in advance of the next meeting. At the beginning of the next Advisory Committee meeting, the facilitator will ask if Advisory Committee members have any additions or refinements to add to the meeting minutes, at which point they will be considered approved and forwarded to the MGA Board. They will also be posted on the MGA website.
- For the GSP Advisory Committee, the minutes will be in the form of key outcomes-focused meeting summaries intended to capture the main results of the Advisory Committee meetings. These meeting summaries will summarize who participated, key decisions made, issues discussed, and the next steps identified for moving the project forward; these summaries are not intended serve as meeting transcripts.

E. Determining Levels of Support and Committee Recommendations

The GSP Advisory Committee will follow the general protocols established in this Charter; it is not required to follow specific rules of procedure.

The Advisory Committee will operate as a body seeking broad agreement in its preparation of advice for the MGA Board. Advisory Committee members will strive to achieve a high level of agreement in developing advice for the MGA Board. The intent is to strive for recommendations that can earn broad-based, cross-interest support from Advisory Committee members.

Formal proposed recommendations to the MGA Board will be presented verbally and/or in writing for consideration by the full Advisory Committee. Members will be allowed sufficient time to consider them before voting. Advisory Committee members will be invited to indicate whether they support, or not, an item under discussion. Support, here, is defined as “can live with”.

[3] See sections 4.6.3 and 5.3.4.

- **Level of support**. Advisory Committee members will be invited to indicate their "level of support" for any proposed recommendation. Different levels of support include: general support ("I like it"), qualified support ("I have some issues with it, but I can live with it"), and fundamental disagreement ("I don't like it and cannot live with it").

- **Voting and recording levels of support**. The level of support for decision items will be recorded for each Advisory Committee member, along with a summary of areas of agreement and disagreement. If fundamental disagreement exists over a particular decision item, the group will be asked to continue working to reach agreement or until it becomes clear that a resolution is either not necessary or not attainable. At that time, project staff will note the nature of the disagreement, and in consultation with the group, decide how best to frame the issues to present to the MGA Board for consideration.

- **Recommendations**. A "recommendation" from the GSP Advisory Committee will be achieved if a majority of Committee members present expresses support for a particular decision item. Every recommendation that is brought to the MGA Board will contain context in terms of which Advisory Committee members voted for or against a particular item. The Advisory Committee will strive to ensure that particular interests or perspectives are not disenfranchised by being consistently left out of recommendations.

- **Use of "straw polls".** Advisory Committee members recognize the need to make simple process agreements to move their work forward. A straw poll is a method used for surveying a group on a particular issue and typically involves asking each group member to indicate a preference on a particular issue.
    - Project facilitators may use "straw polls" to develop a sense of the group's views, track progress, and help the group arrive at short-term decisions to propel the process forward in an efficient fashion. Straw polls should be considered interim results.
    - Project facilitators, support staff, or an Advisory Committee member can request a straw poll.
    - Project facilitators will check in with the group to confirm the appropriateness of conducting the straw poll. Straw polls will be preceded by adequate Advisory Committee deliberation.
    - Project facilitators will record the intent and outcomes of each straw poll taken.

F. Operating Protocols and Ground Rules

1. Participation and Collaboration

- **Active, full participation**. Every Advisory Committee member is responsible for communicating his/her perspectives and interests on the issues under consideration. Voicing and actively listening to these perspectives is essential to achieving meaningful dialogue. Everyone will participate; no one will dominate.

- **Focused participation**. Advisory Committee members will come to the meetings prepared and will focus their discussions on the topics at hand. Everyone will help keep the meetings on track.

- **Respectful interaction.** Advisory Committee members will respect each other's personal integrity, divergent viewpoints, values and legitimacy of interests. Advisory Committee members will listen courteously while others are speaking. Only one person will speak at a time. Advisory Committee members will refrain from using deliberate misinformation, personal attacks, or stereotyping.

- **Integration and creative thinking.** Advisory Committee members will seek to balance advocacy and inquiry. In developing, reviewing and revising work products, Advisory Committee members will strive to be open-minded and to integrate each other's ideas, perspectives, and interests. Disagreements will be regarded as problems to be solved rather than battles to be won. Advisory Committee members will attempt to reframe contentious issues and offer creative solutions to enable constructive dialogue. Where Advisory Committee members do not support a specific solution or proposal, they are encouraged to offer alternative solutions.

- **Satisfy mutual Interests**. Advisory Committee members will work to satisfy not only their own interests but also those of other Advisory Committee members. Advisory Committee members are encouraged to be clear about their own interests and to recognize the important distinction between underlying interests and fixed positions.

- **Cell phone/PDA courtesy.** While participating in meetings, Advisory Committee members will refrain from cell phone use, emailing, and text messaging. Except during breaks, cell phones and other electronic communications devices will be turned off or set to "silent" mode.

2. Commitment to the Process

- **Good faith effort**. Advisory Committee members will make a good faith effort to achieve the goals of the project within the identified schedule.

- **Meeting attendance.** All Advisory Committee members will make every effort to attend all Committee meetings. Consistent attendance is critical to ensure the creation of shared knowledge and a common language. Meetings will start on time. Advisory Committee members who know that they will be absent, late, or have to leave early will inform project staff and facilitators in advance and coordinate with other Advisory Committee members to ensure that their ideas are brought to the table and that they are informed regarding Advisory Committee deliberations and decisions made. After a missed meeting, Advisory Committee members will work to get up to speed to keep the project from "backsliding."

- **Come prepared**. Advisory Committee members will review meeting materials in advance of the meetings and come prepared to address the meeting objectives. If specific "homework" is assigned, Advisory Committee members are expected to have the homework completed by the start of the meeting.

- **Commitment to ground rules**. Once they are ratified, Advisory Committee members commit to adhere to these ground rules as a set of mutual obligations. Advisory Committee members are encouraged to uphold these ground rules. Advisory Committee members commit to bring concerns about adherence to the ground rules or other process matters to

the facilitation team rather than expressing such concerns in a manner that undermines the respect of any individuals or the process.

3. **Advisory Committee Communication**

- **Consistency with Brown Act**. Advisory Committee members will avoid oral or email communications with other Advisory Committee members outside of Committee meetings (e.g., serial meetings) that would be inconsistent with the Brown Act.

- **Representation**. Unless they have been appointed a spokesperson for a specific task, Advisory Committee members will always make it clear when they speak or write in public that they speak for themselves, and not as a spokesperson for the Committee or for other Committee members.

4. **Involvement of Public**

- **Public comment at Advisory Committee meetings.** Advisory Committee meetings will include opportunity for public comment on items within the purview of the Advisory Committee. Public comment will be keyed to specific Advisory Committee work product discussions and agenda items. Additionally, there will be an opportunity during the meeting for the public to raise items not on the agenda but within the purview of the Advisory Committee. Advisory Committee members are encouraged to consider public input in their deliberations.

- **Key purpose of verbal public comment.** Oral public comment provides an important opportunity for the broader public to inform Advisory Committee deliberations on the GSP development process. As such, to the extent possible, public comments should be directed toward the work effort, products, or process of the Advisory Committee. Comments on subjects external to the GSP development process should be directed to other forums.

- **Other opportunities**. Members of the public are encouraged to convey their comments to relevant colleagues who serve as Advisory Committee members. Members of the public are also encouraged to submit comments in writing (via email to: dpruitt@cfscc.org). Written public comments will be distributed to Advisory Committee members on a regular basis as part of their meeting packets.

- **Facilitation of public comment periods.** Public comment will be facilitated by the meeting facilitator. The meeting facilitator will ask for a show of hands (or use speaker cards) to assess the number of attendees wishing to comment at any public comment period. The time allocated to each speaker will be based on the total available time and the number of individuals wishing to speak (with a maximum of three minutes and a minimum of one minute per speaker). In the case where a large number of public participants wish to comment, the facilitator may decide to extend the public comment period. When possible, the meeting minutes will identify the topic discussed and the speaker who introduced the topic.

- **Adherence to ground rules**. It is expected that members of the public will adhere to the same ground rules of focused interaction and respectful engagement as the Advisory Committee. Members of the public will be respectful of the Advisory Committee's time.

- **Advisory Committee response**. Advisory Committee members and support staff will typically not respond in detail to the public during public comment periods. Committee members are encouraged to consider public input into their deliberations after the public comment period is over.

5. Information Sharing and Joint Fact-Finding

- **Information gathering and sharing**. The GSP development process will include multiple opportunities for data sharing and joint fact-finding among the Advisory Committee. Joint fact-finding refers to a process where: stakeholders are able to provide their knowledge and identify information sources, needs, and questions for analysis; deliberations of scientific advisors are transparent; data are pooled to support better informed recommendations; and a serious effort is made to identify and narrow sources of scientific disagreement. Advisory Committee members are encouraged to be as specific as possible in identifying types of information they believe will support the development of work products. This information may include a mix of peer-reviewed studies, other scientific studies, field notes from researchers, and first-hand knowledge from resource users. Accordingly, Advisory Committee members are encouraged to contribute their own first-hand knowledge to support the work of the Advisory Committee. Advisory Committee members seeking to share written information or data should transmit this directly to Darcy Pruitt as a staff point person (rather than sharing data directly with each other).

- **Best readily available information**. Advisory Committee members recognize that the Mid-County GSP development process relies on using the best readily available information. Tentative information will be treated as such. Development of the GSP will not be delayed in order to fill any perceived data gaps.

6. Media Contact

- **Meeting recordings.** Advisory Committee meetings are public and will be audio recorded. Audio archives of meetings will be available on the MGA website within approximately one week of each meeting.

- **GSP media contacts**. Media contacts regarding the GSP process from a "big picture" perspective will be handled by the Executive Team. First contacts should go to John Ricker, Santa Cruz County.

- **Advisory Committee media contact**. On occasion, reporters may contact individual Advisory Committee members for comment about a particular issue. Advisory Committee members who are contacted by the media will speak only on behalf of themselves or their group or constituency. After commenting, the Advisory Committee member will provide the media entity with contact information for communications point persons Darcy Pruitt and Sierra Ryan and request that the media entity contact those individuals for further information.

- **Representation to media.** Advisory Committee members recognize the need to maintain a balance between providing timely information to constituents and making statements to the media that could undermine the success of the GSP process. Advisory Committee members agree to avoid: a) making statements to the media that may prejudge the

project's outcome, b) representing another group's point of view or characterizing others' motives, or c) stating positions on preliminary proposals while they are still being developed or refined by work groups or the Advisory Committee.

- **Use of meeting summaries.** In briefing constituents, Advisory Committee members are encouraged to rely primarily on the summaries to be produced for the GSP Advisory Committee meetings.

G. Role of Support Staff

1. Executive Team

- The Executive Team is composed of:
  - Ralph Bracamonte, Central Water District
  - Tim Carson, Regional Water Management Foundation
  - Ron Duncan, Soquel Creek Water District
  - Rosemary Menard, City of Santa Cruz
  - John Ricker, Santa Cruz County

- The Executive Team is responsible for providing process guidance to the GSP Advisory Committee and will assist in relaying Advisory Committee or public requests or inquiries to and from the MGA. Executive Team members will help determine when ideas brought up by the Advisory Committee or member of the public are outside of the scope of the Committee's charge; uncertain cases will be brought before the MGA. The Executive Team will provide periodic written reports to the MGA Board, pulling from Advisory Committee meeting summaries.

2. Other Key Support staff

- Darcy Pruitt, Regional Water Management Foundation: Darcy is responsible for compiling information and advice developed by Advisory Committee members and the technical team into a draft GSP. Darcy will also be the point person for receiving and coordinating GSP related inquiries from Advisory Committee members and the public. Darcy will draft press releases, provide text for the website, and support other outreach tasks.
- Sierra Ryan, Santa Cruz County: Sierra will provide support for public communication and outreach, website maintenance, and meeting planning.
- Program Associate, Regional Water Management Foundation: Staff is responsible for meeting logistics and transmitting meeting materials and information to the Advisory Committee and general public.

3. Technical Team – HydroMetrics

- HydroMetrics will be responsible for providing all technical analysis and support to the Advisory Committee. This includes presenting at orientation workshops, conducting groundwater modeling, and presenting and synthesizing other technical work that the Committee will need in its deliberations.

4. **Facilitation Team – Kearns & West**

- **Neutral facilitators**. The Kearns & West facilitation team is non-partisan; the facilitators have no stake in any content of the GSP and will not act as advocates for particular outcomes. The facilitators will strive to ensure that the Advisory Committee completes its charge in a well-informed, respectful, and timely fashion.

- **Foster alternatives with mutual benefit.** The facilitation team will seek to foster approaches to meeting management and to the identification and consideration of advice on the GSP process that maximize joint gains and mutual benefit.

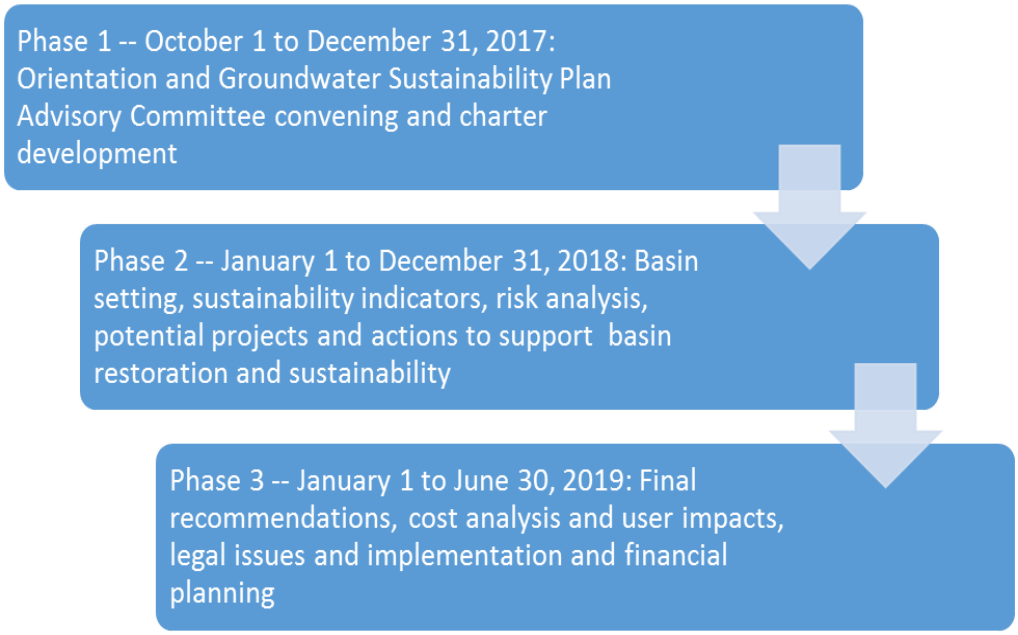
- **Efficient use of time**. The facilitators will strive to structure and manage meetings and discussion so as to make efficient use of Advisory Committee members' time. This includes providing materials in advance of meetings, keeping the discussion focused, and monitoring discussions so that no individual or idea dominates.

- **Facilitators' discretion**. The facilitation team will use its discretion in guiding meetings and may propose agenda adjustments. The facilitation team may also use straw voting to track a range of preferences on emerging issues and gauge the level of support for alternative options.

- **Meeting Summaries**. The facilitation team will prepare key outcomes-focused meeting summaries to capture the main results of the Advisory Committee meetings in accordance with MGA bylaws listed in section D.4 above.

H. Schedule and Work Plan

- The work of the Advisory Committee will proceed in three main phases according to the conceptual framework shown below.



- Project staff will work with the Advisory Committee to develop a more detailed work plan and approximate timing for key deliverables, and to update the process as appropriate. This will include early agreement about the form of work products. The Advisory Committee recognizes that its work developing advice on key policy issues will be an iterative process.

- The Advisory Committee will track its progress against this initial work plan and will discuss process adjustments as needed.

- The Advisory Committee will formally present its final recommendations to the MGA Board no later than at the July 2019 MGA Board meeting. At this meeting, the Advisory Committee will identify specific members to present to the MGA Board.

- It is anticipated that the process will move quickly and will need to make adaptations along the way.

May 16, 2019

MEMO TO THE MGA BOARD OF DIRECTORS AND GSP ADVISORY COMMITTEE

Subject: Agenda Item 10.1

Title: Groundwater Sustainability Plan (GSP) – Administrative Draft Sustainability Goal (GSP Section 1.2)

Provided below for Santa Cruz Mid-County Groundwater Agency (MGA) Board review and comment is an administrative draft of the sustainability goal developed for Groundwater Sustainability Plan (GSP or Plan) Section 1.2. The draft sustainability goal is based on the GSP Advisory Committee's vision for sustainability in the Santa Cruz Mid-County Groundwater Basin (MGA Basin), public comments received during GSP Advisory Committee meetings, and Sustainable Groundwater Management Act (SGMA) requirements to achieve local and regional sustainability. Footnotes identify goal development information and note information needed prior to GSP submission.

Background

At its April 24, 2019 meeting, the GSP Advisory Committee considered draft text prepared by staff to summarize GSP sustainability goal statements that capture the intent of the committee and public comments made during GSP Advisory Committee meetings. During its April meeting, GSP Advisory Committee members agreed to several sustainability goal revisions. These revisions reorganized the goal statements and revised text to align their earlier sustainability discussions with MGA Basin sustainability priorities and MGA's role as the regional groundwater planning agency.

Administrative Draft GSP Section 1.2 Sustainability Goal

Regulations prepared by the Department of Water Resources (DWR) to implement SMGA require that each Plan develop a sustainability goal that "…culminates in the absence of undesirable results within 20 years…" The Plan must include MGA Basin information used to establish the sustainability goal and a discussion of the measures that will be implemented to ensure that the MGA Basin will be operated to achieve sustainability within the 20-year planning timeframe.

As discussed in the GSP (Section 2.1.5), the MGA selected a GSP Advisory Committee to obtain detailed public input from representatives of the MGA Basin's beneficial uses and users of groundwater. Together with staff support, technical assistance, and community input, the GSP Advisory Committee developed a vision for MGA Basin sustainability. The GSP Advisory Committee's proposed draft

sustainability goal is presented below for Board consideration and their final recommendation will be included in the Draft GSP for final MGA Board approval.

The MGA Basin's sustainability goal is:

> *To manage the groundwater basin to ensure beneficial uses and users have access to a safe and reliable groundwater supply to meet current and future expected regional demand without causing undesirable impacts that:*
>
> - *Ensures groundwater is available for beneficial uses and a diverse population of beneficial users,*
> - *Protects groundwater supply against seawater intrusion,*
> - *Maintains or enhances groundwater levels where groundwater dependent ecosystems exist,*
> - *Maintains or enhances groundwater contributions to streamflow,*
> - *Resolves problems of groundwater overdraft within the MGA Basin,*
> - *Supports reliable groundwater supply and quality to promote public health and welfare, [1]*
> - *Ensures operational flexibility within the MGA Basin by maintaining a drought reserve, and*
> - *Does no harm to neighboring groundwater basins in regional efforts to achieve groundwater sustainability.[2]*

Predictive modeling detailed in Section 4.0 of the GSP indicates that maintaining groundwater elevations needed to protect against seawater intrusion will largely prevent undesirable results occurring for all six sustainability indicators.[3] Additional localized groundwater pumping management in the Purisima aquifers where those aquifers are connected to surface water may also be necessary. This additional pumping management may be needed to ensure significant and unreasonable depletion of surface water supporting groundwater dependent ecosystems does not occur from groundwater pumping.[4]

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[1] Sustainability goal statements 1-6 come from committee and public comments at GSP Advisory Committee meeting #3 summary on p.4. Statements revised and reorganized at GSP Advisory Committee meeting #18 on 4/24/2019 (summary page number not yet available.)

[2] Goal statements seven and eight represent SGMA regional sustainability requirements.

[3] State identified sustainability indicators are: Seawater Intrusion, Depletion of Interconnected Surface Water, Land Subsidence, Chronic Lowering of Groundwater Levels, Reduction of Groundwater in Storage, and Degraded Water Quality

[4] Review these statements in relationship to modeling data and recommendations on significant and unreasonable depletions of surface water from groundwater pumping.

The MGA Basin water budget detailed in Section 2.2.3 and water demand forecasts detailed in Section 2.1.3 of this Plan indicate that groundwater sustainability in the MGA Basin will require multiple groundwater management strategies. It is necessary to incorporate water conservation measures into our daily lives, to develop existing and new water supplies to reduce regional dependence on groundwater, and to replenish available groundwater storage for use during times of drought. Section 4.0 of this Plan discusses the projects and management actions that may be necessary to attain groundwater sustainability in the MGA Basin.[5]

Recommended Action:

Informational only, no action required.

By _____
Darcelle Pruitt
Senior Planner
Regional Water Management Foundation

[5] Discussion of measures needed to reach sustainability will require revisions as Section 4.0 & 5.0 analysis are further developed and evaluated using the MGA Groundwater Model.

SANTA CRUZ MID-COUNTY GROUNDWATER AGENCY

Sustainability Goal

Sustainability Goal Requirements

MGA must establish a sustainability goal that culminates in the absence of undesirable results by 2040 and maintains sustainability to 2070.

Proposed Sustainability Goal

- ***To manage the groundwater basin to ensure beneficial uses and users have access to a safe and reliable groundwater supply to meet current and future expected regional demand without causing undesirable impacts.***

Proposed Sustainability Goal

- To achieve this goal requires groundwater management that:
- ***Ensures groundwater is available for beneficial uses and a diverse population of beneficial users,***
- ***Protects groundwater supply against seawater intrusion,***
- ***Maintains or enhances groundwater levels where groundwater dependent ecosystems exist,***
- ***Maintains or enhances groundwater contributions to streamflow,***

Proposed Sustainability Goal

- ***Resolves problems of groundwater overdraft within the MGA Basin,***
- ***Supports reliable groundwater supply and quality to promote public health and welfare,***
- ***Ensures operational flexibility within the MGA Basin by maintaining a drought reserve, and***
- ***Does no harm to neighboring groundwater basins in regional efforts to achieve groundwater sustainability.***

DISCUSSION

SANTA CRUZ MID-COUNTY GROUNDWATER AGENCY

May 16, 2019

MEMO TO THE MGA BOARD OF DIRECTORS

Subject: Agenda Item 12.1

Title: Sustainable Management Criteria, Indicators, Modeling

Attachment:

1. Santa Cruz Mid-County Basin, Summary of Sustainable Management Criteria

This summary document is a synthesis of all the sustainable management criteria (SMC) that have been developed with input from the Santa Cruz Mid-County Groundwater Sustainability Plan (GSP) Advisory Committee for the six required sustainability indicators. The rationales underlying the SMC are not provided in this summary but can be found in the various proposals that have been presented at previous GSP Advisory Committee meetings (see meeting materials at http://www.midcountygroundwater.org/gsp-advisory-committee/committee-meetings) and are referenced at the beginning of each sustainability indicator section.

These SMC constitute a core component of the recommendations that the GSP Advisory Committee will submit to the Santa Cruz Mid-County Groundwater Agency (MGA) after the GSP Advisory Committee's June 19, 2019 meeting. The SMC are one of the most important parts of the GSP as they define the Basin's future conditions and commits the MGA to projects and management actions to meet the criteria.

Recommended Action:

Informational only, no action required.

By 

Georgina King, P.G., C.Hg.
Senior Hydrogeologist
Montgomery & Associates

Santa Cruz Mid-County Basin
Summary of Sustainable Management Criteria

Sustainability Indicator #1
Chronic Lowering of Groundwater Levels

Proposals for chronic lowering of groundwater levels SMC were discussed at the following GSP Advisory Committee meetings: May 2018, September 2018 and January 2019.

The chronic lowering of groundwater level sustainability indicator is a separate sustainability indicator to other sustainability indicators that use groundwater elevations as measures of sustainability, i.e., seawater intrusion and depletion of interconnected surface water. For example, the seawater intrusion sustainability indicator focuses on groundwater elevations near the coast, while the chronic lowering of groundwater level sustainability indicator applies to groundwater elevations inland of the area of municipal groundwater pumping and are not set based on protective groundwater elevations.

SIGNIFICANT AND UNREASONABLE CHRONIC LOWERING OF GROUNDWATER LEVELS

A significant number of private, agricultural, industrial, and municipal production wells can no longer provide enough groundwater to supply beneficial uses would be a significant and unreasonable lowering of groundwater levels.

In the late 1980's, groundwater levels in parts of the Basin were between 35 and 140 feet lower than they are currently. Even at these lower levels production wells were still able to extract groundwater to supply beneficial uses. Based on the above statement of significant and unreasonable, significant and unreasonable chronic lowering of groundwater levels has not historically occurred in the Basin and is not currently occurring.

UNDESIRABLE RESULTS - CHRONIC LOWERING OF GROUNDWATER LEVEL

The average monthly representative monitoring well groundwater elevation falls below the <Minimum Threshold>.

MINIMUM THRESHOLDS - CHRONIC LOWERING OF GROUNDWATER LEVEL

Each representative monitoring well gets its own minimum threshold based on the groundwater elevation required to meet the typical overlying water demand in the

shallowest well in the vicinity of the representative monitoring well. The minimum threshold is not allowed to be more than 30 feet below the historic low groundwater elevation. All representative monitoring wells must be equipped with data loggers.

MEASURABLE OBJECTIVES - CHRONIC LOWERING OF GROUNDWATER LEVEL

Measurable objectives at each representative monitoring well are the 90th percentile of historical groundwater elevations for the period of record. The higher groundwater elevation the GSP Advisory Committee's desire to groundwater elevations higher in the future whilst acknowledging that setting measurable objectives at the maximum elevation is unrealistic as those elevations are generally associated with very wet years and would not be achievable most of the time.

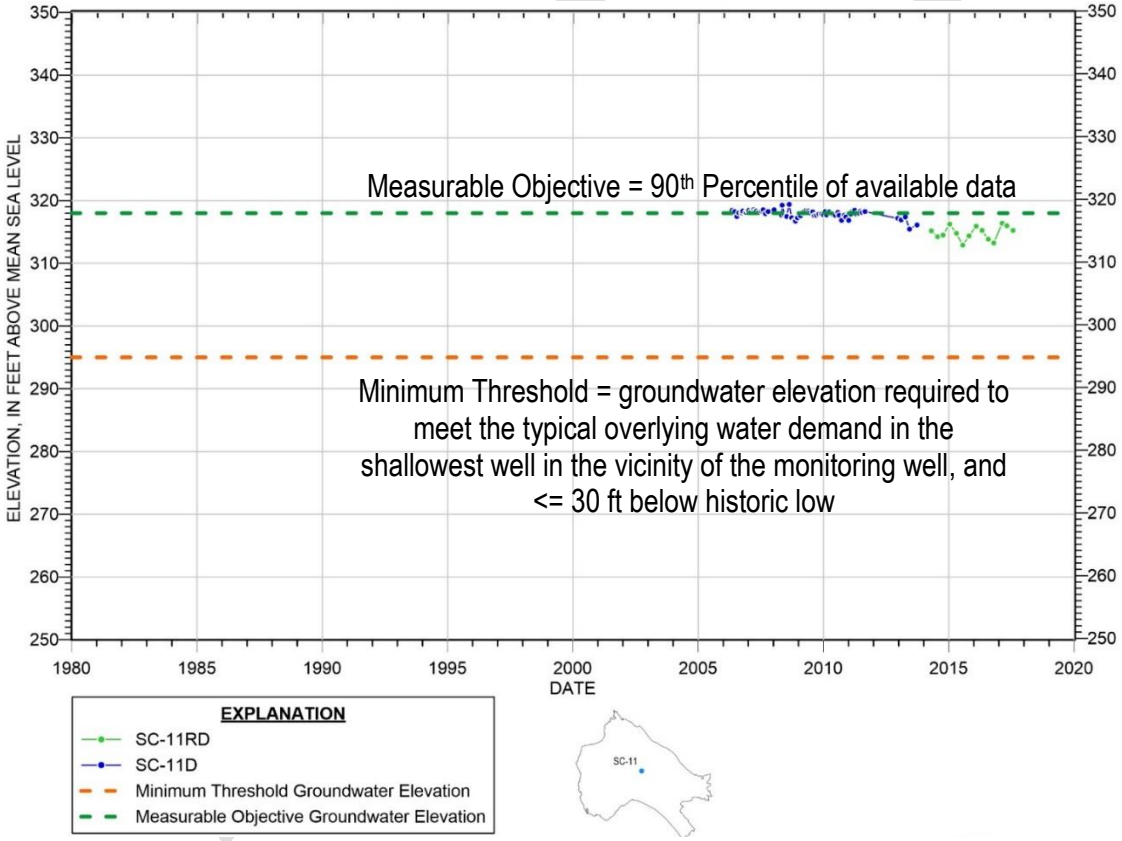


Figure 1. Example of Minimum Threshold and Measurable Objective in a Representative Monitoring Well SC-11D

Sustainability Indicator #2
Reduction in Groundwater Storage

The proposal for reduction in groundwater storage SMC was discussed at the March 2019 GSP Advisory Committee meeting.

