1. CALL TO ORDER

2. ROLL CALL

3. APPROVAL OF MINUTES
   3.1 Minutes of May 21, 2015

4. ORAL COMMUNICATIONS (items not on the Agenda)

5. ADMINISTRATIVE BUSINESS
   5.1 Review and Approve Revised Third Amendment to the Joint Exercise of Powers Agreement (JPA)
   5.2 Selection of Private Well Committee Representatives
   5.3 Approve Revised Soquel-Aptos Area Groundwater Management Annual Budget FY 2015/16
   5.4 Quarterly Monitoring Report
   5.5 Update from Subcommittee on Groundwater Sustainability Agency (GSA) Formation
   5.6 Update on Soquel-Aptos Area Community Engagement Pertaining to GSA Formation
   5.7 Intent of Department of Water Resources (DWR) to Designate the Groundwater Basin as Being in Critical Overdraft
   5.8 Approve Proposed Scope for Evaluating Shallow Groundwater Conditions in Aromas and Purisima Areas
   5.9 Approve Proposed Scope for Preparation of Basin Boundary Revisions
   5.10 Consider Proposal for Retention from Brownstein Hyatt Farber Schreck for Assistance in Forming a Groundwater Sustainability Agency (GSA) and Developing a Groundwater Sustainability Plan (GSP)
   5.11 Consider Comments on Draft Basin Boundary Emergency Regulations
   5.12 Approve Reimbursement to Central Water District (CWD) for their Groundwater Model Based on JPA Cost Split
6. **INFORMATION ITEMS**

7. **MANAGER’S REPORTS**
   7.1 Central Water District – oral
   7.2 City of Santa Cruz – oral
   7.3 County of Santa Cruz – oral
   7.4 Soquel Creek Water District - oral

8. **ADJOURNMENT**
1. **CALL TO ORDER**  
Bruce Jaffe called the meeting to order at 7:04 p.m.

2. **ROLL CALL**  
**Voting Committee Members Present:**  
Bruce Daniels, Soquel Creek Water District  
Bruce Jaffe, Soquel Creek Water District  
John Benich, Central Water District  
Bob Postle, Central Water District  
Bill Wigginton, Seascape Greens Homeowners Association  

**Other Committee Members Present:**  
John Leopold, County of Santa Cruz  
Cynthia Mathews, City of Santa Cruz  
Micah Posner, City of Santa Cruz  

**Committee Members Absent:**  
Tom LaHue, Soquel Creek Water District  

**Others Present:**  
Ralph Bracamonte, Manager, Central Water District  
John Ricker, Santa Cruz County Water Resources Division Director  
Taj Dufour, Soquel Creek Water District  
Melanie Schumacher, Soquel Creek Water District  
Ron Duncan, Soquel Creek Water District  
Jon Kennedy, Private Well Owner  
Heidi Luckenbach, City of Santa Cruz  
Karen Reese, Executive Assistant/Board Clerk, Soquel Creek Water District  

**Others Present:**  
Derrik Williams, HydroMetrics WRI  
4 members of the public  

3. **APPROVAL OF MINUTES**  
3.1.1 Minutes of January 29, 2015  

**MOTION:** John Benich; Second; Bill Wigginton: To approve the minutes of January 29, 2015. Motion carried unanimously.  

3.1.2 Minutes of March 25, 2015  
One minor change was made.  

**MOTION:** Bruce Daniels; Second; Bill Wigginton: To approve the minutes of March 25, 2015 with minor change. Motion carried. Bruce Jaffe abstained.
4. **ORAL COMMUNICATIONS (items not on the Agenda)**
Katherine Sweet asked to speak to Item 5.7 and her request was granted. She talked about the composition of the committee, suggesting that there be three members of private well owners/users.

5. **ADMINISTRATIVE BUSINESS**

5.1 Accept Soquel-Aptos Area Groundwater Management Annual Review and Report (ARR) for Water Year 2014

Derrick Williams, HydroMetrics, WRI presented the Annual Review and Report (ARR) for Water Year 2014 and answered questions from the committee. It should be noted that this is the last annual report for the time being as the committee voted to continue the quarterly reports only as the move is made toward forming the Groundwater Sustainability Agency (GSA).

**MOTION:** Bruce Daniels; Second; Bob Postle: To Accept the Soquel-Aptos Area Groundwater Management Annual Review and Report for Water Year 2014. Motion carried.

5.2 Basin Groundwater Model Update

Derrick William gave a presentation on the groundwater model and answered questions from the committee.

5.3 Review and Approve Revised Third Amendment to the Joint Exercise of Powers Agreement (JPA) Amendment #3

Discussion was held. The agreement was signed by Soquel Creek Water District, Central Water District, and the City of Santa Cruz. The County of Santa Cruz is proposing changes, so the JPA will need to go back through the process of approval by each entity.

5.4 Approve Revised Soquel-Aptos Area Groundwater Management Annual Budget FY 2015-16

Discussion was held on the proposed budget for the committee, but voting was deferred until the third amendment to the JPA has been signed and the voting membership has been established.

5.5 Update from Subcommittee on Groundwater Sustainability Agency (GSA) Formation
Ms. Schumacher and Jon Kennedy, the subcommittee chair, reported the subcommittee has met twice and presented a handout summarizing their activities. Extensive discussion was held.

5.6 Update on Soquel-Aptos Area Community Engagement Pertaining to GSA Formation

Marci DuPraw, Managing Senior Mediator and Facilitator with the Center for Collaborative Policy, CSU Sacramento, discussed the current activities provided through the SWRCB-sponsored contract as well as the need for and the process of obtaining community participation in the GSA formation. Two public meetings will be held on June 30, 2015 to gather input from the public. Lengthy discussion of goals and objections was held.

5.7 Selection of Private Well Committee Representatives

Ms. Schumacher reported that 25 applications have been received for the private well owner seats on the committee. Until the 3rd JPA has been signed, the committee representation still stands at one private well owner. In the meantime, a letter will be sent to the applicants letting them know their applications have been received and why the process has stalled.

A nominating committee will be formed to review the applications and bring recommendations back to the BIG for selection.

**MOTION:** Bruce Daniels; Second; John Benich: The BIG chair will appoint a committee to review the applications and bring back a short list to a future meeting. Motion carried.

6. INFORMATION ITEMS – None

7. MANAGER’S REPORTS

7.1 Central Water District
   No report

7.2 City of Santa Cruz
   No report

7.3 County of Santa Cruz

Mr. Ricker reported the County will be recommended additional water use restrictions to the Board of Supervisors at their June 9, 2015 meeting. These include individual metering and reporting for small water systems of 5-199 connections.
7.4 Soquel Creek Water District

Mr. Dufour reported that since December, the District has not pumped from the two La Selva Beach area wells – Altivo and Seascape – due to Chrome 6.

8. **ADJOURNMENT**
Being no further business, the meeting was adjourned at 10:21 p.m. The next meeting of the BIG will be August 20, 2015.

---

**SUBMITTED BY:**

Karen Reese, Board Clerk

**APPROVED BY:**

Ron Duncan, Interim General Manager
Soquel Creek Water District
MEMO TO THE BASIN IMPLEMENTATION GROUP

Subject: Agenda Item No. 5.1  Review and Approve Revised Third Amendment to the Joint Exercise of Powers Agreement (JPA)

Attachments:
1. Draft Third Amendment to the Joint Exercise of Powers Agreement for the Purpose of Groundwater Management (with revisions highlighted)
2. Draft Third Amendment to the Joint Exercise of Powers Agreement for the Purpose of Groundwater Management (without revisions highlighted)

Purpose
This memo provides a copy of the most recent Third Amendment to the Joint Exercise of Powers Agreement (JPA) to the Basin Implementation Group (BIG) for the Basin Implementation Group committee members to approve.

Background
The Basin Implementation Group (BIG) was formed in 1995 to develop and implement a groundwater management plan. The original two members consisted of Soquel Creek Water District (SqCWD) and Central Water District (CWD). At the February 10, 2014 BIG Meeting, committee members gave staff direction to: (1) invite the County of Santa Cruz and the City of Santa Cruz to represent those portions of the basin within their jurisdiction and become additional parties within the JPA and (2) prepare a Third Amendment to the JPA for a subsequent BIG meeting.

A version of the attached Third Amendment was presented at the May 21, 2015 BIG Meeting. That previous version was approved by the BIG, and was adopted by all the member agencies, except the County of Santa Cruz. The County of Santa Cruz staff determined they had additional modifications needed before they could recommend adoption to the Board of Supervisors. The attached Third Amendment version contains proposed revisions related to the approval process and other less significant changes. Attachment 1 highlights the changes and Attachment 2 is a version with the changes accepted into the document.
In accordance with the Sustainable Groundwater Management Act, a Groundwater Sustainability Agency will be required to be formed and registered with the State of California by 2017. The existing committee, under this third amendment, will aid in facilitating that formation and continue current and important groundwater management efforts such as the completion of the current water model. This Third Amendment to the current JPA agreement allows all the agencies with an interest in the Soquel-Aptos Basin to financially share in these efforts and be involved in the decision making process for future efforts.

**POSSIBLE ACTIONS**

1. By MOTION, approve the revised attached Third Amendment of the Joint Exercise of Powers Agreement and let it take precedent over the previously approved version.

2. Take no action.

By ________________________________
Melanie Mow Schumacher
Special Projects/Community Dialogue Manager

By ________________________________
Ron Duncan
Interim General Manager
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 Creek Water District and the Central Water District 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 at 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 modifications, 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 join other local public agencies that are affected by the future management of the Basin Agency 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 meet 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;

Said 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 selected 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 members alternating every two years between agencies 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 member agencies annual budget and the proportional allocation of costs, shall also be approved by the Board or
COUNCIL subject to the approval of the governing body of each agency involved Partner Agency.

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

3. Compensation. Each Partner Agency board member attending meetings of the committee shall Committee may be compensated by his or her respective board Partner Agency as each board Partner Agency governing body so decides. No compensation shall be paid by the committee Committee. The staff shall be paid by their respective employing entities as they so agree 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 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 agency Partner Agency for the preceding water year. Based on use for 2013, the percentage cost to each agency Partner Agency for fiscal year 2015-16 would be as follows:

<table>
<thead>
<tr>
<th>Agency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soquel Creek Water District</td>
<td>70%</td>
</tr>
<tr>
<td>Central Water District</td>
<td>10%</td>
</tr>
<tr>
<td>City of Santa Cruz</td>
<td>10%</td>
</tr>
<tr>
<td>Santa Cruz County</td>
<td>10%</td>
</tr>
</tbody>
</table>

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 JPA Committee, all of the members shall agree on a new cost sharing formula to fund the costs of the JPA 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 JPASAGMC, 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 board of directors, 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.

69. Additional Members. On the approval of the Boards, governing bodies of all parties, Partner Agency members to this agreement, Agreement, and that of any subsequent party added to this agreement, Agreement, additional parties may be added to this JPA 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, the Committee, Agreement, Partner Agency members shall have the ability to recommend to their respective Boards, 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 Boards, governing bodies of the members, Partner Agencies.

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

13. Non-Restrictive of Independent Activities. This agreement, Agreement does not preclude any agency, 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 Boards and Councils, governing bodies of all members of the JPASAGMC.
Dated: ____________________2015  CENTRAL WATER DISTRICT

________________________________________
Authorized Officer

SOQUEL CREEK WATER DISTRICT

Dated: ____________________2015

________________________________________
Authorized Officer

CITY OF SANTA CRUZ

Dated: ____________________2015

________________________________________
Authorized Officer

SANTA CRUZ COUNTY

Dated: ____________________2015

________________________________________
Authorized Officer

Approved as to form:

________________________________________
County Counsel
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


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;
Third Amendment To  
Joint Exercise Of Powers Agreement
Page 3 of 6

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: ______________________2015  CENTRAL WATER DISTRICT

__________________________________________
Authorized Officer

SOQUEL CREEK WATER DISTRICT

Dated: ______________________2015

__________________________________________
Authorized Officer

CITY OF SANTA CRUZ
Dated: ____________________2015

Authorized Officer

SANTA CRUZ COUNTY

Dated: ____________________2015

Authorized Officer

Approved as to form:

County Counsel
August 20, 2015

MEMO TO THE BASIN IMPLEMENTATION GROUP

Subject: Agenda Item No. 5.2 Selection of Private Well Committee Representatives

Attachment: 1. Applications and Summary List

Background
The Soquel-Aptos Groundwater Management Committee (SAGMC) Joint Power Agreement states that the Committee is comprised of 11 members, including “Three public members who shall each be a person or representative of an entity served by, owning, or managing a non-municipal well”. A subcommittee, consisting of one representative from Central Water District (John Benich), Soquel Creek Water District (Bruce Jaffe), the City of Santa Cruz (Micah Posner), and the County of Santa Cruz (John Ricker) was formed to recommend private well representatives for consideration by the entire SAGMC.

Selection Process
We received 25 applications to represent private well pumpers in our groundwater basins. The applicants’ qualifications were very strong, which reflects the awareness and commitment of private well pumpers.

The subcommittee met on July 27 to review applications and discuss criteria for selecting candidates to recommend to the SAGMC. Criteria included (not in order of importance):
- Owned or operated a well within the Soquel-Aptos Groundwater Basin
- Connections to the community
- Level of commitment
- Knowledge of the groundwater situation
- Constructive
- Open-minded
- Easy to work with

In addition, the committee sought to balance the recommendation of the three candidates considering:
- Diversity with regard to water use
- Diversity with regard to perspective
- Diversity with regard to location in the groundwater basins

The subcommittee decided to hold in-person interviews with six candidates: Curt Abramson, John Bargetto, Lisa Bennett, Jim Kerr, Robert Schultz, and Nicholas de Sieyes. Interviews were held on August 12 and 13.
Recommendation
The three candidates recommended for representation of private pumpers and the reasons for each recommendation are:

Jon Kennedy - Jon shares a private well in the proposed Soquel-Aptos groundwater basin and is very active in public meetings on groundwater management. He has attended all community stakeholder and expanded Basin Implementation Group meetings. An example of his level of involvement is that he obtained a publically available private well census from the County, updated its formatting to make it easier to use, checked its accuracy, applied more current water use factors, and integrated it with data from Small Water Systems to learn more about groundwater use in our basins.

Jim Kerr - Jim shares a private well in the proposed Soquel-Aptos groundwater basin and is a community leader. He organized a grassroots effort of more than 1,000 neighbors that examined whether PG&E needed additional power lines in the Aptos Hills. Ultimately, PG&E decided that the proposed power lines were not needed. Jim is a retired Fire Captain of the Aptos/La Selva Beach Fire Department. His community involvement is demonstrated by his serving on the County Grand Jury for two years. As soon as he became aware of the groundwater management efforts in the basin he attended a community stakeholder meeting.

Curt Abramson - Curt both shares a private well and has a well for agricultural use in the proposed Soquel-Aptos groundwater basin. He is a realtor/organic farmer and is very well connected to the agricultural community. He owns and operates a small 4-acre farm with trees that are all on drip irrigation. He has attended four community stakeholder meetings.

POSSIBLE ACTIONS
1. By MOTION, approve subcommittee recommendations for private well representatives.

2. By MOTION, select private well representatives from a subset of subcommittee recommendations and candidates not recommended, or entirely from candidates not recommended.

By the Private Well Representative Selection SAGMC Subcommittee:
Bruce Jaffe
John Benich
Micah Posner
John Ricker
<table>
<thead>
<tr>
<th>First Name</th>
<th>Last Name</th>
<th>Type of Well Owner</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Curt</td>
<td>Abramson</td>
<td>Shared Well (4 or less) and agriculture</td>
<td></td>
</tr>
<tr>
<td>John</td>
<td>Bargetto</td>
<td>Private well: agricultural</td>
<td>Bargetto Winery</td>
</tr>
<tr>
<td>Lisa</td>
<td>Bennett</td>
<td>private well: single</td>
<td></td>
</tr>
<tr>
<td>David</td>
<td>Cohen</td>
<td>Private well: single and shared (4 or less)</td>
<td></td>
</tr>
<tr>
<td>Nicholas</td>
<td>de Sieyes</td>
<td>private well and ag (vineyard)</td>
<td></td>
</tr>
<tr>
<td>Douglas</td>
<td>Deitch</td>
<td>shared well (4 or less)</td>
<td></td>
</tr>
<tr>
<td>Terry</td>
<td>Eckhardt</td>
<td>private well: single with agriculture</td>
<td></td>
</tr>
<tr>
<td>Frank</td>
<td>Gallant</td>
<td>shared well (4 or less): personal recreation and agricultural</td>
<td></td>
</tr>
<tr>
<td>Jon</td>
<td>Kennedy</td>
<td>shared well (4 or less)</td>
<td></td>
</tr>
<tr>
<td>James (Jim)</td>
<td>Kerr</td>
<td>shared well (4 or less)</td>
<td></td>
</tr>
<tr>
<td>Steve</td>
<td>Kurtagh</td>
<td>shared well (4 or less)</td>
<td></td>
</tr>
<tr>
<td>Jascha</td>
<td>Lee</td>
<td>Small Water System (15-199 connections)</td>
<td>Jarvis Mutual</td>
</tr>
<tr>
<td>Tony</td>
<td>Mardin</td>
<td>Private well &amp; owner of tradesperson</td>
<td>Owner of Halstead Pump Inc.</td>
</tr>
<tr>
<td>Lawrence</td>
<td>Martin</td>
<td>private well: single</td>
<td></td>
</tr>
<tr>
<td>John</td>
<td>McKenney</td>
<td>private well: single with agriculture</td>
<td></td>
</tr>
<tr>
<td>Bapcha</td>
<td>Murty</td>
<td>Small Water System (15-199 connections)</td>
<td>Cathedral Hills Mutual</td>
</tr>
<tr>
<td>Joe</td>
<td>Nugent</td>
<td>Institution</td>
<td>Cabrillo College</td>
</tr>
<tr>
<td>Regan</td>
<td>Ray</td>
<td>private well: single with agriculture</td>
<td></td>
</tr>
<tr>
<td>Robert</td>
<td>Schultz</td>
<td>Small Water System (15-199 connections)</td>
<td>Trout Gulch Mutual</td>
</tr>
<tr>
<td>Mark</td>
<td>Szychowski</td>
<td>Private well: single and shared (4 or less) with ag</td>
<td></td>
</tr>
<tr>
<td>Lou</td>
<td>Tuosto</td>
<td>shared well (4 or less)</td>
<td></td>
</tr>
<tr>
<td>Nick</td>
<td>Vrolyk</td>
<td>private well: single</td>
<td></td>
</tr>
<tr>
<td>William</td>
<td>Wigginton</td>
<td>Private Well- Open Space</td>
<td>Seascape Greens Open Space</td>
</tr>
<tr>
<td>Don</td>
<td>Wilson</td>
<td>shared Well (4 or less)</td>
<td></td>
</tr>
<tr>
<td>Lynn</td>
<td>Yoder</td>
<td>private well: single</td>
<td></td>
</tr>
</tbody>
</table>
Applicant Information:

<table>
<thead>
<tr>
<th>First Name:</th>
<th>Curt</th>
</tr>
</thead>
<tbody>
<tr>
<td>Last Name:</td>
<td>Abramson</td>
</tr>
<tr>
<td>Address:</td>
<td>660 Baker Road</td>
</tr>
<tr>
<td>City:</td>
<td>Aptos</td>
</tr>
<tr>
<td>Zip Code:</td>
<td>95003</td>
</tr>
<tr>
<td>Phone:</td>
<td>831-251-4718</td>
</tr>
<tr>
<td>Email Address:</td>
<td><a href="mailto:roosterridge@cruzio.com">roosterridge@cruzio.com</a></td>
</tr>
</tbody>
</table>

Current or Past Profession:

Realtor/Organic Farmer

Community Interests and Activities:
outdoor sports; member, Ecological Farm Association; past board member, Aptos Soccer Club; past board member SJ Convention and Visitors Bureau; Volunteer with local organizations

Do you own, manage, or are served by a private well?

- [x] Yes
- [ ] No, I receive all my water from a municipal water supply.

If you answered no to the above question, you are not eligible to apply. The openings on the Committee are for private well representation.

What type of private well configuration best describes you as a groundwater supply user:
(Check all that apply)

<table>
<thead>
<tr>
<th>□ Private well for domestic use (single family home)</th>
<th>□ Shared private well for domestic use (4 or less homes)</th>
<th>□ Mutual Private well (small water system with 5-14 connections)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name of Mutual water company:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ Mutual private well (small water system with 15-199 connections)</td>
<td>□ Private Well for Recreation, institution, or industrial</td>
<td>□ Private well for agricultural use</td>
</tr>
<tr>
<td>Name of mutual water company:</td>
<td>Please describe:</td>
<td>Please describe: 60 GPM well serving 2 properties totaling 96 acres</td>
</tr>
<tr>
<td>□ Other Please describe:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is your well used for irrigation? If yes, please indicate how many acres (estimated) that you irrigate.</td>
<td>4 acres all drip irrigation</td>
<td></td>
</tr>
</tbody>
</table>
Applicant Information (continued):

Reason for applying:

I'm interested in being part of the Committee that has been created to address the sustainability issues we face here in the Soquel-Aptos basin. As a resident in Aptos since 1980, I've experienced both the shortages and overabundances of water we sometimes face here. The recent legislation mandating sustainability plans presents both a challenge and an opportunity for stakeholders to address the issues.

For decades, groundwater users in the basin and elsewhere have continued unsustainable levels of extraction and use, with insufficient efforts to correct the deficit. It is time for change, and I believe that can be done in a proactive and collaborative way.

I own and operate a small farm in Aptos with my family, and we live on site. I am also a real estate professional, as a broker associate with Bailey Properties for well over a decade. As such, I can offer a variety of perspectives on the proposed solutions to the over draft conditions we currently operate in: as residential user, agricultural user, and as a professional with understanding of the development community. I have also had a long previous career as an operator of small to medium size businesses in the hotel and resort business. Consequently, I have the business background to understand the financial components of basin management decisions, as well as many years of negotiating, communications and public relations. I am a realist, and understand that compromise and consensus will be the best approach to long term solutions.

Being a member of the team working to meet the challenges of sustainable groundwater use in my community is a commitment in time and energy I am pleased to make, if the opportunity is mine.

Regards,

Curt S. Abramson
**Applicant Information:**

<table>
<thead>
<tr>
<th>First Name:</th>
<th>John</th>
</tr>
</thead>
<tbody>
<tr>
<td>Last Name:</td>
<td>Bargetto</td>
</tr>
<tr>
<td>Address:</td>
<td>3535 N Main St</td>
</tr>
<tr>
<td>City:</td>
<td>Soquel</td>
</tr>
<tr>
<td>Zip Code:</td>
<td>95073</td>
</tr>
<tr>
<td>Phone:</td>
<td>475.2258, x17</td>
</tr>
<tr>
<td>Email Address:</td>
<td><a href="mailto:jbargetto@bargetto.com">jbargetto@bargetto.com</a></td>
</tr>
</tbody>
</table>

**Current or Past Profession:**

vintner

**Community Interests and Activities:**

Sustainable water plan for next 100 years

---

Do you own, manage, or are served by a private well?

- [ ] Yes
- [ ] No, I receive all my water from a municipal water supply.

If you answered no, to the above question, you are not eligible to apply. The openings on the Committee are for private well representation.

---

**What type of private well configuration best describes you as a groundwater supply user:**

(Check all that apply)

- [ ] Private well for domestic use (single family home)
- [ ] Shared private well for domestic use (4 or less homes)
- [ ] Mutual Private well (small water system with 5-14 connections)
  
  Name of Mutual water company:
  
  dfadf

- [ ] Mutual private well (small water system with 15-199 connections)

  Name of mutual water company:

- [ ] Private Well for Recreation, institution, or industrial

  Please describe:
  Bargetto Winery has private well. Most comes from scwd

- [ ] Private well for agricultural use

  Please describe:
  Also have private well at our estate vineyard in Corralitos in pvmwd

- [ ] Other

  Please describe:
  IN vineyard we irrigate 37 acres

---
Applicant Information (continued):

Reason for applying:

My father was founding member of scwd, so water flows in my veins as wine does. Our property is adjacent to Soquel Creek, so I am tuned into the effects of drought. I realize as community we need to establish a sustainable plan for water for the next 100 years.
**Applicant Information:**

<table>
<thead>
<tr>
<th>First Name:</th>
<th>Lisa</th>
</tr>
</thead>
<tbody>
<tr>
<td>Last Name:</td>
<td>Bennett</td>
</tr>
<tr>
<td>Address:</td>
<td>500 Cathedral Dr #21 (Physical: 1130 Aptos View Rd)</td>
</tr>
<tr>
<td>City:</td>
<td>Aptos</td>
</tr>
<tr>
<td>Zip Code:</td>
<td>95001</td>
</tr>
<tr>
<td>Phone:</td>
<td>408-420-0332</td>
</tr>
<tr>
<td>Email Address:</td>
<td><a href="mailto:Lisa.g.bennett@hotmail.com">Lisa.g.bennett@hotmail.com</a></td>
</tr>
<tr>
<td>Current or Past Profession:</td>
<td>Owner, Meadowood Home Care</td>
</tr>
</tbody>
</table>

**Community Interests and Activities:**
- Grey Bears - Volunteer + Board of Directors
- Alzheimer's Assn - Volunteer + donor
- Dining for Women - Fundraiser
- Save Our Shores - Volunteer + Member, Think Local First

**Do you own, manage, or are served by a private well?**
- [x] Yes
- [ ] No, I receive all my water from a municipal water supply.

If you answered no, to the above question, you are not eligible to apply. The openings on the Committee are for private well representation.

**What type of private well configuration best describes you as a groundwater supply user?**
(Check all that apply)

- [x] Private well for domestic use (single family home)
- [ ] Shared private well for domestic use (4 or less homes)
- [ ] Mutual Private well (small water system with 5-14 connections)

**Name of Mutual water company:**

- [ ] Mutual private well (small water system with 15-199 connections)

**Name of mutual water company:**

- [ ] Private Well for Recreation, institution, or industrial

**Please describe:**

- [ ] Private well for agricultural use

**Please describe:**

- [ ] Other

**Is your well used for irrigation? If yes, please indicate how many acres (estimated) that you irrigate.**

- [ ] Yes

- [ ] No

**Please describe:**

- [ ] Is there a drip system attached to 30 fruit trees, not currently in use.
Applicant Information (continued):

Reason for applying:

I'm a strong networker in the community and also a landowner (10.60 acres) who raises fruit and vegetables, and very interested and concerned about the water, aquifers, and water use in the County and California in general.

I love to teach, and teach subjects like disruptive climate change, to local classrooms as a volunteer. I could easily see presenting a lecture/informational session to younger and older audiences. I'm not afraid of public speaking, have good stage presence, and love to teach.

As a math and science instructor (private gradeschool and homeschool instructor), I also enjoy researching on a particular topic, digging in, finding out all I can about a subject area. I think this investigative tendency could be well used on your committee.

I'm also a professional program manager - PMP and Stanford certifications - and have years of experience leading teams, managing action items, issues, and risk planning. I tend to communicate out so everyone knows what's going on.

If this sounds like a good fit for your committee, please contact me. Sorry this is a bit late, I only received the message (through a networking group) today.

Thank you,
Lise Bennett
Applicant Information:

<table>
<thead>
<tr>
<th>First Name: David</th>
<th>Last Name: Cohen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address: 6600 Prescott Rd.</td>
<td>Zip Code: 95073</td>
</tr>
<tr>
<td>City: Soquel</td>
<td>Phone: 831 476 7794</td>
</tr>
<tr>
<td>Email Address: <a href="mailto:gayledavid@hotmail.com">gayledavid@hotmail.com</a></td>
<td></td>
</tr>
</tbody>
</table>

Current or Past Profession:

30+ years landscape contracting and design business

Community Interests and Activities:

- Completed a mediation workshop at the Conflict Resolution Center probably 25 years ago. Volunteered at a few conflict resolution sessions. Worked on numerous short term community projects for the past 30 years. I am very interested in the dynamics of communication.

Do you own, manage, or are served by a private well?

- [ ] Yes
- [ ] No, I receive all my water from a municipal water supply.

If you answered no, to the above question, you are not eligible to apply. The openings on the Committee are for private well representation.

What type of private well configuration best describes you as a groundwater supply user:

(Check all that apply)

- [ ] Private well for domestic use (single family home)
- [ ] Shared private well for domestic use (4 or less homes)
- [ ] Mutual Private well (small water system with 5-14 connections)

Name of Mutual water company:

- [ ] Mutual private well (small water system with 15-199 connections)

Name of mutual water company:

- [ ] Private Well for Recreation, institution, or industrial use

Please describe:

- [ ] Private well for agricultural use

Please describe:

- [ ] Other

Please describe:

Is your well used for irrigation? If yes, please indicate how many acres (estimated) that you irrigate.
Applicant Information (continued):

Reason for applying:

I believe I could possibly bring some balance to the conversation about water management from the perspective of a property owner served by a private well.

I respect, understand and agree to the concept of private property rights. From a larger perspective I also understand the need to monitor water use of private wells. I am in favor of aquifers use being understood in order to be managed properly.
### Applicant Information:

<table>
<thead>
<tr>
<th>First Name:</th>
<th>NICHOLAS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Last Name:</td>
<td>DE SIEYES</td>
</tr>
<tr>
<td>Address:</td>
<td>850 CHARLSON ROAD</td>
</tr>
<tr>
<td>City:</td>
<td>APTOS</td>
</tr>
<tr>
<td>Zip Code:</td>
<td>CA</td>
</tr>
<tr>
<td>Phone:</td>
<td>831.688.1190</td>
</tr>
<tr>
<td>Email Address:</td>
<td><a href="mailto:NRDESIYES@UCDAVIS.EDU">NRDESIYES@UCDAVIS.EDU</a></td>
</tr>
</tbody>
</table>

**Current or Past Profession:**

**POSTDOCTORAL SCHOLAR, UC DAVIS**

**Community Interests and Activities:**

GRAPEGROWING AND WINEMAKING, MEMBER OF VITICULTURAL ASSOCIATION OF SC MOUNTAINS, SUPPORTER OF NUMEROUS LOCAL NONPROFITS

**Do you own, manage, or are served by a private well?**

- [ ] Yes
- [ ] No, I receive all my water from a municipal water supply.

If you answered no, to the above question, you are not eligible to apply. The openings on the Committee are for private well representation.

**What type of private well configuration best describes you as a groundwater supply user?**

(Check all that apply)

- [ ] Private well for domestic use (single family home)
- [ ] Shared private well for domestic use (4 or less homes)
- [ ] Mutual Private well (small water system with 5-14 connections)

Name of Mutual water company:

- [ ] Mutual private well (small water system with 15-199 connections)

Name of mutual water company:

- [ ] Private Well for Recreation, institution, or industrial

Please describe:

- [ ] Private well for agricultural use

Please describe: vineyard

- [ ] Other

Please describe:

Is your well used for irrigation? If yes, please indicate how many acres (estimated) that you irrigate.

