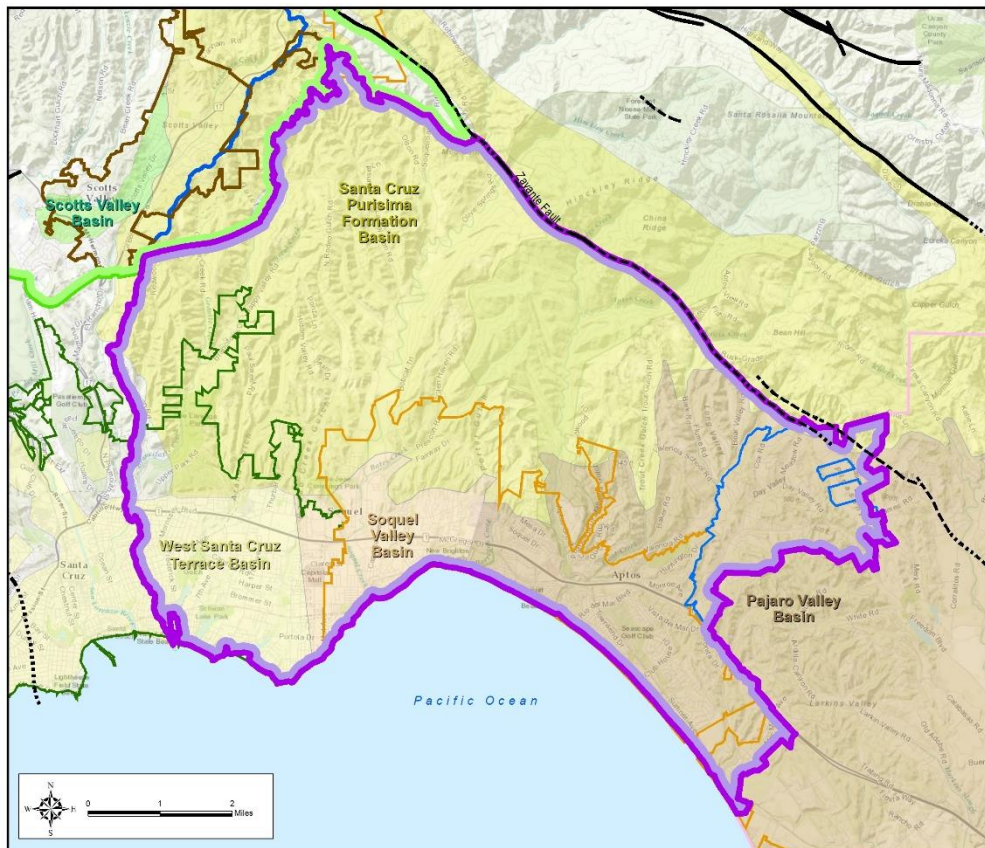


Santa Cruz Mid-County Groundwater Basin Boundary Modification

Prepared for:
Soquel-Aptos Groundwater Management Committee

March 2016



Prepared by:



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SUMMARY

This memorandum presents proposed boundary modifications to Department of Water Resources' (DWR) Bulletin 118 groundwater basins within the mid-Santa Cruz County area. These proposed modifications are submitted on behalf of the Soquel-Aptos Groundwater Management Committee (SAGMC), and consist primarily of consolidating four Bulletin 118 basins that make up the shared groundwater resource to be managed by the Groundwater Sustainability Agency (GSA) called the Santa Cruz Mid-County Groundwater Agency that SAGMC member agencies have agreed to form. These modifications will promote sustainable groundwater management by the proposed GSA by consolidating the management area into a single, continuous basin called the Santa Cruz Mid-County Groundwater Basin. The supporting information provided in following sections are presented per the requirements listed in Article 5 of The California Code of Regulations (CCR) Title 23, Division 2, Chapter 1.5, Subchapter 1, which is referenced throughout.

REQUESTING AGENCY INFORMATION (§ 344.2)

The requesting agency's information is given below

- a) Soquel-Aptos Groundwater Management Committee (SAGMC)
c/o Soquel Creek Water District
PO Box 1550
Capitola, CA 95010-1550
- b) SAGMC's legal authority is a joint powers authority (JPA) between Central Water District, City of Santa Cruz, Santa Cruz County, and Soquel Creek Water District, collectively the member agencies. The four member agencies have approved a new JPA to form the Santa Cruz Mid-County Groundwater Agency and disband SAGMC as of March 17, 2016. The Santa Cruz Mid-County Groundwater Agency will take over as the requesting agency from SAGMC. Copies of JPAs of both SAGMC and Santa Cruz Mid-County Groundwater Agency are provided in Appendix A.
- c) SAGMC adopted Resolution No. 15-01 initiating the boundary modification request at its public meeting November 12, 2015. The resolution is provided in Appendix B.
- d) Name and contact information of request manager:
Ron Duncan
Soquel Creek Water District

PO Box 1550
Capitola, CA 95010-1550
(831) 475-8501 x144
rond@soquelcreekwater.org

DESCRIPTION OF PROPOSED BOUNDARY MODIFICATIONS (§ 344.6)

List of Proposed Modifications (§ 344.6 (a))

The proposed modifications include a basin consolidation, internal modifications, and an external modification. The proposed basin is generally a result of basin consolidation, involving consolidating all or part of four existing basins. The four basins to be consolidated, as well as their associated Bulletin 118 basin numbers, are the Soquel Valley (3-1), West Santa Cruz Terrace (3-26), Santa Cruz Purisima Formation (3-21), and Pajaro Valley Basins (3-2). The proposed name for the consolidated basin is the Santa Cruz Mid-County Groundwater Basin and the proposed number for the consolidated basin is 3-1. Figure 1 shows the proposed Santa Cruz Mid-County Groundwater Basin, also referred in this report as the Santa Cruz Mid-County Basin.

The consolidated Santa Cruz Mid-County Basin is intended to include all areas where the stacked aquifer system of the Purisima Formation, Aromas Red Sands, and certain other Tertiary-age aquifer units underlying the Purisima Formation constitute the shared groundwater resource to be managed by the planned GSA. Previous basin boundary definitions were based on surficial alluvium, and did not accurately represent the extent of the deeper aquifer units from which most groundwater is produced. Although there is a scientific basis for the basin consolidation, basin consolidation is considered a jurisdictional modification (§ 342.2).

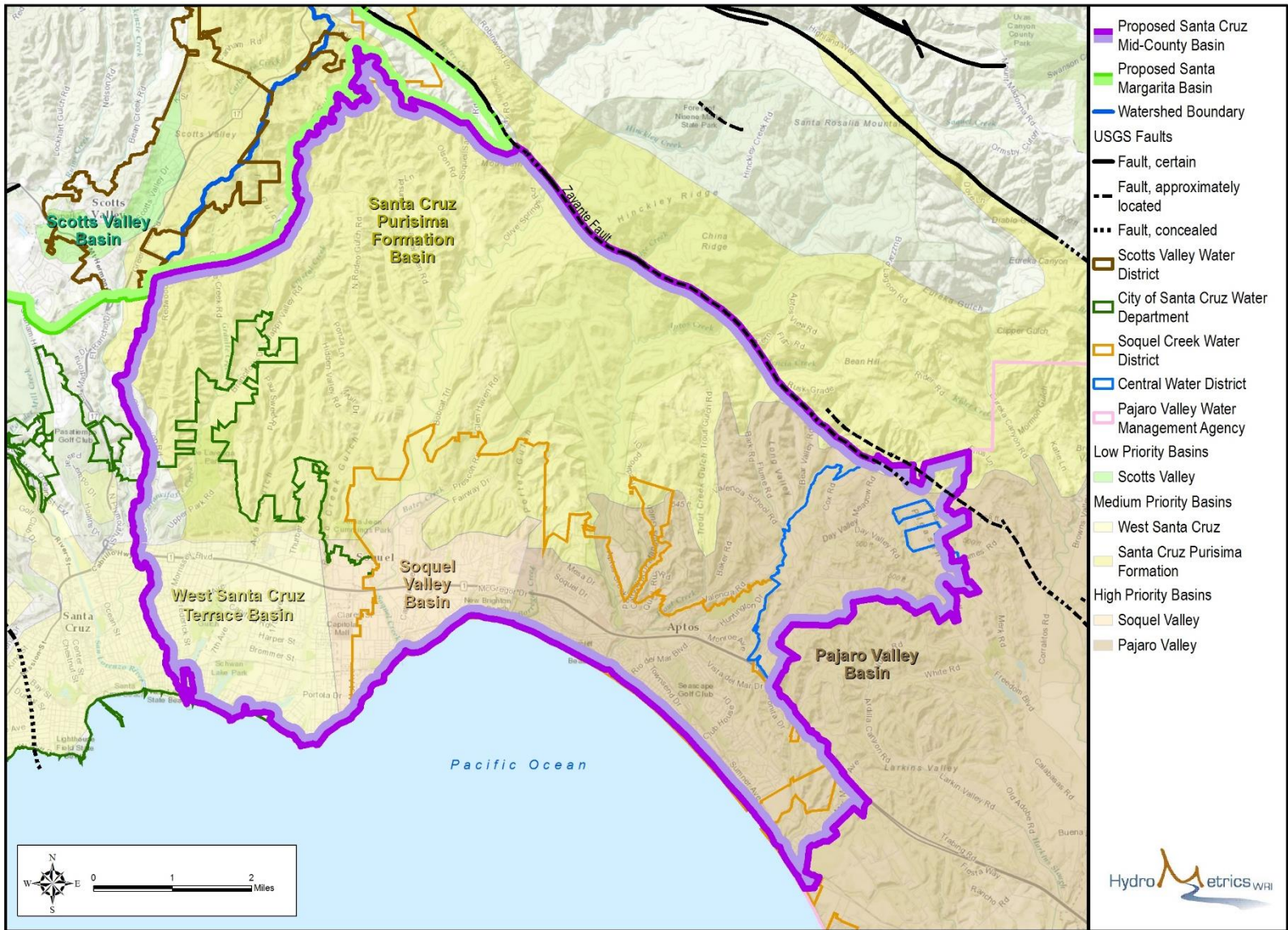


Figure 1: Proposed Santa Cruz Mid-County Basin Boundary Modification

The following describes the areas of the affected basins to be included in the consolidated Santa Cruz Mid-County Basin (see Figure 1):

- The entire Soquel Valley Basin will be included in the consolidated Santa Cruz Mid-County Basin.
- The area of the existing West Santa Cruz Terrace Basin that consists of the stacked aquifer units of the Purisima Formation and underlying Tertiary-age unit will be included with the consolidated Santa Cruz Mid-County Basin.
- The area of the existing Santa Cruz Purisima Formation Basin south of the Zayante Fault comprising the stacked aquifer units of the Purisima Formation, the underlying Tertiary-age units, and the Aromas Red Sands will be incorporated into the Santa Cruz Mid-County Basin. A limited portion of the CWD service area that extends north of the Zayante Fault will also be included in the Santa Cruz Mid-County Basin.
- The portion of the Pajaro Valley Basin not managed by Pajaro Valley Water Management Agency (PVWMA), listed by SGMA as an exclusive GSA, will be included in the consolidated Santa Cruz Mid-County Basin.

Because the basin consolidation will incorporate only portions of the existing West Santa Cruz Terrace, Santa Cruz Purisima Formation, and Pajaro Valley basins, these basins will still exist following modification.

The proposed boundary modifications are described below clockwise according to location starting from the western boundary with the coastline. The boundaries of the proposed Santa Cruz Mid-County Basin are shown in Figure 1, and each boundary modification is identified on Figure 2.

- The proposed boundary of the Santa Cruz Mid-County Basin with the modified West Santa Cruz Terrace Basin is the watershed boundary between Carbonera Creek and Branciforte Creek. This is an internal boundary modification that is a scientific modification (§ 342.2).
- The proposed boundary of the Santa Cruz Mid-County Basin with the non-basin area north of the West Santa Cruz Terrace Basin is the watershed boundary between Carbonera Creek and Branciforte Creek. This is an external boundary modification that is a scientific modification (§ 342.2).

- The proposed boundary of the Santa Cruz Mid-County Basin with the Santa Margarita Basin, which is a proposed boundary modification of the existing Scotts Valley Basin submitted by Scotts Valley Water District (SVWD), primarily follows the watershed boundary between Carbonera Creek and Branciforte Creek northward to the ridge of a granitic high that separates the eastward-dipping stacked aquifers of the Purisima Formation from the westward-dipping units of the proposed Santa Margarita Basin. 128 feet of the shared basin boundary follows the SVWD jurisdictional boundary (see inset 1 in Figure 2) rather than the watershed boundary so that SVWD will only overlie the proposed Santa Margarita Basin and not the proposed Santa Cruz Mid-County Basin. This is an internal boundary modification that is both a scientific (§ 342.2) and jurisdictional (§ 342.2) modification.
- The proposed shared boundary between the Santa Cruz Mid-County Basin and the Santa Margarita Basin then follows the line along the ridge of a granitic high that separates the eastward-dipping stacked aquifers of the Purisima Formation from the westward-dipping units of the proposed Santa Margarita Basin. This is an internal boundary modification that is a scientific (§ 342.2) modification.
- The proposed boundary of the Santa Cruz Mid-County Basin with the proposed Santa Margarita Basin then follows Blackburn Gulch, primarily the eastern boundary of the Lompico Formation outcrop, and part of the boundary of the Butano Formation outcrop. This boundary generally separates the westward dipping Lompico Formation and Butano Formation aquifer units of the Santa Margarita Basin from the shallow Purisima Formation outcrop that is assigned to the Santa Cruz Mid-County Basin. A small part of Scotts Valley Water District (SVWD) overlies the Purisima Formation outcrop in this area so the basin boundary diverges from the eastern boundary of the Lompico Formation outcrop to follow the boundary of SVWD for a distance of 1,356 feet until it rejoins the Lompico Formation boundary (see inset 2 in Figure 2). This ensures that SVWD is entirely within the Santa Margarita Basin, and excluded entirely from the Santa Cruz Mid-County Basin. This is an internal boundary modification that is a both a scientific and jurisdictional (§ 342.2) modification and addresses local input comments received from Purisima Mutual Water Company, which will be completely within the Santa Cruz Mid-County Basin as a result of this modification.

- The proposed boundary of the Santa Cruz Mid-County Basin with the Santa Cruz Purisima Formation up to the boundary of Central Water District (CWD) is the Zayante Fault. This is an internal boundary modification that is a scientific modification (§ 342.2).
- The proposed boundary of the Santa Cruz Mid-County Basin with the Santa Cruz Purisima Formation north of the Zayante Fault is the Central Water District boundary. This is an internal boundary modification that is a jurisdictional modification (§ 342.4).
- The proposed boundary of the Santa Cruz Mid-County Basin with the Pajaro Valley Basin is the Pajaro Valley Water Management Agency boundary. This is an internal boundary modification that is a jurisdictional modification (§ 342.4).

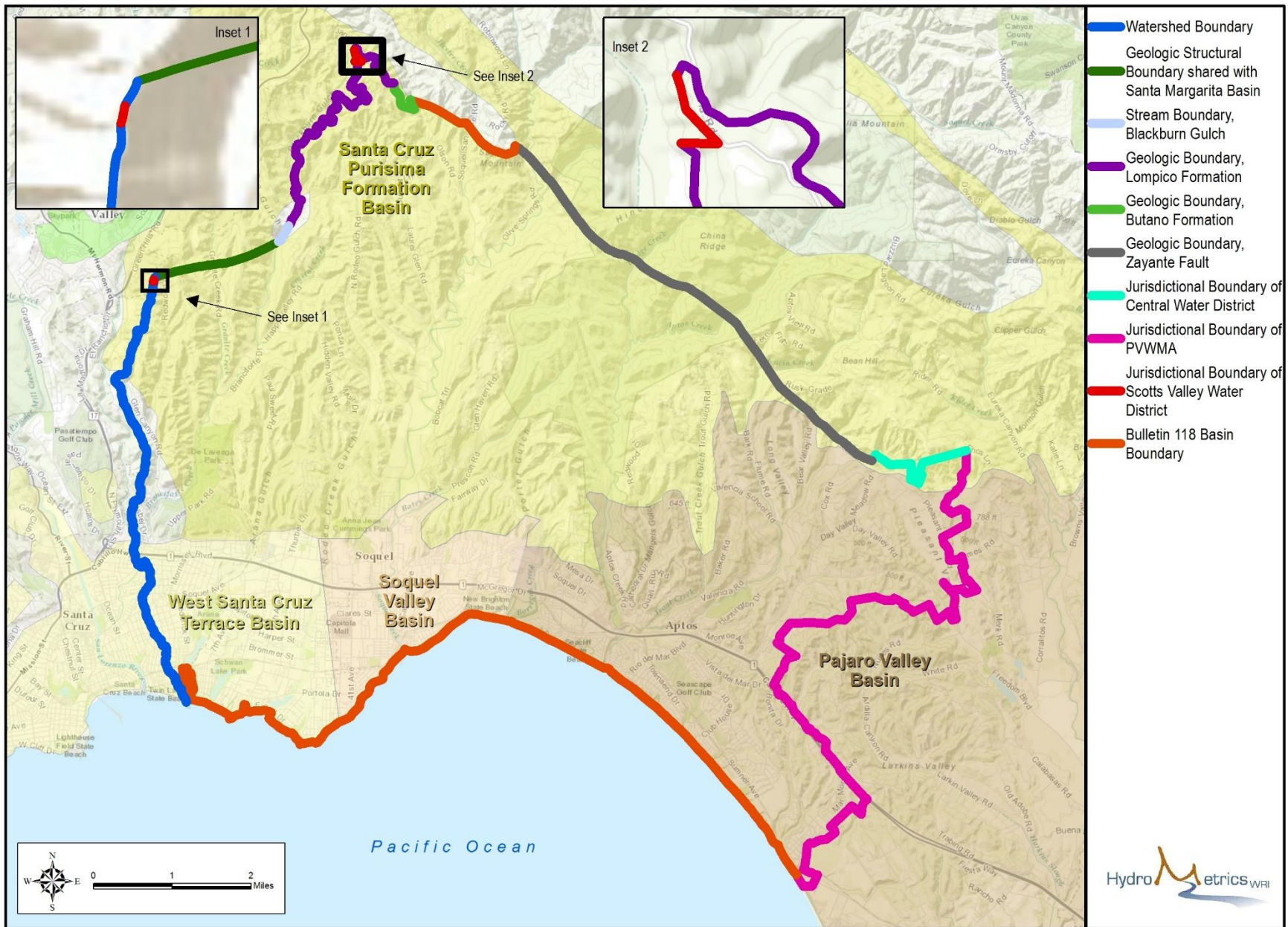


Figure 2: Summary of Proposed Santa Cruz Mid-County Basin Boundary Modifications

Jurisdictional Modifications (§ 344.6 (b))

The basin consolidation and several of the boundary modifications are jurisdictional modifications. The following items are in reference to the requirements for jurisdictional boundary modifications in Section 344.6 (b) (1) through (4):

1. Incorporating the four Bulletin 118 basins into a single basin will improve sustainable management by consolidating the shared groundwater resource pumped by members of SAGMC into a single basin managed by a single GSA. The basin modification will clearly define the shared groundwater resource, which will facilitate management by SAGMC and its successor GSA. Matching the basin to the shared groundwater resource will allow for a single Groundwater Sustainability Plan (GSP) to cover the shared resource, improve governance for the shared resource, and be easier to communicate to the public.
2. The proposed boundary modifications will positively affect the ability of basins adjacent to the new Santa Cruz Mid-County Basin to sustainably manage groundwater.
 - In the case of both the West Santa Cruz Terrace and Santa Cruz Purisima Formation Basins, the basin consolidation will incorporate the vast majority of pumping of the shared groundwater resource of those basins into a single basin and GSA.
 - The proposed boundary with the Santa Margarita Basin will effectively define two separate sets of aquifers, and assign the aquifers to the appropriate basins to be managed by successor GSAs. In addition, SVWD will only overlie the Santa Margarita Basin that provides its water supply.
 - The shared boundary with the Santa Cruz Purisima Formation and Pajaro Valley Basin covered by PVWMA will define boundaries consistent with PVWMA's exclusive right to be GSA for its jurisdiction. This facilitates the development of a GSP or alternative submittal by PVWMA without the unnecessary technical requirements for intrabasin coordination.
 - Interbasin coordination between the Santa Cruz Mid-County Basin GSP and GSPs of adjacent basins (most likely Santa Margarita and Pajaro Valley) will still be necessary.

- We anticipate that the modified West Santa Cruz Terrace and Santa Cruz Purisima Formation north of the Zayante Fault will be reprioritized from medium to low or very low priority when Bulletin 118 is updated in 2017. This will remove the requirement for GSAs and GSPs to be developed for these basins. The anticipated reprioritization of these basins are described in its own section below.
3. The shared groundwater resource that defines the consolidated Santa Cruz Mid-County Basin has been managed under an AB3030 Groundwater Management Plan since 1996. The management plan was updated to meet SB-1938 requirements in the *Groundwater Management Plan -2007 Soquel-Aptos Area* (SCWD and CWD, 2007). The area covered by the Groundwater Management Plan is shown in Figure 2. Implementation of the plan and groundwater management activities are summarized in subsequent annual reviews and reports (HydroMetrics LLC, 2008; HydroMetrics LLC, 2009a; HydroMetrics WRI, 2010; HydroMetrics WRI, 2011a; HydroMetrics WRI, 2012a; HydroMetrics WRI, 2013; HydroMetrics WRI, 2014a; HydroMetrics WRI, 2015a).
 4. The County is the CASGEM reporting agency for all basins in the County and will continue to serve that role after basin modification. The County reports data for CASGEM from a number of wells in the proposed Santa Cruz Mid-County, Santa Margarita, and Pajaro Valley Basins. The County does not include wells from the proposed West Santa Cruz Terrace Basin and proposed Santa Cruz Purisima Basin, as it considers those areas unimportant as a groundwater resource. This is in line with the expected reprioritization of these two basins as low or very low priority in the 2017 update of Bulletin, discussed in a later section.

GENERAL INFORMATION (§ 344.10)

This section presents a description of the lateral boundaries and definable bottom of the proposed Santa Cruz Mid-County Basin. The lateral boundaries of the proposed basin are shown in Figure 1 and Figure 2. The vertical extent of the major aquifer units of the proposed basin are shown in Figure 3. The granitic bottom of the basin is discussed in more detail in the following sections.

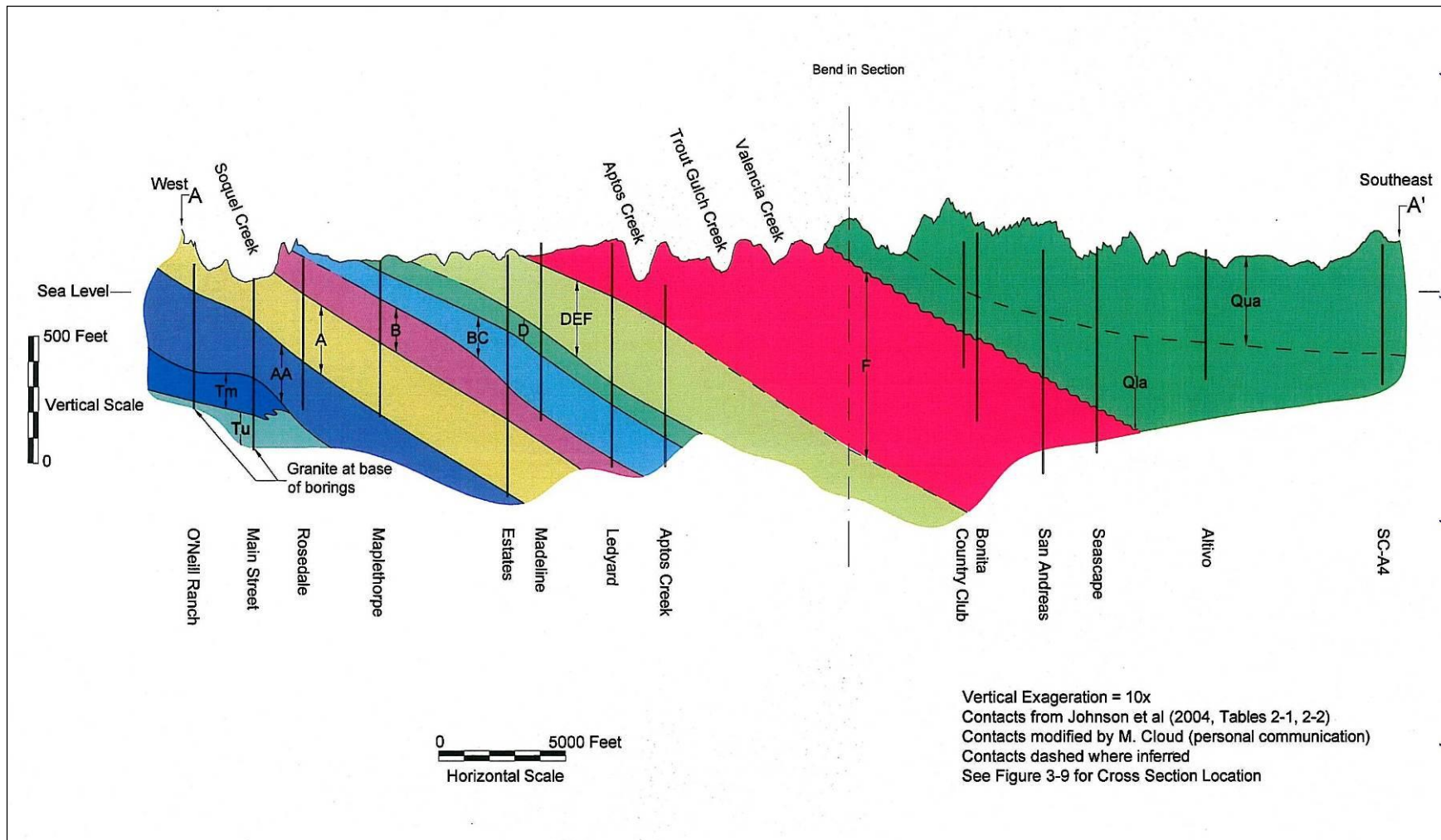


Figure 3: Generalized Hydrostratigraphic Cross-Section of Proposed Santa Cruz Mid-County Basin

The lateral boundaries of the proposed Santa Cruz Mid-County Basin generally follow the definable limits of the stacked Purisima formation aquifer system, as well as the Aromas Red Sands and some other tertiary units between the base of the Purisima and the granitic basement of the basin (Johnson et. al., 2004). The western boundary of this basin follows the watershed boundary between Carbonera Creek and Branciforte Creek, which incises the Purisima formation. This watershed boundary runs north from the ocean and partially includes the proposed shared boundary with the Santa Margarita Basin. This shared boundary then follows a structural divide separating the productive units of the Santa Margarita Basin and the Purisima Formation to Blackburn Gulch. The shared boundary follows the eastern boundary of the Lompico Formation outcrop and part of the boundary of the Butano Formation to the Bulletin 118 boundary for the existing Santa Cruz Purisima Formation Basin. The Bulletin 118 boundary excludes the Butano Formation from the proposed Santa Cruz Mid-County Basin. The Santa Cruz Mid-County Basin boundary follows the existing Bulletin 118 boundary to the Zayante Fault. The Zayante Fault is the northern boundary of the basin from the shared Santa Margarita boundary to the boundary of CWD north of the fault where the consolidated basin boundary follows the CWD boundary. The eastern boundary of the basin is defined by the boundary of PVWMA, the exclusive GSA for its jurisdiction, between the Zayante Fault and the ocean. The productive units of the basin outcrop offshore, but the coastline constitutes the southern boundary of the Santa Cruz Mid-County Basin to remain within State and County jurisdiction.

Granitic basement rock constitutes the definable bottom of the Santa Cruz Mid-County Basin. This granitic rock is observable in boreholes and outcrops and underlays the stacked aquifer system over the entire extent of the basin. There is also a limited area of the Santa Cruz Mid-County Basin is where Lompico and/or Butano Formations are presumed to lie between the granitic rock and outcropping Purisima Formation aquifer unit where pumping occurs.

Per Section 344.10 (b), a graphical map showing the proposed Santa Cruz Mid-County Basin, as well as the affected agencies and surrounding basins, is shown in Figure 1. The GIS files showing the proposed Santa Cruz Mid-County Basin, the affected agencies and surrounding basins are provided on the compact disk in Appendix C.

COMBINATION OF REQUESTS (§ 343.6)

The proposed Santa Cruz Mid-County Basin and the proposed Santa Margarita Basin that will be a basin modification request by Scotts Valley Water District (HydroMetrics WRI, 2016) will share a common boundary. However, it is not practical for the two requesting agencies to submit a combined request as separate reports for each of the basins have been prepared because there are a number of aspects to the modification requests for each basin beyond the common boundary. Separate reports were necessary to present the relevant information for the modification to the requesting agencies as well as to solicit local input in each basin.

However, the requesting agencies coordinated on the common boundary via use of the same consulting firm to prepare the modification requests, the common boundary is consistent between the two requests, and the supporting information for the common boundary is the same in the two requests. This prevents duplicative and conflicting requests as needed for DWR's consideration.

NOTICE AND CONSULTATION (§ 344.4)

List of Local Agencies and Public Water Systems (§ 344.4 (a))

Table 1 lists local water agencies and public water systems within or overlapping affected basins, the four existing basins subject to consolidation and the adjacent Scotts Valley Basin. Table 1 lists the agencies and systems' current basins. Affected agencies and systems are also identified in Table 1 by listing the basin associations after modification.

Table 1: Public Water Systems Within Affected Basins

Agency Name	Current Associated Basin(s)	Associated Basin(s) Following Proposed Modifications
Allan Lane Water Assoc.	Santa Cruz Purisima, Pajaro Valley	Not Affected
Aptos High School	Pajaro Valley	Pajaro Valley, Santa Cruz Mid-County
Aptos Hills MWC	Pajaro Valley	Not Affected
Aptos Ridge MWC	Pajaro Valley	Not Affected

Agency Name	Current Associated Basin(s)	Associated Basin(s) Following Proposed Modifications
Big Redwood Park	Santa Cruz Purisima	Not Affected
Bluff Residents	Soquel Valley	Santa Cruz Mid-County
Buena Vista Migrant Center	Pajaro Valley	Not Affected
Cabrillo College	Santa Cruz Purisima, Soquel Valley, Pajaro Valley	Santa Cruz Mid-County
Calabasas Road	Pajaro Valley	Not Affected
Camp St. Francis	Pajaro Valley	Santa Cruz Mid-County
Cassin Ranch	Pajaro Valley	Pajaro Valley
Cathedral Hills MWC	Santa Cruz Purisima	Santa Cruz Mid-County
Cathedral Wood MWC	Santa Cruz Purisima	Santa Cruz Purisima Formation, Santa Margarita
Central Water District (CWD)	Pajaro Valley, Santa Cruz Purisima Formation	Santa Cruz Mid-County
City of Santa Cruz Water Department	Soquel Valley, Santa Cruz Purisima Formation, West Santa Cruz Terrace	Santa Cruz Mid-County, West Santa Cruz Terrace
City of Watsonville Public Utilities	Santa Cruz Purisima, Pajaro Valley	Not Affected
Corralitos Springs	Santa Cruz Purisima	Not Affected
County Fair Grounds	Pajaro Valley	Not Affected
Crestwood Heights Water Co.	Pajaro Valley	Not Affected
East Bel Mar	Pajaro Valley	Not Affected
Emerald City	Pajaro Valley	Not Affected
Enchanted Valley	Santa Cruz Purisima	Santa Cruz Mid-County
Enos Lane	Santa Cruz Purisima Formation	Not Affected
Freedom MWC	Pajaro Valley	Not Affected
Gizdich Ranch	Pajaro Valley	Pajaro Valley
Hidden Falls Girl Scout Camp	Santa Cruz Purisima	Santa Margarita, Santa Cruz Mid-County
Hughes Road	Pajaro Valley	Not Affected
Jardines Del Valle	Pajaro Valley	Not Affected
Jarvis Mutual Water Co.	Santa Cruz Purisima	Santa Margarita, Santa Cruz Purisima
Kennolyn Camp	Santa Cruz Purisima	Santa Cruz Mid-County
Kitayama Brothers	Pajaro Valley	Pajaro Valley

Agency Name	Current Associated Basin(s)	Associated Basin(s) Following Proposed Modifications
Koinonia Conference Grounds	Santa Cruz Purisima	Not Affected
Lagunita MWC	Santa Cruz Purisima	Santa Cruz Mid-County
Lake View Apartments	Pajaro Valley	Not Affected
Land Of Medicine Buddha	Santa Cruz Purisima	Santa Cruz Mid-County
Larkin Ridge MWC	Pajaro Valley	Not Affected
Las Colinas Road and Water Assoc.	Santa Cruz Purisima, Pajaro Valley	Not Affected
Laurel Glen MWC	Santa Cruz Purisima	Santa Cruz Mid-County
Loma Alta MWC	Santa Cruz Purisima	Santa Cruz Mid-County
Meadowridge	Santa Cruz Purisima, Pajaro Valley	Not Affected
Milky Way MWC	Pajaro Valley	Not Affected
Monte Vista Christian School	Pajaro Valley	Pajaro Valley
Monterey Bay Acad.	Pajaro Valley	Not Affected
Mountain Elementary School	Santa Cruz Purisima	Santa Cruz Mid-County
Mystery Spot	Santa Cruz Purisima	Santa Cruz Mid-County
Pajaro Valley Water Management Agency (PVWMA)	Pajaro Valley, Santa Cruz Purisima Formation	Not Changed, but GSP requirements affected
Pine Tree Lane MWC	Pajaro Valley, Soquel Valley	Santa Cruz Mid-County
PureSource	Santa Cruz Purisima	Santa Cruz Mid-County
Purisima MWC	Santa Cruz Purisima Formation	Santa Cruz Mid-County, Santa Margarita
R&A Farms	Pajaro Valley	Not Affected
Rancho Corralitos	Pajaro Valley	Not Affected
Rancho San Andreas	Pajaro Valley	Not Affected
Rancho Soquel Water System	Santa Cruz Purisima	Santa Cruz Mid-County
Renaissance High	Pajaro Valley	Not Affected
Salsipuedes Elementary	Pajaro Valley	Not Affected
San Andreas MWC	Pajaro Valley	Not Affected
Santa Cruz KOA	Pajaro Valley	Not Affected
Scotts Valley Water District (SVWD)	Scotts Valley, Santa Cruz Purisima	Santa Margarita
Seventh Day Adventist	Santa Cruz Purisima	Santa Cruz Mid-County
Sheriff's Rehab	Pajaro Valley	Not Affected
Smith Road	Santa Cruz Purisima	Not Affected

Agency Name	Current Associated Basin(s)	Associated Basin(s) Following Proposed Modifications
Soquel Creek Water District (SCWD)	Soquel Valley, Santa Cruz Purisima, Pajaro Valley	Santa Cruz Mid-County, Santa Margarita
Spring Valley Water Assoc.	Pajaro Valley	Not Affected
Springbrook Park MWC	Santa Cruz Purisima	Not Affected
St. Francis Tract Water System	Pajaro Valley	Not Affected
Summit West	Santa Cruz Purisima	Not Affected
Sun & Shadow MWC	None	Santa Cruz Mid-County
Sunny Acres MWC	None	Santa Cruz Mid-County
Sunset Beach	Pajaro Valley	Not Affected
Trout Gulch Mutual (formerly Mar Vista)	Santa Cruz Purisima, Pajaro Valley	Santa Cruz Mid-County
Vajrayana Foundation	Santa Cruz Purisima	Not Affected
Villa Glen	Santa Cruz Purisima	Not Affected
Vista Oaks	Santa Cruz Purisima	Not Affected
White Calabasas MWC	Pajaro Valley	Not Affected
Whiting Road	Pajaro Valley	Not Affected
Woodside	Pajaro Valley	Not Affected
Zelbar	Santa Cruz Purisima	Not Affected

None = System not currently within a Bulletin 118 Basin

Methods used to Identify Affected Agencies and Systems (§ 344.4 (b))

We used Geographic Information System (GIS) tools to visualize the extent and overlap of the above agencies and systems with the Bulletin 118 basins affected by these proposed modifications. The service areas of the affected agencies are shown on Figure 1 and the service areas of the affected systems in the proposed Santa Cruz Mid-County Basin are shown on Figure 4. The GIS files for these service areas are provided on the compact disk in Appendix C.

