SOQUEL/APTOS GROUNDWATER MANAGEMENT PLAN
BASIN IMPLEMENTATION GROUP (BIG)
MEETING MINUTES
June 24, 2014

---

1. CALL TO ORDER

Bruce Jaffe, Soquel Creek Water District called the meeting to order at 7:00 p.m.

2. ROLL CALL

Committee Members Present:
Bruce Jaffe, Soquel Creek Water District
Don Hoernschemeyer, Soquel Creek Water District
John Benich, Central Water District
Bob Postle, Central Water District
Bill Wigginton, Seascape Greens Homeowners Association

Committee Members Absent:
Carol Monkerud, Central Water District Board

Others Present:
Kim Adamson, General Manager, Soquel Creek Water District
Ralph Bracamonte, General Manager, Central Water District
John Ricker, Santa Cruz County Water Resources Division Director
Martin Mills, PureSource Water (Private Well Representative)
Melanie Schumacher, Special Projects Engineer, Soquel Creek Water District
Cameron Tana, HydroMetrics, WRI
Karen Reese, Executive Assistant/Board Clerk, Soquel Creek Water District

2 members of the public

3. APPROVAL OF MINUTES

3.1.1 November 12, 2013 Regular Meeting
Minor corrections were made. Minutes could not be approved for this meeting as those present at the 11/12/13 meeting were not present tonight to vote. The minutes will be brought back to a subsequent meeting.

3.1.2 February 10, 2014 Special Meeting
Two minor corrections were made.

MOTION: Don Hoernschemeyer; Second; Bill Wigginton: To approve the minutes of February 10, 2014 with corrections. Motion passed.

4. ORAL COMMUNICATIONS

None

5. ADMINISTRATIVE BUSINESS

5.1 Accept the Soquel-Aptos Area Groundwater Management Annual Review and Report for Water Year 2013

Cameron Tana, HydroMetrics, WRI presented the Annual Review and Report for Water Year 2013. (**Attached to these minutes as Exhibit A)** and answered questions from the group and the public

MOTION: Bob Postle; Second; Don Hoernschemeyer: To accept the Annual Review and Report for Water Year 2013. Motion passed.

5.2 Review and Approve Partnership with RCD for Private Well User Water Conservation Pilot Program

Ms. Schumacher reviewed the purpose of the Resource Conservation District's water conservation pilot program as outlined in the staff memo. Eight private wells would be studied. If the BIG chooses to participate, payments to the Resource Conservation District (RCD) for services shall be as prescribed in the First Amendment to the Joint Powers Agreement. The estimated cost for SqCWD is $1,058 and $62 for CWD.

MOTION: Bob Postle; Second; Bruce Jaffe: To approve that BIG co-sponsor and partner with the Resource Conservation District (RCD) in the Private Well User Water Conservation Pilot Program and fund the requested BIG contributions. Motion passed.

5.3 Direction to Staff Regarding 2014 Grand Jury report, *Desalination and Alternatives – Water for a Thirsty County*

Ms. Adamson distributed a draft response to the Grand Jury and took direction from the committee for changes. The final response is **attached to these minutes as Exhibit B**.

MOTION: Bill Wigginton; Second; Don Hoernschemeyer: To direct Ms. Adamson to finalize the response and send to the Grand Jury. Motion passed.

5.4 Consider Changing the Name of the Basin Implementation Group

Ms. Schumacher reviewed the staff memo with regard to consideration of changing the name of the BIG. With the increase in public awareness of mid-county water issues and more visible partnership efforts being conducted under the BIG (such as Groundwater Stakeholder Advisory Committee), staff proposes the BIG committee discuss changing the name of the Basin Implementation Group. If other agencies that have been invited vote to join (City of Santa Cruz, County of Santa Cruz, Pajaro) the name could be changed as part of the third amendment to the JPA.

Several options for a new name were presented. Having "Mid County" in the name was agreeable and staff will come back with more information to the next meeting.

5.5 Direction to Staff Regarding the Joint Exercise of Powers Agreement (JPA) Between Central Water District (CWD) and Soquel Creek Water District (SqCWD) Regarding the Addition of Pajaro Valley Water Management Agency

Ms. Adamson reviewed the staff memo with regard to inviting Pajaro Valley Water Management Agency to participate in the BIG as there is some overlap in the basin. Their use is similar to Central Water District and the City of Santa Cruz. Whether they participate as a financial member or not was discussed.

MOTION: Bruce Jaffe; Second; Don Hoernschemeyer: To invite Pajaro Valley Water Management Agency to become a member of the BIG. Motion passed.

5.6 Tentatively Set the Schedule and Agenda for the Next Basin Implementation Group Meeting

Discussion was held with regard to meeting more frequently. It was agreed to meet on a quarterly basis with the next meeting set for September 23, 2014.

5.7 Election of Chair and Vice Chair

MOTION: Don Hoernschemeyer; Second; Bill Wigginton: To elect Bruce Jaffe as Chair and Bob Postal as Vice Chair. Motion passed.

6. INFORMATION ITEMS

6.1 Declaration of Groundwater Emergency and Stage 3 Water Shortage Emergency by Soquel Creek Water District

Ms. Schumacher reviewed the two resolutions passed by Soquel Creek Water District in response to the 3rd year of drought.

6.2 Oral staff reports

Soquel Creek Water District

Ms. Adamson reported the City of Santa Cruz and the County of Santa Cruz will be presenting the invitation to join the BIG to their respective Boards/Council. She reviewed two bills (SB1168 and AB1739) that pertain to groundwater management. They would require that private wells be

registered and metered and that pumping volumes be reported. If a local groundwater management agency (such as the BIG) doesn't meet the requirements, the State would have the authority to step in. California water rights and how that would affect the bills are being reviewed.

Central Water District

Mr. Bracamonte reported on the ACWA conference he attended earlier this year and the large turnout for the session on groundwater. He reported that the stakeholder meeting that was held in May was very well attended with around 80 members of the public. Additional meetings are scheduled. The public comments were positive and they were appreciative of the opportunity to voice their concerns.

7. ADJOURNMENT

Being no further business, the meeting was adjourned at 9:26 p.m.

SUBMITTED BY:

Karen Reese, Board Clerk

APPROVED BY:

Kim Adamson, General Manager
Soquel Creek Water District

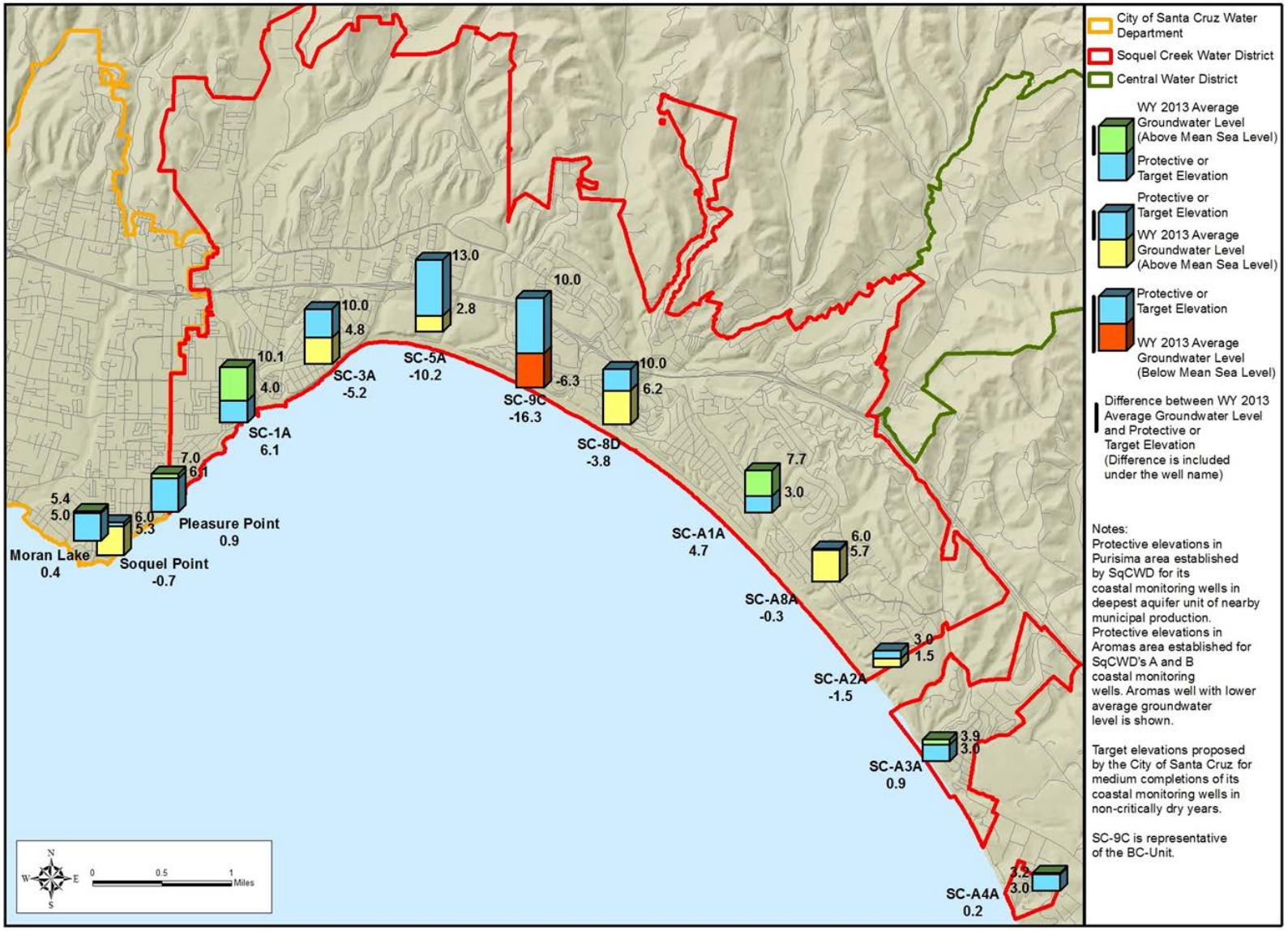
Soquel-Aptos Basin Groundwater Conditions Water Year 2013 Annual Report and Review