1.5 acres
Applicant Information (continued):

Reason for applying:

My family loves the Aptos area dearly, and we believe a community is made better by each member volunteering their time and effort, particularly when there is a clear need for energy in one's own area of expertise. I'm a groundwater scientist by training, with degrees in geology and civil/environmental engineering, and have worked on very contentious issues that require careful, sensitive communication between scientists, regulators, and the public (septic systems on beaches, contaminated corner gas stations, etc.). I'm familiar with a number of the issues coming up in 2015/2016, including the new sustainable groundwater management legislation passed last year. I also have a solid understanding of groundwater flow modeling, and I've even been involved with projects using electrical resistivity tomography to identify the saltwater/freshwater boundary in coastal sediments. As a resident and agricultural grower, I have a vested interest in local groundwater management and understand -- and can help communicate -- the major issues at hand. I own/manage a small vineyard and persimmon orchard, three groundwater wells, and two septic systems, all in a recharge zone, and must balance my own very real need for groundwater with the needs of my neighbors, both agricultural and residential. At the same time, a plan for sustainable use clearly must be put in place to meet the needs of future generations to come, including that of my own two year old daughter. I'm confident that I'd be an effective, thoughtful, and fair-minded representative of the public in these matters.
Applicant Information:

<table>
<thead>
<tr>
<th>First Name: Douglas</th>
<th>Last Name: Deitch</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address: 540 Hudson Lane</td>
<td></td>
</tr>
<tr>
<td>City: Aptos</td>
<td></td>
</tr>
<tr>
<td>Zip Code: 95003</td>
<td></td>
</tr>
<tr>
<td>Phone: 831.476.7662</td>
<td></td>
</tr>
<tr>
<td>Email Address: <a href="mailto:ddeitch@got.net">ddeitch@got.net</a></td>
<td></td>
</tr>
<tr>
<td>Current or Past Profession: Real Estate/Internet/MBC ED</td>
<td></td>
</tr>
</tbody>
</table>

Community Interests and Activities:

http://dougforsupervisor.com/archive.htm

Do you own, manage, or are served by a private well?

- [ ] Yes
- [ ] No, I receive all my water from a municipal water supply.

If you answered no, to the above question, you are not eligible to apply. The openings on the Committee are for private well representation.

What type of private well configuration best describes you as a groundwater supply user:

(Check all that apply)

- [ ] Private well for domestic use (single family home)
- [ ] Shared private well for domestic use (4 or less homes)
- [ ] Mutual Private well (small water system with 5-14 connections)

Name of Mutual water company:

- [ ] Mutual private well (small water system with 15-199 connections)
- [ ] Private Well for Recreation, institution, or industrial

Please describe:
- pool, clay tennis court

- [ ] Private well for agricultural use

Please describe:
- Personal/family use, orchard, livestock, and gardening

- [ ] Other

Please describe:

Is your well used for irrigation? If yes, please indicate how many acres (estimated) that you irrigate.

Yes. 1+ acre on 6+ acre parcel.
Applicant Information (continued):

Reason for applying:

PLEASE NOTE. I AM NOT IN SQCWD OR ANY OTHER WATER DISTRICT!

I am applying to the County Board of Supervisors to represent all similarly situated non district County private well and water system users such as myself and as "Public Member" for all to advocate for and help achieve sustainable ground water use in Santa Cruz County and the entire Monterey Bay.

I apply to be an effective fiduciary and advocate for the global exemplary symbiotic social, economic, and natural system I envision we can be here based on finally visioning and then implementing a REGIONAL INTERCOUNTY and model of our economy, society, and environment which finally makes only sustainable use of our primarily local groundwater but now necessarily diversified and supplemented resources and supplies here in the Monterey Bay... as I have been trying to do for the last around 35 years.

www.thinklocalactlocal.com
www.thebestthatmoneycantbuy.net
Doug on desal on KSCO May/2012: www.thebestthatmoneycantbuy.org
https://www.youtube.com/watch?v=AyYd603w-5A
www.begentlewiththeearth.com
www.begentlewiththeearth.net
www.begentlewiththeearth.org
www.dougdeitch.com
www.dougdeitch.com
https://www.facebook.com/ MontereyBayConservancy
www.ourinconvenienttruth.com
http://dougforsupervisor.com/archive.htm
Aptos Chamber post/2012: https://www.facebook.com/AptosChamberOfCommerce/posts/374046945946969
Monterey County presentation/2009: https://www.facebook.com/MontereyBayConservancy/photos/pb.177055962316509.-2207520000.1431959291./900709439951154/?type=3&theater
(more on request)
### Applicant Information:

<table>
<thead>
<tr>
<th>First Name:</th>
<th>Last Name:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Terry</td>
<td>Eckhardt</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Address:</th>
<th>Zip Code:</th>
</tr>
</thead>
<tbody>
<tr>
<td>3379 Old San Jose Rd</td>
<td>95073</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>City:</th>
<th>Phone:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soquel, Ca</td>
<td>(831)475-0542</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Email Address:</th>
<th>Current or Past Profession:</th>
</tr>
</thead>
<tbody>
<tr>
<td><a href="mailto:eckwater@sbcglobal.net">eckwater@sbcglobal.net</a></td>
<td>Secondary Science Instructor</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Community Interests and Activities:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elk Horn Slough Foundation Land Trust of Santa Cruz County</td>
</tr>
</tbody>
</table>

Do you own, manage, or are served by a private well?
- [ ] Yes
- [x] No, I receive all my water from a municipal water supply.

If you answered no, to the above question, you are not eligible to apply. The openings on the Committee are for private well representation.

What type of private well configuration best describes you as a groundwater supply user:
(Chart all that apply)
- [ ] Private well for domestic use (single family home)
- [ ] Shared private well for domestic use (4 or less homes)
- [ ] Mutual Private well (small water system with 5-14 connections)

Name of Mutual water company:

- Private well for agricultural use

Please describe:

- 3 acres grapes

Is your well used for irrigation? If yes, please indicate how many acres (estimated) that you irrigate.

- 4 acres
To: Soquel-Aptos Groundwater Management Committee

Reason for applying:

Thank you for the opportunity to review some of my interests and experiences that might make me a contributor to the Groundwater Management Committee.

Historically, my graduate work at the Moss Landing Marine Labs peaked my interest groundwater issues, especially when my fellow grad. student, Mark Silberstein, moved to Sunset Beach. I believe their well was one of the first in the area to show signs of salt water intrusion.

I moved on from MLML and spent 30 years as a high school Biology/Ecology instructor, and in that role covered topics like water quality, sewage treatment, and environmental protection. I'm proud of my relationship with the Surfrider Foundation and O'neil's Sea Odyssey during that time.

In the mid 1980's my wife, Cathleen, and I purchased property in Soquel that is served by a well, so I have about 30 years experience as a well owner.

In 2006 I joined the board of the Elkhorn Slough Foundation, where I serve on the Land Committee, and in 2007 I participated in the S.C. Farm Bureau's "Focus Ag." program. In these roles I have become familiar with groundwater management issues.

Finally, in 2009 I planted about three acres of wine grapes that are irrigated by our well, and am a member of VASCMA (Vintner's Assoc. of the Santa Cruz Mountains).

I'm not sure if this history is my "reason for applying", but I am very aware of the complexity and magnitude of the problems facing water districts, farmers, industry, private well owners, wildlife, etc. And although it might just be a "drop in the bucket", I want to contribute to a sustainable future.
**Applicant Information:**

<table>
<thead>
<tr>
<th>First Name:</th>
<th>Frank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Last Name:</td>
<td>Gallant</td>
</tr>
<tr>
<td>Address:</td>
<td>180 Hidden Valley Ridge</td>
</tr>
<tr>
<td>City:</td>
<td>Soquel</td>
</tr>
<tr>
<td>Zip Code:</td>
<td>95073</td>
</tr>
<tr>
<td>Phone:</td>
<td>831-462-4455</td>
</tr>
<tr>
<td>Email Address:</td>
<td><a href="mailto:frank.gallant48@gmail.com">frank.gallant48@gmail.com</a></td>
</tr>
<tr>
<td>Current or Past Profession:</td>
<td>Journalist</td>
</tr>
</tbody>
</table>

**Community Interests and Activities:**
Board of Directors, Friends of the Santa Cruz Public Libraries, 2012-2015 (moved to area in 2012)

**Do you own, manage, or are served by a private well?**
- [x] Yes
- [ ] No, I receive all my water from a municipal water supply.

If you answered no, to the above question, you are not eligible to apply. The openings on the Committee are for private well representation.

**What type of private well configuration best describes you as a groundwater supply user?**
(Choose all that apply)

<table>
<thead>
<tr>
<th></th>
<th>Private well for domestic use (single family home)</th>
<th>Shared private well for domestic use (4 or less homes)</th>
<th>Mutual Private well (small water system with 5-14 connections)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Name of Mutual water company:</td>
<td></td>
<td>Name of Mutual water company:</td>
</tr>
<tr>
<td>---</td>
<td>--------------------------------------------------</td>
<td>-----------------------------------------------------</td>
<td>-------------------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Mutual private well (small water system with 15-199 connections)</th>
<th>Private Well for Recreation, institution, or industrial use</th>
<th>Private well for agricultural use</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Name of mutual water company:</td>
<td>Please describe:</td>
<td>Please describe:</td>
</tr>
<tr>
<td>---</td>
<td>----------------------------------------------------------------</td>
<td>-------------------------------------------------------------</td>
<td>----------------------------------</td>
</tr>
<tr>
<td></td>
<td>dfadf</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Other**

- Please describe:
  - dfadf

- Is your well used for irrigation? If yes, please indicate how many acres (estimated) that you irrigate.
  - Our well is for two families, mine and my son's. We drip irrigate a small orchard and garden beds.
Applicant Information (continued):

Reason for applying:

I'm a semi-retired journalist specializing in rural issues -- business, the environment, infrastructure, energy & etc. I've written extensively about rural utilities (electric cooperatives), and understand how utilities work (including water and gas), and the politics surrounding them.

We are new to California; we moved from Washington, D. C. to Berkeley in 2009 and to Soquel in 2012. I've never lived in a place with water shortages before, and I'm very interested in making a contribution to my community that will insure a steady supply of water for the future -- a future my four small grandchildren will inherit.

I resigned from the board of directors of the Friends of the Santa Cruz Public Libraries in February after three years of service, and am looking for a new community service challenge.
**Applicant Information:**

<table>
<thead>
<tr>
<th>First Name:</th>
<th>Jon</th>
</tr>
</thead>
<tbody>
<tr>
<td>Last Name:</td>
<td>Kennedy</td>
</tr>
<tr>
<td>Address:</td>
<td>3987 Glen Haven Rd.</td>
</tr>
<tr>
<td>City:</td>
<td>Soquel</td>
</tr>
<tr>
<td>Zip Code:</td>
<td>95073</td>
</tr>
<tr>
<td>Phone:</td>
<td>(831) 476-7881</td>
</tr>
<tr>
<td>Email Address:</td>
<td><a href="mailto:jon@groupmindexpress.com">jon@groupmindexpress.com</a></td>
</tr>
<tr>
<td>Current or Past Profession:</td>
<td>Organizational Consultant, with GroupMind Express for 15 yrs.</td>
</tr>
</tbody>
</table>

**Community Interests and Activities:**

---

**Do you own, manage, or are served by a private well?**

- [✓] Yes
- [ ] No, I receive all my water from a municipal water supply.

If you answered no, to the above question, you are not eligible to apply. The openings on the Committee are for private well representation.

**What type of private well configuration best describes you as a groundwater supply user:**

(Check all that apply)

- [ ] Private well for domestic use (single family home)
- [ ] Shared private well for domestic use (4 or less homes)
- [ ] Mutual Private well (small water system with 5-14 connections)
- [ ] Mutual private well (small water system with 15-199 connections)

Name of Mutual water company:

dfasdf

- [ ] Other
  Please describe:

- [ ] Private well for agricultural use
  Please describe:

- [ ] Is your well used for irrigation? If yes, please indicate how many acres (estimated) that you irrigate.
Applicant Information (continued):

Reason for applying:

I have become impassioned about our groundwater situation, its systemic connections among multiple stakeholders, and the need for leadership and community involvement in order to arrive at an effective and sustainable solution.

I wanted to bring my perspective as 1) a consultant who has worked with strategic planning, team alignment and collaborative decision making and 2) a chief executive of a regulated healthcare agency to the process of gathering information and consensus as a community of users, to enable us to move to effective action on the issues of overdrafting and salt water intrusion.

I have been involved with dialogue with Soquel Creek WD and the BIG for the past nine or ten months. I received the Wolcott private well census from John Ricker, updated its formatting, checked its assignments against the County GIS and applied more current water use factors, and integrated the results along with data from Small Water Systems and the three municipal providers, so that we can all have actual data with which to hold our deliberations on the overall water system in mid-County.

I participated as a member and a facilitator in the community stakeholder dialogues that were held at the end of 2014. I believe I helped to build a sense of trust in the process, and to give individuals a voice in our mutual learning and discussions.

Currently, I have been voted Chair of the SAGMC subcommittee which has been tasked with analyzing and clarifying the issues involved with forming the state-required Groundwater Sustainability Agency for our basin.

I would like to continue my involvement with our crucial water issues in an official and representative capacity.
Applicant Information:

<table>
<thead>
<tr>
<th>First Name:</th>
<th>James (Jim)</th>
<th>Last Name:</th>
<th>Kerr</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address:</td>
<td>2125 Cox Road</td>
<td>Zip Code:</td>
<td>95003</td>
</tr>
<tr>
<td>City:</td>
<td>Aptos</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phone:</td>
<td>831-688-5677</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Email Address:</td>
<td><a href="mailto:jmckerr@earthlink.net">jmckerr@earthlink.net</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current or Past Profession:</td>
<td>Fire Captain, Aptos/La Selva Fire Department (Retired)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Community Interests and Activities:
Active volunteer. Interested in local government and issues that our communities face. Served two years on the Santa Cruz Civil Grand Jury. Member of non-profit boards and associations. Member of a grass roots committee dealing with utility regulatory issues and the CPUC.

Do you own, manage, or are served by a private well?

- [ ] Yes
- [ ] No, I receive all my water from a municipal water supply.

If you answered no, to the above question, you are not eligible to apply. The openings on the Committee are for private well representation.

What type of private well configuration best describes you as a groundwater supply user:
(Check all that apply)

- [ ] Private well for domestic use (single family home)
- [ ] Shared private well for domestic use (4 or less homes)
- [ ] Mutual Private well (small water system with 5-14 connections)

Name of Mutual water company:

- [ ] Mutual private well (small water system with 15-199 connections)

Name of mutual water company:

- [ ] Private Well for Recreation, institution, or industrial

Please describe:

- [ ] Private well for agricultural use

Please describe:

- [ ] Other

Please describe:

Is your well used for irrigation? If yes, please indicate how many acres (estimated) that you irrigate.

No
Applicant Information (continued):

Reason for applying:

I've been a mid-Santa Cruz County resident for more than fifty years. I live within the boundaries of the Central Water District. I built my home and water well in Day Valley thirty-five years ago, in the middle of a drought. My young family grew up appreciating the quality and preciousness of our drinking water. For us, water conservation has always been a way of life. I also own a property served by the Santa Cruz Municipal Utilities District.

Arguably, there's no greater issue facing us today than the threat to our water supply. I'd like to be part of the conversation.
### Applicant Information:

| First Name: | Steve |
| Last Name: | Kurtagh |
| Address: | 221 La Cima St |
| City: | Soquel |
| Zip Code: | 95073 |
| Phone: | 831-477-1014 |
| Email Address: | skurtagh@hotmail.com |

### Current or Past Profession:

Telecom Account Executive Retired

### Community Interests and Activities:

Decent of Aho Nano State Park, Volunteer Coordinator at Operation Surf an annual event which brings wounded soldiers to SC to learn how to surf. Facilitator for Boys to Men group for 13 year old boys who have no male role models in their lives and a catalyst for the program for disadvantaged 13 to 24 year olds helping them to enter the workforce. When I lived in East環區, I was a board member of our local neighborhood association dealing with quality of life issues and was very active in drafting mitigation policies that would protect our neighborhood prior to the construction of the San Jose Arena.

### Do you own, manage, or are served by a private well?

- [✓] Yes
- [ ] No, I receive all my water from a municipal water supply.

If you answered no, to the above question, you are not eligible to apply. The openings on the Committee are for private well representation.

### What type of private well configuration best describes you as a groundwater supply user:

(Check all that apply)

- [ ] Private well for domestic use (single family home)
- [✓] Shared private well for domestic use (4 or less homes)
- [ ] Mutual Private well (small water system with 5-14 connections)
- [ ] Mutual private well (small water system with 15-199 connections)
- [ ] Private Well for Recreation, institution, or industrial use
- [ ] Private well for agricultural use

Name of Mutual water company:

Name of mutual water company:

Is your well used for irrigation? If yes, please indicate how many acres (estimated) that you irrigate.
Applicant Information (continued):

Reason for applying:

I live in the Soquel Hills off of Rodeo Gulch and share a well with 3 other families. I believe the current and potentially ongoing shortage of water may be one of the preeminent issues of our time not only for my family, but also for our community and many parts of the world.

For those families like mine who are on a well, there is no way, that I am aware of, to know the amount of water in the aquifer our wells draw from, and there is no monitoring of how much water each of us currently use or have used in the past. I have a great concern that those of us on wells may be using water at a rate that may be unsustainable. Without being better educated about our water situation, those of us on wells could be in dire straits sooner or later.

This recently became very personal to me after I spent time and money preparing my yard to replace water hungry plants with drought tolerant plantings. Of course, with the continuing regional drought and the Governor mandating a 25% water savings by all Californians, I can't in good conscience continue with my project. Fortunately, I discovered a gray water recycling class being offered at Cabrillo College and have signed up so that I can implement gray water capture and plant my yard and maintain it with water previously flushed into our septic system.

I believe I would be an excellent member of this board because of my concern about our local water situation, my complete commitment to community service since my retirement and my skill and ability to work with people in a cooperative and team oriented environment. I feel very passionate about the importance of managing our water resources and would feel very fulfilled by the opportunity to contribute to a plan to deal with the current water situation and educate my community on best practices.

Thank you for the opportunity to be considered for one of the three positions on the board.

Steve Kurtagh
**Applicant Information:**

<table>
<thead>
<tr>
<th>First Name:</th>
<th>Last Name:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jascha</td>
<td>Lee</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Address:</th>
<th>Zip Code:</th>
</tr>
</thead>
<tbody>
<tr>
<td>395 Bohnen Rd</td>
<td>95065</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>City:</th>
<th>Phone:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Santa Cruz</td>
<td>(831) 334-9084</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Email Address:</th>
<th>Current or Past Profession:</th>
</tr>
</thead>
<tbody>
<tr>
<td><a href="mailto:jascha@sebastian.com">jascha@sebastian.com</a></td>
<td>Software engineer</td>
</tr>
</tbody>
</table>

**Community Interests and Activities:**

President of Jarvis Mutual Water Company

---

**Do you own, manage, or are served by a private well?**

- [x] Yes
- [ ] No, I receive all my water from a municipal water supply.

If you answered no, to the above question, you are not eligible to apply. The openings on the Committee are for private well representation.

**What type of private well configuration best describes you as a groundwater supply user:**

(Check all that apply)

<table>
<thead>
<tr>
<th>Private well for domestic use (single family home)</th>
<th>Shared private well for domestic use (4 or less homes)</th>
<th>Mutual Private well (small water system with 5-14 connections)</th>
</tr>
</thead>
<tbody>
<tr>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

Name of Mutual water company:

- Jarvis Mutual

<table>
<thead>
<tr>
<th>Mutual private well (small water system with 15-199 connections)</th>
<th>Private Well for Recreation, institution, or industrial use</th>
<th>Private well for agricultural use</th>
</tr>
</thead>
<tbody>
<tr>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

Name of mutual water company:

- Jarvis Mutual

<table>
<thead>
<tr>
<th>Other</th>
<th>Is your well used for irrigation? If yes, please indicate how many acres (estimated) that you irrigate.</th>
</tr>
</thead>
<tbody>
<tr>
<td>[ ]</td>
<td></td>
</tr>
</tbody>
</table>

Please describe:

<table>
<thead>
<tr>
<th>Please describe:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jarvis Mutual</td>
</tr>
</tbody>
</table>

Please describe:
Reason for applying:

Running Jarvis Mutual and attending the series of public forums regarding the chronic overdraft of the Santa Cruz groundwater basin has made me keenly aware of the need to better manage this shared resource. I am applying in order to be a part of the solution and to represent the private well owners. I want to ensure that the policies decided upon take into consideration this group while working to solve the problem that is shared by all.

I bring a level-headed perspective, relevant experience, and the desire to hash out a well thought out and fair policy for this long-term problem.
<table>
<thead>
<tr>
<th>First Name: TONY</th>
<th>Last Name: MARDIN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address: P.O. BOX 277</td>
<td>Zip Code: 95001-0277</td>
</tr>
<tr>
<td>City: APTOS</td>
<td>Phone: 831-688-4731</td>
</tr>
</tbody>
</table>

Current or Past Profession: Owner of "Halstead Pump Inc"

Community Interests and Activities:

Do you own, manage, or are served by a private well?  
- [x] Yes  
- [ ] No, I receive all my water from a municipal water supply.

If you answered no, to the above question, you are not eligible to apply. The openings on the Committee are for private well representation.

What type of private well configuration best describes you as a groundwater supply user: (Check all that apply)

- [x] Private well for domestic use (single family home)
- [x] Shared private well for domestic use (4 or less homes)
- [ ] Mutual Private well (small water system with 5-14 connections)
- [ ] Mutual private well (small water system with 15-199 connections)
- [ ] Private Well for Recreation, institution, or industrial use
- [ ] Private well for agricultural use

Name of Mutual water company:

Name of mutual water company:

Is your well used for irrigation? If yes, please indicate how many acres (estimated) that you irrigate.

Please describe:
Reason for applying:

As an owner of Halstead Pump, I am in communication with hundreds of consumers; I have information to contribute and can answer questions.
**Applicant Information:**

| First Name: | LAWRENCE |
| Last Name:  | MARTIN   |
| Address:    | P.O. BOX 1273 |
| City:       | SOQUEL   |
| Zip Code:   | 95073   |
| Phone:      | 831.479.9720 |
| Email Address: | porterquich@yahoo.com |

**Current or Past Profession:**
- Owner / Self Employed

**Community Interests and Activities:**
- Coaching Soquel Little League
- Have served on Experts Committee of Soquel

**Do you own, manage, or are served by a private well?**
- [ ] Yes
- [ ] No, I receive all my water from a municipal water supply.

If you answered no to the above question, you are not eligible to apply. The openings on the Committee are for private well representation.

**What type of private well configuration best describes you as a groundwater supply user? (Check all that apply)**

- [ ] Private well for domestic use (single family home)
- [ ] Shared private well for domestic use (4 or less homes)
- [ ] Mutual Private well (small water system with 5-14 connections)
- [ ] Mutual private well (small water system with 15-199 connections)
- [ ] Private Well for Recreation, institution, or industrial
- [ ] Private well for agricultural use
- [ ] Other

**Name of Mutual water company:**
- [ ]

**Is your well used for irrigation? If yes, please indicate how many acres (estimated) that you irrigate:**
- [ ]

Please describe.
Applicant Information (continued):

Reason for applying:

Attended meetings. Have background in real estate, NY, and have sat on planning advisory committees for Miami, Honolulu, San Francisco, and Indianapolis. Also involved.
**Applicant Information:**

| First Name: | John         |
| Last Name:  | McKenney    |
| Address:    | 5265 Starr Way |
| City:       | Watsonville |
| Zip Code:   | 95076       |
| Phone:      | 831-428-2028 |
| Email Address: | mckenneyjohn@gmail.com |

**Current or Past Profession:**

**Exploration/Mining Geologist**

**Community Interests and Activities:**

Current water issues, volunteer Marine Mammal Center

---

**Do you own, manage, or are served by a private well?**

- [ ] Yes
- [x] No, I receive all my water from a municipal water supply.

If you answered no, to the above question, you are not eligible to apply. The openings on the Committee are for private well representation.

**What type of private well configuration best describes you as a groundwater supply user?** *(Check all that apply)*

- [ ] Private well for domestic use (single family home)
- [ ] Shared private well for domestic use (4 or less homes)
- [ ] Mutual Private well (small water system with 5-14 connections)

**Name of Mutual water company:**

- [ ] Mutual private well (small water system with 15-199 connections)

**Name of mutual water company:**

- [ ] Private Well for Recreation, institution, or industrial

**Please describe:**

well provided water for approx. 35,00 sq. ft. green house operation, currently inactive, plus domestic use for two homes.

- [ ] Private well for agricultural use

**Please describe:**

Is your well used for irrigation? If yes, please indicate how many acres (estimated) that you irrigate.

approx. 6 acres, currently out of production except for domestic use and two homes.

- [ ] Other

**Please describe:**

dfadf
Applicant Information (continued):

Reason for applying:

I currently live in north Monterey County, Elkhorn Slough watershed, with a private well. I also own a home, currently rented, in La Selva Beach, using Soquel Creek ground water. As a geologist, not a hydrologist, I have have a professional interest and understanding of ground water dynamics. I feel I can be an effective team member promoting reasonable, acceptable and sustainable policies ensuring the long term healthful management and development of the water resources of the Central Coast region.
### Applicant Information:

<table>
<thead>
<tr>
<th>First Name</th>
<th>Last Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bapcha</td>
<td>Murty</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Address</th>
<th>City</th>
<th>Zip Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>2379 Newell Drive</td>
<td>Aptos</td>
<td>95003</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Phone</th>
<th>Email Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>4087997405</td>
<td><a href="mailto:bapcha@gmail.com">bapcha@gmail.com</a></td>
</tr>
</tbody>
</table>

### Current or Past Profession:

Marketing/Engineer

### Community Interests and Activities:

Many

### Do you own, manage, or are served by a private well?

- [x] Yes
- [ ] No, I receive all my water from a municipal water supply.

If you answered no, to the above question, you are not eligible to apply. The openings on the Committee are for private well representation.

### What type of private well configuration best describes you as a groundwater supply user:

(Check all that apply)

- [ ] Private well for domestic use (single family home)
- [ ] Shared private well for domestic use (4 or less homes)
- [ ] Mutual Private well (small water system with 5-14 connections)

**Name of Mutual water company:**

- Mutual private well (small water system with 15-199 connections)

**Name of mutual water company:**

**Cathedral Hills Mutual Water**

- Private Well for Recreation, institution, or industrial

**Please describe:**

- Private well for agricultural use

**Please describe:**

- Other

**Please describe:**

- Is your well used for irrigation? If yes, please indicate how many acres (estimated) that you irrigate.
Applicant Information (continued):

Reason for applying:

1. Want SCWD to take a baseline reading in both our wells

2. Want to ensure that SCWD does not cause saline infiltration into our wells

3. To measure objectively, and take actions on deleterious effects of digging a huge well at the base of the hill I live on

Sincerely,
Bapcha Murty 4087997405
**Applicant Information:**

<table>
<thead>
<tr>
<th>Field</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Name:</td>
<td>Joe</td>
</tr>
<tr>
<td>Last Name:</td>
<td>Nugent</td>
</tr>
<tr>
<td>Address:</td>
<td>845 Elkhorn Road</td>
</tr>
<tr>
<td>City:</td>
<td>Watsonville</td>
</tr>
<tr>
<td>Zip Code:</td>
<td>95076</td>
</tr>
<tr>
<td>Phone:</td>
<td>831 479-6140</td>
</tr>
<tr>
<td>Email Address:</td>
<td><a href="mailto:jonugent@cabrillo.edu">jonugent@cabrillo.edu</a></td>
</tr>
<tr>
<td>Current or Past Profession:</td>
<td>Director of Facilities, Cabrillo Community College District</td>
</tr>
</tbody>
</table>

**Community Interests and Activities:**

Bee Keeping, Cyclist, Student Athletes (I have kids)

Do you own, manage, or are served by a private well?
- [ ] Yes
- [ ] No, I receive all my water from a municipal water supply.

If you answered no, to the above question, you are not eligible to apply. The openings on the Committee are for private well representation.

What type of private well configuration best describes you as a groundwater supply user:
(Check all that apply)
- [ ] Private well for domestic use (single family home)
- [ ] Shared private well for domestic use (4 or less homes)
- [ ] Mutual Private well (small water system with 5-14 connections)

Name of Mutual water company:

- [ ] Mutual private well (small water system with 15-199 connections)
  Name of mutual water company:
  dfadfad
  Is your well used for irrigation? If yes, please indicate how many acres (estimated) that you irrigate.

- [ ] Private Well for Recreation, institution, or industrial
  Please describe:
  dfadfad

- [ ] Private well for agricultural use
  Please describe:
  dfadfad
Applicant Information (continued):

Reason for applying:

I am the facilities Director for Cabrillo Community College District where we operate a water system that serves as many as 15,000 people over a semester. This water system is comprised of three wells and a 300,000 gal. storage tank and a comprehensive water distribution system. With support of staff and at times hands on experience spanning over 15 years of successful management, I feel that I could provide a collaborative approach to the shared challenges that we all face in dealing with the ensuing water shortages and state mandates that will require both short and long range planning.

I have operated my own privately shared well (four users) for over 20 years.
**Applicant Information:**

<table>
<thead>
<tr>
<th>First Name:</th>
<th>Regan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Last Name:</td>
<td>Ray</td>
</tr>
<tr>
<td>Address:</td>
<td>222 Owl Ridge Way (for mailing it is: P. O. BOX 131, Aptos, 95001)</td>
</tr>
<tr>
<td>City:</td>
<td>Aptos</td>
</tr>
<tr>
<td>Zip Code:</td>
<td>95003</td>
</tr>
<tr>
<td>Phone:</td>
<td>831-688-7472</td>
</tr>
<tr>
<td>Email Address:</td>
<td><a href="mailto:runreganrun@yahoo.com">runreganrun@yahoo.com</a></td>
</tr>
<tr>
<td>Current or Past Profession:</td>
<td>semi-retired attorney</td>
</tr>
</tbody>
</table>

**Community Interests and Activities:**

You will find me in my spare time either hiking in a local park, surfing or pursuing some horticultural activity.

**Do you own, manage, or are served by a private well?**

- [ ] Yes
- [ ] No, I receive all my water from a municipal water supply.

If you answered no, to the above question, you are not eligible to apply. The openings on the Committee are for private well representation.

**What type of private well configuration best describes you as a groundwater supply user?** (Check all that apply)

- [ ] Private well for domestic use (single family home)
- [ ] Shared private well for domestic use (4 or less homes)
- [ ] Mutual Private well (small water system with 5-14 connections)
- [ ] Mutual private well (small water system with 15-199 connections)
- [ ] Private Well for Recreation, institution, or industrial use
- [ ] Private well for agricultural use
- [ ] Other

**Name of Mutual water company:**

**Name of mutual water company:**

**Is your well used for irrigation? If yes, please indicate how many acres (estimated) that you irrigate.**
Applicant Information (continued):

Reason for applying:

As a semi-retired attorney with a background in real estate law, I find the fast changing and evolving arena of water rights extremely interesting. Also as a past road manager for one of the largest private road associations in the County, I really appreciate and respect the process of democracy in action at the local level. Of course, I also must admit that I believe for many reasons, including historical and financial ones, that there is an inherent tension or conflict of interest between private well owners such as myself and the large, water districts which necessitates the involvement of private citizens such as myself in the process and I was grateful to learn that the Groundwater Management Committee has been expanded to include three (3) private individuals and I would be most pleased if I were allowed to participate.