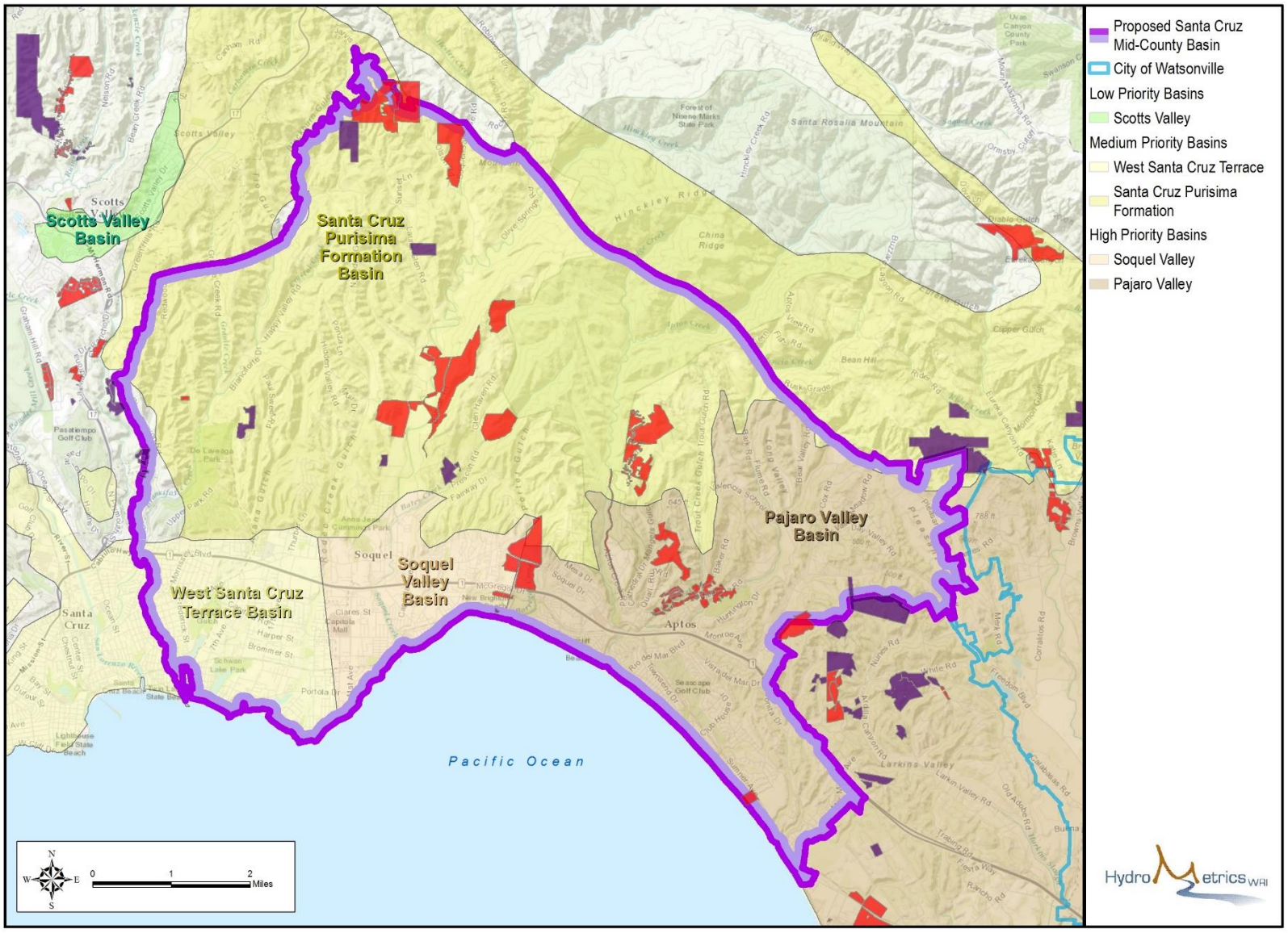


Figure 4: Map of Water Systems in and around Proposed Santa Cruz Mid-County Basin

Nature of Consultation (§ 344.4 (c))

Santa Cruz County emailed letters on behalf of SAGMC to affected water agencies and public water systems on December 14, 2015. The letters included a map of the proposed modifications, a link to a website with the resolution initiating the boundary modification request, the available draft of this modification request report, and the GIS files defining the proposed basin boundaries, and information on providing comments and resolutions or letters of support or opposition. A copy of the letter, cover letter, and sample letter of support is provided in Appendix D.

Prior to sending its December 27, 2015 letter of opposition, Tom Sak of Purisima Water Company spoke with County staff about the basin boundary modification. After receipt of the Purisima Mutual Water Company's January 9, 2016 letter sent to County Supervisor John Leopold regarding its opposition, Supervisor Leopold and County Water Resources Director John Ricker spoke with Purisima Mutual Water Company representatives. As a result of this consultation, SAGMC approved an alternate boundary modification that addresses Purisima Mutual Water Company comments at the January 21, 2016 SAGMC meeting. Prior to this meeting, Santa Cruz County emailed notification of the proposed alternate boundary modification to the systems that would be affected by a change to the alternate boundary from the draft boundary: Purisima Mutual Water Company and Jarvis Mutual Water Company. These email consultations are provided in Appendix D.

Martin Mills of Pure Source Water Inc. spoke with HydroMetrics WRI's Cameron Tana by telephone January 12, 2016. This conversation was summarized as comments included in Appendix F. Mr. Mills submitted a letter of support on January 18, 2016.

On December 16, 2015, SCWD General Manager Ron Duncan emailed HydroMetrics WRI's Cameron Tana regarding specific features of the proposed basin boundary modification. These questions were answered and the email exchange is summarized in Appendix D.

Brian Lockwood of Pajaro Valley Water Management Agency (PVWMA) spoke with HydroMetrics WRI's Cameron Tana by telephone February 26, 2016 to clarify the basin boundary modification, discuss ramifications of the basin boundary modification for coordination agreement requirements in the draft Groundwater Sustainability Plan regulations and procedures for providing a letter or resolution of support. Mr. Lockwood followed up by telephone on

March 9, 2016 to inform that a resolution of support for the Santa Cruz Mid-County Basin modification will be on PVWMA's Board agenda March 16, 2016. Also, PVWMA has filed initial notification with DWR that it is exploring a basin boundary modification for the southern boundary of the Pajaro Valley Basin but any such request would be consistent with the proposed Santa Cruz Mid-County Basin for the Pajaro Valley Basin's northwestern boundary.

Summary of Public Meetings (§ 344.4 (d))

SAGMC held the following public meetings where the basin boundary modifications were discussed:

- At its August 12, 2015 meeting, SAGMC approved HydroMetrics WRI's scope to prepare the basin boundary modification and HydroMetrics WRI presented on the modification approach and comments on draft emergency regulations.
- At its September 17, 2015 meeting, SAGMC discussed a preliminary map of basin boundary modifications.
- At its November 12, 2015 meeting, SAGMC passed a resolution initiating the basin boundary modification request and directed staff to issue a draft of this modification request report to receive comment.
- At its January 21, 2016 meeting, SAGMC heard a summary of local input, approved using the alternate basin boundary modification to address comments from Purisima Mutual Water Company, and approved online submittal of the modification request to DWR. Representatives of Purisima Mutual Water Company and Jarvis Mutual Water Company affected by the alternate boundary modification participated in this meeting.

SAGMC member agencies held the following public meetings to pass resolutions of public support:

- Central Water District: December 15, 2015
- City of Santa Cruz: December 8, 2015
- County of Santa Cruz: January 12, 2016
- Soquel Creek Water District: December 15, 2015

All SAGMC and member agency public meetings were noticed under the Brown Act. Notices and agendas or minutes for these meetings are provided in

Appendix E. The memorandum providing an update and discussion of the alternate boundary modification for the January 21, 2016 SAGMC meeting is also included in Appendix E.

The proposed basin boundary modifications were also discussed at the County's small water system forums on September 30, 2015 and December 2, 2015. The proposed basin boundary modifications and information on providing comments was presented at the community Mid-County Groundwater Stakeholder meeting on December 10, 2015.

Comments and Response-to-Comments (§ 344.4 (e))

Besides letters of support or opposition from affected agencies and systems, xx comments were received. These comments and response to comments are provided in Appendix F.

LOCAL AGENCY INPUT (§ 344.8)

Evidence that affected agencies and systems were provided required information is provided in Appendix D. Five sets of written comments, one set of telephone comments, and several comments made at the County Board meeting were received by January 12, 2016. Comments, response to comments, and rebuttals to opposition are provided in Appendix F.

The following affected agencies and systems provided resolutions or letters of support:

- Central Water District Resolution No, 11-15
- City of Santa Cruz Resolution No. NS-29,035
- County of Santa Cruz Resolution No. 12-2016
- Soquel Creek Water District Resolution No. 15-25
- Scotts Valley Water District Resolution No. 16-15
- Pure Source Water Inc. January 18, 2016

Pajaro Valley Water Management Agency will consider approving a resolution of support at its Board of Directors meeting March 16, 2016. A copy of this resolution will be provided when available assuming-resolutions of support can be submitted during the public comment period as indicated by DWR.

The following affected agencies and system provided resolutions or letters of opposition:

- Purisima Mutual Water Company: December 27, 2015

The submitted modification request included changes to address Purisima Mutual Water Company's concerns. Resolutions and letters of support or opposition are provided in Appendix G.

CEQA COMPLIANCE (§ 344.18)

As stated in SAGMC's Resolution 15-01, the basin boundary modification is exempt from the California Environmental Quality Act (CEQA) because it is not a project under CEQA. Even if the basin boundary modification constitutes a project, it would be exempt because there it is no possibility that it will have a significant effect on the environment. On behalf of SAGMC, County staff filed a notice of exemption on February 5, 2016. The notice of exemption is provided in Appendix I.

HYDROGEOLOGIC CONCEPTUAL MODEL (§ 344.12)

This section summarizes the hydrogeologic conceptual model for the proposed Santa Cruz Mid-County Basin. Additional details are given regarding features specific to the boundary modifications in the following section, which references CCR Section 344.14. In general, this follows the conceptual model outlined in *Technical Memorandum 2: Hydrogeologic Conceptual Model* (Johnson et. al., 2004), and the forthcoming *Soquel-Aptos Groundwater Flow Model: Subsurface Model Construction (Task 3)* (HydroMetrics WRI, 2015b).

Principal Aquifers (§ 344.12 (a) (1))

The conceptual model of the Santa Cruz Mid-County Basin, including vertical thicknesses of major aquifer units, is presented in *Technical Memorandum 2: Hydrogeologic Conceptual Model* (Johnson et. al., 2004). The general hydrogeology of the region is also documented in *Geology and ground water in north-central Santa Cruz County, California* (Johnson, 1980).

The principal aquifers of the Purisima Formation comprise a system of stacked aquifers that generally dip in the eastward direction over the extent of the Purisma-Aromas Basin. The individual aquifers and aquitards in and under the Purisima Formation include:

- Unit Tp/Tu: The base of the Purisima Formation is poorly defined. This unit, referred to as Tp? in *Technical Memorandum 2: Hydrogeologic Conceptual Model* (Johnson et. al., 2004) and Tu in *Soquel-Aptos Groundwater Flow Model: Subsurface Model Construction (Task 3)* (HydroMetrics WRI, 2015b) defines an aggregated unit between the base of the Purisima and the granitic basement of the basin. In western areas of the proposed Santa Cruz Mid-County Basin where this unit may outcrop to the surface, it appears to have been consolidated into the Purisima Formation in previous geologic maps (i.e. Brabb et al., 1997).
- Purisima AA Aquifer: a well-defined aquifer that is the deepest unit of the Purisima.
- Purisima A Aquifer: a thick, consistently coarse-grained aquifer zone.
- Purisima B Aquitard: primarily an aquitard with a well-defined claystone basal unit.
- Purisima BC Aquifer: a composite aquifer combining the upper coarse-grained portion of the B aquitard overlain by moderately coarse-grained aquifer material.
- Purisima D Aquitard: primarily fine grained unit considered an aquitard. Few production wells are screened within this unit.
- Purisima DEF/F Aquifer: The unsubdivided upper portion of the DEF/F is also the shallowest portion of the Purisima Formation, consisting of several variably coarse grained internal subunits that thickens towards the east of the basin where it is uneroded.

The Purisima Formation is overlain by the following units:

- Aromas Red Sands: a poorly consolidated formation of interbedded fluvial, marine, and eolian sands with lenses of silt and clay. This formation is the shallowest aquifer in the eastern part of the basin where it overlays the Purisima Unit F in an angular unconformity.
- Other surficial alluvial units, including stream bed deposits and marine terrace deposits exist over the extent of the Santa Cruz Mid-County Basin, but are not the primary water-bearing units of the basin. The majority of pumping occurs in the deeper stacked aquifer system of the Purisima Formation and Aromas Red Sands.

Lateral Boundaries (§ 344.12 (a) (2))

The lateral boundaries of the basin are described below.

- A) *Geologic features that significantly impede or impact groundwater flow:*
- The watershed boundary between Carbonara Creek and Branciforte Creek where the Purisima Formation is eroded to the granitic basement.
 - A granitic structural high near the shared boundary with the proposed Santa Margarita Basin that separates the aquifer units of each basin.
 - The surface outcrop limits of the Purisima Formation between Blackburn Gulch and West Branch Soquel Creek where it overlies the Lompico Formation and Butano Formation, which comprise the aquifer units of the proposed adjacent Santa Margarita Basin.
 - The Zayante Fault is a barrier to flow along the northern boundary of the Purisma-Aromas Basin.
- B) *Aquifer characteristics that significantly impede GW flow:*
- The stacked aquifers of the Santa Cruz Mid-County Basin terminate as they dip upward towards the west and are eroded (Figure 3).
 - Granitic outcrops are also observed between the Lompico and Butano formations of the Santa Margarita Basin and the Purisima Formation.
 - North of the Zayante Fault, the Purisima aquifer units have been impacted by folding and faulting such that they are poorly defined, and are not expressed as stacked aquifer units.
- C) *Significant geologic and hydrologic features and conditions:*
- The Zayante Fault is a barrier to flow in the stacked aquifer units offset by the fault.
- D) *Key surface water bodies, groundwater divides, and recharge sources:*
- The ocean provides a southern boundary to the Santa Cruz Mid-County Basin as it does in Bulletin 118-2003 for the West Santa Cruz Terrace, Soquel Valley, and Pajaro Valley Basins. However, portions of the Purisima Formation aquifers and probably portions of the Aromas Red Sands outcrop offshore (Johnson et. al., 2004). This has implications for seawater intrusion (HydroMetrics WRI, 2009b), as this offshore outcropping is an important boundary condition across which groundwater and seawater mix and area exchanged within the aquifer system.

- The western boundary of the consolidated basin represents the boundary of the Soquel-Aptos watershed, across which no groundwater flow enters the aquifer units of the basin.
- Groundwater recharge in the basin occurs through precipitation, stream recharge, and return flow from pumping and irrigation.
- Important streams in the basin include Soquel Creek, Aptos Creek, and Valencia Creek.

Recharge and Discharge Areas (§ 344.12 (a) (3))

Recharge areas identified by Santa Cruz County within the Santa Cruz Mid-County basin are shown on Figure 5. Groundwater discharge also occurs to the streams within the basin and into the ocean along the outcropping aquifer areas offshore.

Definable Bottom of Basin (§ 344.12 (a) (4))

As described above, the definable bottom of the Santa Cruz Mid-County Basin is the granitic basement rock underlying the stacked aquifer units of the basin, which is observed throughout the basin and is visible in outcrops. This granitic basement has been discussed in previous reports (Johnson et. al., 2004), and the structure has been defined by U.S. Geological Survey (USGS) gravity anomaly data (Roberts et al, 2004). The structure of the granitic basement has also been refined by review of borehole log and e-log data supporting the *Soquel-Aptos Groundwater Flow Model: Subsurface Model Construction (Task 3)* memo (HydroMetrics WRI, 2015b). The following section describes details of this basement structure as it relates to the proposed boundary modifications. Although the definable bottom of the Santa Cruz Mid-County Basin is the granitic basement rock throughout the basin, Lompico and Butano Formation materials more associated with the proposed Santa Margarita Basin lie between the granitic basement rock and the stacked aquifer units of the Santa Cruz Mid-County Basin in the area between Blackburn Gulch and West Branch Soquel Creek.

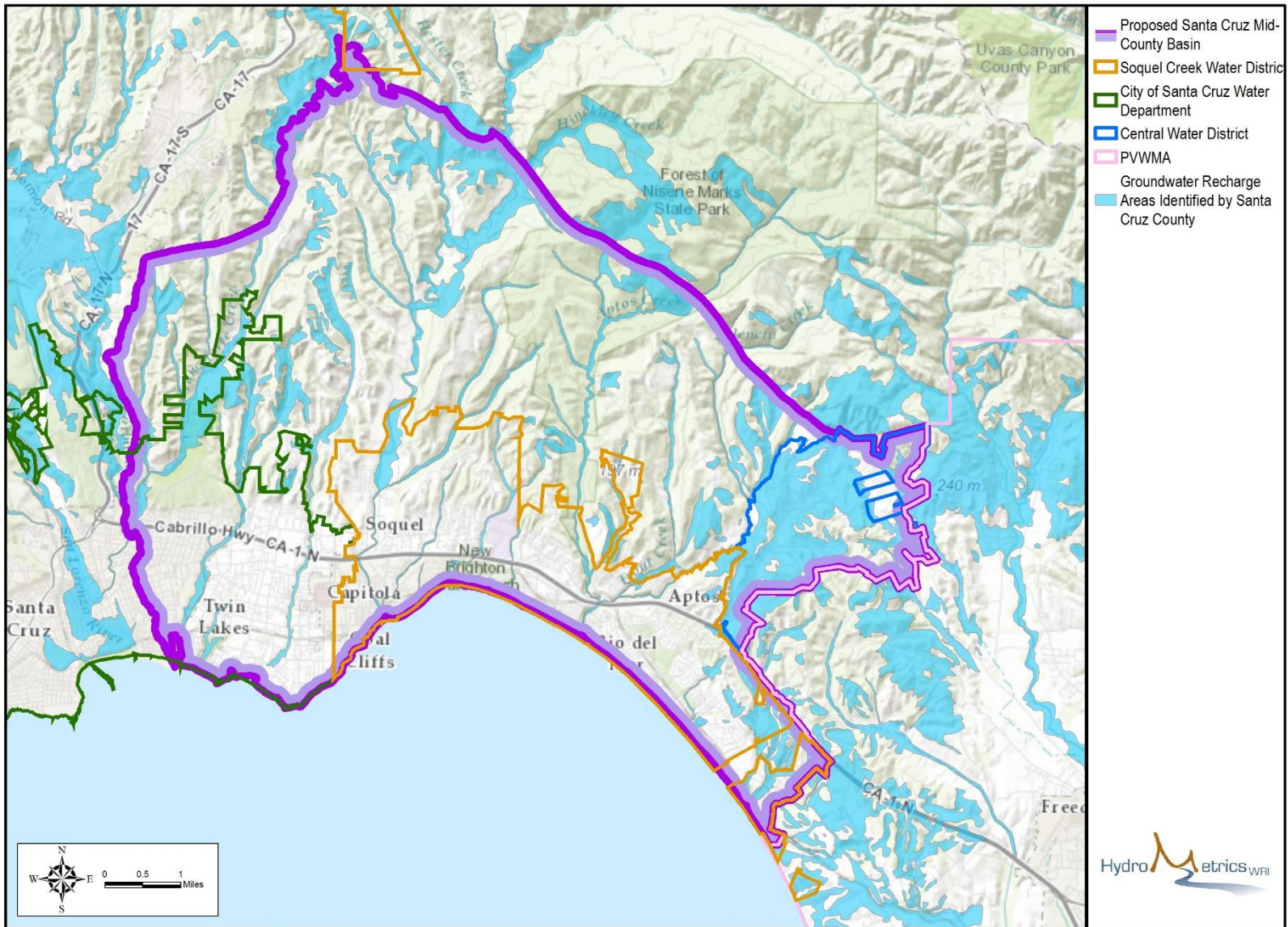


Figure 5: Recharge Areas in Santa Cruz Mid-County Basin

TECHNICAL INFORMATION FOR SCIENTIFIC MODIFICATIONS (§ 344.14)

Extent of Aquifer System (§ 344.14 (a))

A generalized stratigraphic cross-section on Figure 3 shows the units described in the conceptual model. Table 3-13 of the Johnson et. al. (2004) report also contains information on the relevant physical properties of the stacked aquifer system that was updated for the Well Master Plan EIR (ESA, 2007 Appendix C). This information has been summarized in Table 2.

The extent and outcropping areas of the stacked aquifer system has been further refined in work supporting the *Soquel-Aptos Groundwater Flow Model: Subsurface Model Construction (Task 3)* memo (HydroMetrics WRI, 2015b). This document also contains maps showing the stratigraphy of the stacked aquifer system, as well as a summary of unit thicknesses shown in Table 2. The map from this memo showing the modeled outcropping extents of aquifers and the fault that depicts the lateral boundaries of the aquifers is reproduced with the proposed basin boundary in Figure 6. The memo was prepared by Professional Geologists, the U.S. Geological Survey reviewed this memo as part of the modeling team and a Technical Advisory Committee also reviewed the memo. Note that in Figure 6, areas shown as outcrops of the Tu unit are likely included within the Purisima Formation in published surface geology maps (Brabb et al., 1997), as the base of the Purisima is poorly defined in this area, and the Tu was conceptualized as a composite aquifer of undistinguished units (HydroMetrics WRI, 2015b).

Electronic copies of the relevant technical studies are included on the compact disk in Appendix H.

Table 2: Summary of Hydrostratigraphic Unit Properties

Hydrogeologic Unit	Modeled Thickness within Proposed Basin (feet)	Hydraulic Conductivity (feet/day)	Vertical Hydraulic Conductivity (feet/day)	Storativity	Specific Yield
Surficial Alluvium	20-50	3 – 40	0.05 – 2	NA	0.04 – 0.14
Aromas Red Sands	30-750	6 – 50	0.05 – 2	1 × 10 ⁻⁵ – 0.007	0.01 – 0.10
DEF/F Aquifer	25-2,500	2 – 6	0.005 – 0.5		
D Aquitard	170	0.005 - 1	0.001 - 0.1		
BC Aquifer	190	1 – 3	0.005 – 0.1		
B Aquitard	130	0.005 – 1	0.001 – 0.1		
A Aquifer	200-300	7 – 18	0.05 – 2		
AA Aquifer	300-400	1 – 13	0.001 – 0.1		
Unit Tu	25-700	1 – 30	0.01 – 0.5		

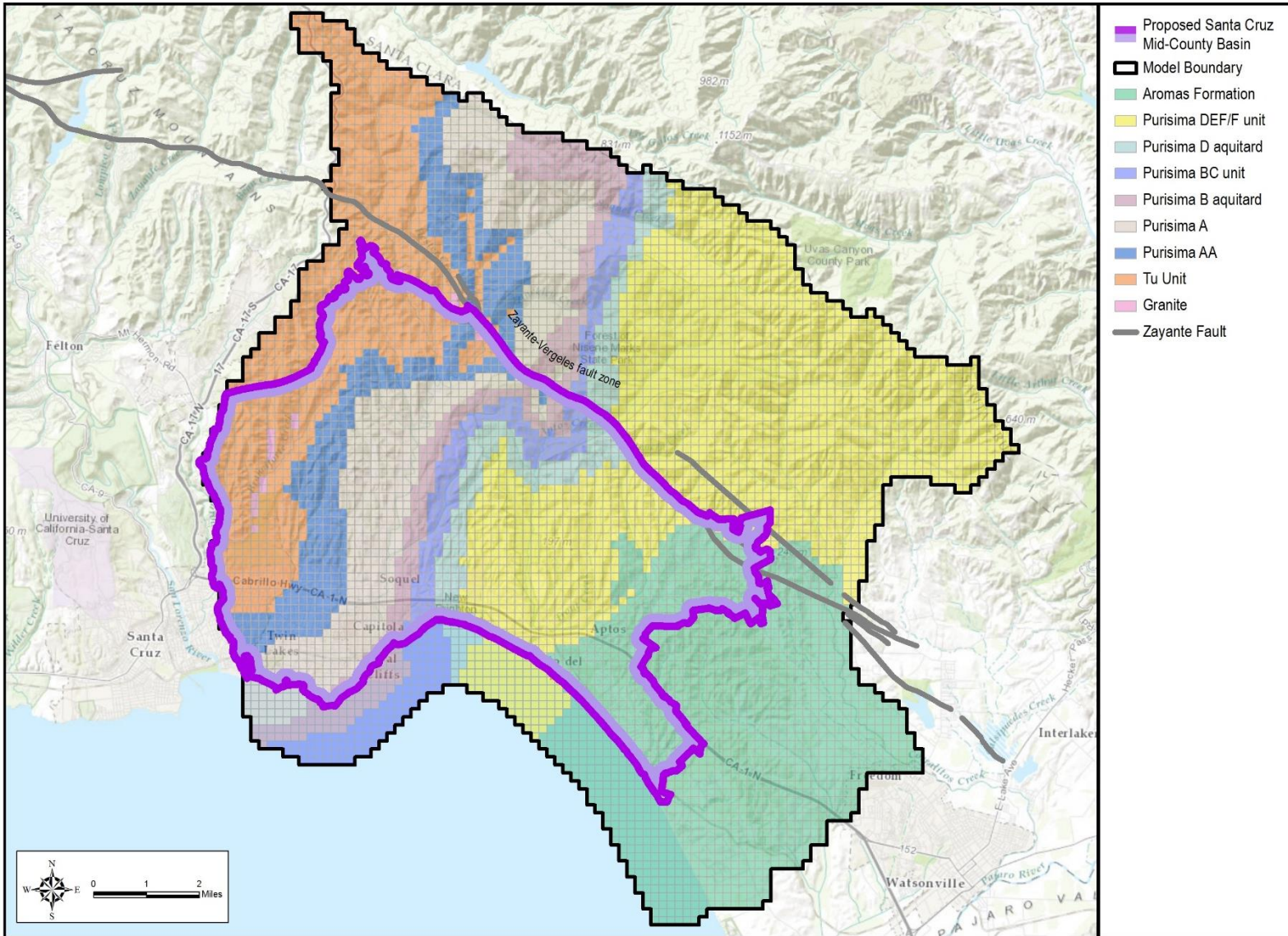


Figure 6: Modeled Extent of Aquifer Outcrops and Faults

Barriers and Impediments to Groundwater Flow (§ 344.14 (b))

Figure 2 includes three features that significantly impede groundwater flow that are the basis for scientific modification: the Zayante Fault, the outcrops of the Lompico and Butano Formations that are principal aquifer units of the proposed Santa Margarita Basin, the structural granitic high between the Santa Margarita Basin and the Santa Cruz Mid-County Basin, and the watershed boundary between Carbonara Creek and Branciforte Creek.

- The location of the Zayante Fault is presented in Figure 1 based on GIS files of the qualified USGS geologic map of Santa Cruz County (Brabb et al., 1997). The map and GIS files are provided on the compact disk in Appendix H.
- The outcrops of the Lompico and Butano Formations are also based on GIS files of the qualified USGS geologic map of Santa Cruz County (Brabb et al., 1997). The boundary between the Santa Cruz Mid-County Basin and the proposed Santa Margarita Basin south of the Butano Formation outcrop is based on the existing Bulletin 118 external boundary of the Santa Cruz Purisima Formation basin. Blackburn Gulch as defined by the National Hydrography Dataset (NHD; USGS, 2015) is also used to approximate the Lompico Formation impeding groundwater flow to the aquifer system of the Santa Cruz Mid-County Basin. The GIS files of the subset of the NHD used is provided on the compact disk in Appendix H.
- The location of the structural granitic high between the Santa Margarita Basin and the Santa Cruz Mid-County Basin is based on the technical work discussed below. Relevant GIS files are provided on the compact disk in Appendix H.
- The watershed boundary between Carbonara Creek and Branciforte Creek was defined using hydrologic modeling of a USGS's 3DEP 10 meter digital elevation model (DEM) in GIS (USGS, 2015). This results in a finer resolution than the National Hydrography Dataset's (NHD) Watershed Boundary Dataset (WBD). Hydrologic modeling splits watersheds into sub-watersheds of equal contributing area. The watershed boundaries generated from the DEM watershed boundaries were smoothed with a GIS smoothing tool to remove the inherent stepped nature of boundaries derived from a raster DEM (Figure 7). The GIS files of the DEM and smoothed watershed boundary are provided on the compact disk in Appendix H.

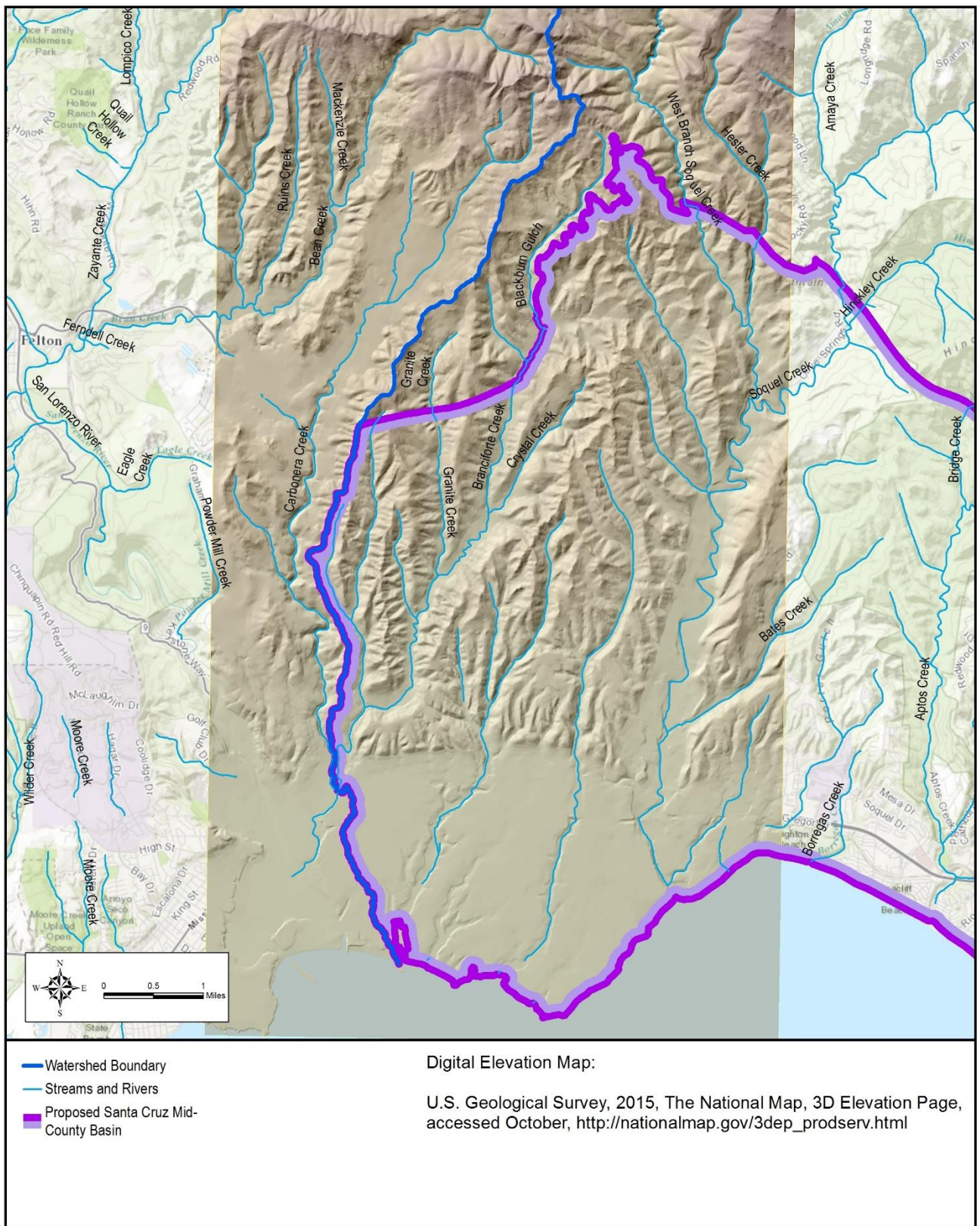


Figure 7: Digital Elevation Map and Watershed Boundary

Per Section 344.14 (b) (2), the findings of technical studies providing geologic and hydrologic evidence of groundwater conditions are summarized below.

The Zayante Fault defines the boundary between the stacked aquifer units of the Purisima Formation south of the fault and the undifferentiated sediments of the Purisima Formation north of the fault. Near some portions of the fault zone there are visible outcrops of granite and Butano sandstone, which have limited water-bearing properties. Limited groundwater exchange may occur over some areas of the fault, most likely over shallower units to the east near Central Water District, but minimal pumping from the undifferentiated Purisima Formation occurs north of the fault. *Technical Memorandum 2: Hydrogeologic Conceptual Model* (Johnson et. al., 2004) contains description of the Zayante Fault. The USGS report by Johnson (1980) also contains information regarding hydrogeology of the Purisima in the vicinity of this fault.

The Lompico Formation and Butano Formation aquifer units are associated with the proposed Santa Margarita Basin and groundwater in these aquifer units flows west, away from the stacked aquifer units of the proposed Santa Cruz Mid-County Basin. The various sources used to define the shared boundary between the Santa Margarita Basin and Santa Cruz Mid-County Basin result in outcropping areas of the Lompico Formation and Butano Formation (Figure 8, Brabb et al., 1997) being assigned only to Santa Margarita Basin. The various sources for the shared boundary include the Bulletin 118 boundary for the existing Santa Cruz Purisima Formation Basin, the outcrop boundaries of the Lompico and Butano Formations (Figure 8, Brabb et al., 1997), and a granitic structural high (see below).

The use of the Lompico Formation and Butano Formation outcrop boundaries as the proposed basin boundary places most of the Purisima Formation outcrop area (Brabb et al., 2007) between Blackburn Gulch and the Butano Formation outcrop in the Santa Cruz Mid-County Basin. This Purisima Formation outcrop area is included in the Santa Cruz Mid-County Basin to address local input consultation (Appendices D and G) with Purisima Mutual Water Company (MWC). As discussed in the response to comments (Appendix E) and memo to SAGMC (Appendix F) regarding changing the boundary in response to Purisima MWC, the mapped Purisima Formation outcrop in this area represents an area where aquifer units of the two proposed basins overlap. As detailed in Purisima MWC technical studies (Greene, 1975), Purisima MWC pumps from the shallower Purisima Formation aquifer unit overlying the Lompico and Butano Formations. Therefore, it is reasonable that pumping from this area affects the

water budget of the Santa Cruz Mid-County Basin more than the Santa Margarita Basin, especially since there is no public water system besides Purisima MWC pumping from below the Purisima Formation in that area. Neighboring Jarvis MWC pumps from the Lompico Formation where it outcrops to the west (Figure 8). The only part of the Purisima Formation outcrop between Blackburn Gulch and the Butano Formation outcrop that is excluded from the Santa Cruz Mid-County Basin is part of Scotts Valley Water District, but the jurisdictional modification to exclude this small area should have a negligible effect on the water budget of the Santa Cruz Mid-County Basin.

The boundary based on the Lompico Formation outcrop is connected to the boundary based on the structural high discussed below via Blackburn Gulch (Figure 7 and Figure 8). The geologic outcrop map (Figure 8, Brabb et al, 1997) shows surficial alluvial material in this area around Blackburn Gulch. Underlying the alluvial material may be the Purisima Formation where groundwater flows towards the proposed Santa Cruz Mid-County Basin and/or the Lompico Formation with flow towards the proposed Santa Margarita Basin. Basing the boundary on the National Hydrography Dataset definition of Blackburn Gulch is a well-defined but also reasonable approximation of where the divide between flows in the two basins occur.

A structural high divides the westward-dipping stacked aquifer units of the Santa Margarita Basin from the eastward-dipping stacked aquifer units of the Santa Cruz Mid-County Basin.

- A granitic structural high delineates the boundary between each basin. This feature is visible in gravity anomaly surveys of the area, as shown in Figure 9. Gravity anomaly data regarding the granitic basement structure are published in a USGS geophysical investigation (Roberts et al, 2004).
- As part of work performed for the ongoing development of a groundwater model for the Santa Cruz Mid-County Basin area (HydroMetrics WRI, 2015b), a series of boring logs and e-logs were reviewed to refine the structure of the granitic basement, which will be the base of the groundwater model. This study resulted in a refined set of granite elevation contours, as shown in Figure 10. This figure shows the proposed boundary of the Santa Cruz Mid-County Basin following the line delineating the strike of this refined granite feature eastward from where it intersects the watershed boundary that is the western boundary of the basin.