Presented on
June 24, 2014 to
Soquel-Aptos Basin Implementation Group

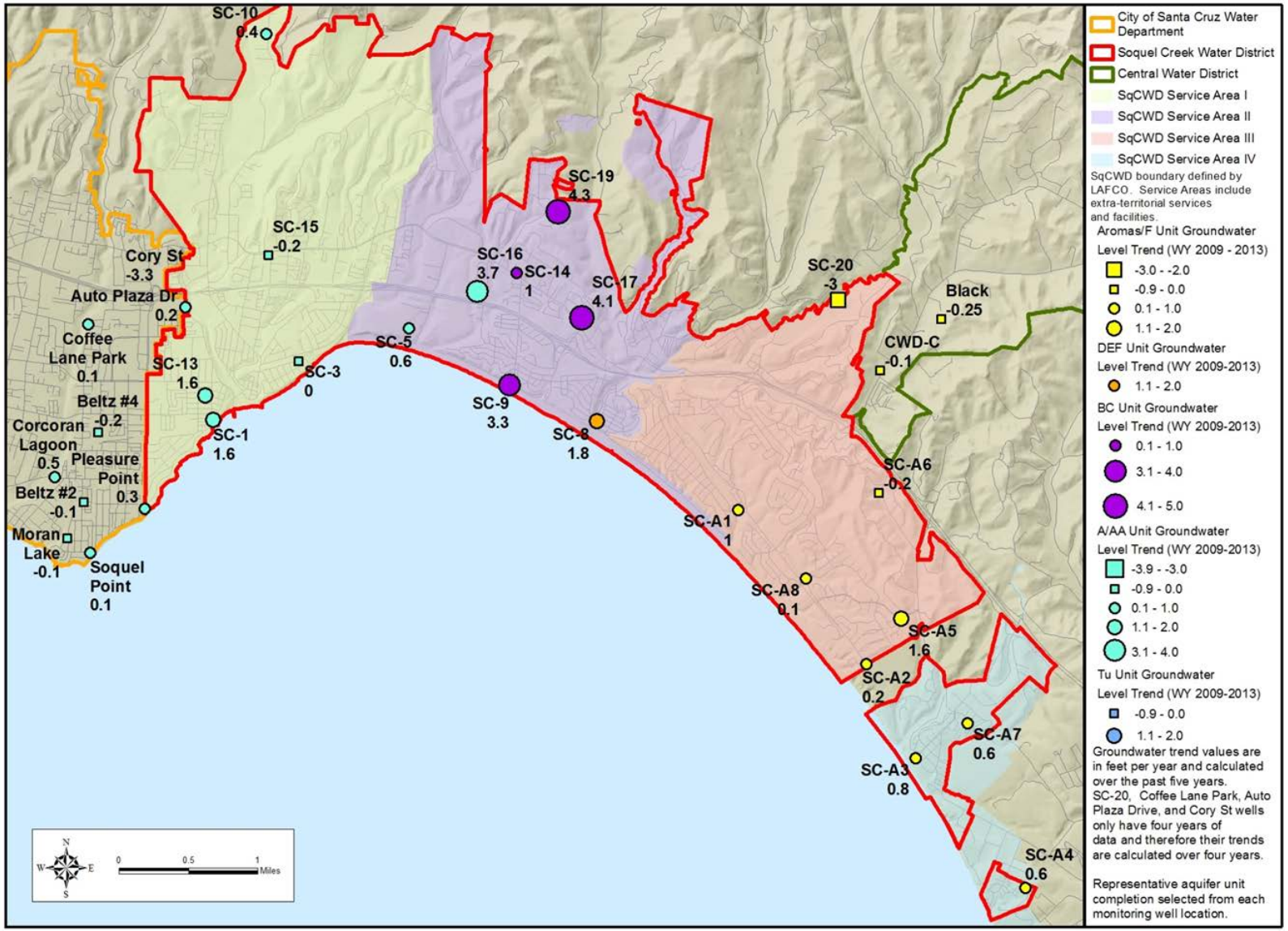
HydroMetrics WRI

Seawater Intrusion Risk Overview

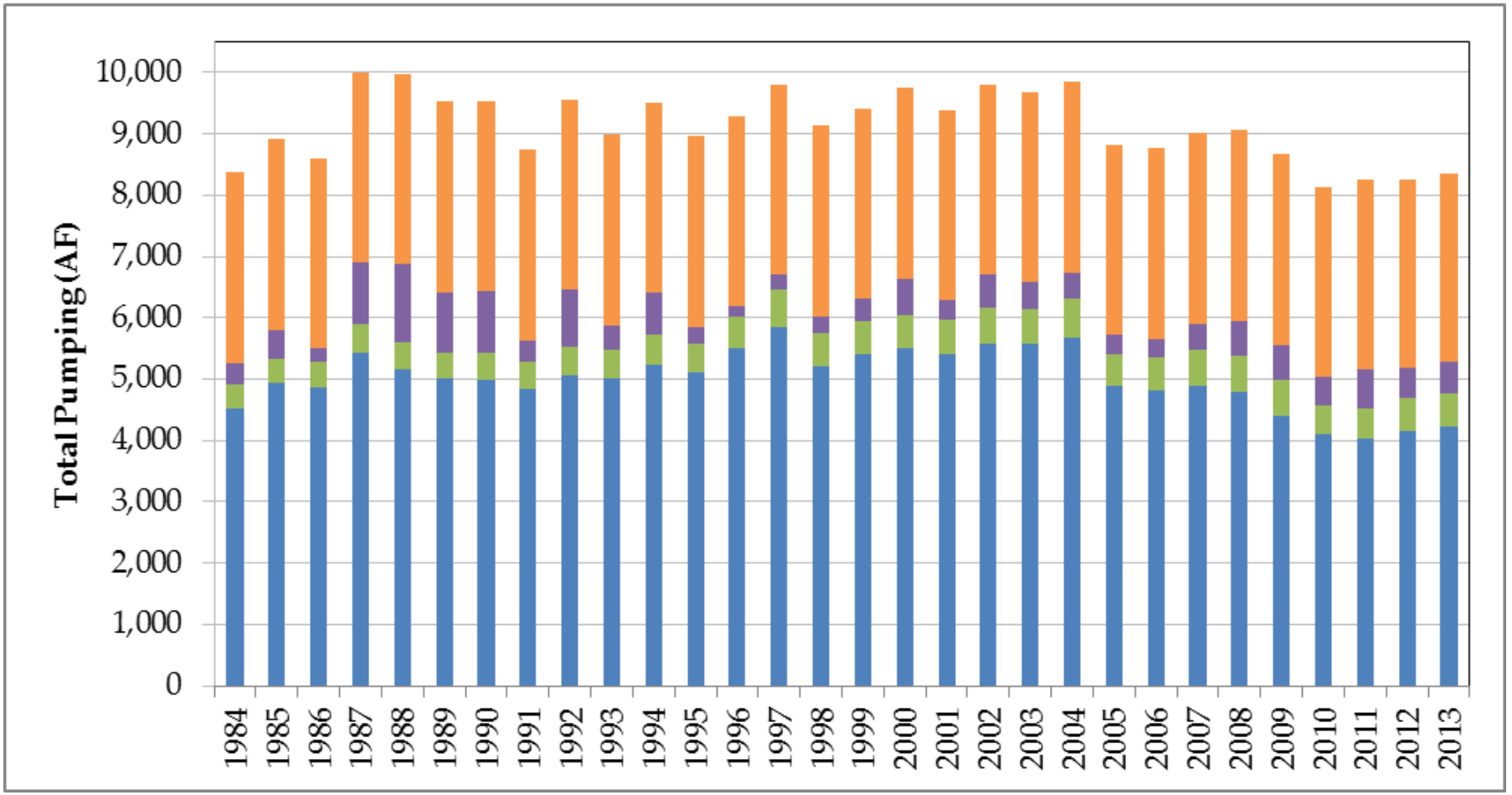
Groundwater Levels vs. Protective Elevations