Thank you,
Regan Ray
### Applicant Information:

<table>
<thead>
<tr>
<th>First Name:</th>
<th>Robert</th>
</tr>
</thead>
<tbody>
<tr>
<td>Last Name:</td>
<td>Schultz</td>
</tr>
<tr>
<td>Address:</td>
<td>90 Victoria Lane</td>
</tr>
<tr>
<td>City:</td>
<td>Aptos</td>
</tr>
<tr>
<td>Zip Code:</td>
<td>95003</td>
</tr>
<tr>
<td>Phone:</td>
<td>831-662-3204 x3</td>
</tr>
<tr>
<td>Email Address:</td>
<td><a href="mailto:tgw.president@gmail.com">tgw.president@gmail.com</a></td>
</tr>
</tbody>
</table>

**Current or Past Profession:**
Superintendent of Las Olas HOA, Trout Gulch Mutual Water Co. Operations Assistant

**Community Interests and Activities:**
Trout Gulch Mutual Water Co President, County contact for CSA 36, VFW Aptos Post 10110 volunteer.

Do you own, manage, or are served by a private well?

- [x] Yes
- [ ] No, I receive all my water from a municipal water supply.

If you answered no, to the above question, you are not eligible to apply. The openings on the Committee are for private well representation.

**What type of private well configuration best describes you as a groundwater supply user:**
(Check all that apply)

- [ ] Private well for domestic use (single family home)
- [ ] Shared private well for domestic use (4 or less homes)
- [ ] Mutual Private well (small water system with 5-14 connections)
- [ ] Mutual private well (small water system with 15-199 connections)

Name of Mutual water company:

- [ ] Private Well for Recreation, institution, or industrial
  Please describe:

- [ ] Private well for agricultural use
  Please describe:

- [ ] Other
  Please describe:

Is your well used for irrigation? If yes, please indicate how many acres (estimated) that you irrigate.

- [ ] No
Applicant Information (continued):

<table>
<thead>
<tr>
<th>Reason for applying:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trout Gulch Mutual Water Co would like representation on the Soquel-Aptos Ground Water Management Committee because we are concerned about the current drought and over draft condition of the aquifers. TGW is located between Soquel Creek and Central Water Districts and will be impacted by the decisions made of this committee. TGW would like to maintain our position and participate in not over drafting the aquifers as well as help with resolving issues and suggest alternative solutions concerning the overdraft.</td>
</tr>
</tbody>
</table>
Applicant Information:

<table>
<thead>
<tr>
<th>First Name:</th>
<th>Mark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Last Name:</td>
<td>Szychowski</td>
</tr>
<tr>
<td>Address:</td>
<td>161 Hoover Rd</td>
</tr>
<tr>
<td>City:</td>
<td>Soquel</td>
</tr>
<tr>
<td>Zip Code:</td>
<td>95073</td>
</tr>
<tr>
<td>Phone:</td>
<td>831-476-0687</td>
</tr>
<tr>
<td>Email Address:</td>
<td><a href="mailto:mszy@pacificbell.net">mszy@pacificbell.net</a></td>
</tr>
</tbody>
</table>

Current or Past Profession: Realtor/Business owner

Community Interests and Activities: Involved with, and supportive of, local education. Former board member at Mountain Elementary School District. Served on various other education committees.

Do you own, manage, or are served by a private well?
- Yes
- No, I receive all my water from a municipal water supply.

If you answered no, to the above question, you are not eligible to apply. The openings on the Committee are for private well representation.

What type of private well configuration best describes you as a groundwater supply user:
(Check all that apply)

- Private well for domestic use (single family home)
- Shared private well for domestic use (4 or less homes)
- Mutual Private well (small water system with 5-14 connections)

Name of Mutual water company:

- Mutual private well (small water system with 15-199 connections)
- Private Well for Recreation, institution, or industrial use
- Private well for agricultural use

Please describe:

- Other

Is your well used for irrigation? If yes, please indicate how many acres (estimated) that you irrigate. 1-4 acres
Applicant Information (continued):

Reason for applying:

I am a lifelong resident of the Soquel Valley, having always been on a private well. I've always had a strong interest in local water issues and preserving the long term viability of the local aquifers. As a realtor who specializes in rural properties, I have attended dozens of well inspections and been involved with overseeing the installation of several wells. I prefer being involved in local issues, rather than taking a hands off approach. With 12 years of school board experience and numerous committees, I understand the concept of working in a group setting. 

Mark Aydouni
First Name: Lou (J.)
Last Name: Tuosto
Address: 1121 TRABING RD.
City: WATSONVILLE
Zip Code: 95076
Phone: (831) 234-1359
Email Address: LJTUOSTO@AOL.COM

Current or Past Profession:
Insurance Broker

Community Interests and Activities:
Former P.E.O. O.P. PALO ALTO COLLEGE
S.V.E.S.P. Citizen Oversight, Palo Medical Foundation
Presidents Board, Soguel School District Trustee, (Past)
Community TV - Trustee, S.C. County Corridor Board.

Do you own, manage, or are served by a private well?

☑ Yes
☐ No, I receive all my water from a municipal water supply.

If you answered no, to the above question, you are not eligible to apply. The openings on the Committee are for private well representation.

What type of private well configuration best describes you as a groundwater supply user:

☐ Private well for domestic use (single family home)
☐ Shared private well for domestic use (4 or less homes)
☐ Mutual Private well (small water system with 5-14 connections)

Name of Mutual water company:

☐ Mutual private well (small water system with 15-199 connections)
☐ Private Well for Recreation, institution, or industrial

Name of mutual water company:

☐ Other
Please describe:

Is your well used for irrigation? If yes, please indicate how many acres (estimated) that you irrigate.
Applicant Information (continued):

Reason for applying:

I live in Lurin Valley and own a well with 3 other home owners. I would like to know more about water issues in our county. I have served on numerous elected and appointed boards for 20+ years. I believe I could contribute to this committee with over 20 years experience. I own properties within De Soque Water District and do have an interest in becoming more informed on how our future water needs will affect usage. I have no water board experience, just personal interest. I would consider it a privilege to serve on this committee.
### Applicant Information:

<table>
<thead>
<tr>
<th>First Name:</th>
<th>Nick</th>
</tr>
</thead>
<tbody>
<tr>
<td>Last Name:</td>
<td>Vrolyk</td>
</tr>
<tr>
<td>Address:</td>
<td>P.O. Box 67187</td>
</tr>
<tr>
<td>City:</td>
<td>Scotts Valley</td>
</tr>
<tr>
<td>Zip Code:</td>
<td>95067</td>
</tr>
<tr>
<td>Phone:</td>
<td>(831) 247-4563</td>
</tr>
<tr>
<td>Email Address:</td>
<td><a href="mailto:realtorno2@aol.com">realtorno2@aol.com</a></td>
</tr>
</tbody>
</table>

### Current or Past Profession:

Real Estate Agent and Broker in Santa Cruz County since 1980.

### Community Interests and Activities:

### Private Property Rights

**Do you own, manage, or are served by a private well?**

- [x] Yes
- [ ] No, I receive all my water from a municipal water supply.

If you answered no, to the above question, you are not eligible to apply. The openings on the Committee are for private well representation.

**What type of private well configuration best describes you as a groundwater supply user?**

(Check all that apply)

- [x] Private well for domestic use (single family home)
- [ ] Shared private well for domestic use (4 or less homes)
- [ ] Mutual Private well (small water system with 5-14 connections)

Name of Mutual water company: ____________

- [ ] Mutual private well (small water system with 15-199 connections)

Name of mutual water company: ____________

- [ ] Private Well for Recreation, institution, or industrial

Please describe: ____________

- [ ] Private well for agricultural use

Please describe: ____________

- [ ] Other

Please describe: ____________

Is your well used for irrigation? If yes, please indicate how many acres (estimated) that you irrigate.

No
Applicant Information (continued):

Reason for applying:

I want to try to make sure that individual private property rights are protected with regards to their water rights which they obtained when they purchased their properties.

I fought hard some years ago against the County of Santa Cruz when they wanted to meter private wells. During those times I worked very closely with John Ricker (County of Santa Cruz) with regards to only subjecting those wells that served 5 or more users to potentially having meters installed. Those wells that had 4 or less users on one well would be exempt from meters.

Note: the State already has over site of all wells that provide water to 5 or more users on one well or water source. These are Mutual Water Systems and fall under the State of California water quality regulations and must be monitored monthly.

I have been involved in private property rights in Santa Cruz County for over 25 years and I feel I can provide valuable information regarding the protection of private property water rights to this organization.

Thank you for considering my application.

Sincerely,

Nick Vrolyk
**Applicant Information:**

<table>
<thead>
<tr>
<th>First Name:</th>
<th>WILLIAM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Last Name:</td>
<td>WIGGINTON</td>
</tr>
<tr>
<td>Address:</td>
<td>150 VIA TRINITA</td>
</tr>
<tr>
<td>City:</td>
<td>APOTOS CA</td>
</tr>
<tr>
<td>Zip Code:</td>
<td>95003</td>
</tr>
<tr>
<td>Phone:</td>
<td>(831) 688-1781</td>
</tr>
<tr>
<td>Email Address:</td>
<td>W W I G G I N T O N</td>
</tr>
</tbody>
</table>

**Current or Past Profession:**
- CERTIFIED ENGINEERING-GEOLIGIST
- CERTIFIED HYDROGEOLOGIST
- PROFESSIONAL GEOLOGIST

**Community Interests and Activities:**
- BOARD BIG STICK SURFING ASSOCIATION

---

**Do you own, manage, or are served by a private well?**

- ☑ Yes
- ☐ No, I receive all my water from a municipal water supply.

If you answered no, to the above question, you are not eligible to apply. The openings on the Committee are for private well representation.

**What type of private well configuration best describes you as a groundwater supply user:**

(Choose all that apply)

- ☑ Private well for domestic use (single family home)
- ☐ Shared private well for domestic use (4 or less homes)
- ☐ Mutual Private well (small water system with 5-14 connections)

**Name of Mutual water company:**

dfadfd

- ☐ Mutual private well (small water system with 15-199 connections)

**Name of mutual water company:**

dfadfd

- ☑ Private Well for Recreation, institution, or industrial use

**Please describe:**

WATERS SEASCAPE GREENS OPEN SPACE

- ☐ Private well for agricultural use

**Please describe:**

- ☐ Other

**Is your well used for irrigation? If yes, please indicate how many acres (estimated) that you irrigate.**

14 AC
Applicant Information (continued):

Reason for applying:

My background in geology and hydrogeology caused me to become interested in salt water intrusion into the Soquel APTOS Basin. I was a board member of the Seascape Green HOA for 8 years.

- In 2005/2006 I served as the private well rep on the groundwater management committee. We updated the AB 3030 groundwater management plan for the Soquel - APTOS area (2006) and continue to serve.

- In 2012/2015 I served as the private well rep on the basin implementation group (BIG).

- 2015 - I am serving on the agency groundwater sustainability formation (GSA) committee.

With this involvement I hope to bring historical background and technical expertise to the Soquel - APTOS groundwater management committee.
Applicant Information:

<table>
<thead>
<tr>
<th>First Name:</th>
<th>Don</th>
<th>Last Name:</th>
<th>Wilson</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address:</td>
<td>960 Baker Rd</td>
<td>Zip Code:</td>
<td>95003</td>
</tr>
<tr>
<td>City:</td>
<td>Aptos</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phone:</td>
<td>831-685-8809</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Email Address:</td>
<td><a href="mailto:donwilson2@ebold.com">donwilson2@ebold.com</a></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Current or Past Profession:
- Retired Software Engineer

Community Interests and Activities:
- ESL volunteer teacher; Road Association Manager; guitar playing

Do you own, manage, or are served by a private well?
- [ ] Yes
- [ ] No, I receive all my water from a municipal water supply.

If you answered no, to the above question, you are not eligible to apply. The openings on the Committee are for private well representation.

What type of private well configuration best describes you as a groundwater supply user:
(Check all that apply)
- [ ] Private well for domestic use (single family home)
- [x] Shared private well for domestic use (4 or less homes)
- [ ] Mutual Private well (small water system with 5-14 connections)

Name of Mutual water company:

- [ ] Mutual private well (small water system with 15-199 connections)

Name of mutual water company:

- [ ] Private Well for Recreation, institution, or industrial

Please describe:

- [ ] Private well for agricultural use

Please describe:

- [ ] Other

Please describe:

Is your well used for irrigation? If yes, please indicate how many acres (estimated) that you irrigate.
- [ ] Yes
- [ ] No
Applicant Information (continued):

Reason for applying:

As a private well owner, of course I am concerned about the quality and quantity of water available. Soquel Creek Water District operates wells very near our property, so I feel we have a common interest with the District in taking care of our aquifer. But, I also feel that I can be of service to the community by representing well owners. Some local residents that are served by public water systems believe that well owners use water irresponsibly since they “don’t have to pay for it”. Some well owners believe that they can use as much water as they want because "It all goes back into the aquifer anyway". I would like to help both communities understand their water resources and each other better.
**Applicant Information:**

<table>
<thead>
<tr>
<th>First Name</th>
<th>Last Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lynn</td>
<td>Yoder</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Address</th>
<th>Zip Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>4500 Prescott Rd</td>
<td>CA</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>City</th>
<th>Phone</th>
<th>Email Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soquel</td>
<td>831 475-9650</td>
<td><a href="mailto:mylunnyoder@aol.com">mylunnyoder@aol.com</a></td>
</tr>
</tbody>
</table>

**Current or Past Profession:**

comm. prop. owner/mgr

**Community Interests and Activities:**

climate issues, wildlife/habitat preservation, gardening, reading

**Do you own, manage, or are served by a private well?**

- [x] Yes
- [ ] No, I receive all my water from a municipal water supply.

If you answered no, to the above question, you are not eligible to apply. The openings on the Committee are for private well representation.

**What type of private well configuration best describes you as a groundwater supply user:**

- [x] Private well for domestic use (single family home)
- [ ] Shared private well for domestic use (4 or less homes)
- [ ] Mutual Private well (small water system with 5-14 connections)
  - Name of Mutual water company:

- [ ] Mutual private well (small water system with 15-199 connections)
  - Name of mutual water company:
dfadf
- [ ] Private Well for Recreation, institution, or industrial
  - Please describe:
- [ ] Private well for agricultural use
  - Please describe:

**Is your well used for irrigation? If yes, please indicate how many acres (estimated) that you irrigate.**

- 2 acres
Applicant Information (continued):

Reason for applying:

I have been interested in water issues for several years and I've attended most of the SCWD public meetings for the past year. In addition to being a private pumper I also own commercial property in Aptos which is served by the district.

I'm a firm believer in metering private wells. My own well has been metered for the past year, which has enabled me to monitor my usage and cut back accordingly.
MEMO TO THE BASIN IMPLEMENTATION GROUP

Subject: Agenda Item No. 5.3 Approve Revised Soquel-Aptos Area Groundwater Management Annual Budget FY 2015/16

Background
At the May 21, 2015 Basin Implementation Group (BIG) meeting, the proposed budget for FY 2015/16 related to groundwater management and implementation activities within the Soquel-Aptos Groundwater Management Area basin was presented with cost share for each partner agency. Since the third amendment to the JPA had not been officially approved, the BIG members asked that the budget come back at a subsequent meeting when the partner agencies were officially seated.

Soquel-Aptos Area Groundwater Management Annual Budget FY 2015/16
The following activities have been identified for groundwater management and implementation within the Soquel-Aptos Groundwater Management Area basin for FY 15/16.

<table>
<thead>
<tr>
<th>Item</th>
<th>Budget Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prepare Quarterly Reports</td>
<td>$8,000</td>
</tr>
<tr>
<td>Assistance with filing basin boundary changes to DWR</td>
<td>$40,000*</td>
</tr>
<tr>
<td>Assist with data/technical information to support GSA formation</td>
<td>$10,000</td>
</tr>
<tr>
<td>Shallow well evaluation</td>
<td>$20,000</td>
</tr>
<tr>
<td>Groundwater Model (cont.)</td>
<td>$397,850</td>
</tr>
<tr>
<td>Legal assistance and services for GSA formation</td>
<td>$50,000</td>
</tr>
<tr>
<td>Facilitation Services for GSA Formation</td>
<td>$50,000</td>
</tr>
<tr>
<td>General Administration</td>
<td>$12,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$587,850</strong></td>
</tr>
</tbody>
</table>

*Note: At the May 21, 2015 BIG meeting, staff presented a preliminary figure of $30,000; however, based on the estimate by HydroMetrics, WRI (see agenda item 5.9) the revised budgeted amount has been changed to $40,000.
It should also be noted that any continuing work from FY 14/15 that is still underway has been rolled over to the FY2015/16 budget.

**Cost Share Between Partner Agencies**
The percentage cost to each partner agency shall be shared and follow the formula as outlined in the JPA, Amendment #3: 70% Soquel Creek Water District, 10% Central Water District, 10% City of Santa Cruz, and 10% County of Santa Cruz. Based on the work outlined above and the cost share for each partner agency, the estimated budget cost share is:

- Soquel Creek Water District: $587,850 x 70% = $411,495
- City of Santa Cruz: $587,850 x 10% = $58,785
- County of Santa Cruz: $587,850 x 10% = $58,785
- Central Water District: $587,850 x 10% = $58,785

In the previous May 21, 2015 BIG memo, there was also discussion about the cost split and credit/reimbursement for Central Water District for the groundwater model performed within their jurisdictional area and surrounding greater Aptos region. This credit has not been applied to the cost-share between the agencies (as shown above) and is discussed separately on tonight’s agenda (see Agenda Item 5.12).

**POSSIBLE ACTION**
1. By MOTION, approve the revised Soquel-Aptos Area Groundwater Management Annual Budget FY 2015/16.

   By _______________________________
   Melanie Mow Schumacher, Special Projects/Community Dialogue Manager
   Soquel Creek Water District

   By _______________________________
   Ron Duncan, Interim General Manager
   Soquel Creek Water District
MEMO TO THE BASIN IMPLEMENTATION GROUP

Subject: Agenda Item No. 5.4 Quarterly Monitoring Report

Attachment: Quarterly Report for Coastal Monitoring Data through April 2015, dated July 16, 2015

Attached is the Quarterly Report for Coastal Monitoring Data through April 2015 prepared by Hydrometrics WRI. The report provides an update on groundwater levels and salt concentrations at coastal monitoring wells where protective elevations have been defined. Overall the situation does not appear to have changed significantly since last quarter.

POSSIBLE ACTIONS

1. By MOTION, accept the Quarterly Report and provide direction as necessary.

2. Take no action.

By ____________________________________________
Melanie Mow Schumacher
Special Projects/Community Dialogue Manager

By ____________________________________________
Ron Duncan
Interim General Manager
Mr. Ron Duncan  
Interim General Manager  
Soquel Creek Water District  
PO Box 1550  
Capitola, CA  95010-1550

July 16, 2015

Subject: Quarterly Report for Coastal Monitoring Data through April 2015

Mr. Duncan:

This is the seventh quarterly report with updates on the attached groundwater level and salt concentration plots at Soquel Creek Water District’s (SqCWD) coastal monitoring wells where protective elevations have been defined. These wells, as shown on Figure 1, include five wells in the Purisima area (SC-1A, SC-3A, SC-5A, SC-9C, and SC-8D) and five well clusters in the Aromas area (SC-A1A and B, SC-A8A and B, SC-A2A and B, SC-A3A and B, and SC-A4A and B). These wells are the key wells for assessing risk of seawater intrusion and the status of basin recovery in the Soquel-Aptos basin. Protective elevations estimated to protect productive aquifer units from seawater intrusion and secondary drinking water standards (MCLs) for chlorides and total dissolved solids (TDS) are shown on the plots. Data through April 2015 are included, which includes groundwater level soundings at least quarterly at the wells. At the Aromas area monitoring wells, quarterly sampling for chlorides and TDS occurred in March. At SC-1A, sampling for chlorides and TDS is quarterly for the cooperative monitoring and adaptive management agreement with the City of Santa Cruz¹ and occurred in April. Sampling at the other SqCWD Purisima area monitoring wells occurs semi-annually including a sampling event in April.

¹ Figure 1 shows the City’s coastal monitoring wells with target groundwater elevations listed in the agreement. Graphs for these wells will be included in future quarterly reports.
GROUNDWATER LEVEL TRENDS

The only SqCWD coastal monitoring well in the Purisima area with groundwater levels above protective elevations continues to be SC-1A. There has been a multi-year recovery trend in the Purisima area groundwater levels over the last five to ten years. Previous quarterly reports noted a decline in groundwater levels at SC-1A, SC-3A, and SC-5A in 2012 and 2013. The recovery in 2014 from this short term decline at these wells and continued recovery at SC-9C and SC-8D shown in the previous two quarterly reports continued into the spring at these wells. Groundwater levels at SC-3A, SC-9C and SC-8D are at or near its highest level since the 1980s. Although the groundwater level at SC-3A is above the protective level of 10 feet in April 2015, the average annual groundwater level is still below 10 feet so recovery is not yet achieved at this well.

Recovery since 2014 likely relates to lower pumping in 2014-2015 related to drought curtailment. Over this time scale of several months, coastal groundwater levels have a greater response to reduced pumping than reduced recharge caused by the four year drought through Water Year 2015. This is due to the coast being much closer to pumping wells compared to aquifer outcrops.

In the Aromas area, the groundwater level rise from October to December 2014 was reversed in the first quarter of 2015 and groundwater level trends over the last five years are increasing or stable. Over the last year, the data show that groundwater levels have been above protective elevations at the SC-A1 and SC-A2 wells and near protective elevations at the SC-A3 well.

In previous quarterly reports and the annual report, we have displayed equivalent freshwater head for Aromas area monitoring wells with high salt concentrations. We are evaluating whether it is appropriate to compare equivalent freshwater heads that are elevated due to high salt concentrations to protective elevations for preventing seawater intrusion. Until we resolve this issue, we will conservatively use measured groundwater levels for comparison to protective elevations.

SALT CONCENTRATION TRENDS

There are no notable changes in salt concentration trends over the last few quarters in the Purisima or northwestern area of the Aromas. In the southeastern area of the Aromas, where the long term (> 5 years) salt concentration trend has
generally been increasing, the recent trends (3-5 years) in chloride and TDS at SC-A2B has been decreasing and the recent trend for chloride and TDS at SC-A4A has been a faster increase than the long term trend. Over 2014, there were also declining TDS concentrations measured at SC-A2A, SC-A3A, and SC-A4A, but chloride concentrations were stable or rose slightly at these wells so conclusions about the movement of the seawater interface cannot be made.

It is also notable that concentrations at SC-A3B have risen since equipment was installed in 2012. The concentrations are lower than concentrations prior to 2012 as the new equipment appears to have samples only the well’s upper screen. The rise in concentrations from the new equipment may indicate salt water has moved higher into the upper screen. We recommended ordering a new drop tube to sample the bottom screen of the well to better monitor the freshwater-seawater interface at this location, but silt had covered up the bottom screen. Attempts at redeveloping the well did not fully remove the silt so our recommendation was to place the drop tube at the top of the bottom screen. The two most recent samples are from this lower depth and show a higher concentration than measurements from the upper screen, but do not necessarily represent an increasing trend from prior samples. The most recent concentration is still lower than measurements from before 2012.

**ADDITIONAL NOTES**

Although a previous quarterly report included groundwater level logger data for several of the Purisima wells, we have decided to wait until data get uploaded into the data management system the District has purchased before providing updated plots of logger data for all the wells in the quarterly report. This will prevent duplication of effort. When the new data management system is up to date, future quarterly reports will include the following based on the logger data:

- Plots of available groundwater elevation data recorded by groundwater level loggers at all coastal monitoring wells. The current equipment was installed at most of these wells in 2012.
- Average groundwater elevations will be calculated based on the logger data for the quarter, water year to date, and preceding four quarters. Average equivalent freshwater heads will be estimated for the three time periods at wells where chloride concentrations are above the MCL of 250 mg/L.
Page numbers for the water quality plots are consistent with the Annual Report and Review figure sections 3B, 4B, and 5B, and therefore are not in consecutive order.

Thank you to District staff for making the data available expeditiously. Please let me know if you have any questions.

Sincerely,

[Signature]

Cameron Tana, Vice President
HydroMetrics Water Resources Inc.

Attachment: SqCWD coastal monitoring well hydrographs and chemographs
Figure 1. Locations of Coastal Monitoring Wells where Target or Protective Groundwater Elevations Have Been Estimated
Data consistent with confirmed field tests since 2009 excluded.

**SC-1A Chloride**
- Rate of change = 1.2 mg/L per year

**SC-1A Total Dissolved Solids**
- Rate of change = -0.4 mg/L per year

**SC-1A Groundwater Elevation**
- Rate of change = 0.6 feet per year
Data consistent with confirmed field tests since 2009 excluded

Rate of change = 1.5 mg/L per year

Rate of change = 3.5 mg/L per year

Rate of change = -0.1 feet per year

Well replaced in 2009
In 2003, SC-5A well replaced. Screen length changed from 245 feet to 230 feet.

Data consistent with confirmed field tests since 2009 excluded.

Soquel-Aptos Area Quarterly Report through April 2015
Western Purisima
Data consistent with confirmed field tests since 2009 excluded.

Well replaced in 1995.

Rate of change = 0 mg/L per year.

Rate of change = 5.4 mg/L per year.

Rate of change = 1.4 feet per year.
SC-9C Chloride

WY 2011-2015 Trend
Secondary MCL
Data consistent with confirmed field tests since 2009 excluded
SC-9C replaced in 2012
Rate of change = -3.1 mg/L per year

SC-9C Total Dissolved Solids

WY 2011-2015 Trend
Secondary MCL
Rate of change = -17.2 mg/L per year

SC-9C Groundwater Elevation

Rate of change = 3.4 feet per year

Groundwater Elevation, ft MSL
**SC-A1A Chloride**

- Trend: WY 2011-2015
- Secondary MCL
- Rate of change = 0.4 mg/L per year
- Data consistent with confirmed field tests since 2009 excluded

**SC-A1A Total Dissolved Solids**

- Trend: WY 2011-2015
- Secondary MCL
- Rate of change = 1.6 mg/L per year

**SC-A1A Groundwater Elevation**

- Trend: WY 2011-2015
- Protective Elevation
- Rate of change = 0.5 feet per year
Chloride, mg/L

Rate of change = -0.4 mg/L per year

Data consistent with confirmed field tests since 2009 excluded

SC-A1B Chloride

TDS, mg/L

Rate of change = -0.5 mg/L per year

SC-A1B Total Dissolved Solids

Groundwater Elevation, ft MSL

Rate of change = 0.3 feet per year

SC-A1B Groundwater Elevation
SC-A8A Chloride
Rate of change = 136.9 mg/L per year

SC-A8A Total Dissolved Solids
Rate of change = 100.1 mg/L per year

SC-A8A Groundwater Elevation
Rate of change = 0 feet per year

Rate of change = 136.9 mg/L per year
Rate of change = 100.1 mg/L per year
Rate of change = 0 feet per year
Data consistent with confirmed field tests since 2009 excluded.

Rate of change = 0.2 mg/L per year

Rate of change = -3.5 mg/L per year

Rate of change = 0 feet per year
Well replaced in 2012

### SC-A2B Chloride

- **Rate of change = -14.8 mg/L per year**

### SC-A2B Total Dissolved Solids

- **Rate of change = -70.3 mg/L per year**

### SC-A2B Groundwater Elevation

- **Rate of change = 0.3 feet per year**
**SC-A3A Chloride**

Rate of change = 453.5 mg/L per year

**SC-A3A Total Dissolved Solids**

Rate of change = -175.5 mg/L per year

**SC-A3A Groundwater Elevation**

Rate of change = -0.1 feet per year

Rate of change = 453.5 mg/L per year

Rate of change = -175.5 mg/L per year

Rate of change = -0.1 feet per year
Rate of change = 93.2 mg/L per year

New sampling equipment installed March 2012

Rate of change = 262.6 mg/L per year

Rate of change = 0.4 feet per year
Rate of change = 693.9 mg/L per year

Rate of change = 1288.9 mg/L per year

Rate of change = 0.2 feet per year
**SC-A4B Chloride**

Rate of change = -1 mg/L per year

**SC-A4B Total Dissolved Solids**

Rate of change = -7.3 mg/L per year

**SC-A4B Groundwater Elevation**

Rate of change = 0 feet per year
August 20, 2015

MEMO TO THE BASIN IMPLEMENTATION GROUP

Subject: Agenda Item No. 5.5 Update from Subcommittee on Groundwater Sustainability Agency (GSA) Formation

Attachments: 1. Meeting Summaries for June 16, June 24, and July 7
               2. GSA Formation Checklist

Background
At the March 25 Basin Implementation Group (BIG) Meeting, a subcommittee was established to assist in reviewing various governance models for potential Groundwater Sustainability Agency (GSA) structures and work with our legal advisor, community facilitator, and staff on analyzing the most appropriate model for our mid-county area. Per the statutory requirements of the Sustainable Groundwater Management Act, the deadline to establish a GSA is June 30, 2017.

The subcommittee is comprised of six members: one member from each partner agency of the BIG and two members who represent private wells:
- Soquel Creek Water District: Bruce Jaffe
- City of Santa Cruz: Micah Posner
- Central Water District: Bob Postle or John Benich
- County of Santa Cruz: John Ricker
- Private Well Representatives: Bill Wigginton and Jon Kennedy (Chair)

The subcommittee has met on April 30, May 8, June 16, and July 7. A smaller breakout group met on June 24. Summaries for the April and May subcommittee meetings were presented to the BIG at the May 21 meeting. Summaries for June 16, June 24, and July 7 are attached (see Attachment 1).

The subcommittee proposes its next steps will be to go through the GSA Formation checklist (see Attachment 2).

The purpose of this memo is to provide a forum for a report out of the meetings and allow Committee discussion and direction. Jon Kennedy, subcommittee chair, will be at the meeting to report on the subcommittee’s actions and seek input from the Committee.

POSSIBLE ACTIONS
1. By MOTION, provide direction to subcommittee and staff.
2. No action. Informational only.
By _______________________________

Melanie Mow Schumacher, Special Projects/Community Dialogue Manager
Soquel Creek Water District

By _______________________________

Ron Duncan, Interim General Manager
Soquel Creek Water District
GSA Formation Subcommittee Meeting Notes: June 16, 2015

Present:
John Ricker
Bruce Jaffe
Micah Posner
John Benich
Jon Kennedy
Bill Wigginton
Ralph Bracamonte, CWD
Rosemary Menard, SCzWD
Ron Duncan, SqCWD
Melanie Schumacher, SqCWD
Marci DuPraw, CCP

Stakeholder Interviews
The committee received Marci’s report on the results of her 17 interviews with diverse stakeholders, from the committee and the community. Her summary is included with these notes. An issue that was discussed further (at a later point in our meeting) was which model for community input during the GSP process we think would be most appropriate, and whether to have a formal Advisory Committee to the GSA.