- Figure 11 shows a cross-section that overlaps the proposed shared boundary between the Santa Cruz Mid-County Basin and the Santa Margarita Basin. A steep trough in the granitic basement is evident in the vicinity of Carbonera Creek. The eastern slope of this trough is associated with the western slope of the structural high shown in Figure 10. This cross-section also demonstrates the physical separation of the Santa Margarita, Lompico, and Butano Formations, the sources of groundwater in the Santa Margarita Basin, from the Purisima Formation, which slopes eastward from its outcrop between Blackburn Gulch and West Branch Soquel Creek.
- The structure of the granitic basement in the vicinity of the shared Santa Cruz Mid-County Basin and Santa Margarita Basin boundary was also documented by Todd Engineers (1997) and ETIC Engineering (2006) in groundwater modeling technical studies of the area. These studies presented evidence for a structural high coincident with the edge of the basin's aquifer units in this area.
- North of the structural high and west of the Lompico Formation is an area mapped as Purisima Formation outcrop (Brabb et al., 1997) but the underlying Lompico and Butano Formations indicate that flow towards the Santa Margarita Basin is likely a more significant part of that basin's water budget than any shallow groundwater flow towards the Santa Cruz Mid-County Basin within the Purisima Formation.

Published USGS maps (Brabb et al, 1997) aided in the definition of the shared boundary with the Santa Margarita Basin by defining the extent of outcropping units not associated with the Santa Cruz Mid-County Basin.

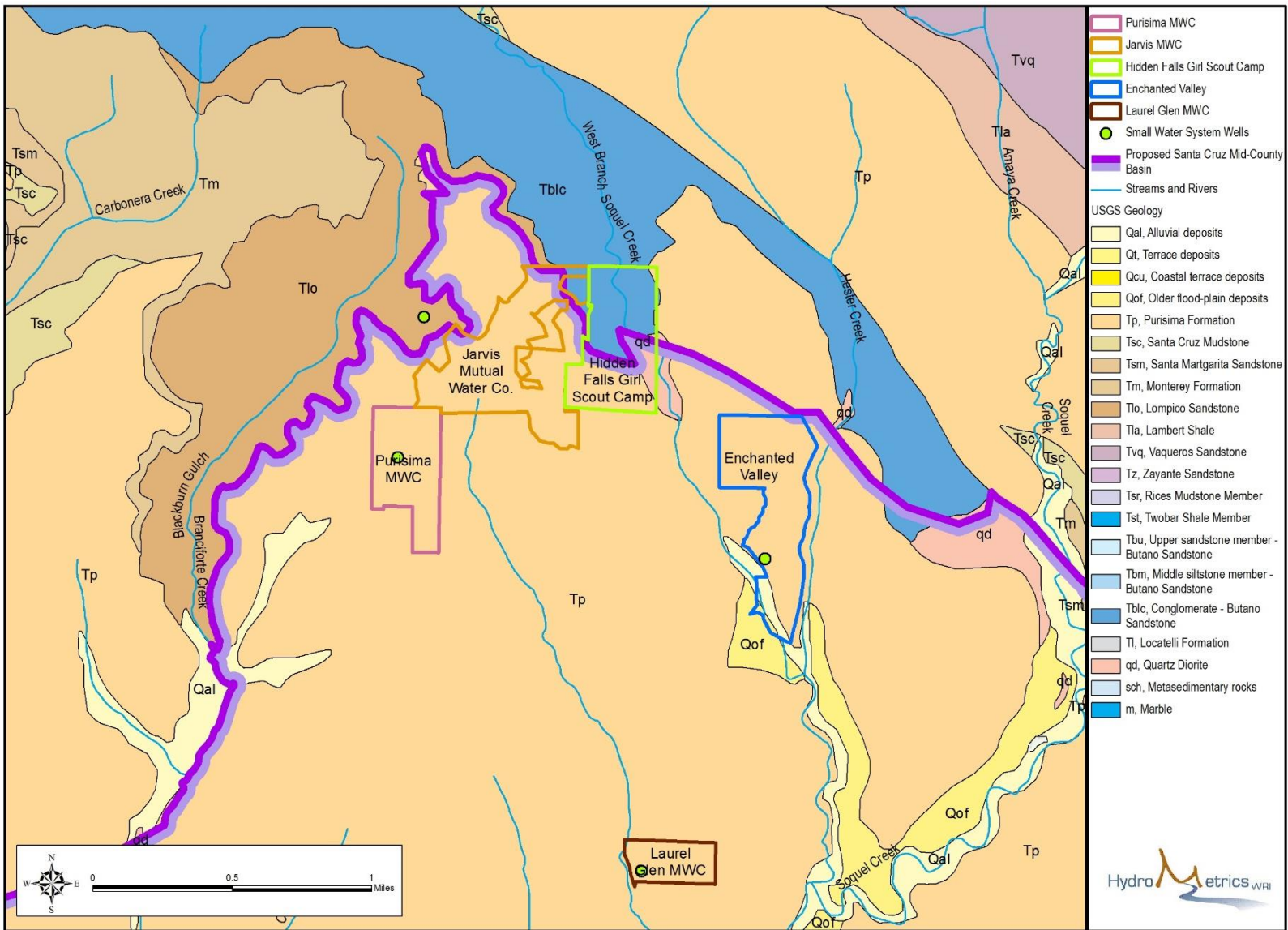


Figure 8. Lompico and Butano Outcrops Near Proposed Boundary of Santa Cruz Mid-County and Santa Margarita Basins

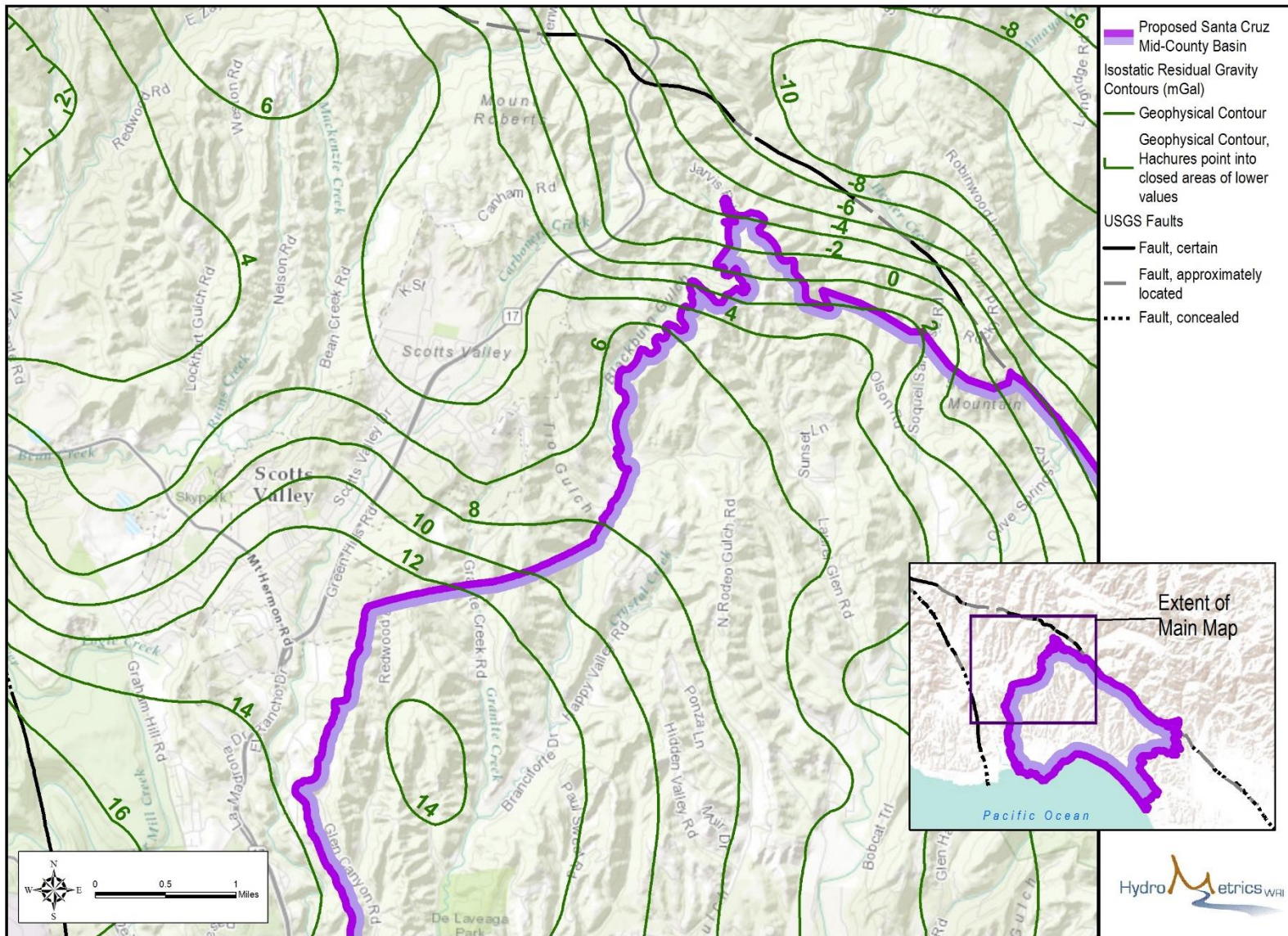


Figure 9: Gravity Anomaly Near Shared Boundary of Proposed Santa Cruz Mid-County and Santa Margarita Basins

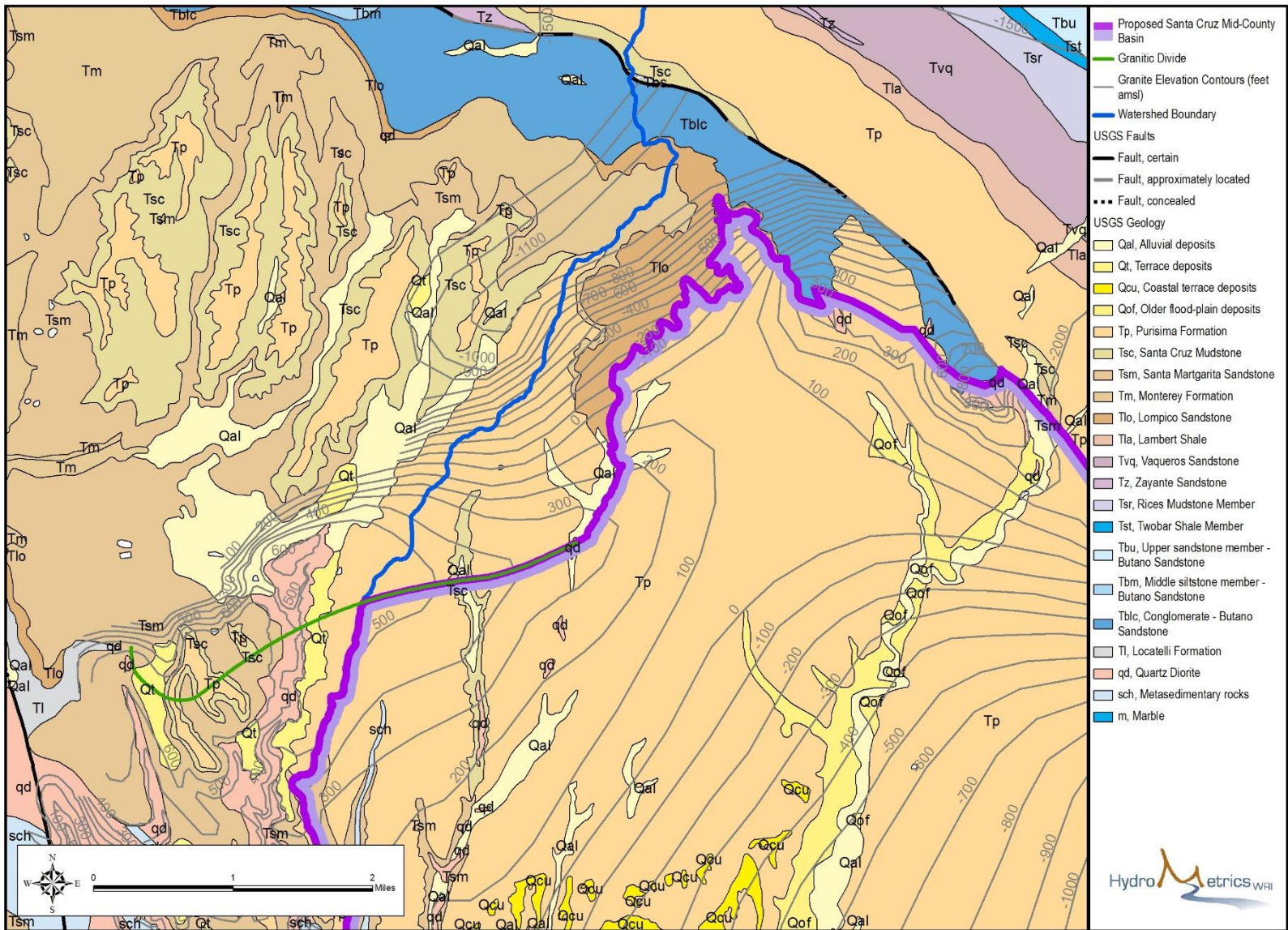


Figure 10: Granite Elevations, Geology & Watershed Near Shared Boundary of Santa Cruz Mid-County and Santa Margarita Basins

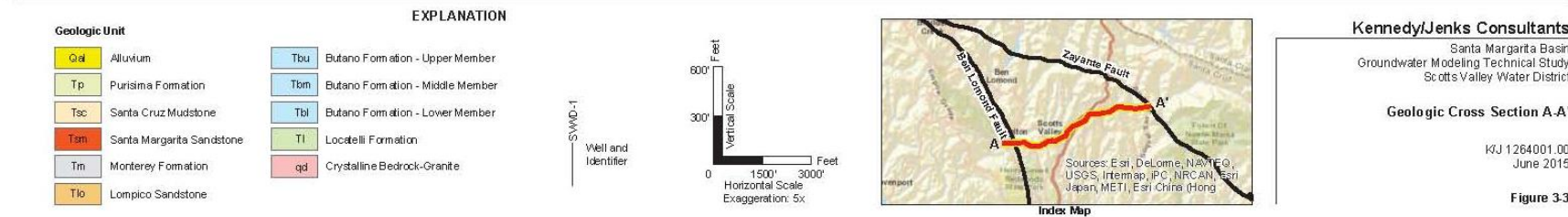
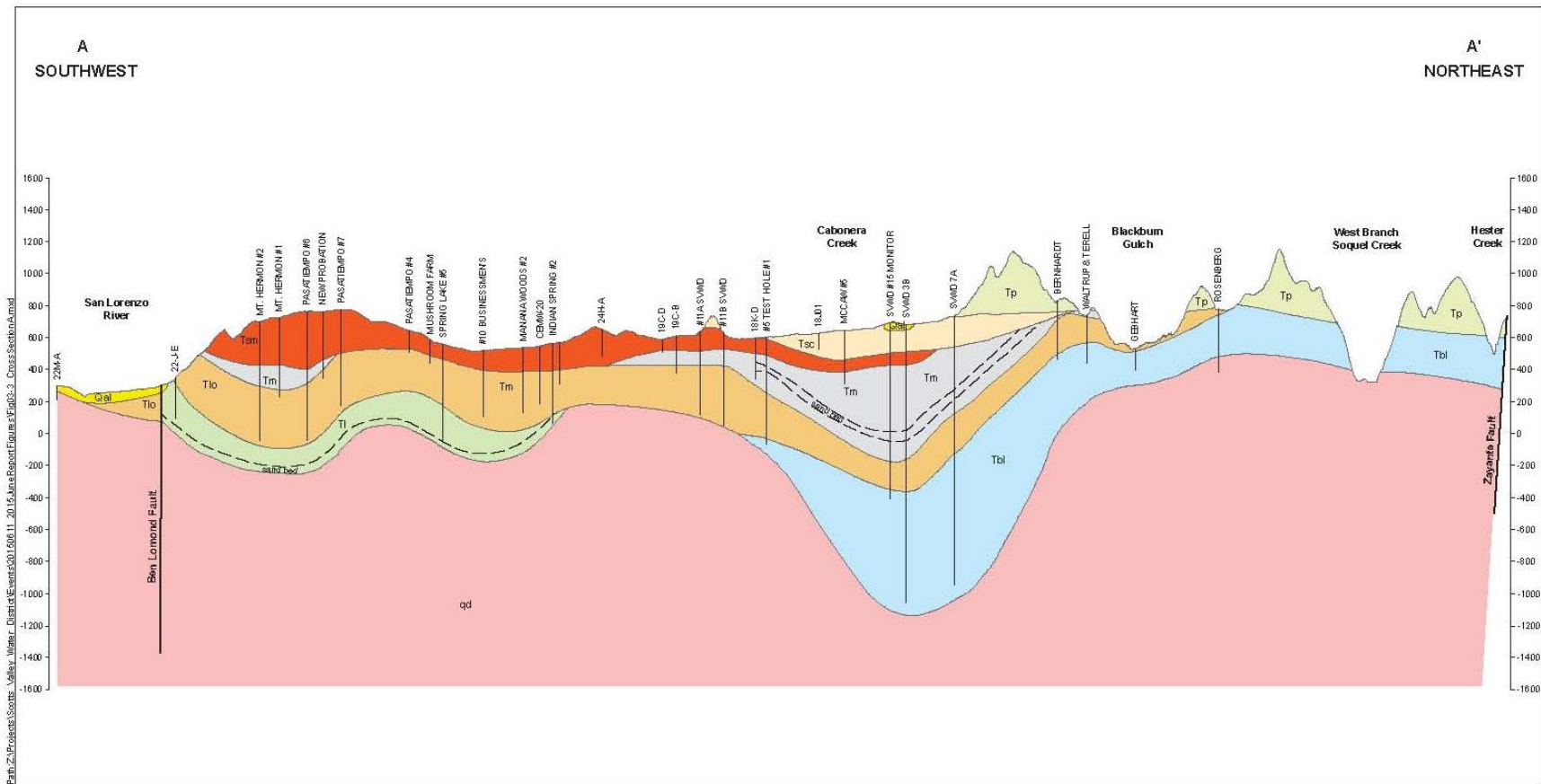


Figure 11: Cross-Section Near Shared Boundary of Santa Cruz Mid-County Basin and Santa Margarita Basin (from Kennedy/Jenks Consultants, 2015)

The watershed boundary extending from the ocean to the Santa Margarita Basin boundary is also shown as the western boundary of the Santa Cruz Mid-County Basin in Figure 1 and Figure 2. Geologic maps of the area indicate outcrops of granite along the length of this boundary, indicating that the stacked aquifers of the Purisima Formation are incised by erosion and are not continuous over this boundary. Outcrops of granite near the watershed boundary are shown in Figure 12 and the cross section on Figure 11 demonstrates the lack of Purisima Formation west of Carbonera Creek. The structure of the granitic basement dividing the Santa Margarita Basin from the Santa Cruz Mid-County Basin is shown in Figure 9, Figure 10, and Figure 11. Figure 10 also shows outcropping areas of the Lompico and Butano sandstones which are associated with the Santa Margarita Basin, and as such outside the boundary of the Santa Cruz Mid-County Basin. The extent of watersheds overlying the basin, including the watershed boundary defining the western boundary of the Santa Cruz Mid-County Basin, are discussed in *Estimation of Deep Groundwater Recharge Using a Precipitation-Runoff Watershed Model Soquel-Aptos, California* (HydroMetrics WRI, 2011b), and are available in *Soil survey geographic (SSURGO) database for Santa Cruz County, CA* (Natural Resources Conservation Service, 2009).

Historical potentiometric surface maps are available in the Johnson et. al. (2004) report, as well as annual groundwater reports (HydroMetrics LLC, 2008; HydroMetrics LLC, 2009a; HydroMetrics WRI, 2010; HydroMetrics WRI, 2011a; HydroMetrics WRI, 2012a; HydroMetrics WRI, 2013; HydroMetrics WRI, 2014a; HydroMetrics WRI, 2015). Groundwater contours are generated only for areas south of the Zayante Fault due to the hydraulic separation between the aquifers of the Santa Cruz Mid-County Basin and the undifferentiated Purisima north of the fault.

Per Section 344.14 (c), other technical information relevant to the scientific boundary modifications presented here are listed below:

- Recharge areas as defined by Santa Cruz County are shown in Figure 5.
- Annual groundwater reports (HydroMetrics LLC, 2008; HydroMetrics LLC, 2009a; HydroMetrics WRI, 2010; HydroMetrics WRI, 2011a; HydroMetrics WRI, 2012a; HydroMetrics WRI, 2013; HydroMetrics WRI, 2014a; HydroMetrics WRI, 2015a) also present water quality information related to seawater intrusion along the offshore boundary of the stacked aquifer system.

Available electronic copies of referenced technical studies are included on the compact disk on Appendix H.

TECHNICAL INFORMATION FOR JURISDICTIONAL MODIFICATIONS (§ 344.16)

Groundwater Management Plan and Implementation (§ 344.16 (a) (1) (A))

The groundwater management plan that covers most of the proposed basin and meets the requirements of Water Code Section 10753.7(a) is the Groundwater Management Plan – 2007 (SqCWD and CWD, 2007). This Groundwater Management Plan (GMP) replaced the AB3030 Ground-Water Management Plan Soquel-Aptos Area (LSCE, 1996) to meet requirements of SB 1938. In its assessment of the GMP, DWR confirmed that the GMP is compliant with SB 1938. The GMP fully addresses 23 of the 24 required, voluntary, and suggested components evaluated by DWR (Hull, 2012). An electronic copy of the Groundwater Management Plan is included on the compact disk in Appendix G.

The groundwater management area for the GMP is generally larger than the proposed Santa Cruz Mid-County Basin (Figure 13). The GMP groundwater management area overlaps areas that will be managed by the Santa Margarita Groundwater Advisory Committee and Pajaro Valley Water Management Agency, and also includes undifferentiated Purisima Formation that is not part of the stacked aquifer units of the proposed Santa Cruz Mid-County basin. The proposed Santa Cruz Mid-County Basin does extend farther west than the GMP groundwater management area, as shown in Figure 13, to include the entire watershed potentially contributing to Tu unit underlying the Purisima Formation.

The GMP was developed under a Joint Powers Agreement (JPA) between Central Water District and Soquel Creek Water District (Appendix A). The Soquel-Aptos Area Groundwater Management Committee consisting of Board members from the two Districts and a private well representative guided implementation of the GMP and recommended approval of the GMP. Electronic copies of the Districts' Board ordinances (SqCWD and CWD, 2007) adopting the GMP are included on the compact disk in Appendix G.

Implementation of the GMP has been summarized annually with Annual Review and Reports for Water Years 2007-2014 (HydroMetrics LLC 2008; HydroMetrics LLC, 2009a; HydroMetrics WRI, 2010; HydroMetrics WRI, 2011a; HydroMetrics WRI, 2012a; HydroMetrics WRI, 2013; HydroMetrics WRI 2014a; HydroMetrics WRI, 2015a). The reports include updated pumping, groundwater elevations,

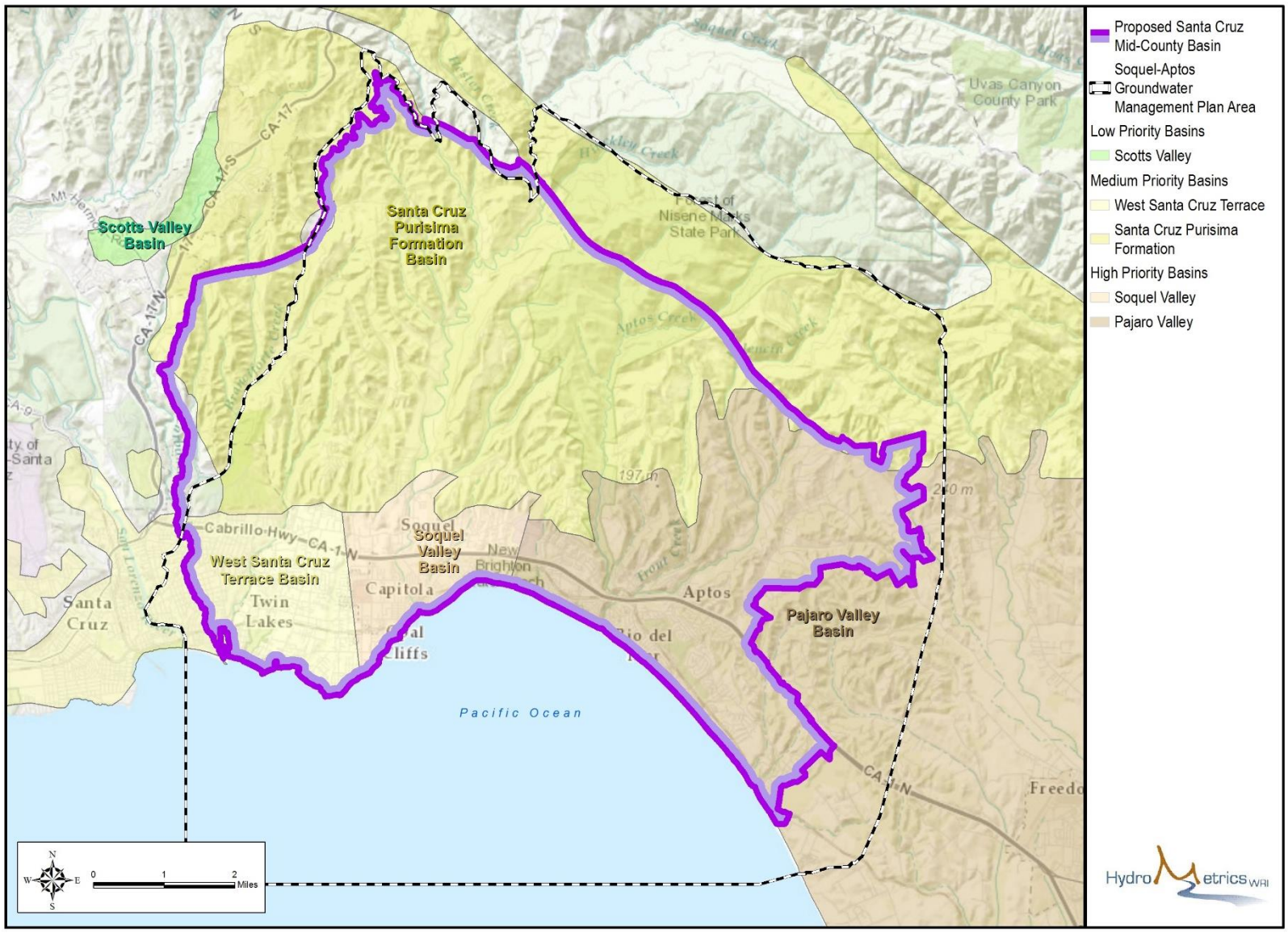


Figure 13: Groundwater Management Area and Proposed and Existing DWR Basins

and seawater intrusion data as well as recharge estimates. The recharge map shown in Figure 5 has also been added to the annual reports to meet the 2013 requirements for Groundwater Management Plans. The reports also summarize status of groundwater management objectives and implementation of groundwater management elements.

Table 3 shows the status of basin management objectives as of the Water Year 2014 Annual Review and Report. An electronic copy of the compilation of Annual Review and Reports is included on the compact disk in Appendix H.

A Basin Advisory Group consisting of staff from Central Water District, City of Santa Cruz, County of Santa Cruz, Pajaro Valley Water Management Agency, and Soquel Creek Water District review a draft of the Annual Review and Report each year. A Basin Implementation Group consisting of Board members from Central Water District and Soquel Creek Water District and a private well representative has approved the Annual Review and Report each year. In 2015, amendments to the JPA renamed the Basin Implementation Group as the Soquel-Aptos Groundwater Management Committee and added Council members from the City of Santa Cruz and County of Santa Cruz and three private well representatives as members (Appendix A).

Table 3: Summary of Basin Management Objectives

Number (per GWMP)	Basin Management Objective	Status
<i>Goal 1: Ensure water supply reliability for current and future beneficial uses</i>		
1-1	Pump Within the Sustainable Yield	Pumping exceeds recovery goals
1-2	Develop alternative water supplies to achieve a long-term balance between recharge and withdrawals to meet current and future demand	Alternatives such as water transfers and recycled water being evaluated
1-3	Manage groundwater storage for future beneficial uses and drought reserve	Depends on achieving BMOs 1-1, 1-2, and 2-2
<i>Goal 2: Maintain water quality to meet current and future beneficial uses</i>		
2-1	Meet existing water quality standards for beneficial uses, such as drinking water standards.	Drinking water standards met
2-2	Maintain groundwater levels to prevent seawater intrusion	Achieved at 6 of 14 coastal well locations

Number (per GWMP)	Basin Management Objective	Status
2-3	Prevent and monitor contaminant pathways	Activities ongoing
<i>Goal 3: Prevent adverse environmental impacts</i>		
3-1	Maintain or Enhance the Quantity and Quality of Groundwater Recharge by participating in land use planning process	Activities ongoing
3-2	Avoid alteration of stream flows that would adversely impact the survival of populations of aquatic and riparian organisms	Soquel Creek monitoring ongoing
3-3	Protect the structure and hydraulic characteristics of the groundwater basin by avoiding withdrawals that cause subsidence	No subsidence reported

Relevant Technical Studies (344.16 (a) (1) (C))

Since adoption of the GMP, there have been a number of technical studies that contribute to groundwater management of the relevant portions of the proposed consolidated basin. The studies most relevant to basin management are summarized below. Electronic copies of documents related to these studies are provided on the compact disk in Appendix H.

The GMP identifies seawater intrusion as the primary undesirable result that constrains the sustainable yield of the basin. Cross-sectional model studies (HydroMetrics WRI, 2012b and HydroMetrics LLC, 2009b) have been performed to define protective groundwater elevations at SqCWD's coastal monitoring wells as measureable objectives to prevent seawater intrusion. The City of Santa Cruz has also defined protective groundwater elevations at its coastal monitoring wells based on the generalized Ghyzen-Herzberg principle (City and SqCWD, 2015). These protective elevations are the long-term groundwater elevations required to prevent seawater intrusion. Since groundwater levels are below protective elevations, the basin is considered in overdraft and recovery will be achieved when groundwater levels rise to protective elevations. A peer review (Todd Groundwater, 2014) of the protective elevations suggested testing modifications to the cross-sectional models. SAGMC has funded current work to

implement the recommendations by testing models at one SqCWD well and one City of Santa Cruz well.

Central Water District, City of Santa Cruz, and Soquel Creek Water District funded a study to assess surface recharge to the Santa Cruz Mid-County aquifer system using the U.S. Geological Survey's Precipitation-Runoff Modeling System (PRMS), a distributed-parameter hydrologic model (HydroMetrics WRI, 2011b). SqCWD has used results of the study to develop interim estimates of sustainable yield and interim pre-recovery pumping goals. SqCWD has also used the study to guide its declaration of drought curtailment stages under its water shortage contingency plan. The study results have also been used for Central Water District's groundwater model update and the ongoing basinwide modeling effort.

Under a Proposition 84 Integrated Regional Water Management planning grant administered by DWR, Central Water District conducted a technical study of management of the Purisima and Aromas Red Sands aquifers from which it pumps (HydroMetrics WRI and Kennedy/Jenks, 2014). This included updating CWD's groundwater model of the area to evaluate re-distribution of pumping from Aromas Red Sands aquifer units to Purisima aquifer units to address groundwater quality concerns such as Chromium VI and move pumping farther inland to reduce the risk of seawater intrusion.

Under a Proposition 84 Integrated Regional Water Management planning grant administered by DWR, the County of Santa Cruz has evaluated the feasibility and benefits of water transfers using excess winter flows in City of Santa Cruz's surface water supply to provide in-lieu recharge to the proposed consolidated basin (Santa Cruz County Environmental Health Services, 2015). Both SqCWD and the City's Water Supply Advisory Committee have identified these water transfers as high priority alternatives to evaluate further. The City has also identified the possibility of using surface water as a source for aquifer storage and recovery in the basin.

Under a Proposition 50 Integrated Regional Water Management implementation grant administered by the State Water Resources Control Board, the County led an effort to implement demonstration projects to restore groundwater infiltration from developed areas at Polo Grounds Park and Brommer Street Park within the proposed consolidated basin. Installation of two separate facilities at Polo Grounds Park was completed in 2011 and 2012 (Santa Cruz County Environmental Health Services, 2013). The County also received a Prop 84

stormwater grant to construct the Brommer Street project and provide additional infiltration measures as a part of a new park development at the Heart of Soquel Park.

Since adoption of the GMP, SqCWD and the City has each brought online a new municipal well primarily screened in the Tu unit underlying the Purisima in the western portion of the consolidated basin. After each developed Environmental Impact Reports (EIR) for the new wells (ESA, 2010 and Chambers, 2011), SqCWD and the City developed a cooperative monitoring and adaptive management agreement to address effects on the basin of bringing the two wells online (City and SqCWD, 2015). As part of the agreement, SqCWD and the City jointly fund a monitoring and adaptive management programs for pumping effects on private wells and streamflows in Soquel Creek (HydroMetrics WRI, 2015c). The cooperative monitoring and adaptive management agreement between the two agencies, the private well owner agreement, and the baseline monitoring report for Soquel Creek are included on the compact disk in Appendix G.

SqCWD has also brought online a municipal well screened in the Purisima F unit and has plans to bring at least one additional municipal well online. The Well Master Plan EIR included these wells. SqCWD is implementing a monitoring and adaptive management program for pumping effects on private wells near these wells. SqCWD and CWD also developed a cooperative monitoring and adaptive management agreement to address effects on CWD wells of pumping the new SqCWD well in the Purisima F unit, from which CWD wells produce (CWD and SqCWD, 2011)

SAGMC is funding development of an integrated surface water-groundwater model. The model will use the U.S. Geological Survey code GSFLOW that integrates the Precipitation Runoff Modeling System (PRMS) watershed model with the MODFLOW groundwater model. The model will be used to evaluate groundwater management alternatives by comparing simulated groundwater levels to prevent seawater intrusion and analyzing effects on stream-aquifer interaction. Simulating effects of climate change and simulation of the saltwater-freshwater interface are also included in the scope. The U.S. Geological Survey is on the modeling team in a review and advisory role and a Technical Advisory Committee will also review model development. The work plan (HydroMetrics WRI, 2015c) and the draft technical memorandum on subsurface model construction (HydroMetrics WRI, 2015a) cited as Scientific Information are included on the compact disk in Appendix G.

Coordination of Sustainable Groundwater Management Activities and Responsibilities (344.16 (a) (2))

SAGMC is currently undertaking the formation of a Groundwater Sustainability Agency (GSA) to manage the consolidated basin. As the Soquel Valley and Pajaro Valley basins have been classified as critically overdrafted basin, SAGMC expects that the consolidated Santa Cruz Mid-County basin would also be a critically overdrafted basin. The GSA would be formed with the expectation that it would develop a Groundwater Sustainability Plan (GSP) by 2020 as required by SGMA for critically overdrafted basins. Based on its ongoing relationships with groundwater management agencies in the Santa Margarita Basin and Pajaro Valley Water Management Agency, SAGMC is committed to developing the inter-basin coordination agreements required for the GSP.

BASIN AREAS EXCLUDED BY BASIN CONSOLIDATION

This section does not refer to a specific section of the regulations, but summarizes the anticipated outcome of areas of existing Bulletin 118 basins that will fall outside of the proposed boundaries of the Santa Cruz Mid-County Basin (Figure 14) and do not have a planned GSA. The basins outside the proposed Santa Cruz Mid-County Basin with agencies that have or plan to form a GSA are the proposed Santa Margarita Basin and the Pajaro Valley Basin. The member agencies of the Santa Margarita Groundwater Advisory Committee are submitting its proposed modification of the Santa Margarita Basin as a precursor to forming a GSA. Pajaro Valley Water Management Agency is named in SGMA as an exclusive GSA for its jurisdiction and has elected be the GSA for its jurisdiction in the Pajaro Valley Basin. The basins outside the proposed Santa Cruz Mid-County Basin without a planned GSA are the proposed Santa Cruz Purisima Formation Basin and the proposed West Santa Cruz Terrace Basin.

The area of the Santa Cruz Purisima Formation Basin north of the Zayante Fault will remain as the Santa Cruz Purisima Formation Basin and is expected to be classified as low or very low priority in the update of Bulletin 118 scheduled for 2017. The re-classification would be based on groundwater pumping totals below the threshold of 2,000 acre-feet per year below which basins are classified as very low priority (DWR, 2014). Estimates of groundwater pumping for the area will be developed for the groundwater model under development and will be available prior to update of Bulletin 118 in 2017. There are also no

documented impacts on the groundwater such as overdraft, subsidence, saline intrusion or other water quality degradation in the proposed basin.