The reduction in storage sustainability indicator is not measured by change in groundwater in storage. Rather, the reduction in groundwater in storage sustainability indicator requires a metric that is "a ***total volume of groundwater that can be withdrawn from the basin*** without causing conditions that may lead to undesirable results."

SIGNIFICANT AND UNREASONABLE REDUCTION IN GROUNDWATER STORAGE

A significant and unreasonable reduction of groundwater in storage would be a net volume of groundwater extracted that will likely cause other sustainability indicators to have undesirable results.

UNDESIRABLE RESULTS - REDUCTION IN GROUNDWATER STORAGE

Five-year average net extraction exceeding the Sustainable Yield (minimum threshold) for the Aromas aquifer and Purisima F unit, five-year average net extraction exceeding the Sustainable Yield (minimum threshold) for the Purisima DEF, BC, A, and AA aquifers, or five-year average net extraction exceeding the Sustainable Yield (minimum threshold) for the Tu aquifer.

MINIMUM THRESHOLDS - REDUCTION IN GROUNDWATER STORAGE

Sustainable Yield (still to be estimated) representing the net annual volume of groundwater extracted (pumping minus annual volume of managed aquifer recharge) for any one of the groups of aquifers:

- Aromas aquifer and Purisima F aquifer
- Purisima DEF, BC, A, and AA aquifer
- Tu aquifer

MEASURABLE OBJECTIVES - REDUCTION IN GROUNDWATER STORAGE

The maximum net annual groundwater to be extracted that ensures if there were four subsequent years of maximum projected net groundwater extraction, net annual

groundwater extractions greater than the minimum threshold will not occur for any one of the following groups of aquifers:

- Aromas and Purisima F aquifers
- Purisima DEF, BC, A, and AA aquifers
- Tu aquifer

Annual net extractions for the different aquifer groups will be used to compare against measurable objectives, and not the five-year average of net extractions. This is because the measurable objective is the maximum that can be pumped if the next four years all had maximum projected pumping, and undesirable results are to be avoided.

A hypothetical scenario is provided on Figure 2 to show how the measurable objective is estimated, and how a five-year average would compare to the minimum threshold. There are some years (e.g., 2030) where the annual net pumping exceeds the minimum threshold. Because we are proposing a five-year average to compare against the minimum threshold, this would still be considered sustainable if the previous four years' net pumping were low enough that the five-year average is below the minimum threshold. There are also many years when pumping exceeds the measurable objective. Exceeding the measurable objective would indicate that pumping over the next four years needs to be lower than the total of four years of the maximum annual pumping.

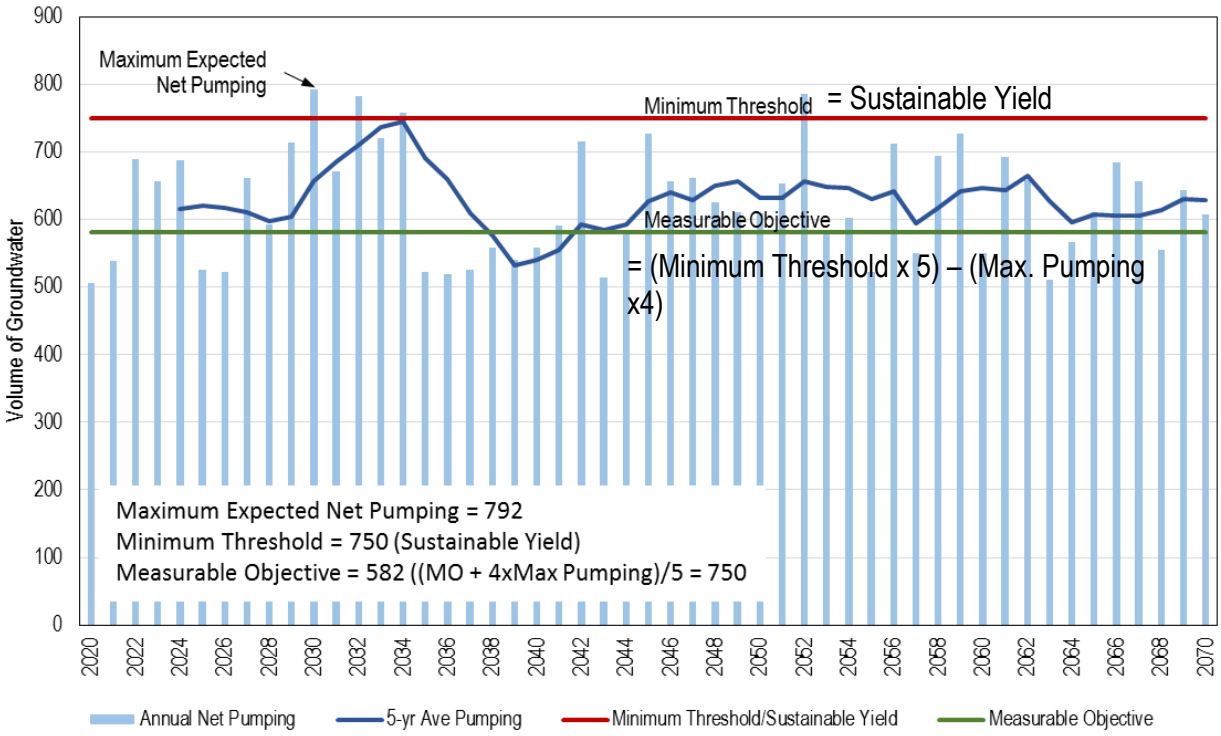


Figure 2. Hypothetical Estimation of Measurable Objective for a Fictitious Aquifer

Sustainability Indicator #3
Seawater Intrusion

Proposals for seawater intrusion SMC were discussed at the following GSP Advisory Committee meetings: April 2018, September 2018 and March 2019.

SIGNIFICANT AND UNREASONABLE SEAWATER INTRUSION CONDITIONS

Seawater moving farther inland than has been observed from 2013 through 2017.

UNDESIRABLE RESULTS - SEAWATER INTRUSION

The undesirable results for seawater intrusion described are related to the inland movement of chloride related to seawater intrusion which would be considered significant and unreasonable. To be able to monitor the location of the isocontour, chloride concentrations are tracked in representative monitoring wells either side of the chloride isocontours, and are used in the definition of undesirable results. Additionally, undesirable results are related to protective groundwater elevations used as a proxy for seawater intrusion. Any of the following undesirable results would be considered significant and unreasonable conditions for seawater intrusion.

1. **Undesirable Results for Intruded Coastal Monitoring Wells**
   Any coastal monitoring well with current seawater intrusion has a chloride concentration above their 2013-2017 maximum chloride concentration. This concentration must be exceeded in 2 or more of the last 4 consecutive quarterly samples.

2. **Undesirable Results for Unintruded Coastal Monitoring Wells, and Inland Monitoring and Production Wells closest to the Coast**
   A. Any unintruded coastal monitoring well has a chloride concentration above 250 mg/L. This concentration must be exceeded in 2 or more of the last 4 consecutive quarterly samples.

   B. Any unintruded inland monitoring well (which includes municipal production wells closest to the coast and other non-coastal monitoring wells) has a chloride concentration above 150 mg/L. This concentration must be exceeded in 2 or more of the last 4 consecutive quarterly samples.

3. **Undesirable Results for Protective Groundwater Elevations**
   Five -year average groundwater elevations below protective groundwater elevations for any coastal monitoring well.

The five–year averaging period for groundwater elevations was questioned recently at the April GSP Advisory Committee's meeting as allowing seawater to advance inland during times when groundwater elevations fall below protective elevations even though the five-year average is still above protective elevations. Defining undesirable results for protective elevations (as a groundwater level proxy) as a five-year average does potentially allow the saltwater interface to advance inland during shorter time periods with lower groundwater levels. To meet the five-year average for the groundwater level proxy, these periods with lower groundwater levels would need to be balanced by periods with higher groundwater levels, which would push the saltwater interface back towards Monterey Bay.

GSP Advisory Committee members raised the well-founded concern that this potential back and forth movement of the interface could result in dispersion and increases in salt concentrations that may be difficult to reduce even as the average interface is moved out with higher groundwater levels. It is technical consultant's opinion that over these short time periods, the back and forth movement would be limited and therefore risk of high concentrations from dispersion is low.

However, the seawater intrusion sustainability management criteria are set up to address both the risk that the five-year period is too long of an averaging period for groundwater levels and that the groundwater level proxy itself is too low to prevent significant and unreasonable seawater intrusion. In addition to groundwater level proxies, the seawater intrusion sustainability management criteria include undesirable results, minimum thresholds, and measurable objectives based on chloride concentrations. If chloride concentrations were to rise above measurable objectives, the MGA and its member agencies would have the opportunity to act to prevent significant and unreasonable conditions represented by minimum threshold exceedances and undesirable results based on chloride concentrations. In this case, the groundwater level proxies would also have to be revised to prevent future increases in chloride concentrations.

MINIMUM THRESHOLDS - SEAWATER INTRUSION

Chloride Isocontours Minimum Threshold (Aromas and Purisima aquifers)

Separate 250 mg/L chloride isocontours for Aromas and Purisima aquifers (Figure 3) based on current chloride concentrations in coastal monitoring wells.

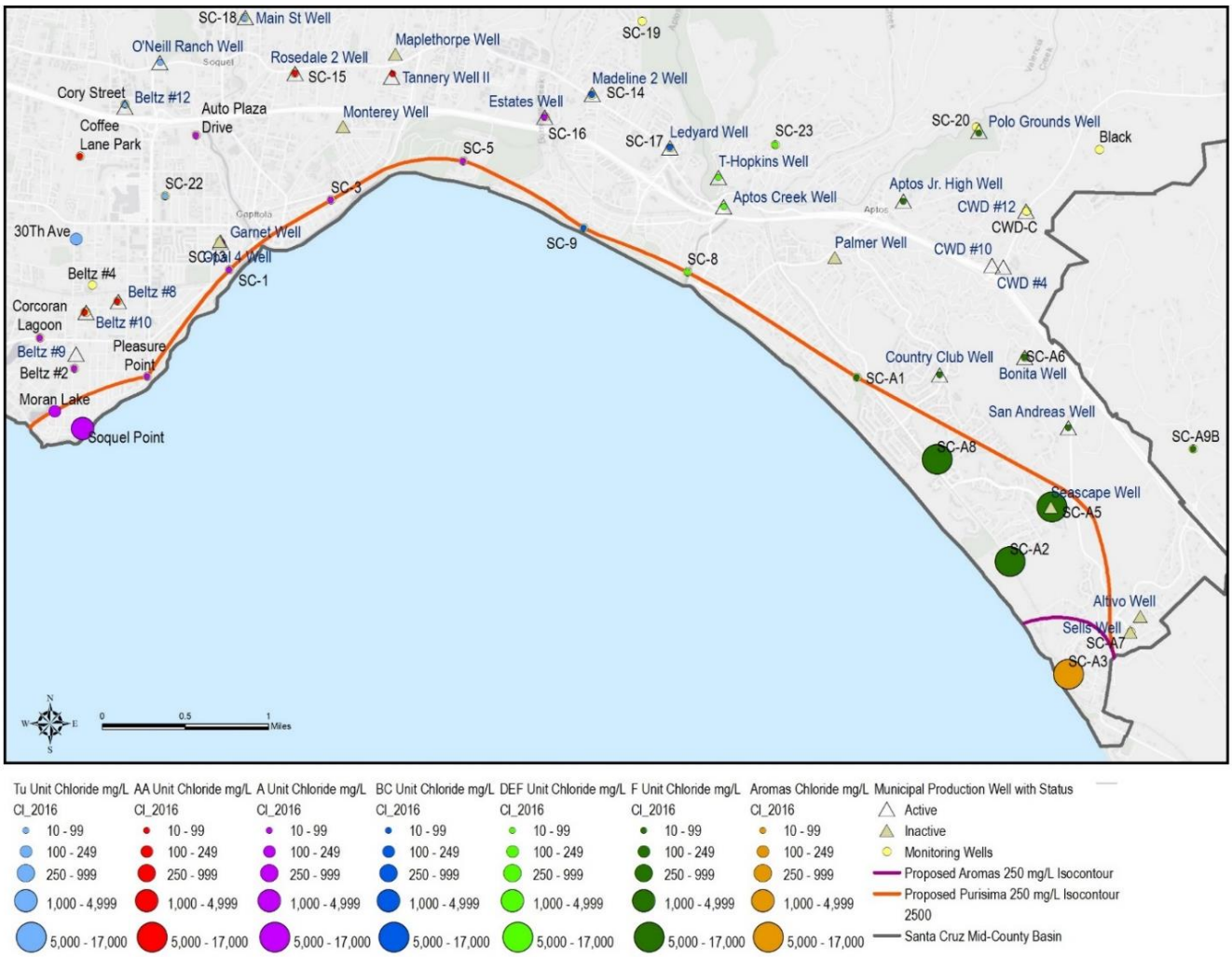


Figure 3. 250 mg/L Chloride Isocontours for the Aromas and Purisima Aquifers

Groundwater Elevations as a Proxy Minimum Thresholds

Groundwater elevations are used as a proxy for seawater intrusion because it is more responsive to the threat of sweater intrusion to manage groundwater elevations and hydraulic gradients than the location of the chloride isocontour and chloride concentrations in representative monitoring wells that are not optimally located for purposes of tracking concentrations around an isocontour. Since 2009, seawater intrusion in the Basin has been managed using protective elevations established to prevent seawater intrusion at the coastline with great success. Protective elevations are established at specific elevations above sea level to keep the equilibrium position of the freshwater / seawater interface from impacting underlying aquifers from which production wells pump.

MEASURABLE OBJECTIVES - SEAWATER INTRUSION

Isocontour Measurable Objective

Same locations as the minimum threshold isocontour shown on Figure 3 but the concentration is reduced from 250 mg/L (minimum threshold) to 100 mg/L (Measurable Objective).

Groundwater Elevations as a Proxy Measurable Objectives

Groundwater elevations as a proxy Measurable Objectives are determined based on whether the cross-sectional groundwater model is available for the area or not.

1. Cross-sectional model available: measurable objectives are groundwater elevations that represents >99% of cross-sectional model simulations being protective against seawater intrusion for each monitoring well with a protective elevation. For wells where seawater intrusion has not been observed, cross-sectional models estimate protective elevations to protect the entire depth of the aquifer unit of the monitoring wells' lowest screen. For wells where seawater intrusion has been observed, the cross-sectional models estimate protective elevations to prevent seawater intrusion from advancing.
2. Cross-sectional model not available: measurable objectives are the groundwater elevations that represent protective groundwater elevation estimated by using the Ghyben-Herzberg method to protect the entire depth of the aquifer unit the monitoring wells are screened in.

IMPACTS OF PROJECTS AND MANAGEMENT ACTIONS ON AVOIDING SEAWATER INTRUSION UNDESIRABLE RESULTS

Groundwater model simulations of potential projects in the Basin show that the sustainability management criteria for seawater intrusion are achievable. Groundwater model results are projected groundwater elevations with and without potential projects that can be compared against groundwater elevation proxies to evaluate whether undesirable results are avoided with implementation of the projects. As an example, hydrographs (Figure 4 through Figure 8) show groundwater model simulated groundwater levels resulting from implementing a combination of the Pure Water Soquel project approved by Soquel Creek Water District and the Aquifer Storage and Recovery project currently being evaluated by the City of Santa Cruz as presented to the GSP Advisory Committee at its March 2019 meeting:

- Pure Water Soquel uses advanced water purification methods to purify recycled water for replenishing the groundwater basin and protecting against further seawater intrusion. The model simulation of the projects includes enhancements to pumping distribution as part of the project modeled for the GSP.

- Aquifer Storage and Recovery uses excess surface water supplies to store water to meet City water shortages. The model simulation of the projects is based on an initial iteration of the project modeled for Phase I Technical Feasibility Investigation.

The following hydrographs show results for the Baseline run without projects (yellow line) and the run with the two projects (blue dashed line) compared to groundwater elevation proxies for minimum thresholds (black dotted line) and measurable objectives (black dashed line) at coastal monitoring wells. Trailing five-year averages of monthly simulated groundwater levels are compared to groundwater elevation proxies. The groundwater elevation proxies on the hydrographs include an additional 2.3 feet to account for assumed sea level rise.

At most of the coastal monitoring wells, simulations for the projects show that groundwater levels recover to minimum thresholds by 2040 and thereafter are maintained above minimum thresholds while the simulation without the projects does not show similar recovery. At a number of coastal monitoring wells, the projects are simulated to cause groundwater levels to rise to the measurable objectives as well. Although the simulated projects do not show recovery to minimum thresholds by 2040 in the City of Santa Cruz Purisima-A and AA unit wells, avoiding undesirable results appears achievable with a reconfiguration of the Aquifer and Storage Recovery project, which the City of Santa Cruz continues to evaluate for its Phase I Feasibility study.

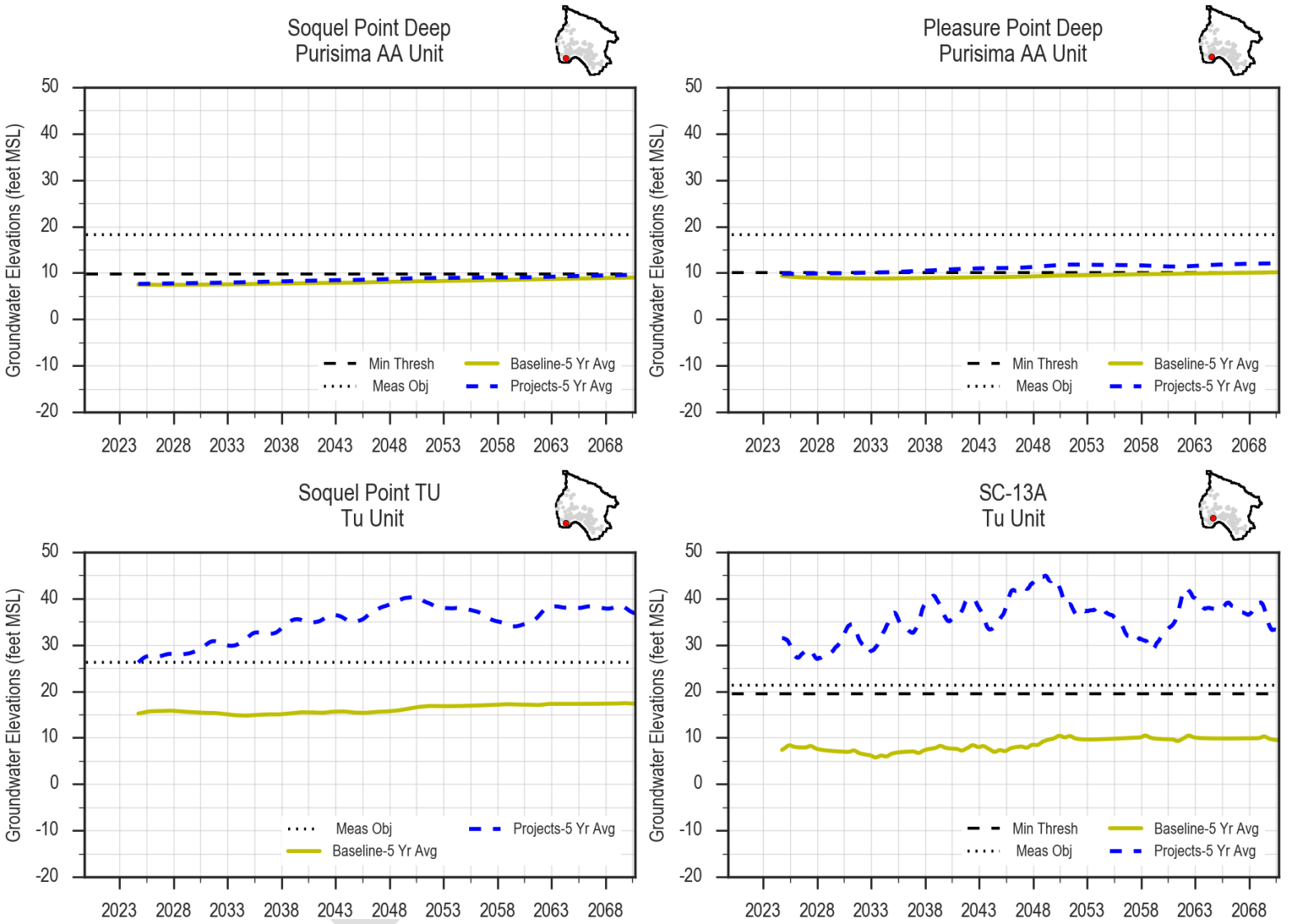


Figure 4. Trailing Five Year Averages of Simulated Groundwater Level Results with and without Projects at AA and Tu Unit Coastal Monitoring Well Locations

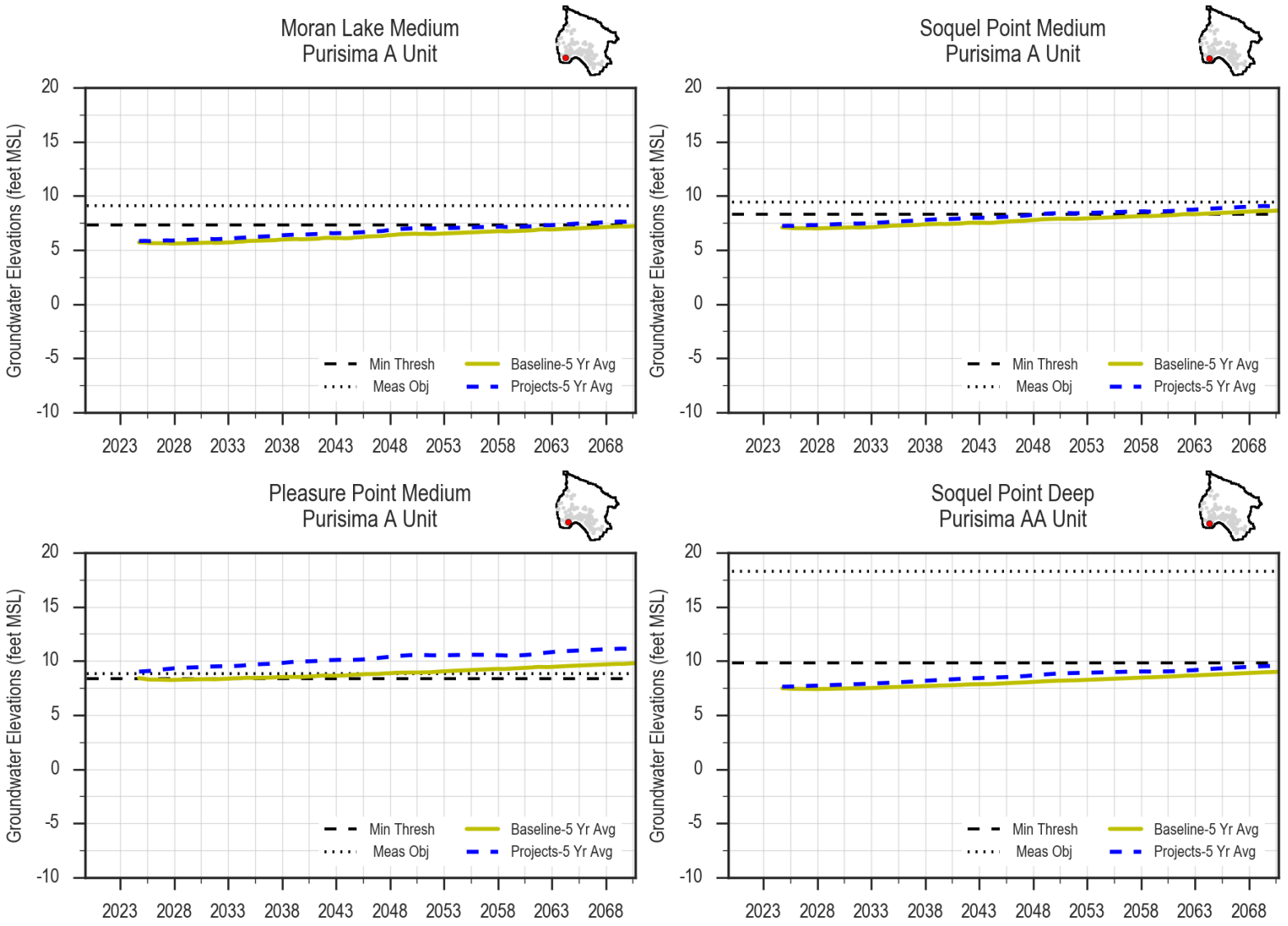


Figure 5. Trailing Five Year Averages of Simulated Groundwater Level Results with and without Projects at City of Santa Cruz A-Unit Coastal Monitoring Wells