Groundwater Level Trends WY 2009-2013



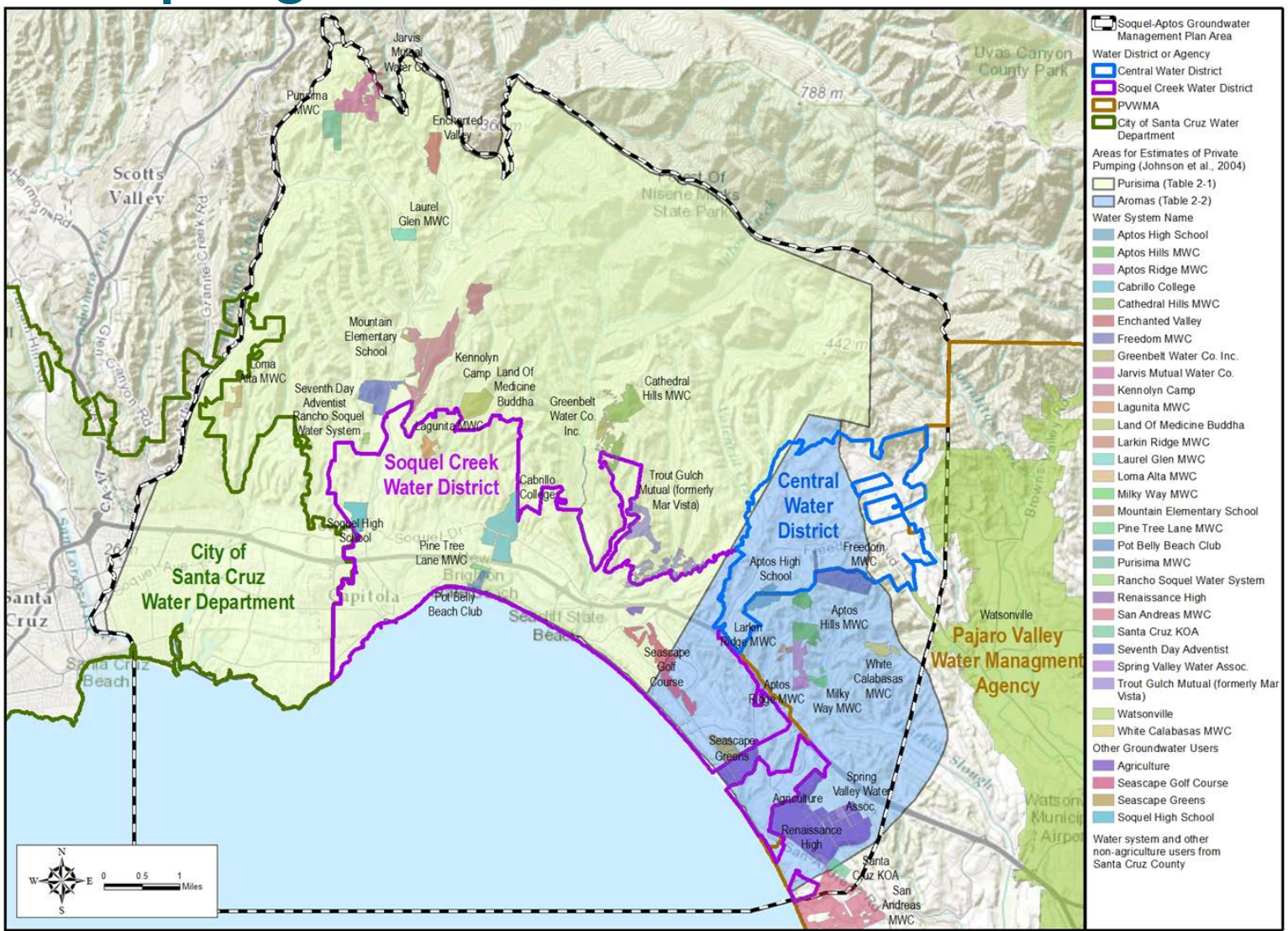
Pumping Reduced Last 5 Years



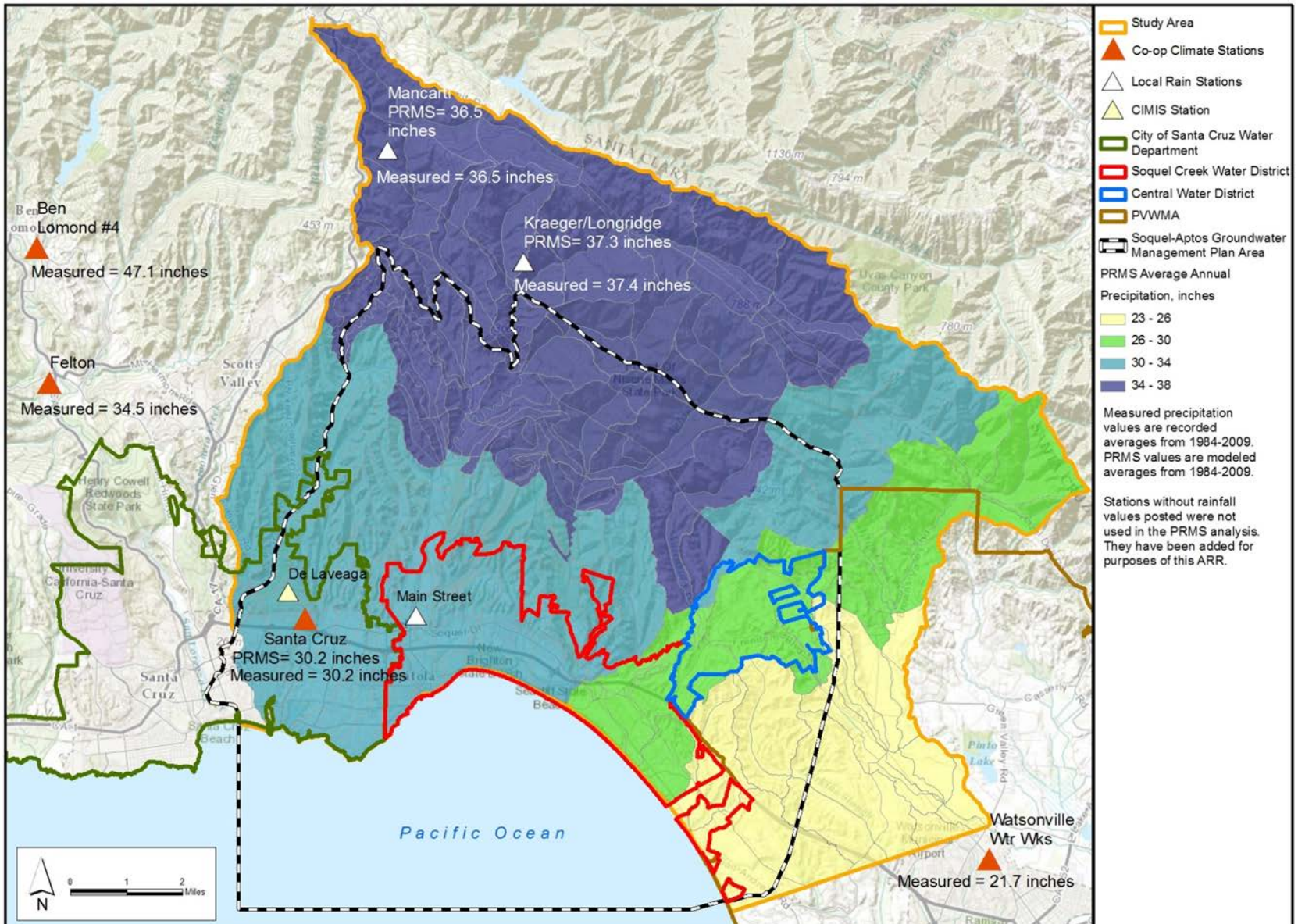
SqCWD Central WD City of Santa Cruz Estimated Private

Hydro Metrics WRI

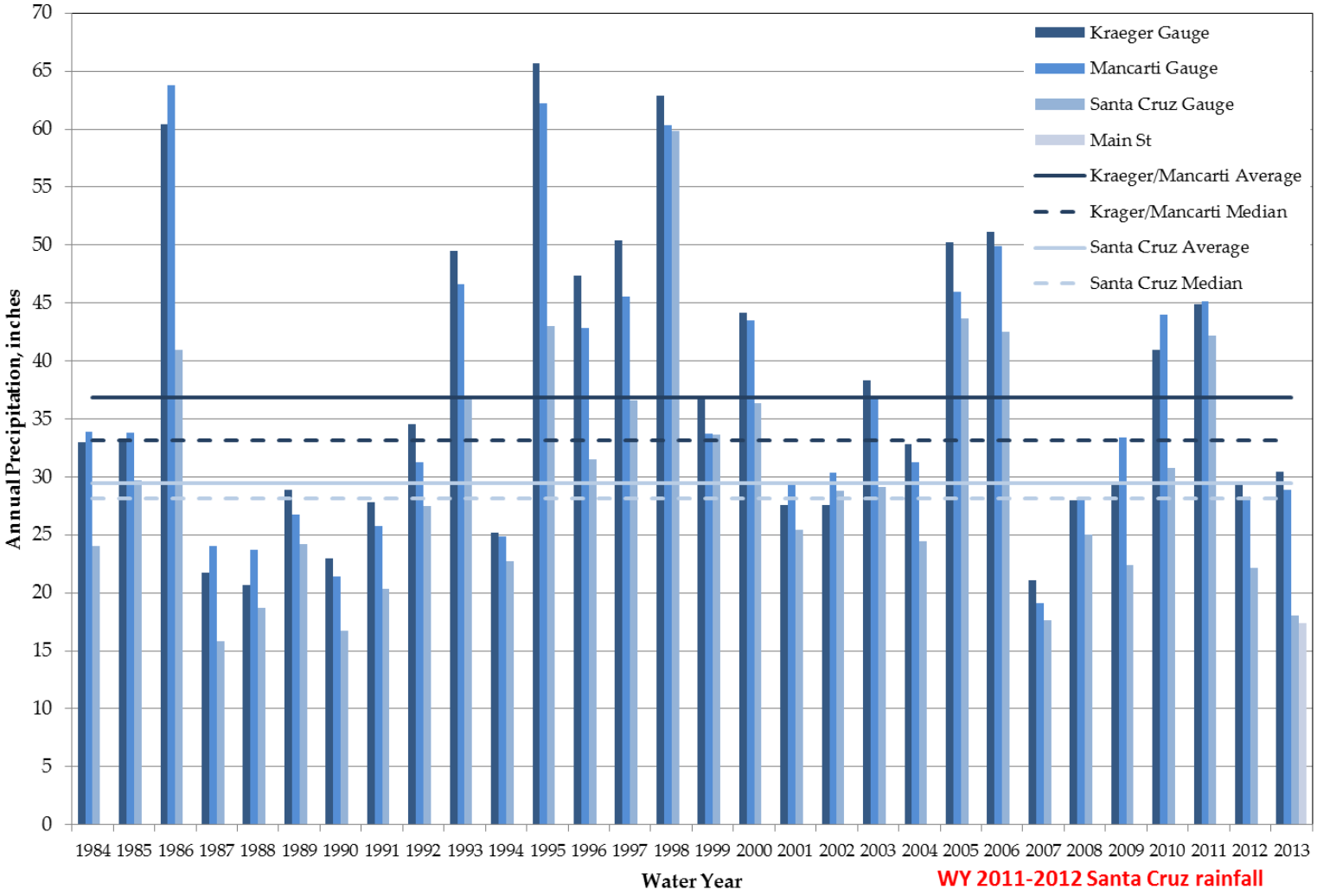
Study Areas for Non-Water Agency Pumping