Areas of the West Santa Cruz Terrace Basin west of the watershed boundary defining the extent of the Santa Cruz Mid-County Basin will remain as the West Santa Cruz Terrace Basin. The remaining area of this basin is expected to be reclassified as a low or very low priority basin in the update of Bulletin 118 scheduled for 2017. The aquifers are not considered productive and groundwater pumping is well below the threshold of 2,000 acre-feet per year below which basins are classified as very low priority (DWR, 2014). Most of the areas are within City of Santa Cruz's water service area receiving surface water supply and groundwater pumped from the proposed Santa Cruz Mid-County Basin. There are also no documented impacts on the groundwater in the proposed basin.

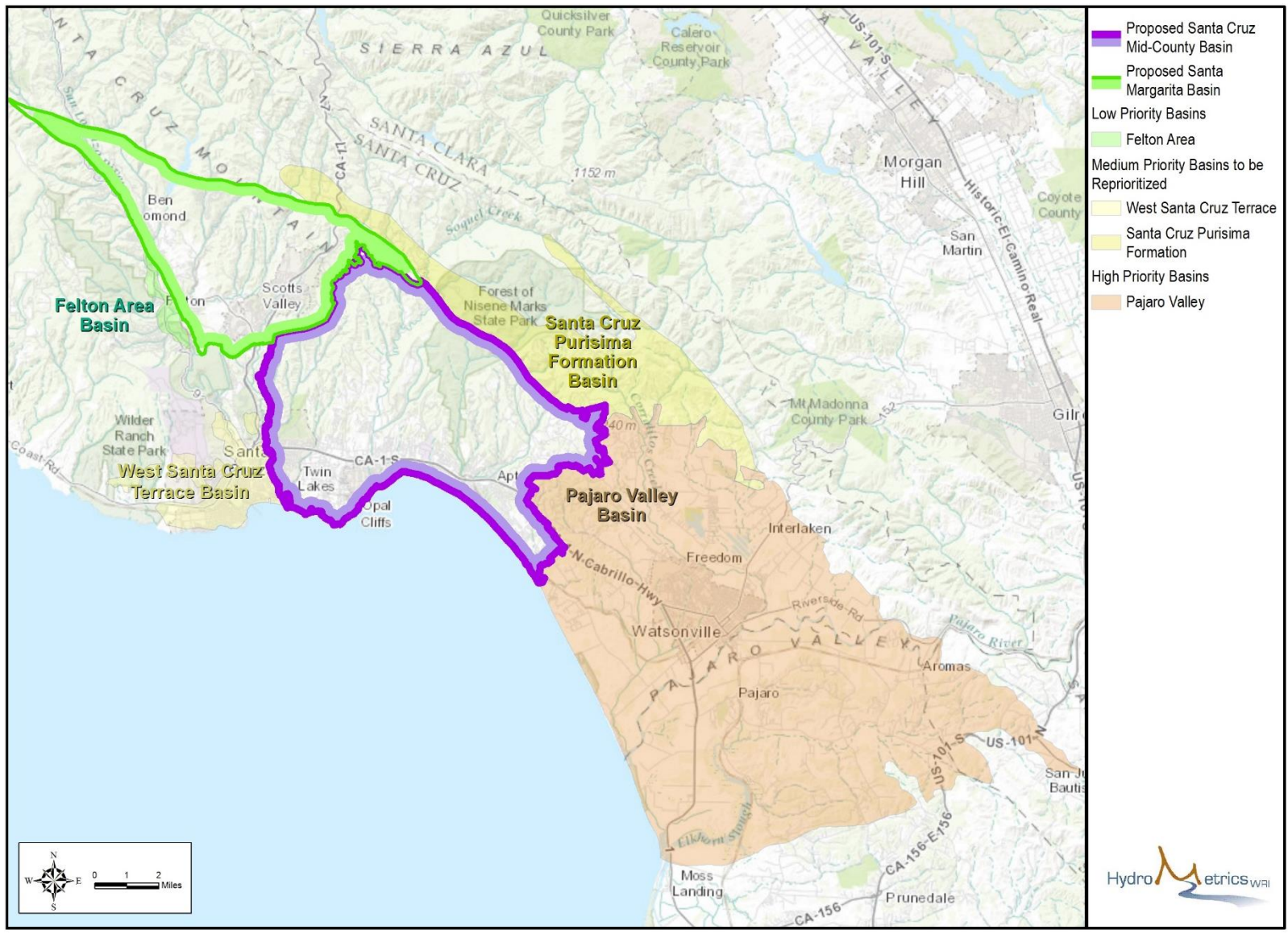


Figure 14. Summary of Proposed DWR Basins for Combined Requests

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SAGMC Joint Powers Authority Documentation

THIRD AMENDMENT

TO

JOINT EXERCISE OF POWERS AGREEMENT

The parties to this Third Amendment to Joint Exercise of Powers Agreement (“Agreement”) are CENTRAL WATER DISTRICT, (hereinafter referred to as CENTRAL) and the SOQUEL CREEK WATER DISTRICT, (hereinafter referred to as SOQUEL), City of Santa Cruz (hereinafter referred to as CITY), and the County of Santa Cruz (hereinafter referred to as COUNTY), all of which represent partner agencies (hereinafter referred to as PARTNER AGENCIES) with interests in groundwater management within the area known regionally as the Soquel-Aptos Groundwater Basin, hereby join together for a common and specific purpose.

RECITALS

- A. Soquel and Central entered into a Joint Powers Agreement (“JPA”) pursuant to Sections 6500 et seq. of the Government Code on March 30, 1995 (first amended on August 18, 2009 and second amended on November 19, 2013) for the purpose of developing and implementing a groundwater management plan under Sections 10750 et seq. of the Water Code (commonly referred to as an “AB 3030 plan”) for the Soquel-Aptos Groundwater Basin (“Basin”) within Santa Cruz County.
- B. Soquel and Central jointly produced and implemented an AB 3030 Plan for the Basin under the JPA (the Soquel-Aptos Groundwater Management Plan) in 1996 and 2007; and have prepared an Annual Review and Report (ARR) each year since 2007.
- C. Governor Jerry Brown signed into law the Sustainable Groundwater Management Act (“Act”) (codified as Sections 10720 et seq. of the California Water Code) on September 16, 2014.
- D. The Act requires that a local agency or combination of local agencies form (or elect to be) a Groundwater Sustainability Agency and to develop a Groundwater Sustainability Plan for all basins ranked as a medium or high priority basin by the Department of Water Resources under the California Statewide Groundwater Elevation Monitoring Program (“CASGEM”).
- E. The Act requires that the Groundwater Sustainability Plan include elements that are additive to the elements of an AB 3030 Plan, and

that a Groundwater Sustainability Plan be developed to replace an existing AB 3030 Plan for medium and high priority basins.

- F. The Basin's boundaries may be modified consistent with the Act.
- G. Subbasins comprising the Basin are ranked as medium and high priority basins under CASGEM, and therefore a Groundwater Sustainability Agency must be formed and a Groundwater Sustainability Plan must be developed for the Basin within the deadlines prescribed in the Act.
- H. The JPA as modified pursuant to this Agreement, together with potential future appropriate amendments, is well suited to be, or be part of, the basis for a Groundwater Sustainability Agency for the Basin as required by the Act.
- I. For the purpose of serving in the role of the Groundwater Sustainability Agency for the Basin, or as a member thereof, it is appropriate to include other local public agencies that are affected by the future management of the Basin as members of the JPA.
- J. The other local public agencies that should be joined as members of the JPA are the County of Santa Cruz and the City of Santa Cruz.

Now, therefore, upon the adoption of resolutions by the Board of Directors of Central Water District, Soquel Creek Water District, the Santa Cruz City Council and the Santa Cruz County Board of Supervisors, it is hereby agreed:

1. The Committee. The Ground Water Management Committee, established under the original JPA is hereby made a permanent committee known as the Soquel Aptos Groundwater Management Committee (SAGMC or Committee). The duties of the SAGMC shall include, but not be limited to:

- a) assure that the goals and objectives identified in the current Groundwater Management Plan are pursued in a reasonable and timely manner;
- b) review data and coordinate groundwater pumping to the extent possible to both meet demand and avoid exacerbating undesirable coastal groundwater conditions;
- c) undertake ongoing and comprehensive efforts to collect, maintain, and share groundwater data with respect to water levels and quality;
- d) undertake cooperative research and resource management initiatives that are regional in scope and disseminate information resulting from these activities;

- e) recommend joint efforts to the respective governing bodies which are of regional benefit, e.g. general seawater intrusion monitoring, recharge within shared portions of the basin, etc.;
- f) jointly pursue groundwater management grants or studies, such as planning or project grants available from the State under Proposition 1, and hydrological modeling and studies undertaken by United States Geological Survey;
- g) coordinate Urban Water Management Plans and Groundwater Emergency Plans;
- h) facilitate discussions regarding formation of a Groundwater Sustainability Agency (or Agencies) required by the Act for development and implementation of the required Groundwater Sustainability Plan for the basin.

The Committee shall be composed of 11 members:

- Two members from each of the Partner Agencies, each of whom shall be appointed by their respective governing body and shall serve at the pleasure of their appointing governing body.
- Three public members who shall each be a person or representative of an entity served by, owning, or managing a non-municipal well. The public Committee members shall be nominated and approved by a majority vote of the Partner Agency Committee members and shall be appointed to serve a two year term.

The Committee shall select a chair from among its Partner Agency members with the chair rotating every two years among Partner Agencies. All votes of the Committee shall be decided by a majority vote of the Committee except for fiscal decisions (those decisions that involve the incurring of debt or expenditure of funds) which shall be decided only by the members of the Committee who are elected representatives of Central, Soquel, the City and the County. Those fiscal decisions shall also be decided by a majority vote of those persons eligible to vote on those matters and by the entities involved in the projects. All votes with a fiscal impact on a Partner Agency, including the annual budget and the proportional allocation of costs, shall also be subject to the approval of the governing body of each involved Partner Agency.

2. Staff. The water agency managers of Partner Agencies shall serve as staff to the Committee with clerical duties provided by Soquel.

3. Compensation. Each Partner Agency board member attending meetings of the Committee may be compensated by his or her respective Partner Agency as each Partner Agency governing body so decides. No compensation shall be paid by

the Committee. The staff shall be paid by their respective employing entities as they so determine.

4. Funding. The Committee is authorized to hire consultants to assist in the management and implementation of goals of the SAGMC. The costs of work done under this Agreement and other management and implementation expenses agreed upon by the SAGMC shall be shared on a proportional basis of the total annual groundwater use as measured by each Partner Agency for the preceding water year. Based on use for 2013, the percentage cost to each Partner Agency for fiscal year 2015-16 would be as follows:

Soquel Creek Water District	70%
Central Water District	10%
City of Santa Cruz	10%
Santa Cruz County	10%

The cost allocation for each year shall be determined as a part of the Committee budget for the upcoming fiscal year. In the event that additional members are added to the Committee, all of the members shall agree on a new cost sharing formula to fund the costs of the SAGMC.

5. Approval of Final Budget. Notwithstanding any other provision of this Agreement, the unanimous approval of the Partner Agencies, acting by and through their respective governing bodies, shall be required to approve and adopt the annual budget for the upcoming fiscal year.

6. Limitation on Imposition of Taxes or Assessments. The SAGMC shall have no power to impose taxes or assessments within any Partner Agency's jurisdiction unless the Partner Agency's legislative body first passes a resolution consenting to the tax or assessment, except that County consent will not be required for taxes or assessments that are limited to areas within the jurisdiction of another Partner Agency.

7. Limitation on Issuance of Debt. The SAGMC shall have no power to issue debt unless the governing body of each Partner Agency first passes a resolution consenting to the issuance of the debt.

8. Withdrawal. Any party may withdraw as a participant in the SAGMC, with the understanding that the remaining party or parties may continue to fund and implement the GMP for the benefit of the ground water basin. Notice of withdrawal shall be by a resolution of the respective governing body and provide thirty (30) day written notice of intent to withdraw. Any funds due or obligations to pay incurred as of the date of withdrawal shall be due and payable irrespective of the withdrawal.

9. Additional Members. On the approval of the governing bodies of all Partner Agency members to this Agreement, and that of any subsequent party added to this Agreement, additional parties may be added to this Committee.

10. Additional Goals. An additional goal of the Committee shall be to identify and develop groundwater projects which are mutually beneficial to all members.

11. Functions of the Committee. In addition to the functions previously described in this Agreement, Partner Agency members shall have the ability to recommend policies and programs which will enhance the basin to their respective governing bodies. The Committee shall meet at least once quarterly, or more as needed, and minutes of their meetings shall be maintained and furnished to the governing bodies of the Partner Agencies.

12. Subcommittees. The Committee may establish such advisory committees as it deems appropriate to advise Committee activities.

13. Non-Restrictive of Independent Activities. This Agreement does not preclude any Partner Agency from pursuing programs and projects related to groundwater management either independently or in cooperation with other agencies that may or may not be a party to the Soquel-Aptos Area Groundwater Management Joint Powers Agreement.

14. Severability. Should any portion, term, condition, or provision of this Agreement be decided by a court of competent jurisdiction to be illegal or in conflict with any law, or otherwise rendered unenforceable or ineffectual, the validity of the remaining portions, terms, conditions, or provisions shall not be affected thereby.

15. Amendment. This Agreement may be amended by resolution of the governing bodies of all members of the SAGMC.

Dated: 8/20 2015

CENTRAL WATER DISTRICT


Authorized Officer

SOQUEL CREEK WATER DISTRICT

Dated: 8/20 2015


Authorized Officer

~~CITY OF SANTA CRUZ~~

JOINT EXERCISE OF POWERS AGREEMENT

by and among

CENTRAL WATER DISTRICT

CITY OF SANTA CRUZ

COUNTY OF SANTA CRUZ

and

SOQUEL CREEK WATER DISTRICT

creating the

SANTA CRUZ MID-COUNTY GROUNDWATER AGENCY

March 17, 2016

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**JOINT EXERCISE OF POWERS AGREEMENT
OF THE SANTA CRUZ MID-COUNTY GROUNDWATER AGENCY**

This **Joint Exercise of Powers Agreement (“Agreement”)** is made and entered into as of March 17, 2016 (“Effective Date”), by and among the Central Water District, the City of Santa Cruz, the County of Santa Cruz, and the Soquel Creek Water District, sometimes referred to herein individually as a “**Member**” and collectively as the “**Members**” for purposes of forming the Santa Cruz Mid-County Groundwater Agency (“**Agency**”) and setting forth the terms pursuant to which the Agency shall operate. Capitalized defined terms used herein shall have the meanings given to them in Article 1 of this Agreement.

RECITALS

- A. Each of the Members is a local agency, as defined by the Sustainable Groundwater Management Act of 2014 (“**SGMA**”), duly organized and existing under and by virtue of the laws of the State of California, and each Member can exercise powers related to groundwater management.
- B. SGMA requires designation of a groundwater sustainability agency (“**GSA**”) by June 30, 2017, for groundwater basins designated by the California Department of Water Resources (“**DWR**”) as medium- and high-priority basins.
- C. SGMA requires adoption of a groundwater sustainability plan (“**GSP**”) by January 31, 2020, for all medium- and high-priority basins identified as being subject to critical conditions of overdraft.
- D. Each of the Members either extracts groundwater from or regulates land use activities overlying a common groundwater basin located within the mid-county coastal region of the County of Santa Cruz. This Basin includes all or part of four basins identified in DWR’s Bulletin Number 118, including the following basins (designated by the name of the basin and number assigned to it in DWR-Bulletin No. 118): Soquel Valley (3-1), West Santa Cruz Terrace (3-26), Santa Cruz Purisima Formation (3-21), and Pajaro Valley Basin (3-2). All or some of these basins have been designated as medium or high priority basins. Through the Agency, the Members provided modifications to the Bulletin-118 boundaries as allowed by Title 23 of the California Code of Regulations to create a new consolidated basin called the “Santa Cruz Mid-County Groundwater Basin” with 3-1 as the number for the consolidated basin under DWR Bulletin No. 118 (hereafter “**Basin**”).
- E. The Members intend for the Agency to develop a GSP and manage the Basin pursuant to SGMA.
- F. Under SGMA, a combination of local agencies may form a GSA through a joint powers agreement.
- G. The Members have determined that the sustainable management of the Basin pursuant to SGMA may best be achieved through the cooperation of the Members operating through a joint powers agency.
- H. The Joint Exercise of Powers Act of 2000 (“**Act**”) authorizes the Members to create a joint powers authority, to jointly exercise any power common to the Members, and to exercise additional powers granted under the Act.
- I. The Act, including the Marks-Roos Local Bond Pooling Act of 1985 (Government Code sections 6584, *et seq.*), authorizes an entity created pursuant to the Act to issue bonds, and under certain circumstances, to purchase bonds issued by, or to make loans to, the Members for financing public capital

improvements, working capital, liability and other insurance needs or projects whenever doing so results in significant public benefits, as determined by the Members. The Act further authorizes and empowers a joint powers authority to sell bonds so issued or purchased to public or private purchasers at public or negotiated sales.

J. The Members have a history of collaborating on groundwater management issues in the Santa Cruz Mid-County Groundwater Basin, originally with a joint powers agreement formed in 1995 by the Soquel Creek Water District and the Central Water District, which was subsequently amended in August of 2015 to include the City of Santa Cruz and the County of Santa Cruz, to form the Soquel-Aptos Groundwater Management Committee.

K. The Members agree that by approving the creation of the Santa Cruz Mid-County Groundwater Agency they are withdrawing from and disbanding the joint powers agency formed as a result of earlier joint powers agreements originally creating the Basin Implementation Group as subsequently amended to create the Soquel-Aptos Groundwater Management Committee.

L. Based on the foregoing legal authority, the Members desire to create a joint powers authority for the purpose of taking all actions deemed necessary by the joint powers authority to ensure sustainable management of the Basin as required by SGMA.

M. The governing board of each Member has determined it to be in the Member's best interest and in the public interest that this Agreement be executed.

TERMS OF AGREEMENT

In consideration of the mutual promises and covenants herein contained, the Members agree as follows:

ARTICLE 1 DEFINITIONS

The following terms have the following meanings for purposes of this Agreement:

- 1.1 "Act" means the Joint Exercise of Powers Act, set forth in Chapter 5 of Division 7 of Title 1 of the Government Code, sections 6500, *et seq.*, including all laws supplemental thereto.
- 1.2 "Agreement" has the meaning assigned thereto in the Preamble.
- 1.3 "Auditor" means the auditor of the financial affairs of the Agency appointed by the Board of Directors pursuant to Section 14.3 of this Agreement.
- 1.4 "Agency" has the meaning assigned thereto in the Preamble.
- 1.5 "Basin" has the meaning assigned thereto in Recital D.
- 1.6 "Board of Directors" or "Board" means the governing body of the Agency as established by Article 6 of this Agreement.
- 1.7 "Bylaws" means the bylaws, if any, adopted by the Board of Directors pursuant to Article 11 of this Agreement to govern the day-to-day operations of the Agency.

1.8 “Director” and “Alternate Director” mean a director or alternate director appointed pursuant to Sections 6.3 and 6.4 of this Agreement. “Member Director” is a Director or Alternate Director appointed by and representing a Member agency pursuant to Section 6.1.1 of this agreement.

1.9 “DWR” has the meaning assigned thereto in Recital B.

1.10 “GSA” has the meaning assigned thereto in Recital B.

1.11 “GSP” has the meaning assigned thereto in Recital C.

1.12 “Member” means each party to this Agreement that satisfies the requirements of Section 5.1 of this Agreement, including any new members as may be authorized by the Board, pursuant to Section 5.2 of this Agreement.

1.13 “Officer(s)” means the Chair, Vice Chair, Secretary, or Treasurer of the Agency to be appointed by the Board of Directors pursuant to Section 7.1 of this Agreement.

1.14 “SGMA” has the meaning assigned thereto in Recital A.

1.15 “State” means the State of California.

ARTICLE 2 CREATION OF THE AGENCY

2.1 Creation of a Joint Powers Authority. There is hereby created pursuant to the Act a joint powers authority, which will be a public entity separate from the Members to this Agreement, and shall be known as the Santa Cruz Mid-County Joint Powers Agency (“**Agency**”). Within 30 days after the Effective Date of this Agreement and after any amendment, the Agency shall cause a notice of this Agreement or amendment to be prepared and filed with the office of the California Secretary of State containing the information required by Government Code section 6503.5. Within 10 days after the Effective Date of this Agreement, the Agency shall cause a statement of the information concerning the Agency, required by Government Code section 53051, to be filed with the office of the California Secretary of State and with the County Clerk for the County of Santa Cruz, setting forth the facts required to be stated pursuant to Government Code section 53051(a).

2.2 Purpose of the Agency. Each Member to this Agreement has in common the power to study, plan, develop, finance, acquire, construct, maintain, repair, manage, operate, control, and govern the water supply and water management within the Basin, either alone or in cooperation with other public or private non-member entities, and each is a local agency eligible to serve as a GSA within the Basin, either alone or jointly through a joint powers agreement as provided for by SGMA. The purpose of this Agency is to serve as the GSA for the Basin and to develop, adopt, and implement the GSP for the Basin pursuant to SGMA and other applicable provisions of law.

ARTICLE 3 TERM

This Agreement shall become effective upon execution by each of the Members and shall remain in effect until terminated pursuant to the provisions of Article 17 (Withdrawal of Members) of this Agreement.

ARTICLE 4 POWERS

The Agency shall possess the power in its own name to exercise any and all common powers of its Members reasonably related to the purposes of the Agency, including but not limited to the following powers, together with such other powers as are expressly set forth in the Act and in SGMA. For purposes of Government Code section 6509, the powers of the Agency shall be exercised subject to the restrictions upon the manner of exercising such powers as are imposed on the County of Santa Cruz, and in the event of the withdrawal of the County of Santa Cruz as a Member under this Agreement, then the manner of exercising the Agency's powers shall be those restrictions imposed on the City of Santa Cruz.

- 4.1 To exercise all powers afforded to a GSA pursuant to and as permitted by SGMA.
- 4.2 To develop, adopt and implement the GSP pursuant to SGMA.
- 4.3 To adopt rules, regulations, policies, bylaws and procedures governing the operation of the Agency and adoption and implementation of the GSP.
- 4.4 To obtain rights, permits and other authorizations for or pertaining to implementation of the GSP.
- 4.5 To perform other ancillary tasks relating to the operation of the Agency pursuant to SGMA, including without limitation, environmental review, engineering, and design.
- 4.6 To make and enter into all contracts necessary to the full exercise of the Agency's power.
- 4.7 To employ, designate or otherwise contract for the services of agents, officers, employees, attorneys, engineers, planners, financial consultants, technical specialists, advisors, and independent contractors.
- 4.8 To exercise jointly the common powers of the Members, as directed by the Board, in developing and implementing a GSP for the Basin.
- 4.9 To investigate legislation and proposed legislation affecting the Basin and to make appearances regarding such matters.
- 4.10 To cooperate and to act in conjunction and contract with the United States, the State of California or any agency thereof, counties, municipalities, public and private corporations of any kind (including without limitation, investor-owned utilities), and individuals, or any of them, for any and all purposes necessary or convenient for the full exercise of the powers of the Agency.
- 4.11 To incur debts, liabilities or obligations, to issue bonds, notes, certificates of participation, guarantees, equipment leases, reimbursement obligations and other indebtedness, and, to the extent provided for in a duly adopted Agency to impose assessments, groundwater extraction fees or other charges, and other means of financing the Agency as provided in Chapter 8 of SGMA commencing at Section 10730 of the Water Code.
- 4.12 To collect and monitor data on the extraction of groundwater from, and the quality of groundwater in, the Basin.

- 4.13 To establish and administer a conjunctive use program for the purposes of maintaining sustainable yields in the Basin consistent with the requirements of SGMA.
- 4.14 To exchange and distribute water.
- 4.15 To regulate groundwater extractions as permitted by SGMA.
- 4.16 To impose groundwater extraction fees as permitted by SGMA.
- 4.17 To spread, sink and inject water into the Basin.
- 4.18 To store, transport, recapture, recycle, purify, treat or otherwise manage and control water for beneficial use.
- 4.19 To apply for, accept and receive licenses, permits, water rights, approvals, agreements, grants, loans, contributions, donations or other aid from any agency of the United States, the State of California, or other public agencies or private persons or entities necessary for the Agency's purposes.
- 4.20 To develop and facilitate market-based solutions for the use and management of water rights.
- 4.21 To acquire property and other assets by grant, lease, purchase, bequest, devise, gift or eminent domain, and to hold, enjoy, lease or sell, or otherwise dispose of, property, including real property, water rights, and personal property, necessary for the full exercise of the Agency's powers.
- 4.22 To sue and be sued in its own name.
- 4.23 To provide for the prosecution of, defense of, or other participation in actions or proceedings at law or in public hearings in which the Members, pursuant to this Agreement, may have an interest and may employ counsel and other expert assistance for these purposes.
- 4.24 To exercise the common powers of its Members to develop, collect, provide, and disseminate information that furthers the purposes of the Agency, including but not limited to the operation of the Agency and adoption and implementation of the GSP to the Members, legislative, administrative, and judicial bodies, as well the public generally.
- 4.25 To accumulate operating and reserve funds for the purposes herein stated.
- 4.26 To invest money that is not required for the immediate necessities of the Agency, as the Agency determines is advisable, in the same manner and upon the same conditions as Members, pursuant to Government Code section 53601, as it now exists or may hereafter be amended.
- 4.27 To undertake any investigations, studies, and matters of general administration.
- 4.28 To perform all other acts necessary or proper to carry out fully the purposes of this Agreement.

ARTICLE 5 MEMBERSHIP

5.1 Members. The Members of the Agency shall be the Central Water District, the City of Santa Cruz, the County of Santa Cruz, and the Soquel Creek Water District, as long as they have not, pursuant to the provisions hereof, withdrawn from this Agreement.

5.2 New Members. Any public agency (as defined by the Act) that is not a Member on the Effective Date of this Agreement may become a Member upon: (a) the approval of the Board of Directors by a supermajority of at least seventy-five (75%) of the votes held among all Directors as specified in Article 9 (Member Voting); (b) payment of a pro rata share of all previously incurred costs that the Board of Directors determines have resulted in benefit to the public agency, and are appropriate for assessment on the public agency; and (c) execution of a written agreement subjecting the public agency to the terms and conditions of this Agreement.

ARTICLE 6 BOARD OF DIRECTORS AND OFFICERS

6.1 Formation of the Board of Directors. The Agency shall be governed by a Board of Directors (“**Board**”). The Board shall consist of eleven (11) Directors consisting of the following representatives who shall be appointed in the manner set forth in Section 6.3:

6.1.1 Two representatives appointed by the governing board of each of the following public agency Members: the Central Water District, the City of Santa Cruz, the County of Santa Cruz, and the Soquel Creek Water District.

6.1.2 Three representatives of private well owners within the boundaries of the Agency.

6.2 Duties of the Board of Directors. The business and affairs of the Agency, and all of its powers, including without limitation all powers set forth in Article 4 (Powers), are reserved to and shall be exercised by and through the Board of Directors, except as may be expressly delegated to the staff or others pursuant to this Agreement, Bylaws, or by specific action of the Board of Directors.

6.3 Appointment of Directors. The Directors shall be appointed as follows:

6.3.1 The two representatives from the Central Water District shall be appointed by resolution of the Central Water District Board of Directors.

6.3.2 The two representatives from the City of Santa Cruz shall be appointed by resolution of the City of Santa Cruz City Council.

6.3.3 The two representatives from the County of Santa Cruz shall be appointed by resolution of the County of Santa Cruz Board of Supervisors.

6.3.4 The two representatives from the Soquel Creek Water District shall be appointed by resolution of the Soquel Creek Water District Board of Directors.

6.3.5 The three representatives of private well owners shall be appointed by majority vote of the eight public agency Member Directors. The procedures for nominating the private well owners shall be set forth in the Bylaws.

6.4 Alternate Directors. Each Member may have one Alternate to act as a substitute Director for either of the Member's Directors. One Alternate shall also be appointed to act as a substitute Director for any of the three Directors representing private well owners. All Alternates shall be appointed in the same manner as set forth in Section 6.3. Alternate Directors shall have no vote, and shall not participate in any discussions or deliberations of the Board unless appearing as a substitute for a Director due to absence or conflict of interest. If the Director is not present, or if the Director has a conflict of interest which precludes participation by the Director in any decision-making process of the Board, the Alternate Director appointed to act in his/her place shall assume all rights of the Director, and shall have the authority to act in his/her absence, including casting votes on matters before the Board. Each Alternate Director shall be appointed prior to the third meeting of the Board. Alternates are strongly encouraged to attend all Board meetings and stay informed on current issues before the Board.

6.5 Requirements. Each Member's Directors and Alternate Director shall be appointed by resolution of that Member's governing body to serve for a term of four years except, for the purpose of establishing staggered terms, one of the initially-appointed Directors of each Member shall, as designated by the Member, serve an initial term of two years. A Member's Director or Alternate Director may be removed during his or her term or reappointed for multiple terms at the pleasure of the Member that appointed him or her. A Director representing private well owners may be removed or reappointed in the same manner as he or she was appointed as set forth in Section 6.3. No individual Director may be removed in any other manner, including by the affirmative vote of the other Directors.

6.6 Vacancies. A vacancy on the Board of Directors shall occur when a Director resigns or at the end of the Director's term as set forth in Section 6.5. For Member Directors, a vacancy shall also occur when he or she is removed by his or her appointing Member. For Directors representing private well owners, a vacancy shall also occur when the Director is removed as set forth in Section 6.5. Upon the vacancy of a Director, the Alternate Director shall serve as Director until a new Director is appointed as set forth in Section 6.3 unless the Alternate is already serving as a substitute Director in the event of a prior vacancy, in which case, the seat shall remain vacant until a replacement Director is appointed as set forth in Section 6.3. Members shall provide notice of any changes in Director or Alternate Director positions to the Board of Directors or its designee in writing and signed by an authorized representative of the Member.

ARTICLE 7 OFFICERS

7.1 Officers. Officers of the Agency shall be a Chair, Vice Chair, Secretary, and Treasurer. The Treasurer shall be appointed consistent with the provisions of Section 14.3. The Vice Chair, or in the Vice Chair's absence, the Secretary, shall exercise all powers of the Chair in the Chair's absence or inability to act.

7.2 Appointment of Officers. Officers shall be elected annually by, and serve at the pleasure of, the Board of Directors. Officers shall be elected at the first Board meeting, and thereafter at the first Board meeting following January 1st of each year, or as duly continued by the Board. An Officer may serve for multiple consecutive terms, with no term limit. Any Officer may resign at any time upon written notice to the Board, and may be removed and replaced by a simple majority vote of the Board.

7.3 Principal Office. The principal office of the Agency shall be established by the Board of Directors, and may thereafter be changed by a simple majority vote of the Board.

ARTICLE 8 DIRECTOR MEETINGS

8.1 Initial Meeting. The initial meeting of the Board of Directors shall be held in the County of Santa Cruz, California, within thirty (30) days of the Effective Date of this Agreement.

8.2 Time and Place. The Board of Directors shall meet at least quarterly, at a date, time and place set by the Board within the jurisdictional boundaries of one or more of the Members, and at such other times as may be determined by the Board.

8.3 Special Meetings. Special meetings of the Board of Directors may be called by the Chair or by a simple majority of Directors, in accordance with the provisions of Government Code section 54956.

8.4 Conduct. All meetings of the Board of Directors, including special meetings, shall be noticed, held, and conducted in accordance with the Ralph M. Brown Act (Government Code sections 54950, *et seq.*). The Board may use teleconferencing in connection with any meeting in conformance with and to the extent authorized by applicable law.

8.5 Local Conflict of Interest Code. The Board of Directors shall adopt a local conflict of interest code pursuant to the provisions of the Political Reform Act of 1974 (Government Code sections 81000, *et seq.*)

ARTICLE 9 MEMBER VOTING

9.1 Quorum. A quorum of any meeting of the Board of Directors shall consist of an absolute majority of Directors plus one Director. In the absence of a quorum, any meeting of the Directors may be adjourned by a vote of the simple majority of Directors present, but no other business may be transacted. For purposes of this Article, a Director shall be deemed present if the Director appears at the meeting in person or participates telephonically, provided that the telephone appearance is consistent with the requirements of the Ralph M. Brown Act.

9.2 Director Votes. Voting by the Board of Directors shall be made on the basis of one vote for each Director. A Director, or an Alternate Director when acting in the absence of his or her Director, may vote on all matters of Agency business unless disqualified because of a conflict of interest pursuant to California law or the local conflict of interest code adopted by the Board of Directors.

9.3 Affirmative Decisions of the Board of Directors. Except as otherwise specified in this Agreement, all affirmative decisions of the Board of Directors shall require the affirmative vote of a simple majority of all appointed Directors participating in voting on a matter of Agency business, provided that if a Director is disqualified from voting on a matter before the Board because of a conflict of interest, that Director shall be excluded from the calculation of the total number of Directors that constitute a majority. Notwithstanding the foregoing, a unanimous vote of all Member Directors participating in voting shall be required to approve any of the following: (i) any capital expenditure that is estimated to cost \$100,000 or more; (ii) the annual budget; (iii) the GSP for the Basin or any amendment thereto; (iv) the levying of assessments or fees; (v) issuance of indebtedness; or (vi) any stipulation to resolve litigation concerning groundwater rights within or groundwater management for the Basin.

ARTICLE 10
AGENCY ADMINISTRATION, MANAGEMENT AND OPERATION

The Board of Directors may select and implement an approach to Agency administration and management that is appropriate to the circumstances and adapted to the GSA's needs as they may evolve over time. Details of the Board's decision on Agency administration, management and operation shall be incorporated into the GSA's bylaws and reviewed and revised as needed using the established process for revising the GSA's bylaws.

ARTICLE 11
BYLAWS

The Board of Directors shall cause to be drafted, approve, and amend Bylaws of the Agency to govern the day-to-day operations of the Agency. The Bylaws shall be adopted at or before the first anniversary of the Board's first meeting.

ARTICLE 12
ADVISORY COMMITTEES

The Board of Directors may from time to time appoint one or more advisory committees or establish standing or ad hoc committees to assist in carrying out the purposes and objectives of the Agency. The Board shall determine the purpose and need for such committees and the necessary qualifications for individuals appointed to them.

ARTICLE 13
OPERATION OF COMMITTEES

Each committee shall include a Director as the chair thereof. Other members of each committee may be constituted by such individuals approved by the Board of Directors for participation on the committee. However, no committee or participant on such committee shall have any authority to act on behalf of the Agency except as duly authorized by the Board.

ARTICLE 14
ACCOUNTING PRACTICES

14.1 General. The Board of Directors shall establish and maintain such funds and accounts as may be required by generally accepted public agency accounting practices. The Agency shall maintain strict accountability of all funds and a report of all receipts and disbursements of the Agency.

14.2 Fiscal Year. Unless the Board of Directors decides otherwise, the fiscal year for the Agency shall run concurrent with the calendar year.

14.3 Appointment of Treasurer and Auditor; Duties. The Treasurer and Auditor shall be appointed in the manner, and shall perform such duties and responsibilities, specified in Sections 6505.5 and 6505.6 of the Act.

ARTICLE 15
BUDGET AND EXPENSES

15.1 Budget. Within 120 after the first meeting of the Board of Directors, and thereafter prior to the commencement of each fiscal year, the Board shall adopt a budget for the Agency for the ensuing fiscal

year no later than June 30th. In the event that a budget is not so approved, the prior year's budget shall be deemed approved for the ensuing fiscal year, and any groundwater extraction fee or assessment(s) of contributions of Members, or both, approved by the Board during the prior fiscal year shall again be assessed in the same amount and terms for the ensuing fiscal year.

15.2 Agency Funding and Contributions. For the purpose of funding the expenses and ongoing operations of the Agency, the Board of Directors shall maintain a funding account in connection with the annual budget process. The Board of Directors may fund the Agency and the GSP as provided in Chapter 8 of SGMA, commencing with Section 10730 of the Water Code, and may also issue assessments for contributions by the Members in the amount and frequency determined necessary by the Board. Such Member contributions shall be paid by each Member to the Agency within 30 days of assessment by the Board.

15.3 Return of Contributions. In accordance with Government Code section 6512.1, repayment or return to the Members of all or any part of any contributions made by Members and any revenues by the Agency may be directed by the Board of Directors at such time and upon such terms as the Board of Directors may decide; provided that (1) any distributions shall be made in proportion to the contributions paid by each Member to the Agency, and (2) any capital contribution paid by a Member voluntarily, and without obligation to make such capital contribution pursuant to Section 15.2, shall be returned to the contributing Member, together with accrued interests at the annual rate published as the yield of the Local Agency Investment Fund administered by the California State Treasurer, before any other return of contributions to the Members is made. The Agency shall hold title to all funds and property acquired by the Agency during the term of this Agreement.