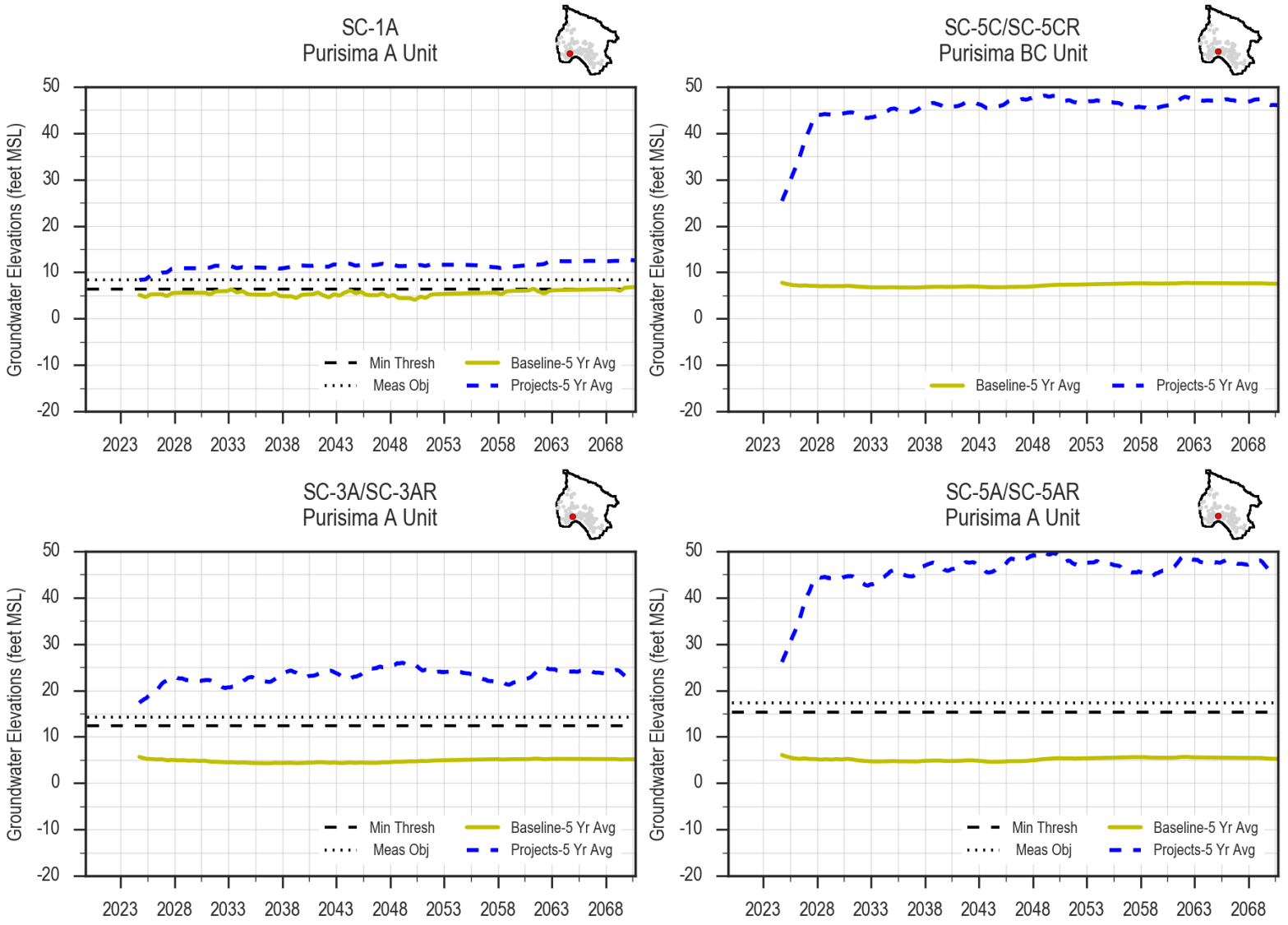


Figure 6. Trailing Five Year Averages of Simulated Groundwater Level Results with and without Projects at Soquel Creek Water District Purisima A-Unit Coastal Monitoring Wells

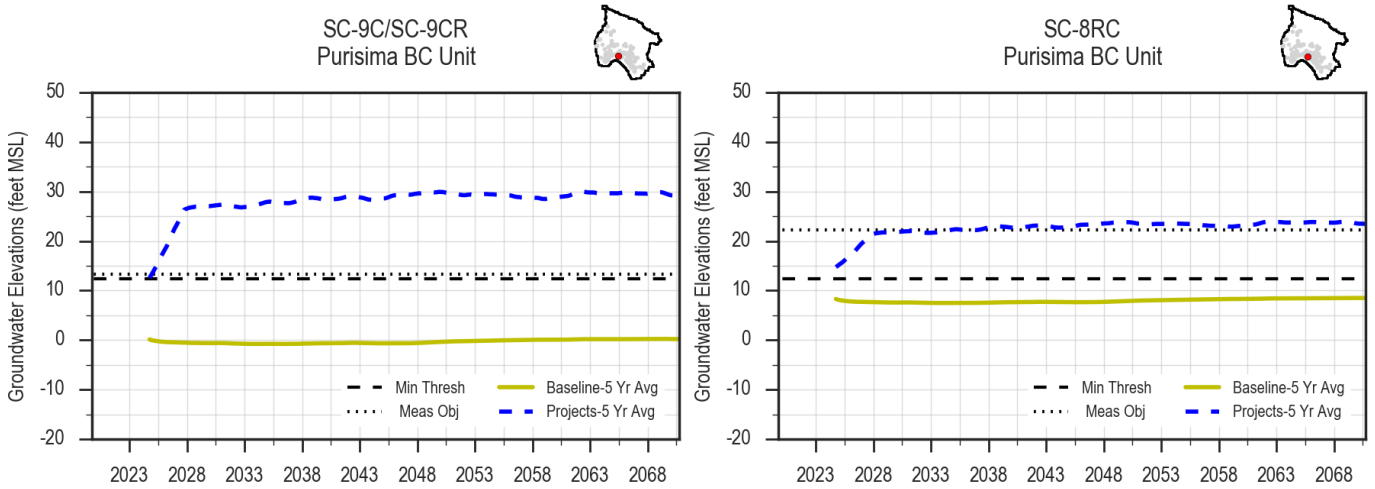


Figure 7. Trailing Five Year Averages of Simulated Groundwater Level Results with and without Projects at Soquel Creek Water District Purisima BC-Unit Coastal Monitoring Wells

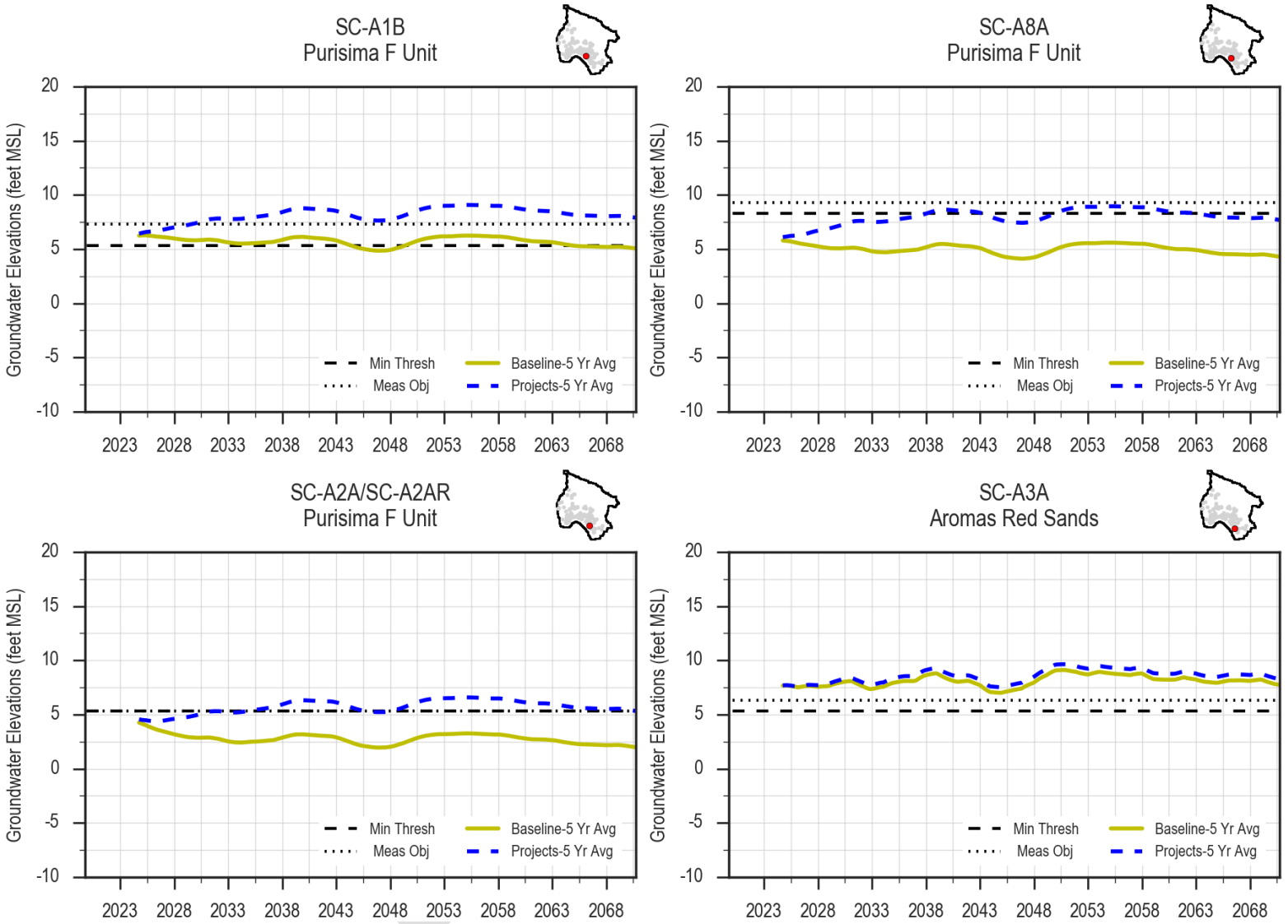


Figure 8. Trailing Five Year Averages of Simulated Groundwater Level Results with and without Projects at Soquel Creek Water District Aromas Area Coastal Monitoring Wells

Sustainability Indicator #4
Degraded Groundwater Quality

Proposals for degraded groundwater quality SMC were discussed at the following GSP Advisory Committee meetings: June 2018, September 2018 and October 2018.

SIGNIFICANT AND UNREASONABLE DEGRADED GROUNDWATER QUALITY

Significant and unreasonable degradation of groundwater would occur when groundwater quality, attributable to groundwater pumping or managed aquifer recharge, fails to meet state drinking water standards.

UNDESIRABLE RESULTS - DEGRADED GROUNDWATER QUALITY

Groundwater quality undesirable results in the basin occur when as a result of groundwater pumping or managed aquifer recharge, any representative monitoring well exceeds any <minimum threshold>.

MINIMUM THRESHOLDS - DEGRADED GROUNDWATER QUALITY

Minimum thresholds are state drinking water standards for each constituent of concern that are monitored in selected monitoring and private wells, and all municipal production wells for degraded groundwater quality.

Table 1. General Basin Constituents of Concern

Constituent of Concern	Reason for Concern	Minimum Threshold/ Drinking Water Standard
Total dissolved solids	general health of basin & seawater intrusion	1,000 mg/L
Chloride	general health of basin & seawater intrusion	250 mg/L
Iron	naturally elevated	300 µg/L
Manganese	naturally elevated	50 µg/L
Arsenic	naturally elevated	10 µg/L
Chromium (Total)	naturally elevated	50 µg/L
Chromium VI	naturally elevated	none set yet
Nitrate as Nitrogen	septic systems & agriculture	10 mg/L
Perchlorate	agriculture related	6 µg/L
Organic compounds	human introduced	various

Each project implemented as part of the GSP will have its own unique constituents of concern that will apply to monitoring and production wells included in their use permits granted by the State Water Board Division of Drinking Water (DDW). Monitoring wells to be used for monitoring as part of permit conditions will be included as representative monitoring wells in the GSP and the constituents monitored will become constituents of concern at those particular representative monitoring wells.

MEASURABLE OBJECTIVES - DEGRADED GROUNDWATER QUALITY

Measurable objectives for each representative monitoring well are equal to the 2013 – 2017 average concentrations for each constituent of concern. If a representative monitoring well does not have groundwater quality data during this period, the most recent concentrations will be used for averaging.

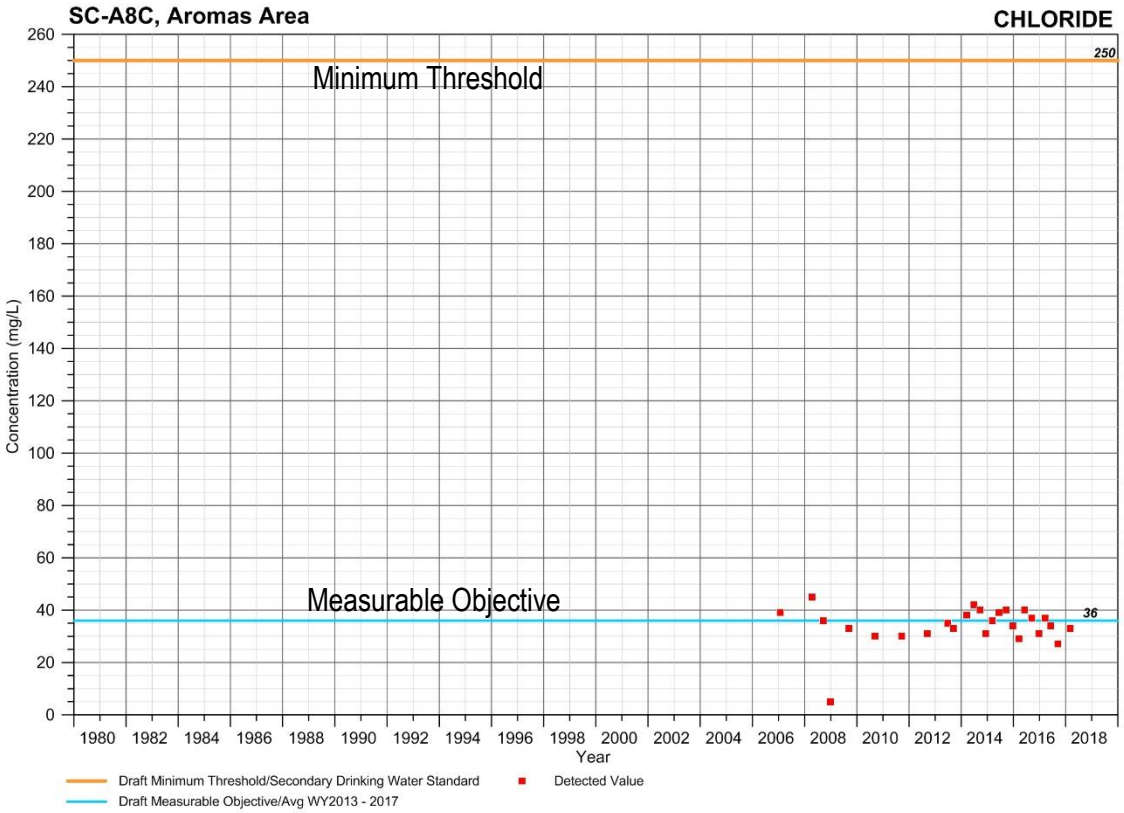


Figure 9. Example of Minimum Threshold and Measurable Objective for Chloride in Monitoring Well SC-A8C

Sustainability Indicator #5
Subsidence

Proposals for subsidence SMC were discussed at the following GSP Advisory Committee meetings: April 2018 and May 2018.

The sustainability indicator was found to not be applicable in the Santa Cruz Mid-County Basin as an indicator of groundwater sustainability and therefore no SMC are set. Even though the indicator is not applicable, a statement of significant and unreasonable subsidence caused by lowering of groundwater levels was discussed and is included below:

> Any land subsidence caused by lowering of groundwater levels occurring in the basin would be considered significant and unreasonable.

Sustainability Indicator #6
Depletion of Interconnected Surface Water

Proposals for depletion of interconnected surface water SMC were discussed at the following GSP Advisory Committee meetings: June 2018, February 2019 and April 2019. There have also been four Working Group meetings.

SIGNIFICANT AND UNREASONABLE DEPLETION OF INTERCONNECTED SURFACE WATER

Surface water depletion, due to groundwater extraction, in interconnected streams supporting priority species, greater than that experienced over the period from the start of shallow groundwater level monitoring through 2015, would be a significant and unreasonable depletion of surface water.

UNDESIRABLE RESULTS - DEPLETION OF INTERCONNECTED SURFACE WATER

Any shallow representative monitoring well's groundwater elevation falling below its minimum threshold would be an undesirable result.

MINIMUM THRESHOLDS - DEPLETION OF INTERCONNECTED SURFACE WATER

The approach for developing minimum thresholds for the depletion of interconnected surface water sustainability indicator is to select groundwater elevations in shallow representative monitoring wells below which significant and unreasonable depletions of surface water due to groundwater extractions would occur.

Since significant and unreasonable conditions have not occurred since at least 2001 when shallow groundwater level monitoring began, minimum thresholds for shallow groundwater elevations in the vicinity of interconnected streams are based on the highest seasonal-low elevation during below-average rainfall years, over the period from the start of monitoring through 2015. The years after 2015 are not included because 2016 was an average rainfall year and 2017 was extremely wet, which increased overall Basin shallow groundwater elevations above all previous levels.

MEASURABLE OBJECTIVES - DEPLETION OF INTERCONNECTED SURFACE WATER

Where groundwater and surface water are interconnected, measurable objectives at monitoring points are groundwater elevations are greater than the minimum thresholds by

the range in seasonal-low shallow elevations over the period of record through 2015. In all cases this results in groundwater elevations that are higher than the creek bed elevation at each monitoring point. The increased hydraulic gradient increases groundwater contributions to streamflow.

The range in seasonal-low elevations represents known change in seasonal-low elevations that can occur and includes the years when groundwater elevations in the Basin as a whole have been increasing. The range effectively provides the operational flexibility that measureable objectives are intended to provide.

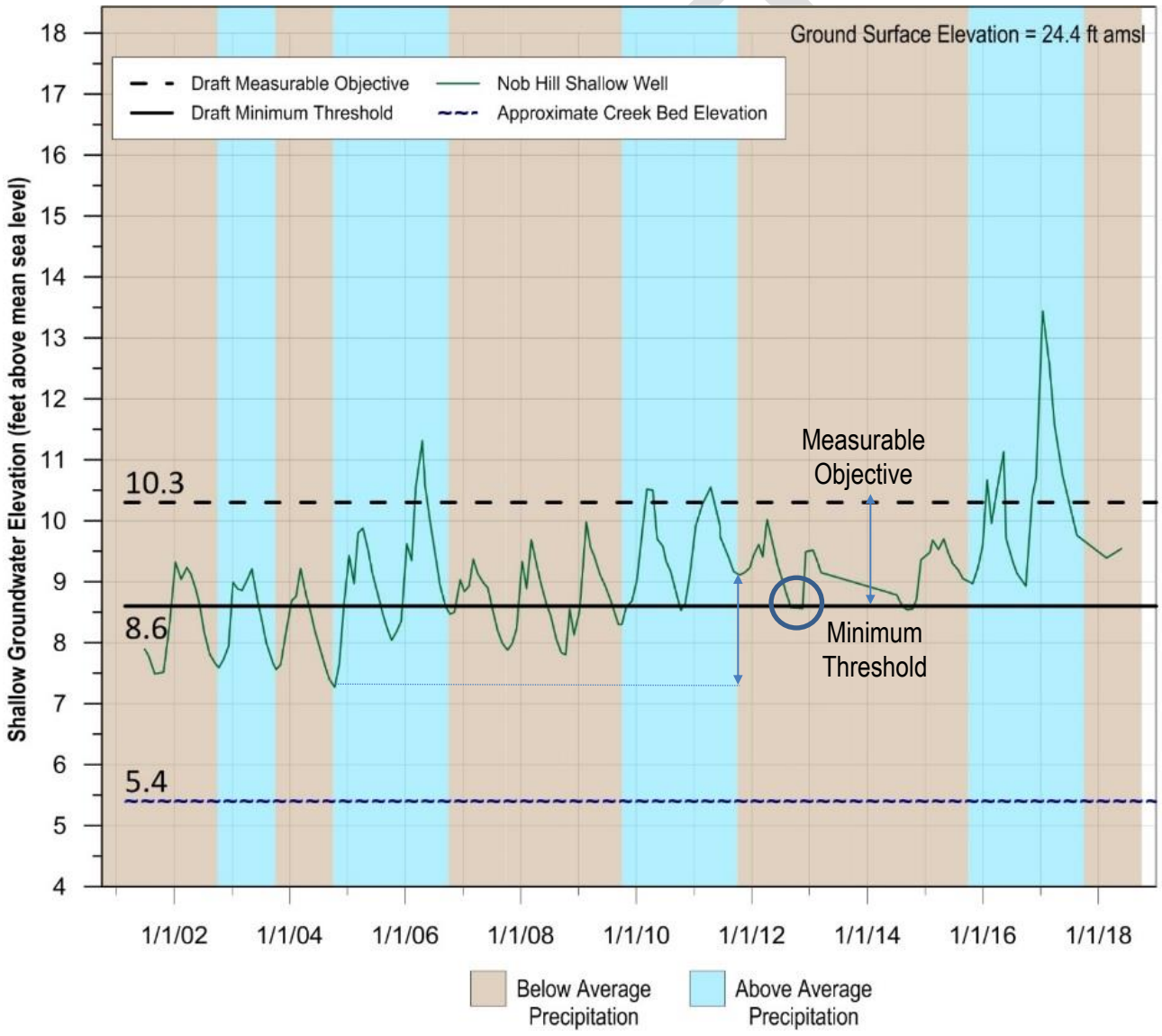


Figure 10. Example of Minimum Threshold and Measurable Objective for Shallow Monitoring Well at Nob Hill

IMPACTS OF PROJECTS AND MANAGEMENT ACTIONS ON AVOIDING DEPLETION OF INTERCONNECTED SURFACE WATER UNDESIRABLE RESULTS

Groundwater model simulations of potential projects in the Basin show that the sustainability of surface water depletion is achievable. Groundwater model results are projected groundwater levels with and without potential projects that can be compared against groundwater level proxies to evaluate whether undesirable results are avoided with the projects. As an example, the hydrographs on Figure 11 show groundwater model simulated groundwater levels resulting from implementing a combination of the Pure Water Soquel project approved by Soquel Creek Water District and the Aquifer Storage and Recovery project currently being evaluated by the City of Santa Cruz as presented to the GSP Advisory Committee Surface Water Working Group at its final meeting in April:

- Pure Water Soquel uses advanced water purification methods to purify recycled water for replenishing the groundwater basin and protecting against further seawater intrusion. The model simulation of the projects includes enhancements to pumping distribution as part of the project modeled for the GSP.

- Aquifer Storage and Recovery uses excess surface water supplies to store water to meet City water shortages. The model simulation of the projects is based on an initial iteration of the project modeled for Phase I Technical Feasibility Investigation.

The hydrographs show simulated monthly groundwater level results for the baseline run without projects (yellow line) and the run with the two projects (blue dashed line) compared to groundwater level proxies for minimum thresholds (black dotted line) and measurable objectives (black dashed line) at shallow groundwater wells along Soquel Creek.

The simulation for the projects shows that groundwater levels recover to minimum thresholds by 2040 and generally remain above minimum thresholds thereafter while the simulation without the projects does not show groundwater levels rising above minimum thresholds at all of the shallow wells along Soquel Creek. The simulation indicates that avoiding undesirable results is achievable with implementation of projects.

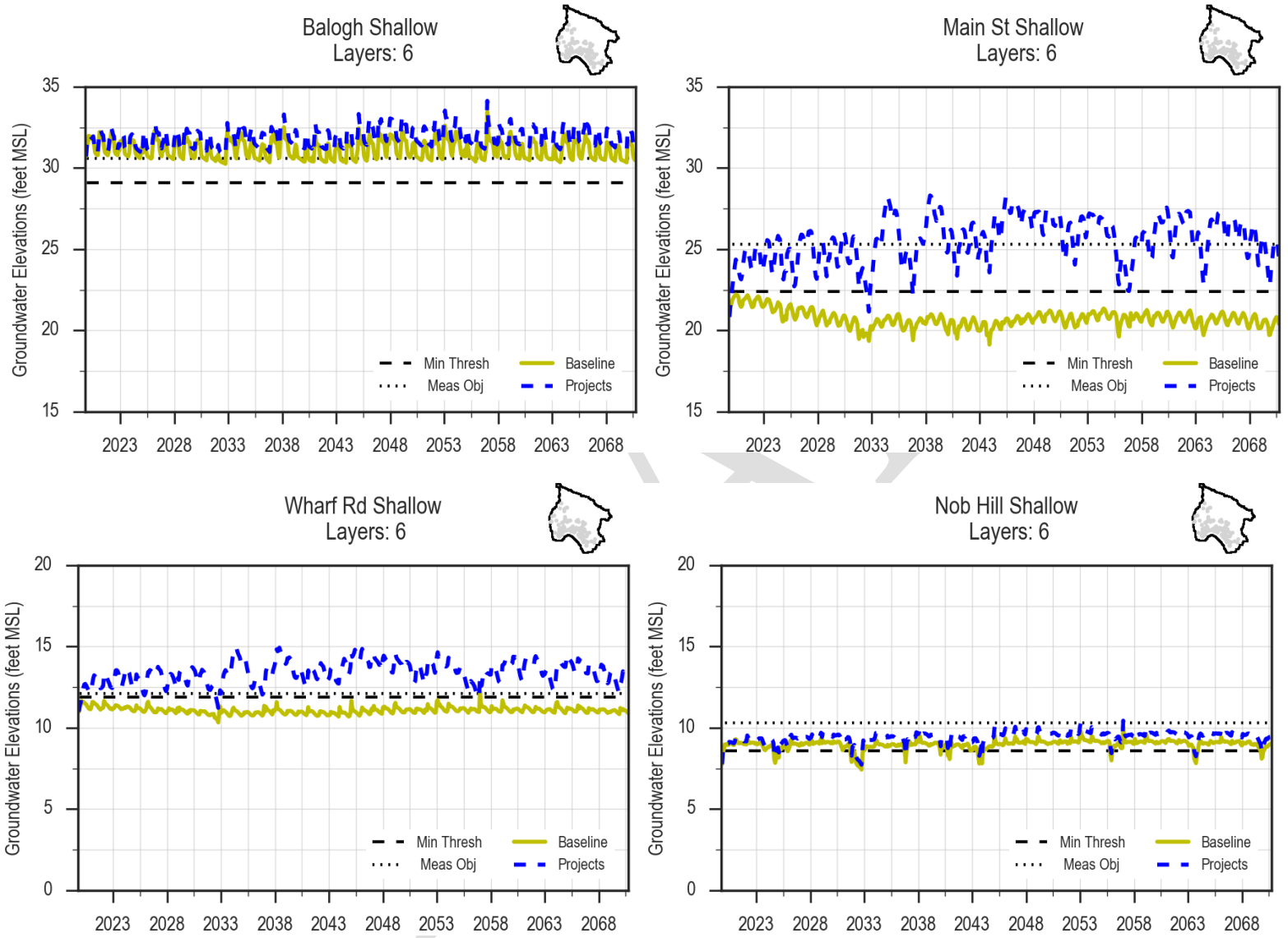


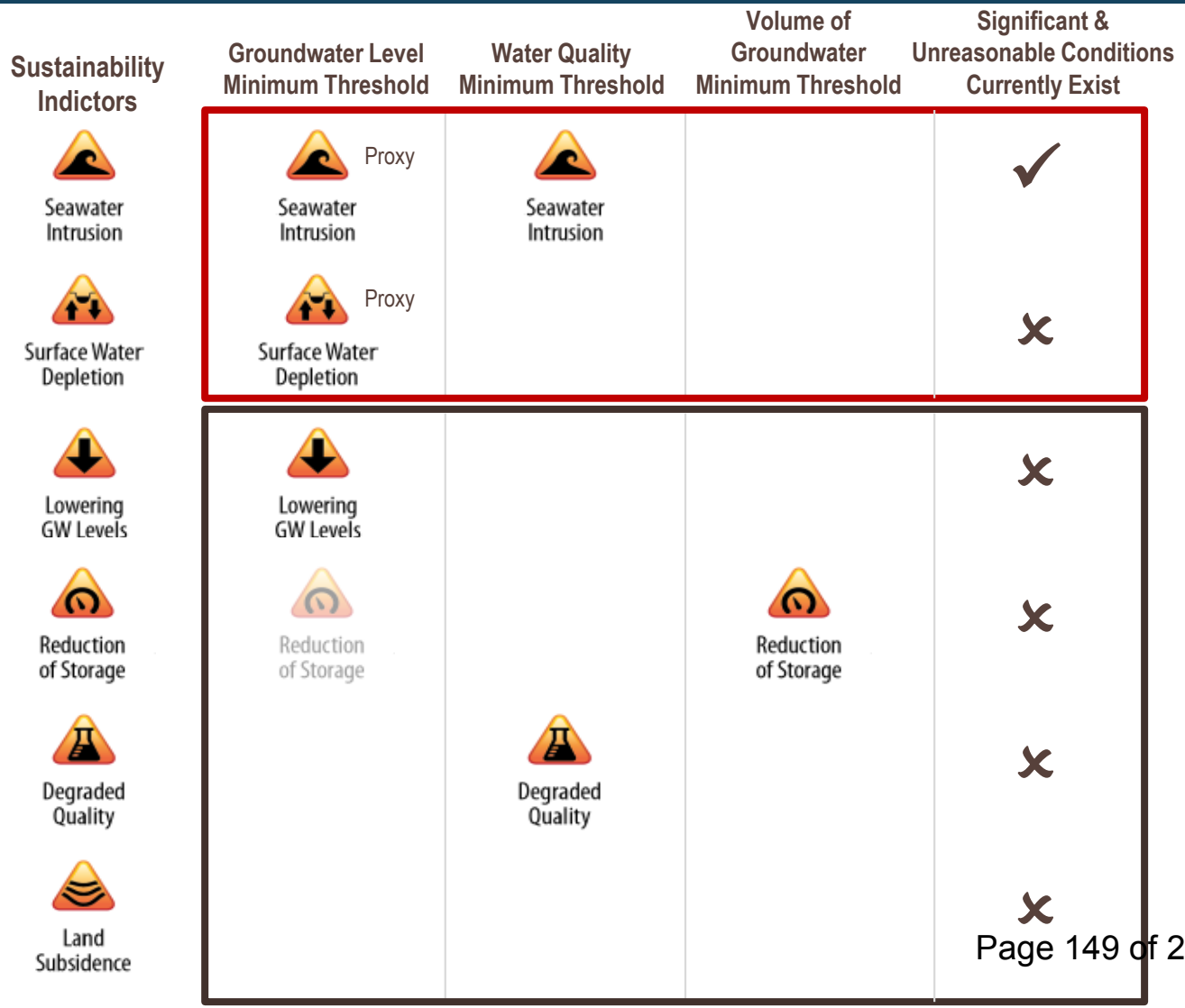
Figure 11. Simulated Groundwater Level Results with and without Projects at Shallow Wells along Soquel Creek