Defining Sustainability
We held a discussion around the definition of Sustainability as it pertains to our groundwater situation. Recognizing that “avoiding adverse impacts on the groundwater basin” is a given, there was discussion of what might provide the GSA with further clarity, to help focus its planning.
We also recognized that we have a moving target, in that we must deal with increasing levels of climate change and sea water rise.
1. We agreed that we do not want to be limited by the State’s minimum condition (which is to not have negative impact beyond what is already occurring as of January 1, 2015.)
2. What time frame to use: the issue of “able to use water for future generations” was discussed, as was the standard that other planning groups have used --- our group leaned towards a 30 yr. time frame (2045) and also considered an 85 yr. time frame (2100.)
3. Clearly, stopping sea water intrusion is part of being sustainable.
The group was hesitant to go into further detail in defining Sustainability, but did consider these targets, as more actions than definition:
   a. continuous recovery of groundwater levels over time, to get to an optimal level
   b. a healthy aquifer system that provides for the community and for the environment, including adequate streamflow for fish.
c. continued adaptive management practices.

The GSA Model
We continued our discussion from earlier meetings of the possible GSA model, and what powers and actions the GSA might take. Does the GSA need to spend money? As the BIG, it already is spending significant money (for activities such as the groundwater model and quarterly reports.) So this is not hypothetical. We spent quite a bit of time on assessment issues. Clarification from our legal advisors was handed out. The question was considered of whether we might need to start an assessment before we have a Plan fully developed. The conclusion we arrived at was that to avoid potentially complicated issues (Prop 218, tying directly to a benefit for each group, community education, etc) we should just continue to fund any initial activities by contributions from the main municipal members, as that structure is already set up. Once a Plan is in place, we will be in a better position to refine our funding.

We did agree in principle with this statement: Within five years the GSA is supported from fees that are based on impact on the basin. This should include a science-based calculation of amount of pumping, along with consideration for recharge (e.g. from septic systems) and for proximity to the coast (e.g. impact on coastal groundwater levels and sea water intrusion.)

We had an earlier discussion regarding the possible impact of the County on the GSA’s powers or decisions. This was begun from the “last minute” changes to the JPA language that the County requested. We discussed the need to keep the County officers (CAO and Legal) and the Supervisors informed of major issues that the GSA will address. Concerns around land use plan coordination and assessment are two areas of impact where there will probably be overlap (at least perceived) between the County and the GSA.

We considered the overall time line of GSA development, in light of the timing for adjusting our basin boundaries through the State, which will probably take until summer of 2016. While we can continue to plan for a structure and scope, and do preliminary work with the community on goals and objectives, we are limited (we think) in that we cannot formally create the GSA (as the Chair would like, by January or February) if we do not yet have a correctly-defined and State-accepted basin.

Stakeholder community input
We went into further detail on possible models for community input especially on the Plan development, particularly by forming a stakeholder Advisory Committee (AC) Based on the interviews, Marci suggested three models for this, a) a separate AC, giving input to the GSA, b) an AC that is sitting at the table with the GSA – during the GSP forming period, c) a more general community model (with no formal AC), giving input through Engagement meetings.

Points of the long discussion:
1) The experience of SCzWD with the WSAC is that it takes an immense about of staff time, for both coordination and education, to give the advisory committee members enough data and answer questions so that they can function with effectiveness. Do we want to set up that much necessary involvement with our possible committee?

2) We need to further develop the scope of the Advisory Committee, as it would play out in these models B or C above. A small group will lay out some definition (or beginnings of scenarios) for this before our next meeting. We need to build more detail for both the potential scope of the GSA, and the associated scope of the Advisory Committee, in order to be able to make a reasonable decision whether B or C would be best for our situation.

3) We still need to clarify for the larger SAGMC what the options are for the scope of work that the GSA might take on: i.e. will we apply for grants? might we coordinate the funding for a larger project such as a water treatment plant (even if that were executed by one of our member agencies?) In what situations should it be a GSA fronting an effort, rather than one or more of its member agencies?

**Next Meetings**

Some of us will attend the Community Engagement meeting on June 30. We will get additional input from that meeting on the community’s views of possible Advisory roles, and their associated costs.

Our next subcommittee meeting will be on Tuesday July 7, from 10am – noon. This will give us time to develop detailed recommendations to the SAGMC, which next meets in later August. At our July meeting, we need to flesh out the possible scenarios dealing with community input, and to further define options for the GSA model.
KEY THEMES IN INTERVIEWS ON COMMUNITY ENGAGEMENT
(Based on 17 interviews to date)

GSA PHASE:
- SAGMC, GSA Formation Subcommittee, & community meetings seem broadly acceptable.
- Treat Cabrillo College similar to a Water District (has elected board); put on GSA.
- Give each of the (4) Water Districts 1-2 seats on GSA for elected official from District’s board. Hold election to identify three additional at-large members.

GSP PHASE: Three models surfaced:
1. Advisory Committee separate from GSA;
2. Advisory Committee inclusive of GSA; and
3. Facilitated Community Engagement, But No Advisory Committee.

Most interviewees were drawn to #2 over the other two, provided that there is clear recognition that GSA members retain legal authority and responsibility for final decisions. Community stakeholders need to be part of “molding the clay.”

GUIDING PRINCIPLES / LESSONS LEARNED:

A. Participation:

1. Articulate “the problem” in a way the public can understand. Be clear and transparent with community stakeholders regarding what topics to be discussed at particular meetings and why they should care.

2. Give stakeholders options for how to participate that match varying levels of interest and time to participate.

3. Independent pumpers’ involvement is essential to success. Identify ways to incentivize their participation. Be realistic about their alternatives (e.g., adjudication) and relative costs and benefits of participating vs. adjudicating. Independent pumpers need to know what they are supposed to do; they are nervous about fines and mandates that would make it hard to function, and also wary of government-imposed restrictions when they feel they receive no government services. Rather than thinking in terms of restrictions, cultivate a sense of the community working together to solve a shared problem.

4. Ensure that all major stakeholders get some value from the GSP. Avoid making any one set of groundwater users the “bad guy.”
5. Document GSA’s efforts to be inclusive; keep County Board of Supervisors well-informed.

B. Technical Analyses:

1. Manage support of technical experts to ensure the way in which they provide information is useful for decision-makers.

2. Develop model in transparent, collaborative way (e.g., give stakeholders the “joystick” to explore various scenarios).

3. Avoid “paralysis by analysis” – process needs to balance inclusivity with need for timely progress on serious problem.

C. Measure and Celebrate Progress:

1. Include clearly-defined goals and benchmarks to effectively measure if objectives are met or not.

2. Publicize and celebrate progress.

D. Timely Results Are Key:


2. Stakeholders have varied views of the relevance of the water-development relationship to GSP development. Some want to discuss it, while others see it as a red herring. Middle road seems to be planning for a realistic amount of “smart” growth, but recognize that the primary problem is existing use. Focus on solving that problem first.
Notes from Break-Out Meeting on June 24, 2015

John Ricker
Melanie Schumacher
Ralph Bracamonte
Jon Kennedy
John Benich

**Purpose:** to consider various scenarios (by fleshing out how several models would operate within specified conditions) for an Advisory Committee made up of additional community representation. Also, to build further on possible stories for the GSA model options, by what it might take on.

We considered what level of project the GSA might undertake, and the possibility that these would be triggered by escalating levels of emergency conditions, i.e.: a T1, T2, T3, T4 matrix, having differing levels of project that would have to be initiated at higher levels. For instance, at T4, we would need to have the build-out of either a recycled water system or a de-sal plant, to be able to inject enough water into the ground to hold back a higher level of sea water.

We considered what Cap-and-Trade would look like in our basin. Our conclusion was that we are too small to create an entire market system, with its required amount of administration. It might make sense to have a simpler (softer) alternative to C+T that would entail the GSA coordinating between agencies on, for instance, an exchange/transfer of a certain amount of water at a reasonable rate, with the opportunity in specified circumstances to get an exchange of water back. In effect, getting the change in behavior and the supply interface without the entire system set-up.

We considered whether there could be a larger basin-wide oversight of water resources, in order to best manage the needs and the supply for the whole of northern Santa Cruz county.

We arrived at an alternative model for the Advisory Committee: 2B. That is, that for the purpose of developing the GSP, we would set up a sub-committee made up of some members of the full GSA, along with some further, appointed representatives of various constituencies in the community (business, golf, Ag, NGOs, SWS.) Our reasoning was that, like the Formation Subcommittee, the GSP planning committee will take many more hours of meeting, and so might best not include all the elected members of the full GSA. Also, this sub-committee model seemed to us to provide for “at-the-table” input from stakeholders in a more useful and educated way than by having a large, additional AC, requiring – as Rosemary detailed – a tremendous amount of preparation and extra education and resources just for a separate group. It also allows for the full GSA to have a final review and decision over the scoped and detailed GSPlan.
GSA Formation Subcommittee Meeting Notes  July 7, 2015

Present:
John Ricker
Bruce Jaffe
Micah Posner
John Benich
Jon Kennedy
Bill Wigginton

Ralph Bracamonte, CWD
Rosemary Menard, SCzWD
Ron Duncan, SqCWD
Melanie Schumacher, SqCWD
Marci DuPraw, CCP

The committee discussed the report from the breakout group which worked on additional detail on Advisory Committee models. This sub-group also considered scenarios that would impact GSA levels of regulation and action. This detailed an iterative approach to managing the basin, based on pre-planned increasing levels of groundwater vulnerability or concern (which we presented as tiers: T1, T2, T3, T4.) The idea is that with a T1 state the GSA may operate in just a coordinative role, overseeing conservation and individual agency efforts at mitigating overdraft. In T3, the GSA might well need to move into a more active role of planning projects and securing more funding. That is, we would have prioritized projects planned for different levels of state. These would be triggered by reaching specific benchmarks of basin difficulty/criticality.

Financial support
Our committee agreed on the principle that groundwater management fees would be charged, based on the amount of water pumped. This might entail estimating a base amount for rural residences.

Iterative GSA Development
We foresaw that the GSA would first be formed, with planning ideas from the various agencies (SqCW, SCzW, CW, County) and filtered through a process of establishing definitions and targets for sustainability, from which a Plan could then be developed in concert with a Steering Committee (made up of some GSA members and some additional stakeholders representing many parts of the community.) After the initial Plan is set, we envisioned that there might well be a re-forming of a “GSA2”, once we have further clarity on what its needs and roles will be to implement the Sustainability Plan fully.
**Flexibility**
We discussed other venues in which some projects are planned with an opt-in ability, so that those agencies interested in forward these can participate, and other entities might not. (See Santa Rosa plan, and Central Truckee Meadows Remediation District – Reno area.)

We need to get started with a GSA with a similar structure to the expanded SAGMC, but realizing that it may morph some once implementation of a plan has begun. The issues of T1 – T4 will be fleshed out in a Plan, and the state of the aquifer and supply and demand levels will then guide us toward more iterative development of the GSA model.

**GSA Voting**
One issue that we did not have time to address in detail is that of voting --- will voting be proportional to use, and to financial contribution? We would like to see this discussed further in the SAGMC meeting in August.

**Advisory Stakeholder Committee**
We also discussed two specific models for the Advisory Committee input on the GSP. We arrived at a notion of establishing a GSP Steering Committee as a sub-group of the GSA, with representation from each the agencies and non-muni members of the GSA, but also with additional representation from various factions of stakeholders (such as SWS, Agriculture, Federal fish and wildlife, business community, NGOs, Golf course, Cabrillo, the WSAC, etc.) The idea is that not all formal members of the GSA will want or be able to make the time commitment involved in many planning meetings over a period of perhaps eight months, with several 3-hour meetings per month.

We fully imagine that technical staff from the agencies will fully participate as well, so that this Steering Committee might encompass up to 20 people. However – we think that a smaller committee can establish the skeleton of the plan, and perhaps involve parts of the stakeholder group in specific sub-committees, such as Finance, Environment, Additional Supply, etc. In this way, not every one of the 20 representatives will need to spend all the hours of the planning process.

**Larger Community Engagement**
We also envision that there will need to be a number of open community meetings, such as we have conducted in the past, to dialogue about the plan as we go along.
GSA Formation Check List

1. Agreement on Boundaries

2. Draft JPA
   a. Powers of agency
   b. Powers of members
   c. Any restrictions on members exercising own powers?

3. Membership
   a. Start with SAGMC structure of 11 members
   b. Possibly modify GSA structure later, after GSP is set
   c. Alternative members?

4. Advisory Committee Structure
   a. GSP Committee to be a sub-set of GSA, plus additional reps from other stakeholders (business, Fish, agriculture, NGOs, etc)

5. Goals and objectives of agency

6. By Laws
   a. Terms
   b. Officers
   c. Quorum
   d. Withdrawal of members

7. Staffing

8. Budget
   a. Assessments
      i. Proportional to water use
   b. Triggers for higher assessment

9. Voting

10. Amendments to JPA
MEMO TO THE BASIN IMPLEMENTATION GROUP

Subject: Agenda Item No. 5.6  Update on Soquel-Aptos Area Community Engagement Pertaining to GSA Formation

Attachments: 1. Summary from June 30, 2015 Mid-County Groundwater Stakeholder Community Meeting


Background
Since May 2015, the State Water Resources Control Board (SWRCB) has been providing support services to the Basin Implementation Group for community engagement assistance in developing a Groundwater Sustainability Agency (GSA) and Groundwater Sustainability Plan (GSP). As part of the support from the SWRCB, over 220 person hours of complimentary services were to be provided by the Center for Collaborative Policy (CCP) at California State University Sacramento to conduct assessments, facilitate a community meeting, prepare a community engagement plan, and a lessons learned memo (see Attachment 1 from the May 21, 2015 BIG Item 5.6).

Over the last four months, Dr. Marci DuPraw and Ms. Stephanie Horii from CCP have conducted the one-on-one assessments, facilitated the June 30 Mid-County Groundwater Stakeholder Meeting, attended BIG and GSA formation meetings, and prepared a draft community engagement plan.

In July, the SWRCB authorized an additional $15,000 for support services by CCP through October 2015 to facilitate an additional community meeting, attend two GSA formation subcommittee meetings, make revisions to the community engagement plan, and miscellaneous additional project management.

Mid-County Groundwater Stakeholder Meeting on June 30, 2015
The June 30th meeting was our 7th community meeting held on mid-county groundwater issues. These meetings, which have been held since May 2014, have been well attended (approximately 40-100 people per meeting) and have included presentations on groundwater conditions, data collection, groundwater law, etc. As part of the SWRCB support, the June 30th meeting was facilitated by Marci DuPraw with CCP with the following primary objectives:

- Update attendees and answer questions on:
Drought response, State-mandated water restrictions and what these mean locally to private well pumpers and small water systems;  
- The Sustainable Groundwater Management Act of 2014 and progress in forming a Groundwater Sustainability Agency for the Mid-County area; and  
- Progress in developing a hydrologic model for the Soquel-Aptos Groundwater Basin;  
- Invite feedback on how to involve stakeholders in development of the Groundwater Sustainability Plan; and  
- Learn about participant values that will inform a Groundwater Sustainability Plan.

Please see the meeting summary (Attachment 1) for more information.

Draft Community Engagement Plan
As part of the scope with the SWRCB, CCP has drafted a community engagement plan to inform establishment of a Groundwater Sustainability Agency and Plan for the Soquel-Aptos Groundwater Management Area (see Attachment 2). This draft includes input from the one-on-one stakeholder meetings, the June 30th Mid-County Groundwater Stakeholder Meeting, and from past BIG and GSA Formation subcommittee meetings.

Dr. DuPraw will be at the meeting to make a brief presentation about the draft community engagement plan, respond to questions, and seek feedback and input from the committee and subcommittee members.

POSSIBLE ACTIONS
1. By MOTION, provide direction and input on the draft community engagement plan.

2. No action.

By _______________________________
Melanie Mow Schumacher, Special Projects/Community Dialogue Manager
Soquel Creek Water District

By _______________________________
Ron Duncan, Interim General Manager
Soquel Creek Water District
SUMMARY | Mid-County Groundwater Stakeholder Meeting
June 30, 2015, Soquel, CA

Background and Action Items
The Mid-County Groundwater Stakeholder Meetings support community discussions among private well owners and other community stakeholders within the Soquel-Aptos Groundwater Management Area. The County of Santa Cruz (County), Soquel Creek Water District (SqCWD), and the Central Water District (CWD) have sponsored a series of these meetings since May 2014, covering a broad spectrum of issues such as groundwater studies, groundwater management, and the Sustainable Groundwater Management Act (SGMA).

The objectives for this particular meeting were to:
• Update attendees and answer questions on:
  o Drought response, State-mandated water restrictions and what these mean locally to private well pumpers and small water systems;
  o The Sustainable Groundwater Management Act of 2014 and progress in forming a Groundwater Sustainability Agency for the Mid-County area; and
  o Progress in developing a hydrologic model for the Soquel-Aptos Groundwater Basin;
• Invite feedback on how to involve stakeholders in development of the Groundwater Sustainability Plan; and
• Learn about participant values that will inform a Groundwater Sustainability Plan.

Presenters’ slides are included as Appendix A, and a handout on SGMA requirements and conservation tips can be found at Appendix B. A map of the Soquel-Aptos groundwater basin can be found at Appendix C, and a chart presenting relative consumptive use can be found at Appendix D.

1. Welcoming Remarks
John Ricker, Santa Cruz County Water Resources Division Director, welcomed attendees, explained the above meeting objectives, and provided context. He said much of the past groundwater management efforts in the Mid-County area operated under the Basin Implementation Group (BIG) as a partnership between SqCWD, CWD, the City of Santa Cruz and the County. The BIG is now transitioning into the Soquel-Aptos Groundwater Management Committee (S-AGMC). The S-AGMC consists of three private well-owners and representatives of SqCWD, CWD, the City of Santa Cruz, and the County.
2. Key Updates

Drought
Mr. Ricker provided an update on the drought and its effect on Mid-County groundwater levels. He said the continued drought provided virtually no recharge to the groundwater in 2014 and 2015; however, groundwater levels recovered slightly in the coastal area. This is partly due to a 25% reduction in groundwater pumping in the SqWCD area. The groundwater levels inland are still lower than previous years that had higher rainfall. Streamflow and water quality continue to decline, Mid-County will still have overdraft issues once the drought ends, and many experts predict more severe droughts in the future. Therefore, Mid-County needs to proactively plan for future droughts.

Mr. Ricker reviewed several of the conservation efforts and water use restrictions set in place by State agencies and the County. He also noted available assistance from the County, including groundwater level measurements, technical assistance, and water waste enforcement. He recommended interested parties contact Sierra Ryan (813-454-3133) for additional information regarding County assistance.

Questions – Drought
Attendees asked the following clarifying questions:

- What areas are considered as “inland?”
  - County Response: No defined boundary exists between inland and coastal areas. Generally, inland areas are locations where the groundwater is well above sea level.

- How did groundwater levels recover if no recharge occurred in 2014-15?
  - County Response: The groundwater recovered only slightly near the coastal areas (approximately 2-3 feet in height), because the groundwater from the inland areas moves downslope towards the coast. This movement takes years; therefore the groundwater level increase near the coast is due to rainfall from years prior to 2014.

- If the groundwater moves downslope towards the coast, then the coastal community benefits from the groundwater lost uphill?
  - County Response: That is true to some extent. Overall, groundwater users pump water out as it moves towards the ocean; the challenge is to ensure sufficient groundwater supply to support that movement.

- Do the water use restrictions apply to private well owners?
  - County Response: Yes. County Code Section 7.69 sets restrictions to achieve efficient water use that are applicable throughout the county, including to private well owners.

- What does the County’s technical assistance entail?
  - County Response: The County provides advice for conserving water. SqCWD also provides that service.
• The groundwater level contours are based on how many wells?
  o **SqCWD Response**: SqCWD has 80 monitoring wells.
  o **County Response**: The County monitors 20 to 30 wells in the inland areas. Additionally, if a well owner asks the County to measure his/her groundwater level, we add that information to our monitoring data.

• What is the southern boundary for the County’s groundwater level monitoring?
  o **County Response**: The southern boundary is near La Selva Beach.

• Will the State adopt additional well restrictions?
  o **County Response**: The State will likely pass additional restrictions on water use practices avoid wasting water. SGMA requires certain actions. Meters on larger wells may be required, but SGMA exempts de minimis users (i.e., those who pump less than 2 acre feet of groundwater per year).

### Sea Water Intrusion

Ron Duncan, Soquel Creek Water District Interim General Manager, presented an update on sea water intrusion in the area due to over-pumping of the Soquel-Aptos aquifer. He emphasized the need to prevent sea water intrusion as an essential component of long term groundwater sustainability. He reviewed the causes and stages of sea water intrusion and presented examples of sea water intrusion in other areas worldwide and locally. Once sea water intrusion occurs, the impacts are dramatic and nearly impossible to reverse quickly. He indicated where sea water intrusion was detected in monitoring wells in 2011, and the possible risk for sea water intrusion in the Soquel area. He also provided an update on development of the groundwater model currently under development, which will help local experts make better predictions to prevent sea water intrusion.

### Questions – Sea Water Intrusion

Attendees asked the following clarifying questions and comments:

• Does agriculture-related intense groundwater pumping contribute to sea water intrusion?
  o **SqWCD Response**: Yes, it does, as would any other type of intense groundwater use.
  o **Comment**: Areas of sea water intrusion appear to correlate with major agriculture areas.

• The groundwater levels near New Brighton Beach have remained constantly low since 1980; why would hydrologists predict sea water intrusion as imminent?
  o **SqWCD Response**: If the groundwater levels are below sea level, sea water intrusion will occur. However, we do not know on what timescale.
Why does the presentation show wells in both the Purisima aquifer and Aromas Red Sands aquifer if the two have very different groundwater composition and pumping intensity? Sea water intrusion in the Aromas aquifer does not mean that Soquel will have sea water intrusion.

- **SqWCD Response:** SqWCD oversees groundwater in both the Purisima and Aromas Red Sands aquifers. The proposed Soquel-Aptos Groundwater Basin boundaries in compliance with SGMA regulations will incorporate both aquifers.
  
- **Comment:** The aquifers also overlap along the general boundary - a well may be in the Purisima aquifer region at the surface, but it pumps water from the Aromas aquifer below.

Once sea water intrusion occurs, is it reversible?

- **SqWCD Response:** It is very difficult to reverse sea water intrusion. It can take upwards of a hundred years to remove the salt.

What do hydrologists envision as sustainable water use, and is that livable?

- **SqWCD Response:** Our hydrologist estimated that residents in the SqWCD area would need to reduce pumping by 30% of 2013 water usage. However, variables such as climate change may exacerbate those estimates. Since our customers have reduced by 25%, we would only need to decrease by another 5% to achieve the 30% reduction. That said, past trends indicate that voluntary conservation efforts tend to be temporary – i.e., once significant rainfall returns, people tend to ease up on water conservation.

Can SqWCD move wells further from the coastline to avoid well contamination?

- **SqWCD Response:** We have done that for several wells.
  
- **Comment:** Moving wells is only a temporary strategy.

### 3. Thinking Ahead About a Groundwater Sustainability Plan: Seeking Your Views

**Brief refresher on basin management requirements under SGMA**

Mr. Ricker provided a general overview of the SGMA basin management requirements. SGMA requires formation of a Groundwater Sustainability Agency (GSA) and Groundwater Sustainability Plan (GSP). The S-AGMC (previously BIG) is not currently the GSA, but it could potentially evolve into the basin’s GSA. SGMA requires GSA formation by June 2017 and GSP development by 2020 or 2022 (depending on whether DWR designates the basin as “critical overdraft”).

The GSA must develop and implement a GSP to prevent various undesirable effects such as water quality degradation (e.g., sea water intrusion). The overall goal is that the basin achieves sustainability 20 years after GSP adoption. Mr. Ricker said that SGMA grants GSAs several authorities such as monitoring groundwater extraction, managing groundwater extraction, and imposing management fees. SGMA also requires stakeholder engagement and coordination.
with land use agencies regarding land use plans. The State can provide funding and technical assistance (e.g., via Prop 1 funds) to help implement the GSP.

Mr. Ricker explained that SGMA tasked the California Department of Water Resources (DWR) with overseeing GSA and GSP development and implementation. In January 2016, DWR will adopt criteria for modifying the basin boundaries, and Mr. Ricker said the S-AGMC will submit a request for basin boundary modifications that it believes more accurately reflects the hydrogeologic morphology of the basin. Mr. Ricker said he believes the basin’s groundwater management work is well ahead of the SGMA target dates due to the BIG/S-AGMC efforts.

Questions - SGMA requirements
Attendees asked the following clarifying questions:

- Why do the proposed basin boundaries exclude the area near the summit?
  - County Response: The area near the summit differs geologically from the area further downhill. The hydrogeological monitoring does extend to the summit, but the focal management area lies within the Purisima and Aromas formations.

- What is the definition for high or medium priority basins and critical overdraft? This basin is designated as what priority and level of overdraft? This basin is designated as what priority and level of overdraft?
  - County Response: DWR already designated which basins are high or medium priority basins: Soquel Valley is “high” and Purisima is “medium.” Neither are considered as in critical overdraft. (Pajaro Valley is designated as in critical overdraft.) If DWR accepts the proposed basin boundary modifications, DWR will re-examine the basin for risk of critical overdraft. However, DWR has not clearly defined the distinction between “overdraft” and “critical overdraft.”

- What is the State’s perspective regarding what groundwater management needs to occur?
  - County Response: SGMA outlines the general criteria. DWR is currently developing the specific requirements for GSPs.

Facilitated plenary discussion
Dr. Marci DuPraw, Managing Senior Facilitator and Mediator with California State University Sacramento’s Center for Collaborative Policy (CCP), asked attendees for their input on several questions regarding possible groundwater management strategies, related cost allocation considerations, and information needs. See Appendix E for the list of discussion questions.

Attendees raised the following questions, issues, and suggestions:

**Recycled/Reclaimed Water and Water Storage**

- Proactively develop/enhance the recycled water and water storage infrastructure (e.g., provide secondary treatment water for landscaping and golf courses).
- Store reclaimed water in abandoned wells near the coast to help combat sea water intrusion.
- Start preparing now for water capture and storage in case the upcoming years bring El Nino conditions.
- Consider actively injecting water into the aquifer to increase groundwater storage faster.
- Consider recapturing water that is used to clean out domestic water service lines.

**Sources for water**
- Consider other sources of water besides rainfall, recycled water, and groundwater.
- **Question:** Which agency would negotiate water transfers for the basin?
  - **City of Santa Cruz Response:** We have not determined that role yet. We welcome the community’s input regarding whether the GSA should have a role in negotiating those types of activities.
  - **County Response:** The City of Santa Cruz and SqCWD are currently discussing potential water transfers.

**Management Agencies’ Responsiveness**
- Many of the problems raised at this meeting are the same issues raised a decade ago. In general, the governing/management entities need to adopt more immediate, proactive roles.
- Groundwater management has improved greatly since the 1990s, partly due to adjustments made to SqCWD water policies in the early 2000s.

**Conservation**
- A sustained 30% water use reduction is possible; the water management agencies should help secure Soquel’s current 25% conservation gains and strive to achieve the extra 5% reduction.
- Require new developments and agriculture to incorporate more conservation strategies in their operations.

**Water rates**
- Water rates should be immediately increased to reflect the true costs of water.
- Water rates need to apply to everyone who uses groundwater. Water rates also need to fairly reflect the direct and indirect costs to develop and maintain the infrastructure of the various groundwater delivery systems and water usage (e.g., municipal versus private, rural wells).

**Land use and interagency coordination**
- Consider issuing a moratorium on new connections to the municipal system to slow growth in demand due to population growth.
- Address land use decisions conflicting with water management goals (e.g., new housing requirements).
Funding

- **Question**: What are the available State funds to assist groundwater management efforts?
  - **SWRCB Response**: Prop 1 provides $900 million statewide specifically for groundwater management. $800 million of the $900 million will primarily focus on groundwater quality issues (e.g., underground storage tank issues) under the SWRCB jurisdiction. DWR will distribute the remaining $100 million to assist local agencies to develop their GSPs.
  - **SqCWD Response**: SWRCB provided approximately $36,000 to fund this current stakeholder engagement effort.

Additional information

- Conduct a cost-benefit analysis of different management strategies. Determine the costs and increased water supply associated with each option. Determine whether where we'd get the most “bang for the buck” (e.g., more conservation or more water supply).
- Conduct a cost-benefit analysis of helping those in the agriculture industry switch to water-saving methods (e.g., drip irrigation).
- Look for case studies to see how other areas have approached drought and groundwater issues (e.g., Australia, Israel, Santa Barbara, Yolo County, and Colusa County) and consider which options (including governance structure) are appropriate for our basin.
- Research available models to predict the effectiveness of different management strategies (e.g., how fee increases change public behavior).

4. Next Steps to Manage our Groundwater Sustainably

**Progress in forming a GSA for the Mid-County area**

Jon Kennedy, Chair of the S-AGMC’s GSA Formation Subcommittee (Subcommittee), overviewed the S-AGMC’s efforts to form a GSA for the Mid-County area. The Subcommittee consists of well owners and representatives from the County, SqCWD, CWD, and the City of Santa Cruz. The Subcommittee is tasked with exploring GSA formation options, identifying areas of consensus and potential bottlenecks, incorporating stakeholder input and basin boundary modification efforts, and developing a framework and bylaws for the GSA. The Subcommittee has met five times for thirteen hours since April, reviewing options for the GSA governance framework and the appropriate scope for the GSA’s responsibilities and powers. The Subcommittee is working on a recommendation to the S-AGMC on how to structure the GSA with included Advisory Committee input, especially on the Sustainability Plan. The GSA structure needs to take into account water usage estimates by stakeholder grouping, climate change effects, inter-agency coordination, and stakeholder community input. The Subcommittee projects a timeline of formation by January and an initial plan by summer of 2016.
Questions - GSA Formation

- Has the Subcommittee examined the governance structure of other GSAs?
  - Subcommittee Response: There are no official GSAs under SGMA yet; however, we have reviewed several governance models similar to the BIG/S-AGMC framework.
  - SqCWD Comment: SWRCB provided funding for our stakeholder engagement partly because our region is unique (e.g., long engagement history, coastal region, several small water agencies, and many private wells). Others are curious about the governance model that we will develop.

- Does the S-AGMC have general background information to educate the public regarding SGMA requirements and groundwater management?
  - Subcommittee Response: We do not have that information in a condensed format yet. However, the SqCWD website contains that type of educational materials. The committee will work on building out a website with information on pertinent issues surrounding basin history and GSA formation. (See also the handout on SGMA requirements at Appendix B.)