Rainfall Stations

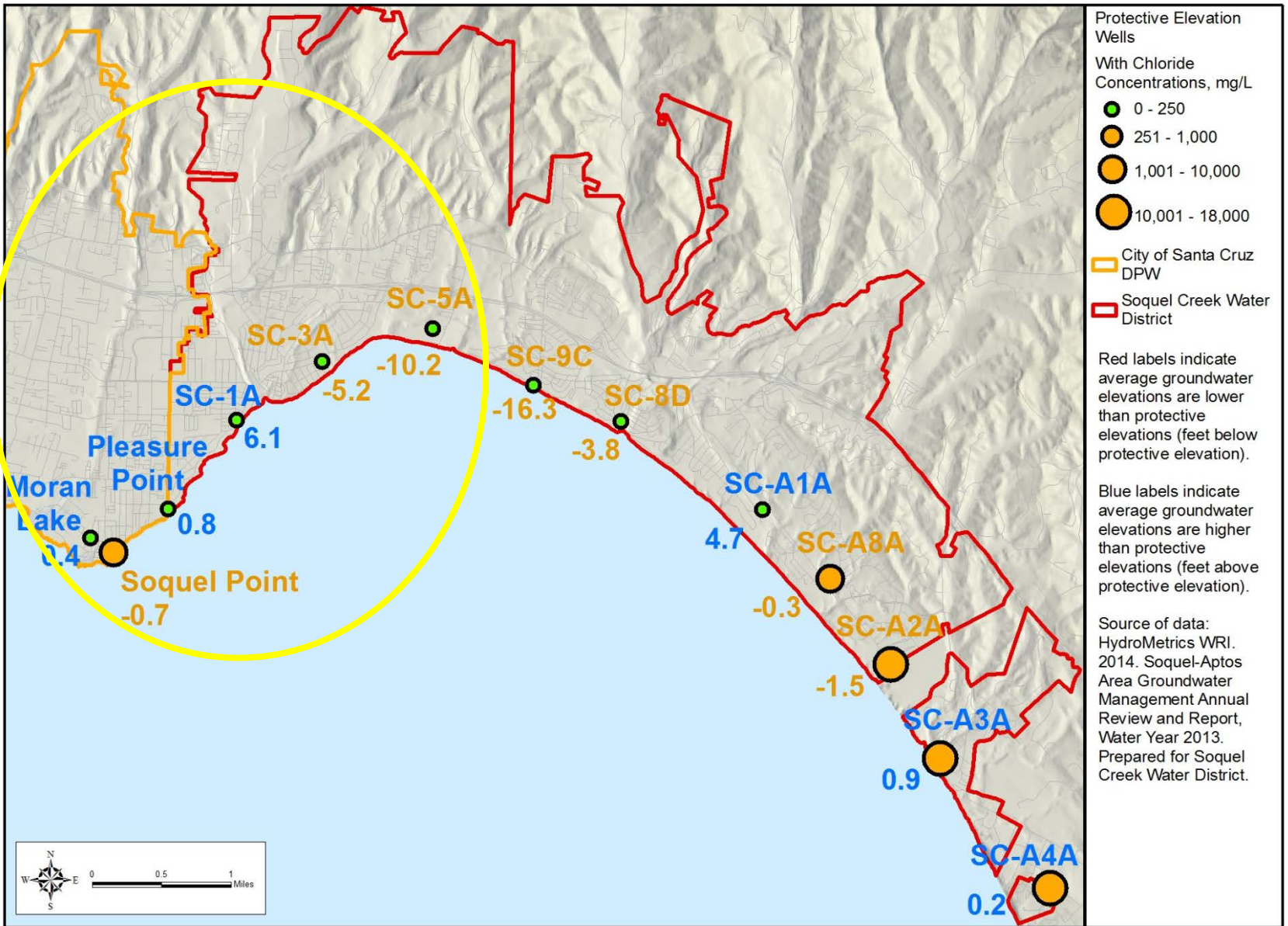


3rd Consecutive Dry Year



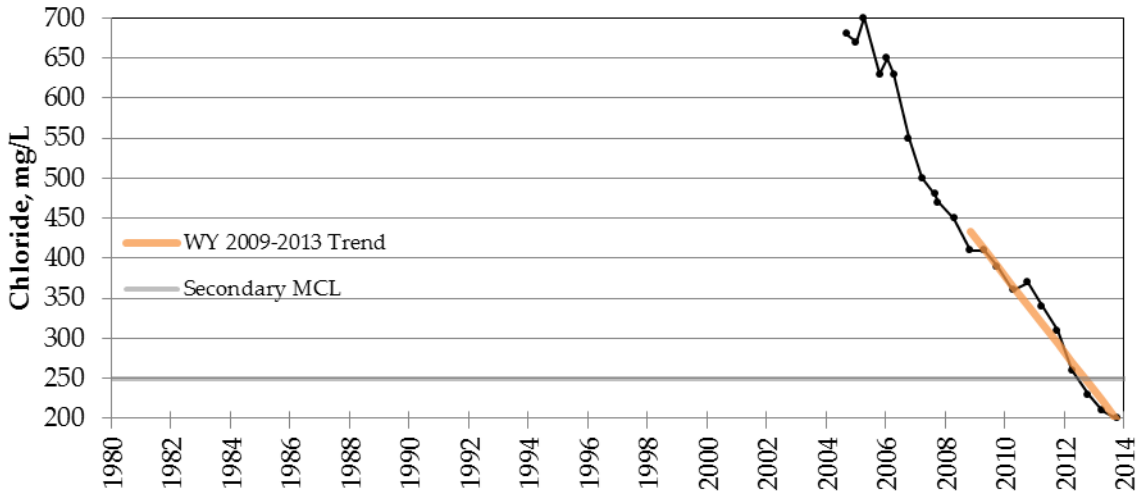
WY 2011-2012 Santa Cruz rainfall estimated based on De Laveaga Stn