15.4 Issuance of Indebtedness. The Agency may issue bonds, notes or other forms of indebtedness, as permitted under Section 4.11, provided such issuance be approved at a meeting of the Board of Directors by unanimous vote of the Member Directors as specified in Article 9 (Member Voting).

ARTICLE 16 LIABILITIES

16.1 Liability. In accordance with Government Code section 6507, the debt, liabilities and obligations of the Agency shall be the debts, liabilities and obligations of the Agency alone, and not the Members.

16.2 Indemnity. Funds of the Agency may be used to defend, indemnify, and hold harmless the Agency, each Member, each Director, and any officers, agents and employees of the Agency for their actions taken within the course and scope of their duties while acting on behalf of the Agency. Other than for gross negligence or intentional acts, to the fullest extent permitted by law, the Agency agrees to save, indemnify, defend and hold harmless each Member from any liability, claims, suits, actions, arbitration proceedings, administrative proceedings, regulatory proceedings, losses, expenses or costs of any kind, whether actual, alleged or threatened, including attorney's fees and costs, court costs, interest, defense costs, and expert witness fees, where the same arise out of, or are in any way attributable, in whole or in part, to negligent acts or omissions of the Agency or its employees, officers or agents or the employees, officers or agents of any Member, while acting within the course and scope of a Member relationship with the Agency.

ARTICLE 17 WITHDRAWAL OF MEMBERS

17.1 Unilateral Withdrawal. Subject to the Dispute Resolution provisions set forth in Section 18.9, a Member may unilaterally withdraw from this Agreement without causing or requiring termination of this Agreement, effective upon 30 days written notice to the Board of Directors or its designee.

17.2 Rescission or Termination of Agency. This Agreement may be rescinded and the Agency terminated by unanimous written consent of all Members, except during the outstanding term of any Agency indebtedness.

17.3 Effect of Withdrawal or Termination. Upon termination of this Agreement or unilateral withdrawal, a Member shall remain obligated to pay its share of all debts, liabilities and obligations of the Agency required of the Member pursuant to terms of this Agreement, and that were incurred or accrued prior to the effective date of such termination or withdrawal, including without limitation those debts, liabilities and obligations pursuant to Sections 4.11 and 15.4. Any Member who withdraws from the Agency shall have no right to participate in the business and affairs of the Agency or to exercise any rights of a Member under this Agreement or the Act, but shall continue to share in distributions from the Agency on the same basis as if such Member had not withdrawn, provided that a Member that has withdrawn from the Agency shall not receive distributions in excess of the contributions made to the Agency while a Member. The right to share in distributions granted under this Section 17.3 shall be in lieu of any right the withdrawn Member may have to receive a distribution or payment of the fair value of the Member's interest in the Agency.

17.4 Return of Contribution. Upon termination of this Agreement, any surplus money on-hand shall be returned to the Members in proportion to their contributions made. The Board of Directors shall first offer any property, works, rights and interests of the Agency for sale to the Members on terms and conditions determined by the Board of Directors. If no such sale to Members is consummated, the Board of Directors shall offer the property, works, rights, and interest of the Agency for sale to any non-member for good and adequate consideration. The net proceeds from any sale shall be distributed among the Members in proportion to their contributions made.

ARTICLE 18 MISCELLANEOUS PROVISIONS

18.1 No Predetermination or Irretrievable Commitment of Resources. Nothing herein shall constitute a determination by the Agency or any of its Members that any action shall be undertaken, or that any unconditional or irretrievable commitment of resources shall be made, until such time as the required compliance with all local, state, or federal laws, including without limitation the California Environmental Quality Act, National Environmental Policy Act, or permit requirements, as applicable, has been completed.

18.2 Notices. Notices to a Director or Member hereunder shall be sufficient if delivered to the respective Director or clerk of the Member agency and addressed to the Director or clerk of the Member agency. Delivery may be accomplished by U.S. Postal Service, private mail service or electronic mail.

18.3 Amendments to Agreement. This Agreement may be amended or modified at any time only by subsequent written agreement approved and executed by all of the Members.

18.4 Agreement Complete. The foregoing constitutes the full and complete Agreement of the Members. This Agreement supersedes all prior agreements and understandings, whether in writing or oral, related to the subject matter of this Agreement that are not set forth in writing herein.

18.5 Severability. Should any part, term or provision of this Agreement be decided by a court of competent jurisdiction to be illegal or in conflict with any applicable federal law or any law of the State of California, or otherwise be rendered unenforceable or ineffectual, the validity of the remaining parts, terms, or provisions hereof shall not be affected thereby, provided however, that if the remaining parts, terms, or provisions do not comply with the Act, this Agreement shall terminate.

18.6 Withdrawal by Operation of Law. Should the participation of any Member to this Agreement be decided by the courts to be illegal or in excess of that Member's authority or in conflict with any law, the validity of the Agreement as to the remaining Members shall not be affected thereby.

18.7 Assignment. The rights and duties of the Members may not be assigned or delegated without the written consent of all other Members. Any attempt to assign or delegate such rights or duties in contravention of this Agreement shall be null and void.

18.8 Binding on Successors. This Agreement shall inure to the benefit of, and be binding upon, the successors and assigns of the Members.

18.9 Dispute Resolution. In the event that any dispute arises among the Members relating to (i) this Agreement, (ii) the rights and obligations arising from this Agreement, or (iii) or a Member proposing to withdraw from membership in the Agency, the aggrieved Member or Member proposing to withdraw from membership shall provide written notice to the other Members of the controversy or proposal to withdraw from membership. Within thirty (30) days thereafter, the Members shall attempt in good faith to resolve the controversy through informal means. If the Members cannot agree upon a resolution of the controversy within thirty (30) days from the providing of written notice specified above, the dispute shall be submitted to mediation prior to commencement of any legal action or prior to withdraw of a Member proposing to withdraw from membership. The mediation shall be no less than a full day (unless agreed otherwise among the Members) and the cost of mediation shall be paid in equal proportion among the Members. The mediator shall be either voluntarily agreed to or appointed by the Superior Court upon a suit and motion for appointment of a neutral mediator. Upon completion of mediation, if the controversy has not been resolved, any Member may exercise all rights to bring a legal action relating to the controversy or (except where such controversy relates to withdrawal of a Member's obligations upon withdrawal) withdraw from membership as otherwise authorized pursuant to this Agreement.

18.10 Counterparts. This Agreement may be executed in counterparts, each of which shall be deemed an original.

18.11 Singular Includes Plural. Whenever used in this Agreement, the singular form of any term includes the plural form and the plural form includes the singular form.

18.12 Member Authorization. The legislative bodies of the Members have each authorized execution of this Agreement, as evidenced by their respective signatures below.

IN WITNESS WHEREOF, the Members hereto have executed this Agreement by authorized officials thereof.

CENTRAL WATER DISTRICT

APPROVED AS TO FORM:

By: _____

By: _____

Title: _____

Title: _____

CITY OF SANTA CRUZ

APPROVED AS TO FORM:

By: _____

By: _____

Title: _____

Title: _____

COUNTY OF SANTA CRUZ

APPROVED AS TO FORM:

By: _____

By: J. Miller

Title: _____

Title: Assistant County Counsel

SOQUEL CREEK WATER DISTRICT

APPROVED AS TO FORM:

By: _____

By: _____

Title: _____

Title: _____

APPENDIX B
Basin Boundary Modification Request Resolution

RESOLUTION NO. 15-01

**RESOLUTION OF THE MEMBERS
OF THE SOQUEL-APTOS GROUNDWATER MANAGEMENT COMMITTEE
INITIATING A BASIN BOUNDARY MODIFICATION REQUEST**

WHEREAS, groundwater located in the Soquel-Aptos area of Santa Cruz County is a vital resource to meet the water supply needs for the customers of City of Santa Cruz, Soquel Creek Water District, and Central Water District (hereafter “Municipal Water Agencies”); and

WHEREAS, private water suppliers and many private well owners also depend on this local groundwater resource; and

WHEREAS, the Municipal Water Agencies, in addition to the County of Santa Cruz (hereafter “Partner Agencies”) have come together under a Joint Exercise of Powers Agreement that was most recently amended on August 21, 2015; and

WHEREAS, an AB3030 Groundwater Management Plan was adopted in 2007 that identified a boundary commonly known as the Soquel-Aptos Groundwater Management Area (“Soquel Aptos Groundwater Basin”); and

WHEREAS, current groundwater management of the Soquel-Aptos Groundwater Basin includes all or part of four basins identified in DWR’s Bulletin Number 118, including the following basins (designated by the name of the basin and number assigned to it in DWR-Bulletin No. 118): Soquel Valley (3-1), West Santa Cruz Terrace (3-26), Santa Cruz Purisima Formation (3-21), and Pajaro Valley Basin (3-2); and

WHEREAS, each of the Partner Agencies is a local agency as defined by the Sustainable Groundwater Management Act of 2014 (“SGMA”), duly organized and existing under and by virtue of the laws of the State of California with the ability to exercise powers related to groundwater management; and

WHEREAS, SGMA requires formation of a local groundwater sustainability agency (“GSA”) by June 30, 2017 and adoption of a groundwater sustainability plan (“GSP”) by January 31, 2020, for all medium- and high-priority basins identified as being subject to critical conditions of overdraft; and

WHEREAS, SGMA defines a basin’s boundaries shall be defined as identified in the California Department of Water Resources (DWR) Bulletin No. 118; and

WHEREAS, SGMA establishes a process for local agencies to request that DWR revise the boundaries of a basin, including establishment of a new subbasins; and

WHEREAS, the Partner Agencies have common interest in defining a groundwater basin that comprehensively represents a management area based on scientific and jurisdictional modifications to DWR Bulletin No. 118;

NOW, THEREFORE BE IT RESOLVED by the Members of the Soquel Aptos Groundwater Management Committee that the Committee hereby initiates the basin boundary modification request and directs the Soquel Creek Water District Interim General Manager or his designee to work with other designees of the partner agencies of the Soquel-Aptos Groundwater Management Committee and the Department of Water Resources representatives to modify the existing Bulletin-118 boundaries as allowed by Title 23 of the California Code of Regulations to create a new consolidated basin.

PASSED AND ADOPTED by the members of the SOQUEL-APTOS GROUNDWATER MANAGEMENT COMMITTEE this 12th day of November 2015, by the following vote:

AYES: Bruce Jaffe, Tom LaHue, John Benich, Bob Postle, Zach Friend, John Leopold, Cynthia Mathews, Micah Posner, Jon Kennedy, Jim Kerr, Curt Abramson

NOES: None

ABSENT: None

ABSTAIN: None

APPROVE:



Bruce Jaffe, Chair
Soquel Aptos Groundwater Management Committee

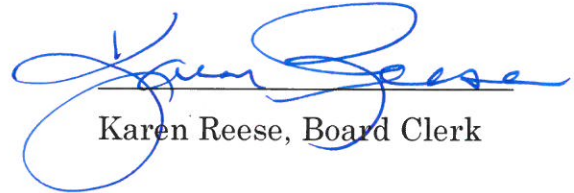
ATTEST:



Ron Duncan, Interim General Manager
Soquel Creek Water District

CERTIFICATION

The undersigned duly qualified Clerk of the Board, acting on behalf of the Soquel Creek Water District, certifies that the foregoing is a true and correct copy of a resolution adopted at a convened meeting of the Soquel – Aptos Groundwater Management Committee held on November 12, 2015.



Karen Reese, Board Clerk

APPENDIX C
GIS Files and Maps

Please refer to the GIS Files in the Basin Boundary Modification Request Documents section at the URL below

<http://www.midcountygroundwater.org/resource-library>

APPENDIX D
Consultation with Affected Agencies and Systems

From: John Ricker [mailto:John.Ricker@santacruzcounty.us]

Sent: Monday, December 14, 2015 4:59 PM

To: John Ricker

Cc: Sierra Ryan; Piret Harmon; 'Matt Orbach'; Cameron Tana; John Hodges; Troy Boone

Subject: Groundwater Basin Boundary Modifications

Dear Public Water System Representative:

The County of Santa Cruz and local water agencies are working together to implement California's Sustainable Groundwater Management Act of 2014 (SGMA), which is aimed at strengthening local control and management of groundwater basins throughout the state. The California Department of Water Resources (DWR) has defined the boundaries for groundwater basins that require management under SGMA, but provides an opportunity for local agencies to request modification of those boundaries to better reflect current geologic understanding and local approach to management. The process requires notification and consultation with water systems that are located within the boundaries of basins that are affected by the boundary modification. Your system is being contacted because you are located in one or more of the basins that is proposed for modification.

Please see the attached material for information on this process and how your water system can be involved.

Additional technical information regarding the proposed modification can be found at the following websites:

1. The Santa Cruz Mid-County Groundwater Basin

www.midcountygroundwater.org/soquel-aptos-basin-area/basin-boundary-modification-process

2. The Santa Margarita Groundwater Basin in the Scotts Valley/Ben Lomond/Boulder Creek Area

<http://svwd.org/about-district/news/draft-report-santa-margarita-groundwater-basin-revision-request>

Please feel free to contact me or Sierra Ryan (454-3133) if you have any questions.

Thank you.

John Ricker

Water Resources Division Director

County of Santa Cruz

831-454-2750



Date: December 14, 2015

To: Water Systems in Basins Affected by Proposed Boundary Modifications

From: John Ricker, Santa Cruz County Water Resources Division Director

Subject: Definition of Groundwater Basins for Management under the California Sustainable Groundwater Management Act

The County of Santa Cruz and local water agencies are working together to implement California's Sustainable Groundwater Management Act of 2014 (SGMA), which is aimed at strengthening local control and management of groundwater basins throughout the state. The California Department of Water Resources (DWR) has defined the boundaries for groundwater basins that require management under SGMA, but provides an opportunity for local agencies to request modification of those boundaries to better reflect current geologic understanding and local approach to management. The process requires notification and consultation with water systems that are located within the boundaries of basins that are affected by the boundary modification. Your system is being contacted because you are located in one or more of the basins that is proposed for modification.

Two basin modification requests are being proposed in Santa Cruz County and are shown on the attached map(s). The attached table lists water systems and indicates which basin(s) each water system is in before and after the proposed boundary modifications. Additional information about the proposed basin boundary revision, along with the draft report detailing the justification for the boundary revision, can be found at the indicated websites. Additional information about rules regulating public and local input as well as links to information from DWR on the basin boundary modification process are also provided on the websites.

1. The Santa Cruz Mid-County Groundwater Basin

www.midcountygroundwater.org/soquel-aptos-basin-area/basin-boundary-modification-process

2. The Santa Margarita Groundwater Basin in the Scotts Valley/Ben Lomond/Boulder Creek Area

<http://svwd.org/about-district/news/draft-report-santa-margarita-groundwater-basin-revision-request>

If your system elects to support or oppose the proposed boundary modification, please provide one of the following:

- A copy of a resolution formally adopted by the decision making body of the affected system
- A letter signed by an executive officer or other official with appropriate delegated authority who represents the affected system. An example letter of support is attached.

Resolutions or letters of support or opposition for the proposed boundary modifications and other comments or questions should be provided to Ms. Sierra Ryan at:

Ms. Sierra Ryan, Water Resources Planner

701 Ocean Street Room 312

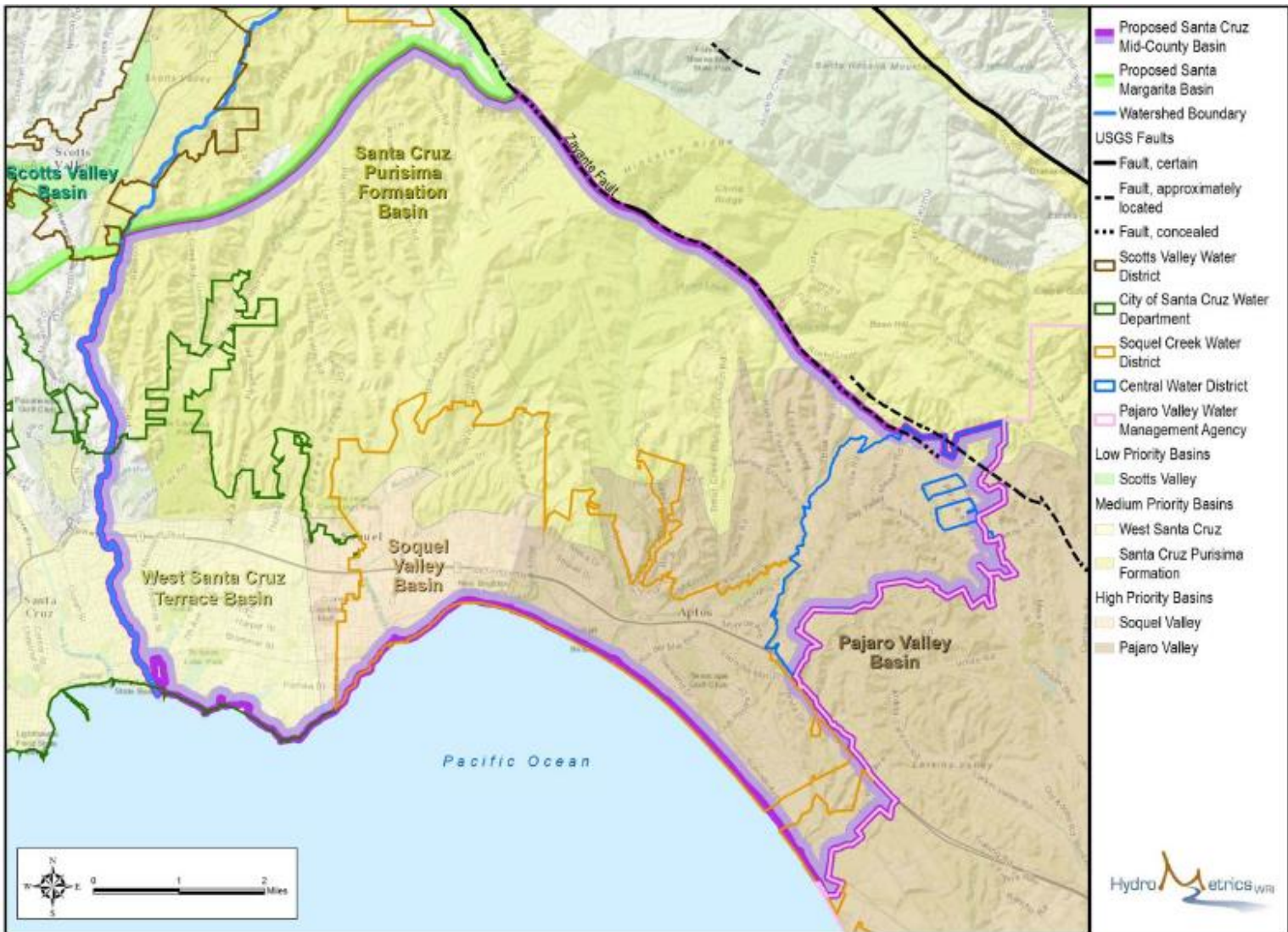
Santa Cruz, CA 95060

(831)454-3133 Sierra.ryan@santacruzcounty.us

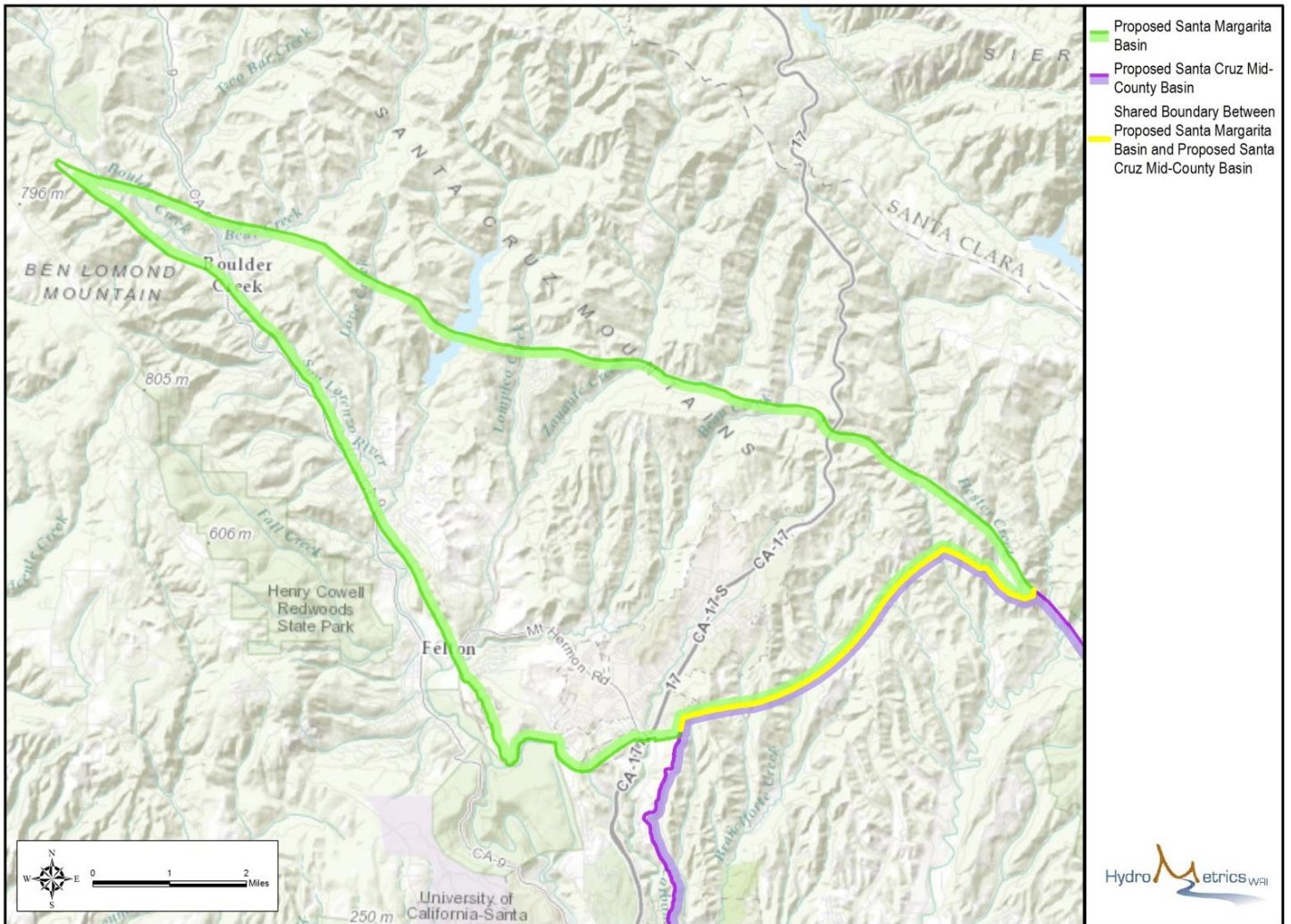
All comments, resolutions and letters of support and opposition, and supporting documents will be provided to DWR with the modification request. Response to comments and any evidence that the local agencies believes rebuts opposition to the proposed modification will also be provided to DWR.

Please provide any input by January 11, 2016. Thank you.

Proposed Santa Cruz Mid-County Groundwater Basin



Proposed Santa Margarita Groundwater Basin



System Name	Current Associated Basin(s)	Associated Basin(s) Following Proposed Modifications	Mid-County Basin		Santa Margarita Basin	
			Within Basin Boundary (Affected)	Outside Basin Boundary (Not Affected)	Within Basin Boundary (Affected)	Outside Basin Boundary (Not Affected)
Allan Lane Water Assoc.	Santa Cruz Purisima, Pajaro Valley	Santa Cruz Purisima, Pajaro Valley		X		X
Aptos High School	Pajaro Valley	Pajaro Valley		X		
Aptos Hills MWC	Pajaro Valley	Pajaro Valley		X		
Aptos Ridge MWC	Pajaro Valley	Pajaro Valley		X		
Big Redwood Park	Santa Cruz Purisima	Santa Cruz Purisima		X		X
Bluff Residents	Soquel Valley	Santa Cruz Mid-County	X			
Boulder Creek Scout Reserve						X
Bracken Brae Country Club						X
Buena Vista Migrant Center	Pajaro Valley	Pajaro Valley		X		
Cabrillo College	Pajaro Valley, Soquel Valley, Santa Cruz Purisima	Santa Cruz Mid-County	X			X
Calabasas Road	Pajaro Valley	Pajaro Valley		X		
Camp St. Francis	Pajaro Valley	Santa Cruz Mid-County	X			
Cassin Ranch	Pajaro Valley	Pajaro Valley		X		
Cathedral Hills MWC	Santa Cruz Purisima	Santa Cruz Mid-County	X			X
Cathedral Wood MWC	Santa Cruz Purisima	Santa Cruz Purisima		X		X
Central Water District	Pajaro Valley, Santa Cruz Purisima Formation	Santa Cruz Mid-County	X			X
City of Santa Cruz Water Department	Soquel Valley, Santa Cruz Purisima Formation, West Santa Cruz Terrace	Santa Cruz Mid-County, West Santa Cruz Terrace	X			X
City of Watsonville Public Utilities	Santa Cruz Purisima, Pajaro Valley	Pajaro Valley		X		X
Corralitos Springs	Santa Cruz Purisima	Santa Cruz Purisima		X		X
County Fairgrounds	Pajaro Valley	Pajaro Valley		X		

System Name	Current Associated Basin(s)	Associated Basin(s) Following Proposed Modifications	Mid-County Basin		Santa Margarita Basin	
			Within Basin Boundary (Affected)	Outside Basin Boundary (Not Affected)	Within Basin Boundary (Affected)	Outside Basin Boundary (Not Affected)
Crestwood Heights Water Co.	Pajaro Valley	Pajaro Valley		X		
East Bel Mar	Pajaro Valley	Pajaro Valley		X		
Emerald City	Pajaro Valley	Pajaro Valley		X		
Enchanted Valley	Santa Cruz Purisima	Santa Cruz Mid-County	X			X
Enos Lane	Santa Cruz Purisima	Santa Cruz Purisima		X		X
Fern Grove Club		Santa Margarita			X	
Fernbrook Woods		Santa Margarita			X	
Forest Springs						X
Freedom MWC	Pajaro Valley	Pajaro Valley		X		
Gizdich Ranch	Pajaro Valley	Pajaro Valley		X		
Hidden Falls Girl Scout Camp	Santa Cruz Purisima	Santa Margarita, Santa Cruz Mid-County	X		X	
Hidden Meadow		Santa Margarita			X	
Hughes Road	Pajaro Valley	Pajaro Valley		X		
Jardines Del Valle	Pajaro Valley	Pajaro Valley		X		
Jarvis Mutual Water Co.	Santa Cruz Purisima	Santa Margarita		X	X	
JB Ranch						X
Karl's Dell		Santa Margarita			X	
Kennolyn Camp	Santa Cruz Purisima	Santa Cruz Mid-County	X			X
Kitayama Brothers	Pajaro Valley	Pajaro Valley		X		
Koinonia Conference Grounds	Santa Cruz Purisima	Santa Cruz Purisima		X		X
Lagunita MWC	Santa Cruz Purisima	Santa Cruz Mid-County	X			X
Lakeview Apartments	Pajaro Valley	Pajaro Valley		X		
Land Of Medicine Buddha	Santa Cruz Purisima	Santa Cruz Mid-County	X			X
Larkin Ridge MWC	Pajaro Valley	Pajaro Valley		X		

System Name	Current Associated Basin(s)	Associated Basin(s) Following Proposed Modifications	Mid-County Basin		Santa Margarita Basin	
			Within Basin Boundary (Affected)	Outside Basin Boundary (Not Affected)	Within Basin Boundary (Affected)	Outside Basin Boundary (Not Affected)
Las Colinas Road and Water Assoc.	Santa Cruz Purisima, Pajaro Valley	Santa Cruz Purisima, Pajaro Valley		X		X
Laurel Glen MWC	Santa Cruz Purisima	Santa Cruz Mid-County	X			X
Loma Alta MWC	Santa Cruz Purisima	Santa Cruz Mid-County	X			X
Lompico County Water District		Santa Margarita			X	
Love Creek Heights		Santa Margarita			X	
Manana Woods		Santa Margarita			X	
Meadowridge	Santa Cruz Purisima, Pajaro Valley	Santa Cruz Purisima, Pajaro Valley		X		X
Milky Way MWC	Pajaro Valley	Pajaro Valley		X		
Mission Springs Conference		Santa Margarita			X	
Monte Vista Christian School	Pajaro Valley	Pajaro Valley		X		
Monterey Bay Academy	Pajaro Valley	Pajaro Valley		X		
Moon Meadows		Santa Margarita			X	
Mount Hermon Association, Inc		Santa Margarita			X	
Mountain Elementary School	Santa Cruz Purisima	Santa Cruz Mid-County	X			X
Mystery Spot	Santa Cruz Purisima	Santa Cruz Mid-County	X			X
Pajaro Valley Water Management Agency	Pajaro Valley, Santa Cruz Purisima	Pajaro Valley		X		X
Pine Tree Lane MWC	Pajaro Valley, Soquel Valley	Santa Cruz Mid-County	X			
PureSource Water Inc.	Santa Cruz Purisima	Santa Cruz Mid-County	X			X
Purisima MWC	Santa Cruz Purisima	Santa Margarita		X	X	
Quail Hollow Circle		Santa Margarita			X	

System Name	Current Associated Basin(s)	Associated Basin(s) Following Proposed Modifications	Mid-County Basin		Santa Margarita Basin	
			Within Basin Boundary (Affected)	Outside Basin Boundary (Not Affected)	Within Basin Boundary (Affected)	Outside Basin Boundary (Not Affected)
R&A Farms	Pajaro Valley	Pajaro Valley		X		
Rancho Corralitos	Pajaro Valley	Pajaro Valley		X		
Rancho San Andreas	Pajaro Valley	Pajaro Valley		X		
Rancho Soquel Water System	Santa Cruz Purisima	Santa Cruz Mid-County	X			X
Renaissance High School	Pajaro Valley	Pajaro Valley		X		
Roaring Camp	Felton Basin	Felton Basin				X
Salsipuedes Elementary	Pajaro Valley	Pajaro Valley		X		
San Andreas MWC	Pajaro Valley	Pajaro Valley		X		
San Lorenzo Valley Water District	Felton Basin, Scotts Valley	Santa Margarita			X	
Santa Cruz KOA	Pajaro Valley	Pajaro Valley		X		
Scotts Valley Water District	Scotts Valley, Santa Cruz Purisima	Santa Margarita	X		X	
Seventh Day Adventist	Santa Cruz Purisima	Santa Cruz Mid-County	X			X
Sheriff's Rehab	Pajaro Valley	Pajaro Valley		X		
Smith Road	Santa Cruz Purisima	Santa Cruz Purisima		X		X
Soquel Creek Water District	Soquel Valley, Santa Cruz Purisima, Pajaro Valley	Santa Cruz Mid-County, Santa Margarita	X		X	
Spring Valley Water Assoc.	Pajaro Valley	Pajaro Valley		X		
Springbrook Park MWC	Santa Cruz Purisima	Santa Cruz Purisima		X		X
St. Francis Tract Water System	Pajaro Valley	Pajaro Valley		X		
Summit West	Santa Cruz Purisima	Santa Cruz Purisima		X		X
Sun and Shadow		Santa Cruz Mid-County	X			
Sunny Acres MWC		Santa Cruz Mid-County	X			
Sunset Beach	Pajaro Valley	Pajaro Valley		X		

System Name	Current Associated Basin(s)	Associated Basin(s) Following Proposed Modifications	Mid-County Basin		Santa Margarita Basin	
			Within Basin Boundary (Affected)	Outside Basin Boundary (Not Affected)	Within Basin Boundary (Affected)	Outside Basin Boundary (Not Affected)
Trout Gulch	Santa Cruz Purisima, Pajaro Valley	Santa Cruz Mid-County	X			X
Vajrayana Foundation	Santa Cruz Purisima	Santa Cruz Purisima		X		X
Villa Glen	Santa Cruz Purisima	Santa Cruz Purisima		X		X
Vista Oaks	Santa Cruz Purisima	Santa Cruz Purisima		X		X
Vista Robles		Santa Margarita			X	
White Calabasas MWC	Pajaro Valley	Pajaro Valley		X		
Whiting Road	Pajaro Valley	Pajaro Valley		X		
Woodside	Pajaro Valley	Pajaro Valley		X		
Zayante Acres		Santa Margarita			X	
Zelbar	Santa Cruz Purisima	Santa Cruz Purisima		X		X

Ms. Sierra Ryan, Water Resources Planner
701 Ocean Street Room 312
Santa Cruz, CA 95060

Sierra.ryan@santacruzcounty.us

Subject: Comment on Proposed Basin Boundary Modification for the Santa Cruz Mid-County Groundwater Basin and/or the Santa Margarita Groundwater Basin {choose one or both}

Dear Ms. Ryan:

We have received the notice of the proposed request for a groundwater basin boundary modification to the California Department of Water Resources (DWR) as part of implementation of the Sustainable Groundwater Management Act. Our public water system, {system name here}, has a service area or water source that is included in one of the affected basins.

We agree the proposed basin boundaries reflect the shared groundwater resource and hydrology of the basins. The proposed boundaries represent the appropriate area to manage for sustainability of our groundwater supply. Therefore, our system has elected to support the proposed boundary modification.

As our system's {position here}, I have the appropriate delegated authority to represent our system and sign this letter of support. Please continue to inform us on how to participate in groundwater management activities for the proposed basin(s).

Sincerely,

Name
Position, System

January 9, 2016

Mr. John Leopold

First District Supervisor

Board of Supervisors

County of Santa Cruz

701 Ocean St

Santa Cruz, CA 95060

Dear Mr. Leopold:

As one of your constituents and on behalf of the Purisima Mutual Water Company, I request you do all in your power to reject adoption of the two resolutions on endorsing the boundary modification for the Mid-County (Soquel-Aptos) and Santa Margarita (Scotts Valley) groundwater basins.

In a letter to Mr. John Ricker, Water Resources Division Director, on December 27th, our small water company expressed our rejection of the proposed northern

boundary change of the Santa Cruz Purisima Formation Basin and the eastern boundary change of the Scotts Valley Basin. We provided supporting documentation. The proposed boundary change, in our opinion, is not scientifically justified and would produce a management nightmare. A copy of the Ricker letter, including the rationale for our objection, is attached.

Thank you for your assistance,

Tom Sak

Treasurer, Purisima Mutual Water Co, Inc

575 Rider Ridge Rd

Santa Cruz, CA 95065

831.457.0120

Attachment: Letter to John Ricker, December 27, 2015

Copy: Mr. Greg Caput, Mr. Ryan Coonerty, Mr. Zach Friend, Mr. Bruce McPherson

From: John Ricker [mailto:John.Ricker@santacruzcounty.us]
Sent: Monday, January 11, 2016 10:35 PM
To: Cameron Tana; Piret Harmon; 'Ron Duncan'; Rosemary Menard; Christine Burnett; Brian Lee (BLee@slvwd.com)
Cc: Derrik Williams; Sean Culkin; Nick Byler; Sierra Ryan; Matt Orbach
Subject: RE: Purisima MWC comment on basin boundaries

John Leopold spoke with the Purisima Water representative by phone. Gary Greene may be at the Board meeting tomorrow and I will try to speak with him. The geo-hydrologic report he prepared in 1975 acknowledges that the Purisma is underlain by Santa Margarita/Lompico and that the Purisima MWC well may bottom out in the underlying sandy unit. However, his cross-section does not show the Lompico/Tsm dipping toward Scotts Valley.

I will send you a screen print of the Jarvis and Purisima well locations tomorrow.

John Ricker
Water Resources Division Director
Santa Cruz County Environmental Health Services
831-454-2750
<http://scceh.com/Home/Programs/WaterResources.aspx>

From: John Ricker [mailto:John.Ricker@santacruzcounty.us]
Sent: Tuesday, January 12, 2016 10:40 AM
To: Cameron Tana; Piret Harmon; 'Ron Duncan'; Rosemary Menard; Christine Burnett; Brian Lee (BLee@slvwd.com)
Cc: Derrik Williams; Sean Culkin; Nick Byler; Sierra Ryan; Matt Orbach
Subject: RE: Purisima MWC comment on basin boundaries

The County Board today adopted both resolutions in support of the basin boundary modifications and the draft JPA for mid-county. Gary Greene, the retired USGS coastal geologist who lives in Purisima Mutual Water Company got up to reiterate the points made in their letter. Both the Board members and I indicated to him that he should make his comments at the SAGMC meeting and potentially at the Scotts Valley Water District meeting this Thursday. He is fully prepared to do that and wondered if he should prepare a power point presentation. I told him I would get back to him after discussing with our group. The Purisima folks feel very strongly that should be in mid-county from both a technical and a jurisdictional perspective, and I believe will continue to make that argument, probably going to the state if we do not respond locally.