Item 12.2 Sustainability Management Criteria & Modeling

GSP Sustainability Indicators

- Chronic lowering of groundwater levels
- Reduction in storage
- Seawater intrusion
- Degraded groundwater quality
- Land subsidence
- Depletion of interconnected surface water

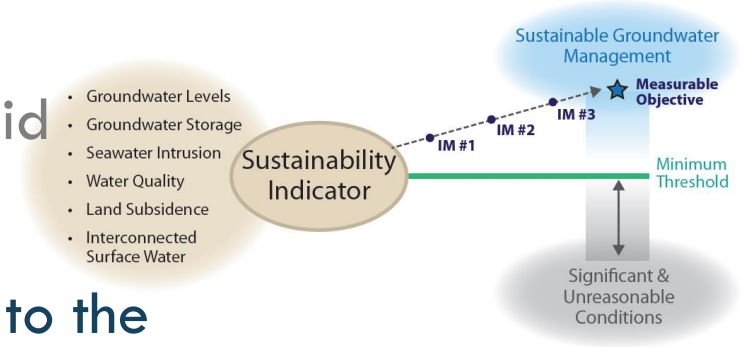
Six Sustainability Indicators



Sustainable Management Criteria

Significant and Unreasonable

Qualitative conditions that we want to avoid



Undesirable Result

Quantitative set of conditions related to the minimum threshold that cause significant & unreasonable effects

Minimum Threshold

Numeric value for each sustainability indicator used to define undesirable results

Measurable Objective

Quantifiable goals for the maintenance or improvement of specified groundwater conditions

Chronic Lowering of Groundwater Levels

- Significant and Unreasonable

  A significant number of private, agricultural, industrial, and municipal production wells can no longer provide enough groundwater to supply beneficial uses

- Undesirable Results

  The **average monthly** representative monitoring well groundwater elevation falls below the <Minimum Threshold>

Chronic Lowering of Groundwater Levels

- Minimum Threshold

  Based on the **groundwater elevation required to meet the typical overlying water demand in the shallowest well** in the vicinity of the representative monitoring well. The minimum threshold is not allowed to be >30 feet below historic low groundwater elevation

Chronic Lowering of Groundwater Levels

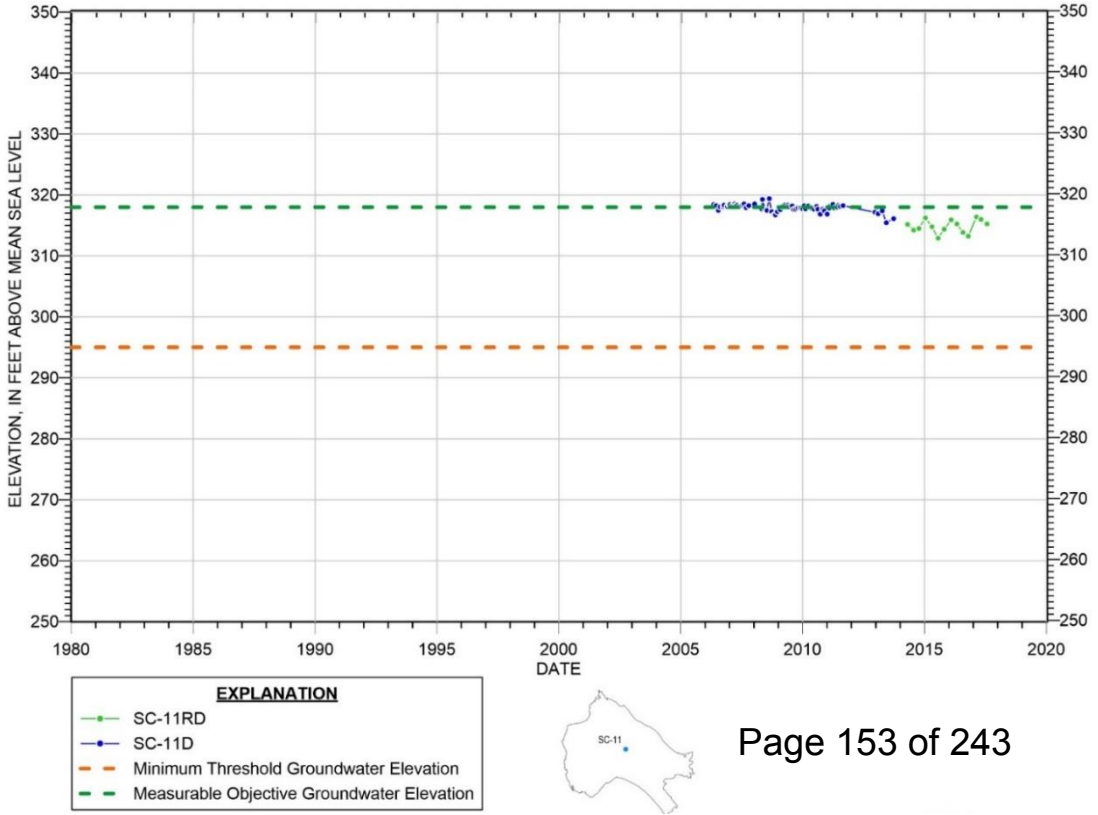
Lowering GW Levels

- Measureable Objectives

  90th percentile of historical groundwater elevations for the period of record

Measurable Objective = 90th Percentile of available data

Minimum Threshold = groundwater elevation required to meet the typical overlying water demand in the shallowest well in the vicinity of the monitoring well, and <= 30 ft below historic low



Discussion on Chronic Lowering of Groundwater Levels

Reduction in Storage

- Reduction in storage sustainability indicator is a ***total volume of groundwater that can be withdrawn from the basin*** without causing conditions that may lead to undesirable results
  - Not measured by a change in groundwater in storage

- Significant and Unreasonable

  A net volume of groundwater extracted that will likely cause other sustainability indicators to have undesirable results

Reduction in Storage

- Undesirable Results

  Five-year average net extraction exceeding the Sustainable Yield (minimum threshold) for any one of the following groups of aquifers:

  - Aromas aquifer and Purisima F aquifer
  - Purisima DEF, BC, A, and AA aquifer
  - Tu aquifer

  Note: GSP regulations only require one volume for the basin but staff recommends separate volumes by aquifer group

Reduction in Storage

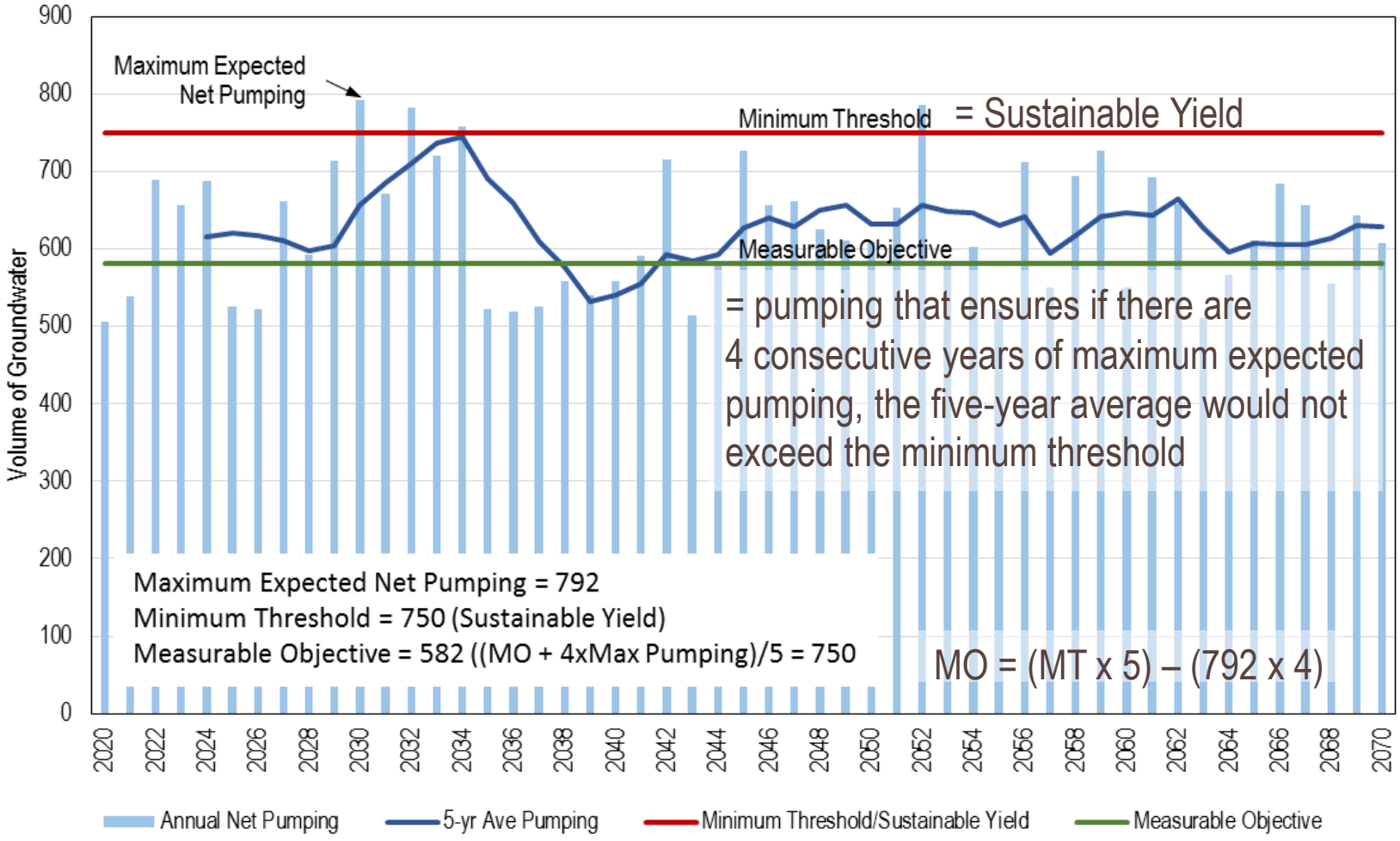
- Minimum Threshold

  Sustainable Yield representing the net annual volume of groundwater extracted (pumping minus annual volume of managed aquifer recharge) for any one of the groups of aquifers. *Sustainable Yield still to be determined*

- Measurable Objective

  The maximum net annual groundwater to be extracted that ensures if there were four subsequent years of maximum projected net groundwater extraction, net annual groundwater extractions greater than the minimum threshold will not occur for any one of the following groups of aquifers

Reduction in Storage



Discussion on Reduction of Storage

Seawater Intrusion

- Significant and Unreasonable

  Seawater moving farther inland than has been observed from 2013 – 2017

- Undesirable Results for:
  - Chloride isocontour (required)
  - Protective groundwater elevations (proxy)

Seawater Intrusion

- Undesirable Results for Chloride Isocontours

  Intruded coastal monitoring wells:

  chloride concentration above their 2013-2017 maximum chloride concentration. This concentration must be exceeded in 2 or more of the last 4 consecutive quarterly samples

  Unintruded coastal monitoring wells:

  chloride concentration above 250 mg/L. This concentration must be exceeded in 2 or more of the last 4 consecutive quarterly samples

  Unintruded inland monitoring & production wells closest to the coast: chloride concentration above 150 mg/L. This concentration must be exceeded in 2 or more of the last 4 consecutive quarterly samples

Seawater Intrusion

- Undesirable Results for Protective Elevations

  Five-year average groundwater elevations below protective groundwater elevations for any coastal representative monitoring well

  Significant and unreasonable conditions occur if there are undesirable results for either chloride isocontours or protective elevations

Seawater Intrusion

- Minimum Thresholds

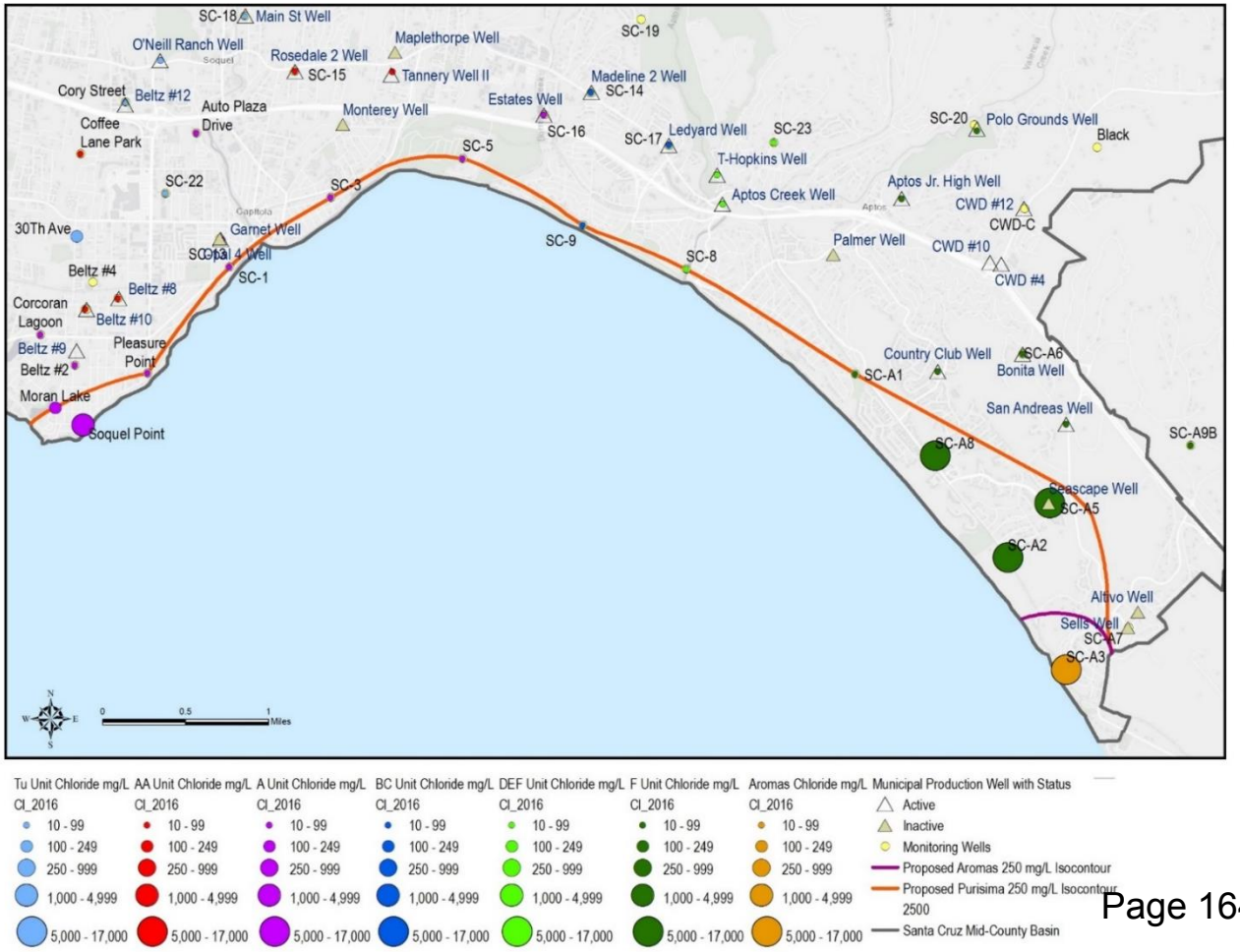
  Chloride Isocontour: Separate 250 mg/L chloride isocontours for Aromas and Purisima aquifers based on current chloride concentrations in coastal monitoring wells

  Protective Elevations (proxy): coastal wells with protective groundwater elevations that keep the equilibrium position of the freshwater / seawater interface from impacting underlying aquifers from which production wells pump

Seawater Intrusion

Seawater Intrusion

Minimum Thresholds Chloride Isocontour



Seawater Intrusion

- Measurable Objectives

  Chloride Isocontour: Same locations as the minimum threshold isocontour but the concentration is reduced from 250 mg/L (minimum threshold) to 100 mg/L

  Protective Elevations (proxy): higher groundwater elevations than minimum thresholds that are more protective of the full depth of the aquifer

Groundwater Modeling used to Evaluate Basin's Predicted Sustainability

- Modeling used to evaluate whether projects & management actions increase groundwater levels to achieve sustainability
- Projects modeled:
  - Pure Water Soquel to replenish the basin and protect against further seawater intrusion (approved by SqCWD)
  - City of Santa Cruz Aquifer Storage & Recovery to meet City water shortfall (initial iteration for City feasibility study)
- Management actions modeled
  - Enhancements to pumping distribution in combination with Pure Water Soquel

Seawater Intrusion
Predicted Groundwater Elevations

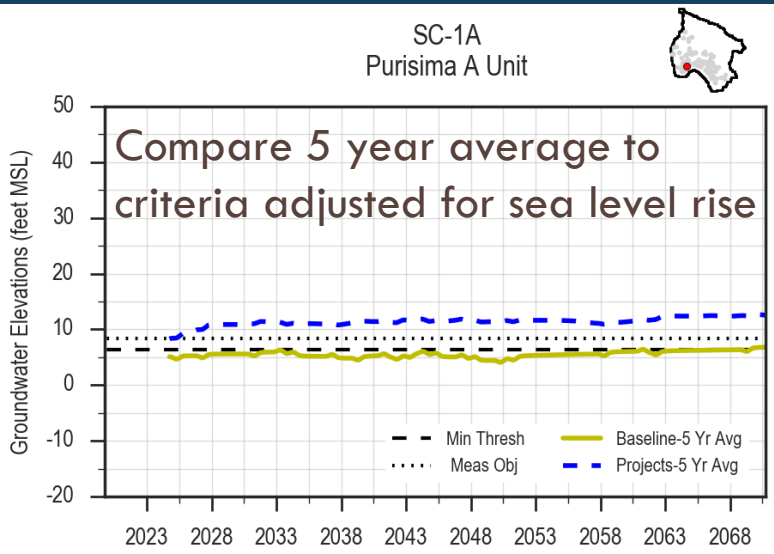
Seawater Intrusion

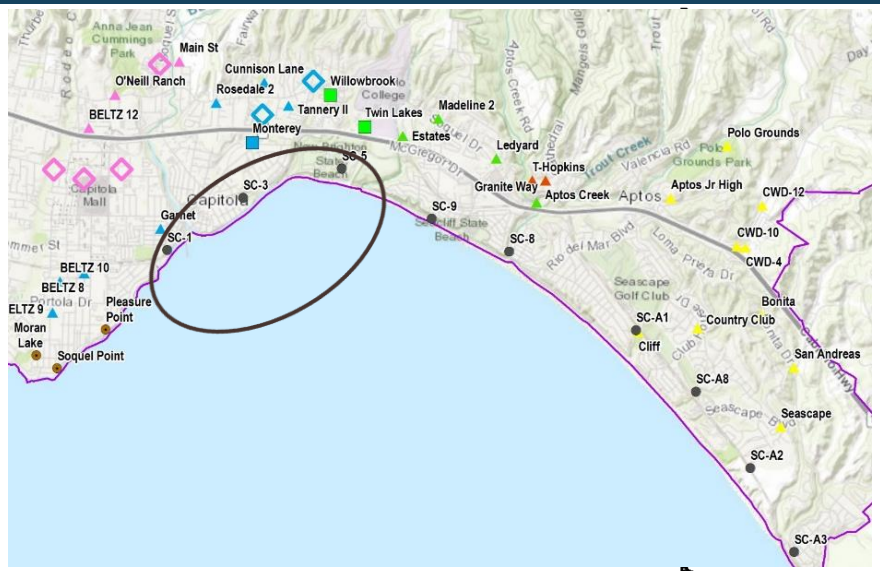
- With Modeled Projects:
  - At most coastal monitoring wells, groundwater levels recover to minimum thresholds by 2040
  - After 2020, levels are maintained
  - City of Santa Cruz A- and AA-Unit coastal monitoring wells do not recover to minimum thresholds by 2040
  - Measurable objectives are attained at many coastal monitoring wells
- Without Modeled Projects/Actions:
  - Recovery of Basin not achieved

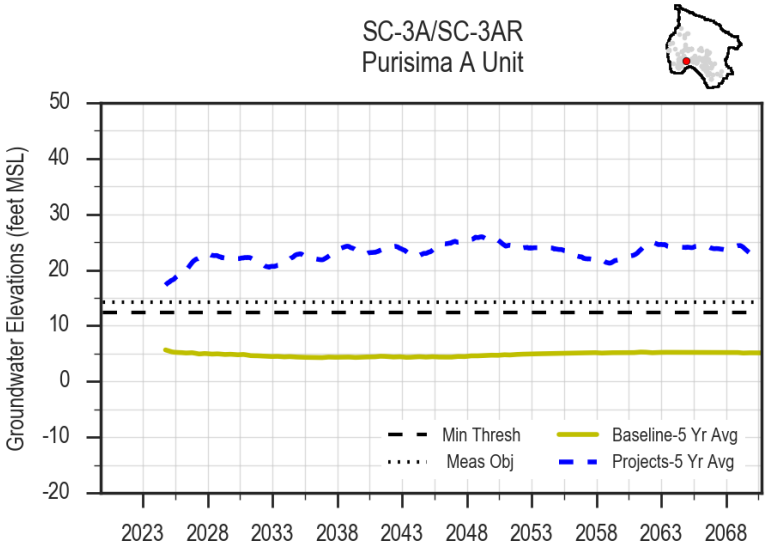
Should be achievable with reconfiguration of ASR

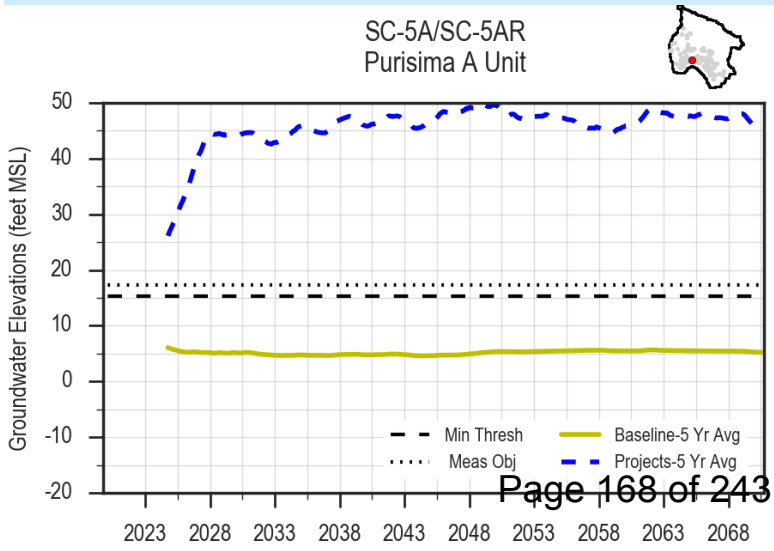
Example Predictive Hydrographs

Seawater Intrusion









Discussion on Seawater Intrusion

Degraded Groundwater Quality

- Significant and Unreasonable

  Significant and unreasonable degradation of groundwater would occur when groundwater quality, attributable to groundwater pumping or managed aquifer recharge, **fails to meet state drinking water standards**

Degraded Groundwater Quality

- Undesirable Results

  Groundwater quality undesirable results in the basin occur when as a result of groundwater pumping or managed aquifer recharge, any representative monitoring well exceeds any <minimum threshold>