Western Purisima

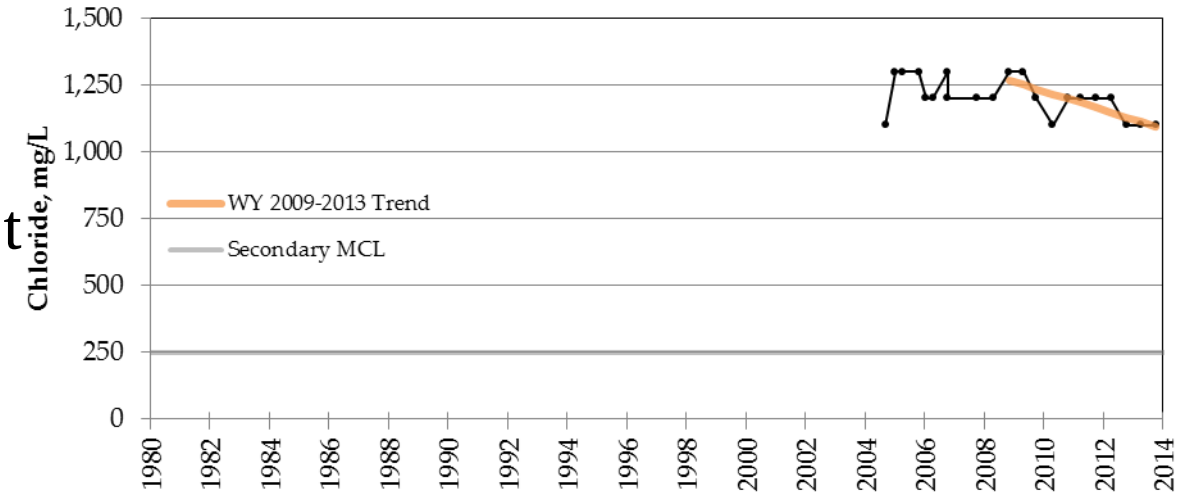


Seawater Intrusion in City Monitoring Wells

Moran Lake

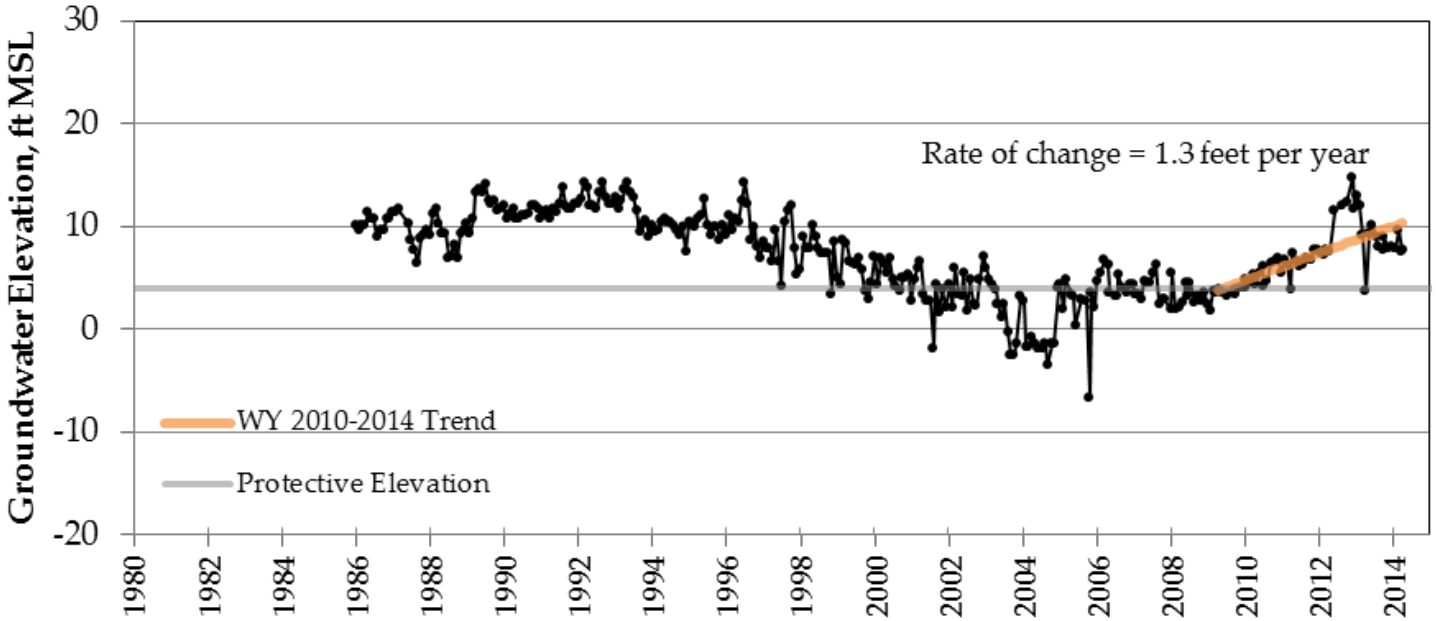


Soquel Point



HydroMetrics WRI

SC-1A Groundwater Level Rise Above Protective Elevations

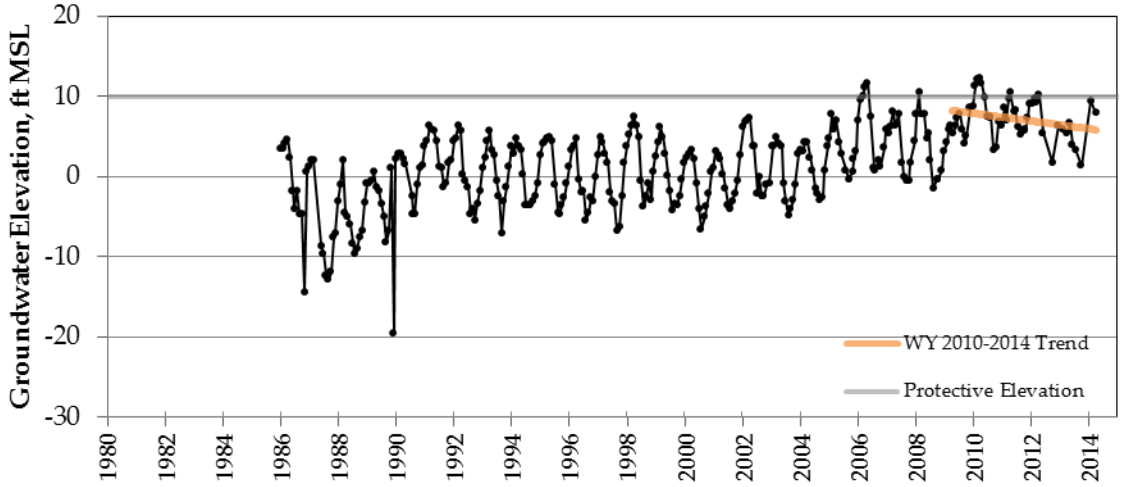


Garnet pumping last 4 years
lowest since WY 1997

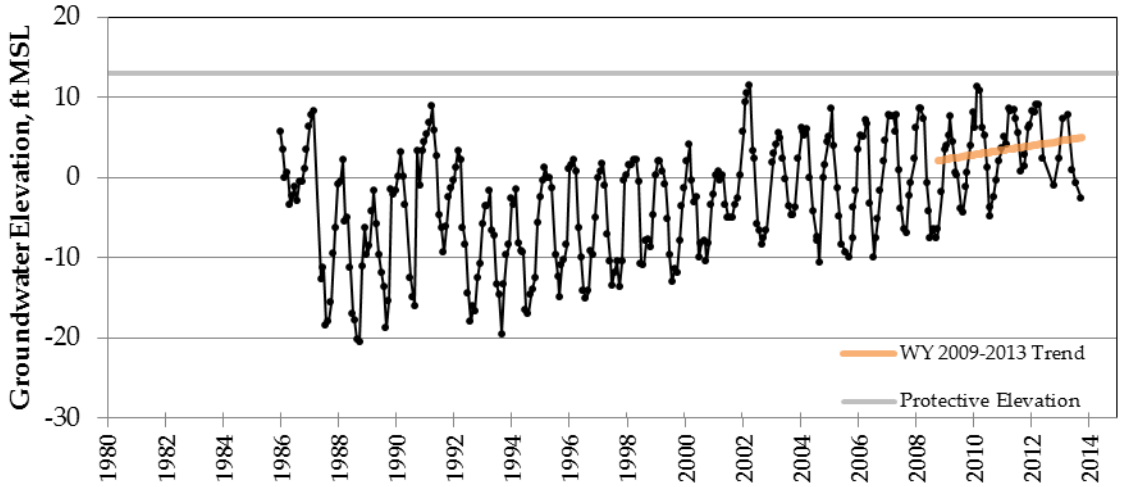
HydroMetrics WRI

Long-Term Rise in A Unit Wells But Still Below Protective Elevations

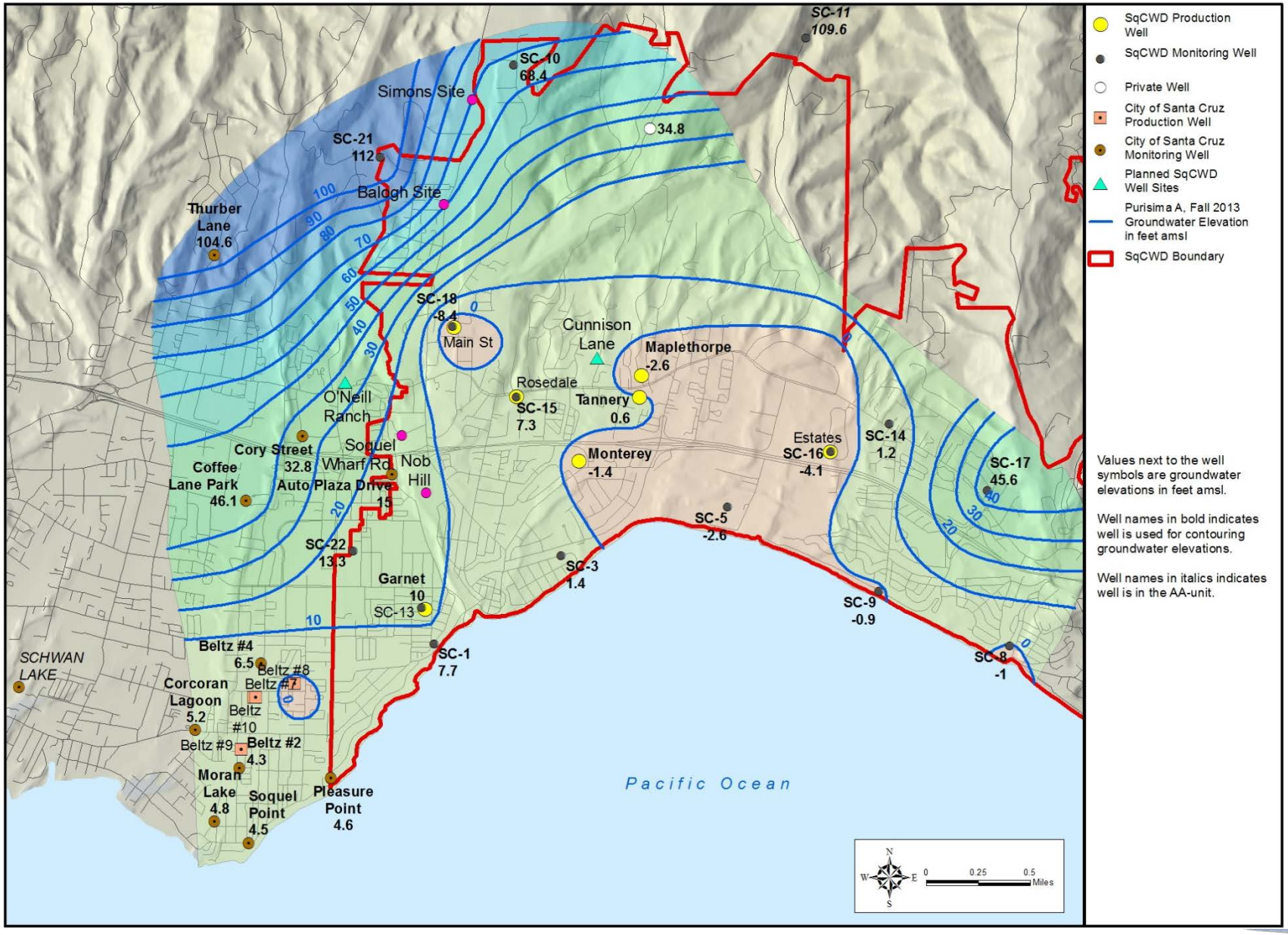
SC-3A



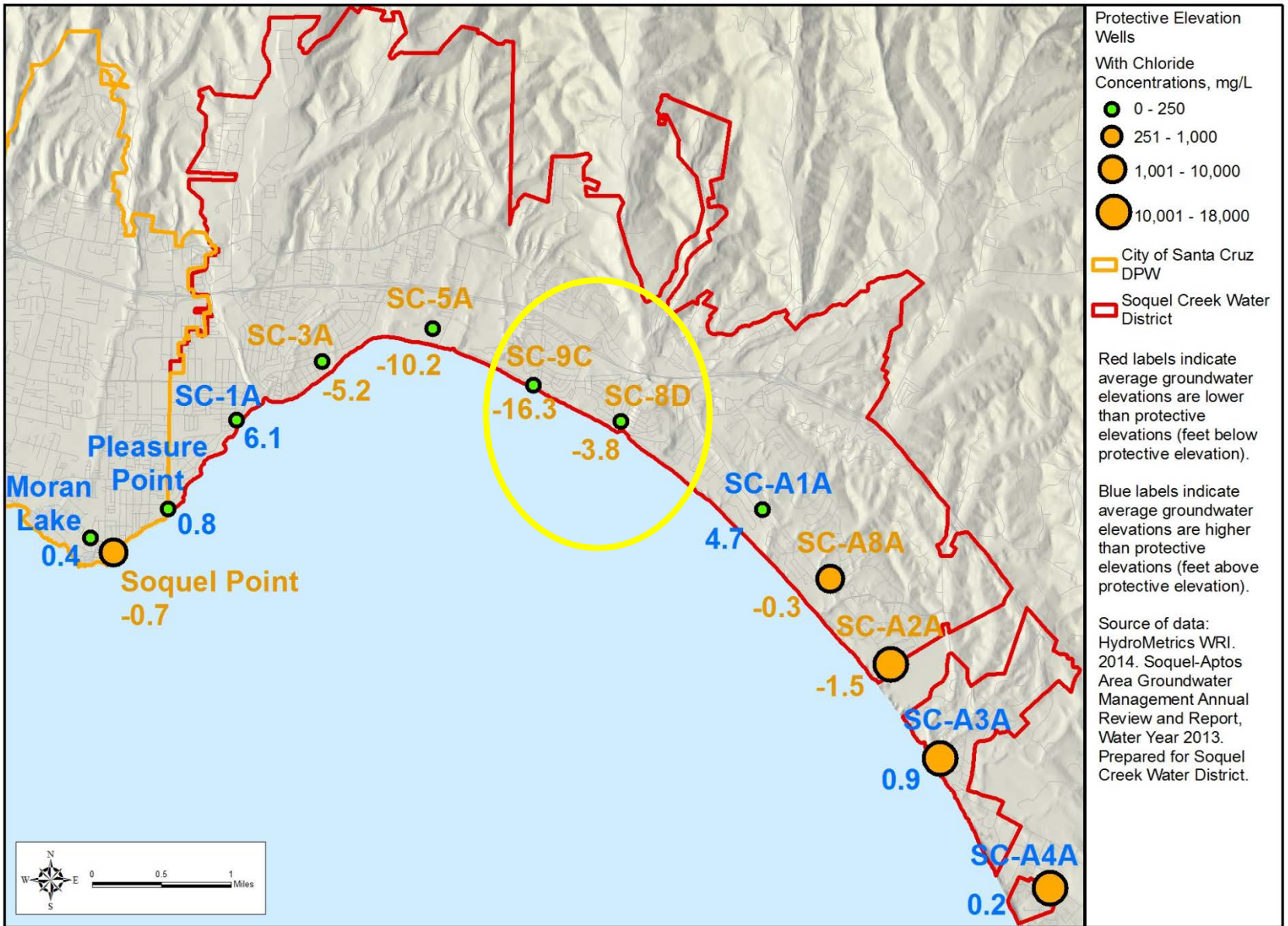
SC-5A



HydroMetrics WRI

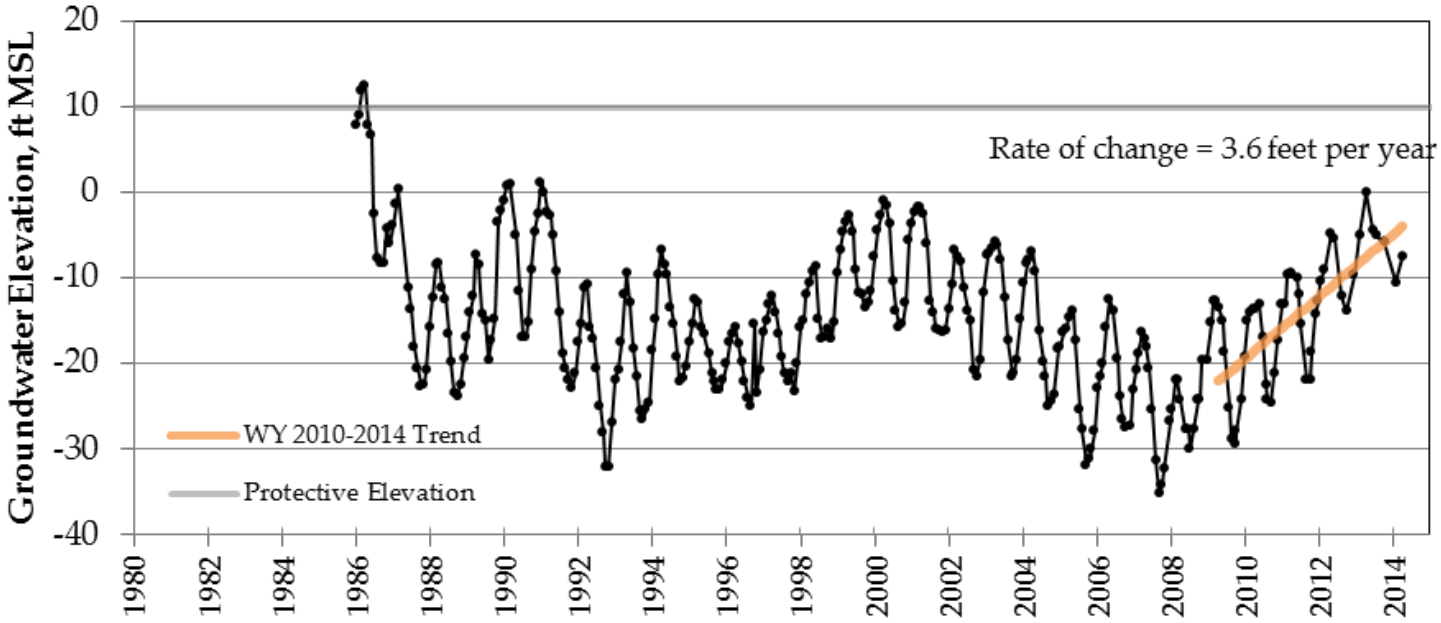

SC-11
109.6
SC-10
68.4
Simons Site
34.8
SC-21
112
Balogh Site
Thurber
Lane
104.6
100
90
80
70
60
50
40
30
20
10
0
SC-18
-8.4
Main St
Cunnison
Lane
Maplethorpe
-2.6
Rosedale
SC-15
7.3
Tannery
0.6
O'Neill
Ranch
Soquel
Wharf Rd
Nob
Hill
Cory Street
32.8
Auto Plaza Drive
15
Coffee
Lane Park
46.1
Monterey
-1.4
Estates
SC-16
-4.1
SC-14
1.2
SC-17
45.6
SC-5
-2.6
SC-22
13.3
SC-3
1.4
Garnet
10
SC-13
SC-9
-0.9
SC-8
-1
SC-1
7.7
Beltz #4
6.5
Beltz #8
Beltz #7
SCHWAN
LAKE
Corcoran
Lagoon
5.2
Beltz
#10
Beltz #9
Beltz #2
4.3
Moran
Lake
4.8
Soquel
Point
4.5
Pleasure
Point
4.6
Pacific Ocean
N
W
E
S
0
0.25
0.5
Miles
SqCWD Production Well
SqCWD Monitoring Well
Private Well
City of Santa Cruz Production Well
City of Santa Cruz Monitoring Well
Planned SqCWD Well Sites
Purisima A, Fall 2013 Groundwater Elevation in feet amsl
SqCWD Boundary
Values next to the well symbols are groundwater elevations in feet amsl.
Well names in bold indicates well is used for contouring groundwater elevations.
Well names in italics indicates well is in the AA-unit.