- Are the water management agencies considering other water supply alternatives besides groundwater?
  - Subcommittee Response: Yes. We need to develop an effective GSA/GSP in conjunction with other supply alternatives to address the overall challenge of ensuring a sustainable water supply.

Summary of stakeholder input on how best to involve community members in developing a GSP

Dr. DuPraw provided an overview on the Subcommittee’s efforts to develop a community engagement plan for eliciting stakeholder advice on GSA and GSP development. The SWRCB provided funds to enable CCP to develop and recommend a community engagement approach based on 20 stakeholder interviews and input from community meetings such as this one. Emergent themes from the interviews included satisfaction with periodic meetings such as this one during GSA formation, but a desire for more involvement during GSP development; offering different types of forums for differing levels of time and interest; proactively engaging independent pumpers; engaging the whole community in meeting this challenge; emphasizing help and incentives for desired behavior changes rather than enforcement actions; and celebrating progress.

Dr. DuPraw then oriented attendees to three general models for community engagement during GSP development: 1) an advisory committee (which may consist of subject matter experts and other stakeholder representatives) that provides input to the GSA; 2) an advisory committee that includes some or all GSA members; or 3) expanded community input opportunities, but no advisory committee. Dr. DuPraw invited attendees to provide their input on the three engagement models (see Appendix F).
Discussion - Community engagement models

Overall, attendees said community engagement should include some form of an advisory committee. They raised the following questions and issues:

**Select an effective and efficient model**
- Consider conducting a cost-benefit analysis of the different engagement models. Select the one that will best contribute to achieving groundwater sustainability.

**Limits of model with community meetings only**
- Community meetings will likely be unable to support substantive discussions due to varied subject-knowledge and experience.

**Benefits of the advisory committee**
- GSP development requires a body of experts from various fields who are engaged in a process in which they work together and generate concrete results.

**Cost to support engagement**
- The drawback to greater collaboration is the increased cost and effort.

**Frame do-able community role**
- The approach should be tailored to what community members are able to do, relative to what technical experts are able to do. For example, community members may not have the capacity to evaluate progress in GSP implementation and identify necessary modifications.

**Past community stakeholder involvement**
- Build on past methods for involving stakeholders with varying levels of subject matter expertise; SqCWD has past experience with this (e.g., the stakeholder advisory panel used to help develop its integrated water plan).

5. Wrap-Up/Adjourn

Mr. Duncan thanked attendees for their input and encouraged them to continue to provide feedback. He said attendees provided valuable input that the S-AGMC, GSA Formation Subcommittee, and CCP will factor into their proposals. The water agencies want to support and maintain this excellent dialogue with community members going forward.

6. Appendices

A - Presentation Slides
B - SGMA Information and Conservation Tips Handout
C - Map of the Proposed Soquel-Aptos Groundwater Basin
D - Consumptive Use Handout
E - Discussion Questions Handout
F - Possible Community Engagement Approaches During GSP Development
DRAFT COMMUNITY ENGAGEMENT PLAN
TO INFORM ESTABLISHMENT OF A
GROUNDWATER SUSTAINABILITY AGENCY & PLAN
FOR THE SOQUEL-APTOS GROUNDWATER
MANAGEMENT AREA

(Revised Draft of July 29, 2015)

Prepared by
The Center for Collaborative Policy
California State University, Sacramento

Point of Contact for Feedback:
Dr. Marcelle E. DuPraw
916-995-5725
mdupraw@ccp.csus.edu
Table of Contents

I. What Is The Purpose of This Community Engagement Plan? .................................................. 2

II. What Is The Context of This Community Engagement Plan? ........................................... 2

III. Who Is Developing This Community Engagement Plan? ................................................ 4

IV. What Are the Required Public Notice and Involvement Opportunities During
Development of A Groundwater Sustainability Agency and Plan? ..................................... 4

V. What Community Engagement Approach Will Be Used To Inform Development of a
Groundwater Sustainability Agency and Plan for the Soquel Valley Groundwater
Basin? ........................................................................................................................................ 6

VI. Conclusion ................................................................................................................................................................. 9

Figure 1: Summary of Community Engagement Opportunities and Timeline ............................... 10

Figure 2: Two Possible Advisory Committee Models for GSP Development ............................. 14

Appendix A: Interview Questions ......................................................................................................................... 16

Appendix B: Interviewees .............................................................................................................................................. 18

Appendix C: Types of Interested Parties Whose Interests Must Be Considered At Minimum 19
DRAFT COMMUNITY ENGAGEMENT PLAN TO INFORM ESTABLISHMENT OF A GROUNDWATER SUSTAINABILITY AGENCY & PLAN FOR THE SOQUEL-APTOS GROUNDWATER MANAGEMENT AREA

--DRAFT COMMUNITY ENGAGEMENT PLAN--

I. What Is The Purpose of This Community Engagement Plan?

California’s Sustainable Groundwater Management Act (SGMA) of 2014 requires broad stakeholder involvement in the development and implementation of Groundwater Sustainability Agencies (GSAs) and Groundwater Sustainability Plans (GSPs) for 127 groundwater basins around the state, including the Soquel Valley Groundwater Basin. (Anticipating a boundary modification request in the near-term, community leaders prefer to refer to the focal hydrogeographic area as the “Soquel-Aptos Groundwater Management Area.”) SGMA’s intent is to ensure successful management of groundwater resources at the local level. Success will require cooperation by all stakeholders, and cooperation is far more likely if stakeholders help shape the path forward.

To that end, this Community Engagement Plan is intended to make transparent to stakeholders their opportunities to contribute to the development of a GSA and a GSP that can effectively address the challenges of the Soquel-Aptos Groundwater Management Area. At the same time, this Community Engagement Plan is intended to provide community leaders with a roadmap to follow to ensure stakeholders have meaningful input into GSA and GSP development through a process widely seen as fair and respectful to the range of interested parties. (More specific community engagement requirements are summarized elsewhere in this document.)

II. What Is The Context of This Community Engagement Plan?

As has been widely discussed at public forums and media in the Soquel-Aptos area, the Soquel-Aptos Groundwater Management Area has a continuing problem with saltwater entering our groundwater. This has occurred because groundwater levels have dropped below sea level due to excessive human use; the sea water then seeps in to fill the void. Once saltwater enters our groundwater, the groundwater becomes too salty to use for

1 The anticipated boundaries are Monterey Bay to the south, certain hills near the Zayante Fault to the north, the western boundary of the Soquel Creek Water District to the west, and the coastward projection of the drainage divide between the Soquel and Aptos Creek watersheds to the east (in practical terms, the eastern limit of the Soquel Creek and Central Water District’s service area). Soquel Creek is the major drainage in the Basin.
drinking water or agriculture without costly treatment at facilities that currently do not exist in the Soquel-Aptos area. Area water managers were already exploring how to rectify this very real and serious problem when the California Legislature passed the (SGMA in August 2014.

SGMA, which took effect January 1, 2015, seeks to bring the management of the state’s groundwater resources into balance over time to avoid specific negative circumstances named in SGMA, including chronic groundwater depletion and seawater intrusion, so that our groundwater resources remain available to future generations. SGMA requires the establishment of GSAs in the 127 groundwater basins around the state that are designated as either medium or high based on threat to the basin’s integrity. (The Soquel Valley Groundwater Basin, which is deemed “high” priority.) GSAs must be in place by June 30, 2017. SGMA looks to “local agencies” to take the lead in establishing GSAs, with counties as the default. If a county declines to act, the responsibility to step into the void falls to the State. (Similarly, if a GSA cannot successfully implement an adopted GSP, then the State has the authority to step in to ensure the groundwater basin in question is managed sustainably.)

Once the GSA is established, it must then develop a GSP by January 31, 2022. (For basins deemed to be in “critical” overdraft, this deadline is moved up to January 31, 2020; however, the Soquel Valley Groundwater Basin is not currently considered to be in critical overdraft.) GSAs must provide local land use planning agencies a review opportunity prior to adopting their Plans. Once a GSA adopts a GSP, the GSA must submit the GSP to the California Department of Water Resources (DWR) for review, and DWR must review GSPs every five years; DWR is authorized to request changes. SGMA also provides for a validation process to help protect against future legal challenges.

GSPs must include long-term planning goals, measurable objectives, and provisions for meeting five-year milestones to ensure that the overdraft is eliminated and sustainable conditions are achieved within twenty years. SGMA specifies certain other required elements of GSPs, and gives GSAs a list of specific groundwater management authorities to use in implementing these plans, such as adopting and enforcing regulations, investigating and acquiring water rights (although at the same time not affecting landowners’ existing water rights), imposing fees, and limiting groundwater production.

The Soquel Valley Groundwater Basin is designated high priority due to a continuing problem with saltwater entering our groundwater, and therefore, is subject to SGMA’s requirements. Thus, there is both a practical and a legal need to establish a GSP and GSP for the Soquel-Aptos Groundwater Management Area as expeditiously as possible.
III. Who Is Developing This Community Engagement Plan?

Area leaders are working together to meet SGMA requirements and address our groundwater management challenges through the Soquel-Aptos Groundwater Management Committee (S-AGMC), an expanded version of what was formerly known as the Basin Implementation Group (BIG). S-AGMC members include the Soquel Creek and Central Water Districts, the City and County of Santa Cruz, and three private well-owners.

The S-AGMC has established a GSA Formation Subcommittee to formulate recommendations to the S-AGMC on how to structure this area’s GSA, and has worked through Soquel Creek Water District to obtain the services of California State University, Sacramento’s, Center for Collaborative Policy (CCP) to develop this Community Engagement Plan. CCP is doing so in consultation with the S-AGMC, GSA Formation Subcommittee, and stakeholders. Consultations with stakeholders are taking the form of approximately twenty interviews with a diverse range of individuals. (See Appendix A for a list of the interviewee questions and Appendix B for a list of interviewees, along with selection considerations.)

IV. What Are the Required Public Notice and Involvement Opportunities During Development of A Groundwater Sustainability Agency and Plan?

SGMA strongly encourages broad stakeholder engagement in establishing GSAs and in developing and implementing GSPs. According to SGMA:

- “The groundwater sustainability agency shall encourage the active involvement of diverse social, cultural, and economic elements of the population within the groundwater basin prior to and during the development and implementation of the groundwater sustainability plan.” [CA Water Code Sec. 10727.8(a)]
- “The groundwater sustainability agency shall consider the interests of all beneficial uses and users of groundwater.” [CA Water Code Sec. 10723.2]

SGMA explicitly authorizes GSAs to form Advisory Boards if they choose, but does not require them to do so. SGMA does have several GSA-specific requirements regarding public notice, public hearings, and public meetings. These include:

A. Local agencies seeking to become a GSA must issue public notice and hold a public hearing before doing so. The public notice must be consistent with Section 6066 of the Government Code. The hearing must take place in a county overlying the groundwater basin of interest. [CA Water Code Section 10723 (b)]

---

2 SGMA also includes public notice requirements for state agencies; see the text of SGMA for details.
Within 30 days of electing to be (or forming) a GSA, the GSA must inform the State of this development and its intent to manage groundwater sustainably. In doing so, the GSA must:

- Include a list of parties who wish to receive “plan preparation, meeting announcements, and availability of draft plans, maps, and other relevant documents”; and
- Explain how the interested parties’ perspectives will be considered, both during the development and operation of the GSA and during development and implementation of the GSP. This information must also be sent to the legislative bodies of any city and county in the area covered by the plan.

Illuminating the term “interested parties,” SGMA requires that GSAs consider the interests of “all beneficial uses and users of groundwater,” along with entities expected to share responsibilities for implementing GSPs. As a starting point, SGMA specifies a number of types of “interested parties” (see Appendix C). The GSA must maintain its list of interested parties on an ongoing basis. Anyone who wishes to be put on this list can do so upon making this request in writing. [CA Water Code Section 10730. (b) (2); 10723.2; 10723.4; and 10723.8. (a)]

With respect to tribes, SGMA states that, “any federally recognized Indian tribe, appreciating the shared interest in assuring the sustainability of groundwater resources, may voluntarily agree to participate in the preparation or administration of a groundwater sustainability plan or groundwater management plan under this part through a joint powers authority or other agreement with local agencies in the basin. A participating tribe shall be eligible to participate fully in planning, financing, and management under this part, including eligibility for grants and technical assistance, if any exercise of regulatory authority, enforcement, or imposition and collection of fees is pursuant to the tribe's independent authority and not pursuant to authority granted to a groundwater sustainability agency under this part.” [CA Water Code Section 10720.3 (c)]

B. GSAs planning to develop a GSP must provide notice of their intent to do so to the public and the state before proceeding. The notice must describe opportunities for interested parties to participate in the development and implementation of the GSP. This written notice must be provided to the legislative bodies of any city or county located within the basin to be managed by the GSP. [CA Water Code Section 10727.8. (a)]

C. A GSA seeking to adopt or amend a GSP must provide notice to cities and counties within the area encompassed by the proposed plan or amendment, and consider comments provided by the cities and counties. Cities and counties receiving the notice may request consultation with the GSA, in which case the GSA must accommodate that request within thirty days.
The GSA also must hold a public hearing prior to adopting or amending a GSP. There must be at least 90 days between the notice issued to cities and counties and the public hearing. [CA Water Code Section 10728.4]

D. If a GSA intends to impose or increase a fee, it must first hold at least one public meeting, at which attendees may make oral or written comments. This public notice must include information about the time and place of the meeting and a general explanation of the topic to be discussed. It must be posted on the GSA’s website and mailed to any interested party who submits a written request for mailed notice of meetings on new or increased fees. (The GSA must establish and maintain a list of interested parties in this context, and the list is subject to renewal by April 1 of each year.) The public notice must also be consistent with Section 6066 of the Government Code. In addition, the GSA must share with the public the data upon which the proposed fee is based, and this must be done at least ten days before the public meeting takes place. [CA Water Code Section 10730.(b)(1),(2), and (3)]

V. What Community Engagement Approach Will Be Used To Inform Development of a Groundwater Sustainability Agency and Plan for the Soquel Valley Groundwater Basin?

NOTE: These initial consultant recommendations are subject to modification based upon further feedback from the GSA Formation Subcommittee and the Mid-County Groundwater Stakeholder Group (described below).

A. Community Engagement Opportunities During GSA Formation. As noted above, area leaders have formed the Soquel-Aptos Groundwater Management Committee (S-AGMC) as the primary vehicle through which the Soquel Creek and Central Water Districts, the City and County of Santa Cruz, and private well-owners work together on SGMA compliance. However, the S-AGMC is simply an updated and expanded version of the Basin Implementation Group (BIG), which has been working on area groundwater management issues for several years. The BIG established the Mid-County Groundwater Stakeholder Group and convened it on six occasions over several years to provide updates and invite community feedback on groundwater management efforts.

The S-AGMC is continuing to convene the Mid-County Groundwater Stakeholder Group to keep the community informed of its GSA formation efforts and other groundwater management activities, and to invite feedback. The seventh such meeting took place on June 30, 2015. This group takes the form of public meetings; it does not have a fixed composition. Based on the input of the 22 stakeholders interviewed during development of this Community Engagement Plan and feedback provided at the seventh meeting of the Mid-County Groundwater Stakeholder Group, stakeholder input during GSA formation will occur in the context of periodic meetings of the Mid-County Groundwater Stakeholder Group. However,
interviewees urged expanded community engagement during GSP development and implementation to foster shared ownership in the plan. The next section describes the anticipated approach for accommodating that desire.

B. Community Engagement Opportunities During GSP Development. As shown in Figure 1, the anticipated community engagement approach for development of a GSP for the Soquel-Aptos Groundwater Management Area consists of seven primary elements:

1. Compliance with the SGMA community engagement requirements.
2. Establishment of a GSP Advisory Committee (hereafter, “GSP Development Subcommittee”) of approximately 12-20 individuals, which will include GSA members but also additional stakeholders representing the range of major groundwater users and beneficial uses, who will work together to formulate the content of the GSP (recognizing that GSA members retain the legal responsibility for final GSA- and GSP-related decisions). See Figure 2 for two possible Advisory Committee models, reflecting the input of the Mid-County Groundwater Stakeholder Group. In one, all members of the GSA are members of a GSP Development Subcommittee,” and in the other, only a subset of the GSA belong to the GSP Development Subcommittee. However, both scenarios reflect the assumption that stakeholders beyond GSA members would serve on the GSP Development Subcommittee along with at least some GSA members. The choice of model will probably need to wait until the GSA is established.
3. Targeted outreach to caucus of independent well-owners for broader input from this key, but diffuse, stakeholder sector (perhaps building on the County’s ongoing meetings with small water systems);
4. Outreach to other parties known to be interested in GSP development at strategic mileposts to provide updates and invite feedback; and
5. Regular updates for the community-at-large via a range of mechanisms as shown in Figure 1.

C. Topics To Discuss During GSP Development. Anticipated topics to be addressed during GSP development include, but are not limited to, the following:

1. Current Conditions, Assets, and Challenges. Characterize the physical setting, the aquifer underlying the basin to be managed, current conditions in the basin (particularly including Soquel Creek summer flows), associated groundwater management challenges, factors contributing to those challenges, and assets that can help contribute to solutions.
2. Evaluation Criteria. Identify criteria for acceptable solution to basin’s groundwater management challenges (e.g., cost, impact on water quality, impact on salt water intrusion, timeliness of results; political feasibility,
certain level of base flow in Soquel Creek, certain groundwater level at the coast, etc.).

3. **Models and Examples.** Investigate how others have handled similar challenges (e.g., adjudicated basins elsewhere in the State; how Australia handled its recent drought, how Orange County implements water recycling; Pajaro Valley Water Management Agency’s approach and conservation programs in Pajaro Valley, Santa Barbara’s response to earlier drought; etc.)

4. **Measurable Objectives and Interim Milestones.** These break up the overall goal of groundwater sustainability into manageable pieces. SGMA indicates that GSPs must address groundwater quantity and quality, mitigation of overdraft, use of recharge, and use of surface water (e.g., for recharge and/or in-lieu of groundwater). Please see SGMA Sections 10727.2 and 10727.4 for further detail on required GSP elements.

5. **Options.** Articulate the range of possible solutions to consider, including both conservation and supply enhancement (water recycling, recharge, increased storage, desalinization, and inter-jurisdictional water sharing); market-based solutions (e.g., cap and trade); options for various sectors; options for both indoor and outdoor water conservation; and options that offer an opportunity to implement WSAC recommendations, along with SGMA compliance. However, initial focus should be on options that address most limiting factors and will be politically feasible (e.g., supplementing water supply and eliminating waste, rather than restricting access).

6. **Option Evaluation and Selection.** Evaluate and select among the range of options. Package coherently. Determine how best to link GSP with applicable city and county general plans, other water-related plans and programs, and other relevant initiatives in region.³

7. **Plan implementation, monitoring, and adaptive management.** Discuss and agree upon who will carry out various aspects of the solution, including education, technical assistance, costs and sources of revenue to cover those

³ Other initiatives in the region with which the GSA should consider establishing appropriate linkages during GSP development include: a) Water Districts in adjoining basins (including Pajaro Valley Water Management Agency, Scotts Valley Water District, and Monterey County Water Agency) and existing agreements and negotiations among them; b) DWR Strategic Plan for Groundwater; c) Urban Water Management Planning Act; d) Capitola’s Lagoon Management Plan; e) Integrated Water Resources Management Plan; f) Local Agencies Formation Commission; g) Stormwater regulations; h) Santa Cruz Water Supply Advisory Committee; i) current water conservation efforts in Santa Cruz and Soquel; j) Soquel Creek Water District’s feasibility study regarding recycled water; k) Deepwater Desal project in Moss Landing; l) model water reduction plan for community colleges being developed by Cabrillo College; m) County planning and development requirements, area cities, and neighboring basins to make regulations consistent across jurisdictions.
costs, data collection and monitoring, reporting, and enforcement; how to incentivize independent pumpers’ participation in GSP implementation; how the solution will be funded and the costs shared among beneficiaries; and how to ensure the GSP is adaptable over time, including how conflicts will be handled, who will be responsible for GSP updates, how often these updates will occur, and how the updates will be accomplished, including stakeholder involvement opportunities.

VI. Conclusion

This Community Engagement Plan is intended to chart the path by which community stakeholders can contribute to the development of a GSA and GSP that comply with SGMA and in so doing, embody a realistic and feasible approach for remedying the problems of the Soquel-Aptos Groundwater Management Area and ensuring adequate water supply for future generations’ beneficial uses. It strives to lay out a process for engaging stakeholders in that undertaking that is seen as fair and respectful by the community at large. In so doing, this Community Engagement Plan is intended as a useful reference for the community at large, as well as community leaders guiding SGMA compliance and groundwater management efforts.

Whether one is pleased or dismayed by the passage of SGMA, it is now the law of the land. It presents a new playing field and an opportunity for important inter-jurisdictional collaboration on shared water management challenges. As one stakeholder has observed, “Santa Cruz County is a great place for this to work. We have lots in common – i.e., a strong appreciation for the environment – the ocean and mountains...; people are willing to make less money in order to live here.” And another stakeholder says, “The prospects are good to generate the right outcome.” There is reason to be optimistic that our community is on the path to solving our water challenges.
Figure 1:
Summary of Community Engagement Opportunities and Timeline

<table>
<thead>
<tr>
<th>Timeframe</th>
<th>Milestone or Stage</th>
<th>Required Community Engagement</th>
<th>Additional Community Engagement Recommendations</th>
</tr>
</thead>
</table>
| GSA establish-ment no later than June 30, 2017 | Prior to establishing GSA | ▪ Issue public notice regarding intent to form GSA and to hold public hearing. Provide supporting data at least 10 days prior to hearing.  
▪ Hold public hearing in county overlying groundwater basin of interest.  
▪ Determine whether there are any federally recognized Tribes with interests in this basin (e.g., check with Native American Heritage Commission). Interviewees to date do not think so, but if there are, reach out to determine desire to participate.  
▪ Active involvement of diverse social, cultural, and economic elements of the population within the basin | ▪ Continue to hold Mid-County Groundwater Stakeholder Group meetings as needed to update community on progress in establishing GSA and invite feedback. However, expand outreach in areas dense with private well-owners (e.g., Branciforte, Olive Springs, Glen Haven, Floral Glen, Rodeo Gulch, Old San Jose Road, Valencia, and Trout Gulch Roads).  
▪ Update community at large via updates on Facebook pages of S-AGMC members and project website.  
▪ Publish notice in Sentinel, Capitola-Soquel Times, and Aptos Times, and via insert in customer utility bills of relevant S-AGMC member agencies  
▪ Systematically develop list of interested parties (see Appendix C) under auspices of S-AGMC and its GSA Formation Subcommittee. In all above communications with the public, include invitation to be added to list.  
▪ Plan composition and operating protocols of GSP Development Subcommittee, including mechanisms that incentivize and reinforce independent pumper engagement |

---

4 Public notices must be consistent with Section 6066 of the Government Code.
<table>
<thead>
<tr>
<th>Timeframe</th>
<th>Milestone or Stage</th>
<th>Required Community Engagement</th>
<th>Additional Community Engagement Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Within 30 days of electing to be (or forming) a GSA</strong></td>
<td>GSA establishment</td>
<td>Submit to the State and to legislative bodies of any cities and counties located in area to be covered by GSP: a) a list of interested parties (per Appendix C); and b) description of how they will be involved with GSA and GSP at time that GSA informs State of GSA establishment and intent to manage groundwater sustainably.</td>
<td>Once particular GSA model is selected, update this Community Engagement Plan as needed to serve as (b) in column to left.</td>
</tr>
</tbody>
</table>
| **After GSA formation but before GSP adoption (which is required by January 31, 2022)** | Prior to beginning GSP development | Provide to the public and State notice of intent to begin GSP development and description of opportunities for interested parties to participate in GSP development and implementation. | ▪ Issue press release regarding establishment of GSA  
▪ Offer interviews to area radio (e.g., AM 1080-KSCO) and television stations  
▪ Meet with editorial boards of Sentinel, Good Times, Capitola-Soquel Times, and Aptos Times to explain intent and approach. |
| **See above cell** | During GSP development | Active involvement of diverse social, cultural, and economic elements of the population within the basin | ▪ Convene monthly or bi-monthly meetings of GSP Development Subcommittee to jointly develop content of GSP; membership should include, but be broader than, GSA members (with clear understanding that GSA members retain legal responsibility for final GSA and GSP-related decisions); provide public comment opportunity at each meeting.  
▪ Arrange for technical support to GSA Development Subcommittee |
<table>
<thead>
<tr>
<th>Timeframe</th>
<th>Milestone or Stage</th>
<th>Required Community Engagement</th>
<th>Additional Community Engagement Recommendations</th>
</tr>
</thead>
</table>
| See above cell | During GSP development *(continued)* | See above cell | ▪ Continue to hold Mid-County Groundwater Stakeholder Group meetings as needed to update community on progress in developing GSP and invite feedback.  
▪ Augment with meetings of subgroup (caucus) of independent pumpers to obtain broader input from this key but diffuse sector on as-needed basis.  
▪ Augment with community input via web-based survey to get additional input on targeted issues where warranted.  
▪ Update area legislative bodies at strategic mileposts (and any group upon request) Continue to update community at large via project website, press, bill inserts. |
| GSP adoption no later than January 31, 2022 | Prior to GSP adoption or amendment | ▪ Provide notice to cities and counties within area encompassed by the proposed plan or amendment  
▪ Consider comments provided by the cities and counties.  
▪ Accommodate requests for consultation received from the cities and counties within 30 days.  
▪ No sooner than 90 days following public notice, hold public hearing. | ▪ Hold Mid-County Groundwater Stakeholder Group meetings to orient attendees to proposed GSP.  
▪ Meet with editorial boards of Sentinel, Capitola-Soquel Times, and Aptos Times.  
▪ Offer interviews to area radio and television stations. |
<table>
<thead>
<tr>
<th>Timeframe</th>
<th>Milestone or Stage</th>
<th>Required Community Engagement</th>
<th>Additional Community Engagement Recommendations</th>
</tr>
</thead>
</table>
| Prior to GSA imposing fee or increasing fee | If GSA intends to impose or increase a fee | ▪ Provide public with access to the data serving as the basis for the proposed fee, the time and place of explanatory public meeting, and general explanation of topic to be discussed. Post on project website and mail to any interested party who submits written request for mailed notice of meetings on new or increased fees.  
▪ No sooner than 10 days following public notice, hold public meeting. | ▪ Hold Mid-County Groundwater Stakeholder Group meetings to orient attendees to proposed GSP.  
▪ Meet with editorial boards of Sentinel, Capitola-Soquel Times, and Aptos Times.  
▪ Offer interviews to area radio and television stations. |
| Quarterly | Throughout GSP implementation | | Convene GSP Development Subcommittee at regular intervals (at least annually) to review GSP implementation / results and recommend GSP amendments as needed. |
Figure 2:
Two Possible Advisory Committee Models for GSP Development

Model 1:
GSA/ADVISORY COMMITTEE COLLABORATION

Note:
- In Model 1, the GSA is a part of the Advisory Committee. Participants work collaboratively to develop the content of the groundwater sustainability plan.
MODEL 2
GSA/ADVISORY COMMITTEE COLLABORATION VIA SUBGROUP

Notes:
- In Model 2, some members of the GSA are part of the Advisory Committee, but not all. In addition, the Advisory Committee may include some members who are not part of the GSA.
- Advisory Committee members develop recommendations for GSA consideration.
Appendix A:
Interview Questions

Forming a Groundwater Sustainability Agency
Under the Sustainable Groundwater Management Act

Anticipated Stakeholder Interview Questions
(Note that the facilitator plans to use these questions as the backbone of the interview, but will improvise follow-up questions, given the interviewee’s answers.)

I. Are you familiar with the new state legislation on groundwater -- the Sustainable Groundwater Management Act? (If needed, I will explain a little, including the requirements for a GSA and GSP.)

II. I’m working with the Soquel-Aptos Groundwater Management Committee & its GSA subcommittee to develop a plan for how to engage the broader community in getting these required components in place, and would like to invite your input on that. In that context, do you have thoughts on what parties, or types of parties, will need to be involved in developing a Groundwater Sustainability Plan? Possible prompts:
   a. Those with decision-making or other governance roles regarding groundwater in this basin and might want to be included in your GSA;
   b. Other stakeholders who need to be involved in order to form a GSA that enjoys broad community support (those who are most strongly affected; those that could ensure or block GSA effectiveness).

III. Do you have thoughts on how best to engage those particular parties, and the public generally, in development of the Plan? Possible prompt: are there existing engagement opportunities that seem to be working well that we might be able to build upon?

IV. What issues would you like to see discussed during the development of the GSP? Possible follow-up prompts:
   a. It’s likely that one of the topics on the table will be additional supply options (e.g., sharing water, recycling water, etc.). What aspects of this issue would you like to see discussed during GSP development?
   b. Another thing that is likely to come up is the question of balancing additional development pressure with a possible need to continue a reduced pumping profile. Do you have thoughts on how that tension will play out in this basin? Is this something you think could fruitfully be discussed during GSP development?
V. Thinking back on past groundwater-related efforts with which you’ve been involved, are there any lessons you think we can learn from them (e.g., what worked / what might be done differently in the future)?

VI. How should this initiative relate to / coordinate with other initiatives in the region?

VII. If you imagine the situation 2 years down the line, and you are feeling great about how this has all transpired, what would have happened that would give you that feeling? Possible prompts:
   a. What should we seek to accomplish with the GSA and GSP?
   b. Any thoughts about priorities, programs, or projects that might support those aspirations?
   c. How should we measure success?