Degraded Groundwater Quality

- Minimum Thresholds

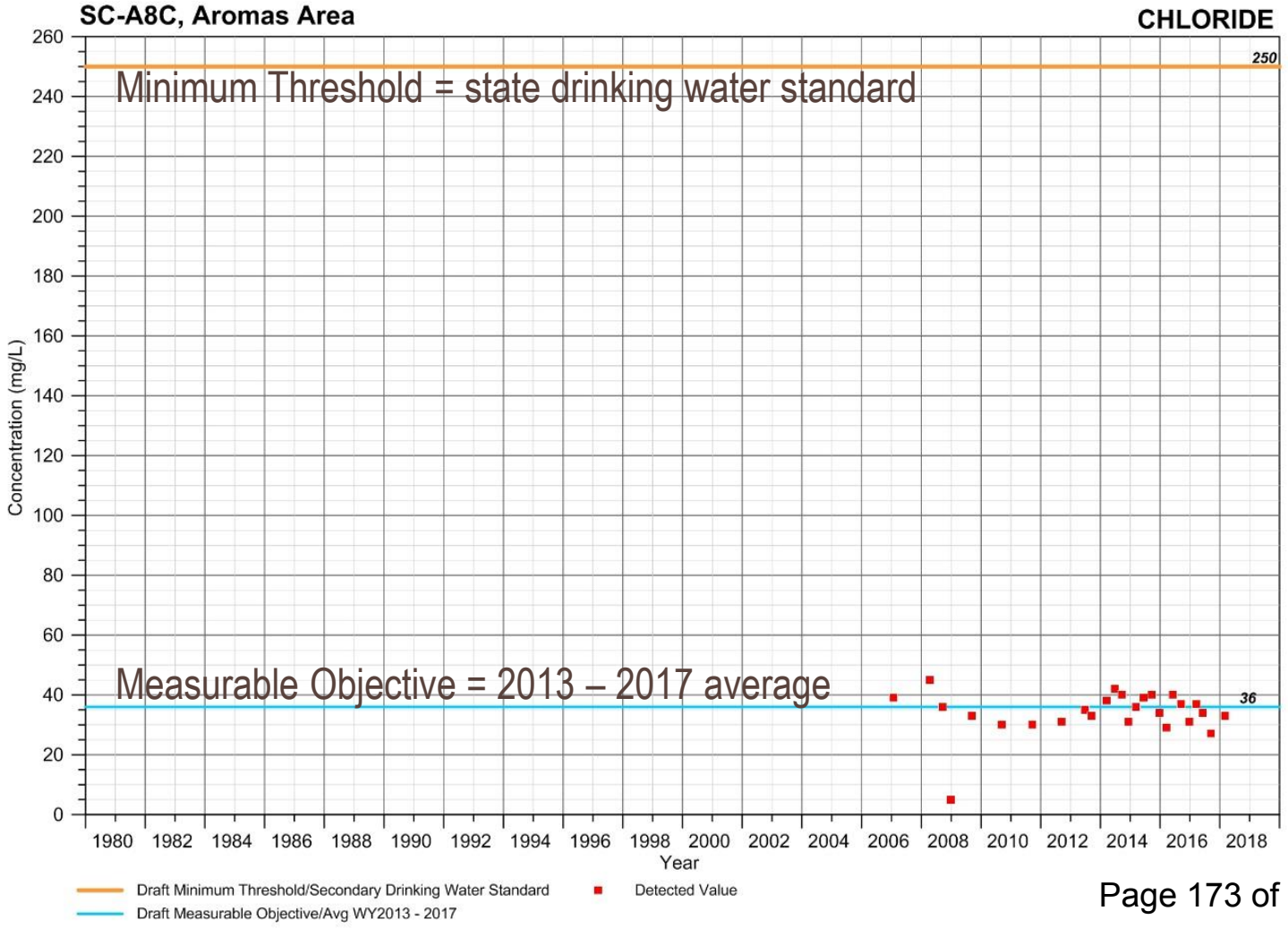
  Minimum thresholds are **state drinking water standards** for each constituent of concern that is monitored in representative monitoring wells for degraded groundwater quality

- Measurable Objective

  Measurable objectives for each representative monitoring well are equal to the **2013 – 2017 average** concentrations for each constituent of concern

Degraded Groundwater Quality

Degraded Quality



Degraded Groundwater Quality

Constituent of Concern	Reason for Concern	Minimum Threshold/ Drinking Water Standard
Total dissolved solids	general health of basin & seawater intrusion	1,000 mg/L
Chloride	general health of basin & seawater intrusion	250 mg/L
Iron	naturally elevated	300 µg/L
Manganese	naturally elevated	50 µg/L
Arsenic	naturally elevated	10 µg/L
Chromium (Total)	naturally elevated	50 µg/L
Chromium VI	naturally elevated	none set yet
Nitrate as Nitrogen	septic systems & agriculture	10 mg/L
Perchlorate	agriculture related	6 µg/L
Organic compounds	human introduced	various

Degraded Groundwater Quality

- Projects Implemented as part of the GSP to achieve sustainability
  - Unique constituents of concern that will apply to monitoring and production wells included in their use permits granted by the State Water Board Division of Drinking Water
  - Monitoring wells to be used for monitoring as part of project permit conditions will be included as representative monitoring wells in the GSP
  - Constituents monitored will become constituents of concern at those particular representative monitoring wells

Discussion on Degraded Groundwater Quality

Land Subsidence

- Land subsidence due to lowered groundwater levels was found to not be applicable in the Basin as an indicator of groundwater sustainability and therefore no SMC are set

- Significant and Unreasonable

  Any land subsidence caused by lowering of groundwater levels occurring in the basin would be considered significant and unreasonable

Discussion on Land Subsidence

Depletion of Interconnected Surface Water

- Significant and Unreasonable

  Surface water depletion, due to groundwater extraction, in interconnected streams supporting priority species, greater than that experienced over the period from the start of shallow groundwater level monitoring through 2015

- Undesirable Results

  Any shallow representative monitoring well's groundwater elevation falling below its <minimum threshold> would be an undesirable result

Depletion of Interconnected Surface Water

- Minimum Thresholds

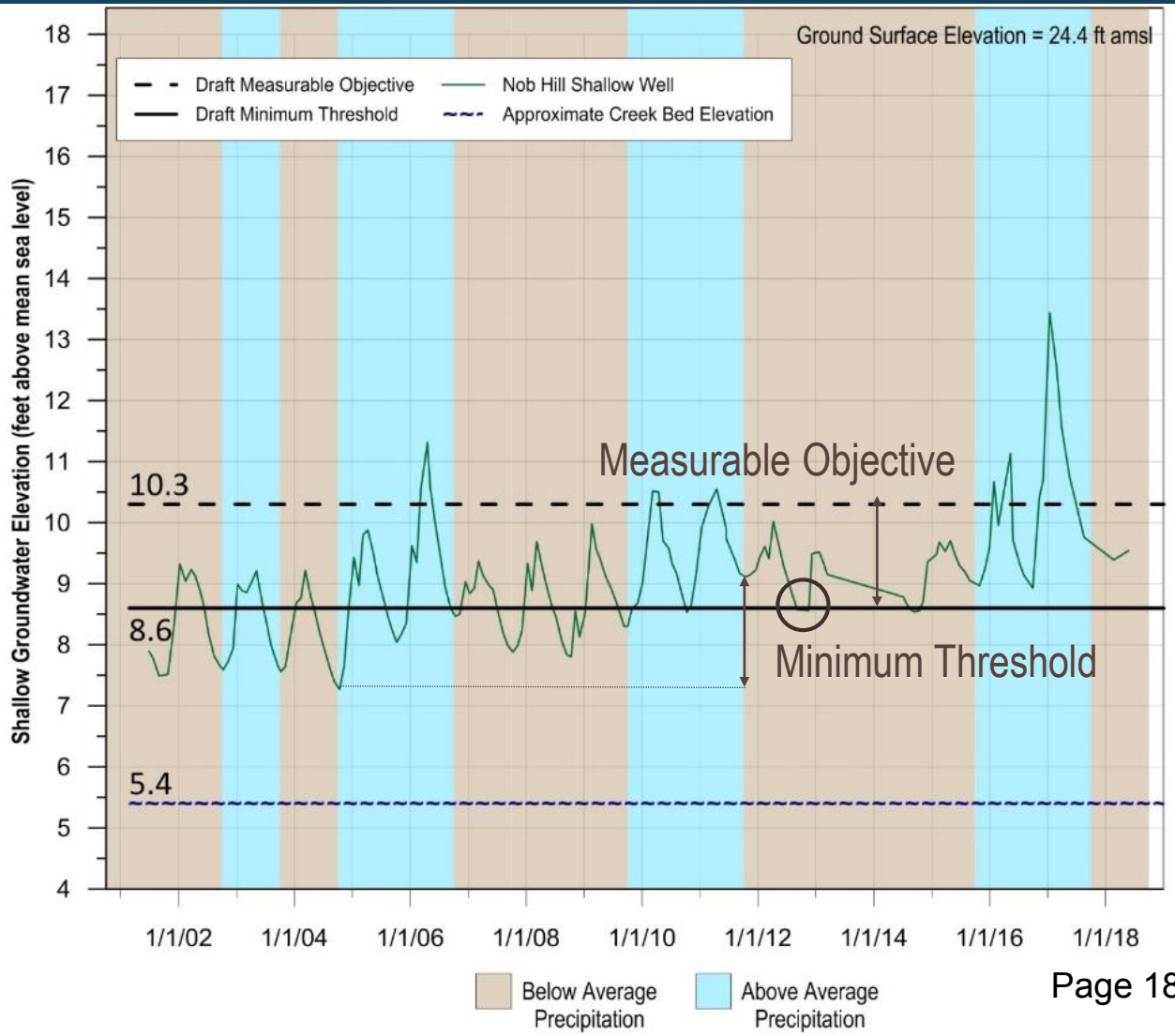
  The highest seasonal-low groundwater elevation in representative monitoring wells during below-average rainfall years, over the period from the start of monitoring through 2015

- Measurable Objectives

  Exceed the minimum threshold by the range in seasonal-low shallow elevations over the period of record through 2015.

Depletion of Interconnected Surface Water

Surface Water Depletion

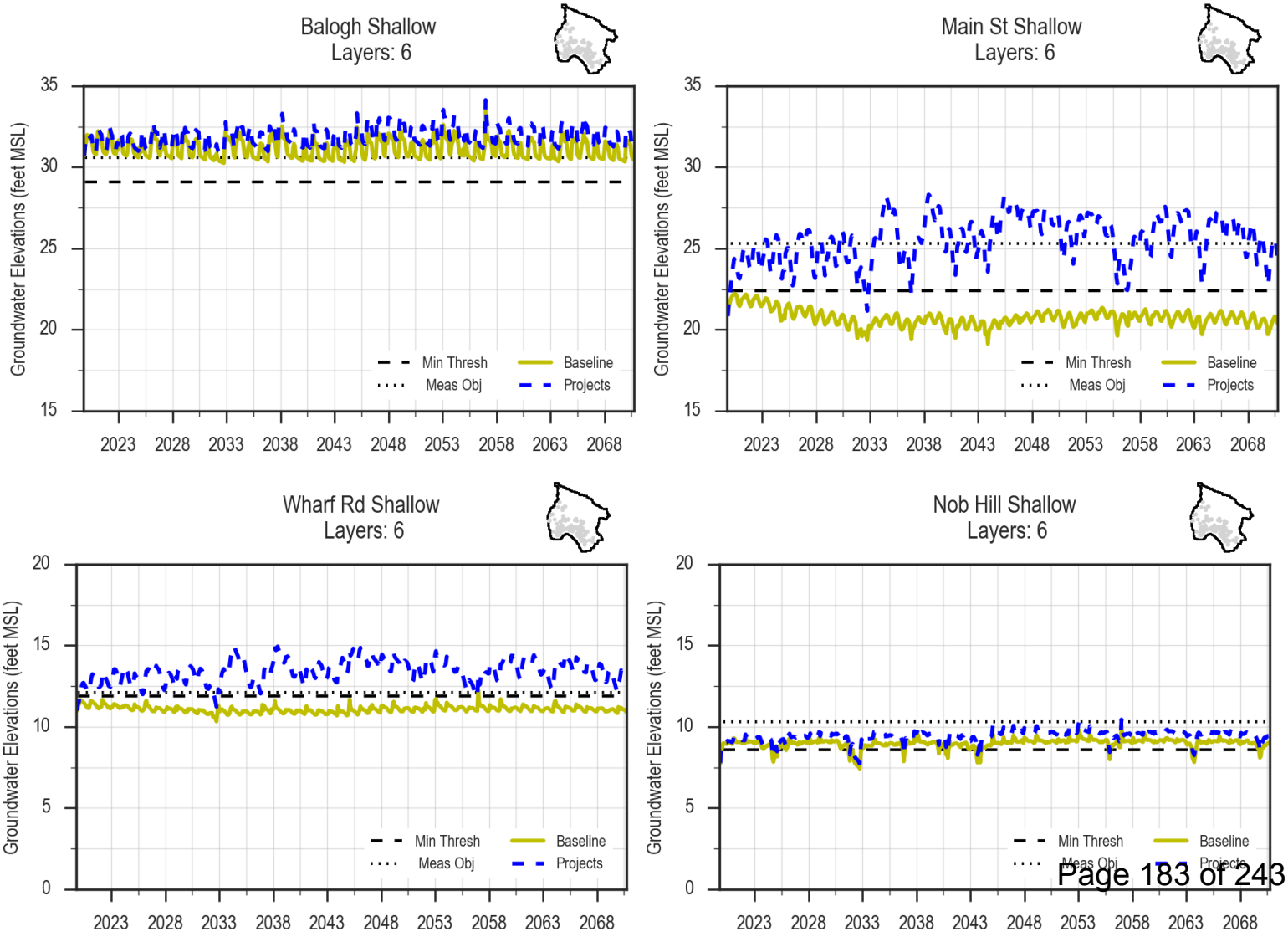


Depletion of Surface Water Predicted Groundwater Elevations

- With Modeled Projects:
  - All shallow monitoring wells on lower Soquel Creek monitoring achieve minimum thresholds by 2040
- Without Modeled Projects:
  - Minimum thresholds are not achieved

Example Predictive Hydrographs

Surface Water Depletion



Discussion on Depletion of Interconnected Surface Water

Final Questions and Discussion

May 16, 2019

MEMO TO THE MGA BOARD OF DIRECTORS AND GSP ADVISORY COMMITTEE

Subject: Agenda Item 13.1

Title: Groundwater Sustainability Plan (GSP) Overview of Review and Approval Process and Timeline

Attachments:
1. GSP Review and Approval Process Timeline

Background

California's Sustainable Groundwater Management Act (SGMA) requires Groundwater Sustainability Agencies (GSA) of all critically overdrafted basins to approve and submit a GSP to the California Department of Water Resources (DWR) by January 31, 2020. This requirement applies to the Santa Cruz Mid-County Groundwater Agency (MGA) because the Mid-County Groundwater Basin (MGA Basin) is a state-designated high priority groundwater basin in critical overdraft.

GSP Advisory Committee Role and Recommendations

The MGA conducted an open recruitment process for Advisory Committee applicants that resulted in the selection of highly qualified members to represent the perspectives and interests of beneficial uses and users of groundwater within the MGA Basin. During the 21 months between October 2017 and June 2019 the GSP Advisory Committee will meet a total of 27 times[1] to learn about the MGA Basin and to develop sustainability recommendations for the MGA Board's consideration.

The GSP Advisory Committee will make specific recommendations to the MGA Board on the MGA Basin Sustainability Goal. The committee will also recommend sustainable management criteria for each the six state identified sustainability indicators, including: Seawater Intrusion, Depletion of Interconnected Surface Water, Land Subsidence, Chronic Lowering of Groundwater Levels, Reduction of Groundwater in Storage, and Degraded Water Quality.

Within the GSP each of the following sustainable management criteria will be described for the sustainability indicators that apply to the MGA Basin:

[1] This meeting count includes GSP Advisory Committee meetings, orientation sessions, enrichment sessions, and site visits that were open to the public. Not included are four stream water working group meetings that were short duration sub-committee meetings of the GSP Advisory Committee that included issue area experts and were not open to the public. All of the proceedings of the Stream Water Working Group were reported to the entire GSP Advisory Committee during its open public meetings.

1) Undesirable Results (qualitative definition of unsustainable conditions),
2) Minimum Thresholds (quantifiable measure of unsustainable conditions), and
3) Measureable Objective (quantifiable measure of sustainability goals)

GSP Advisory Committee members will vote to approve their final recommendations to the MGA Board on the Sustainability Goal and Sustainable Management Criteria. MGA staff and consultants will summarize the final recommendations, including any comments that provide insight regarding the recommendations made to MGA Board.

GSP Release, Review, and Approval Process

The MGA will release an administrative draft GSP in the MGA Board packet on July 12, 2019. The GSP comment period will run from July 12, 2019 to September 19, 2019 and will include two public meetings in July. The first public meeting will be held on Saturday, July 20, 2019 from 10:00-noon at the Community Foundation Santa Cruz County. A second public meeting will be held on Monday, July 22, 2019 from 7:00-9:00 pm at Simpkins Family Swim Center. The MGA will accept comments and finalize the GSP for submission to DWR prior to the January 31, 2020 deadline. The first GSP Annual Report is due to DWR prior to April 1, 2020.

Local Agencies and Interested Parties

Under SGMA, the MGA is required to notify any city and county within the groundwater basin to allow an opportunity to comment on the plan at least 90 days prior to the date the MGA approves the GSP.[2] The MGA is required to consult with any city or county that requests a GSP consultation within 30 days of receipt of the MGA notice. The notice will be distributed to the cities of Santa Cruz and Capitola, the County of Santa Cruz, and interested parties[3] using the MGA email list no later than July 12, 2019.

MGA Board

The MGA Board will consider the recommendations of the GSP Advisory Committee provided to the Board in June following the final meeting of the GSP Advisory Committee on June 19, 2019, will provide direction to MGA staff on those

[2] California Water Code § 10728.4 states, "A groundwater sustainability agency may adopt or amend a groundwater sustainability plan after a public hearing, held at least 90 days after providing notice to a city or county within the area of the proposed plan or amendment. The groundwater sustainability agency shall review and consider comments from any city or county that receives notice pursuant to this section and shall consult with a city or county that requests consultation within 30 days of receipt of the notice…"

[3] Interested parties refers to persons and entities interested in receiving notices regarding plan preparation, meetings and other relevant information. By written request, persons and entities are placed on the list of interested persons established by the Agency pursuant to Water Code Section 10723.4.

recommendations and will begin to receive comments on the administrative draft GSP at its meeting on July 18, 2019. MGA Board will provide direction to staff on finalizing the GSP at its September 19th board meeting. MGA staff and technical consultants will prepare a final GSP based on direction received from the MGA Board. The final GSP will be published in the MGA Board packet for consideration at the Board's November 21, 2019 meeting. The MGA Board will approve or amend the final GSP for submission to DWR prior to the state mandated deadline on January 31, 2020.

Department of Water Resources (DWR)
DWR will receive all GSP submissions posted by GSAs online at DWR's SGMA Portal website. Once plans are posted online, the DWR 60-day comment period begins. DWR will receive comments from resource agencies, the public, and other interested parties during the comment period. Comments received by DWR will be posted to the SGMA Portal. DWR is not required to respond to comments received during this 60-day comment period, but will review GSPs in light of comments received.

Schedule
A proposed GSP review and approval process timeline is provided as attachment 1 to this memo.

Recommended Action:

Informational only, no action required.

By _____
Darcelle Pruitt
Senior Planner
Regional Water Management Foundation

Agenda Item 13.1.1
MGA GSP Release, Review, and Approval Process Timeline

Date	Activity	Purpose/comments
May 16, 2019	Joint Meeting of MGA Board and GSP Advisory Committee	Provide status update and set GSP review expectations.
May 2019	MGA Website Updates	Create locations for: draft GSP and GSP outreach and meeting timelines (easy to find). Update all other content to focus on GSP rollout.
June 1, 2019	Survey of MGA Basin residents	Get a better sense of where we stand with MGA outreach. Survey as an outreach mechanism.
June 15, 2019	MGA Basin Postcard Mailer	Inform all MGA Basin residents and property owners about the GSA, the GSP rollout, and direct them to MGA website and survey.
June 19, 2019	GSP Advisory Committee Final Meeting	GSP Advisory Committee makes final refinements to Sustainable Management Criteria for each Sustainability Indicator and MGA Sustainability Goal and votes on its recommendations (showing levels of support and providing comments as needed).
July 12, 2019	Draft GSP in MGA Board meeting packet	GSP release date under Brown Act
July 12, 2019	GSP Notification to Interested Parties, including Cities and County	SGMA Requirement. Can be noticed electronically.
July 18, 2019	MGA Board Meeting	Draft GSP comment period begins. Staff will do media outreach in anticipation of this MGA Board meeting.
July 20th (morning) and 22nd (evening), 2019	Draft GSP Open House Meetings	Introduce major GSP elements to the public and take written comments. Introductory presentation, tables representing major GSP components for people to visit, learn, and ask questions.

July 18 - September 19	GSP review and written comment period.	MGA Board members to review GSP. MGA staff will accept, review, and consider all written GSP comments received from board members, agencies, the public, and interested parties.
Ongoing	MGA staff reviews comments	MGA staff to review comments for major items to go before MGA Board during September meeting.
September 19, 2019	MGA Board Meeting and Public Hearing	Receive and discuss MGA Board comments and those provided by agencies, public, and interested parties as needed. Opportunity to present oral comments on the GSP.
Sep-Nov	Comment incorporation	MGA staff and technical team to revise Draft GSP based on comments received at direction from MGA Board. All comments will be compiled. All comments need not be directly addressed as in a CEQA document.
November 21, 2019	MGA Board Meeting	Adopt Final GSP.
Late November	Submit Final GSP to DWR	Final GSP uploaded and available at DWR SGMA Portal.
Within 20 days of submittal	DWR comment period	60 days to make comments to DWR regarding MGA's GSP submission.
January 31, 2020	GSP submission cutoff	Last day to submit GSP to DWR under SGMA legislation.
April 1, 2020	First Annual Report due	Report to include: general information about MGA basin, description of basin conditions (groundwater elevations, groundwater extractions, surface water supply for groundwater replenishment, total water use, change in groundwater storage) description of GPS implementation progress (including achieving interim milestones and implementation of projects and/or management actions.)

May 16, 2019

MEMO TO THE MGA BOARD OF DIRECTORS AND GSP ADVISORY COMMITTEE

Subject: Agenda Item 13.2

Title: Groundwater Sustainability Plan (GSP) Implementation Ongoing Funding Approach

Attachments:

1. White paper – Santa Cruz Mid-County Groundwater Agency Evaluation of Private Pumper Funding Mechanisms and Fee Criteria authored by Raftelis.

Background

The Santa Cruz Mid-County Groundwater Agency (MGA) will require ongoing funding to implement its Groundwater Sustainability Plan (GSP or Plan) once it has been accepted by the State. The topics of what will need to be paid for and who will be required to pay for it have been regularly brought up by both the Board and the public throughout the Plan development process. As the GSP is moving closer to completion, staff have started looking to the implementation of the Plan. After much study, analysis, and deliberation, the following understandings have emerged.

Decisions and Understandings Affecting Ongoing Funding

- The MGA Board determined at its November 2018 meeting that it is not the MGA's role to be the lead implementation entity of major projects. Instead, that role resides with the individual Joint Powers Authority (JPA) agencies.

- The MGA may play a limited role in funding projects and/or management actions. This will most likely take the form of match or in-kind contributions. Most of the fiscal responsibility of the MGA will be around the following topic areas:
    - Administration
    - Annual reviews
    - Monitoring beyond existing efforts, including installation of monitoring devices (wells and stream gages)
    - Data Management
    - 5-year reporting
    - Ongoing modeling as needed
    - SkyTEM updates
    - Outreach and possible conservation incentives

- The MGA has long indicated that fees will be based on negative impact to the basin. Recent modeling and analysis has assessed the impact of private pumpers on seawater intrusion and streamflow. The results, which were presented to the Advisory Committee between October 2018 and April 2019, show that private pumpers are having a minimal impact on basin groundwater levels, particularly along the coast. There is also not yet enough information to establish a measurable link between de

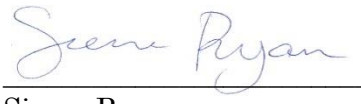
minimis pumping and stream depletion. Due to this, de minimis users will likely be exempted from charges for basin sustainability for the foreseeable future.

- The JPA Member Agencies will continue to contribute both cash and in-kind work for GSP implementation. This includes seeking grant funds for MGA-related activities.

- Larger non-de minimis pumpers in the basin should be required to meter their wells and report their use, but not pay any fees initially, until such time that the MGA Board deems it appropriate to charge fees and the authority and mechanism for charging fees is further clarified by the courts. The attached white paper authored by Raftelis details alternative approaches the MGA can consider for including non-de minimis pumpers in the funding of basin management. The white paper also contains a discussion of inclusion of de minimis pumpers as part of the long-term funding strategy.

Recommended Action:

Informational only, no action required.

By 

Sierra Ryan
Water Resources Planner
County of Santa Cruz

SANTA CRUZ
MID-COUNTY GROUNDWATER AGENCY

Evaluation of Private Pumper Funding Mechanisms and Fee Criteria

May 2019

RAFTELIS

May 3, 2019

John Ricker
Water Resources Division Director
County of Santa Cruz
701 Ocean Street, Room 312
Santa Cruz, CA 95060

Subject: Private Non-de minimis Funding Options and Fee Criteria

Dear Mr. Ricker:

This memorandum identifies opportunities for the Santa Cruz Mid-County Groundwater Agency (MGA) to recover costs of Groundwater Sustainability Plan (GSP) administration and management. The criteria, necessary policies, and data required for charging non-de minimis pumpers are explained in detail as well as estimated charges based on preliminary cost estimates and groundwater user data. Development of a funding mechanism is critical to facilitate successful implementation of the GSP consistent with the requirements of the Sustainable Groundwater Management Act (SGMA). A key success factor is preparing a cost allocation that is equitable to GSA members and basin users.

This White Paper includes discussion on the following items:

- Preliminary GSA Budget
- Fee basis options
- Criteria for including/excluding users from cost recovery
- Calculation of hypothetical non-de minimis private pumper charges
- Costs and benefits of various types of charges
- Proposition 218 and 26 requirements in the context of SGMA

The tasks identified to prepare the White Paper include:

1. Determine the suite of options to recovery GSA costs from non-de minimis pumpers based on geographic location, proximity to surface water and the coast, volume of water pumped, and other criteria
2. Calculate fees using preliminary data based on parcels, acreage, and volumetric production of water
3. Assess the costs and benefits of each fee structure and mechanism for implementing each fee
4. Relate the implications of each fee type to the requirements of Proposition 218 and Proposition 26
5. Describe the conditions, if any, whereby de minimis users can be charged for a fair share of MGA costs

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1. Introduction and Study Background

1.1 Santa Cruz Mid-County Groundwater Agency

The Santa Cruz Mid-County Groundwater Agency (MGA) is a Joint Powers Authority (JPA)[1] formed by the Central Water District, the City of Santa Cruz, the Soquel Creek Water District, and the County of Santa Cruz to oversee groundwater management activities in the Mid-County Basin of Santa Cruz County. The MGA is governed by an eleven-member board consisting of two officials each from the agencies named in the JPA as well as three private well owner representatives. The MGA is charged with implementing the requirements of the Sustainable Groundwater Management Act (SGMA) of 2014 which consists of developing a Groundwater Sustainability Plan (GSP) and implementation of the adopted GSP over a long horizon.

Due to chronic over-pumping and impending seawater intrusion into the aquifer, the Mid-County Basin has been designated a critically overdrafted basin by the Department of Water Resources (DWR) in Bulletin 118. Basins designated as "critical" must submit sustainability plans to DWR by January 2020 and achieve "sustainability" over a 20-year period. Sustainability is defined as mitigation of the following six undesirable results[2]:

- 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.
- Significant and unreasonable reduction of groundwater storage.
- Significant and unreasonable seawater intrusion.
- Significant and unreasonable degraded water quality, including the migration of contaminant plumes that impair water supplies.
- Significant and unreasonable land subsidence that substantially interferes with surface land uses.
- Depletions of interconnected surface water that have significant and unreasonable adverse impacts on beneficial uses of the surface water.