Central Purisima

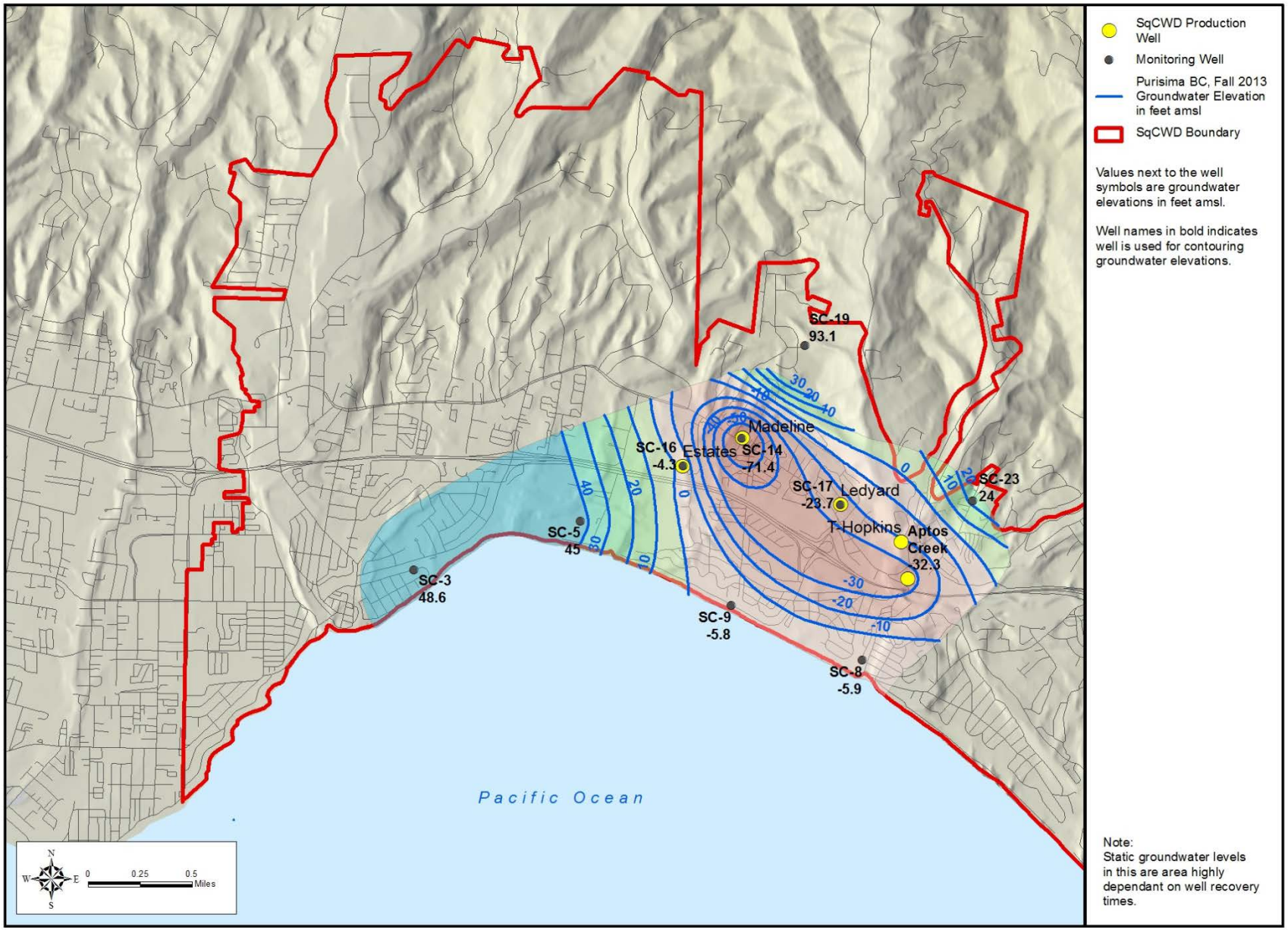


Rise in BC Unit Wells But Still Below Sea Level

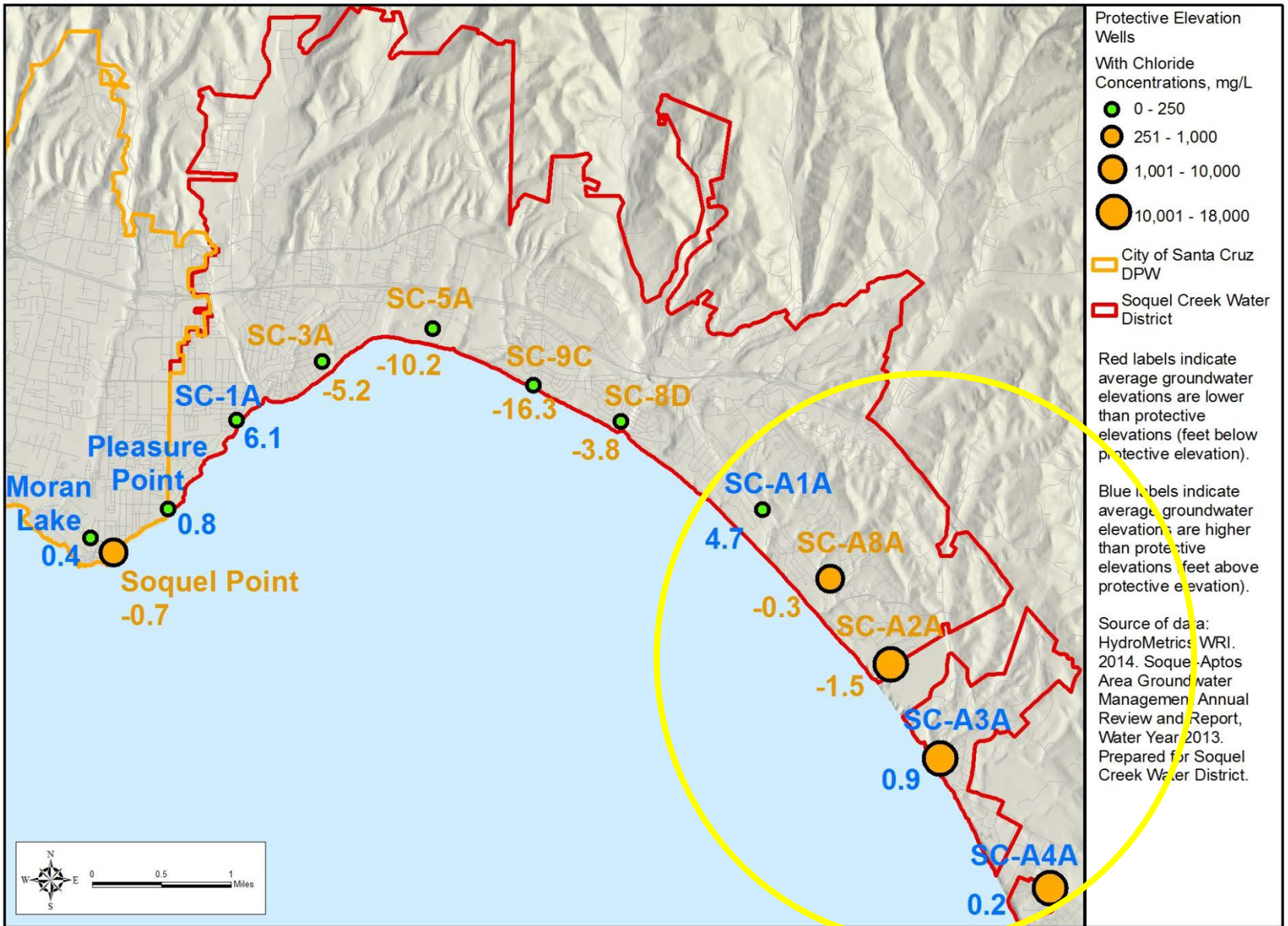
SC-9C



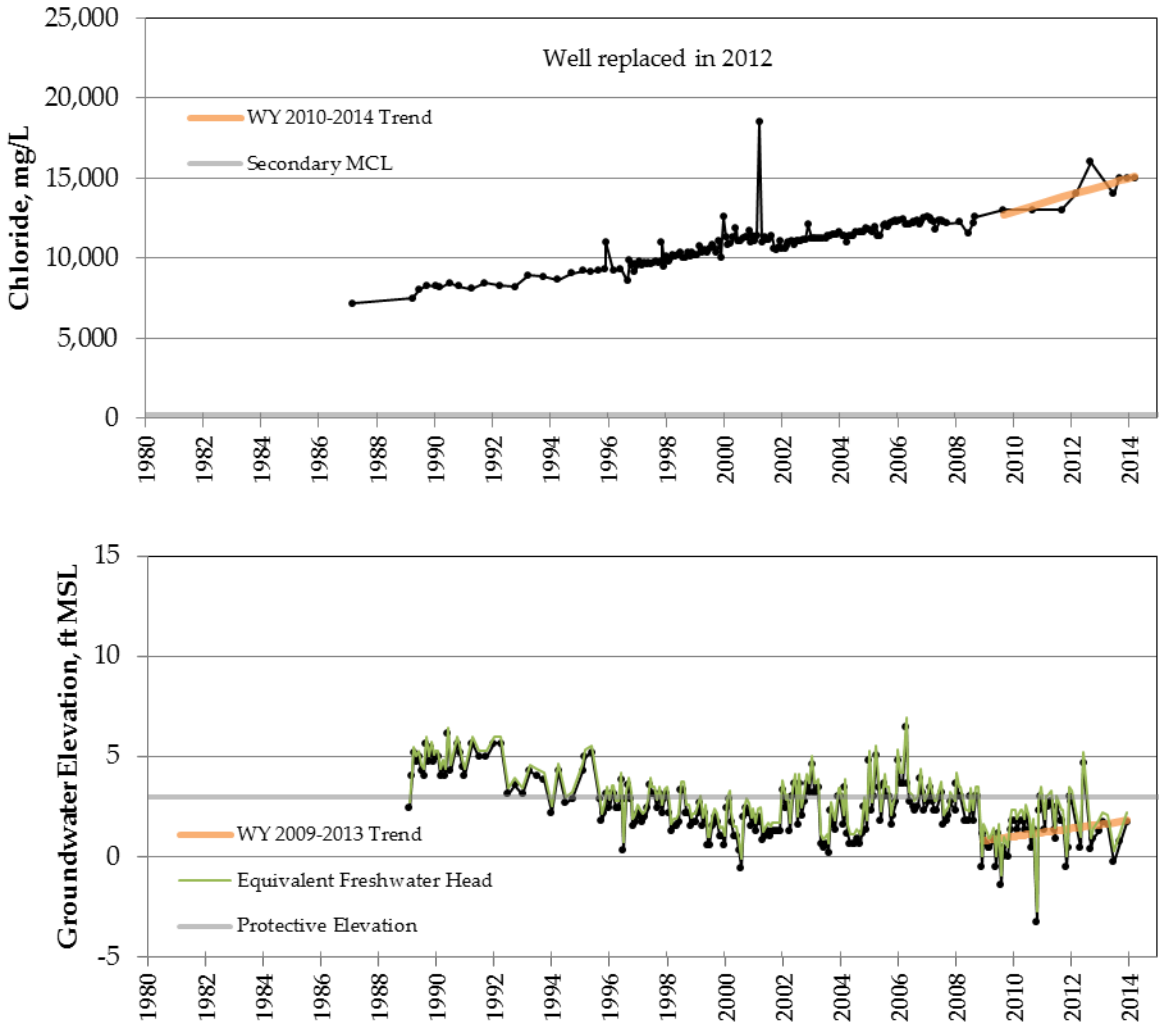
HydroMetrics WRI


SqCWD Production Well
Monitoring Well
Purisima BC, Fall 2013 Groundwater Elevation in feet amsl
SqCWD Boundary
Values next to the well symbols are groundwater elevations in feet amsl.
Well names in bold indicates well is used for contouring groundwater elevations.
Note:
Static groundwater levels in this are area highly dependant on well recovery times.
SC-19
93.1
Madeline
SC-16
-4.3
Estates
SC-14
-71.4
SC-17
-23.7
Ledyard
T-Hopkins
Aptos Creek
-32.3
SC-23
24
SC-5
45
SC-3
48.6
SC-9
-5.8
SC-8
-5.9
Pacific Ocean
N
W
E
S
0
0.25
0.5
Miles

Aromas

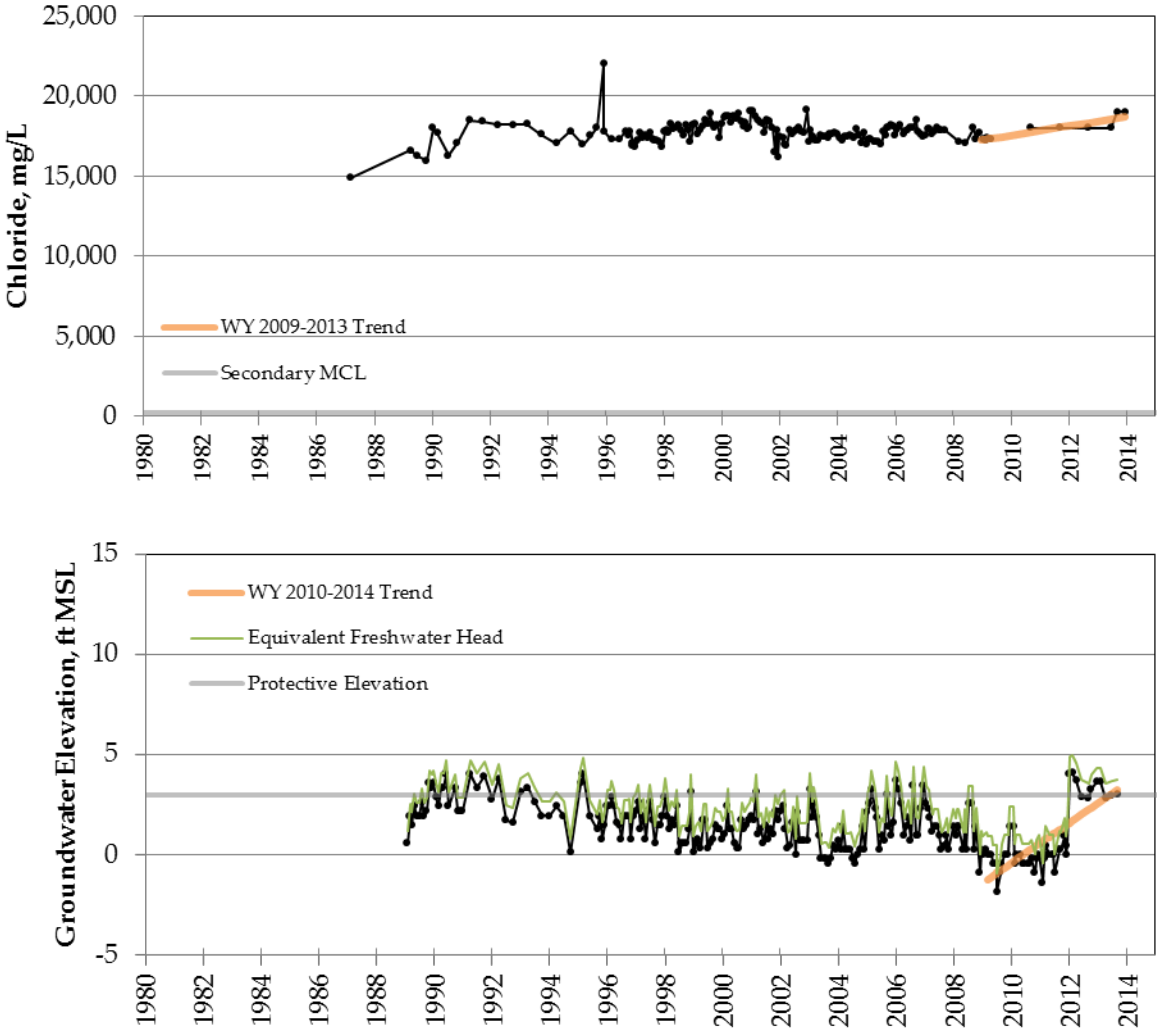

SC-5A
SC-3A
-10.2
-5.2
SC-9C
-16.3
SC-8D
-3.8
SC-1A
6.1
Pleasure Point
0.8
Moran Lake
0.4
Soquel Point
-0.7
SC-A1A
4.7
SC-A8A
-0.3
SC-A2A
-1.5
SC-A3A
0.9
SC-A4A
0.2
N
W
E
S
0
0.5
1
Miles
Protective Elevation Wells