From: John Ricker [mailto:John.Ricker@santacruzcounty.us]
Sent: Tuesday, January 12, 2016 10:32 PM
To: Derrick Williams; Cameron Tana; Piret Harmon; 'Ron Duncan'; Rosemary Menard; Christine Burnett; Brian Lee (BLee@slvwd.com)
Cc: Sean Culkin; Nick Byler; Sierra Ryan; Matt Orbach
Subject: RE: Purisima MWC comment on basin boundaries

Garry Greene is a registered geologist who has retired from USGS and Moss Landing Marine Lab. He helped form the Purisima MWC and has lived up there since 1969. He has walked the area, knows the outcrops, and feels he is very familiar with the local geology. He has discussed local and regional geology with Earl Brabb, Joe Clarke and Ken Muir. In short he is very convinced that he is and has always been a part of the Soquel-Aptos groundwater basin. They named their water system after the Purisima formation. He feels strongly that the formations dip to the southeast where he is and that groundwater their well draws from flows toward the main Soquel-Aptos basin. He is not convinced that the gravity info or the schematic of the granitic ridge is completely accurate as he is familiar with the type of data those sorts of things are based on. He also thinks that historically Scotts Valley has not done a great job managing the Santa Margarita Basin and does not want to be a part of that basin. I have raised a number of counter points for him to consider, but he is pretty firm in his position and the rest of the Purisima water company folks defer to Gary.

John Ricker
Water Resources Division Director
Santa Cruz County Environmental Health Services
831-454-2750
<http://scceh.com/Home/Programs/WaterResources.aspx>

From: Cameron Tana
Sent: Wednesday, December 16, 2015 2:15 PM
To: 'Ron Duncan'
Cc: Nick Byler
Subject: RE: boundary map questions

Hi Ron,

That's great the resolutions were passed. Regarding the questions.

1. We are not seeing that bump in our GIS file of the boundary. Perhaps you are using an older version. However, we have had to revise the boundary because the map we were using for PVWMA did not match the GIS file that PVWMA uses and we have now obtained. We'll be sending this along to Carol shortly. Still, it should be noted that no two GIS files define the coastline the same. We decided to just use the coastline boundaries of the existing basins. In the Aptos area, this seems to exclude the beach and is inside your District boundary. This can still be adjusted to something else, perhaps the County boundary.
2. Those part of SqCWD service areas are in PVWMA and therefore will be in PVWMA's GSA as PVWMA is named as the exclusive GSA for the area. So you are definitely a stakeholder for PVWMA's GSA. However, you don't have any production wells within PVWMA and therefore won't be subject PVWMA's groundwater regulation as a pumper.

Please let me know if you have any follow-up questions.

--

Cameron Tana, P.E.
Vice President
HydroMetrics Water Resources Inc

1814 Franklin Street, Suite 501
Oakland, CA 94612
Phone: (510) 903-0458 x302
<http://www.HydroMetricsWRI.com>

From: Ron Duncan [<mailto:RonD@soquelcreekwater.org>]
Sent: Wednesday, December 16, 2015 9:22 AM
To: Cameron Tana
Subject: boundary map questions

Hi Cameron,

Our Board passed both the resolutions last night for the GSA boundary adjustments (for us and the SM basin).

However two questions arose about our map shown below.

No. 1 – what is the little bump in the map at the coast line about?

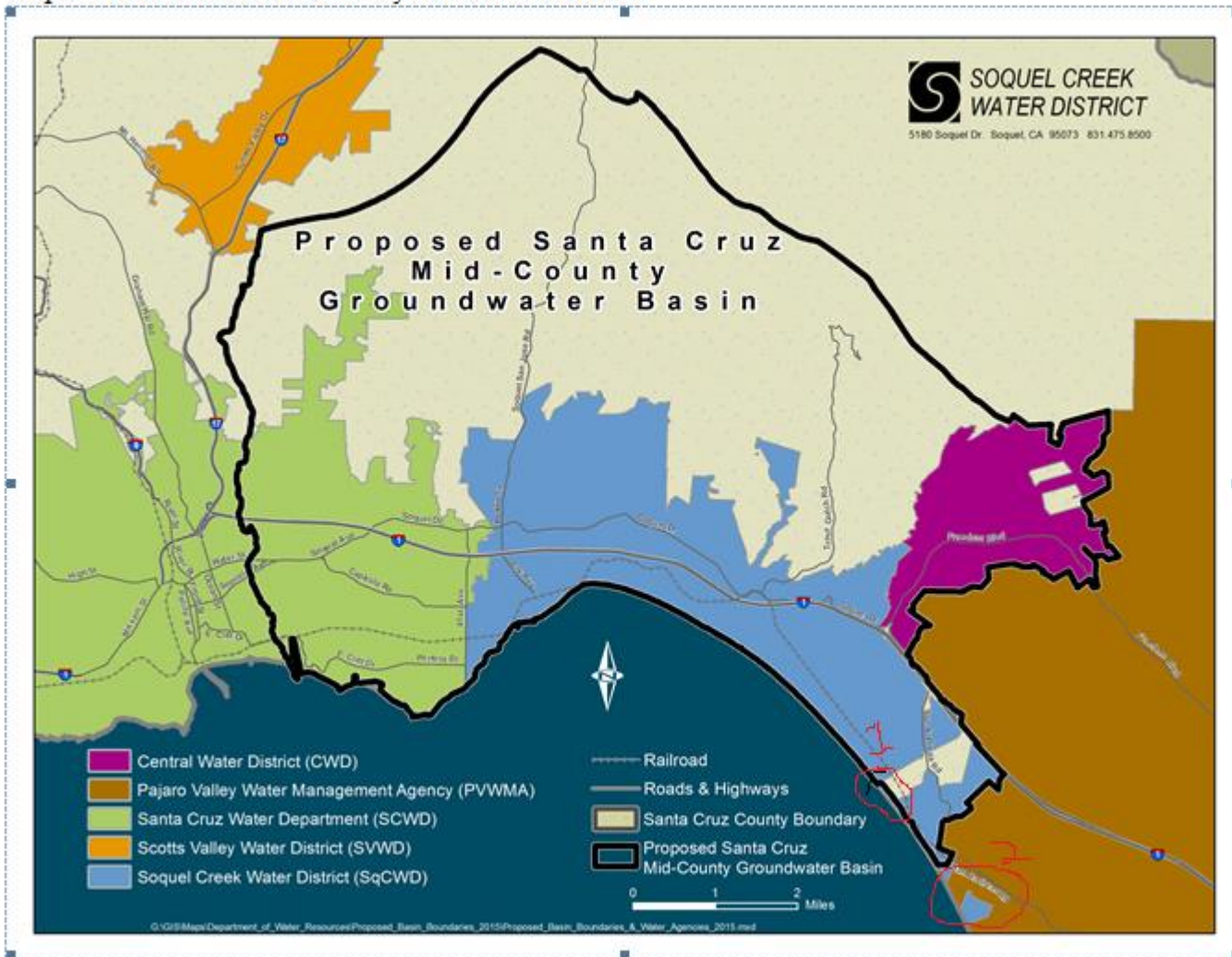
No. 2 How are we dealing with the part of service area outside our basin?

They noted they wanted SqCWD to be stakeholders for the GSAs for the SM basin and even PVWMA. Should I contact each of agencies and just ask them to put us on their lists.

Thanks – note I will be on vaca until Dec. 25.

Take care and wishing you good holidays a great new year.

Proposed Santa Cruz Mid-County Groundwater Basin



Ron Duncan
Interim General Manager
Soquel Creek Water District
5180 Soquel Dr.
Mail to: P.O. Box 1550 Capitola, CA [95010](http://www.socred.org)
Tel: [\(831\) 475-8501](tel:8314758501), Ext. 144
Cell: (831) 419-3506
Email: rond@soquelcreekwater.org
www.soquelcreekwater.org

APPENDIX E
Public Meeting Agendas and Minutes

Please refer to the following URL

<http://www.midcountygroundwater.org/committee-meetings>

APPENDIX F
Comments and Response-to-Comments

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COMMENT 1 (BRUCE KORB)

-----Original Message-----

From: Bruce Korb [mailto:bruce.korb@gmail.com]

Sent: Tuesday, December 08, 2015 11:59 AM

To: MattO@soquelcreekwater.org

Subject: Wrong Basin Boundaries

Dear Matt,

I live downstream from and draw water from the Santa Margarita Aquifer. I do not live within its boundaries, but that is really my aquifer.

When, immediately upstream from me, Borland started pumping, my water level dropped precipitously. They were within that designated aquifer, but I am not.

Given that I am really in that aquifer and not within the Soquel aquifer, it would seem appropriate to designate terrain downstream from Santa Margarita to be within the domain of that aquifer, rather than lump us into an unrelated aquifer just because it is bureaucratically convenient.

We need to either say the ridge to the coast is one big sponge, or else divide it up based on water flow. Saying Scotts Valley is in Santa Margarita and folks directly downstream are in a different aquifer is, to be blunt, dumb.

Thank you. Regards, Bruce

RESPONSE TO COMMENT 1

The proposed Santa Margarita Basin is based on the series of stacked aquifers that provide most of the groundwater supply for Scotts Valley Water District and its partners on the Santa Margarita Basin Groundwater Management Committee. Therefore, the proposed Santa Margarita Basin boundaries are based on the estimated extent of the Lompico and Butano Sandstones. The best estimate of the extent of these aquifers is the granitic high to the north of the commenter's property (Figure F - 1).

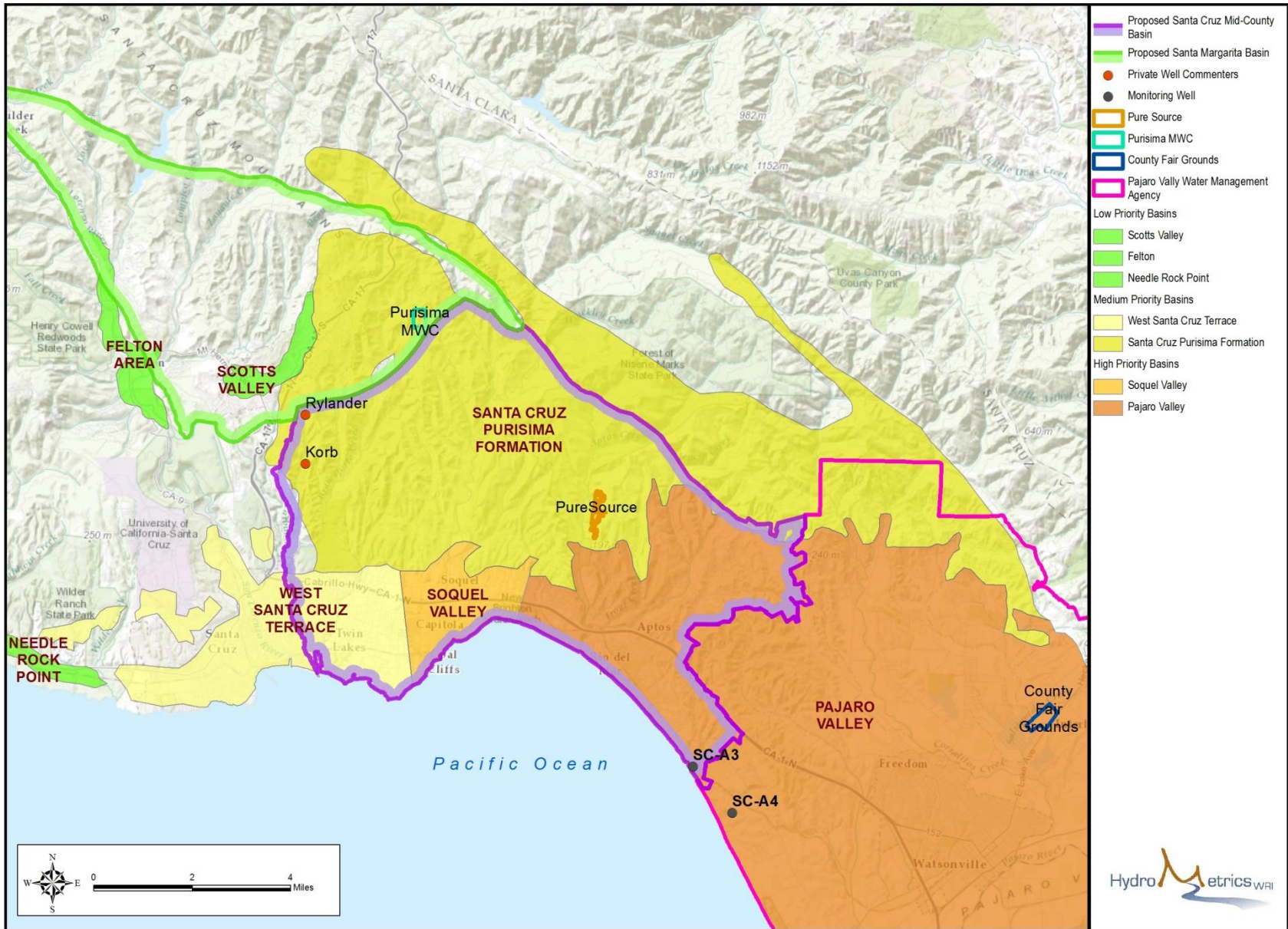


Figure F - 1: Relevant Locations for Comments and Responses to Draft Basin Boundary Modifications

There is pumping in the Scotts Valley area from the Santa Margarita Formation overlying the Lompico and Butano Sandstones and we acknowledge that the Santa Margarita Formation may extend beyond the proposed boundary of the Santa Margarita Basin. However, the extent of the Santa Margarita Formation to the south is not well defined. For example, U.S. Geological Survey maps (Brabb et al., 1997) define the surface geology for the area of the commenter's property as Purisima Formation, but other reports (Johnson et al., 2004) associate the Tu unit underlying the Purisima Formation observed in the Live Oak and Soquel areas with the Santa Margarita Formation. Either way, the stacked aquifer units of the Purisima Formation and underlying Tu unit define the proposed Santa Cruz Mid-County Basin as those stacked aquifer units provide groundwater supply to City of Santa Cruz and Soquel Creek Water District.

Issues related to pumping in the Santa Margarita Formation in the Scotts Valley area that affects groundwater conditions in the proposed Santa Cruz Mid-County Basin can be addressed by an inter-basin coordination agreement that will be required for the Groundwater Sustainability Plans for the two basins.

COMMENT 2 (DOUG DEITCH)

-----Original Message-----

From: Douglas Deitch [mailto:ddeitch@got.net]

Sent: Wednesday, December 09, 2015 7:23 AM

To: Bruce-Daniels; John Ricker; Zach Friend; Bruce McPherson; John Leopold; Ryan Coonerty; Greg Caput; citycouncil@cityofsantacruz.com; karenR@soquelcreekwater.org; melanies@soquelcreekwater.org;

cmathews@cityofsantacruz.com; mposner@cityofsantacruz.com; Ddeitch

Subject: Comments for Thursday GSA meeting December 10, 2015

Hi Micah Posner ,

https://www.facebook.com/permalink.php?story_fbid=939762522738785&id=100001151386333)

I heard you at the city council meeting soliciting for comments for the new GSA being formed. So, here are some for you ... images at facebook link

https://www.facebook.com/permalink.php?story_fbid=939762522738785&id=100001151386333)

Here are my first comments for your GSA meeting Thursday which I can't attend. Please present them and forward them to all members of GSA for me have the GSA please confirm with me that his has been accomplished. I appreciate this very much. (Also, please return my umbrella I lent you in that rainstorm/squall I rescued you w/ your daughter from a few months back, Kid, too? tx, dd)

1. Boundary adjustments and unrepresented PVWMA GSA stakeholders: The current boundary adjustments being proposed are inadequate and insufficient. Please review this map charting ground water degradation and salt water intrusion from 2011-13 to appreciate the interface between PVWMA and SqCWD at their boundary on San Andreas Road

(
<https://www.facebook.com/MontereyBayConservancy/photos/pb.177055962316509.-2207520000.1449672857./948594631829301/?type=3&theater>,
<https://www.facebook.com/MontereyBayConservancy/photos/pb.177055962316509.-2207520000.1449672857./948594748495956/?type=3&theater>,
<https://www.facebook.com/MontereyBayConservancy/photos/pb.177055962316509.-2207520000.1449672857./948595021829262/?type=3&theater>)
(<https://www.facebook.com/MontereyBayConservancy/photos/a.392629640759139.87659.177055962316509/951749101513854/?type=3&theater>).

A 2013-15 map would show increased degradation since pumping has escalated substantially because of the drought.

(
<https://www.facebook.com/MontereyBayConservancy/photos/pb.177055962316509.-2207520000.1449672857./948595285162569/?type=3&theater>)

The charted salt water intrusion on this map stops at SqCWD boundary BUT THE ACTUAL SALT WATER INTRUSION DOES NOT!

This San Andreas Road area in PVWMA needs to be included in a joint jurisdictional area between all stakeholders PVWMA, SqCWD, County of Santa Cruz, City of Watsonville, which is not now the case.

Additionally, it is my understanding that NEW first time deep water supply wells are being developed in Watsonville in the deep Purisima Formation, which comprises the majority of SqCWD's water (?).

If this is the case or not, in any event attention should be given to this new recent development in terms of proper and complete stakeholder representation in PVWMA (see article in California Water Blog, below) and Pajaro Basin with all stakeholders, County of Monterey, County of Santa Cruz, Watsonville, SqCWD, private well owners in PVWMA, PVWMA and ? must be properly and fairly represented AND now they are not.

This, as Dr. Frank mentions below, is how to address the water wolves in our water hen house.

2. Irrespective of GSA, here is what DWR Czar Mark Cowin has most recently advised us is most IMPORTANT to do

...

<https://www.facebook.com/MontereyBayConservancy/photos/a.392629640759139.87659.177055962316509/1028178490537581/?type=3&theater>

DWR Czar Mark Cowin quoted from this article, 8/19/2015 :

"The most important thing that can happen is for counties to pass or strengthen ordinances that limit over-pumping," California Department of Water Resources director Mark Cowin, said at a Wednesday morning press conference releasing the new data, collected by the National Aeronautics and Space Administration.

"It will take that kind of action to have any real effect.

Last year, the state created a framework to regulate groundwater — the first time in state history — but it won't be fully implemented until 2020. And then it will take a decade or two for water levels to rebound, Cowin said."

<http://www.santacruzsentinel.com/general-news/20150819/central-valley-locales-sinking-2-inches-a-month-as-groundwater-is-drained/1>

... BUT what are we and our county supervisors, water districts, city councils, etc., et al here in the Monterey Bay and Santa Cruz County "doing" (or not doing?) instead for the last 30 plus years –

<https://www.facebook.com/MontereyBayConservancy/photos/a.392629640759139.87659.177055962316509/1028724980482932/?type=3&theater>

This ... <http://www.metrosantacruz.com/metro-santa-cruz/09.23.09/news4-0938.html> ?

The GSA must IMMEDIATELY advocate to our supervisors that they start supervising, following our local laws and LCPs, and their oaths to do precisely this ...

AND AT THE MINIMUM, conduct a Public Hearing under our County Well Ordinance to consider declaration of a county wide ground water emergency

(
<https://www.facebook.com/MontereyBayConservancy/photos/pb.177055962316509.-2207520000.1449672866./943194802369284/?type=3&theater>),

as SqCWD has already requested that the BOS do well over a year ago.

The situation is now officially seriously degraded over this year. Please see:

<https://www.facebook.com/MontereyBayConservancy/photos/a.215880731767365.54128.177055962316509/983979478290816/?type=3&theater>

... and even Gary Patton, who originally wrote and signed

(
<https://www.facebook.com/MontereyBayConservancy/photos/pb.177055962316509.-2207520000.1449672866./943204325701665/?type=3&theater>)

the Well Ordinance in 1987 (www.pogonip.org/ord.htm ,
www.pogonip.org/alm.htm)

... seems to now agree:

<https://www.facebook.com/MontereyBayConservancy/photos/pb.177055962316509.-2207520000.1449672866./943298669025564/?type=3&theater>

TO REPEAT AGAIN ...

AS DWR CZAR HAS MOST RECENTLY TOLD US ...

DESPITE ANY GSA ...

"It will take that kind of action to have any real effect."

Respectfully submitted,

Douglas Deitch

Hudson Lane, Aptos, 95003

831.476.7662

RESPONSE TO COMMENT 2 #1

Email from Bruce Daniels, President of Soquel Creek Water District, member agency of Soquel-Aptos Groundwater Management Agreement, December 9, 2015

-----Original Message-----

From: Bruce Daniels [<mailto:Bruce.Daniels@alum.MIT.edu>]

Sent: Wednesday, December 09, 2015 2:46 PM

To: Douglas Deitch; mposner@cityofsantacruz.com

Cc: John Ricker; Zach Friend; John Leopold; Greg Caput

Subject: Re: Comments for Thursday GSA meeting December 10, 2015

Doug,

Some impressions:

On 12/9/15 7:23 AM, Douglas Deitch wrote:

> The charted salt water intrusion on this map stops at SqCWD boundary

> BUT THE ACTUAL SALT WATER INTRUSION DOES NOT!

True, a well known and publicly documented fact.

>

> This San Andreas Road area in PVWMA needs to be included in a joint

> jurisdictional area between all stakeholders PVWMA, SqCWD, County of

> Santa Cruz, City of Watsonville, which is not now the case.

This is impossible - GSAs are required by the state law to never overlap. If they have any overlap, then the DWR must by law reject them as GSAs.

>

> Additionally, it is my understanding that NEW first time deep water

> supply wells are being developed in Watsonville in the deep Purisima

> Formation, which comprises the majority of SqCWD's water (?) .

Yes, most of SqCWD's water and all of the City's Beltz wells pumped water and possibly all of Central's water too. The District may end up as the only agency here to utilize Aromas as drinking water since we have invested in Chrome 6 removal technology and are the first in the state to be approved to use it.

>

> If this is the case or not, in any event attention should be given to

> this new recent development in terms of proper and complete

> stakeholder representation in PVWMA (see article in California Water

> Blog, below) and Pajaro Basin with all stakeholders, County of

> Monterey, County of Santa Cruz, Watsonville, SqCWD, private well

> owners in PVWMA, PVWMA and ? must be properly and fairly represented

> AND now they are not.

Anyone can act as a stakeholder (fancy name for an observer) for any GSA(s). I am sure that we will be a stakeholder in PVWMA activities and they might well do the same to us.

> DWR Czar Mark Cowin quoted from this article, 8/19/2015 :

>

> "The most important thing that can happen is for counties to pass or

> strengthen ordinances that limit over-pumping," California Department

> of Water Resources director Mark Cowin, said at a Wednesday morning

> press conference releasing the new data, collected by the National

> Aeronautics and Space Administration. "It will take that kind of

> action to have any real effect.

It is really unclear what powers counties (or even the GSAs themselves) have to limit pumping. The SGMA law specifically says:

"Nothing in this part, or in any groundwater management plan adopted pursuant to this part, determines or alters surface water rights or groundwater rights under common law or any provision of law that determines or grants surface water rights."

This will keep lawyers fully employed for decades to come.

- thanks, Bruce Daniels

1. / Δ

RESPONSE TO COMMENT 2 #2

The response has been organized to respond to four points in the comment.

Point 2-1: Saltwater Intrusion crosses proposed basin boundary with Pajaro Valley Water Management Agency (PVWMA) and groundwater conditions continue to degrade.

SAGMC recognizes that long-term saltwater intrusion has been observed on both sides of the proposed boundary between the Santa Cruz Mid-County Basin and Pajaro Valley Basin and additional groundwater level recovery is required to prevent additional intrusion. However, data do not show increased degradation during the current drought. Groundwater levels have been stable over the drought period in coastal monitoring wells SC-A3 and SC-A4 on either side of the boundary (Figure F - 1). Salt concentrations have risen in one of the well intervals, but are declining or stabilizing in other wells (HydroMetrics WRI, quarterly report, 2016).

Point 2-2: There is potential for new pumping by City of Watsonville Pumping in the Purisima Formation, source of majority of Soquel Creek Water District's water supply

Potential Watsonville pumping in the Purisima Formation would likely be in the shallowest unit of the Purisima Formation (F unit), while the majority of Soquel Creek Water District's water supply (Service Areas I and II) are from deeper units of the Purisima Formation (AA, A, BC, and DEF units) well to the west of the basin boundary. The existing extent of the Pajaro Valley basin overlies some this pumping from the deeper Purisima Formation, while the proposed Santa Cruz Mid-County Basin better represents the stacked aquifers that provide water supply to the SAGMC member agencies and other pumpers. However, part of the proposed Santa Cruz Mid-County Basin does include Aromas Red Sands and Purisima F unit that provides supply to SAGMC member agencies and other pumpers; SAGMC recognizes the hydrogeologic connection with the Pajaro Valley Basin in these units across the basin boundary.

Point 2-3: Soquel Creek Water District and County of Santa Cruz need to be stakeholders for the San Andreas Road area within PVWMA

The Sustainable Groundwater Management Act gives PVWMA the exclusive right to be the GSA for its jurisdiction and PVWMA has decided to exercise that right. The proposed Santa Cruz Mid-County Basin includes a jurisdictional

modification based on PVWMA's boundary that will promote sustainable groundwater management by allowing a Groundwater Sustainability Agency (GSA) to manage a consolidated Mid-County Basin without the technical requirements for intrabasin coordination with PVWMA. For example, the technical requirements for intrabasin coordination could require a consistent model be used by GSAs within a basin. PVWMA's model does not extend to the current western boundary of the Pajaro Valley basin and the model funded by SAGMC will not extend to Monterey County. Such technical requirements are unnecessary, because many groundwater issues in the proposed Santa Cruz Mid-County basin can be addressed without coordination with PVWMA. However, there is hydrogeologic connection across the jurisdictional boundary and interbasin coordination with PVWMA will be required as part of the Groundwater Sustainability Plan (GSP) for the proposed Santa Cruz Mid-County Basin. Therefore, the neighboring GSAs should be considered stakeholders in each other's basin. Soquel Creek Water District will also be a stakeholder for the PVWMA GSA as it has service area jurisdiction within PVWMA's jurisdiction.

Point 2-4: Water agencies and the GSA needs to take action such as a county-wide groundwater emergency

This point is more relevant to GSA formation and GSP development than basin boundary modifications.

COMMENT 3 PART 1(BEN RYLANDER)

From: Ben Rylander [mailto:ben@bowmanandwilliams.com]
Sent: Thursday, December 10, 2015 12:12 PM
To: John Ricker <John.Ricker@santacruzcounty.us>
Cc: Sierra Ryan <Sierra.Ryan@santacruzcounty.us>
Subject: RE: Santa Cruz County Wells

Thanks. I am looking forward to getting more information on the recent boundary revision. My property now lies on the western Mid-County boundary line next to the eastern Santa Margarita line, so my neighbors and I are particularly concerned that we may be effected by issues that the SQWD and other municipalities are facing, though our water supply seems very much removed from theirs. I'm particularly interested in learning more about the, "gravity anomalies," described in the draft report by Hydrometrics. It is also worrisome that we may be required to meter our private wells, pay fees, and

have restricted water use when the majority of our small private SFR wells are very shallow and rely watershed supplies next to streams.

Ben Rylander, PE

Bowman & Williams Civil Engineers and Land Surveyors

1011 Cedar Street, Santa Cruz, CA 95060

(831)426-3560 x 22 voice

(831)426-9182 fax

Ben@bowmanandwilliams.com

www.bowmanandwilliams.com

RESPONSE TO COMMENT 3 (PART 1)

From: John Ricker

Sent: Thursday, December 10, 2015 3:09 PM

To: 'Ben Rylander' <ben@bowmanandwilliams.com>

Cc: Sierra Ryan <Sierra.Ryan@santacruzcounty.us>

Subject: RE: Santa Cruz County Wells

The map showing the slope of the underlying granite from your area toward Soquel Creek are shown in the technical report for the boundary modification:

http://www.midcountygroundwater.org/sites/default/files/uploads/DRAFT_boundaryrevisions_forlocalinput.pdf

and are pasted in below:

Metering is not required under the act for de minimis users, domestic uses under 2 acre-feet per year. Any charges if they ever occur would be based on impact on the groundwater overdraft. It may turn out that some areas may be determined to have minimal impact. The impact of pumping and the groundwater flow will be better determined through use of a groundwater model that is currently under development

John Ricker

Water Resources Division Director

County of Santa Cruz

831-454-2750

COMMENT 3 PART 2 (BEN RYLANDER)

From: Ben Rylander [<mailto:ben@bowmanandwilliams.com>]
Sent: Thursday, December 10, 2015 3:35 PM
To: John Ricker <John.Ricker@santacruzcounty.us>
Subject: RE: Santa Cruz County Wells

John,

My land is right at the 500' contour label at the NW corner of the Mid-County boundary, at the intersection of the granite ridge (green) and the watershed boundary (blue), so my property line is right at the edge of the two basins. You can see how the delineation of the basin could make a big difference in whatever regulations are decided. If the Santa Margarita Basin is low priority it could mean that my neighbors to the north and west might not need to follow the future rules that I may be subject to, yet in reality my neighbors and I are pumping from the same creek. I think delineation of low-impact subbasins could be very useful to start the process of treating these areas differently when it comes to regulate. See you tonight, and thanks for getting back to me.

Thanks,

Ben Rylander, PE

Bowman & Williams Civil Engineers and Land Surveyors

1011 Cedar Street, Santa Cruz, CA 95060

(831)426-3560 x 22 voice

(831)426-9182 fax

Ben@bowmanandwilliams.com

www.bowmanandwilliams.com

RESPONSE TO COMMENT 3 PART 2

As discussed in the response to Comment 1, the boundary between the proposed Santa Margarita and Santa Cruz Mid-County Groundwater Basin in this area was drawn per understanding and interpretation of the geologic structural boundary between the two basins in such a way that the deeper stacked aquifer units of the Santa Margarita Basin will be separated from the stacked aquifer units of the Purisima Formation and underlying Tu unit of the Santa Cruz Mid-County Groundwater Basin. That said, we acknowledge that some shallow or marginal areas of Santa Margarita Formation and/or Purisima Formation may extend across the shared basin boundary, and that local groundwater production may occur from these geologic units. The commenter's property in question is within an area (Figure F - 1) where geology is more indicative of the stacked aquifer

units of the proposed Santa Cruz Mid-County Groundwater Basin than the deeper aquifer units of the proposed Santa Margarita Basin.

With respect to the commenter's statement of pumping impact and requirements on private wells, County staff has stated position that requirements on private wells would be based on impact on groundwater overdraft. At request of County staff, the groundwater model under development is being set up for the capability make this evaluation. It is an integrated watershed-groundwater model that will simulate flow to streams versus recharge of deeper aquifer units. This evaluation would take place as part of a development of a Groundwater Sustainability Plan (GSP) for the proposed basin. The state Department of Water Resources has indicated that it prefers management of low impact areas to be addressed in the GSP as opposed to defining these areas with basin boundaries.

It also should be noted that the commenter's area is within the existing Santa Cruz Purisima Formation Basin, which is categorized as medium priority and requires a Groundwater Sustainability Agency (GSA) and GSP equivalent to a high priority basin. Eligible agencies for GSA of an unmodified Santa Cruz Purisima Formation Basin are City of Santa Cruz, Soquel Creek Water District, Central Water District, Scotts Valley Water District, and Santa Cruz County.

Also, although the Scotts Valley Basin, which is the precursor to the proposed Santa Margarita Basin, is designated low priority, this prioritization may change following adoption of the basin boundary modifications, and the Scotts Valley Water District, San Lorenzo Valley Water District, and Santa Cruz County plan to form a GSA to manage the basin regardless of reprioritization.

COMMENT 4 (SANTA CRUZ COUNTY FAIRGROUNDS)

From: dave@bestberrys.com [mailto:dave@bestberrys.com]

Sent: Monday, December 14, 2015 5:09 PM

To: John Ricker

Cc: Sierra Ryan; Piret Harmon; 'Matt Orbach'; Cameron Tana; John Hodges; Troy Boone; Mary Bannister

Subject: Re: Groundwater Basin Boundary Modifications

John, just to make sure - it looks like you have the fairgrounds outside of the proposed new basin.

I would assume that since we are in the PVWMA boundary that there is not some sort of proposal to create another overlapping agency.

Dave Kegebein - CEO
Santa Cruz County Fairgrounds

RESPONSE TO COMMENT 4

The Fairgrounds are not located in the proposed Santa Cruz Mid-County Basin and will continue to be located in the Pajaro Valley Basin (Figure F - 1). The commenter's assumption is correct; this is not a proposal to create an overlapping agency for the Pajaro Valley Basin as PVWMA has exclusive right to be GSA within its jurisdiction.

COMMENT 5 (PURISIMA MWC)

From: Tom Sak [mailto:tom.sak@pacbell.net]
Sent: Sunday, December 27, 2015 3:58 PM
To: Sierra Ryan <Sierra.Ryan@santacruzcounty.us>
Subject: Comment on Groundwater Basin Boundary Revision Requests

Sierra,

Following up on our conversation a few days ago, attached is our letter commenting on the proposed boundary between the proposed Santa Margarita basin and the Santa Cruz Mid-County basin and the inclusion of our small mutual water company in both.

I understand from our conversation that your office will receive and consider our comments and will also send copies to the Soquel-Aptos Groundwater Management Committee and the Scotts Valley Water District for their review.

Please confirm your receipt of this email and the attachment. You may use my email address as your requested point of contact regarding this matter.

We appreciate your assistance and look forward to understanding what action will be taken on our request.

Regards,

Tom
831 295-7617

Attached letter of opposition (4 pages) to John Ricker from Karl Hiltner, President, Purisima Mutual Water Company, December 27, 2015 follows.

January 9, 2016

Mr. John Leopold

First District Supervisor

Board of Supervisors

County of Santa Cruz

701 Ocean St

Santa Cruz, CA 95060

Dear Mr. Leopold:

As one of your constituents and on behalf of the Purisima Mutual Water Company, I request you do all in your power to reject adoption of the two resolutions on endorsing the boundary modification for the Mid-County (Soquel-Aptos) and Santa Margarita (Scotts Valley) groundwater basins.

In a letter to Mr. John Ricker, Water Resources Division Director, on December 27th, our small water company expressed our rejection of the proposed northern

boundary change of the Santa Cruz Purisima Formation Basin and the eastern boundary change of the Scotts Valley Basin. We provided supporting documentation. The proposed boundary change, in our opinion, is not scientifically justified and would produce a management nightmare. A copy of the Ricker letter, including the rationale for our objection, is attached.

Thank you for your assistance,

Tom Sak

Treasurer, Purisima Mutual Water Co, Inc

575 Rider Ridge Rd

Santa Cruz, CA 95065

831.457.0120

Attachment: Letter to John Ricker, December 27, 2015

Copy: Mr. Greg Caput, Mr. Ryan Coonerty, Mr. Zach Friend, Mr. Bruce McPherson

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Purisima Mutual Water Company
Rider Ridge Road, Santa Cruz, CA

December 27, 2015

Mr. John Ricker
Water Resources Division Director
County of Santa Cruz
701 Ocean St
Santa Cruz, CA 95060

via Email (sierra.ryan@santacruzcounty.us)

Dear Mr. Ricker:

In response to your e-mail of December 14, 2015, the Purisima Mutual Water Company reviewed the information made available to us for consideration and comment regarding the proposed modification of the water basin boundary in which we are located. Our understanding, based on your e-mail and the Sustainable Groundwater Management Act of 2014 (SGMA), is that local agencies are invited by the California Department of Water Resources (DWR) to request modifications of the DWR boundaries "to better reflect current geologic understanding and local approach to management." We, therefore, respond to, and reject the proposed northern boundary change of the Santa Cruz Purisima Formation Basin and the eastern boundary change of the Scotts Valley Basin.

Based upon our scientific review of both the Santa Cruz Mid-County Groundwater Basin Boundary Revision Request ("Mid-County report") (11/25/2015) and the Santa Margarita Groundwater Basin Boundary Revision Request ("Scotts Valley report") (December 2015), we found the geologic rationale for the boundary revision to be weak and lacking robust scientific evaluation. Although we found that an extensive amount of useful information was included in the reports, specific information such as data sample points, geologic attitudes (strike and dip), well locations, and proper explanations of figures were severely lacking, making comprehensive analyses of the cases for boundary adjustments put forth by the proponents difficult. Basically, the reason for requesting the boundary change is of concern to us is because it does not "hold water." It essentially splits off what should logically be the Santa Cruz Purisima Formation Basin and places part of this basin into the Scotts Valley Basin, which is geologically indefensible.