VIII. Is there anything else you think I should know that I haven’t asked about?

IX. Is there anyone else you would suggest I interview?

X. Is there anything you’ve told me that you’d like me to keep confidential?
Appendix B:
Interviewees

1. Bruce Jaffe, SqCWD / GSA Formation Subcommittee member
2. John Ricker, Santa Cruz County / GSA Formation Subcommittee member
3. Micah Posner, City of Santa Cruz / GSA Formation Subcommittee member
4. John Benich, CWD / GSA Formation Subcommittee member (jointly with Bob Postle, co-GSA Formation Subcommittee member, & Ralph Bracamonte, CWD District Manager)
5. Jon Kennedy, Private Well-owner / GSA Formation Subcommittee member
6. Rosemary Menard, Water Director, City of Santa Cruz
7. Bruce Daniels, SqCWD Board Chair, with Melanie Mow Schumacher, SqCWD Special Projects Manager
8. Mary Bannister, General Manager, Pajaro Valley Water Management Agency
9. Rick Longinotti, Santa Cruz Desal Alternatives, Member of Santa Cruz Water Supply Advisory Committee
10. David Green Baskin, Santa Cruz City Water Commissioner, Member of Santa Cruz Water Supply Advisory Committee
11. Gary Nelson, Seascape Golf Course General Manager (large business groundwater user)
12. Joe Nugent, Cabrillo College Facilities Planning and Plant Operations Director
13. Martin Mills and Jennifer Young, Pure Source (small water system operators)
14. John Bargetto, Bargetto Winery
15. Chris Coburn, Executive Director, Central Coast Resource Conservation District
16. Pam Caldwell Nootbaar, General Manager, Kennolyn Camps
17. Ned Spencer, Santa Cruz County Water Advisory Commission; founder of Friends of Soquel Creek
18. Barbara Mason, Santa Cruz County Economic Development Coordinator
19. Kirsten Liske, Vice President, Green Communities, Ecology Action
21. Jon Jankovitz, Fisheries Biologist and Ecologist, California Department of Fish and Wildlife
22. Jim Keller, Director of Conservation, Amah Mutsun Tribal Band

Considerations in selecting interviewees included: 1) Interviewees are stakeholders with respect to GSA / GSP formation in this basin; 2) They are widely respected opinion leaders, and/or could help ensure or block GSA / GSP effectiveness; 3) They include major decision-makers with respect to GSA / GSP formation; 4) They collectively represent a broad range of sectors and perspectives; and/or 5) They collectively represent broad geographic diversity within this basin. Generally, interviewees met one or more of the 1st three considerations, and contributed to the last two considerations:
Appendix C: Types of Interested Parties Whose Interests Must Be Considered At Minimum

SGMA specifies that GSAs’ lists of interested parties should include, at a minimum:

a. Holders of overlying groundwater rights, including both agricultural and domestic users;

b. Municipal well operators;

c. Public water systems;

d. Local land use planning agencies;\(^6\)

e. Environmental users of groundwater;

f. Surface water users, if there is a hydrologic connection between surface and groundwater bodies;

g. The federal government, including, but not limited to, the military and managers of federal lands;

h. California Native American tribes;

i. Disadvantaged communities (DAC), including, but not limited to, those served by private domestic wells or small community water systems; and

j. Entities listed in Section 10927 that are monitoring and reporting groundwater elevations in all or a part of a groundwater basin managed by the GSA. [CA Water Code Section 10723.2.]

Also, SGMA allows for the option of multiple GSAs in a single basin. Where this occurs, SGMA requires that the GSAs in a single basin coordinate with one another through a coordination agreement covering the whole basin. In this case, the GSAs must use the same data and methods for certain parts of their Plans. [CA Water Code Section 10727.6.]

---

\(^6\) The adjoining basins include West Santa Cruz Terrace to the west and the Pajaro Valley to the southeast.

\(^7\) SGMA requires that GSAs coordinate with land use planning agencies. The latter must review the proposed GSP prior to its adoption or amendment. In addition, local land use planning agencies must give local GSAs an opportunity to review proposed general plan adoption and amendment actions, and the GSAs are required to identify anticipated effects of the proposed action on GSP implementation.
MEMO TO THE BASIN IMPLEMENTATION GROUP

Subject: Agenda Item No. 5.7

Intent of Department of Water Resources (DWR) to Designate the Groundwater Basin as Being in Critical Overdraft

The purpose of this memo is to inform the BIG committee about the intent of the Department of Water Resources (DWR) to designate the Soquel Valley Groundwater Basin as being in “critical overdraft”. Currently, the Soquel Valley Groundwater Basin is noted in the California Groundwater Bulletin 118 as having overdraft issues, but not as being in “critical overdraft”. The recognition of the basin’s serious situation is due to the groundwater overdraft condition, seawater intrusion, and Soquel Creek Water District’s declaration of a state of groundwater emergency.

DWR last evaluated and designated basins as being in critical overdraft in 1980. This current evaluation to reclassify the basin as critical is part of DWR's review process associated with the Groundwater Sustainability Act. DWR plans to present this revised critical overdraft designation at the August 19th California Water Commission meeting, followed by a public meeting the week after, and then a 30 day public comment period.

(Note that the Soquel Creek Water District, District, Central Water District, and County of Santa Cruz staff have been working with DWR to adjust the Soquel Valley Groundwater Basin boundaries to align with the actual groundwater basin dimensions. Also a name change to “Soquel-Aptos Groundwater Basin” is being sought to be more reflective of the geographical basin area.)

There are some ramifications associated with the change in basin overdraft designation. Basins designated as being in “critical overdraft” have to have their Groundwater Sustainability Plan completed two years earlier (by January 31, 2020) than basins not in critical overdraft. The timeframe for reaching sustainability would be reduced by two years, requiring sustainability by year 2040 instead of 2042. However, it appears to be the intent of the local GSA Formation Subcommittee members to achieve the required milestones within the timeframe as required for basins classified as being in critical overdraft even if it is not reclassified as such.

The basin is currently characterized as being a “medium priority” and the “critical overdraft” designation could move it to a “high priority” status, although several other factors help determine that designation. Either way there would be no immediate change; the next round of basin prioritization will come late next year after the basin boundary modifications are completed.
POSSIBLE ACTIONS
1. By MOTION, direct staff, if desired, to provide input to DWR regarding their intent to recommend the basin as being in critical overdraft.

2. Take no action.

By___________________________________
Melanie Mow Schumacher
Special Projects/Community Dialogue Manager

By___________________________________
Ron Duncan
Interim General Manager
MEMO TO THE BASIN IMPLEMENTATION GROUP

Subject: Agenda Item No. 5.8 Approve Proposed Scope for Evaluating Shallow Groundwater Conditions in Aromas and Purisima Areas

Attachment: Proposed Scope for Evaluating Shallow Groundwater Conditions in Aromas and Purisima Areas, dated 08/12/2015

The attached proposed scope and cost estimate ($19,905) from Hydrometrics WRI is for conducting an evaluation of shallow groundwater elevations and trends within the Aromas and Purisima areas of the Soquel-Aptos Basin. Todd Groundwater recommended in their report titled “Peer Review of Technical Water Resources Studies” that HydroMetrics WRI should “compile groundwater elevation data for shallow monitoring wells in the coastal plain area and compare those with invert elevations of nearby creeks and gulches to investigate the possibility that some shallow groundwater discharges to those waterways or directly to the ocean.” This work would be done in conjunction with the surface water-groundwater model development tasks that are currently ongoing.

The funding ($20,000) for this item is included in the Soquel-Aptos Area Groundwater Management Annual Budget FY 2015/16, which is presented as Memo Item 5.3. Based on the cost share presented in the Third Amendment (Memo Item 5.1), the respective costs to each agency will be up the amounts shown.

- Soquel Creek Water District: $19,905 x 70% = $13,933.50
- City of Santa Cruz: $19,905 x 10% = $1,990.50
- County of Santa Cruz: $19,905 x 10% = $1,990.50
- Central Water District: $19,905 x 10% = $1,990.50

Staff recommends that the BIG approve the attached proposed scope work for a total not-to-exceed $19,905.

POSSIBLE ACTIONS

1. By MOTION, approve the attached proposed scope work for a total not-to-exceed $19,905.

2. No action.

By ______________________________
Melanie Mow Schumacher, Special Projects/Community Dialogue Manager
Soquel Creek Water District

By ______________________________
Ron Duncan, Interim General Manager
Soquel Creek Water District
Dear Mr. Duncan:

This letter provides our proposed scope and cost estimate for conducting a comprehensive evaluation of shallow groundwater elevations and trends within the Aromas and Purisima areas of the Soquel-Aptos Basin. This evaluation was recommended by Todd Groundwater in its Peer Review of Technical Water Resources Studies (Todd Groundwater, 2014), which states that HydroMetrics WRI should “compile groundwater elevation data for shallow monitoring wells in the coastal plain area and compare those with invert elevations of nearby creeks and gulches to investigate the possibility that some shallow groundwater discharges to those waterways or directly to the ocean.” This work will be done in conjunction with the surface water-groundwater model development tasks that are currently ongoing.

The main water-producing aquifers in this area of the Soquel-Aptos Basin are within the various hydrostratigraphic units of the Aromas Red Sands and Purisima Formation. However, shallower alluvial units that overlay the Aromas and Purisima, including coastal terrace deposits and other alluvial material, may also act as marginal groundwater bearing units in this area. Figure 1 depicts the outcrop areas for Purisima and Aromas units, as well as the approximate extent of coastal terrace deposits. The primary goal of this proposed evaluation is to
evaluate, based on available data, the degree of hydraulic connectivity between groundwater within these overlaying units and the water-producing Aromas and Purisima units, as well as with the adjacent streams and other relevant surface features. The dynamics and extent of groundwater flow into and out of these shallow units may have implications for regional model construction and calibration, as well as the general conceptual model of the Soquel-Aptos Basin. In particular, understanding the discharge of shallow groundwater into streams may improve model calibration and defensibility.

Figure 1: Estimated Surface Projection of Hydrostratigraphic Units and Coastal Terrace Deposits

Task 1: Data Compilation

HydroMetrics WRI will compile available and representative data related to this investigation for a period of at least 2005 through 2015, concurrent with the anticipated time domain of the forthcoming surface water-groundwater model. The types of data to be compiled will include, but may not be limited to:

- Well construction details for groundwater monitoring wells within shallow terrace or alluvial material overlaying the Aromas Red Sands and Purisima Formation.
- Groundwater elevation data collected from shallow monitoring wells during the time period indicated above.
• Existing groundwater elevation data from the Aromas and Purisima Formations monitoring and production wells adjacent to relevant shallow geologic units.
• Stream gauge data for stream channels or gulches adjacent to shallow monitoring well and/or Aromas and Purisima monitoring well clusters.

Most of the shallow well information will be sourced from monitoring reports or other publicly-available consultant reports published on the State Water Resources Control Board’s Geotracker website. Information provided by member agencies of Soquel-Aptos Groundwater Management Committee will also be evaluated. HydroMetrics will select up to 10 of the most representative sites available to collect the shallow groundwater data listed above. As suggested by Todd Groundwater, priority will be given to data from coastal areas adjacent to or within terrace deposits and potential groundwater recharge or discharge areas such as stream channels. However, shallow groundwater information for areas farther inland may also be collected to evaluate regional differences in shallow/deep groundwater dynamics.

**Task 2: Hydrogeologic Evaluation**

The data collected in Task 1 will be used to develop a comprehensive evaluation of the hydraulic connectivity of shallow groundwater-bearing materials to the regional hydrogeology of the Aromas Red Sands and Purisima Formation and regional surface water hydrology. Analyses done for this task will include:

• Establishing local and regional vertical groundwater gradients between shallow units and the underlying Aromas Red Sands and Purisima Formation.
• Comparing the differences in water levels between streams and shallow wells to qualitatively evaluate flow between streams and shallow groundwater.

**Task 3: Technical Memorandum**

We will document the work performed under Task 1 and Task 2 in a technical memorandum. This report will include presentation of groundwater and surface water data in hydrographs, maps, or other associated graphical means to aid analysis of the data. We will also include recommendations for how to use the results to inform groundwater model development or management objectives. A
draft report will be provided to SqCWD staff for review. The final report will incorporate SqCWD staff comments and be provided in PDF format.

**Follow-Up Tasks**

As development of the regional surface water-groundwater model proceeds, the findings of this shallow groundwater evaluation will be incorporated into the model as needed. The current model construction will explicitly simulate terrace deposits and selected areas of alluvial material as units with separate material properties from the underlying Aromas Red Sands and Purisima Formation units. Shallow wells identified per Task 1 may also be incorporated as observation points or calibration targets pending the connectivity of groundwater in these shallow units to the regional hydrogeology.

**Budget**

The cost estimate for the proposed Tasks is attached. The total estimated budget is $19,905.

**Schedule**

The following table shows the estimated schedule for each task.

<table>
<thead>
<tr>
<th>Task</th>
<th>Timeframe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Task 1: Data Compilation</td>
<td>September 2015</td>
</tr>
<tr>
<td>Task 2: Hydrogeologic Evaluation</td>
<td>October 2015</td>
</tr>
<tr>
<td>Task 3: Tech Memo</td>
<td>November 2015</td>
</tr>
</tbody>
</table>

If you have any questions, do not hesitate to contact us.

Sincerely,

Sean Culkin, Senior Hydrogeologist
Cameron Tana, Vice President
HydroMetrics Water Resources Inc.

Cc: Ralph Bracamonte, Central Water District
Rosemary Menard, City of Santa Cruz
John Ricker, Santa Cruz County
Ron Duncan, Soquel Creek Water District

REFERENCES

## Professional Services Cost Estimate for Evaluation of Shallow Groundwater Conditions

<table>
<thead>
<tr>
<th>Tasks</th>
<th>HydroMetrics WRI Labor</th>
<th>Other Direct Costs</th>
<th>TOTALS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Derrick Williams</td>
<td>Cameron Tana</td>
<td>Georgina King</td>
</tr>
<tr>
<td></td>
<td>President</td>
<td>Vice President</td>
<td>Senior Hydrogeologist</td>
</tr>
<tr>
<td><strong>Rates</strong></td>
<td>$205</td>
<td>$185</td>
<td>$175</td>
</tr>
<tr>
<td><strong>Task 1</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shallow Well Data Compilation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other/Existing Data Consolidation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Subtotal Task 1</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Task 2</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comprehensive Review of Shallow Unit Hydrogeology</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Visualization, Graphical Support</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Subtotal Task 2</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Task 3</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prepare technical memorandum</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Subtotal Task 3</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Task 1 | $5,740 | 50 | $6,470 | $6,470 |
| Task 2 | $5,620 | 52 | $7,860 | $7,860 |
| Task 3 | $5,575 | 37 | $5,575 | $5,575 |
| TOTAL  | $19,905| 102| $19,905| $19,905 |
MEMO TO THE BASIN IMPLEMENTATION GROUP

Subject: Agenda Item No. 5.9 Approve Proposed Scope for Preparation of Basin Boundary Revisions

Attachment: Proposed Scope and Cost Estimate for Preparation of Basin Boundary Revision Request by HydroMetrics WRI (dated 08/10/15)

This attached proposed scope and cost estimate ($39,940) from Hydrometrics WRI is to prepare a request to revise the state’s definitions of groundwater basin boundaries in the Soquel-Aptos area as part of implementation of the Sustainable Groundwater Management Act (Act). The request will be prepared for the Soquel-Aptos Groundwater Management Committee (SAGMC) as it proceeds with forming a Groundwater Sustainability Agency.

Tasks associated with this scope include:
1. Draft regulations review, comment, and planning
2. Prepare technical requirements based on draft regulations
3. Revise request based on SAGMC’s review and final regulations
4. Support outreach to obtain local support
5. Discussions with DWR after submittal

The total cost estimate is $39,940, which is greater than the $30,000 originally budgeted by SAGMC earlier this year and the FY 15/16 Budget for Soquel-Aptos Groundwater Management activities reflects this new budgeted amount (see Agenda Item 5.3). The greater than anticipated cost has resulted from the draft regulations having various requirements for the different types of boundary modifications that apply for the Soquel-Aptos area.

Based on the cost share presented in the Third Amendment (Memo Item 5.1), the respective costs to each agency shall be as shown:
- Soquel Creek Water District: $39,940 x 70% = $27,958
- City of Santa Cruz: $39,940 x 10% = $3,994
- County of Santa Cruz: $39,940 x 10% = $3,994
- Central Water District: $39,940  x 10% = $3,994

Staff recommends that the BIG approve the attached proposed scope work for a total not-to-exceed $39,940.
POSSIBLE ACTIONS

1. By MOTION, approve the proposal from HydroMetrics WRI for assistance in preparing request to revise the state’s definitions of groundwater basin boundaries in the Soquel-Aptos area.

2. No action.

By ______________________________
Melanie Mow Schumacher, Special Projects/Community Dialogue Manager
Soquel Creek Water District

By ______________________________
Ron Duncan, Interim General Manager
Soquel Creek Water District
Ms. Melanie Mow Schumacher  
Special Projects Manager  
Soquel Creek Water District  
PO Box 1550  
Capitola, CA 95010-1550

August 10, 2015

Subject: Scope and Cost Estimate for Preparation of Basin Boundary Revision Request

Dear Ms. Schumacher:

This letter includes the scope and cost estimate for HydroMetrics Water Resources Inc’s preparation of a request to revise the state’s definitions of groundwater basin boundaries in the Soquel-Aptos area as part of implementation of the Sustainable Groundwater Management Act (Act). The request will be prepared for the Soquel-Aptos Groundwater Management Committee (S-AGMC) as it proceeds with forming a Groundwater Sustainability Agency. To give the request the best opportunity for state acceptance within the schedule set by the state, we request that the S-AGMC consider and approve this scope at its August 20 meeting.

**BACKGROUND**

California Department of Water Resources (DWR) defines groundwater basins in its Bulletin 118 (2003). Under the California Statewide Groundwater Elevation Monitoring (CASGEM) program, DWR prioritized the basins based on groundwater usage. The Act requires that a Groundwater Sustainability Plan be developed by the local Groundwater Sustainability Agency for medium and high priority basins. The Act includes provisions for local agencies to request
revisions to the basin boundaries; and DWR recently released draft regulations for requirements and criteria for revision requests.

To facilitate formation of a Groundwater Sustainability Agency, S-AGMC should submit a request for basin boundary revisions because the current boundaries do not promote sustainable groundwater management. The three public water supply agencies that are members of S-AGMC, Central Water District, City of Santa Cruz, and Soquel Creek Water District, overlap four different Bulletin 118 basins. In addition, Santa Cruz County’s membership in S-AGMC addresses the fact that there are areas in the basins outside of the water supply agencies’ zones of influence. The four basins are West Santa Cruz Terrace, Santa Cruz Purisima Formation, Soquel Valley, and Pajaro Valley (Figure 1).

Managing each of the four basins is not conducive to sustainable groundwater management because they were defined based on surface geologic deposits and do not represent the shared, deeper aquifer units that provide groundwater supply for the area. As a result, the existing Soquel-Aptos Basin Groundwater Management Plan (SqCWD and CWD, 2007) essentially ignores the Bulletin 118 basins in defining the groundwater management area (Figure 2).

**APPROACH**

The general approach of this scope is to request a revision of basin boundaries that results in a basin or subbasin similar to the groundwater management plan area shown on Figure 2. This request will include technical information that has been developed since adoption of the Groundwater Management Plan. In particular, technical information used for the groundwater model being developed for S-AGMC will be incorporated into the request. Also, the boundaries of the revised basin may vary from that shown in Figure 2 to coordinate with basin boundary requests in adjacent areas. These areas include the potential Santa Margarita Basin area including Scotts Valley Water District, and the part of the Pajaro Valley basin managed by the Pajaro Valley Water Management Agency.
Figure 1. DWR Bulletin 118 Basins and Water Agencies in Santa Cruz County
Figure 2. DWR Bulletin 118 Basins and Groundwater Management Areas in Santa Cruz County
DWR has proposed a condensed schedule for basin boundary change requests. Tentatively, final regulations will be approved in November 2015, and DWR will review revision requests between January and March 2016. In our meetings with DWR staff, they have suggested that submitting a revision request early in the review period would facilitate discussions for mutually agreeable adjustments to the boundary revisions. Therefore, we will perform most of the work in this scope based on the draft regulations. Unless final regulations are changed significantly, we will then have time to make any minor adjustments for changes in the final regulations and obtain the necessary local support before submitting the request to DWR in January 2016.

This scope assumes HydroMetrics WRI will assume lead responsibility for fulfilling technical requirements for the request. The scope includes support for efforts to obtain and document required local support, but we assume that S-AGMC staff will assume lead responsibility for local support related tasks.

**DRAFT REGULATION REQUIREMENTS**

The draft regulations (sections 340-346) define technical and local support requirements for the revision requests based on the types of basin boundary revisions requested (see page 2 of attached fact sheet from DWR and draft regulation section 342). The request for the Soquel-Aptos area will consist of several basin boundary request types.

The revision request on behalf of S-AGMC is primarily consolidation of all or parts of the four relevant basins. The draft regulations consider basin consolidations as jurisdictional modifications that requires a technical study primarily consisting of the groundwater management plan and other technical studies for the basin (section 344.16a). A majority of affected agencies\(^1\) and affected systems\(^2\) must support the consolidation. (section 344.8a2)

However, there is a scientific reason for the basin consolidation as well since a consolidation would better represent the deeper aquifer units where pumping occurs. As such, simply merging the boundaries of the current Bulletin 118

---

\(^1\) The Act defines agency as a local public agency that has water supply, water management, or land use responsibilities within a groundwater basin. For the basin consolidation, affected agencies are likely to be the same as the members of S-AGMC.

\(^2\) The Act references Health and Safety Code section 116275h that defines a water system has having at least 15 connections or serving at least 25 individuals daily for at least 60 days per year.
basins that are based on surface geology is likely not appropriate for the consolidated basin. Therefore, the revision request will involve an external boundary modification as well. This modification will require a technical study for scientific modification that demonstrates area and vertical extent of aquifer material and presence or absence of barriers to subsurface flow (draft regulation section 344.14). There are no local support requirements for scientific modifications.

The revision request will likely also include an internal boundary modification. The requested consolidated basin will include the western portion of the Pajaro Valley basin but likely exclude the area managed by the Pajaro Valley Water Management Agency (PVWMA), which was named as exclusive Groundwater Sustainability Agency for its jurisdiction. An internal boundary modification modifies the boundary between existing areas identified by Bulletin 118 as basins, which would be the case for revising the boundary between the Pajaro Valley basin and the consolidated basin. This jurisdictional modification requires the same technical study as for basin consolidation (section 344.16a). All affected agencies and affected systems would be required to support the revision.

It is our opinion that the revision request will not involve a basin subdivision because the number of basins will be made smaller with the request. Basin subdivisions are considered jurisdictional modifications with technical requirements beyond those required for basin consolidations and internal boundary modifications.

**SCOPE OF WORK**

Our scope is organized in five tasks as follows:

**TASK 1: DRAFT REGULATIONS REVIEW, COMMENT, AND PLANNING**

This task includes review of the draft regulations, preparing comments on behalf of S-AGMC to DWR on the draft regulations, and planning strategy for the basin boundary revision based on the draft regulations. Much of this work will take

---

3 These areas may need to be reclassified as subbasins of the same basin if the requested boundary is based on PVWMA’s jurisdictional boundary.

4 Presumably, the affected agencies are Central Water District, Soquel Creek Water District, and PVWMA. It is not clear that the City of Watsonville within PVWMA would be considered an affected agency.
place before this scope can be approved at the August 20, 2015 meeting. Draft comments will be provided for S-AGMC review at the August 20 meeting. Comments are due to DWR September 4, 2015.

**TASK 2: PREPARE TECHNICAL REQUIREMENTS BASED ON DRAFT REGULATIONS**

This task includes preparation of technical requirements for the boundary revision. These requirements include the following:

- Description of Proposed Boundary Modification including maps and GIS files (section 344.6)
- Hydrogeologic Conceptual Model (section 344.12)
- Technical Study for Scientific Modification required for external boundary modification (section 344.14)
- Technical Study for Jurisdictional Modification required for basin consolidation and internal boundary modification.

Meeting these requirements will involve incorporating previous and ongoing studies and plans. The main documents to be incorporated are expected to be:

- The hydrogeological conceptual model technical memorandum (Johnson et al., 2004)
- The groundwater management plan (SqCWD and CWD, 2007)
- Water Year 2014 Annual Review and Report (HydroMetrics WRI, 2015)
- Geologic work compiled by Mike Cloud for Santa Cruz County
- Draft technical memorandum on development of groundwater model for the subsurface system (in development)

In the main text of the revision request, we will summarize the main points from incorporated documents to clearly demonstrate requirements have been met. Our scope does not include obtaining or searching for additional information to the above. The above information should be sufficient for making a strong revision request though there is information requested in the draft regulations such as hydrologic evidence of barriers to flow that are not included in the above (section 344.14b2).

We suggest that S-AGMC schedule a Groundwater Sustainability Agency Formation subcommittee meeting for late October where we will present the draft revision request for review by the subcommittee.
TASK 3: REVISE REQUEST BASED ON S-AGMC REVIEW AND FINAL REGULATIONS

The regulations are scheduled to be finalized in November. We will revise the request based on the final regulations and subcommittee review for presentation to S-AGMC at its meeting scheduled for November 19, 2015. We will seek approval of S-AGMC at the meeting to seek the required official local support and submit the revision request to DWR.

This task assumes that final regulations will not add substantial requirements to what is included in the draft regulations.

TASK 4: SUPPORT OUTREACH TO OBTAIN LOCAL SUPPORT

As discussed above, this proposal assumes that S-AGMC staff will take lead responsibility for obtaining required local support for the basin boundary revision request. We suggest informing potentially affected agencies and systems about all available documents produced for the basin boundary revision and S-AGMC meetings where they will be discussed, including this scope and comments to be presented August 20, 2015. Official local support should be obtained in December after S-AGMC approves the revision request. We will be available to answer any questions that arise during the entire outreach process.

TASK 5: DISCUSSIONS WITH DWR AFTER SUBMITTAL

We plan to submit the S-AGMC approved and locally supported boundary revision request in early January for DWR review. Submitting early in the DWR review period will allow for discussions with DWR about that request. This task reserves time to have those discussions.

PERSONNEL

I will serve as project manager for completing this scope. I have presented to DWR on basin boundary issues for the Soquel-Aptos area, been the project manager for implementation of the Groundwater Management Plan, and am serving as project manager for development of the groundwater model.

Derrrik Williams will provide senior review for this project. Derrrik is the only consultant on ACWA’s SGMA Policy Implementation Group, and is also active
on ACWA’s SGMA Technical Implementation Working Group. He also was co-author of the conceptual model technical memorandum, technical lead for development of the Groundwater Management Plan, and is serving as technical lead on the groundwater model.

We are pleased to have Mike Cloud join our team for this project for support on the technical study for the scientific modification. When he was with Santa Cruz County, Mike evaluated basin boundary issues and has also assisted with updating the hydrostratigraphy for implementation in the groundwater model.

Georgina King leads our GIS practice and will lead development of necessary maps and GIS files for the revision request. Sean Culkin has been implementing an updated hydrogeologic conceptual model in the groundwater model.

**COST ESTIMATE**

The cost estimate for this scope by task is attached. The total cost estimate is $39,940, which is greater than the $30,000 budgeted by S-AGMC. The greater than anticipated cost has resulted from the draft regulations having various requirements for the different types of boundary modifications that apply for the Soquel-Aptos area.

Please let me know if you have any questions. I plan to attend the August 20 S-AGMC meeting to address any questions from the committee.

Sincerely,

Cameron Tana, Vice President
HydroMetrics Water Resources Inc.

Attachment: DWR Factsheet on Draft Regulations

Cc: Ralph Bracamonte, Central Water District
    Rosemary Menard, City of Santa Cruz
    John Ricker, Santa Cruz County
    Ron Duncan, Soquel Creek Water District
REFERENCES


### Table 1. Cost Estimate for Preparation of Basin Boundary Revision Request

<table>
<thead>
<tr>
<th>Tasks</th>
<th>HydroMetrics WRI Labor</th>
<th>Other Direct Costs</th>
<th>TOTALS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Derrrik Williams</td>
<td>Cameron Tana</td>
<td>Georgina King</td>
</tr>
<tr>
<td></td>
<td>President</td>
<td>Vice President</td>
<td>Senior Hydrogeologist</td>
</tr>
<tr>
<td>Rates</td>
<td>$205</td>
<td>$185</td>
<td>$175</td>
</tr>
<tr>
<td>Hours</td>
<td>($)</td>
<td>($)</td>
<td>($)</td>
</tr>
<tr>
<td>Task 1</td>
<td>Draft Regulations Review and Planning</td>
<td>4</td>
<td>$740</td>
</tr>
<tr>
<td>Comment on Draft Regulations</td>
<td>2</td>
<td>8</td>
<td>10</td>
</tr>
<tr>
<td><strong>Subtotal Task 1</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Task 2</td>
<td>Description of Proposed Boundary Modification</td>
<td>2</td>
<td>16</td>
</tr>
<tr>
<td>Hydrogeologic Conceptual Model</td>
<td>1</td>
<td>8</td>
<td>2</td>
</tr>
<tr>
<td>Technical Study for Scientific Modification</td>
<td>2</td>
<td>8</td>
<td>4</td>
</tr>
<tr>
<td>Technical Study for Jurisdictional Modifications</td>
<td>1</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>Present to S-AGMC GSA Formation Subcommittee</td>
<td>1</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td><strong>Subtotal Task 2</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Task 3</td>
<td>Revise Request Based on S-AGMC Review and Final Regulations</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Present Request to S-AGMC</td>
<td>8</td>
<td>4</td>
<td>12</td>
</tr>
<tr>
<td><strong>Subtotal Task 3</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Task 4</td>
<td>Support Outreach to Obtain Local Support</td>
<td>16</td>
<td>4</td>
</tr>
<tr>
<td><strong>Subtotal Task 3</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Task 5</td>
<td>Discussions with DWR after Submittal</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td><strong>Subtotal Task 3</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
MEMO TO THE BASIN IMPLEMENTATION GROUP

August 20, 2015

Subject: Agenda Item No. 5.10

Consider Proposal for Retention from Brownstein Hyatt Farber Schreck for Assistance in Forming a Groundwater Sustainability Agency (GSA) and Developing a Groundwater Sustainability Plan (GSP)


Background

The California Legislature enacted comprehensive legislation aimed at strengthening local control and management of groundwater basins throughout the state. Governor Brown signed the three-bill package into law on September 16, 2014. Known as the Sustainable Groundwater Management Act of 2014, the legislation provides a framework for sustainable management of groundwater supplies by local authorities with a role for state intervention, if necessary to protect the resource. The legislation lays out a process and a timeline for local authorities to achieve sustainable management of groundwater basins. The first step in the process is for local agencies to form a groundwater sustainability agency (GSA) no later than June 30, 2017.

The Basin Implementation Group (BIG) has begun the initial work in discussing and developing the GSA by establishing a GSA Formation Subcommittee. The subcommittee has been meeting over the last six months (see Agenda Item 5.6) and is incorporating both legal and community engagement aspects.

At the September 23, 2014 meeting, the BIG members approved retaining the law firm Brownstein, Hyatt, Farber, Schreck (BHFS) to provide legal guidance in the formation of a local GSA.

Proposed Scope of Work for FY 2015-16

As the Mid-County area continues to move forward its efforts, BHFS has provided a scope of work and cost estimate (see Attachment 1) that includes the following:

1. Election of SAGMC to be the GSA for the Basin, including compliance with notice and hearing requirements and coordination with the Department of Water Resources.
2. Initial steps toward development of a Plan for the Basin, including analysis of groundwater rights, capital and management options, and financing strategies.
3. Assistance with revision of Basin boundaries pursuant to the DWR’s recently promulgated regulations.
4. Guidance to the GSA with respect to pending groundwater legislation concerning amendments to the Sustainable Groundwater Management Act and groundwater adjudication reform, which are likely to be adopted this legislative session, and other legal considerations relating to the Plan.
5. Revision of the existing joint powers agreement for SAGMC as appropriate.

The attached proposal from Russ McGlothlin is for an hourly basis with an estimated cost of $50,000. The annual FY 2015-16 budget for groundwater management (see Agenda Item 5.3) includes legal assistance for GSA Formation.