With Chloride Concentrations, mg/L
0 - 250
251 - 1,000
1,001 - 10,000
10,001 - 18,000
City of Santa Cruz DPW
Soquel Creek Water District
Red labels indicate average groundwater elevations are lower than protective elevations (feet below protective elevation).
Blue labels indicate average groundwater elevations are higher than protective elevations (feet above protective elevation).
Source of data: HydroMetrics WRI. 2014. Soquel-Aptos Area Groundwater Management Annual Review and Report, Water Year 2013. Prepared for Soquel Creek Water District.

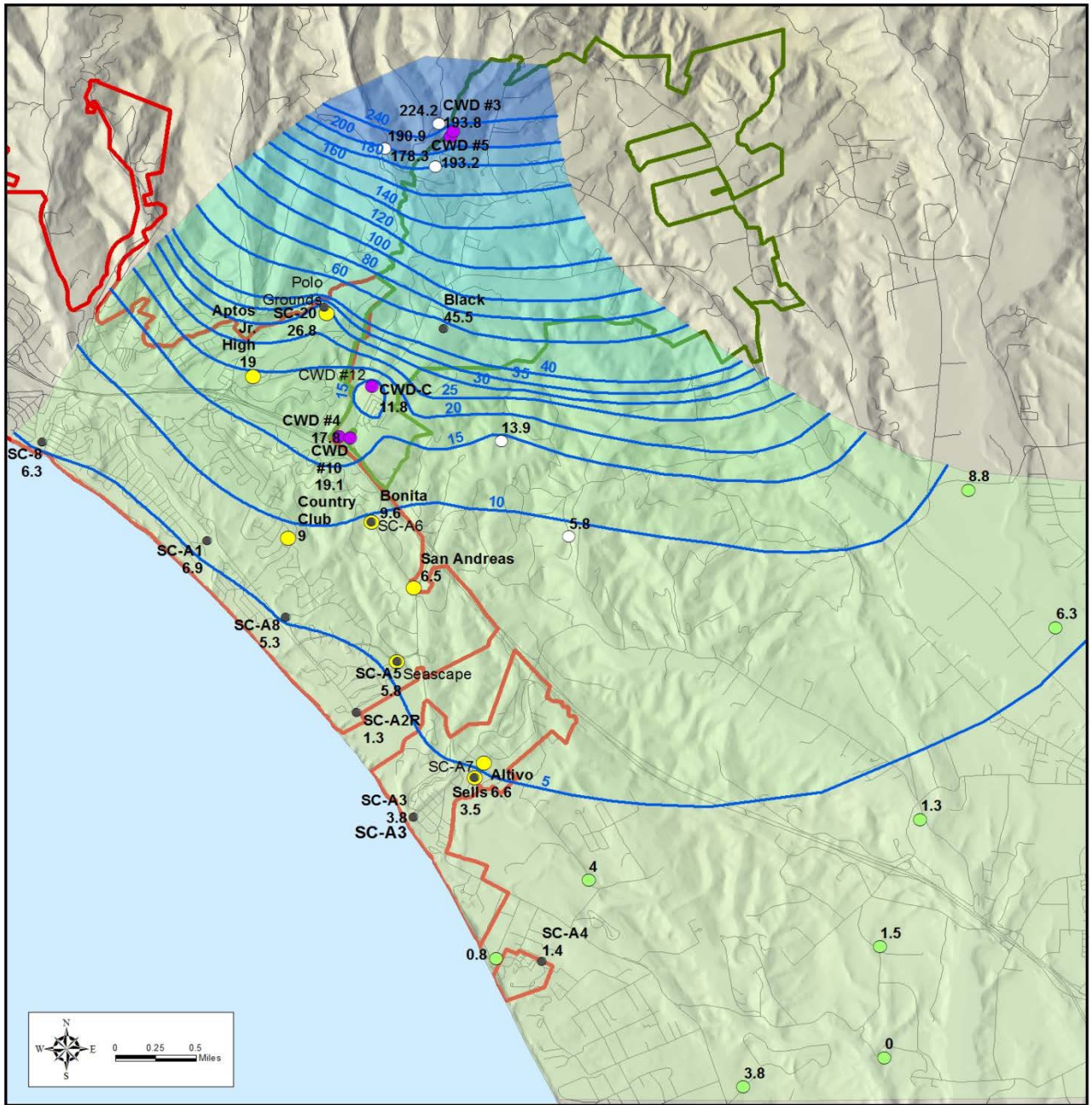
Seawater Intrusion Advancing at SC-A2



HydroMetrics WRI

SC-A3 Now Above Protective Elevations





HydroMetrics WRI

2014-2015 Priorities

- Secure Supplemental Supply
- Monitor Tu Unit (O'Neill Ranch and Beltz 12)
- Use Groundwater Level Logger Data
- Monitor Dry Year Effects
- Initiate Stakeholder Advisory Committee
- Expand Groundwater Management Authority
- Develop Groundwater Model
- Geophysics Study to Locate Seawater Interface