Following is our case for rejecting the boundary change:

First, a natural mapped geologic boundary exists between the older Miocene Santa Margarita Formation and the most contiguous part of the Pliocene Purisima Formation. This boundary lies basically along lower Jarvis Road in Blackburn Gulch with the Purisima located to the southeast of the road and Santa Margarita to the northwest (see attached modification of Figure 3 from the Scotts Valley report).

The structural rationale for including the Purisima Formation as part of the proposed new Santa Margarita Basin, and extension of the Scotts Valley basin (see Scotts Valley report) does not make geological sense as the Scotts Valley Syncline, which forms most of the Scotts Valley basin, pre-dates the deposition of the Purisima Formation.

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The Purisima Formation in the vicinity of the Purisima Mutual Water Company's well and service area dips SE off the basement high and probable anticlinorium shown in Figure 6 (cross-section) of the Scotts Valley report and not toward Scotts Valley. In the Scotts Valley report the author states that the Purisima caps the older Miocene strata in which the syncline has been mapped, indicating a distinct structural difference.

Second, if the gravity anomaly map (Figure 8 of the Scotts Valley report) were to be interpreted correctly one would see that the inclination for water transport would be toward Soquel and not toward Scotts Valley as inferred by the proponents. Gravity anomalies basically represent density and where granite basement rock is high, a higher anomaly would be shown. Where the anomaly is lower granite is deeper and buried under a thicker package of sedimentary rocks, most likely water bearing strata. Therefore, we interpret this anomaly map to indicate that water in the Purisima aquifer would flow towards the south, not toward the north.

Third, the top of granite map (Figure 11 in the Scotts Valley report) also shows that the surface of the granite dips toward Soquel (south) at the location of the Purisima Mutual Water Company's water well (not accurately located on any figures in the reports), although we suspect that the resolution of these contours is poor because of the lack of subsurface data points. Nevertheless, the Purisima Mutual Water Company's well is located in south dipping (~5° SW) Purisima Formation sandstone and there is no indication that subsurface water flow in the vicinity of the well flows towards the Scotts Valley Basin.

Fourth, the present Scotts Valley Basin boundary as shown in Figure 1 of the Mid-County report is the logical geological boundary between the Santa Margarita and Santa Cruz Purisima Formations. Shifting this boundary as proposed would not produce a "cohesive basin" as stated in the Scotts Valley report, but rather fragments the basins.

Fifth, the Soquel-Aptos Groundwater Plan Management Area shown in Figure 11 of the Mid-County report makes much more sense as a basin boundary than that proposed by Scotts Valley report. The smooth arc-like change shown for the proposed boundary adjustment makes no geological sense and leaves one wondering if the proposed shift is the result of a GIS effort with limited or no geological or hydrological input.

Sixth, the map showing recharge areas for the Mid-County basin (see Figure 5 of the Mid-County report) and topographic maps that can be used to map drainage basins indicate that both recharge and drainage in the Purisima Mutual Water Company area lie within the Santa Cruz Purisima Formation Basin. It makes no logical sense to separate drainage and recharge areas from one basin to another.

Seventh, to our knowledge the Purisima Mutual Water Company was never invited to participate in any of the Scotts Valley public meetings to discuss the potential of incorporating us into the Santa Margarita jurisdiction as is stated in the Scotts Valley report (page 34).

Finally, we believe that fragmenting a part of the Soquel-Aptos Groundwater basin and including it in the Scotts Valley basin would severely impact the management of the resources. For us in the Purisima Mutual Water Company, we envision being split between two management agencies and being pulled in two different directions in regard to our reporting and usage of the resource.

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The proposed boundary change, in our opinion, is not scientifically justified and would produce a management nightmare. We, therefore, encourage rejection of the proposed revision. In addition, there is potential difficulties in coordinating efforts between water agencies when a water resource basin, drainage divide, and recharge areas are fragmented as it would be in the proposed revision.

In conclusion, we believe that the shared boundary of the proposed Santa Cruz Mid-County Basin and the proposed Santa Margarita Basin should be revised as shown on the attached map and that the Purisima Mutual Water Company should be exclusively located in the proposed Santa Cruz Mid-County Basin.

We encourage you and your agency to seriously consider our rejection of the proposed groundwater basin boundary change. Our analysis of the two reports and the conclusions drawn were prepared by H. Gary Greene, a California State Registered Geologist (certification number 2669). Dr. Greene is prepared to provide an in-depth comprehensive critique of the reports, and of our conclusions and recommendations, if requested.

Thank you for your consideration.

Sincerely,

Handwritten signature of Karl Hiltner in black ink.

Karl Hiltner

President

Attachment: Map

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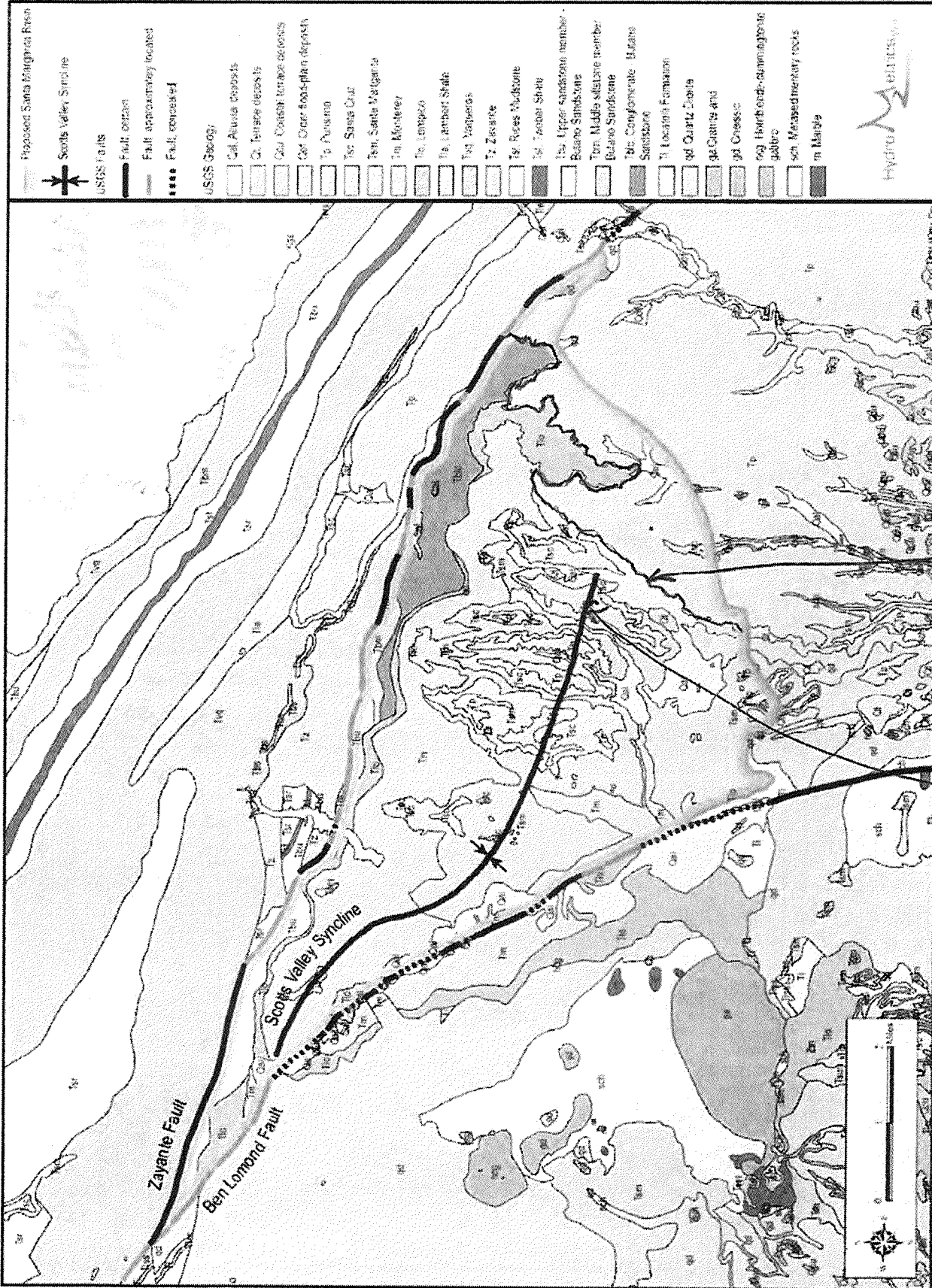


Figure 3: Santa Margarita Groundwater Basin Lateral Boundaries (geology from Brabb et al., 1997)

The scientific logical boundary

Syncline does not continue into TP

Santa Margarita Groundwater Basin Boundary Revision

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RESPONSE TO COMMENT 5

The comments in this letter of opposition refer to the area near the proposed shared boundary between the proposed Santa Margarita Groundwater Basin and the proposed Santa Cruz Mid-County Groundwater Basin. In general, the shared boundary between these basins was chosen with the understanding that a stacked aquifer system, including the Lompico and Butano sandstones, makes up the productive groundwater resource for the Santa Margarita Groundwater Basin. These units underlay shallow or marginal units of the Purisima Formation that is one of the principal aquifer formations of the Santa Cruz Mid-County Groundwater Basin. However, given the overlapping nature of the stacked aquifer systems of both basins, we believe that our scientific justification is the best solution for this shared boundary, and that the data and rationale for the selection of this boundary are defensible on a scientific basis.

The comments received were in eight main points which are summarized below, and the responses below follow that format. Some of the comments received specifically reference the Santa Margarita Basin report but also apply to the Santa Cruz Mid-County Basin.

Point 5-1A: “a natural mapped geologic boundary exists between the older Miocene Santa Margarita Formation and the most contiguous part of the Pliocene Purisima Formation... The structural rationale for including the Purisima Formation as part of the proposed new Santa Margarita Basin... does not make sense...”

There is evidence, in boring logs, as well as cross-sections and diagrams from previously-published reports that indicated the Purisima Formation is underlain by portions of the Lompico and Butano sandstones, which are productive aquifer units associated with the Santa Margarita Basin. As such, reliance on a shared boundary defined strictly by the outcrop margin of the Purisima Formation would incorporate areas of the shared groundwater resource of the Santa Margarita Basin into the Santa Cruz Mid-County Groundwater Basin, regardless of the terminal area of the Scotts Valley Syncline.

Point 5-1B: “The Purisima Formation in the vicinity of the Purisima Mutual Water Company’s well and service area dips SE off the basement high and probable anticlinorium...”

We acknowledge that some marginal areas of the Purisima Formation fall to the west of the proposed shared boundary, and that the dip and structure of the

Purisima Formation in this area may indicate potential for groundwater flow into the Santa Cruz Mid-County Groundwater Basin.

Point 5-2: "...if the gravity anomaly map (Figure 8 of the Scotts Valley report) were to be interpreted correctly one would see that inclination for water transport would be towards Soquel and not toward Scotts Valley..."

Figure F - 2 shows the position of Purisima Mutual Water Company's service area with respect to both the gravity anomaly contours and the subsequent granite elevation contours in the area of the shared basin boundary. This figure indicates that the granitic basement of the basin is sloping away from the Santa Cruz Mid-County Groundwater Basin in according to both contoured datasets. If, as the comment suggest, groundwater flow potential is considered to be a function of the granitic structure, this figure would indicate potential for groundwater flow away from the Santa Cruz Mid-County Groundwater Basin and towards the Santa Margarita Basin in this area.

Point 5-3A: "...we suspect that the resolution of these [gravity] contours is poor because of the lack of subsurface data points."

With respect to the perceived lack of data, the granite structural contours presented in the proposed boundary revisions were the result of analysis using borehole, outcrop, and gravity anomaly data. Previous reports indicated the presence of a granitic structural high in this area, and the scientific rationale for the proposed shared boundary follows on previous work.

Point 5-3B "...the top of the granite map (Figure 11 in the Scotts Valley report) also shows that the surface of the granite dips toward Soquel (south) at the location of the Purisima Mutual Water Company's water well..."

Refer to the response to Point 5-2 and Figure F - 2.

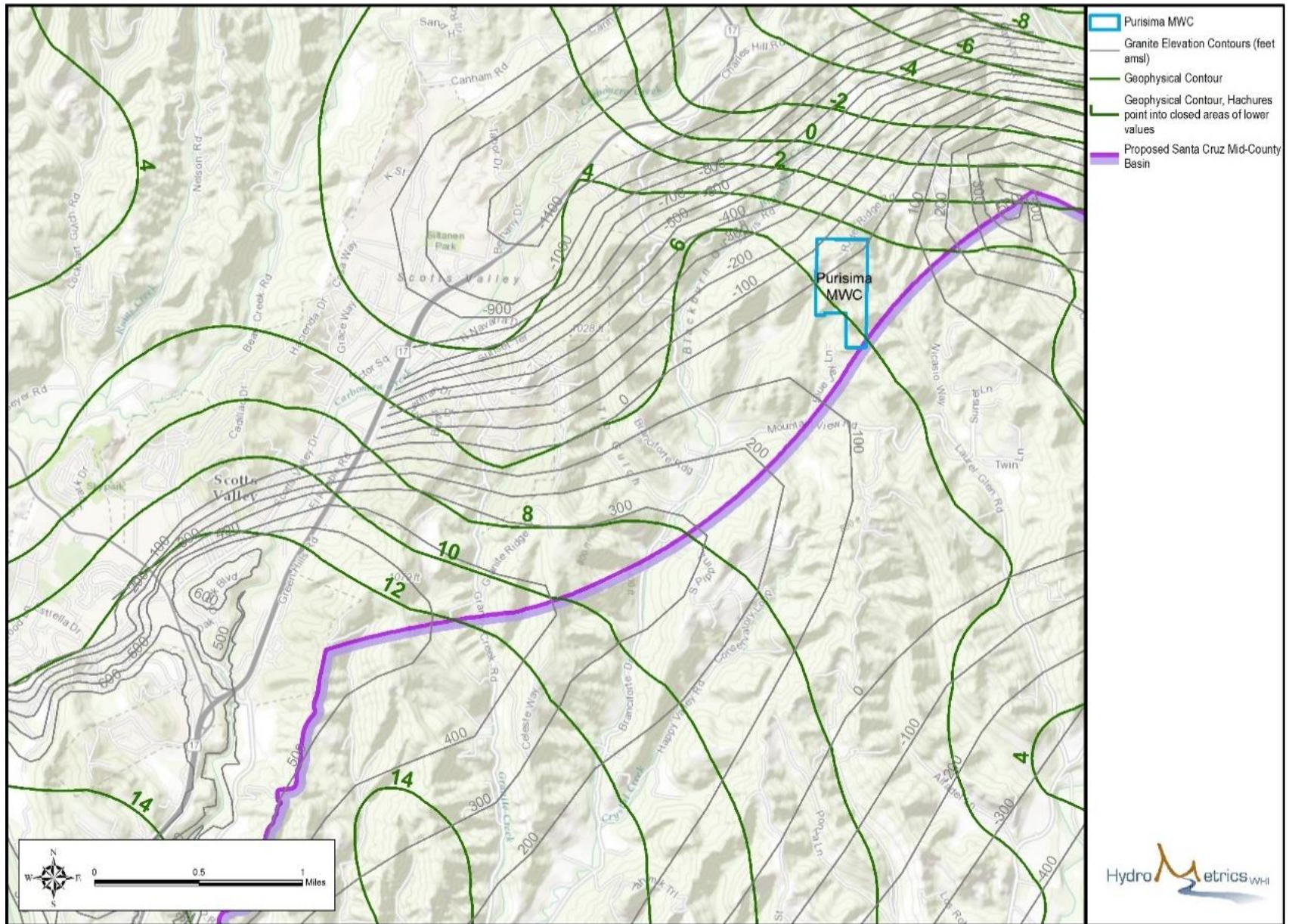


Figure F - 2: Gravity Anomaly Data and Granitic Basement Contours in Vicinity of Purisima Mutual Water Company

Point 5-4: "...the present Scotts Valley Basin boundary as shown in Figure 1 of the Mid-County report is the logical boundary between the Santa Margarita and Santa Cruz Purisima Formations."

As stated in the response to Point 1, there is significant evidence that the Lompico Sandstone and Butano Sandstone, main water supply units of the Santa Margarita Basin extend east of the current Scotts Valley Basin boundary to areas overlain by shallower marginal units of the Purisima Formation.

Point 5-5: "...the Soquel-Aptos Groundwater Plan Management Area shown in Figure 11 of the Mid-County report makes much more sense as a basin boundary than that proposed by the Scotts Valley report. The smooth arc-like change shown from the proposed boundary adjustment makes no geological sense..."

As discussed above, we did not use the watershed based Groundwater Management Plan area in the area of concern because we included the underlying Lompico and Butano sandstones with the Santa Margarita Basin. The "arc-like" boundary described in the comment was not chosen arbitrarily, and as stated in the response to Point 5-3A, was based on available structural data for the granitic basement. The proposed shared boundary follows the interpreted strike of the granitic structural high, and links areas of outcropping granite. As previously stated, this boundary reflects our understanding of a two overlapping stacked aquifer systems in the area of the shared boundary.

Point 5-6: "...the map showing recharge areas... and topographic maps that can be used to map drainage basins indicate that both recharge and drainage in the Purisima Mutual Water Company area lie within the Santa Cruz Purisima Formation Basin."

Figure F - 3 shows the Purisima Mutual Water Company's service area with respect to surface geology and the local Soquel Creek Watershed boundary. This figure indicates that Purisima Mutual Water Company overlaps two watershed areas. In the north and west of the company's service area, surface water or shallow groundwater may flow towards Blackburn Gulch, where a large area of the Lompico Sandstone is outcropping. As such, recharge to groundwater in Blackburn Gulch is more likely associated with the Santa Margarita Basin. We acknowledge the potential for runoff or recharge to the Santa Cruz Mid-County Groundwater Basin from Purisima Mutual Water Company's service area, as well, but inclusion of the company within one basin or another based on watershed area was not a consideration when drawing the proposed boundary.

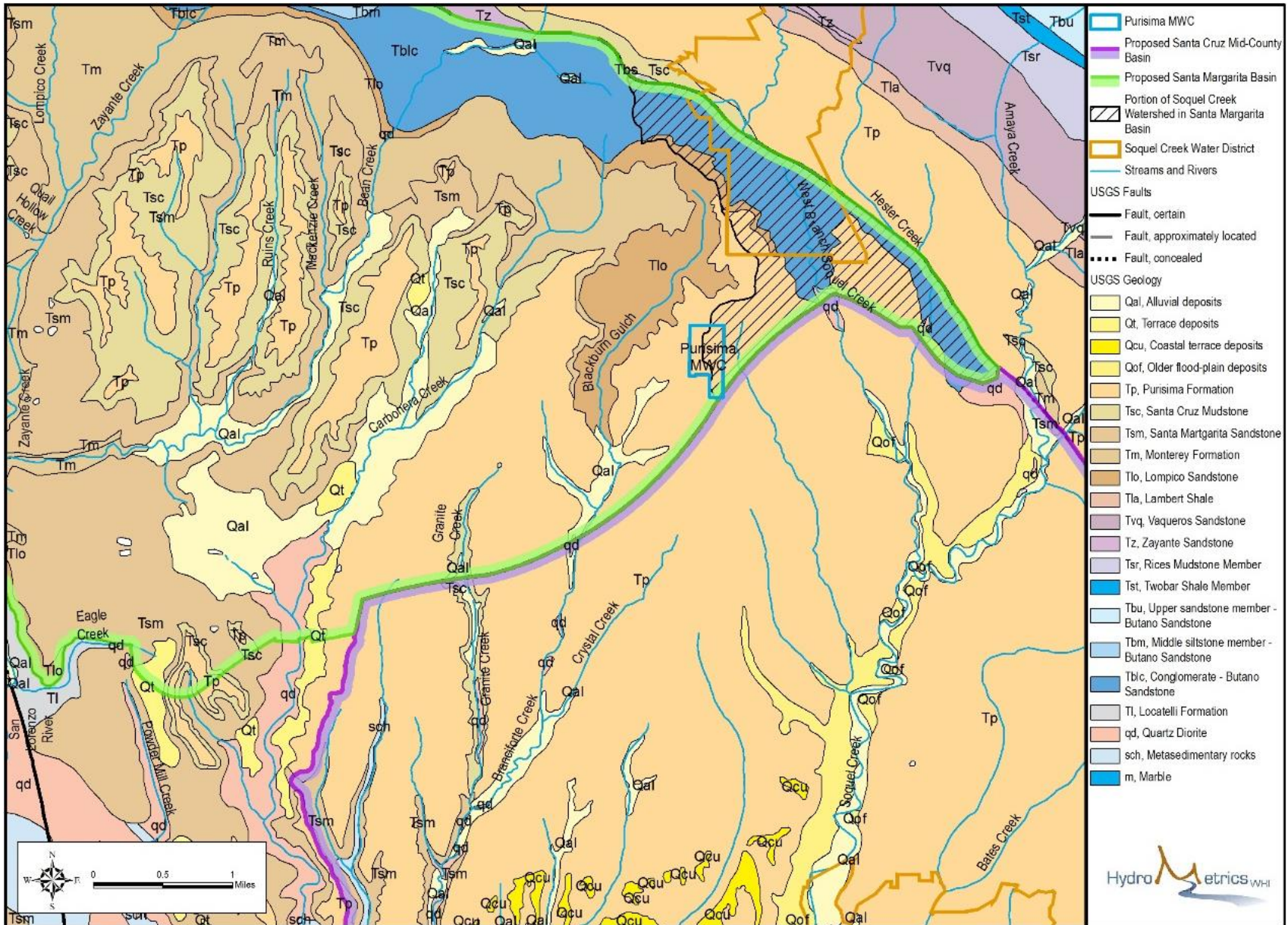


Figure F - 3: Surface Geology and Watershed Area in the Vicinity of Purisima Mutual Water Company

Point 5-7: "...to our knowledge the Purisima Mutual Water Company was never invited to participate in any of the Scotts Valley public meetings..."

No technical response is required. Requirements for local input were met by informing affected small water systems of the basin boundary modification proposal and receiving comments on the proposed modification. We appreciate the local input provided.

Point 5-8: "The proposed boundary change, in our opinion, is not scientifically justified and would produce a management nightmare."

We acknowledge that production from shallow or marginal areas of the Purisima Formation in the area of the proposed shared basin boundary may be associated with groundwater of the shared resource of the Santa Cruz Mid-County Groundwater Basin. However, the margin of the deeper productive units of the Santa Margarita Basin has been evaluated to underlay the Purisima Formation in this area, and the proposed boundary was assigned with this understanding.

UPDATE: SAGMC approved an alternate boundary at its meeting January 21, 2016 that addresses these comments by including the Purisima Formation outcrop where Purisima Mutual Water Company pumps with the Santa Cruz Mid-County Basin. See memo for SAGMC consideration in Appendix E and descriptions in final report submitted to DWR.

COMMENT 6 (PURE SOURCE WATER)

Comments by Martin Mills, Pure Source Water, provided by telephone on January 12, 2016 to Cameron Tana, HydroMetrics WRI and paraphrased. Phone responses have been revised for clarity.

Question/Point 1: Will the groundwater model under development be used to evaluate the effect of inland pumpers on coastal groundwater issues such as seawater intrusion and what is the timeline for that?

Response: At the County's request, the groundwater model will be set up so this evaluation can be performed. However, use of the model for this evaluation has not been scoped and scheduled and would likely take place as part of Groundwater Sustainability Plan (GSP) development. The model would likely be used to evaluate the combined effect of inland pumpers as opposed to the effect of any individual inland pumper.

Question/Point 2: If inland pumpers in the existing Santa Cruz Purisima Formation Basin do not have effect on coastal issues, why should the Santa Cruz Purisima Formation Basin be consolidated with the coastal Soquel Valley and Pajaro Valley basins that have higher priority and are considered in critical overdraft?

Response: The proposed Santa Cruz Mid-County Basin that consolidates a portion of the Santa Cruz Formation Basin with three coastal basins best represents the series of stacked aquifers that provide groundwater supply for pumpers in the area. Including the inland area which pumps from the same aquifer units and where recharge for those aquifer units occur will promote sustainable management for the area. As discussed above, the evaluation of effects of inland pumping can be performed for development of a GSP for the proposed basin that will define requirements for inland pumpers.

It also should be noted that no Sustainable Groundwater Management Act (SGMA) requirements change with the change from the medium priority assigned to Santa Cruz Purisima Formation Basins to a high priority when consolidating with high priority Soquel Valley and Pajaro Valley Basins. SGMA treats medium priority basins and high priority basins equivalently. If the Santa Cruz Purisima Formation Basin remained unchanged, a Groundwater Sustainability Agency (GSA) would still be required for the basin. Soquel Creek Water District, Central Water District, City of Santa Cruz, Scotts Valley Water District, and Santa Cruz County would all be eligible to form such a GSA. The only change for consolidating with critically overdrafted basins is the GSP is due in 2020 not 2022 and sustainability needs to be achieved by 2040 not 2042.

Question/Point 3: Jurisdiction for requiring metering on California Public Utilities Commission (PUC) regulated systems such as Pure Source Water lies with the PUC and not the County

This point is not relevant to the basin boundary modification request.

Question/Point 4: Is it too late to submit a letter of support or opposition or comments?

Response: If a letter of support or opposition is submitted prior to submittal of the modification request to DWR, it will be included in the submittal. The deadline has passed for written comments in order to provide time to prepare responses to provide the Soquel-Aptos Groundwater Management Committee meeting at its January 21 meeting.

UPDATE: Pure Source Water provided a letter of support January 18, 2016.

**COMMENTS MADE AT JAN 12, 2016 COUNTY BOARD OF SUPERVISORS
MEETING**

Gary Greene, Marilyn Garret, Becky Steinbruner made comments regarding the item on the Board Agenda to approve moving forward with the Basin Boundary Modification:

Mr. Greene spoke representing the Purisima Mutual Water Company and his comment was to reiterate the concerns written in their letter. They are on the Mid-County/Santa Margarita boundary and are concerned that they are getting mis-classified and should be in the Mid-County Basin.

Mrs. Steinbruner commented that the importance of the Basin Boundary Modification process was not clear at the public meeting on December 10th.

Ms. Garret re-iterated that it is important to take time to consider suggestions such as that of Gary Greene.

APPENDIX G

Resolutions and Letters of Support or Opposition

Resolutions not included in the attached sheets are available at the following
URL

[http://www.midcountygroundwater.org/sites/default/files/uploads/PureSource
Support for Basin Boundary Modification.pdf](http://www.midcountygroundwater.org/sites/default/files/uploads/PureSource%20Support%20for%20Basin%20Boundary%20Modification.pdf)

CENTRAL WATER DISTRICT

RESOLUTION NO. 11-15

COPY

**A RESOLUTION SUPPORTING A BASIN BOUNDARY MODIFICATION REQUEST
FOR THE SANTA CRUZ MID-COUNTY GROUNDWATER BASIN**

WHEREAS, groundwater located in the Mid-County area of Santa Cruz County is a vital resource to meet the water supply needs for residents, visitors, and businesses of Santa Cruz County; and

WHEREAS, the City of Santa Cruz, Soquel Creek Water District, Central Water District, and the County of Santa Cruz (Partner Agencies) have come together to improve management of groundwater in the Mid-County area under a Joint Exercise of Powers Agreement forming the Soquel-Aptos Groundwater Management Committee (SAGMC), that was most recently amended on August 21, 2015; and

WHEREAS, an AB3030 Groundwater Management Plan was adopted in 2007 that identified a boundary commonly known as the Soquel-Aptos Groundwater Management Area; and

WHEREAS, the SAGMC took action on November 12, 2015, to rename the area previously known as the Soquel-Aptos Groundwater Management Area as the Santa Cruz Mid-County Groundwater Basin (SCMGB); and

WHEREAS, current groundwater management of the SCMGB includes all or part of four basins identified in DWR's Bulletin Number 118, including the following basins (designated by the name of the basin and number assigned to it in DWR-Bulletin No. 118): Soquel Valley (3-1), West Santa Cruz Terrace (3-26), Santa Cruz Purisima Formation (3-21), and Pajaro Valley Basin (3-2); and

WHEREAS, each of the Partner Agencies is a local agency as defined by the Sustainable Groundwater Management Act of 2014 (SGMA), duly organized and existing under and by virtue of the laws of the State of California with the ability to exercise powers related to groundwater management; and

WHEREAS, SGMA requires formation of a local groundwater sustainability agency (GSA) by June 30, 2017 and adoption of a groundwater sustainability plan (GSP) by January 31, 2020, for all medium- and high-priority basins identified as being subject to critical conditions of overdraft; and

WHEREAS, SGMA defines a basin's boundaries shall be defined as identified in the California Department of Water Resources (DWR) Bulletin No. 118; and

WHEREAS, SGMA establishes a process for local agencies to request that DWR revise the boundaries of a basin, including establishment of a new sub-basins; and

WHEREAS, the Partner Agencies have common interest in defining a groundwater basin that comprehensively represents a management area based on scientific and jurisdictional modifications to DWR Bulletin No. 118; and

WHEREAS, requesting a Basin Boundary Modification is exempt from the California Environmental Quality Act (CEQA) because such modification is not a project under CEQA, and, even assuming that such modification constitutes a project, it would be exempt because there is no possibility that the Basin Boundary Modification will have a significant effect on the environment;

NOW, THEREFORE BE IT RESOLVED that the Board of Directors of the Central Water District hereby supports the basin boundary modification request submitted by the Soquel-Aptos Groundwater Management Committee to the Department of Water Resources representatives to modify the existing Bulletin-118 boundaries as allowed by Title 23 of the California Code of Regulations to create a new consolidated basin, the Santa Cruz Mid-County Groundwater Basin (as shown in Exhibit A).

I certify that the foregoing resolution was duly adopted by the Board of Directors of the Central Water District, Santa Cruz County, California, at a meeting held on December 15, 2015 by the following vote:

Ayes, Directors: POSTLE, MESSERSMITH, BENICH

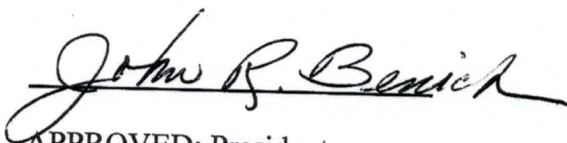
Noes, Directors:

Absent, Directors: WHITNEY, MARANI

Abstain, Directors:



ATTEST: Secretary to the Board of Directors



APPROVED: President

3

**BEFORE THE BOARD OF SUPERVISORS
OF THE COUNTY OF SANTA CRUZ, STATE OF CALIFORNIA**

RESOLUTION NO. 12-2016

**On the motion of Supervisor Leopold
Duly seconded by Supervisor McPherson
The following resolution is adopted.**

**RESOLUTION SUPPORTING A BASIN BOUNDARY MODIFICATION REQUEST
FOR THE SANTA CRUZ MID-COUNTY GROUNDWATER BASIN**

WHEREAS, groundwater located in the Mid-County area of Santa Cruz County is a vital resource to meet the water supply needs for residents, visitors, and businesses of Santa Cruz County; and

WHEREAS, the City of Santa Cruz, Soquel Creek Water District, Central Water District, and the County of Santa Cruz (Partner Agencies) have come together to improve management of groundwater in the Mid-County area under a Joint Exercise of Powers Agreement forming the Soquel-Aptos Groundwater Management Committee (SAGMC), that was most recently amended on August 21, 2015; and

WHEREAS, an AB3030 Groundwater Management Plan was adopted in 2007 that identified a boundary commonly known as the Soquel-Aptos Groundwater Management Area; and

WHEREAS, the SAGMC took action on November 12, 2015, to rename the area previously known as the Soquel-Aptos Groundwater Management Area as the Santa Cruz Mid-County Groundwater Basin (SCMGB); and

WHEREAS, current groundwater management of the SCMGB includes all or part of four basins identified in DWR's Bulletin Number 118, including the following basins (designated by the name of the basin and number assigned to it in DWR-Bulletin No. 118): Soquel Valley (3-1), West Santa Cruz Terrace (3-26), Santa Cruz Purisima Formation (3-21), and Pajaro Valley Basin (3-2); and

WHEREAS, each of the Partner Agencies is a local agency as defined by the Sustainable Groundwater Management Act of 2014 (SGMA), duly organized and existing under and by virtue of the laws of the State of California with the ability to exercise powers related to groundwater management; and

WHEREAS, SGMA requires formation of a local groundwater sustainability agency (GSA) by June 30, 2017 and adoption of a groundwater sustainability plan

(GSP) by January 31, 2020, for all medium- and high-priority basins identified as being subject to critical conditions of overdraft; and

WHEREAS, SGMA defines a basin's boundaries shall be defined as identified in the California Department of Water Resources (DWR) Bulletin No. 118; and

WHEREAS, SGMA establishes a process for local agencies to request that DWR revise the boundaries of a basin, including establishment of a new sub-basins; and

WHEREAS, the Partner Agencies have common interest in defining a groundwater basin that comprehensively represents a management area based on scientific and jurisdictional modifications to DWR Bulletin No. 118; and

WHEREAS, requesting a Basin Boundary Modification is exempt from the California Environmental Quality Act (CEQA) because such modification is not a project under CEQA, and, even assuming that such modification constitutes a project, it would be exempt because there is no possibility that the Basin Boundary Modification will have a significant effect on the environment;

NOW, THEREFORE BE IT RESOLVED that the Santa Cruz County Board of Supervisors hereby supports the basin boundary modification request submitted by the Soquel-Aptos Groundwater Management Committee to the Department of Water Resources representatives to modify the existing Bulletin-118 boundaries as allowed by Title 23 of the California Code of Regulations to create a new consolidated basin, the Santa Cruz Mid-County Groundwater Basin (as shown in Exhibit A).

PASSED AND ADOPTED, by the Board of Supervisors of the County of Santa Cruz, State of California, this 12th day of January, 2016, by the following vote:

AYES:	SUPERVISORS	Leopold, Friend, Coonerty, McPherson, Caput
NOES:	SUPERVISORS	None
ABSTAIN:	SUPERVISORS	None

GREG CAPUT

Chair of the Board

ATTEST:

SUSAN GALLOWAY

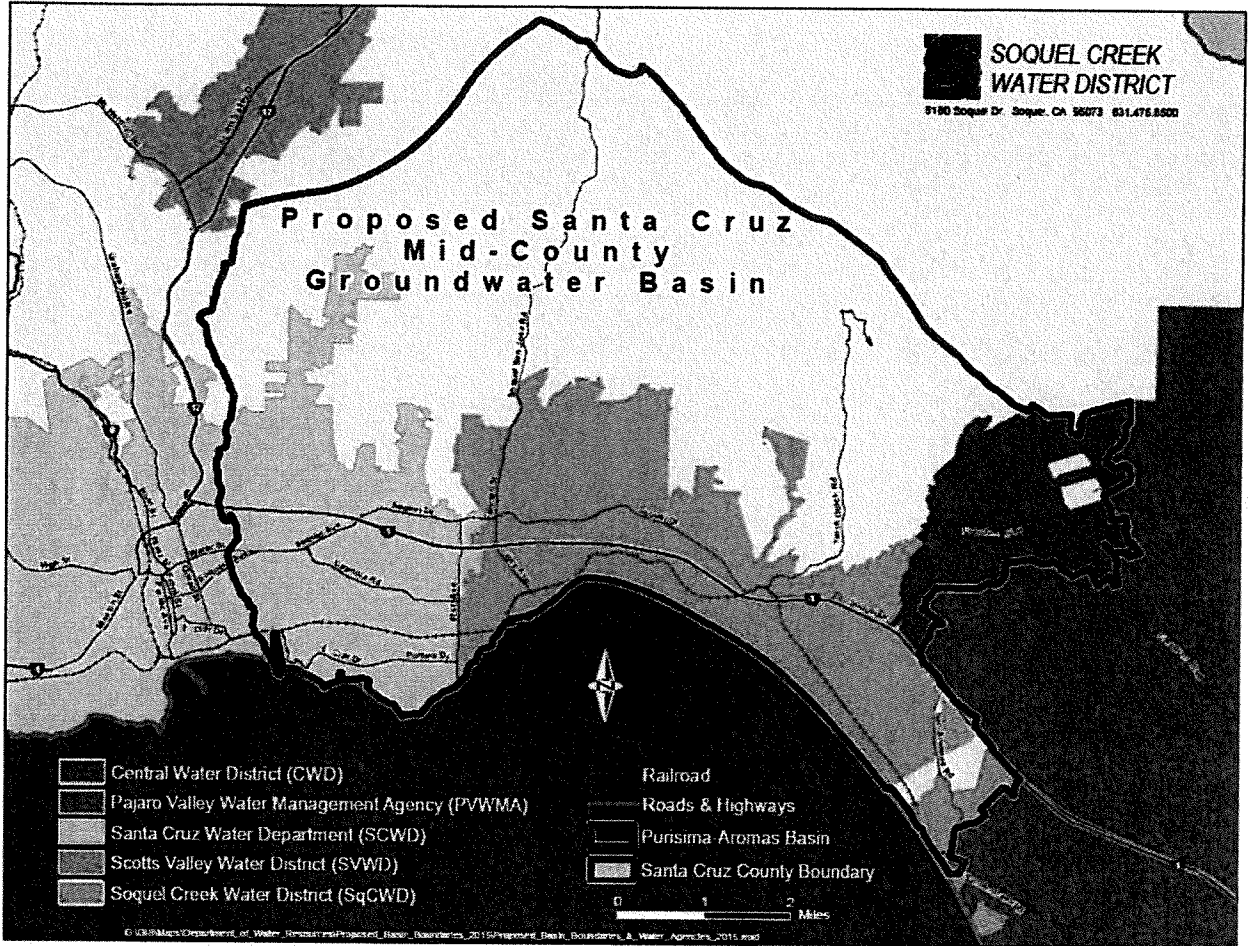
Clerk of the Board

APPROVED AS TO FORM:

J. Miller
County Counsel

STATE OF CALIFORNIA)
COUNTY OF SANTA CRUZ) ss
I, SUSAN A. MAURIELLO, County Administrative Officer and ex-officio Clerk of the Board of Supervisors of the County of Santa Cruz, State of California do hereby certify that the foregoing is a true and correct copy of the resolution passed and adopted by and entered in the minutes of the said board. In witness whereof I have hereunto set my hand and affixed the seal of the said Board on 1/12/16 2016
SUSAN A. MAURIELLO, County Administrative Officer
Susan Mauriello Deputy

Proposed Santa Cruz Mid-County Groundwater Basin



PureSource Water, Inc.