Based on the cost share presented in the Third Amendment (Agenda Item 5.1), the respective costs to each agency shall be as shown:
- Soquel Creek Water District: $50,000 x 70% = $35,000
- City of Santa Cruz: $50,000 x 10% = $5,000
- County of Santa Cruz: $50,000 x 10% = $5,000
- Central Water District: $50,000 x 10% = $5,000

As with legal issues, it is difficult to fully predict the anticipated costs and needs (i.e. number of meetings, specific legal questions/issues, etc.). Staff recommends that the BIG approve the attached proposed scope work for a total not-to-exceed $50,000 and should an amendment to the contract be necessary, it will be brought forth at a future SAGMC meeting.

**POSSIBLE ACTIONS**
1. By MOTION, approve the proposal from Brownstein Hyatt Farber Schreck for assistance in forming a Groundwater Sustainability Agency (GSA) and developing a Groundwater Sustainability Plan (GSP)

2. Take no action.

By _______________________________
Melanie Mow Schumacher, Special Projects/Community Dialogue Manager
Soquel Creek Water District

By _______________________________
Ron Duncan, Interim General Manager
Soquel Creek Water District
July 23, 2015

VIA ELECTRONIC MAIL
melanie@soquelcreekwater.org

Melanie Mow Schumacher
Soquel Creek Water District
5180 Soquel Dr.
Capitola, CA 95010

RE: Budget for the Soquel-Aptos Groundwater Management Committee

Dear Melanie:

As you requested, this letter describes the tasks and estimated budget for the following twelve months with respect to formation of a groundwater sustainability agency ("GSA") and development of a groundwater sustainability plan ("Plan") on behalf of the Soquel-Aptos Groundwater Management Committee ("SAGMC") for management of the Soquel-Aptos Groundwater Basin ("Basin"), and related work. The following is a brief outline of the significant elements of Brownstein’s anticipated scope of work:

1. Election of SAGMC to be the GSA for the Basin, including compliance with notice and hearing requirements and coordination with the Department of Water Resources.

2. Initial steps towards development of a Plan for the Basin, including analysis of groundwater rights, capital and management options, and financing strategies.

3. Assistance with revision of Basin boundaries pursuant to the DWR’s recently promulgated regulations.

4. We will also provide guidance to the Authority with respect to pending groundwater legislation concerning amendments to the Sustainable Groundwater Management Act and groundwater adjudication reform, which are likely to be adopted this legislative session, and other legal considerations relating to the Plan.

5. Ultimately, revision of the existing joint powers agreement for SAGMC as appropriate.

Although it is difficult to predict anticipated legal fees for the full scope of this work, we anticipate the cost associated with the above tasks to be approximately $50,000. This budget is subject to change based on diverse factors, including the number of public meetings that Brownstein is asked to attend and the specific legal issues that arise.
We are grateful for the opportunity to represent the SAGMC and have enjoyed getting to know you and your staff at the District.

Sincerely,

Russell M. McGlothlin
Scope of Representation: The scope of our representation is set forth in the attached Letter. Our representation of you on any particular matter will end when we have completed our essential work on that matter.

Duties of the Parties: We agree to provide all legal services reasonably required to represent you, consistent with our ethical obligations. It is our intent to provide you with thorough, prompt and cost-efficient legal services, keep you informed of significant developments in the matter, and respond to your inquiries. You agree to fully cooperate with us, be open and truthful and provide us with all information pertaining to the matter, keep us informed of developments, to pay our bills in a timely manner, and keep us advised of your address, telephone number and whereabouts. You also agree to appear at any proceeding we deem necessary and to cooperate fully with us on all matters related to the investigation, preparation and presentation of your matter.

Fees: We review all billing statements before they are issued to ensure that the amount charged is appropriate. The statement for fees is simply the product of the hours worked multiplied by the hourly rates for the attorneys and legal assistants who did the work. The current range of hourly rates for our professional services is:

- Partners: From $350 to $1065 per hour
- Of Counsels: From $300 to $1065 per hour
- Associates: From $210 to $400 per hour
- Land Use Planners: From $150 to $265 per hour
- Paralegals: From $150 to $265 per hour
- Legal Assistants: From $100 to $150 per hour

We adjust our rate structure at the beginning of each calendar year. You agree to pay all fees billed at the then-current rate.

Outside Contract Attorneys and Legal Assistants: You agree that we may utilize specialized contract attorneys and legal assistants as necessary. You agree to pay the reasonable hourly rate for these legal services.

In-House Costs and External Expenses: In addition to charging fees for legal work, we will charge for certain out-of-pocket costs incurred by our firm in representing clients. Charges for long distance telephone calls, facsimile charges, in-office copying, ordinary postage and deliveries made by in-house staff are covered by a 2.5% administrative fee, calculated at 2.5% of fees incurred. This administrative fee is in lieu of itemizing those costs. Other fees, such as computer-assisted legal research and third party vendor fees including document copying, transcript production, overnight delivery service charges, travel, meals and hotel accommodations will be itemized and billed separately at cost.

Other in-house costs and expenses include, but are not limited to, secretarial overtime, extraordinary administrative, technical or accounting support; computer legal research; messenger and other delivery fees; mileage, and the cost of licensing and other installation of special computer programming to manage your case. These are directly billed to you at our cost.

External expenses are also charged at cost. These include, but are not limited to, the following: Notary fees; consultant costs, investigative costs, professional mediator, arbitrator and/or special master fees; travel costs, including parking, transportation, meals and hotels. External expenses will either be passed through to you for direct payment to the vendor or included on your statement. We may select experts, consultants and investigators who in our judgment are necessary to aid in the preparation of your matter and will inform you of the persons selected and their charges. You authorize us to incur all reasonable costs and to hire such experts, consultants and investigators. We will not incur any major external expenses on your behalf without your prior approval.

Billing Period and Payments: We will bill you for services rendered and disbursements and charges on a monthly, or such other periodic basis as we may determine. If you require additional statements, you agree to request them at intervals of no less than 30 days and we agree to respond within 10 days.

You agree to pay all amounts due within 10 days from receipt. You agree to pay all amounts due within 10 days from receipt. If you do not object, the statement will be deemed correct. If you do object, we will consider our right to the fees and costs set forth on that statement as "disputed." Absent a dispute, you agree to pay all statements upon receipt, and no later than the last day of the month in which you receive the statement. If you dispute a portion of a statement, you agree to pay the undisputed portion not later than the last day of the month in which you receive the statement. If payment is not timely received, we may assess a monthly delinquency charge of 1.25% (15% per year) of the amount not paid until paid in full. Payments will be applied to the longest outstanding charges in the following order: first, costs, then delinquency charges, and then fees.

Retainers: If required, you agree to pay an advance fee retainer upon execution of this agreement and agree that we may, at our discretion, withdraw the undisputed amount of any statement, whether fees or costs, from any retainer you have on deposit. You agree to replenish the retainer monthly to maintain a credit toward fees. That means that, even though you have a retainer on account, you still must pay your statements as they become due. If we expect significant additional expenses, you agree to provide a further retainer within 15 days of our request.

Your retainer will be held on your behalf in our trust account without interest to you, because California law requires all interest earned on such funds to be forwarded to the California State Bar for its Legal Services Trust Fund Program. If you prefer, you may request that we hold your funds in a non-interest bearing account, or in an interest bearing account for your benefit. If you make such a request, you agree to pay administrative costs of a one-time $75 set-up charge and a $25 per month service charge. At the conclusion of our representation, we will return any unearned retainer to you.

As an additional retainer and as security for the payment of our fees, costs and expenses, you agree that we have a first priority lien on all claims and causes of action that are the subject of our representation under this Agreement and on all proceeds or property obtained or recovered, whether by agreement, settlement, mediation, arbitration award, court judgment, cost or fee award or otherwise resulting from our representation.
No Guarantee: Our comments about the potential outcome of your matter or any phase thereof are expressions of opinion only. We cannot guarantee the outcome or make any promises in that regard.

Discharge: Our goal is to maintain at all times a constructive and positive relationship with you, to the conclusion of this matter and in future matters. However, you have the right to discharge us as your lawyers at any time, and we have the right to withdraw from your representation at any time, consistent with our ethical obligations. If you discharge us or we elect to withdraw, you agree to immediately secure new counsel. If we are your attorneys of record in any proceeding, you agree to cooperate fully in substituting such new counsel as your attorneys of record. At the time of discharge or withdrawal, you agree to immediately pay us for all services rendered to you and for all costs and expense paid or incurred by us on your behalf.

Files: At the conclusion of our services, your files will be transferred to you upon request. You agree to pay the cost of accessing, copying and delivering the file to you. If you do not request the return of your files within five (5) years from either the completion of our essential work on the matter or the termination of our relationship by discharge or withdrawal, we have the right, but not the obligation, to destroy any files created and maintained by us with respect to the matter.

Disputes: Any controversy or claim arising out of or relating to fees and/or costs incurred under this Agreement shall be resolved pursuant to Business and Professions Code section 6200 et seq. All other disputes arising out of or relating to this Agreement or the professional services rendered under this Agreement, shall be determined in accordance with the laws of the State of California. The arbitration shall be administered by JAMS pursuant to its Comprehensive Arbitration Rules and Procedures. Judgment on the Award may be entered in any court having jurisdiction. Each side shall bear its own costs and attorney fees in said arbitration.

Miscellaneous: Unless you instruct us to the contrary in writing, we will utilize facsimile, e-mail, cellular phone, PDA and similar communication methods, and we disclaim any liability for unauthorized third-party interception of communications. You agree that we may use your name and information generally available to the public in our marketing efforts.

Interpretation and Effective Date: This agreement is our entire and only agreement and is governed by California law. If any provision is found unenforceable, the remainder of the agreement will remain in effect. This agreement will not take effect until you sign and return the enclosed copy of the letter with these terms and conditions attached and until the agreement has been countersigned by the firm's Managing Partner. This agreement will then be retroactive to the date services were first provided. If this agreement does not take effect, you will still be required to pay us the reasonable value of any services we have performed for you.
MEMO TO THE BASIN IMPLEMENTATION GROUP

Subject: Agenda Item No. 5.11  Consider Comments on Draft Basin Boundary Emergency Regulations

Attachments: 1. Department of Water Resources (DWR) Draft Basin Boundary Emergency Regulations

2. Comments on Draft Basin Boundary Emergency Regulations by HydroMetrics, WRI (dated 8/13/2015)

Background
The Sustainable Groundwater Management Act (SGMA) established a process for local agencies to request that the Department of Water Resources (DWR) revise the boundaries of a groundwater basin, including the establishment of a new subbasin. California’s groundwater basins and subbasins are defined in the DWR's Bulletin 118-Update 2003 – the definitions for each is as follows:

- A groundwater basin is defined as a three-dimensional alluvial aquifer, or a stacked series of alluvial aquifers, with reasonably well-defined boundaries in a lateral direction and a definable bottom.
- A groundwater subbasin is created by dividing a groundwater basin into smaller units using geologic and hydrologic barriers, or institutional boundaries.

By January 1, 2016, DWR is required to adopt emergency regulations that specify the information required to comply with Water Code 10722.2, which outlines the process that local agencies shall follow when requesting modifications to existing boundaries of groundwater basins and subbasins. The basin boundary regulations will also identify the methodology and criteria that will be applied by DWR when reviewing and approving the modification requests. In general, local agencies will be required to address all of the following:

- How to assess the likelihood that the proposed basin can be sustainably managed.
- How to assess whether the proposed basin would limit the sustainable management of adjacent basins.
- How to assess whether there is a history of sustainable management of groundwater levels in the proposed basin.

DWR released their draft regulations on their website for public access and review (see Attachment 1).

Timeline for Adopting Basin Boundary Emergency Regulations
According to DWR, the following is the anticipated schedule and next steps for adopting the regulations:

<table>
<thead>
<tr>
<th>Events</th>
<th>Schedule*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Informational update on basin boundary emergency regulations presented to the California Water Commission (CWC)</td>
<td>July 15, 2015</td>
</tr>
<tr>
<td>Draft basin boundary emergency regulations released on DWR website</td>
<td>July 17, 2015</td>
</tr>
<tr>
<td>Informational update on basin boundary emergency regulations presented to the CWC</td>
<td>August 19, 2015</td>
</tr>
<tr>
<td>Public meeting and webinar presenting the draft basin boundary emergency regulations. (Sacramento)</td>
<td>August 31, 2015</td>
</tr>
<tr>
<td>Public meeting presenting the draft basin boundary emergency regulations. (Bakersfield)</td>
<td>September 2, 2015</td>
</tr>
<tr>
<td>Public meeting presenting the draft basin boundary emergency regulations. (Santa Ana)</td>
<td>September 3, 2015</td>
</tr>
</tbody>
</table>

**Deadline for comment on draft emergency regulations**

Informational update on basin boundary emergency regulations presented to the CWC

Formal Notice of Proposed Rulemaking and supporting information

Presentation of proposed emergency regulations to CWC for adoption

Submission of adopted emergency regulations to Office of Administrative Law

Basin boundary modification requests accepted by DWR within 90 day period

*All dates are subject to change.

**Draft Comment Letter to DWR**

HydroMetrics, WRI has prepared a draft comment letter on behalf the BIG to submit to DWR pertaining to the draft regulations (see Attachment 2). The primary points addressed include clarification and inconsistencies related to defining a groundwater basin, affected agency and system, external boundary modification; conflicting or vague information on basin consolidation regulations and jurisdictional modifications; and process and procedures. These points are all pertinent in getting clarification and revisions as these sections in the draft regulations will have an effect on the Soquel-Aptos Groundwater management area and our compliance with Sustainable Groundwater Management Act.

The deadline for comments on the DWR's draft emergency regulations is Friday, September 4, 2015.

**POSSIBLE ACTIONS**

1. By MOTION, approve the comments by HydroMetrics, WRI (dated 8/13/2015) the on Draft Basin Boundary Emergency Regulations and direct staff to submit to DWR.
2. By MOTION, provide modifications to the comments by HydroMetrics, WRI (dated 8/13/2015) on the Draft Basin Boundary Emergency Regulations and direct staff to submit the revised comments to DWR.

3. Take no action.

By _______________________________
Melanie Mow Schumacher, Special Projects/Community Dialogue Manager
Soquel Creek Water District

By _______________________________
Ron Duncan, Interim General Manager
Soquel Creek Water District
ARTICLE 1. Introductory Provisions

§ 340. Authority and Purpose

These regulations specify the information a local agency is required to provide when requesting that the Department revise the boundaries of a basin, including the establishment of new subbasins, and the methodology and criteria used by the Department to evaluate a change to existing basin boundaries.

Note: Authority cited: Section 10722.2, Water Code.
Reference: Sections 10722.2 and 12924, Water Code.

§ 340.2. Intent

The revision of any basin boundaries or creation of new subbasins approved by the Department shall be consistent with the State’s interest in the sustainable management of groundwater basins as expressed in the Sustainable Groundwater Management Act (Part 2.74 of Division 6 of the Water Code, beginning with Section 10720).

Note: Authority cited: Section 10722.2, Water Code.

§ 340.4. Basin Boundaries

Unless other basin boundaries are established pursuant to these regulations, a basin’s boundaries shall be as identified in Bulletin 118. The unambiguous written description of a basin boundary in Bulletin 118 shall prevail over any inconsistent basin boundary as depicted on a map, in an electronic data file, or otherwise, except when modified pursuant to these regulations. Any discrepancy or uncertainty shall be resolved by the Department based upon the best available technical information.

Note: Authority cited: Section 10722.2, Water Code.
Reference: Sections 10721(b), 10722, 10722.2, and 12924, Water Code.
ARTICLE 2. DEFINITIONS

§ 341. Definitions

In addition to terms defined in the Sustainable Groundwater Management Act and in Bulletin 118, which definitions apply to these regulations, the following terms used in this Subchapter have the following meanings:

(a) “Act” means the Sustainable Groundwater Management Act (Part 2.74 of Division 6 of the Water Code, beginning with Section 10720).

(b) “Administrative adjustment” means a basin or subbasin boundary adjustment by the Department that either (1) amends existing basin boundary data files to accurately reflect an unambiguous written basin boundary description as defined in Bulletin 118 or amended pursuant to this Part, or (2) restates the definition of a basin boundary definition to more precisely reflect a mapped basin boundary consistent with the original definition.

(c) “Affected agency” means a local agency, as defined in Water Code section 10721(m), whose jurisdictional area would, as a result of a boundary modification, include more, fewer, or different basins or subbasins than without the modification.

(d) “Affected basin” means a basin or subbasin where the ability to achieve sustainable groundwater management could be significantly affected by groundwater use or management practices in another existing or proposed basin or subbasin. An adjacent basin or subbasin is presumed to be an affected basin for purposes of this Subchapter. The Department may determine a non-adjacent basin or subbasin is an affected basin if convincing evidence shows that the hydraulic connection to another basin is likely to affect the ability of the non-adjacent basin to achieve sustainable groundwater management over the planning and implementation horizon.

(e) “Affected system” means a public water system, as defined in Water Code section 10721(r), whose service area would, as a result of a boundary modification, include more, fewer, or different basins or subbasins than without the modification.

(f) “Basin consolidation” refers to any boundary modification that would reduce the number of subbasins within a basin or merge two or more adjacent basins but would change only shared boundaries and would not change the external boundary of any basin or subbasin.
(g) “Basin subdivision” refers to any boundary modification that would increase the number of subbasins within a basin or subbasin.

(h) “Boundary modification” means a change to the boundaries of an existing basin or subbasin or the establishment of a new subbasin.

(i) “Commission” means the California Water Commission.

(j) “County basin consolidation” means the consolidation of all contiguous basins or subbasins within a county into a single basin or subbasin whose boundaries do not extend beyond those of the county. If there are non-contiguous basins within a county, the consolidation applies separately to each basin or group of contiguous basins in the county. A county basin consolidation may redefine the shared boundaries of one or more adjacent basins or subbasins, but would not result in a net change in the amount of area included within a basin.

(k) “Department” means the Department of Water Resources.

(l) “External boundary modification” refers to any proposal that would modify the boundary between the groundwater basin and the area outside the basin.

(m) “GIS” means a Geographic Information System that collects, stores, analyzes, and displays spatial or geographically referenced data.

(n) “Hydrogeologic barrier” refers to any subsurface feature that significantly impedes lateral groundwater flow.

(o) “Hydrogeologic conceptual model” means a description of the geologic and hydrologic framework governing groundwater flow through and across the boundaries of a basin and the general groundwater conditions in a basin.

(p) “Internal boundary modification” refers to any boundary modification that would adjust the location of a boundary between subbasins within a basin or the shared boundary between adjacent basins.

(q) “Professional engineer” means a professional engineer licensed pursuant to Business and Professions Code, Division 3, Chapter 7, Section 6700 et seq.

(r) “Professional geologist” means a professional geologist licensed pursuant to Business and Professions Code, Division 3, Chapter 12.5, Section 7800 et seq.

(s) “Qualified map” means a geologic map of a scale no smaller than 1:250,000 that is published by the U. S. Geological Survey or the California Geological Survey, or is a map or report of a geologic investigation conducted by a state or federal agency, or is a geologic map prepared and signed by a professional geologist that is acceptable to the Department.
(t) “Requesting agency” means the local agency that requests a boundary modification as authorized by Water Code section 10722.2.

(u) “Revision request manager” is an employee or authorized representative of a requesting agency who has been delegated responsibility for submitting the boundary modification request and serving as the point of contact between the requesting agency and the Department.

(v) “State” means the State of California.

(w) “Technical study” means a geologic or hydrologic report prepared and published by a state or federal agency, or a study published in a peer-reviewed scientific journal, or a report prepared and signed by a professional geologist or by a professional engineer.

(x) “Written notice” means notification by e-mail or U.S. Mail.

Note: Authority cited: Section 10722.2, Water Code.

Reference: Division 3, Chapter 12.5, Section 7800 et seq., and Chapter 7, Section 6700 et seq., Business and Professions Code; Sections 25299.97 and 116275, Health & Safety Code, Sections 10721, 10722.2, and 12924, Water Code.
ARTICLE 3. BOUNDARY MODIFICATION CATEGORIES

§ 342. Introduction to Boundary Modifications

This Article describes different categories of boundary modifications. The identified categories are scientific modification, based on geologic or hydrologic criteria, and jurisdictional modification, which promote the adoption and implementation of effective sustainable management plans and enhance local management of groundwater. An administrative adjustment does not constitute a modification subject to this Subchapter.

For purposes of this Subchapter, a groundwater basin generally refers to an alluvial aquifer or stacked series of alluvial aquifers with a minimum thickness of 25 feet, with reasonably well-defined boundaries in a lateral direction, based on features that significantly impede groundwater flow, and a definable bottom characterized by rock or sediment of low permeability or the base of fresh water, as further described or defined in Bulletin 118.

Note: Authority cited: Section 10722.2, Water Code.
Reference: Sections 10720.1, 10722.2 and 12924, Water Code.

§ 342.2. Scientific Modification

A scientific modification to a basin boundary consists of one of the following modifications and involves the addition, deletion, or relocation of a boundary based on the geologic or hydrologic conditions that define a groundwater basin:

(a) An external boundary modification. Except in the case of some basin consolidations, external basin boundaries will only be modified as a result of scientific modifications.

(b) A hydrogeologic barrier modification.

Note: Authority cited: Section 10722.2, Water Code.
Reference: Sections 10720.1 and 12924, Water Code.
§ 342.4. Jurisdictional Modification

A jurisdictional modification to a basin boundary consists of one of the following modifications to promote the adoption and implementation of effective sustainable management plans and enhance local management of groundwater:

(a) Internal boundary modification,

(b) Basin consolidation, including county basin consolidation, or

(c) Basin subdivision.

Note: Authority cited: Section 10722.2, Water Code.
Reference: Sections 10720.1 and 12924, Water Code.

§ 342.6. Other Boundary Modifications

Any boundary modification that does not conform to the categories specified in this article may be considered by the Department based on information the Department deems adequate to evaluate the modification in accordance with section 10722.2 of the Water Code.

Note: Authority cited: Section 10722.2, Water Code.
Reference: Sections 10720.1 and 12924, Water Code.
ARTICLE 4. PROCEDURES FOR MODIFICATION REQUEST OR PROTEST

§ 343. Introduction to Procedures
This Article describes procedural requirements related to boundary modification requests and protests to those requests.

Note: Authority cited: Section 10722.2, Water Code.
Reference: Section 10722.2, Water Code.

§ 343.2. Eligibility to Request Boundary Modification
A request for boundary modification may be initiated by a local agency whose jurisdiction lies within or borders the basin or subbasin for which boundary modification is sought.

Note: Authority cited: Section 10722.2, Water Code.
Reference: Section 10722.2, Water Code.

§ 343.4. Forms and Instructions
The Department shall make the forms and instructions for boundary modification requests available on its Internet Web site.

Note: Authority cited: Section 10722.2, Water Code.
Reference: Section 10722.2, Water Code.

§ 343.6. Combination of Requests
Requesting agencies shall combine all boundary modification requests that affect the same basin or subbasin and shall coordinate with other affected agencies and affected systems, as necessary, to present the information as a single request. The Department may consider or adopt all or any part of a combined basin modification request.

Note: Authority cited: Section 10722.2, Water Code.
Reference: Section 10722.2, Water Code.
§ 343.8. Review Periods

Prior to updating or revising Bulletin 118, the Department shall establish review periods during which boundary modification requests will be accepted and evaluated. The Department will announce the start of each review period on its Internet Web site at least 60 days before the review period begins, and each review period will remain open at least 60 days.

Note: Authority cited: Section 10722.2, Water Code.
Reference: Section 10722.2 and 12924, Water Code.

§ 343.10. Status of Request

(a) The Department shall acknowledge all boundary modification requests by written notice within ten (10) working days of receipt and shall post all materials received on the Department’s Internet Web site.

(b) The Department shall determine whether the boundary modification request is complete and provide written notice to the requesting agency of its determination or of the need for additional information.

(1) A boundary modification request will be deemed complete if it substantially complies with the requirements of this Subchapter. Substantial compliance means that the requesting agency has attempted to comply with these regulations and the legislative intent of the Act in good faith, and the information submitted and the form of submission are sufficiently detailed and necessary, as determined by the Department to process the boundary modification request.

(2) The Department will not evaluate a boundary modification request until all information required by this Subchapter or specifically requested by the Department has been provided. However, the Department may begin its evaluation before evidence of local support described in Section 344.8 has been made available if the requesting agency affirms that the required support is likely to be forthcoming.

(c) When the Department determines that a request for boundary modification is complete, the Department shall update information posted to the Department’s Internet Web site to reflect that the Department is prepared to review the request on its merits and to accept protests to the request pursuant to Section 343.12.

(d) The requesting agency shall, upon receiving notice that the request is complete, notify all interested local agencies and public water systems and any other person
or entity who has expressed an interest in receiving notification of the proposed modification to the requesting agency.

Note: Authority cited: Section 10722.2, Water Code.
Reference: Section 10722.2, Water Code.

§ 343.12. Protests
(a) Any person may protest a basin modification request as follows:
   (1) Protests must be submitted electronically to the Department within 30 days after receiving the notice required by Section 343.10(d), with a duplicate copy sent to the requesting agency the same day.
   (2) The protest must include the name, address, and e-mail address of the protestant.
   (3) The protest must include a clear statement of the protesting entity’s objections.
   (4) A protest must rely on the same type of scientific and technical information, and will be evaluated by the same criteria, as the particular basin modification request to which it is addressed.

(b) The Department shall post all protests on the Department’s Internet Web site.
(c) The Department is not required to respond to protests, but will consider protests as part of its evaluation of a request.
(d) The Department shall give the requesting agency a reasonable opportunity to respond to protests.

Note: Authority cited: Section 10722.2, Water Code.
Reference: Section 10722.2, Water Code.
ARTICLE 5. SUPPORTING INFORMATION

§ 344. Introduction to Supporting Information

This Article describes the type of information that a requesting agency is either required or encouraged to provide to support a boundary modification request.

Note: Authority cited: Section 10722.2, Water Code.

Reference: Section 10722.2, Water Code.

§ 344.2. Requesting Agency Information

Each request for boundary modification shall include the following information:

(a) The name and physical address of the requesting agency.

(b) A copy of the statutory or other legal authority under which the requesting agency was created with specific citations to the provisions setting forth the duties and responsibilities of the agency.

(c) A copy of the resolution adopted by the requesting agency formally initiating the boundary modification request process.

(d) The name and contact information, including phone number, mailing address and e-mail address, of the revision request manager.

Note: Authority cited: Section 10722.2, Water Code.

Reference: Section 10722.2, Water Code.

§ 344.4. Notice and Consultation

Each request for boundary modification shall include information demonstrating that the requesting agency consulted with interested local agencies and public water systems in the affected basins including, but not limited to, the following:

(a) A list of local agencies and public water systems in the affected basins.

(b) An explanation of the methods used to identify interested local agencies and public water systems in the affected basins.
(c) Information regarding the nature of consultation, including copies of correspondence with local agencies and public water systems and any other persons or entities consulted, as appropriate.

(d) A summary of all public meetings at which the proposed boundary modification was discussed or considered by the requesting agency, including copies of agendas and notices published.

(e) A copy of all comments regarding the proposed boundary modification received by the requesting agency and a summary of any responses made by the requesting agency.

Note: Authority cited: Section 10722.2, Water Code.

Reference: Section 10722.2, Water Code.

§ 344.6. Description of Proposed Boundary Modification

(a) Each request for boundary modification shall include a concise description of the proposed modification, including an overview of the request and a description or explanation of the following:

(1) The category of boundary modification proposed.

(2) The identification of all affected basins.

(3) A proposed name for each new subbasin or consolidated basin, if applicable.

(b) Each request for a jurisdictional boundary modification pursuant to Section 342.4 shall also include the following:

(1) An explanation of how sustainable groundwater management exists or could likely be achieved in the basin under the following circumstances:

   (A) Under the existing basin boundaries.

   (B) Under the proposed boundary modification.

(2) An explanation of how the proposed boundary modification would affect the ability of adjacent basins to sustainably manage groundwater in those basins.

(3) A historical summary of the sustainable management of groundwater levels in the proposed basin.

(4) A discussion of potential impact to state programs resulting from the proposed boundary modification, including, but not limited to the California Statewide Groundwater Elevation Monitoring (Water Code section 10920 et seq.), Groundwater Management Plans developed pursuant to AB 3030 (Water
Code section 10750 et seq.), Groundwater Sustainability Plans developed pursuant to the Sustainable Groundwater Management Act (Water Code section 10720 et seq.), any applicable state or regional board plans, and other water management and land use programs.

(c) Any other information deemed necessary by the Department.

Note: Authority cited: Section 10722.2, Water Code.
Reference: Section 10722.2, Water Code.

§ 344.8. Local Support

(a) A requesting agency shall demonstrate local support for a proposed jurisdictional boundary modification pursuant to Section 342.4 as follows:

(1) A request that involves an internal boundary modification shall provide information demonstrating that the modification is supported by each affected agency and affected system.

(2) A request that involves a basin consolidation or county basin consolidation shall provide information demonstrating that the requesting agency notified each affected agency and affected system and that a majority of affected agencies and affected systems support the boundary modification.

(3) A request that involves basin subdivision shall provide information demonstrating that the boundary modification is supported by each local agency and by each public water system in the affected basin(s).

(b) Evidence of local support from any local agency shall consist of a copy of a resolution formally adopted by the decision-making body of the agency.

(c) Evidence of local support from any public water system shall consist of a copy of a resolution formally adopted by the decision-making body of the system or a letter of support signed by an executive officer with appropriate delegated authority.

Note: Authority cited: Section 10722.2, Water Code.
Reference: Section 10722.2, Water Code.

§ 344.10. General Information

Each request for boundary modification shall include the following general information:
(a) A description of the lateral boundaries of the alluvial aquifer or aquifers that form the groundwater basin and the definable bottom of the basin. The description shall be in terms that are clear and definite and sufficiently detailed to allow an authoritative map of the proposed lateral basin boundaries to be plotted from that description.

(b) A graphical map of adequate scale showing the proposed basin boundary in relation to the existing Bulletin-118 basin boundary and the local agencies that are within or bordering on the proposed basin.

(c) A GIS file of the proposed groundwater basin boundaries and the jurisdictional boundaries of any affected local agency.

Note: Authority cited: Section 10722.2, Water Code.
Reference: Sections 10722.2 and 12924, Water Code.

§ 344.12. Hydrogeologic Conceptual Model

Each request for boundary modification, except for an internal boundary modification pursuant to Section 342.4(a), shall include a clearly defined hydrogeologic conceptual model demonstrating the following:

(a) Principal aquifer units within the basin.

(b) Lateral boundaries of the proposed basin, including:

   (1) Geologic features that significantly impede or impact groundwater flow.

   (2) Aquifer characteristics that significantly impede or impact groundwater flow.

   (3) Significant geologic and hydrologic features and conditions of the principal aquifer units, as appropriate, including information regarding the confined or unconfined nature of the aquifer, facies changes, truncation of units, the presence of faults or folds that impede groundwater flow, or other groundwater flow restricting features within the basin.

   (4) Key surface water bodies, groundwater divides and significant recharge sources.

(c) Recharge and discharge areas within the basin.