1.2 Study Purpose

The MGA has acquired grant funds to develop and submit the GSP. This paper concerns the long-term costs of managing, administering, and regulating the basin after GSP adoption, otherwise referred to as GSP implementation. More specifically, this paper addresses options in regulating and recovering plan implementation costs from private groundwater users not affiliated with the three municipal water agencies who are party to the JPA. Plan implementation costs include regulatory activities associated with groundwater monitoring, administration of the GSP, periodic reporting, outreach, and fee collection, among other activities. The following sections detail the estimated plan implementation costs (budget), identify several fee setting mechanisms for

[1] Joint Exercise Powers Agreement signed March 17, 2016
[2] Water Code §10721(x)

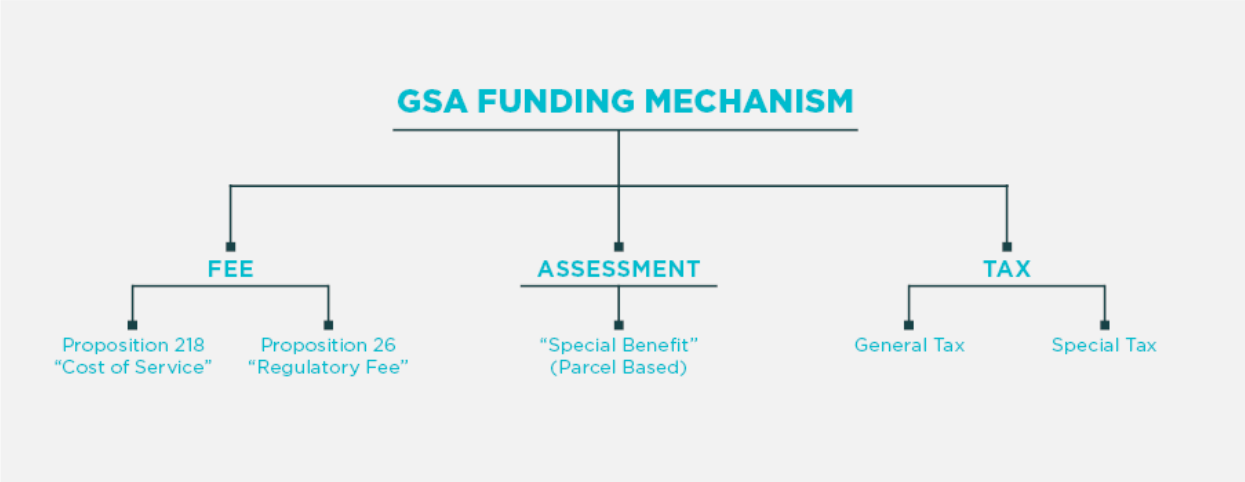
evaluation, discuss different measurement options for determining a regulatory fee, and considers the MGA's authority to charge non-de minimis[3] private groundwater users for groundwater management activities.

[3] SGMA defines de minimis users as those that are residential *and* extract less than two acre-feet of water per year. All other extractors are considered non-de minimis.

2. Funding Mechanisms

Due to Constitutional limitations imposed through California's Propositions 13, 218, and 26, there are strict distinctions between, and regulations associated with, fees and taxes. Taxes and assessments require voter approval. Water rates passed under Proposition 218 are subject to mandatory noticing and a potential majority protest. Regulatory fees are identified as an exemption from taxes under Proposition 26 and can be passed by majority vote of the governing body of the Agency imposing the fee[4]. An example is a dollar per acre foot ($/AF) pumping charge levied by a groundwater management agency. Other fees require protest proceedings for individuals who are paying the fees, for example water rates of a public utility. Figure 1 is a graphical illustration of the broad options available to MGA. What follows in this section is a primer on the various funding mechanisms available for exploration and considerations for the use of each as they relate to future MGA charges.

Figure 1- Funding Options



Raftelis is not a law firm and does not purport to give legal advice or make any recommendation on the legality of individual options in the context of SGMA. The aim is to illustrate the universe of funding mechanisms that may be available to the MGA. The legality of various funding options in the context of GSA fees and charges is fluid. The most recent meaningful case for MGA to consider is the *City of San Buenaventura versus United Water Conservation District* decision (Cal. Supreme Court Case No. S226036). Ultimately the GSA Counsel must opine on the legality of the funding mechanisms and MGA must choose what it believes to be most appropriate for the basin and its groundwater users. The following section introduces four potential funding mechanisms, including the statutory authorization and adoption procedures of each.

2.1 Regulatory Fee (Proposition 26)

The Agency can assess regulatory fees governed by Proposition 26 (Prop 26). This Proposition, passed in 2010, states that everything is a tax under the California Constitution Article XIII C, section 1(e), except:

[4] Proposition 26 and 218 Implementation Guide, League of California Cities, Sacramento, California, 2017

- **A charge imposed for a specific benefit** conferred or privilege granted directly to the payor that is not provided to those not charged, and which does not exceed the reasonable costs to the local government of conferring the benefit or granting the privilege.
- **A charge imposed for a specific government service** or product provided directly to the payor that is not provided to those not charged, and which does not exceed the reasonable costs to the local government of providing the service or product.
- **A charge imposed for the reasonable regulatory costs** to a local government for issuing licenses and permits, performing investigations, inspections, and audits, enforcing agricultural marketing orders, and the administrative enforcement and adjudication thereof.
- **A charge imposed for entrance to or use of local government property**, or the purchase, rental, or lease of local government property.
- **A fine, penalty, or other monetary charge** imposed by the judicial branch of government or a local government, as a result of a violation of law.
- **A charge imposed as a condition of property development**.
- **Assessments and property-related fees** imposed in accordance with the provisions of Article XIII D.

Property-related fees and special benefit assessments levied under Article XIII D are an exemption (number 7) from the requirements of Proposition 26. Additionally, every exaction must bear a fair or reasonable relationship to the payer's burden on, or benefits received from, the governmental activity.

Example: City of San Buenaventura (Ventura) Decision, 2017[5]
United Water Conservation District (District) imposes groundwater pumping fees. The District charges non-agricultural users three times that of agricultural uses. The City of Ventura challenged that the difference in pumping charges represented an illegal subsidy to agricultural users and violated Article XIII D, section 6(b) (Proposition 218) because the fees exceeded the cost of service. The appellate court held that the charges are not property related fees because they are based on the pumping activity and not property ownership (Ventura Water customers do not have their own wells). The court determined that the pumping charges are regulatory fees meeting the first two exceptions of Article XIII C, section 1(e): fee imposed for a specific benefit and does not exceed the reasonable cost of the service. Further the court stated that the reasonableness of costs is not to be measured on an individual basis, but on a collective basis. Since the total cost recovery across all users is reasonable, so is the fee.

MGA may argue that the fee imposed on users is for the reasonable regulatory costs related to managing the groundwater basin. This would presumably comply with Section 1(e)(3) *"A charge imposed for the reasonable regulatory costs…"* The calculated fees charged by MGA should not exceed the reasonable costs of administering and managing the GSP and the basin, and the fees should be proportional to the benefits.

[5] City of San Buenaventura v. United Water Conservation Dist. (2017) 3 Cal.5th 1191, 1198 (City of San Buenaventura)

Key Considerations
Cost to develop: Low
Cost to implement: Low
Collected by: Direct billing or County Assessor
Limitations on use of funds: Reasonable costs of managing the basin
Ease of protest: Not applicable

2.2 Rate/Fee for Service (Proposition 218)

Proposition 218 (Prop 218), passed by the voters in 1996, governs property related fees including water, wastewater, and solid waste. The measure created an amendment to the California Constitution: Article XIII D, Section 6. Proposition 218 was enacted to ensure in part that fees and charges imposed for ongoing delivery of a service to a property are proportional to, and do not exceed, the cost of providing service. Proposition 218 defines property related fees for service and the criteria for achieving the amendment's requirements. The principal requirements, as they relate to public water service fees and charges are as follows:

- Revenues derived from the fee or charge shall not exceed the costs required to provide the property-related service.
- Revenues derived by the fee or charge shall not be used for any purpose other than that for which the fee or charge was imposed.
- The amount of the fee or charge imposed upon any parcel shall not exceed the proportional cost of service attributable to the parcel.
- No fee or charge may be imposed for a service unless that service is actually used or immediately available to the owner of property.
- A written notice of the proposed fee or charge shall be mailed to the record owner of each parcel not less than 45 days prior to a public hearing, when the Agency considers all written protests against the charge.

Procedurally, Prop 218 requires noticing of all affected properties with each property allowed to protest the proposed rates. Absent a majority protest, rates can be adopted by majority vote of the governing body at a public hearing. SGMA makes explicit that fees imposed on the extraction of groundwater "shall be adopted in accordance with subdivisions (a) and (b) of Section 6 of Article XIII D of the California Constitution" (Water Code 10730.2(c)). This section is commonly referred to as Proposition 218.

As it exists, the section of the Water Code created by SGMA requires that fees charged by a GSA comply with Proposition 218 as a water service fee. It is Raftelis' understanding that there may be attempts to amend Water Code Section 10730.2(c) and adopt a lower standard. It is also our understanding that water law practitioners have varying opinions of the requirements of Section 10730.2 as it relates to fee adoption and "extraction of groundwater from the basin." The language in the Water Code is clear, however, and the issue will surely be litigated in the courts in the years to come.

The noticing and majority protest requirements of Proposition 218 presents challenges and questions in the context of GSA fees. If only private non-de minimis pumpers are noticed, it would be easy to foresee a majority protest as the groups are generally few and organized. Including de minimis users in the noticing may reduce the likelihood of a protest, however, it is unclear to Raftelis if such noticing would be considered legal since users classified as de

minimis would receive a notice but no charge for service. More, if only private users are noticed it is unclear if the substantive requirements of Proposition 218 would be met. Consider for example that all residential, commercial, and irrigation users within a municipal agency boundary are also users of groundwater, albeit with service from municipal wells. Is it legally defensible to exclude these users from noticing even if their water service provider is paying their proportional share of MGA management costs? Inclusion of municipal users to notice the entirety of the management area would almost certainly guarantee no majority protest of the fee, but again if these users were not assessed a fee in the notice it is unknown if this action would be legal. More, if municipal users are de-minimis in their water use (residential with annual consumption below two-acre feet per year (AFY)) is it lawful to charge these parcels if MGA is not "regulating" them at the time of fee adoption? These questions require further exploration by MGA's legal team.

Key Considerations
Cost to develop: Low-Moderate – Cost of Service Study Report
Cost to implement: Low
Collected by: Direct billing or County Assessor
Limitations on use of funds: Only for those costs identified in the Cost of Service Study
Ease of protest: Moderate to high

2.3 Assessment (Special Benefit Nexus)

Special assessments have been redefined over the years. Assessments for special benefit are also governed by Proposition 218 and are exempted from Prop 26; nor are they subject to a 2/3 vote like a special tax. Property owners can be assessed to pay for a public improvement or service if it provides a special benefit to the property. To assess, local government bodies must:

- Develop a Special Benefit methodology to determine each parcel's assessment
- Ensure that each owner's assessment does not exceed its proportional share of total costs when compared to total project costs
- Ensure only special benefits are assessable
- Ensure all parcels which benefit are assessable (with no government property exemptions)
- Prepare an engineer's report that determines the amount of special benefit to each property
- Notify all affected property owners by mail with mail-in protest ballot form

The Agency must then hold a Public Hearing to determine if a majority protest exists. Protest ballots are tabulated and weighted based on the *amount* of each assessment. Assessments have a similar implementation timeline to utility rates and the Agency has complete control over the timeline (unlike taxes). Once the Engineer's Report is approved, notices must be mailed at least 45 days prior to the public hearing. The notice must include the affected parcel's protest ballot. An average project timeline from start to finish is six months.

Like a possible majority protest under Proposition 218, the Agency runs the risk of protest by assessment if a few large users exercise their disproportionate power to protest the special assessment, and if only private non-de minimis pumpers are included. MGA could consider a special assessment for all users basin-wide to reduce the chance of protest, however, the lawfulness of assessing fees to de minimis users who are not "regulated" at the

time of adoption is unclear. Further, an assessment may be challenged post-formation by any property owner under the premise that the special benefit is invalid.

Key Considerations
Cost to develop: Moderate – Outreach and special benefit nexus report
Cost to implement: Low
Collected by: County Assessor
Limitations on use of funds: Only for those costs identified in the Engineer's Report
Ease of protest: Moderate to high

2.4 General and Special Taxes (approval from electorate)

Everything that does not meet the exceptions defined in Proposition 26, and is not a special assessment, is considered a tax and must be approved by the voters. The Agency is still required to develop a reasonable relationship between the tax and affected parcels. The tax could potentially be spread based on acreage, parcel, or by estimated pumping. These are not the only options but are the most likely given data availability. General taxes require a simple majority vote; however, the charges required to manage the basin and administer the GSP would most likely be considered a special tax. Article XIII D, Section 2(a) states that "Special purpose districts or agencies, including school districts, shall have no power to levy general taxes." Special taxes require a two-thirds (2/3) approval from the electorate (i.e. registered voters); and with a special tax, government properties are exempt from the tax.

A special tax would need to be placed on a ballot for either a general election or special election. There are specific tasks and a firm timeline that must be followed to include a tax measure on an election ballot. The minimum time required prior to election day to fulfill the requirements is approximately 90 days. A special tax is the option with the highest risk of failure as unlike Proposition 218 fees and assessments that require majority protest, a special tax would fail with any less than a 2/3 majority.

Key Considerations
Cost to develop: Low-Moderate
Cost to implement: High compared to other options
Collected by: County Assessor
Limitations on use of funds: None
Ease of protest: Moderate for General Tax; High (super-majority threshold failure) for Special Tax

2.5 Contract

A novel approach in recovering costs and charging non-de minimis extractors is to sign contracts with each based on individual pumping. Depending on the number of extractors and their agreeability, or lack thereof, negotiation costs may be high. Individual contracts may help to avoid political landmines related to the protest of fees and assessments or the high threshold of a special tax, however, it is Raftelis' recommendation that all non-de minimis users (any residential extractor greater than two AFY or any non-residential extractor) have a contract with MGA.

The Agency could face legal challenge if it was determined that low volume extractors were excluded from a contract because it was cost effective and politically expedient to do so.

Key Considerations

Cost to develop: Unknown

Cost to implement: depends on number of extractors and timeliness of negotiations

Collected by: Direct billing by MGA

Limitations on use of funds: Unknown

Ease of protest: Not applicable

Table 1 - Funding Mechanism Matrix

Basis	Development Cost	Implementation Cost	Collection	Funds Limitation	Ease of Protest
Prop 26 Regulatory Fee	Low	Low	Direct or Assessor Billing	Reasonable Costs	N/A
Prop 218 Fee for Service	Low-Moderate	Low	Direct or Assessor Billing	Cost of Service	Moderate to High
Special Assessment	Moderate	Low	Assessor Billing	Special Benefit Parcels	Moderate to High
Special Tax	Low-Moderate	High	Assessor Billing	None	High
Contract	Unknown	Unknown	Direct	Unknown	N/A

3. GSA Charges

3.1 GSA Budget

The GSA will incur costs in implementing the GSP. These include administrative costs, monitoring costs, and other interim costs. MGA has estimated a preliminary annual and five-year budget (annualized) for these activities including administration and personnel, data management, monitoring and management, and reporting. These costs are summarized in Table 2. The estimated annualized budget in 2019 dollars is $350,000.

3.1.1 ADMINISTRATIVE COSTS

These costs include dedicated MGA staff support, internal reporting, managing Agency information, public outreach, legal retainer, and program coordination.

3.1.2 MONITORING COSTS

There are several costs associated with monitoring groundwater in the basin. These are discussed in further detail below.

1. **Water Quality**

   Includes collection, testing, and analysis of groundwater samples from designated monitoring wells on a semi-annual basis. A trained professional will visit designated wells, perform field testing of select water quality parameters, collect samples, and send samples to a laboratory for water quality testing. Test results will be tabulated and reported per the GSP guidelines. Management of data, as well as annual preparation of a water quality monitoring summary.

   The water budget and numeric groundwater model will be updated and calibrated to incorporate the previous 5 years of applicable data.

2. **Stream Flow Monitoring**

   Inspection and monitoring of streams within the basin on a semi-annual basis. Tasks may include measuring flow rates, visual inspection of streams, noting changes in geomorphology, and preparation of a stream monitoring summary.

3. **Groundwater Monitoring and Shallow Groundwater Elevation**

   Monitoring of groundwater levels conducted semi-annually throughout the well network within the Basin. This may consist of multiple days of field monitoring annually in which a trained professional will manually measure depth to water, or, collect data from transducer data loggers. Management of data, as well as annual preparation of groundwater level monitoring summary.

4. **SkyTEM Offshore Surveys**

Monitoring of the change in the saltwater interface offshore is vital to the assessment of ongoing risk to the basin of saltwater intrusion. The SkyTEM geotechnical survey will be conducted approximately every 5 years.

5. Model Updates

As needed, the numeric groundwater model will be updated and calibrated with the data collected through the monitoring, and will in-turn inform additional data collection gaps.

6. Data Management System

Collected monitoring data will be included in a data management system.

3.1.3 FIVE YEAR ADDITIONAL SCOPE OF WORK

Every 5th year of GSP implementation and whenever the GSP is amended, the GSA is required to prepare and submit an Agency Evaluation and Assessment Report to the Department of Water Resources together with the annual report for that year. The assessment and report will be prepared as described in CWC § 356.10. Five-year costs are annualized to determine the amount of revenue required to fund Five Year activities on an annual basis.

1. Updated Water Budget and Sustainable Yield Value

The water budget will be updated and calibrated to incorporate the previous 5 years of applicable data. Using the updated model, MGA will generate a refined estimate of the sustainable yield of the basin.

2. Five Year Plan Evaluation and Assessment Report

Every 5th year of GSP implementation and whenever the GSP is amended, the GSA is required to prepare and submit an Agency Evaluation and Assessment Report to the Department together with the annual report for that year. The assessment and report will be prepared as described in California Water Commission (CWC) § 356.10.

3.1.4 COST CONTINGENCY

MGA is a new entity and is budgeting from the ground up. The cost estimate should account for a contingency between estimated and actual expenses. Cost contingencies provide a buffer for the variance in costs, particularly in the early years. Most frequently contingencies are estimated as a percentage of the total budget, or with better information, an expected dollar value. Comparable agencies budget for a contingency of 10 to 20 percent of expenditures. As the budgets in Sections 3.1.1, 3.1.2, and 3.1.3 are rough estimates using staff and consultant judgment and best available data, the cost estimate accounts for a $25,000 contingency.

3.1.5 RESERVES

In addition to covering the operations budget, the GSA should consider adoption of a reserves policy which is expressly authorized by SGMA (Section 10730(a) and 10730.2(a)(1)). Reasonable and achievable reserves are a prudent financial tool to aid in cash flow timing and unforeseen expenditures. Generally, a reserve for operations targets a specific percentage of annual operating costs or days of cash on hand. The reserve target is influenced by several factors including the frequency of billing and the recurrence of expenses. Comparable reserve percentage is 50% of operating budget if billing semi-annually and less if billing more frequently (monthly, bi-monthly, or quarterly). For this evaluation no reserve funding is assumed in the first year.

3.1.6 TOTAL REVENUE REQUIRED

The estimated Administrative, Monitoring, Five-year Update, and Contingency is combined to determine the annual revenue required to fund MGA. The total annual budget in 2019 dollars is $350,000 per year. This total includes the annualized amount of Five-year Update costs and does not account for any reserve funds.

Table 2 – MGA Budget Estimate

Task	Expense Items	Cost ($)
Administration	Personnel, Outreach, Program Coordination, Legal, Finance	$200,000
Monitoring and modeling	Water Quality, Stream Flow, Groundwater Elevation, SkyTEM. Model updates, Data Management System	$85,000
Reporting (annual and 5-year)	Updated Water Budget, , Reports	$40,000
Contingency		$25,000
Reserves		$0
Total		**$350,000**

3.2 Unit of Service/Measure Options

The GSA budget discussed in the previous section represents the numerator in developing GSA charges and recovering costs. The denominator must be determined from a suite of options. Each option to define the "unit" has certain advantages and disadvantages, data requirements, and policy and legal considerations. Additionally, specific options relate to possible funding mechanisms in different ways. Raftelis has identified eight preliminary unit options, with certain options having multiple variations. This list is not necessarily exhaustive and is provided to present potential units of measurement for the basin. From a data availability and data quality standpoint, the six main options rank as follows, with those listed earlier having fewer data requirements: well count, parcel count (total parcels and total non-de minimis parcels[6]), acreage, well capacity, irrigated acreage, and pumping (gross extraction). The data requirements of the contract option are unknown.

[6] SGMA defines de minimis use in Section 10721(e) as extraction for domestic use of less than 2 AFY. Non-de minimis use is for any water use greater than 2 AFY. The GSA has evaluated groundwater extractions by de minimis users and determined that they represent approximately 10 percent of total basin withdrawals.

3.2.1 WELL COUNT (TOTAL NON-DE MINIMIS WELLS)

Advantages: Simple to understand and to administer. Data available to MGA.
Disadvantages: Complete dataset may not be available at the start of the GSP. Uncertainty regarding timing of data availability. Not related to actual extraction amount and burden on the basin.
Data requirements: Basin-wide count of non-de minimis wells subject to the GSP.
Other/Policy Requirements: None identified.

Internally Raftelis discussed active versus total (active and non-active) wells and determined that total is appropriate given the non-de minimis threshold of 2 AFY. Additionally, GSA action would be required to clearly define active, non-active, and abandoned wells.

3.2.2 WELL CAPACITY (NON-DE MINIMIS WELLS)

Advantages: All wells are not equal, they have different capacities and ability to extract water.
Disadvantages: More data is required than simple well count.
Data requirements: Need well head/well meter size for all active wells or wells subject to the GSP.
Other/Policy Requirements: Requires adoption of a metering plan, or similar way to validate well head size.

3.2.3 PARCEL COUNT (TOTAL PARCELS)

Advantages: Parcel based approaches are generally simple to understand and to administer. Few data requirements with the data from the County Assessor readily available.
Disadvantages: Approach assumes a broad benefit of groundwater, or a "general benefit logic." Requires a voter approval process to put on an election ballot.
Data requirements: County Assessor's parcel database.
Other/Policy Requirements: None identified.

3.2.4 PARCELS COUNT (NON-DE MINIMIS)

Advantages: Generally simple to understand and to administer. Few data requirements. Requires a good data set of parcel owners and non-de diminish classification.
Disadvantages: Inequitable among non-de minimis users. No relation to groundwater extraction.
Data requirements: Basin-wide count of non-de minimis parcels.
Other/Policy Requirements: None identified.

3.2.5 ACREAGE (TOTAL)

Advantages: Simple to understand and to administer. Minimal data requirements. Data is readily available. Acts as a proxy for potential extraction.
Disadvantages: Assumes a general benefit but with a stronger nexus than parcel count. Not related to actual water extraction.
Data requirements: County Assessor's parcel database.
Other/Policy Requirements: None identified.

3.2.6 ACREAGE (IRRIGATED)

Advantages: Absent another source of supply, irrigated usage is directly tied to groundwater extraction. More equitable than parcel or acreage. Proxy for actual water extraction by land area and land cover data.

Disadvantages: Data intensive. Will require regular updates. May be prone to challenges and manual surveys for confirmation. Will require plant/crop type being irrigated.
Data requirements: Accurate geospatial land cover data and independent estimation.
Other/Policy Requirements: None identified.

3.2.7 PUMPING (GROSS EXTRACTION)

Advantages: Greatest equity since fee based on actual extraction. Easy to understand. Easy to administer provided metering plan adoption.
Disadvantages: Requires flow meter installation to implement. If not, more time, effort, and cost than other options (i.e., wells, parcels, or acreage options).
Data requirements: Validated metered data.
Other/Policy Requirements: Requires adoption of metering plan.

3.2.8 CONTRACT

Advantages: Simple, potentially cost effective, avoids adoption and implementation hurdles and limits legal risk associated with Prop 218/26, taxes, and assessments. Based on negotiation of parties.
Disadvantages: Not necessarily related to past, present, or future extraction. Potential inequity.
Data requirements: None identified.
Other/Policy Requirements: Requires formal agreement/signed contract between basin non-de minimis extractors and MGA.

3.2.9 MEASUREMENT OPTION SELECTION

Raftelis makes no recommendation with regards to the unit of service. Rather, it should be the decision of the MGA Board to select the unit of service approach that is most appropriate for the Agency given the policy objectives, basin characteristics, data availability, and types of costs incurred. There are varying degrees of equity, user flexibility, and ease of administration with each option. These decisions will require input from MGA staff, the Advisory Committee, and the MGA Board.

While Raftelis makes no single recommendation, given the characteristics of the basin's non-de minimis private users and data available at this time, we recommend narrowing down the options to the following three: parcels (non-de minimis), acreage, and estimated gross pumping. Narrowing the options allows a deeper dive into each and an easier comparison across options. In the following sub-section, we have calculated preliminary charges based on these three options and the estimated annual costs of MGA identified in Section 3.1.

3.3 GSA Charge Calculations

Raftelis calculated preliminary charges using the cost estimates in the prior sub-sections and the following units of service: irrigated acreage, estimated pumping volume, and parcel count. Charges are shown in both dollars per year and dollars per month. All rates are rounded up to the nearest whole penny.

The first step is to allocate the total costs (revenue requirement) of MGA between the municipal users and the non-de minimis users based on pumping estimates. The table below shows the class, specific user, estimated pumping, and share of total pumping. Charges developed in this section for non-de minimis users include Small Water

Systems, Institutional, and Agriculture. In total this class accounts for roughly 18 percent of total basin pumping and approximately 20 percent of regulated basin pumping (exclusive of de-minimis pumping which is not included in the cost allocation).

Table 3 – MGA Cost Allocation

Class	Water pumper	2016 Estimate (AF)	Percent of Total GW	2016 Estimate - Regulated (AF)	Percent of Regulated GW	Share of MGA Costs
Municipal	Santa Cruz	480	8.74%	480	9.71%	$34,001
Municipal	Soquel Creek	3,090	56.25%	3090	62.54%	$218,883
Municipal	Central	381	6.94%	381	7.71%	$26,988
Non-de Minimis	Small Water Systems	85	1.55%	85	1.72%	$6,021
Non-de Minimis	Institutional	190	3.46%	190	3.85%	$13,459
de Minimis	Private wells	552	10.05%	0	0.00%	$0
Non-de Minimis	Agriculture	715	13.02%	715	14.47%	$50,648
Total		**5,493**	**100%**	**4,941**	**100%**	**$350,000**

The summation of costs allocated to the three Non-de minimis user classifications - Small Water Systems, Institutional, and Agriculture – yields the total costs required to be recovered from non-de minimis users. The total revenue recovery required from non-de minimis users is $70,128.

Table 4 – Non-de Minimis Cost Allocation to User Classes

Class	Share of MGA Costs
Municipal	$279,872
Non-de Minimis	$70,128
De Minimis	$0
Total Costs Recovered	**$350,000**

3.3.1 PARCEL FEE

Table 5 shows the total count of parcels subject to a fee and Table 6 shows the calculated fee based on the count of non-de minimis parcels. Total costs are divided by the number of parcels to derive the fee. The estimated fee is shown both on an annual and monthly basis. The estimated fee for small water systems does not include the number of parcels served by each system. Therefore, each system is treated as one parcel. Depending upon the actual number of parcels served by small water systems it is possible that there could be a large variance in the

calculated parcel fee. Any addition of parcels will reduce the fee as the costs allocable to the class (non-de minimis users) remains fixed.