P.O. Box 1958 * Aptos, CA 95001

Phone: (831) 688-8476

accounts@psh2o.com

Serving Redwood Drive, Pacific Heights Drive, and Forest Park Lane

Ms. Sierra Ryan, Water Resources Planner
701 Ocean Street Room 312
Santa Cruz, CA 95060

Sierra.ryan@santacruzcounty.us

Subject: Comment on Proposed Basin Boundary Modification for the Santa Cruz Mid-County Groundwater Basin

Dear Ms. Ryan:

We have received the notice of the proposed request for a groundwater basin boundary modification to the California Department of Water Resources (DWR) as part of implementation of the Sustainable Groundwater Management Act. Our public water system, PureSource Water, Inc., has a service area and water source that is included in one of the affected basins.

It is our understanding, from our review of the reports prepared by Hydrometrics, WRI, that the proposed basin boundaries reflect the shared groundwater resource and hydrology of the basins. It appears, at this point, that the proposed boundaries represent an appropriate area to manage for sustainability of our local groundwater supply; therefore, our system has elected to support the proposed boundary modification.

We recognize, however, that the hydrology of our region is currently being modeled and studied in increasing detail as technology is improved and more resources are allocated to study how water flows through our region. It is our hope, and indeed our expectation, that the cost burdens of resolving the problems in our basin will be shared in proportion to the impact on the problem that is generated by each water user in our area. We also expect that we will be provided with opportunities to have our unique circumstances represented in the management of the proposed groundwater basin. PureSource Water, Inc. is an investor owned utility that is regulated by the California Public Utilities Commission and therefore, financial decisions that affect our customers must be approved by the commission.

As an owner, operator, and board member for our system, I have the appropriate delegated authority to represent our system and sign this letter of support. Please continue to inform us on how to participate in groundwater management activities for the proposed basin. We also wish to thank the water leaders in our community for inviting the participation of the various water stakeholders in our region in this process.

Sincerely,

Martin Mills
Owner/Operator, PureSource Water, Inc.

**BEFORE THE BOARD OF SUPERVISORS
OF THE COUNTY OF SANTA CRUZ, STATE OF CALIFORNIA**

RESOLUTION NO. _____

On the motion of Supervisor _____

Duly seconded by Supervisor _____

The following resolution is adopted.

**RESOLUTION SUPPORTING A BASIN BOUNDARY MODIFICATION REQUEST
FOR THE SANTA CRUZ MID-COUNTY GROUNDWATER BASIN**

WHEREAS, groundwater located in the Mid-County area of Santa Cruz County is a vital resource to meet the water supply needs for residents, visitors, and businesses of Santa Cruz County; and

WHEREAS, the City of Santa Cruz, Soquel Creek Water District, Central Water District, and the County of Santa Cruz (Partner Agencies) have come together to improve management of groundwater in the Mid-County area under a Joint Exercise of Powers Agreement forming the Soquel-Aptos Groundwater Management Committee (SAGMC), that was most recently amended on August 21, 2015; and

WHEREAS, an AB3030 Groundwater Management Plan was adopted in 2007 that identified a boundary commonly known as the Soquel-Aptos Groundwater Management Area; and

WHEREAS, the SAGMC took action on November 12, 2015, to rename the area previously known as the Soquel-Aptos Groundwater Management Area as the Santa Cruz Mid-County Groundwater Basin (SCMGB); and

WHEREAS, current groundwater management of the SCMGB includes all or part of four basins identified in DWR's Bulletin Number 118, including the following basins (designated by the name of the basin and number assigned to it in DWR-Bulletin No. 118): Soquel Valley (3-1), West Santa Cruz Terrace (3-26), Santa Cruz Purisima Formation (3-21), and Pajaro Valley Basin (3-2); and

WHEREAS, each of the Partner Agencies is a local agency as defined by the Sustainable Groundwater Management Act of 2014 (SGMA), duly organized and existing under and by virtue of the laws of the State of California with the ability to exercise powers related to groundwater management; and

WHEREAS, SGMA requires formation of a local groundwater sustainability agency (GSA) by June 30, 2017 and adoption of a groundwater sustainability plan

(GSP) by January 31, 2020, for all medium- and high-priority basins identified as being subject to critical conditions of overdraft; and

WHEREAS, SGMA defines a basin's boundaries shall be defined as identified in the California Department of Water Resources (DWR) Bulletin No. 118; and

WHEREAS, SGMA establishes a process for local agencies to request that DWR revise the boundaries of a basin, including establishment of a new sub-basins; and

WHEREAS, the Partner Agencies have common interest in defining a groundwater basin that comprehensively represents a management area based on scientific and jurisdictional modifications to DWR Bulletin No. 118; and

WHEREAS, requesting a Basin Boundary Modification is exempt from the California Environmental Quality Act (CEQA) because such modification is not a project under CEQA, and, even assuming that such modification constitutes a project, it would be exempt because there is no possibility that the Basin Boundary Modification will have a significant effect on the environment;

NOW, THEREFORE BE IT RESOLVED that the Sana Cruz County Board of Supervisors hereby supports the basin boundary modification request submitted by the Sequel-Aptos Groundwater Management Committee to the Department of Water Resources representatives to modify the existing Bulletin-118 boundaries as allowed by Title 23 of the California Code of Regulations to create a new consolidated basin, the Santa Cruz Mid-County Groundwater Basin (as shown in Exhibit A).

PASSED AND ADOPTED, by the Board of Supervisors of the County of Santa Cruz, State of California, this 15th day of December, 2015, by the following vote:

AYES:	SUPERVISORS
NOES:	SUPERVISORS
ABSTAIN:	SUPERVISORS

Chair of the Board

ATTEST:

Clerk of the Board

APPROVED AS TO FORM:

County Counsel

RESOLUTION NO. NS-29,035

RESOLUTION OF THE CITY COUNCIL OF THE CITY OF SANTA CRUZ
IN SUPPORT OF A BASIN BOUNDARY MODIFICATION REQUEST FOR THE SANTA
CRUZ MID-COUNTY GROUNDWATER BASIN

WHEREAS, groundwater located in the Mid-County area of Santa Cruz County is a vital resource to meet the water supply needs for residents, visitors, and businesses of Santa Cruz County; and

WHEREAS, the City of Santa Cruz, Soquel Creek Water District, Central Water District, and the County of Santa Cruz (Partner Agencies) have come together to improve management of groundwater in the Mid-County area under a Joint Exercise of Powers Agreement forming the Soquel-Aptos Groundwater Management Committee (SAGMC), that was most recently amended on August 21, 2015; and

WHEREAS, an AB3030 Groundwater Management Plan was adopted in 2007 that identified a boundary commonly known as the Soquel-Aptos Groundwater Management Area; and

WHEREAS, the SAGMC took action on November 12, 2015, to rename the area previously known as the Soquel-Aptos Groundwater Management Area as the Santa Cruz Mid-County Groundwater Basin (SCMGB); and

WHEREAS, current groundwater management of the SCMGB includes all or part of four basins identified in DWR's Bulletin Number 118, including the following basins (designated by the name of the basin and number assigned to it in DWR-Bulletin No. 118): Soquel Valley (3-1), West Santa Cruz Terrace (3-26), Santa Cruz Purisima Formation (3-21), and Pajaro Valley Basin (3-2); and

WHEREAS, each of the Partner Agencies is a local agency as defined by the Sustainable Groundwater Management Act of 2014 (SGMA), duly organized and existing under and by virtue of the laws of the State of California with the ability to exercise powers related to groundwater management; and

WHEREAS, SGMA requires formation of a local groundwater sustainability agency (GSA) by June 30, 2017 and adoption of a groundwater sustainability plan (GSP) by January 31, 2020, for all medium- and high-priority basins identified as being subject to critical conditions of overdraft; and

WHEREAS, SGMA defines that a basin's boundaries shall be defined as identified in the California Department of Water Resources (DWR) Bulletin No. 118; and

WHEREAS, SGMA establishes a process for local agencies to request that DWR revise the boundaries of a basin, including establishment of new sub-basins; and

RESOLUTION NO. NS-29,035

WHEREAS, the Partner Agencies have common interest in defining a groundwater basin that comprehensively represents a management area based on scientific and jurisdictional modifications to DWR Bulletin No. 118; and

WHEREAS, requesting a Basin Boundary Modification is exempt from the California Environmental Quality Act (CEQA) because such modification is not a project under CEQA, and, even assuming that such modification constitutes a project, it would be exempt because there is no possibility that the Basin Boundary Modification will have a significant effect on the environment;

NOW, THEREFORE, BE IT RESOLVED that the City of Santa Cruz hereby supports the basin boundary modification request submitted by the Soquel-Aptos Groundwater Management Committee to the Department of Water Resources representatives to modify the existing Bulletin-118 boundaries as allowed by Title 23 of the California Code of Regulations to create a new consolidated basin, the Santa Cruz Mid-County Groundwater Basin (as shown in Exhibit A).

PASSED AND ADOPTED the 8th day of December, 2015 by the following vote:

AYES: Councilmembers Chase, Terrazas, Comstock, Posner, Noroyan; Vice Mayor Mathews; Mayor Lane.

NOES: None.


ABSENT: None.

DISQUALIFIED: None.

APPROVED: _____


Mayor

ATTEST: _____


City Clerk Administrator

RESOLUTION NO. 15-25

**BEFORE THE BOARD OF DIRECTORS OF THE
SOQUEL CREEK WATER DISTRICT**

**RESOLUTION SUPPORTING A BASIN BOUNDARY MODIFICATION REQUEST FOR
THE SANTA CRUZ MID-COUNTY GROUNDWATER BASIN**

WHEREAS, groundwater located in the Mid-County area of Santa Cruz County is a vital resource to meet the water supply needs for residents, visitors, and businesses of Santa Cruz County; and

WHEREAS, the City of Santa Cruz, Soquel Creek Water District, Central Water District, and the County of Santa Cruz (Partner Agencies) have come together to improve management of groundwater in the Mid-County area under a Joint Exercise of Powers Agreement forming the Soquel-Aptos Groundwater Management Committee (SAGMC), that was most recently amended on August 21, 2015; and

WHEREAS, an AB3030 Groundwater Management Plan was adopted in 2007 that identified a boundary commonly known as the Soquel-Aptos Groundwater Management Area; and

WHEREAS, the SAGMC took action on November 12, 2015, to rename the area previously known as the Soquel-Aptos Groundwater Management Area as the Santa Cruz Mid-County Groundwater Basin (SCMGB); and

WHEREAS, current groundwater management of the SCMGB includes all or part of four basins identified in Department of Water Resources' (DWR) Bulletin Number 118, including the following basins (designated by the name of the basin and number assigned to it in DWR-Bulletin No. 118): Soquel Valley (3-1), West Santa Cruz Terrace (3-26), Santa Cruz Purisima Formation (3-21), and Pajaro Valley Basin (3-2); and

WHEREAS, each of the Partner Agencies is a local agency as defined by the Sustainable Groundwater Management Act (SGMA) of 2014 duly organized and existing under and by virtue of the laws of the State of California with the ability to exercise powers related to groundwater management; and

WHEREAS, SGMA requires formation of a local groundwater sustainability agency (GSA) by June 30, 2017 and adoption of a groundwater sustainability plan (GSP) by January 31, 2020, for all medium - and high-priority basins identified as being subject to critical conditions of overdraft; and

WHEREAS, SGMA defines that a basin's boundaries shall be defined as identified in the California Department of Water Resources (DWR) Bulletin No. 118; and

WHEREAS, SGMA establishes a process for local agencies to request that DWR revise the boundaries of a basin, including establishment of new sub-basins; and

WHEREAS, the Partner Agencies have common interest in defining a groundwater basin that comprehensively represents a management area based on scientific and jurisdictional modifications to DWR Bulletin No. 118; and

WHEREAS, requesting a Basin Boundary Modification is exempt from the California Environmental Quality Act (CEQA) because such modification is not a project under CEQA, and, even assuming that such modification constitutes a project, it would be exempt because there is no possibility that the Basin Boundary Modification will have a significant effect on the environment;

NOW, THEREFORE BE IT RESOLVED that the Soquel Creek Water District Board of Directors hereby supports the basin boundary modification request submitted by the Soquel-Aptos Groundwater Management Committee to the Department of Water Resources representatives to modify the existing Bulletin-118 boundaries as allowed by Title 23 of the California Code of Regulations to create a new consolidated basin, the Santa Cruz Mid-County Groundwater Basin (as shown in Exhibit A).

PASSED AND ADOPTED by the Board of Directors of the SOQUEL CREEK WATER DISTRICT at its regular meeting held on the 15th day of December 2015, by the following vote.

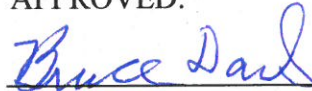
AYES: Directors LaHue, Daniels, Jaffe, Christensen

NOES: None

ABSENT: None

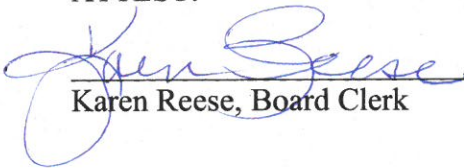
ABSTAIN: None

APPROVED:



Bruce Daniels, President

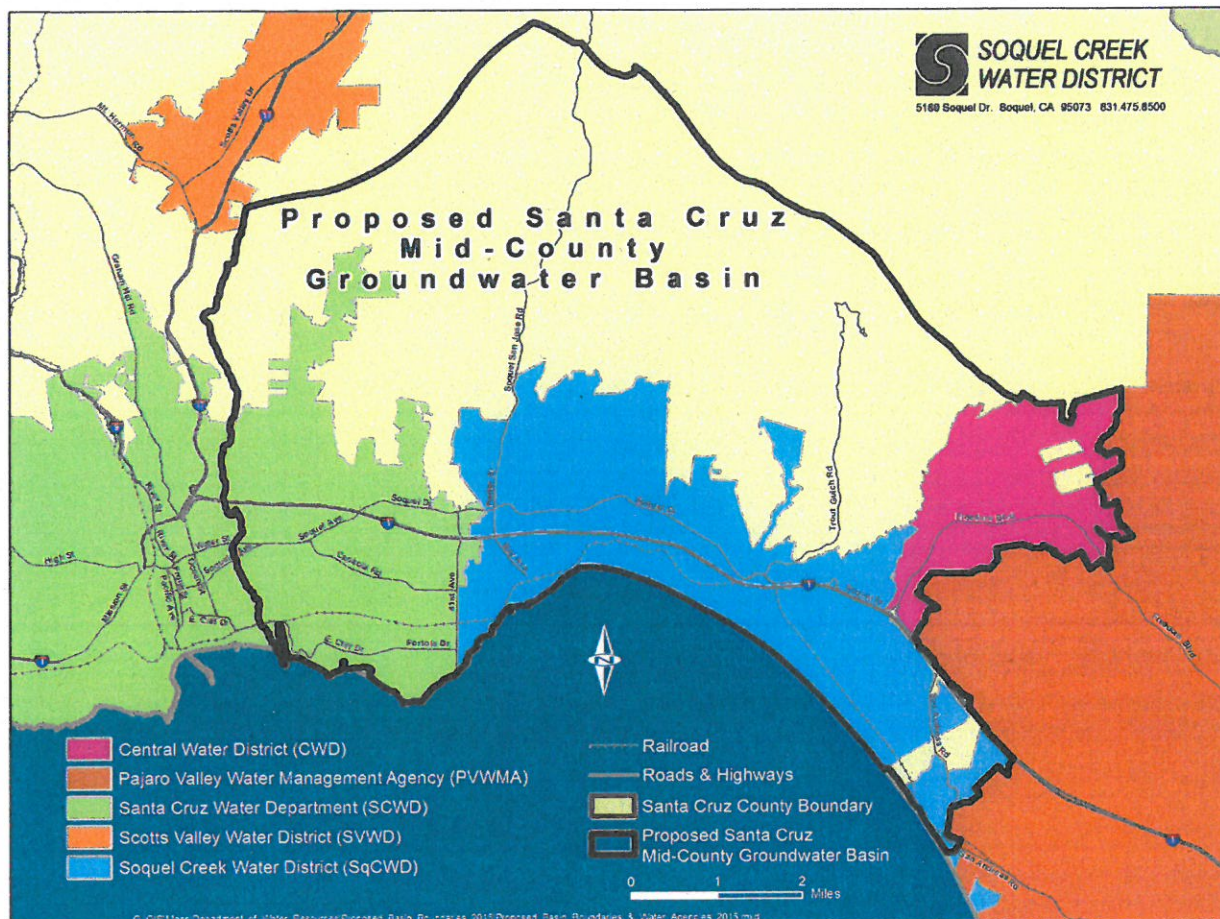
ATTEST:



Karen Reese, Board Clerk

Exhibit A

Proposed Santa Cruz Mid-County Groundwater Basin



RESOLUTION No. 16-15

RESOLUTION OF THE BOARD OF DIRECTORS
OF THE SCOTTS VALLEY WATER DISTRICT
SUPPORTING A BASIN BOUNDARY MODIFICATION REQUEST FOR THE SANTA CRUZ
MID-COUNTY GROUNDWATER BASIN

WHEREAS:

1. Groundwater located in the Mid-County area of Santa Cruz County is a vital resource to meet the water supply needs for residents, visitors, and businesses of Santa Cruz County;
2. The City of Santa Cruz, Soquel Creek Water District, Central Water District, and the County of Santa Cruz (Partner Agencies) have come together to improve management of groundwater in the Mid-County area under a Joint Exercise of Powers Agreement forming the Soquel-Aptos Groundwater Management Committee (SAGMC), that was most recently amended on August 21, 2015;
3. The SAGMC took action on November 12, 2015, to rename the area previously known as the Soquel-Aptos Groundwater Management Area as the Santa Cruz Mid-County Groundwater Basin (SCMGB);
4. Current groundwater management of the SCMGB includes all or part of four basins identified in California Department of Water Resources (DWR) Bulletin Number 118, including the following basins (designated by the name of the basin and number assigned to it in DWR-Bulletin No. 118): Soquel Valley (3-1), West Santa Cruz Terrace (3-26), Santa Cruz Purisima Formation (3-21), and Pajaro Valley Basin (3-2);
5. Each of the Partner Agencies is a local agency as defined by the Sustainable Groundwater Management Act of 2014 (SGMA), duly organized and existing under and by virtue of the laws of the State of California with the ability to exercise powers related to groundwater management;
6. SGMA defines a basin's boundaries shall be defined as identified in the California Department of Water Resources (DWR) Bulletin No. 118;
7. SGMA establishes a process for local agencies to request that DWR revise the boundaries of a basin, including establishment of a new sub-basins;
8. The Partner Agencies have common interest in defining a groundwater basin that represents a management area based on scientific and jurisdictional modifications to DWR Bulletin No. 118;
9. Requesting a Basin Boundary Modification is exempt from the California Environmental Quality Act (CEQA) because such modification is not a project under CEQA.

RESOLUTION No. 16-15

AND WHEREAS:

1. Scotts Valley Water District (SVWD) is an affected agency because it currently overlaps the Santa Cruz Purisima Formation (3-21) and with the Basin Boundary Modification will no longer overlap the Santa Cruz Purisima Formation or the proposed Santa Cruz-Mid County Basin.
2. SVWD source of groundwater is from the stacked aquifers of the Santa Margarita Basin and not the aquifers defined in the proposed Santa Cruz Mid-County Basin.
3. SVWD is interested in the management of the Santa Margarita Basin with the other groundwater pumpers of the Santa Margarita Basin and the proposed Santa Cruz Mid-County Basin will facilitate this action.
4. SVWD has initiated a Basin Boundary Modification request for the proposed Santa Margarita Basin and the shared boundary of the proposed Santa Margarita Basin and the Santa Cruz Mid-County Basin are consistent.
5. SVWD proposed Basin Boundary Modification for the Santa Margarita Basin will be submitted with the SAGMC proposed Basin Boundary Modification for the Santa Cruz Mid-County Basin as a combined request to demonstrate to DWR a coordination of efforts by neighboring agencies.

THEREFORE BE IT RESOLVED THAT:


The Scotts Valley Water District Board or Directors hereby supports the Basin Boundary Modification request submitted by the Soquel-Aptos Groundwater Management Committee to the Department of Water Resources to modify the existing Bulletin No. 118 boundaries as allowed by Title 23 of the California Code of Regulations to create a new consolidated basin, the Santa Cruz Mid-County Groundwater Basin.

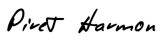
PASSED AND ADOPTED this 10TH day of December 2015, by the following vote:

AYES: Hodgin, Kannegaard, Perri, Reber and Stiles.

NOES: None.

ABSENT: None.

DocuSigned by:

 DC1CA20CEB184F8...
 Ken Kannegaard, President
 Board of Directors

DocuSigned by:

 Attest: _____
 1C236EFF40B44D1...
 Piret Harmon, General Manager

January 9, 2016

Mr. John Leopold

First District Supervisor

Board of Supervisors

County of Santa Cruz

701 Ocean St

Santa Cruz, CA 95060

Dear Mr. Leopold:

As one of your constituents and on behalf of the Purisima Mutual Water Company, I request you do all in your power to reject adoption of the two resolutions on endorsing the boundary modification for the Mid-County (Soquel-Aptos) and Santa Margarita (Scotts Valley) groundwater basins.

In a letter to Mr. John Ricker, Water Resources Division Director, on December 27th, our small water company expressed our rejection of the proposed northern

boundary change of the Santa Cruz Purisima Formation Basin and the eastern boundary change of the Scotts Valley Basin. We provided supporting documentation. The proposed boundary change, in our opinion, is not scientifically justified and would produce a management nightmare. A copy of the Ricker letter, including the rationale for our objection, is attached.

Thank you for your assistance,

Tom Sak

Treasurer, Purisima Mutual Water Co, Inc

575 Rider Ridge Rd

Santa Cruz, CA 95065

831.457.0120

Attachment: Letter to John Ricker, December 27, 2015

Copy: Mr. Greg Caput, Mr. Ryan Coonerty, Mr. Zach Friend, Mr. Bruce McPherson

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Purisima Mutual Water Company
Rider Ridge Road, Santa Cruz, CA

December 27, 2015

Mr. John Ricker
Water Resources Division Director
County of Santa Cruz
701 Ocean St
Santa Cruz, CA 95060

via Email (sierra.ryan@santacruzcounty.us)

Dear Mr. Ricker:

In response to your e-mail of December 14, 2015, the Purisima Mutual Water Company reviewed the information made available to us for consideration and comment regarding the proposed modification of the water basin boundary in which we are located. Our understanding, based on your e-mail and the Sustainable Groundwater Management Act of 2014 (SGMA), is that local agencies are invited by the California Department of Water Resources (DWR) to request modifications of the DWR boundaries "to better reflect current geologic understanding and local approach to management." We, therefore, respond to, and reject the proposed northern boundary change of the Santa Cruz Purisima Formation Basin and the eastern boundary change of the Scotts Valley Basin.

Based upon our scientific review of both the Santa Cruz Mid-County Groundwater Basin Boundary Revision Request ("Mid-County report") (11/25/2015) and the Santa Margarita Groundwater Basin Boundary Revision Request ("Scotts Valley report") (December 2015), we found the geologic rationale for the boundary revision to be weak and lacking robust scientific evaluation. Although we found that an extensive amount of useful information was included in the reports, specific information such as data sample points, geologic attitudes (strike and dip), well locations, and proper explanations of figures were severely lacking, making comprehensive analyses of the cases for boundary adjustments put forth by the proponents difficult. Basically, the reason for requesting the boundary change is of concern to us is because it does not "hold water." It essentially splits off what should logically be the Santa Cruz Purisima Formation Basin and places part of this basin into the Scotts Valley Basin, which is geologically indefensible.

Following is our case for rejecting the boundary change:

First, a natural mapped geologic boundary exists between the older Miocene Santa Margarita Formation and the most contiguous part of the Pliocene Purisima Formation. This boundary lies basically along lower Jarvis Road in Blackburn Gulch with the Purisima located to the southeast of the road and Santa Margarita to the northwest (see attached modification of Figure 3 from the Scotts Valley report).

The structural rationale for including the Purisima Formation as part of the proposed new Santa Margarita Basin, and extension of the Scotts Valley basin (see Scotts Valley report) does not make geological sense as the Scotts Valley Syncline, which forms most of the Scotts Valley basin, pre-dates the deposition of the Purisima Formation.

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The Purisima Formation in the vicinity of the Purisima Mutual Water Company's well and service area dips SE off the basement high and probable anticlinorium shown in Figure 6 (cross-section) of the Scotts Valley report and not toward Scotts Valley. In the Scotts Valley report the author states that the Purisima caps the older Miocene strata in which the syncline has been mapped, indicating a distinct structural difference.

Second, if the gravity anomaly map (Figure 8 of the Scotts Valley report) were to be interpreted correctly one would see that the inclination for water transport would be toward Soquel and not toward Scotts Valley as inferred by the proponents. Gravity anomalies basically represent density and where granite basement rock is high, a higher anomaly would be shown. Where the anomaly is lower granite is deeper and buried under a thicker package of sedimentary rocks, most likely water bearing strata. Therefore, we interpret this anomaly map to indicate that water in the Purisima aquifer would flow towards the south, not toward the north.

Third, the top of granite map (Figure 11 in the Scotts Valley report) also shows that the surface of the granite dips toward Soquel (south) at the location of the Purisima Mutual Water Company's water well (not accurately located on any figures in the reports), although we suspect that the resolution of these contours is poor because of the lack of subsurface data points. Nevertheless, the Purisima Mutual Water Company's well is located in south dipping (~5° SW) Purisima Formation sandstone and there is no indication that subsurface water flow in the vicinity of the well flows towards the Scotts Valley Basin.

Fourth, the present Scotts Valley Basin boundary as shown in Figure 1 of the Mid-County report is the logical geological boundary between the Santa Margarita and Santa Cruz Purisima Formations. Shifting this boundary as proposed would not produce a "cohesive basin" as stated in the Scotts Valley report, but rather fragments the basins.

Fifth, the Soquel-Aptos Groundwater Plan Management Area shown in Figure 11 of the Mid-County report makes much more sense as a basin boundary than that proposed by Scotts Valley report. The smooth arc-like change shown for the proposed boundary adjustment makes no geological sense and leaves one wondering if the proposed shift is the result of a GIS effort with limited or no geological or hydrological input.

Sixth, the map showing recharge areas for the Mid-County basin (see Figure 5 of the Mid-County report) and topographic maps that can be used to map drainage basins indicate that both recharge and drainage in the Purisima Mutual Water Company area lie within the Santa Cruz Purisima Formation Basin. It makes no logical sense to separate drainage and recharge areas from one basin to another.

Seventh, to our knowledge the Purisima Mutual Water Company was never invited to participate in any of the Scotts Valley public meetings to discuss the potential of incorporating us into the Santa Margarita jurisdiction as is stated in the Scotts Valley report (page 34).

Finally, we believe that fragmenting a part of the Soquel-Aptos Groundwater basin and including it in the Scotts Valley basin would severely impact the management of the resources. For us in the Purisima Mutual Water Company, we envision being split between two management agencies and being pulled in two different directions in regard to our reporting and usage of the resource.

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The proposed boundary change, in our opinion, is not scientifically justified and would produce a management nightmare. We, therefore, encourage rejection of the proposed revision. In addition, there is potential difficulties in coordinating efforts between water agencies when a water resource basin, drainage divide, and recharge areas are fragmented as it would be in the proposed revision.

In conclusion, we believe that the shared boundary of the proposed Santa Cruz Mid-County Basin and the proposed Santa Margarita Basin should be revised as shown on the attached map and that the Purisima Mutual Water Company should be exclusively located in the proposed Santa Cruz Mid-County Basin.

We encourage you and your agency to seriously consider our rejection of the proposed groundwater basin boundary change. Our analysis of the two reports and the conclusions drawn were prepared by H. Gary Greene, a California State Registered Geologist (certification number 2669). Dr. Greene is prepared to provide an in-depth comprehensive critique of the reports, and of our conclusions and recommendations, if requested.

Thank you for your consideration.

Sincerely,

Handwritten signature of Karl Hiltner in black ink.

Karl Hiltner

President

Attachment: Map

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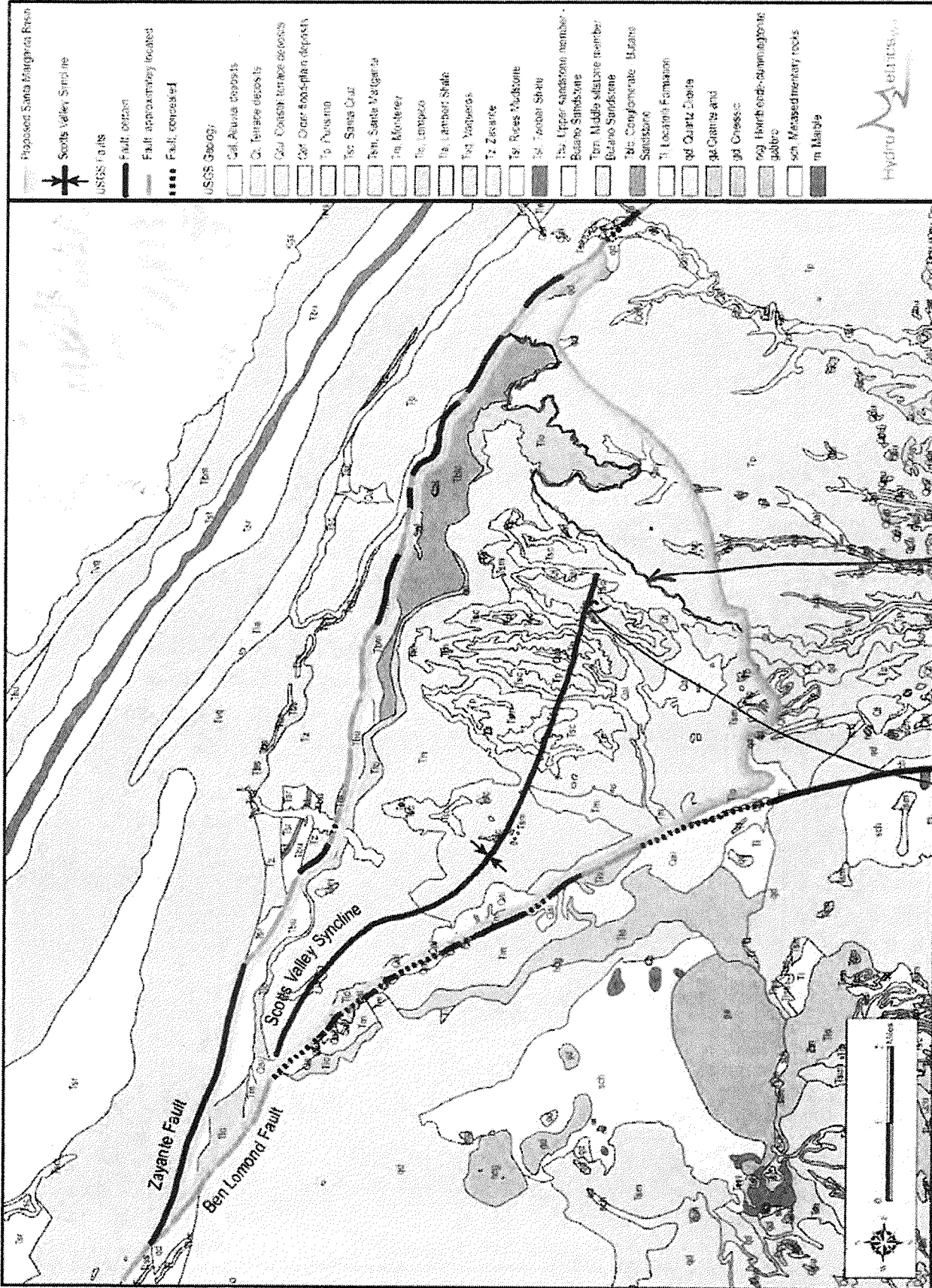


Figure 3: Santa Margarita Groundwater Basin Lateral Boundaries (geology from Brabb et al., 1997)

The scientific logical boundary

Syncline does not continue into TP

Santa Margarita Groundwater Basin Boundary Revision

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APPENDIX H
Electronic Copies of Relevant Technical Studies

Please refer to the Basin Boundary Modification Request Documents section at
the following URL

<http://www.midcountygroundwater.org/resource-library>

APPENDIX I
CEQA Notice of Exemption

Notice of Exemption

Appendix E

017-16

To: Office of Planning and Research
 P.O. Box 3044, Room 113
 Sacramento, CA 95812-3044
 County Clerk
 County of: Santa Cruz
 701 Ocean Street Rm 500
 Santa Cruz, CA, 95060

From: (Public Agency): Soquel-Aptos Groundwater Management Committee C/O John Ricker
 701 Ocean St. rm 312, Santa Cruz, CA, 95060
 (Address)

Project Title: Santa Cruz Mid-County Groundwater Basin Boundary Revision

Project Applicant: Soquel-Aptos Groundwater Management Committee

Project Location - Specific:
 Santa Cruz County, Mid-County Groundwater Basin

Project Location - City: _____ Project Location - County: Santa Cruz

Description of Nature, Purpose and Beneficiaries of Project:
 Propose boundary revisions to Department of Water Resources' Bulletin 118 groundwater basins within the mid-Santa Cruz County area. Revisions are being proposed based on updated understanding of the basin boundary and results primarily in a basin consolidation.

Name of Public Agency Approving Project: Soquel-Aptos Groundwater Management Committee

Name of Person or Agency Carrying Out Project: Soquel-Aptos Groundwater Management Committee

Exempt Status: (check one):

- Ministerial (Sec. 21080(b)(1); 15268);
- Declared Emergency (Sec. 21080(b)(3); 15269(a));
- Emergency Project (Sec. 21080(b)(4); 15269(b)(c));
- Categorical Exemption. State type and section number: _____
- Statutory Exemptions. State code number: _____

Reasons why project is exempt:
 The Basin Boundary Modification is not a project under Public Resources Code section 21065, and moreover if it is a project, it would be found exempt under 14 CCR 15061(b)(3) because there is no possibility it may have a significant effect on the environment.

Lead Agency Contact Person: Sierra Ryan Area Code/Telephone/Extension: (831) 454-3133

If filed by applicant:

1. Attach certified document of exemption finding.
2. Has a Notice of Exemption been filed by the public agency approving the project? Yes No

Signature: [Signature] Date: 1/15/16 Title: Water Resources Division Director

Signed by Lead Agency Signed by Applicant

Authority cited: Sections 21083 and 21110, Public Resources Code.
 Reference: Sections 21108, 21152, and 21152.1, Public Resources Code.

Date Received for filing at OPR: _____

THIS NOTICE HAS BEEN POSTED AT THE CLERK OF THE BOARD OF SUPERVISORS OFFICE FOR A PERIOD COMMENCING Feb 5 2016 AND ENDING Mar 6 2016

RECEIVED
 CLERK OF THE BOARD

FEB - 5 2016

BOARD OF SUPERVISORS
 COUNTY OF SANTA CRUZ