Discussion

Santa Cruz Grand Jury

2013-2014 Response Packet

Desalination and Alternatives

Water for a Thirsty County

Basin Implementation Group, Purisima Groundwater Basin

Due date: 90 Days (by Sept. 15, 2014)

Download this PDF file to your computer and open it with Adobe Reader. Fill out each form and save your changes back into the PDF file. When finished, email the PDF file as an attachment to:
grandjury@co.santa-cruz.ca.us

Instructions for Respondents

California law PC § 933.05 requires that those responding to the Grand Jury report must provide a response for each individual finding and recommendation within a report, not a generalized response to the entire report. Explanations for disagreements and timeframes for further implementation or analysis must be provided. Please follow the format below when preparing your response.

Response Format

1. Find the Responses Required table that appears near the end of the report. Look for the row with the name of the entity you represent and then respond to the Findings and/or Recommendations listed in that row using the custom form provided to you.
2. For Findings, indicate one of the following responses and provide the required additional information:
    - AGREE with the Finding,
    - PARTIALLY DISAGREE with the Finding and specify the portion of the Finding that is disputed and include an explanation of the reasons therefor, or
    - DISAGREE with the Finding and provide an explanation of the reasons therefor.
3. For Recommendations, select one of the following actions and provide the required additional information:
    - HAS BEEN IMPLEMENTED, with a summary regarding the implemented action,
    - HAS NOT YET BEEN IMPLEMENTED BUT WILL BE IMPLEMENTED IN THE FUTURE, with a timeframe or expected date for implementation,
    - REQUIRES FURTHER ANALYSIS, with an explanation and the scope and parameters of an analysis or study, and a timeframe for that analysis or study; this timeframe shall not exceed six months from the date of publication of the grand jury report,
    - WILL NOT BE IMPLEMENTED because it is not warranted or is not reasonable, with an explanation therefor.

If you have questions about the response report please contact the Grand Jury by calling 831-454-2099 or by sending an e-mail to grandjury@co.santa-cruz.ca.us.

How and Where to Respond

1. Please download and fill out the electronic Adobe PDF Response Form provided to you for your responses. There is one form page for each Finding and Recommendation. Be sure to save any changes you make to the form.
2. Print and send a hard copy of the Adobe PDF Response Form to:
    The Honorable Judge Rebecca Connelly
    Santa Cruz Superior Court
    701 Ocean Street
    Santa Cruz, Ca 95060
3. Email the completed Adobe PDF Response Form, as an attachment, to the Grand Jury at grandjury@co.santa-cruz.ca.us.

Due Dates

Elected officials or administrators are required to respond within 60 days of the Grand Jury report's publication. Responses by the governing body of any public entity are required within 90 days.

Penal Code § 933.05

1. For Purposes of subdivision (b) of § 933, as to each Grand Jury finding, the responding person or entity shall indicate one of the following:
    a. the respondent agrees with the finding,
    b. the respondent disagrees wholly or partially with the finding, in which case the response shall specify the portion of the finding that is disputed and shall include an explanation of the reasons therefor.

2. For purpose of subdivision (b) of § 933, as to each Grand Jury recommendation, the responding person shall report one of the following actions:
    a. the recommendation has been implemented, with a summary regarding the implemented action,
    b. the recommendation has not yet been implemented but will be implemented in the future, with a timeframe for implementation,
    c. the recommendation requires further analysis, with an explanation and the scope and parameters of an analysis or study, and a timeframe for the matter to be prepared for discussion by the officer or director of the agency or department being investigated or reviewed, including the governing body of the public agency when applicable. This timeframe shall not exceed six months from the date of the publication of the Grand Jury report, or
    d. the recommendation will not be implemented because it is not warranted or is not reasonable, with an explanation therefor.

3. However, if a finding or recommendation of the Grand Jury addresses budgetary or personnel matters of a County department headed by an elected officer, both the department head and the Board of Supervisors shall respond if requested by the Grand Jury, but the response of the Board of Supervisors shall address only those budgetary or personnel matters over which it has some decision-making authority. The response of the elected department head shall address all aspects of the findings or recommendations affecting his or her department.

4. A Grand Jury may request a subject person or entity to come before the Grand Jury for the purpose of reading and discussing the findings of the Grand Jury report that relates to that person or entity in order to verify the accuracy of the findings prior to their release.

5. During an investigation, the Grand Jury shall meet with the subject of that investigation regarding that investigation unless the court, either on its own determination or upon request of the foreperson of the Grand Jury, determines that such a meeting would be detrimental.

6. A Grand Jury shall provide to the affected agency a copy of the portion of the Grand Jury report relating to that person or entity two working days prior to its public release and after the approval of the presiding judge. No officer, agency, department or governing body of a public agency shall disclose any contents of the report prior to the public release of the final report.

Santa Cruz 2013-2014 Grand Jury Response Form

Desalination and Alternatives

Respondent: Basin Implementation Group, Purisima Groundwater Basin

Respond within: 90 Days (by Sept. 15, 2014)

Finding F14: Because there is no detailed groundwater model of the Purisima basin, it is difficult to do the studies and research needed to protect the aquifer.

IMPORTANT: Please review the Instructions for Respondents for how to make your response.

Date of Response: 06/24/14

Respondent's Name: Basin Implementation Group

Response (please choose one):

- ○ AGREE
- ◉ PARTIALLY DISAGREE - explain disputed portion below
- ○ DISAGREE - explain below

Response explanation (required for responses other than "Agree"):

According to a recent Peer Review of our hydrology, the Soquel-Aptos basin displays a weakness in correlations between pumping, water levels and water quality. Data for those variables often does not exhibit the patterns expected from the physical laws governing groundwater flow. In spite of this, the Basin Implementation Group as well as the individual Districts have funded numerous studies that help us determine what is required to protect the basin. Examples are the recharge study, study of groundwater levels to protect against seawater intrusion and the Groundwater Management Plan.

A groundwater model will provide more overall basin management information if the location of the seawater interface can also be determined. It can also provide accurate information that will be useful for possible recharge projects. While it is possible to construct a plan for restoration of the basin without a groundwater model, a model will compliment our efforts.

Santa Cruz 2013-2014 Grand Jury Response Form

Desalination and Alternatives

Respondent: Basin Implementation Group, Purisima Groundwater Basin

Respond within: 90 Days (by Sept. 15, 2014)

Finding F15: Private pumpers have unregulated access to water and do not contribute financially to aquifer protection efforts.

IMPORTANT: Please review the Instructions for Respondents for how to make your response.

Date of Response: 06/24/14

Respondent's Name: Basin Implementation Group

Response (please choose one):

- (●) AGREE
- ( ) PARTIALLY DISAGREE - explain disputed portion below
- ( ) DISAGREE - explain below

Response explanation (required for responses other than "Agree"):

Santa Cruz 2013-2014 Grand Jury Response Form

Desalination and Alternatives

Respondent: Basin Implementation Group, Purisima Groundwater Basin

Respond within: 90 Days (by Sept. 15, 2014)

Recommendation R7: Members of the Basin Implementation Group should complete work on a groundwater model of the Purisima basin as soon as possible.

IMPORTANT: Please review the Instructions for Respondents for how to make your response.

Date of Response: 06/24/14

Respondent's Name: Basin Implementation Group

Response (please choose one):

- ○ HAS BEEN IMPLEMENTED
- ◉ HAS NOT BEEN IMPLEMENTED BUT WILL BE IMPLEMENTED IN THE FUTURE - indicate timeframe below
- ○ REQUIRES FURTHER ANALYSIS - explain scope and timeframe below (not to exceed six months)
- ○ WILL NOT BE IMPLEMENTED - explain below

Response summary, timeframe or explanation:

Central Water District (CWD) has modeled the portion of the basin from which they draw water, as well as the portion of the Aromas that is shared with Soquel Creek Water District (SqCWD).

SqCWD will be considering a scope of work for modeling the remaining portion of the basin at their July 15, 2014 meeting. This work is already budgeted and could be done in a manner that allows CWD's modeling work to be integrated so we will have a full picture. The District is also undertaking projects with Stanford and USGS to locate the seawater interface both onshore and offshore respectively.

The modeling effort, along with identifying the probable location of the seawater interface so it can be included, will take 1-2 years for completion.

Santa Cruz 2013-2014 Grand Jury Response Form

Desalination and Alternatives

Respondent: Basin Implementation Group, Purisima Groundwater Basin

Respond within: 90 Days (by Sept. 15, 2014)

Recommendation R8: The Basin Implementation Group should establish a Replenishment District for the Purisima aquifer.

IMPORTANT: Please review the Instructions for Respondents for how to make your response.

Date of Response: 06/24/14

Respondent's Name: Basin Implementation Group

Response (please choose one):

- ○ HAS BEEN IMPLEMENTED
- ○ HAS NOT BEEN IMPLEMENTED BUT WILL BE IMPLEMENTED IN THE FUTURE - indicate timeframe below
- ◉ REQUIRES FURTHER ANALYSIS - explain scope and timeframe below (not to exceed six months)
- ○ WILL NOT BE IMPLEMENTED - explain below

Response summary, timeframe or explanation:

The BIG already has the statutory powers to impose the powers attributed to a replenishment district within the boundaries of the BIG agencies. Currently that means they would be restricted to the jurisdictional boundaries of SqCWD and CWD.

In preparation for possible implementation, the BIG Board has extended invitations to both the City of Santa Cruz and Santa Cruz County. The Board also recently approved extending an invitation to Pajaro Valley Water Management Agency as well. This will provide representation of other major basin pumpers. The city pumps approximately 500 acre feet per year and the county permits the private wells that are drilled in the shared basin.

In addition, the BIG has partnered with the county to reach out to private well owners in hope that we can establish a shared sense of need, as well as community buy in for any replenishment activities. We would rather take the time to do so cooperatively.