Table 5 – Non-de Minimis Parcel Count

User Type	Parcel Count
Private Non-de Minimis Users	135
Small Water Systems	22
Total Parcels	**157**

Table 6 – Parcel Fee

Costs	Parcel Count	$ Per Parcel Per Year	$ Per Parcel Per Month
$70,128	157	$446.67	$37.23

3.3.2 IRRIGATED ACREAGE FEE

Table 7 shows the sum of acres subject to the fee and Table 8 shows the calculated fee based on non-de minimis irrigated acreage. Total costs are divided by each class's irrigated acreage to derive the fee per acre. The estimated fee is shown both on an annual and monthly basis. The estimated acreage fee is high as the data for small water systems considers all acreage, not just the total number of irrigated acres served by each system. To be more conservative, Raftelis accounted for the small water systems' total pumping in the acreage estimate, effectively assuming water use at a rate of one acre foot per acre per year. Depending upon the actual acreage of small water systems it is possible there will be a significant variance in the calculated acreage fee. Any additional acreage above what is assumed in the calculation will reduce the fee as the costs allocable to the class remain fixed.

Table 7 – Non-de Minimis Irrigated Acreage

User Type	Acreage
Private Non-de Minimis Users	838.5
Small Water Systems	275.1
Total Parcels	**1,114**

Table 8 – Irrigated Acreage Fee

Costs	Acreage	$ Acre Per Year	$ Per Acre Per Month
$70,128	1,114	$62.97	$5.25

3.3.3 VOLUMETRIC FEE

As previously discussed, MGA may choose to assess charges on all non-de minimis pumpers or at a minimum threshold, yet to be determined. Raftelis calculated fees at the following minimum extraction thresholds: 0 AFY, 2 AFY, 5 AFY, and 10 AFY. For reference 0 AFY represents all 135 identified private non-de minimis users and 100 percent of private non-de minimis pumping (exclusive of small water systems); 2 AFY represents 58 private non-de

minimis users and 93 percent of private pumping; 5 AFY represents 31 users and 80 percent of private pumping; 10 AFY represents 15 users and 62 percent of private pumping. The top nine private users pump half of the water in the class. Table 9 summarizes the volume of pumping among private non-de minimis users at these various thresholds. In all scenarios small water systems are charged for all their pumping.

Table 9 – Volumetric Fee Thresholds

User Type	AFY
Private Non-de Minimis User (0 AFY Minimum)	659.74
Private Non-de Minimis User (2 AFY Minimum)	611.05
Private Non-de Minimis User (5 AFY Minimum)	523.64
Private Non-de Minimis User (10 AFY Minimum)	408.86
Small Water System	275.1
Total Acre Feet	**1,113.6**

The following four tables show the calculated volumetric pump charge at each threshold of 0 AFY, 2 AFY, 5 AFY, and 10 AFY. Fees are presented in dollars per acre foot and range from a low of $75.02 per acre foot to a high of $102.53 per acre foot.

Table 10 – 0 AFY Threshold

Costs	Acre Feet per Year	$ acre foot
$70,128	935	$75.02

Table 11 – 2 AFY Threshold

Costs	Acre Feet per Year	$ Per Acre Foot
$70,128	886	$79.14

Table 12 – 5 AFY Threshold

Costs	Acre Feet per Year	$ acre foot
$70,128	799	$87.80

Table 13 – 10 AFY Threshold

Costs	Acre Feet per Year	$ acre foot
$70,128	684	$102.53

3.4 Other GSA Charges

In addition to fees and charges imposed to recover the costs of implementing the GSP and operating MGA, the Agency will assess other charges in cases of pumping over allocations (should allocations be adopted), non-

compliance charges, and/or penalties. Non-extraction and over-pumping charges are outlined in the following subsections.

3.4.1 PUMPING OVERAGE CHARGES

Groundwater extractions exceeding the amount that a groundwater user is authorized to pump under regulations adopted by the Agency may be subject to fines or penalties under Water Code section 10732(a). The fine may not exceed $500 per acre-foot extracted in excess of their authorized amount (Water Code §10732 (a)(1)). Implementation of fines or penalties assumes that MGA will adopt a metering plan and develop individual pumping allocations for each non-de minimis user in the basin. Given the nature of the Sub-basin, the Water Code maximum fine of $500/AF appears warranted. Justification for this value is as follows:

- Supplemental water costs (Indirect Potable Reuse (IPR)) – Soquel Creek Water District is designing and constructing a supplemental supply project using tertiary treated wastewater, advanced purification, and groundwater injection. While the project will be wholly owned and funded by an MGA member agency, it will assist in achieving Mid-County Basin sustainability goals. The estimated cost of finished water (operating and capital costs included) will far exceed $500 per AF so it is appropriate for the Agency to charge the maximum fine defined in the Water Code.

- Supplemental water costs (Water Transfers) – High flow events may be captured on the San Lorenzo River and transferred for consumption by municipal users or groundwater recharge within the Mid-County Basin. The costs of water transfers have been estimated to exceed $500 per AF so it is appropriate for the Agency to charge the maximum fine defined in the Water Code.

An argument may be made that the requirements of Article XIII D, section 6(b) (Proposition 218) supersede the maximums presented in the Water Code. Simply, the cost of service based on supplemental supplies through IPR and water transfers trumps the Water Code maximum of $500/AF. Additional legal review by MGA counsel would be required to explore this argument.

Overage Charges (Surcharge Rates) Example – Fox Canyon Groundwater Management Agency

Tier I: One to 25.000 AF = $1,461.00 per AF
Tier II: 25.001 AF to 99.999 AF = $1,711.00 per AF
Tier III: 100 AF or more = $1,961.00 per AF

From the Fox Canyon Ordinance: *Extraction surcharges are necessary to achieve safe yield from the groundwater basins within the Agency and shall be assessed annually when annual extractions exceed the historical and/or baseline allocation for a given extraction facility or the combined sum of historical allocation and baseline allocation for combined facilities. The extraction surcharge shall be fixed by the Board and shall be based upon (1) the cost to import potable water from the Metropolitan Water District of Southern California, or other equivalent water sources that can or do provide non-native water within the Agency jurisdiction; and (2) the current groundwater conditions within the Agency jurisdiction. The Board shall fix the surcharge by Resolution at a cost sufficiently high to discourage extraction of groundwater in excess of the approved allocation when that extraction will adversely affect achieving safe yield of any basin within the Agency. In circumstances where an individual or entity extracts groundwater from*

a facility(s) having no valid extraction allocation, the extraction surcharge shall be applied to the entire quantity of water extracted. Surcharges are assessed annually.

Deficit Accounting - GSAs can allow unused groundwater extraction allocations to be carried over and transferred only "if the total quantity of groundwater extracted in any five-year period is consistent with the provisions of the [GSP]." § 10726.4(a)(4). If the GSA adopts a carryover policy then deficit pumping may be allowable with sufficient carryover water. However, the policy should be specific and should not allow borrowing from future allocations.

3.4.2 NON-COMPLIANCE CHARGES

If the fine or penalty is for non-compliance with regulations adopted by the GSA (e.g., failing to install a meter), then it is subject to the limitations in Water Code section 10732(b) and the fine or penalty may not exceed $1,000 plus $100 per day additional charges if the violation continues for longer than 30 days after the notice of the violation has been provided. A list of anticipated non-compliance charges is below, including examples identified by Raftelis:

Non-metered use (non-de minimis): The fee is equal to double the current groundwater extraction charge for all estimated water used (Fox Canyon GMA 2013).

Failure to provide access: No known guidance on reasonable costs but may be tied to reasonable staff labor costs.

Failure to report: No known guidance on reasonable costs but may be tied to reasonable staff labor costs.

State Non-Compliance Charges: In the event that a GSA is unwilling or unable to manage the groundwater basin the State will intervene with a schedule of fees set by the State Water Resources Control Board. Fees would be imposed on all users of the "probationary" basin and extractors would be required to file a groundwater extraction report. In probationary basins non-de minimis users may be required to file an extraction report, due by December 15 of each year for the prior water year. For reference, the table below shows the 2017 fee schedule for unmanaged and probationary basins.

Table 14 – SWRCB Non-Compliance Charges

Fee Category	Fee Amount	Applicable Parties
Base Filing Fee	$300 per well	All extractors required to report
Unmanaged Area Rate (metered)	$10/AF	Extractors in unmanaged areas
Unmanaged Area Rate (unmetered)	$25/AF	Extractors in unmanaged areas
Probationary Plan Rate	$40/AF	Extractors in probationary basins
Interim Plan Rate	$55/AF	Extractors in probationary basins where the Board determines an interim plan is required
De minimis Fee	$100 per well	Parties that extract, for domestic purposes, two acre-feet or less per year from a probationary basin, If the Board decides the extractions will likely be significant.
Late Fee	25% of total fee per month late	Extractors that do not file reports by the due date

3.4.3 PENALTIES

If the GSA has adopted an ordinance, it may levy an administrative civil fine or penalty (Government Code §53069.4). The fine or penalty may not exceed $100 for the first violation, $200 for the second violation, and $500 for each additional violation within 12 months of the first (§25132(b) and §36900(b)).

Section 10730.6(a) outlines the authority of a GSA to collect management fees and the remedies available to the Agency for failure to pay. These remedies include collection of interest on late payments at a maximum of one percent per month[7]; assessing penalties "in the same manner as it would be applicable to the collection of delinquent assessments, water charges, or tolls[8]"; or even the cessation of pumping[9] until the outstanding fees are paid and the user is no longer delinquent on payments.

Alternatively, and only if MGA was to adopt individual pumping allocations, in place of monetary penalties the GSA could impose a penalty that results in a percent of volume loss of a following year pumping allocation, or similar allocation reduction penalty.

A series of examples follows from Fox Canyon Groundwater Management Agency (MGA):

Late Statements
Statements submitted after the due date incur a Civil Penalty of $50 per day.

Late fee on extraction
An Extraction Interest Charge of 1.5% is charged for every month the statement and/or payment is overdue. (Extraction charge x 1.5% x month(s) overdue).

Late fee on overage/surcharge[10]
A Surcharge Late Penalty of 1.5% is charged for every month the statement and/or payment is overdue. (Surcharge x 1.5% x month(s) overdue).

Late fee on non-metered water use
Any delinquent Non-Metered Water Use Fee obligations shall also be charged interest at the rate of 1.5% per month on any unpaid balances.

3.5 Other Considerations

3.5.1 METERING PLAN

[7] Water Code Section 10730.6(b)
[8] Water Code Section 10730.6(d)
[9] Water Code Section 10730.6(e) requires a public hearing with at least 15 days' notice to the owner of operator of the well
[10] Greater than an extractors pumping allocation

Aerial survey for landcover data is an accurate method of estimating the irrigation demands of a parcel. However, challenges arise due to timing and frequency of updated crop cover, validating parcel boundaries, and identifying the parcel(s) served by an individual well, among other challenges. A remedy is to require installation of meters on individual non-de minimis wells for precise pumping volumes rather than estimations. However, there are tradeoffs for precision. It is costly to install meters on wells and the cost is greater for small volume users, particularly if the fee amount is low. Consequently, MGA may impose a significant financial burden on the pumper and increase the effort on MGA staff for a relatively small benefit. Conversely, large users have a greater impact on the basin and the cost of meter compliance is low relative to their fee. Additionally, if the fee is based on actual pumping, and a metering plan is not adopted by the MGA Board, a larger user will have an incentive to report lower pumping to reduce the fee. If actual gross pumping is selected as the method of fee-setting, metering should be required along with regular reporting and verification.

3.5.2 PUMPING ALLOCATIONS

MGA may choose to adopt individual pumping allocations for all non-de minimis users. These allocations would be based, at least initially, on estimated pumping from aerial survey and land cover/crop type data. Each extractor will know their allocation which would could become the basis for their pumping fee. MGA should determine if individual allocations are prudent if no pumping reductions are required by individual non-de minimis pumpers. Further, if estimated pumping (and therefore allocation) is greater than actual extraction the private pumper would have an incentive to pump *more* so that their pumping is in line with their allocation.

3.5.3 PUMPING REDUCTIONS AND NON-DE MINIMIS USER FEE THRESHOLD:

The sustainable yield of the Mid-County Basin will be achieved predominantly by using supplemental supply projects from the MGA's Municipal entities. Still, approximately 18 percent of total basin pumping (20% of non-de minimis pumping) comes from non-de minimis private pumpers. Approximately 15 of these users extract greater than 10 AFY. Given the significant pumping of the largest private users, MGA should consider developing pumping reductions for these individuals by identifying the costs and benefits of curtailment. They would effectively be treated as a separate sub-class of private pumper, unique from the de-minimis users and small non-de minimis users.

3.5.4 EXTRACTION THRESHOLD FOR FEE ASSESSMENT

Given that the majority of non-residential, non-de minimis users are estimated to use less than 2 AFY, the question of extraction threshold should be considered. What should the threshold for assessing charges on these users be and why? SGMA and the Water Code give MGA the authority to assess these users however minimal their extraction; however, the burden on staff and administrative costs may not cover the literal dollars, in some cases, of assessing an annual volumetric fee on a user extracting one-tenth of an acre foot per year. Still, MGA would require a sound argument as to why a specific threshold was selected. While a statistical analysis, or some other analytical assessment, could be used to determine an appropriate threshold we would recommend MGA use 2 AFY as the threshold. This volume corresponds to the definition of a de minimis user, were they a residential user. Further a review of MGA's data on non-de minimis users shows that 77 of 135 identified extract less than 2 AFY. In total these 77 extractors amount to 49 AF of pumping relative to 660 AF for the class in total. In other words, the remaining 58 users account for 93 percent of pumping among the user group. Removing the 77 users from the charge calculation has an immaterial effect on the resulting fees to other users (in fee recovery by acreage or pumping volume). Additionally, it reduces the demands on MGA staff and potential for contentious public meetings. Raftelis reviewed our work in the Sonoma GSAs and Borrego GSA, as well as the draft report in the neighboring

SVBGSA, and found no mention of minimum thresholds for non-de minimis users at which they will or will not be assessed management charges. The Borrego Valley GSA is considering a de-minimis threshold of 5 AFY because after long term reductions these users would approach 2 AFY in 2040.

2 AFY identified as de minimis in SGMA seems appropriate even when the user is not Residential in nature. The cost-benefit of charging a private irrigator who uses less than 2 AFY versus a private residential pumper who uses less than 2 AFY may not pan out.

3.5.5 ACTIONS IN OTHER BASINS

Borrego Valley GSA plans to adopt a metering a plan and are currently identifying individual allocations which will then need to be reduced over time (interim and final reductions) to achieve the long-term sustainable yield. The Borrego basin requires a greater than 70 percent reduction in pumping and no supplemental/alternative water supply projects are feasible. Achieving sustainable yield will be achieved with reduced pumping, fallowing of agricultural lands, and conservation. In Sonoma County GSAs there is no plan for metering or reductions for large private pumpers. Groundwater users will be assessed a volumetric charge per acre foot of water based on estimated extractions from the basin (using spatial data analysis). The Salinas Valley Basin GSA (SVBGSA) has released a draft report with non-de minimis users (which are almost exclusively commercial agricultural users) assessed charges based on estimated irrigated acreage (estimates from spatial data analysis). It should be noted that Borrego GSA actions are for GSA fees (GSP implementation) while the Sonoma GSAs and SVBGSA actions are to fund GSP development activities prior to implementation.

4. Fee Recovery Methods

Below are two bill collection options for MGA groundwater users.

4.1 Direct Billing

Direct billing requires more staff, has higher administrative costs (printing, postage, customer service, collections), and has a higher rate of late payments and delinquencies. It requires the Agency maintain its own customer information system and internal accounting. If the existing County system or member agency system is not readily available for use there may be significant one-time costs to purchase, configure, integrate, and train staff on the software. Direct billing results in greater cash flow assuming regular monthly or bi-monthly billing. This results in lower cash reserve requirements.

4.2 Property Tax Roll

Billing users through the County Assessor results in less overhead, lower billing and customer service costs, and a lower rate of late payments and delinquencies. Setup costs should be lower as the Agency relies on the County Assessor. The Agency is still required to maintain accurate parcel data and associated data for charges that may be based on volumetric pumping, well count, or well capacity. Revenue is only received twice per year, so cash flow may be a concern depending on timing. Property Tax Roll billing requires greater cash reserves than direct billing. Additional fees will be incurred by the County to place a charge on the property tax roll.

As it relates to the available funding mechanisms presented in Section 2, assessments and special taxes are always recovered on a parcel's property tax bill. Fees for service are more likely to be directly billed but many agencies find it advantageous to collect fees on the property tax roll. As previously mentioned, the collection rate is frequently higher, and the collected revenue is then transferred to the charging agency twice per year.

5. Management Area Designation

If MGA determines it to be beneficial to differentiate the basin into Management Areas, Raftelis recommends the Agency identify and document the rationale for doing so. In traditional rate and fee setting, costs should be matched to benefits to ensure equity among and between different users, as well as to ensure each user group pays its fair share. In utility rate setting costs are allocated to classes of customers commensurate with their service requirements. In fee setting costs are allocated proportional to the benefits gained through the fee.

Considering that any capital project costs will be borne by the three municipal water service partner agencies, the costs recovered by MGA are for management only. In a certain sense, management zones have unintentionally been derived between coastal municipal users and all other non-de minimis users. Coastal zone users will pay fees, additional to the MGA management fees, through their water rates and charges as customers of Soquel Creek Water District, the City of Santa Cruz, or Central Water District; all other non-de minimis users within the Basin in County areas will only pay the management fee.

If MGA wishes to further designate management zones it may be appropriate to different impact zones using long term monitoring costs. If monitoring costs in coastal zones versus inland zones, or stream adjacent zones versus non-adjacent zones, or high elevation zones versus low elevation zones, can be demarcated with a sound rationale it may be justifiable. However, consider the following analogy: Property A is inland and adjacent to a creek. Property B is near the coast but not creek adjacent. The two properties pay different management fees due to long term monitoring costs with Property A paying a higher fee. However, Property B, the coastal parcel, benefits from the monitoring taking place inland. The exercise leads back to the fact that the fees derived to fund MGA are for basin-wide management, which is an implicit objective of SGMA: all current, future, or potential users benefit from basin management and the benefit of management is general to all.

If MGA decides to differentiate management areas it will need to ensure that specific benefits are identified for users in different areas. Initial questions that arise when hypothesizing include:

- Can we identify all non-de minimis users inside and outside a proposed impact zone?
- Is the “impact” just seawater intrusion, or is it also basin elevation, basin storage reduction, etc?
- What about connectivity with surface water?
- Can we identify and differentiate management, monitoring, and other costs between two or more impact zones?
- What other information would be required to develop separate fees for coastal and creek impact zones that would be *additional to* general basin management fee?
- Would MGA adopt a metering plan for non-de minimis users? This would be beneficial so that charges could be related to impact based on water extraction, and recovered proportionally
- Can creek monitoring costs be used to differentiate? For example, an instream flow fee and a coastal impact fee, etc. Again, a specific benefit would need to be identified for those having the fee imposed.

6. De Minimis Users

SGMA defines a "de minimis extractor" as "a person who extracts, for domestic purposes, two acre-feet or less per year[11]." De minimis "extractors" or de minimis groundwater users cannot be charged fees "unless the agency has regulated the users pursuant to this part[12]." The key operating phrase is "has regulated" and unfortunately the term *regulated* is undefined leaving the meaning up to legal interpretation. Does *has regulated* imply past regulation and management? Or can the new sustainability agency "regulate" de minimis users prior to fee adoption to be able to charge them for basin management over the long-term? At least one GSA that Raftelis consults for is considering the act of noticing de minimis groundwater extractors as "regulating" them. By corresponding with a de minimis user and requesting basic information, the agency *has regulated* the de minimis user and can legally impose a fee.

Beyond the legal gray area and semantics of the Water Code language, a GSA should consider the cost-benefit analysis of recovering management costs from de minimis users. For example, consider a hypothetical groundwater basin experiencing critical overdraft where greater than 95 percent of extraction is from large non-de minimis agricultural interests and a single municipal entity. Are the real costs of management, and the potential costs of litigation, worth the benefit of revenues deriving from users responsible for five percent of water extraction? Or, should the Agency instead focus resources on the 95 percent of extraction which is almost certainly responsible for the required mitigation of the six undesirable results? Conversely, consider a basin experiencing critical overdraft where 75 percent of extraction is from de minimis extractors and the remainder from three municipal agencies. It may be considered unreasonable to expect 100 percent of funding required to mitigate impacts to come from three agencies (and their customers) when they are responsible for only 25 of extraction. In this situation the risk may be in *not* regulating and imposing a fee on de minimis users.

MGA should consider their own cost-benefit analysis with the Advisory Committee and GSA Board. Considerations should include the gross and net extraction by de minimis extractors, their geographical and hydrological location within the basin, and the likely amount of total cost recovery from the group, relative to the whole. Raftelis has developed a Pricing and Policy Objectives exercise for the Board to use to evaluate the decision to regulate and charge de minimis extractors, or not. The Raftelis exercise is attached as an appendix to this paper.

[11] Water Code Section 10721(e)
[12] Water Code Section 10730(a)

7. Appendices

7.1 Comparative Agency Administrative and Management Budgets

Raftelis has researched management and administrative costs of five similar agencies, which represent three GSAs, a groundwater management agency, and a Watermaster in an adjudicated basin. Details of each comparative agency are presented in the subsequent sub-sections. The table below presents a comparison of the five agencies with measurements that may be useful to MGA in identifying long-term management and administrative costs. Where available, the first fiscal year of GSP implementation costs are used; otherwise the most recently available values are used.

	Borrego Valley GSA	Mojave Watermaster	Fox Canyon GMA	North Fork Kings GSA[2]	Kings River East GSA[4]	Southwest Kings GSA
Personnel Costs		$634,955	$735,831	$75,400	$45,000	$50,000
Legal Costs				$27,400	$10,000	$11,139-20,000
Total Admin Budget	$574,566	$759,855	$1,431,744	$156,750	$68,400	$85,884-99,000
Staff Level (FTEs)	2	4	6.5[1]			Time and Materials
Staff Hours			11,700[1]	458[3]		
Management	Borrego Water District	Mojave Water Agency	Ventura County Public Works	Kings River Conservation District	Alta Irrigation District	Provost & Pritchard Consulting
Basin	Borrego	Mojave	Oxnard Plain, etc.	Kings	Kings	Tulare
Water Production (AFY)	20,000	120,000	134,000	TBD	TBD	TBD
Predominant User Groups	Single Municipal & Agriculture	Private Pumpers & Single Municipal	Municipal & Agriculture	Municipal	Municipal	Municipal

[1]Staff levels and hours assume contracted labor from the County of Ventura using 1,800 annual hours per FTE

[2]Estimates based on fiscal year 2020-2021, the first full year of GSP implementation

[3]Extrapolated using January through June 2018 costs

[4]Administrative budget for GSP Development and not GSP implementation

7.1.1 MOJAVE BASIN AREA WATERMASTER

The Mojave Basin Area Watermaster (Mojave Watermaster) is administered as a unit of the Mojave Water Agency (MWA). As Watermaster, the agency's main responsibilities include monitoring, reporting, and verification of water extraction for all parties of the adjudication, collection of assessments, production of annual reports, and facilitating water transfers between parties. In many respects the watermaster of an adjudicated basin and the GSA for a basin subject to SGMA are similar in duties and commitments.

The Budget Summary for the Mojave Watermaster from FY 2015-16 through budget year FY 2019-2020 is presented below. The overwhelming majority of expenses relate to wages and benefits, expected to cost $653,884 in FY 2019-2020. Secondary costs relate to engineering services of $93,500 in FY 2019-2020. The remaining costs of approximately $34,000 relate to travel, training, supplies, and other miscellaneous expenses.

The Mojave Watermaster consists of four staff including two technicians, a database administrator, and a services manager. Assuming four full-time employees (FTEs) and the wages and benefits in the FY 2019-2020 budget, the cost per FTE is approximately $163,500 per year.

Watermaster (WM) – Dept #90

Department Budget Summary

	ADMINISTRATIVE EXPENSES:	FY 15/16 Actual	FY 16/17 Actual	FY 17/18 Budget	Actual YTD as of 03/31/2018	FY 17/18 Projected	FY 18/19 Budget	FY 19/20 Budget
5600	Dept Wages	374,484	409,735	408,253	300,111	409,764	427,645	440,474
5612	Dept Overtime	5,646	3,936	4,000	2,257	859	4,000	4,000
5613	Health Insurance - Medical	54,609	48,960	48,960	36,249	48,960	55,455	57,119
5614	Payroll Taxes	12,048	12,659	13,259	9,667	13,439	14,010	14,430
5615	Misc Benefit	-	-	-	-	-	-	-
5616	Workers Compensation Expense	2,149	2,005	2,602	2,116	2,804	2,554	2,631
5618	Health Insurance - Dental/Vision	9,576	9,524	9,675	5,684	7,979	8,525	8,781
5620	Health Ins Reimb - FSA	6,879	5,949	10,400	4,386	6,000	10,600	10,918
5621	Deferred Comp Contributions	-	-	-	-	-	21,382	22,023
5623	PERS Retirement	67,897	72,908	98,679	81,214	105,656	90,784	93,508
	TOTAL WAGES & BENEFITS	**533,288**	**565,676**	**595,828**	**441,684**	**595,461**	**634,955**	**653,884**
5702	Safety Supplies	-	-	500	-	-	500	500
5710	Small Tools	-	-	100	-	-	250	250
5711	Books & Subscriptions	-	37	50	-	-	50	50
5713	Printing	-	-	500	-	-	500	500
5725	Auto Expenses	2,842	368	500	228	400	500	500
5726	Travel Expenses	-	-	500	-	1,850	8,800	9,000
5728	Education & Training	-	-	1,500	-	1,000	5,800	8,000
5736	Engineering, General	144,370	72,981	73,500	43,930	73,500	93,500	93,500
5741	Aerial Photos	19,750	10,875	12,500	10,875	12,500	15,000	15,000
	NON-LABOR EXP	**166,962**	**84,261**	**89,650**	**55,033**	**89,250**	**124,900**	**127,300**
	TOTAL DEPT EXPENSES	**700,250**	**649,937**	**685,478**	**496,717**	**684,711**	**759,855**	**781,184**
5610	Labor & Benefits from Watermaster	(350,125)	(276,286)	(297,914)	(152,750)	(297,731)	(317,478)	(326,942)
	Total Capital Labor & OH Out	**(350,125)**	**(276,286)**	**(297,914)**	**(152,750)**	**(297,731)**	**(317,478)**	**(326,942)**
	TOTAL NET DEPT EXPENSES:	**350,125**	**373,651**	**387,564**	**343,967**	**386,980**	**442,377**	**454,242**

7.1.2 FOX CANYON GROUNDWATER MANAGEMENT AGENCY (FCGMA)

FCGMA is a special district which governs the extraction of water in southern Ventura County and serves five municipalities and agricultural users in unincorporated areas of the county. While a special district since 1982 FCGMA will also be the GSA for the local groundwater basins including Arroyo Santa Rosa, Oxnard Plain, Pleasant Valley, and Las Posas Valley. The agency is staffed by contract with Ventura County Public Works overseeing technical, legal, financial, and administrative services. Total expenses in FY 2014-2015 were $1,088,951 with 60 percent of expenses ($645,975) towards County staff charges. Another 14 percent was spent on Groundwater Supply Enhancement Assistance Program (GSEAP) funding to assist local agencies with local groundwater projects that increases groundwater supply. 21 percent of costs were associated with professional services.

Per communications with Fox Canyon management, the County of Ventura utilizes 6.5 FTEs at assumed annual hours of 1,800 hours per FTE for a total of 11,700 hours. The fully burdened labor rate is approximately $115 per hour for an average annual cost of $1,345,500.