Note: Authority cited: Section 10722.2, Water Code.
Reference: Sections 10722.2 and 12924, Water Code.
§ 344.14. Technical Studies for Scientific Modifications

(a) Each request for a scientific modification pursuant to Section 342.2 shall include information that demonstrates the areal and vertical extent of alluvial aquifer material, including the following:

1. A qualified map that depicts surficial geology illustrating the type, location, and extent of alluvium or similar bodies of rock or sediment that is sufficiently porous and permeable to store, transmit, and yield significant or economic quantities of groundwater to wells and springs.

2. Subsurface data that demonstrates the vertical thickness and relevant physical properties of the alluvial aquifer or stacked series of alluvial aquifers.

(b) In addition to the information required in subsection (a), each request for scientific modification involving a hydrogeologic barrier pursuant to Section 342.2(b) shall demonstrate the presence or absence of subsurface restrictions on lateral groundwater flow, such as impermeable material, fault, or groundwater divide, based on the following information:

1. A qualified map depicting structural geologic features that could significantly impact or impede lateral groundwater flow.

2. Geologic and hydrologic evidence of groundwater conditions including, as appropriate:
   A. Historical and current potentiometric surface maps of the aquifer system within the vicinity of proposed boundary modification.
   B. Aquifer performance testing results demonstrating basin boundary condition response.
   C. Water quality information of the aquifer system including but not limited to general water quality parameters and isotopic analysis.
   D. Supporting certified geophysical studies.
   E. Other information that the requesting agency considers relevant to the request.
   F. Other technical information required by the Department.

(c) A request for a scientific modification to an external boundary pursuant to Section 342.2(a) may utilize any of the information in subsection (b) if the requesting agency believes it may assist the Department in its evaluation.

Note: Authority cited: Section 10722.2, Water Code.
Reference: Sections 10722.2 and 12924, Water Code.

§ 344.16. Technical Studies for Jurisdictional Modifications

(a) Each request for a boundary modification that involves a jurisdictional modification pursuant to Section 342.4 shall include the following:

(1) A water management plan that covers or is in the immediate vicinity of the proposed basin or portion of the proposed basin and satisfies the requirement of Water Code sections 10753.7(a) or 10727, through one of the following:

   (A) An adopted groundwater management plan, a basin wide management plan, or other integrated regional water management program or plan that meets the requirements of Water Code section 10753.7(a).

   (B) Management pursuant to an adjudication action.

   (C) One or more technical studies that cover the relevant portion of a basin or subbasin and adjacent areas.

   (D) A valid Groundwater Sustainability Plan adopted pursuant to the Act.

(b) Each request for a boundary modification that involves a basin subdivision pursuant to Section 342.4(c) shall provide a description and supporting documentation of historical and current conditions and coordination within the existing basin or subbasin on the following components, where applicable:

(1) Groundwater level monitoring programs, historical and current groundwater level trends, and areas of significant groundwater level declines.

(2) Groundwater quality issues within the proposed and existing basin that may impact the supply of usable groundwater, including a map of known impacted sites and areas, mitigation measures planned or in place, and a description of impact to water budget.

(3) Inelastic land surface subsidence within the proposed and existing basin including a map of known subsidence areas, historical trends within known land subsidence areas, and a description of impacts to the basin or subbasin water budget.

(4) Groundwater-surface water interactions in the proposed and existing basin, which may be demonstrated by a map identifying significant surface water bodies, and a contour map or detailed written description of the direction of groundwater movement relative to the water bodies, the location and nature of
seeps and springs, and known water quality issues within the basin and in hydraulically connected adjacent basins.

(5) A map identifying the recharge areas in the proposed and existing basin.

(6) A statement of the existing and planned coordination of sustainable groundwater management activities and responsibilities between the proposed and existing basin where required by the Act.

Note: Authority cited: Section 10722.2, Water Code.

§ 344.18. CEQA Compliance

Each request to modify a basin or subbasin shall include information necessary to enable the Department to satisfy the requirements of a responsible agency pursuant to the California Environmental Quality Act (Public Resources Code Sections 21000 et seq.).

Note: Authority cited: Section 10722.2, Water Code.
Reference: Section 10722.2, Water Code.
ARTICLE 6. METHODOLOGY AND CRITERIA

§ 345. Introduction to Methodology and Criteria
This Article governs the methodology and criteria for the evaluation of proposed boundary modifications of groundwater basin boundaries.

Note: Authority cited: Section 10722.2, Water Code.
Reference: Section 10722.2, Water Code.

§ 345.2. Basis for Denial of Request for Boundary Modification
The Department may deny a request for boundary modification if it identifies significant concerns or is unable to resolve significant issues with the request including, but not limited to, any of the following:

(a) The proposed boundary modification may limit the opportunity or likelihood of any of the following:

(1) Sustainable management in the proposed basin.
(2) Sustainable management in other basins.
(3) Groundwater storage or recharge.
(4) The coordination and use of consistent data and methodologies by local agencies to evaluate groundwater elevation data, groundwater extraction data, surface water supply, total water use, change in groundwater storage, water budget, or sustainable yield.

(b) The requesting agency is unable to demonstrate a history of sustainable management of groundwater levels in the existing or proposed basin.

(c) For scientific modifications, if the Department does not consider that the available scientific evidence supports the addition, deletion, or relocation of a basin boundary.

(d) The requesting agency has failed to provide all required information or information deemed necessary by the Department or has failed to substantially comply with the requirements of this Subchapter.

(e) The proposed boundary modification could result in the isolation of areas with known groundwater management problems, or of areas, including disadvantaged
communities, that may lack the institutional infrastructure or economic resources to form an effective groundwater sustainability agency or develop an implementable groundwater sustainability plan.

(f) The proposed boundary modification could result in the creation of unmanaged areas.

(g) Where the Department finds that the requested boundary modification would be inconsistent with the objectives of the Act.

Note: Authority cited: Section 10722.2, Water Code.

Reference: Section 10722.2, Water Code.

§ 345.4. Criteria for Evaluating Supporting Information

The Department shall rely on the following information for evidence that the proposed basin can be sustainably managed, whether the proposed basin would limit the sustainable management of adjacent basins, and whether there is a history of sustainable management of groundwater levels in the proposed basin according to the general criteria described:

(a) For scientific modifications pursuant to Section 342.2, the Department will consider the adequacy of technical studies based on their demonstration of scientific support for the boundary modification. The technical studies will be evaluated according to the following:

(1) Hydrogeologic models will be evaluated to determine the degree to which the models align with the known geologic framework, the known direction and movement of groundwater flow, and the general understanding of water budget components for the basin or subbasin.

(2) Qualified maps of surficial geology, structural geology, or geophysical studies, and supporting subsurface interpretations, will be evaluated to determine the presence or absence of a groundwater flow boundary.

(3) Potentiometric surface maps, aquifer testing results, and water quality information will be evaluated to determine the presence or absence of a groundwater flow boundary.

(b) For jurisdictional modifications pursuant to Section 342.4, the Department shall review evidence from existing water management plans within or adjacent to the proposed basin or a portion of the proposed basin. The evaluation of sustainable management potential will generally assess the level of groundwater management
practices currently in place within the basin and the historical and existing aquifer response to these management practices. The water management plan will also serve to provide additional information should it be necessary to clarify questions regarding management activities or supporting technical information.

(c) For jurisdiction modifications of consolidation or county basin consolidation or basin subdivision pursuant to Section 342.4(b) and (c), the Department will evaluate the adequacy of a hydrogeologic conceptual model. The evaluation will assess the degree to which the model aligns with the known geologic framework, the known direction and movement of groundwater flow, and the general understanding of water budget components for the basin or subbasin.

(d) For jurisdiction modifications of basin subdivision pursuant to Section 342.4(c), the Department will evaluate the adequacy of the description and supporting documentation of historical and current conditions and coordination in the existing basin of the following, where applicable:

1. Current and historic groundwater levels based on a groundwater monitoring well network that satisfies the following criteria:
   
   (A) A sufficient density of monitoring wells to evaluate and implement sustainable groundwater management as determined by the Department.
   
   (B) Wells with perforated intervals in all principal aquifer units.
   
   (C) The density and distribution of wells is adequate to characterize the potentiometric surface for each of the principal aquifer units.
   
   (D) The methods of data collection follow best management practices and data are collected at similar intervals and frequency.
   
   (E) Groundwater level data demonstrates that the principal aquifer units have not experienced long-term declining conditions.

2. Water quality data, including data showing that known water quality impacts would not be more isolated or concentrated in the proposed or existing basin.

3. Current and historical land subsidence data demonstrating that no significant inelastic land subsidence has been observed in the proposed or existing basin.

4. Technical studies of groundwater–surface water interactions showing that surface water is not adversely affected by groundwater extractions in the proposed or existing basin.
(5) Technical studies demonstrating that rates of recharge in the proposed and existing basin are adequate to replace current and likely future rates of extraction.

(6) Evidence of coordination between local agencies and public water systems within and between the proposed and existing basins or subbasins pertaining to water budgets, data collection, and other agreements designed to promote sustainable groundwater management, as appropriate.

Note: Authority cited: Section 10722.2, Water Code.
Reference: Section 10722.2, Water Code.
ARTICLE 7. ADOPTION OF BOUNDARY MODIFICATION

§ 346. Introduction to Department Procedures
This Article describes the procedure for the adoption of boundary modifications by the Department.
Note: Authority cited: Section 10722.2, Water Code.
Reference: Sections 10722.2 and 10723.4, Water Code.

§ 346.2. Presentation of Draft Boundary Modifications
(a) If the Department determines that a boundary modification is supported by adequate technical information and meets the requirements of this Subchapter, the Department shall post the draft revised basin boundaries on the Department’s Internet Web site and hold at least one public meeting to solicit comments on the draft boundaries.
(b) The Department shall present a copy of the draft revised basin boundaries to the Commission to hear and comment on the draft revision.
(c) The Department may finalize the revised basin boundaries 30 days after presentation to the Commission if the Department determines that no substantial changes are required.
(d) If the Department makes substantial changes to a proposed boundary modification after presentation to the Commission, the Department shall resubmit the proposed changes to the Commission for further review consistent with the Act.
Note: Authority cited: Section 10722.2, Water Code.
Reference: Section 10722.2, Water Code.

§ 346.4. Record of Boundary Modifications
After revising the boundaries of a basin or establishing a new subbasin the Department shall record that information on the Department’s Internet Web site and incorporate the revised basin boundaries in subsequent updates to Bulletin 118.
Note: Authority cited: Section 10722.2, Water Code.
Reference: Section 10722.2, Water Code.

§ 346.6. Subsequent Modifications by Department.

If, after revising the boundaries of a basin or establishing a new subbasin, the Department determines, based on substantial evidence, that assumptions regarding the sustainable management of the new basin or subbasins were incorrect, and that as a result the boundary modification should not have been allowed, the Department may restore the boundaries to the alignment that existed before the boundary modification or make other revisions consistent with this Subchapter.

Note: Authority cited: Section 10722.2, Water Code.
Reference: Section 10722.2, Water Code.
DRAFT TECHNICAL MEMORANDUM

To: Melanie Mow Schumacher, Special Projects Manager  
   Soquel Creek Water District

Cc: Ralph Bracamonte, Central Water District  
    Rosemary Menard, City of Santa Cruz  
    John Ricker, Santa Cruz County  
    Ron Duncan, Soquel Creek Water District

From: Cameron Tana

Date: August 17, 2015

Subject: Comments on Draft Basin Boundary Emergency Regulations

BACKGROUND

The Sustainable Groundwater Management Act (Act) has requirements for local management of the state’s groundwater basins. California Department of Water Resources (DWR) defines groundwater basins in its Bulletin 118 (2003). Under the California Statewide Groundwater Elevation Monitoring (CASGEM) program, DWR prioritized the basins based on groundwater usage. The Act requires that a Groundwater Sustainability Plan be developed by the local Groundwater Sustainability Agency for medium and high priority basins. The Act includes provisions for local agencies to request revisions to the basin boundaries; and DWR recently released draft emergency regulations for requirements and criteria for revision requests.

We have recommended that the Soquel-Aptos Groundwater Management Committee (S-AGMC) submit a basin boundary request to facilitate formation of a Groundwater Sustainability Agency because the current boundaries do not promote sustainable groundwater management. S-AGMC is a joint powers
authority between three public water supply agencies, Central Water District, City of Santa Cruz, and Soquel Creek Water District, along with Santa Cruz County to manage the shared groundwater resource. However, the three public water supply agency members of S-AGMC overlap four different Bulletin 118 basins even though S-AGMC was formed by these agencies along with Santa Cruz County. The four basins are West Santa Cruz Terrace, Santa Cruz Purisima Formation, Soquel Valley, and Pajaro Valley (Figure 1).

DWR is accepting comments on the draft emergency regulations until September 4. The below comments are meant to inform DWR about issues with the draft regulations or suggest revisions to the regulations that will support basin boundary revision requests such as the one for Soquel-Aptos that will enhance groundwater management in the state. Please consider submitting these comments to DWR on behalf of the S-AGMC.

The comments are divided into two sections. The first section includes comments related to requirements for the basin boundary revision requests. The second section includes comments seeking to clarify language in the draft regulations. In both sections, we describe how our plans for the S-AGMC revision request are affected by the commented section of the draft regulations that are meant to provide DWR context for our comments and their responses.
Figure 1. DWR Bulletin 118 Basins and Water Agencies in Santa Cruz County
**Requirements for Basin Boundary Revision Requests**

1. *Section 342 defines a groundwater basin as “an alluvial aquifer or stacked series of alluvial aquifers.”* In its meeting with Central Coast agency representatives April 24, 2015, DWR staff stated that the stacked series of marine sandstone aquifers in the Soquel-Aptos area that provide groundwater supply could define a groundwater basin. The basin boundary revision request prepared for S-AGMC will be prepared based on this broader definition.

2. *Section 342.2 limits scientific modifications to external boundary modifications and hydrogeologic barrier modifications.* This ignores the possibility that other modifications such as basin consolidations and internal boundary modifications could have scientific justifications that can be demonstrated by the technical studies required in section 344.14(a). For example, the S-AGMC request will propose a basin consolidation of four basins that is based on a stacked series of aquifers that provide groundwater supply. It is possible other types of modifications can be considered hydrogeologic barrier modifications related to presence or absence of a barrier to subsurface flow. However, it is unclear under what conditions this can apply, especially where the existing Bulletin 118 descriptions do not refer to hydrogeologic barriers as they do not for the boundaries between the four relevant basins in the Soquel-Aptos area. If a modification can be supported by the requirements for technical studies for scientific modifications in section 344.14, the local support requirements of section 344.16 need not apply.

3. *There is conflicting information about how a basin consolidation (section 341(f)) can be combined with an external boundary modification (section 342.2(a)).* The definition of basin consolidation says that it “would not change the external boundary of any basin or subbasin.” However, section 342.2(a) on scientific modifications states “Except in the case of some basin consolidations, external basin boundaries will only be modified as a result of scientific modifications.” This exception is not discussed elsewhere in the draft regulations such as in section 344.16 on technical studies for jurisdictional modifications. Our plan for the S-AGMC request is to submit a request to consolidate basins with an external boundary modification of the consolidated basin. As discussed in...
4. **The regulations regarding jurisdictional modifications (sections 342.4 and 344.16) do not discuss Bulletin 118’s definition that any boundaries based on jurisdictional boundaries must be between subbasins and not basins.** An internal boundary modification is classified as a jurisdictional modification that can adjust the location of a shared boundary between adjacent basins (section 341(p)). The requested internal boundary modification may be based on an official jurisdictional boundary. Based on the draft regulations, it appears that the Bulletin 118 definition that such a boundary must be between subbasins no longer applies or there are no additional requirements to group existing basins as subbasins within a larger basin. With respect to the second option, any existing basin that is converted to a subbasin should not be considered to be a different basin, particularly for meeting local support requirements of section 344.8. This is consistent with the Act, which treats subbasins and basins equally. We seek guidance from DWR before submitting a revision request that may base an internal boundary modification for the Santa Cruz County boundary of the Pajaro Valley basin on the jurisdictional boundary of Pajaro Valley Water Management Agency, the agency with exclusive right to be a Groundwater Sustainability Agency within its jurisdiction.

5. **The definitions of affected agency and system in section 341 (c and e) that apply to the local support requirements of section 344.8 are subject to interpretation.** The definitions define affected agency/system as those with area that “include more, fewer, or different basins or subbasins.” What constitutes a different basin is vague. It appears that agencies/systems within basins that are included in a basin that is consolidated are considered affected based on requirements in section 344.8(a)(2). However, our interpretation is agencies/systems in basins adjusted by an internal boundary modification are not considered affected if the agency/system remains in the same basin as before. For example, the modification request on behalf of S-AGMC likely will involve an internal modification of the boundary between the Pajaro Valley basin with the adjacent basins to the west. We are assuming that the internal boundary modification will not require support (section 344.8(a)(1)) from all systems.
wholly within the current Pajaro Valley basin that remain wholly within
the modified Pajaro Valley basin.

6. In requirements for supporting information, Sections 344.12, 344.14, and 344.16 do not discuss how to incorporate documents of prior and ongoing work. Our plan for the S-AGMC revision request is to reference and provide the referenced documents. The main text of the request will summarize the points from the documents that demonstrate requirements have been met. Any figures required by the draft regulations will be provided along with the main text. Relevant documents for S-AGMC’s request will include a conceptual hydrogeologic model technical memorandum (Section 344.12), a technical memorandum for development of a groundwater model (section 344.14), and a groundwater management plan (section 344.16).

7. The draft regulations do not discuss format requirements for the submission. Our plan for the S-AGMC revision request is to submit it electronically to facilitate inclusion of very large documents that provides supporting information such as those mentioned in comment 6.

8. Section 344.18 on CEQA Compliance does not provide detail on the information needed for DWR to meet CEQA requirements. DWR should provide guidance on any additional requirements before finalizing the regulations. We plan to prepare the request for S-AGMC based on the draft regulations.

LANGUAGE CLARIFICATION

9. The definition of external boundary modification (section 341(l)) needs to be revised to be consistent with the definition of internal boundary modification (section 341(p)). A possible revision is as follows: “would modify the boundary between the groundwater basin and the area outside the any basin.” The definition of internal boundary modifications include “the shared boundary between adjacent basins.”

10. It appears that Section 343.8 specifies that DWR will both accept requests and complete evaluation within the review period. Based on communication from DWR such as the accompanying fact sheet, DWR
plans to accept basin boundary modification requests for a 90 day period beginning January 1, 2016. There does not seem enough time for DWR to review requests that are submitted at the end of the 90 day period.

11. We assume that the one public meeting required to present draft modifications (Section 346.2) may have multiple basin boundary revision requests on the agenda.

12. Section 346.4 discusses two parts to recording basin boundary modifications. Formation of Groundwater Sustainability Agencies will proceed based on the first part. The first part is to record the acceptance of the information on DWR’s web site. This represents that DWR has accepted the revision and they have been finalized after review from the Water Commission (section 346.2). Groundwater Sustainability Agencies can base their jurisdictional boundaries based on the basins as revised after this occurs. The second part, incorporation of revised basin boundaries into subsequent updates to Bulletin 118, will take place at a later time.

Please let me know if S-AGMC has any questions. We look forward to the response to comments from DWR.
MEMO TO THE BASIN IMPLEMENTATION GROUP

Subject: Agenda Item No. 5.12 Approve Reimbursement to Central Water District (CWD) for their Groundwater Model Based on JPA Cost Split

Attachment: Staff Memo from BIG Meeting: Consider Scope of Work from Hydrometrics WRI to Prepare a Basin Groundwater Model (August 14, 2014)

Background
At the August 14, 2014 meeting, the BIG approved the proposal from Hydrometrics WRI to develop a Soquel Aptos Basin Groundwater Model with cost sharing based on 2014-2015 member cost share (see attached memo). Within that August 14 agenda item memo there were three other pertinent points to highlight:

- The City of Santa Cruz indicated that they would be willing to help fund the model as a non-member partner, and if/when they accept a membership into the BIG, funding would continue on a partner basis. Thus, the cost split outlined for Central’s model was SqCWD: 79.7%, CWD: 10.5%, City of Santa Cruz: 9.7%.
- Central Water District has already completed a groundwater model that covered a portion of the Soquel-Aptos basin (within and surrounding their jurisdictional area).
- The Soquel-Aptos groundwater model that is underway builds upon the Central Water District model and in order to undertake an appropriate cost share of the entire groundwater model for the Soquel-Aptos region, the cost of both modeling projects should be combined then the respective shares billed to each BIG member.

Discussion
As outlined in the August 14, 2014 memo, the cost share for Central Water District’s groundwater model was to be split between the City of Santa Cruz, Central Water District, and Soquel Creek Water District and a “credit” given to Central Water District for future modeling work.

Staff requests discussion with the BIG members to address the following questions:

- Under the assumption that JPA Amendment #3 is approved by all agencies, should the cost split for Central Water District’s groundwater model include all four partner agencies? Thus, the $106,700 amount for CWD’s model would be split:

<table>
<thead>
<tr>
<th>% split</th>
<th>Cost Share Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central Water District</td>
<td>10%</td>
</tr>
<tr>
<td>Soquel Creek Water District</td>
<td>70%</td>
</tr>
<tr>
<td>City of Santa Cruz</td>
<td>10%</td>
</tr>
<tr>
<td>County of Santa Cruz</td>
<td>10%</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
</tr>
</tbody>
</table>
• Rather than have a running “credit” for Central Water District for future modeling work, are the partner agencies amenable to Central Water District invoicing the partner agencies for their cost share amount? This would provide a cleaner, more efficient way of accounting for payment of this modeling work.

POSSIBLE ACTIONS

1. By MOTION, approve the reimbursement of Central Water District’s groundwater modeling efforts and direct staff on the cost split percentages and method for reimbursement.

2. No action.

By _______________________________
Melanie Mow Schumacher, Special Projects/Community Dialogue Manager
Soquel Creek Water District

By _______________________________
Ron Duncan, Interim General Manager
Soquel Creek Water District
MEMO TO THE BASIN IMPLEMENTATION GROUP

Subject: Agenda Item No. 5.1 Consider Scope of Work from Hydrometrics WRI to Prepare a Basin Groundwater Model

Attachments: 1. Proposal from Hydrometrics WRI for Preparation of Soquel Aptos Basin Groundwater Model
2. Assembly Bill 1739
3. Senate Bill 1168

Background

At the Soquel Creek Water District (SqCWD) Board meeting on January 21, 2014, Randall (Randy) Hanson, with the U.S. Geological Survey (USGS) (http://ca.water.usgs.gov/personnel.html?id=74) and Brian Lockwood, P.G. with the Pajaro Valley Water Management Authority (PVWMA) (http://www.pvwma.dst.ca.us/hydrology/hydrologic-modeling.php) were in attendance to address questions related to basin wide groundwater models. PVWMA had contracted with USGS to build a new groundwater model that is nearing completion.

Over the past few years, decisions related to the duration for achieving and maintaining basin recovery and the best pumping distribution for achieving and maintaining recovery have been made without a groundwater model. Decisions have been advised by HydroMetrics, WRI (HMWRI), by identifying protective water levels at coastal monitoring wells that are sufficiently high to prevent seawater from encroaching into onshore areas. This was done with a two-dimensional cross-sectional model that simulates the saltwater-freshwater interface location using SEAWAT software. The program has been used for a wide variety of groundwater studies including those focused on brine migration in continental aquifers as well as those focused on saltwater intrusion in coastal aquifers. SEAWAT is a public domain computer program with source code and software distributed free of charge by the U.S. Geological Survey (USGS).

After protective elevations were established, HydroMetrics estimated fresh groundwater outflow needed to achieve protective water levels at the coastal monitoring wells. This was also done using the SEAWAT cross-sectional models, substituting flow boundaries for head boundaries.
The final step involved estimating groundwater yield available to the District by incorporating the required groundwater outflow estimate into the basin water balance previously estimated by Johnson et al. (2004).

HydroMetrics addressed recovery duration in their letter report titled, “Revised Protective Groundwater Elevations and Outflows for Aromas Area and Updated Water Balance for Soquel-Aptos Groundwater Basin,” presented to the SqCWD Board on April 3, 2012. The report stated the District should limit annual groundwater pumping to no more than 2,900 acre-feet per year (afy) for at least 20 continuous years of pumping to achieve a 70% chance of restoring the basin. HydroMetrics also noted that measurable basin recovery is defined by groundwater levels rising to protective elevations; the time needed to eliminate the accumulated deficit does not predict how long it will take for water levels to observe this recovery. Additional tools and information are required to provide a more refined estimate of recovery time. These tools must accurately show the influence of pumping from wells on coastal groundwater elevations. The cross-sectional models developed for estimating protective elevations currently do not include the influence of any pumping. A basin wide groundwater model would be needed for this.

Simple analysis of historical groundwater elevation data may be inadequate for estimating recovery times. Challenges include the fact that coastal monitoring wells were installed in the mid-1980s, some years after pumping began to exceed the estimate of the post-recovery pumping yield. In addition, groundwater levels at most of the coastal monitoring wells have been below protective elevations since installation, therefore there is no historical estimate of the conditions under which coastal groundwater elevations were protective of seawater intrusion.

**Peer Review**

On January 21, 2014 the SqCWD Board initiated a peer review of HydroMetrics work. The peer review was completed by Todd Groundwater, who found:

- A yield estimate 100 AFY greater than the HMWRI yield estimates for both the Purisima and Aromas areas. This puts total yield at 4,200 AFY vs. 4,000 AFY.
- The calculated yields result in an estimate of historical accumulated deficit slightly greater than 5,100 AF.
- A 98% septic return flow assumption was applied to the historical deficit calculations, to be consistent with the estimates of sustainable yield. This increased the accumulated deficit to 5,700 AF.
The report also makes recommendations to investigate the impacts of septic recharge. The report states that an adaptive management approach is an appropriate way to prevent seawater intrusion, but it also points out some shortcomings and suggests that a groundwater flow model that takes into account base flow depletion would provide a better picture. The report also suggests that a groundwater model that incorporates density effects would provide more accurate estimations of the rate of intrusion and the location of the seawater-freshwater interface. Additionally, impacts of septic recharge and that could be better determined with a groundwater model. It is also important to locate the position of the seawater-freshwater interface, which will help make this modeling very valuable. This aspect of the modeling is not included in the attached scope since the location is currently not identified. An additional project with USGS to locate the seawater interface will be presented at the September 23, 2014 BIG meeting.

In addition to providing a more refined estimate of recovery time, a basin-wide groundwater model would provide information on potential for recharge using either recycled water or captured storm water. It would also advise on how much water could be transferred to the City of Santa Cruz in a conjunctive use scenario. This modeling would be helpful as we move forward with options for supplemental supply for basin recovery.

**Groundwater Model Proposal**

Hydrometrics WRI was asked to prepare a proposal to develop a groundwater model for the basin. They are proposing to start with scoping activities that will be beneficial to the ultimate success of the groundwater modeling effort by ensuring that our needs are fully addressed by the model. They plan to use MODFLOW and related groundwater model codes developed by the US Geological Survey (USGS). Hydrometrics WRI has invited the USGS to participate in this project as well. The USGS would submit its own proposal for a separate contract with SqCWD as is required. The scope of work and cost estimate included in the attached proposal (Attachment 1) does not include the USGS effort. That will also be presented at the September 23, 2014 BIG meeting.

Cameron Tana will be available via telephone for questions about the proposed project.

**Funding Mechanism**

The 2013-2014 Santa Cruz Grand Jury report Desalination and Alternatives recommended that the Basin Implementation Group (BIG) undertake a groundwater model of the basin. In addition, two very relevant groundwater state legislation bills have both made it through their respective policy committees in the
second house. They have only two more steps before going to the Governor for signature.

SB 1168 by Sen. Fran Pavley (D-Agoura Hills) moved out of the Assembly Water, Parks and Wildlife Committee on a 9-4 vote. The bill in its current form would establish a statutory framework to achieve sustainable management of groundwater basins throughout the state. A similar measure, AB 1739, by Assembly Member Roger Dickinson, (D-Sacramento), cleared the Senate Natural Resources and Water Committee on a 7-1 vote. The legislators already have joined as co-authors on each other’s bills. The Governor’s office is in support of both bills and there is an unusual level of cooperation among stakeholders, even those who now oppose the bill. The bills continue to be refined and there is at least one more set of amendments expected before a vote takes place.

If this legislation is passed it will task a local agency with basin management and a requirement to prepare a sustainability plan by 2020 which will bring the basin into a sustainable state within 20 years. The legislation also provides broad powers to manage pumping by all basin pumpers, municipal and private alike. If a local agency or group of agencies doesn’t move to enact those powers to bring the basin into sustainability, the State Water Resources Control Board will take over and do so. In light of this, it makes sense to that basin recovery activity be undertaken by the BIG rather than continue with it as a District project. This will also allow the cost to be shared by other pumpers. Initially it would be shared by Central Water District (CWD) and the City of Santa Cruz as a non-member partner. The City, the County and PVWMA are being invited to become members of the BIG. The City has already indicated that they would be willing to help fund the model as a non-member partner, and if/when they accept a membership funding would continue on a partner basis.

In addition, the BIG has been reaching out to private pumpers in an effort to facilitate collaboration for the possible implementation of AB 3030 powers. The zone of benefit for enacting such powers can be determined through a groundwater model determination of which wells influence seawater intrusion. This would help provide the basis for any pump fees implemented under either the current AB 3030 powers or new powers available through the proposed groundwater legislation. The water model that would identify the zone of benefit would be the first step in this process.

Central Water District (CWD) has recently funded and completed a model of their portion of the basin. This project cost CWD $106,700. The proposed model would build on their existing model and take in the rest of the basin. In order to undertake a proper cost share if the project is done by the BIG, the cost of both modeling projects should be combined then the respective shares billed to each BIG
member. This would make the combined cost of the work $494,172. Based on 2013 flows the cost share would be as follows:

SqCWD (79.7%, 4,219 AF of 5,292 total) - $393,974  
CWD (10.5%, 558 AF of 5,292 AF total) - $52,106  
City (9.7%, 515 AF of 5,292 AF total) - $48,091

Because CWD has already paid $106,700 for the completed portion of the model, their portion is actually already covered and they still have a credit of $54,812 towards future joint basin work.

In addition, if private well owners are eventually assessed pump fees per the new groundwater legislation or through AB3030 powers assessed providing the County joins the BIG, some of the cost of the modeling can be recouped by including the asset depreciation of the model in the basis for the pump fees. This means the cost for modeling the basin could possibly be shared by all basin users.

It would also be advisable to recommend the BIG convene a Technical Advisory Committee to review the groundwater model development and suggest possible members for this committee if the Board chooses to fund the work through the BIG.

POSSIBLE BOARD ACTION

1. By MOTION, approve the proposal from Hydrometrics WRI to develop a Soquel Aptos Basin Groundwater Model with costs share based on 2014-2015 member cost share.

2. Take no action and provide staff further direction.

By ___________________________  By ___________________________
Kim Adamson                              Ralph Brachamonte
General Manager                        General Manager