FOX CANYON GROUNDWATER MANAGEMENT AGENCY
Statements of Revenues, Expenses, and Changes in Net Position
For the Years Ending
June 30, 2016 and 2015

	2016	2015
OPERATING REVENUES		
Extraction charges and surcharges	$ 2,129,739	$1,373,904
Groundwater sustainability fee	274,544	-
Interest and penalties on delinquent accounts	75,969	33,946
Total Operating Revenues	2,480,252	1,407,850
OPERATING EXPENSES		
Ventura County Public Works Agency charges	735,831	645,975
Professional specialty services	603,816	227,410
Management and administrative services	19,580	7,197
Supplies and minor equipment	300	600
Liability insurance	4,707	4,498
Depreciation expense	51,908	51,908
GSEAP spending	-	148,269
Miscellaneous	15,602	3,094
Total Operating Expenses	1,431,744	1,088,951

7.1.3 NORTH FORK KINGS GSA

Located in the Central San Joaquin Valley, North Fork Kings GSA consists of 15 member agencies in the Kings Subbasin. Kings River Conservation District (KRCD) will administer the GSA including data collection and reporting, financial and accounting services, engineering services, and public outreach and education. The cost for administrative services by KRCD in FY 2020-2021 (the first full year of GSP implementation) is estimated at $75,400.

Table 3-2. Projected 5-Year Annual Budget

Category	Prior to 6/30/17	FY[a] 2017-2018	FY[a] 2018-2019	FY[a] 2019-2020	FY[a] 2020-2021	FY[a] 2021-2022	FY[a] 2022-2023	TOTAL
GSA Administration								
KRCD Staffing / Public Outreach		$ 69,000	$ 71,100	$ 73,200	$ 75,400	$ 77,700	$ 80,000	$ 377,400
Office Supplies / Postage / Outreach Materials		$ 6,000	$ 6,200	$ 6,400	$ 6,600	$ 2,000	$ 2,100	$ 23,300
Insurance		$ 2,000	$ 2,100	$ 2,200	$ 2,300	$ 2,400	$ 2,500	$ 11,500
Annual Audit		$ -	$ 4,000	$ 4,100	$ 4,200	$ 4,300	$ 4,400	$ 21,000
Miscellaneous Overhead		$ 1,500	$ 1,500	$ 1,500	$ 1,500	$ 1,500	$ 1,500	$ 7,500
Start-up Costs	$ 188,628		$ -	$ -	$ -	$ -	$ -	$ -
SUBTOTAL	$ 188,628	$ 78,500	$ 84,900	$ 87,400	$ 90,000	$ 87,900	$ 90,500	$ 440,700
Professional Services								
Project Management		$ 20,000	$ 20,600	$ 21,200	$ 21,800	$ 22,500	$ 23,200	$ 109,300
Funding Mechanism Assessment		$ 8,000	$ -	$ -	$ -	$ -	$ -	$ -
Prop 218 Engineer's Report/Elections		$ 30,000	$ 2,000	$ -	$ -	$ -	$ -	$ 2,000
Groundwater Sustainability Plan Preparation[b]		$ 150,000	$ 285,770	$ 80,000	$ -	$ -	$ -	$ 365,770
Legal, Litigation Reserve		$ 25,000	$ 25,800	$ 26,600	$ 27,400	$ 28,200	$ 29,000	$ 137,000
Lobbyist		$ 3,000	$ 3,100	$ 3,200	$ 3,300	$ 3,400	$ 3,500	$ 16,500
Grant Writing		$ 7,000	$ -	$ -	$ -	$ -	$ -	$ -
SUBTOTAL	$ -	$ 243,000	$ 337,270	$ 131,000	$ 52,500	$ 54,100	$ 55,700	$ 630,570
~10% Contingency/Reserve		$ 19,296	$ 42,220	$ 21,840	$ 14,250	$ 14,200	$ 14,620	$ 107,130
Reimbursement to Member Agencies			$ 264,712	$ 264,712	$ -	$ -	$ -	$ 529,424
Total Estimated GSA Administration & Professional Services Cost	$ 188,628	$ 340,796	$ 729,102	$ 504,952	$ 156,750	$ 156,200	$ 160,820	$ 1,707,824
Enterprise Fund for GSP Implementation - Project Development / Groundwater Monitoring			$ 907,435	$ 1,131,585	$ 1,479,787	$ 1,480,337	$ 1,475,717	$ 6,474,861
Total Estimated Cost			**$ 1,636,537**	**$ 1,636,537**	**$ 1,636,537**	**$ 1,636,537**	**$ 1,636,537**	**$ 8,182,685**

Raftelis contacted KRCD which provided a detail of staff hours by function. It is estimated that KRCD will spend approximately 458 staff hours across all functions on GSA administration in calendar year 2018 in support of GSP development. KRCD disclosed that May 2018 hours were higher than normal due to a special assessment hearing.

Employee Description	January-June 2018	Calendar Year 2018 (extrapolated)
Coordinator	72.5	145
Public Relations	50.5	101
Assistant	2	4
Finance	35	70
GIS	22.75	45.5
Accounting	0	0
Minutes	20.25	40.5
Admin	16	32
General Labor	10	20
Total	**229**	**458**

7.1.4 KINGS RIVER EAST GSA

Kings River East GSA is southeast of Fresno and west of the Sierra foothills. The GSA is a MOU between 14 municipalities and special districts in the basin. The total three-year budget is presented below. The administrative budget in each year is $68,400. The budget presented is only for GSP development and not GSP implementation and ongoing administration and management of the GSA. Administrative services are provided by

contract with Alta Irrigation District, a party to the MOU. Staff time is billed hourly for costs incurred in servicing the GSA with an estimate of $45,000 per year.

Table 3: Projected Budget
Kings River East Groundwater Sustainability Agency
Groundwater Fee Study

Budget Item	Year 1	Year 2	Year 3	Total
Administration	**$68,400**	**$68,400**	**$68,400**	**$205,200**
Board Members (Per Diem)	$8,400	$8,400	$8,400	$25,200
Insurance	$5,000	$5,000	$5,000	$15,000
Legal	$10,000	$10,000	$10,000	$30,000
Administration Services	$45,000	$45,000	$45,000	$135,000
Grants/Outreach	**$3,500**	**$28,500**	**$3,500**	**$35,500**
Grant Application	$0	$25,000	$0	$25,000
Grower/Landowner Outreach	$3,500	$3,500	$3,500	$10,500
Groundwater Sustainability Plan	**$206,800**	**$235,350**	**$214,350**	**$656,500**
Sub-basin Coordination	$64,600	$64,600	$64,600	$193,800
Coordination Agreement	$0	$7,550	$7,550	$15,100
Data Management System	$0	$21,000	$0	$21,000
Hydrogeology	$75,000	$75,000	$75,000	$225,000
Legal Assistance	$7,800	$7,800	$7,800	$23,400
Monitoring Network	$14,600	$14,600	$14,600	$43,800
Projects & Management Actions	$17,800	$17,800	$17,800	$53,400
Sustainable Management Criteria	$18,700	$18,700	$18,700	$56,100
Report Compilation	$8,300	$8,300	$8,300	$24,900
Other	**$5,000**	**$5,000**	**$5,000**	**$15,000**
Miscellaneous Costs	$5,000	$5,000	$5,000	$15,000
Subtotal	**$283,700**	**$337,250**	**$291,250**	**$912,200**
Contingency (15%)	$42,600	$50,600	$43,700	$136,900
Total	**$326,300**	**$387,850**	**$334,950**	**$1,049,100**

7.1.5 SOUTHWEST KINGS GSA

Located in the Tulare Lake Subbasin, GSA day-to-day management will be provided by a consultant including financial management, reporting to the Board of Directors, and legal functions among others. The proposed five-year budget for on-going management is $85,884 in FY 2018-2019 and is presented below. The budget is drawn from the GSA's Engineer's Report dated June, 2017.

Description	2017	2018	2019	2020	2021
ON-GOING MANAGEMENT					
On-Going Management					
Communications, general administration	$ 12,000	$ 12,360	$ 12,731	$ 13,113	$ 13,506
Insurance	3,000	3,090	3,183	3,278	3,377
Website maintenance	5,000	5,150	5,305	5,464	5,628
Financial management	6,000	6,180	6,365	6,556	6,753
Administrative support	6,000	6,180	6,365	6,556	6,753
Assessments, collections	4,000	4,120	4,244	4,371	4,502
Printing, supplies, travel	12,000	12,360	12,731	13,113	13,506
Audit	0	5,000	5,150	5,305	5,464
	$ 48,000	$ 54,440	$ 56,073	$ 57,755	$ 59,488
SWKGSA board meetings (4)					
Board packages, attend, minutes	$ 8,000	$ 8,240	$ 8,487	$ 8,742	$ 9,004
Legal: attend, resolutions, agreements	8,000	8,240	8,487	8,742	9,004
	$ 16,000	$ 16,480	$ 16,974	$ 17,484	$ 18,008
Subbasin meetings (Monthly)					
Management: attend (12)	$ 9,600	$ 9,888	$ 10,185	$ 10,490	$ 10,805
Legal: attend (2)	2,500	2,575	2,652	2,732	2,814
	$ 12,100	$ 12,463	$ 12,837	$ 13,222	$ 13,619
Total On-Going Management	**$ 76,100**	**$ 83,383**	**$ 85,884**	**$ 88,461**	**$ 91,115**

A more recent FY 2018 Budget presented at the Southwest Kings GSA Board Meeting on May 9, 2018 shows a slightly different amount for management and legal costs. The FY 2018 Budget total for on-going management is $79,000 with $50,000 in management and $20,000 in legal representing the overwhelming majority of costs.

SWKGSA
2018 Budget

Description	Proposed 2018 Budget
Management	50,000
Legal	20,000
Clerical	6,000
Insurance	-
Website	2,000
Audit	1,000
GSP	115,000
Contingency	20,000
Total Expenses	214,000
Projected Income	
Assessments	455,906
Reimbursements	(97,939)
Delinquent Assessments	-
Interest	-
Total Income	357,967

7.2 Pricing Objectives Exercise

1. OVERVIEW

Fee structures are best designed when formulated to collect the appropriate amount of revenue while addressing unique characteristics of the Agency and the needs of its locale, basin users, and other stakeholders. Policy objectives for pricing are specifics that support broad policies, such as equity and conservation, and serve as discussion points when designing a fee structure.

Raftelis developed a list of policy objectives, and sub-objectives, according to the specific characteristics of the Santa Cruz Mid-County Groundwater Agency (MGA) and the suite of possible fee structures identified to implement the Groundwater Sustainability Plan (GSP) as part of the Sustainable Groundwater Management Act (SGMA) of 2014. Each pricing objective is defined herein.

2. BACKGROUND

The policy objectives in Table 1 – Administration, Equity, Rate and Revenue Stability, Affordability, and Conservation – were developed by Raftelis and will help guide the selection of an appropriate fee structure and fee recovery mechanism. Each policy objective includes several sub-objectives.

To inform the Board, each policy objective includes a policy statement, discussion notes and advantages and disadvantages of the policies. The seventeen pricing objectives were determined as most relevant to the possible fee structures identified and the characteristics of the groundwater basin.

The ranking of these policy objectives by the GSA Board will be used to develop a framework for the most appropriate fee structure(s) and fee recovery mechanism for the MGA. Recommended fee structure(s) may include a hybrid approach based on management and extraction and/or may include fixed and variable components.

Table 15: Policy Objectives and Associated Sub-Objectives for Fee Structure Evaluation

Administration	Equity	Rate and Revenue Stability	Affordability	Conservation
•Ease of Understanding •Easy of Implementation and Administration (Simplicity) •Defensibility	•Equitable among property owners •Equitable among pumpers •Equity across all basin users (beneficiaries) •Equity across management areas •Inter-generational equity	•Revenue Stability •Rate Stability •Minimize financial impacts	•Shared burden •Affordability for Essential Use	•Rewards past conservation •Tool for GSP implementation •Promotes future conservation •Scientific

Policy Objective 1 –Administration

Policy Statement: Recognizes the advantages of designating a structure and fee recovery mechanism that is easily understood by fee-payers, is simple to implement and administer by staff, and which is most defensible under applicable laws including the water code and the State Constitution.

Discussion: This objective highlights the importance of keeping structures and the process of administering them simple. Basin user education and clarity of bills should be considered as part of this principle.

Advantages of the Policy Objective: Creating structures that are easy for fee payers to understand will minimize fee-related user related administrative issues. If basin users understand the basis of their bills, they will have a greater ability to comprehend their calculated charges and conclude that it is fair.

Disadvantage of the Policy Objective: Simplifying the rate structure does not generally provide a maximum degree of fairness and equity across user groups and may limit conservation and affordable outcomes.

Sub-Objectives:

- **Ease of Understanding** – The ability for the fee structure to be explained in a manner that can be understood by basin users and other stakeholders that will have a positive impact on the ability to build acceptance of fees.
- **Ease of Implementation and Administration (Simplicity)** – Implementing a new fee structure merits careful consideration as fee structure implementation requires upfront (one-time) costs such as data gathering or billing system changes. An easy-to-administer structure does not negatively impact the ongoing costs of administration, which are predominately staffing costs.
- **Defensibility** – Producing a fee structure perceived to be fair, well documented, and well explained reduces the likelihood of legal challenge. This leads to more efficient and less costly administration.

Policy Objective 2 –Equity

Policy Statement: In compliance with the State Constitution (Article XIII D) and governing statutes of State Law (including Water Code §10720-10737.8 (SGMA)), fees should be cost-based, fairly apportioned among basin users, and account for the substantive provisions of law through a sound, technically defensible methodology.

Discussion: This principle highlights the importance of basin users' perception of fairness and equity, while also recognizing that an absolute equity among all basin users and user classes may not be achieved. Rates should generally be perceived as fair, reasonable, and equitable for all basin users.

Advantages of the Policy Objective: This principle reinforces the priority of treating all basin users fairly. Also, it acknowledges the practical obstacles that may prevent perfect equity, such as, excessive administrative costs or technical costs incurred solely to achieve additional equity.

Disadvantages of the Policy Objective: "fairness" and "equity" can be subjective and requires the Board to apply its discretion and judgment. More, equity can be interpreted at the basin-wide level or among and between different user groups or stakeholders.

Sub-Objectives:

- **Equity Among Property Owners** – States that a fee structure achieves equity by allocating costs fairly and proportionally across property owners whose parcels overlay the basin.
    - Example argument for: An impaired groundwater basin may diminish property values while an improved basin may increase land values

- **Equity Among Pumpers -** States that a fee structure achieves equity by allocating costs fairly and proportionally across well owners who extract from the basin.
    - Example argument for: Pumpers, or those owning wells, should pay because they are the actual extractors of groundwater from the basin
- **Equity Across All Basin Users (Beneficiaries) -** States that a fee structure achieves equity by allocating costs fairly and proportionally across all water users in the basin. Considers basin groundwater a general benefit across all users of groundwater.
    - Example argument for: Access to local groundwater benefits all and therefore all should pay
- **Equity Across Management Areas** - Considers specific regions within the basin boundaries that contribute to groundwater replenishment and specific regions which contribute to intrusion, depletion, and/or impairment.
    - Example argument for: It is fair and appropriate for MGA to incorporate natural sub-basin characteristics across the groundwater basin into a fee structure
- **Inter-Generation Equity –**States that a fee structure achieves equity by matching the costs of existing basin impacts to those who have caused the impacts. The objective aims to protect current and future users from disproportionately bearing costs related to groundwater management due to past activities.
    - Example argument for: It is fair and appropriate to recoup mitigation and restoration costs based on past users and their uses

Policy Objective 3 –Rate and Revenue Stability

Policy Statement: There are advantages to an agency in increasing revenue certainty and stabile rates to users. These policies are achieved by selecting specific funding mechanisms or incorporating specific cost components into a fee structure.

Discussion: This principle highlights the importance of ensuring adequate revenue generation for maintaining a self-sustaining agency. Revenues must be adequate to fund technical, personnel, and other operational costs. Revenue generation, and the rates charges to users, should be predictable.

Advantages of the Policy Objective: The practice of ensuring revenue sufficiency and stability generates additional gains in financial health.

Disadvantages of the Policy Objective: While pursuing a rate structure that promotes revenue stability is advantageous, setting user charges in a fashion that fixes a user's bill may be perceived as unfair and inequitable. In addition, the public may perceive the need as unnecessary and that the agency has little incentive to be judicious with operating and management costs.

Sub-Objectives:

- **Revenue Stability** – The ability of the fee structure to generate stable and predictable revenues from month to month or year to year. Specific types of fee structures are more effective at maintaining revenue stability than others. Adequate revenues ensure, for example, that technical studies can be conducted, qualified personnel can be retained, and that operational costs of the agency are covered.
- **Rate Stability** – To reasonably ensure that user fees are predictable from over billing cycles and without sharp fluctuations in magnitude or structure year over year. Similar to the revenue stability objective, certain fee structures are more effective at guarding against fee spikes and highly fluctuating user bills.
- **Minimize Financial Impacts** – Fees imposed by MGA on basin users will be the first of its kind. This objective aims to minimize the financial burden on users to the greatest extent possible. The objective overlaps with the shared burden objective in Policy Objective 4.

Policy Objective 4 –Affordability

Policy Statement: It is important to establish rates that generate adequate revenues from year to year, regardless of climate cycles or variation in basin extractions. Large and unexpected rate changes may impose financial hardships on users large and small. This may negatively affect public opinion of the MGA in terms of revenue management, fiscal responsibility, and rate equity.

Discussion: Affordable fees require a balance between generating stable and sufficient revenue for operations and providing flexibility in user charges. Any new fee structure may result in different impacts to different basin users.

Advantages of the Policy Objective: Flexibility in bills allows users a degree of choice and control over their charges. More, lower income and/or those facing financial hardship are more likely to stay current on their charges with fees deemed affordable by the community.

Disadvantages of the Policy Objective: Affordability is relative to each individual fee payer and can be difficult to define. What may be affordable for one user is unaffordable to another. Additionally, affordability efforts generally present a tradeoff with revenue stability to the agency.

Sub-Objectives:

- **Shared Burden** – Recognizes that the Mid-County Basin benefits all current, future, and potential users of groundwater. In essence, each overlying property benefits from a sustainable groundwater basin and the burden of ensuring basin health should be distributed as broadly as possible.
- **Affordability for Essential Use** – This objective addresses the importance of maintaining the price - i.e. that which is used for health and safety – at the lowest cost possible while considering the needs of the Agency and regulatory conditions.

Policy Objective 5 – Conservation

Policy Statement: The critical condition of the groundwater basin, and the mandate of sustainability as defined by SGMA, should be reflected in the fees and charges. The fee structure should encourage a reduction in basin-wide use and empower necessary water management efforts by the GSA.

Discussion: This principle recognizes the limited water availability of the basin, as well as the environmental and financial impact of mitigation activities. The fees should encourage reduced use of a limited resource to the greatest extent under the law.

Advantages of the Policy Objective: This policy attempts to align the costs of reducing basin extraction with the users causing basin overdraft and seawater intrusion. The fee structure assigns a tangible value on the costs of critical overdraft.

Disadvantages of the Policy Objective: Typically, fee structures emphasizing efficiency, conservation, and reduced water use pose increased costs in implementation, administration, technical services, and outreach.

Sub-Objectives:

- **Reward Past Conservation Efforts** –Recognizes the value either of rewarding individuals for reduced and efficient use according to their needs, or at minimum, not penalizing those users for their conservation efforts prior to SGMA.
- **Tool for Implementing the Groundwater Sustainability Plan (GSP)** –Aims to develop a fee structure that is most likely to achieve the goals of the GSP over the long term. Advocates for a mechanism to allocate costs and incentivize activities to avoid or mitigate undesirable results as defined by SGMA.

- **Promotes Future Conservation** –Aims to reduce total water use through a focus on reduced pumping. The objective may include increased efficiency of basin water use to include development of benchmark standards associated with the appropriate amount of water use based on local characteristics.
- **Scientific Method** – Use of best available science, models, and empirical data-based standards and guidelines should be employed to develop the fee structure. The scientific method is applied to pumping for indoor and outdoor water use, such as the specific amount of water estimated for outdoor requirements given parcel land cover as well as the estimated return of water to the basin based on geology and other hyper-local characteristics.

3. Pricing objectives Exercise

Santa Cruz Mid-County Groundwater Agency
Pricing Objectives Exercise

Please rank each of the objectives from 1 to 17 with
1 being most important and 17 being least important
See Appendix A for the definitions of each Objective

	Objectives	Ranking
Administration	Ease of Understanding	
	Easy of Implementation and Administration	
	Defensibility	
Equity	Equity Among Property Owners	
	Equity Among Pumpers	
	Equity Across All Basin Users (Beneficiaries)	
	Equity Across Geographic Areas	
	Inter-Generational Equity	
Rate and Revenue Stability	Revenue Stability	
	Rate Stability	
	Minimize Financial Impacts	
Affordability	Shared Burden	
	Affordability for Essential Use	
Conservation	Rewards Past Conservation Effort	
	Tool for Implementing the GSP	
	Promotes Future Conservation	
	Scientific Method	

Participant's name _____

4. Sub-Objective Definitions

Affordability for Essential Use: This objective addresses the importance of maintaining the price - i.e. that which is used for health and safety – at the lowest cost possible while considering the needs of the Agency and regulatory conditions.

Defensibility: Producing a fee structure perceived to be fair, well documented, and well explained reduces the likelihood of legal challenge. This leads to more efficient and less costly administration.

Ease of Implementation and Administration (Simplicity): Implementing a new fee structure merits careful consideration, as rate structure implementation requires upfront (one-time) costs such as data gathering or billing system changes. An easy-to-administer structure does not negatively impact the ongoing costs of administration, which are predominately additional staffing costs.

Ease of Understanding: The ability for the fee structure to be explained in a manner that can be understood by basin users and other stakeholders will have a positive impact on the ability to build acceptance of fees.

Equity Across All Basin Users (beneficiaries): This objective states that a fee structure achieves equity by allocating costs fairly and proportionally across all water users in the basin. Considers basin groundwater a general benefit across all users of groundwater.

Equity Across Management Areas: Considers specific regions within the basin boundaries that contribute to groundwater replenishment and specific regions which contribute to intrusion, depletion, and/or impairment.

Equity Among Property Owners: This objective states that a fee structure achieves equity by allocating costs fairly and proportionally across property owners whose parcels overlay the basin.

Equity Among Pumpers: This objective states that a fee structure achieves equity by allocating costs fairly and proportionally across well owners whose parcels overlay the basin.

Inter-Generational Equity: This objective states that a fee structure achieves equity by matching the costs of existing impacts to the basin to those who have caused the impacts. The objective aims to protect current and future users from bearing all costs related to groundwater management due to past activities.

Minimize Financial Impacts: Fees imposed on basin users will be the first of its kind. This objective aims to minimize the financial burden on users to the greatest extent possible. The objective overlaps with the shared burden objective.

Promotes Future Conservation: The objective aims to reduce total water use through a focus on reduced pumping. The objective may include increased efficiency of basin water use to include development of benchmark standards associated with the appropriate amount of water use based on local characteristics.

Rate Stability: The objective is to reasonably ensure that user fees are predictable from billing cycle to billing cycle and without sharp fluctuations in magnitude or structure year over year. Similar to the revenue stability objective, certain fee structures are more effective at guarding against fee spikes and highly fluctuating user bills.

Revenue Stability: The ability of the fee structure to generate stable and predictable revenues from month to month or year to year. Specific types of fee structures are more effective at maintaining revenue stability than others. Adequate revenues ensure, for example, that technical studies can be conducted, qualified personnel can be retained, and that operational costs of the agency are covered.

Reward Past Conservation Efforts: This objective recognizes the value either of rewarding individuals for efficient use according to their needs, or at minimum, not penalizing those users for their conservation efforts prior to SGMA.

Scientific Method: Use of best available science, models, and empirical data-based standards and guidelines should be employed to develop the fee structure. The scientific method is applied to pumping for indoor and outdoor water use, such as the specific amount of water estimated for outdoor requirements given parcel land cover, as well as the estimated return of water to the basin based on geology and other hyper-local characteristics.

Shared Burden: This objective recognizes that the Mid-County Basin benefits all current, future, and potential users of groundwater. In essence each overlying property benefits from a sustainable groundwater basin and the burden of ensuring basin health should be distributed as broadly as possible.

Tool for Implementing the Groundwater Sustainability Plan (GSP): This objective aims to develop a fee structure that is most likely to achieve the goals of the GSP over the long term. Advocates for a mechanism to allocate costs and incentivize activities to avoid or mitigate undesirable results as defined by SGMA.

Appendix B

Part 2.74 of Division 6 of the Water Code contains 12 chapters on Sustainable Groundwater Management. Below are five important sub-sections of Chapter 8: Financial Authority that are pertinent to MGA's ability to develop a fee structure that is most appropriate for the basin and the authority and technical requirements to charge fees. The language that follows is direct from the sub-sections in Chapter 8 of Part 2.74 of the Water Code. Bolded font is emphasis added by Raftelis.

10730.2(d): Fees imposed pursuant to this section may include **fixed fees** and **fees charged on a volumetric basis**, including, but not limited to, fees that increase based on the quantity of groundwater produced annually, the year in which the production of groundwater commenced from a groundwater extraction facility, and impacts to the basin.
10730.8(a): Nothing in this chapter shall affect or interfere with the authority of a groundwater sustainability agency to levy and collect **taxes, assessments, charges**, and tolls as otherwise provided by law.
10730.2(c): Fees imposed pursuant to this section shall be adopted in accordance with subdivisions (a) and (b) of **Section 6 of Article XIII D** of the California Constitution. (*Proposition 218*)
10730(a): A groundwater sustainability agency may impose fees, including, but not limited to, **permit fees** and **fees on groundwater extraction** or other regulated activity, to fund the costs of a groundwater sustainability program, including, but not limited to, preparation, adoption, and amendment of a groundwater sustainability plan, and investigations, inspections, compliance assistance, enforcement, and program administration, including a prudent reserve.
10730.2(a): …may impose fees on the extraction of groundwater from the basin to fund costs of groundwater management, including:

- Administration, operation, and maintenance, including a prudent reserve.
- Acquisition of lands or other property, facilities, and services.
- Supply, production, treatment, or distribution of water.
- Other activities necessary or convenient to implement the plan.

SANTA CRUZ MID-COUNTY GROUNDWATER AGENCY

Groundwater Sustainability Plan (GSP)

Release, Review, and Approval Process Timeline - Key Dates

Groundwater Sustainability Plan (GSP) Release, Review, & Approval–Key Dates

- May and June: Preparations for GSP release
- June 19th: GSP Advisory Committee – finalize GSP sustainability goal and sustainable management criteria recommendations
- July 12th: Draft GSP in MGA Board packet – notification to City of Santa Cruz, City of Capitola, Santa Cruz County and interested parties
- July 18th: Draft GSP presented to MGA Board
- July 20th and 22nd: Two Open Houses for the public
- July 19th – Sept 19th: Comment period opens, Board review time
- Sept 19th: Public Hearing, Comment Period Closes, MGA Board provides input to staff for final GSP preparation
- Nov 21st: Final GSP presented to MGA for adoption
- Late November: GSP Submittal to DWR
- April 1st 2020: First Annual Report due date

QUESTIONS

SANTA CRUZ MID-COUNTY GROUNDWATER AGENCY