Gmail

Tim Carson <admin@midcountygroundwater.org>

NOTICE OF INTENT TO FILE LEGAL ACTION Re: Santa Cruz MidCounty Groundwater Agency Failure to Conduct AEM Analysis of Saltwater / Freshwater Interface Conditions

Becky Steinbruner <ki6tkb@yahoo.com> Sat, Nov 29, 2025 at 6:32 PM
To: Santa Cruz Mid-County Groundwater Agency <admin@midcountygroundwater.org>
Cc: Soquel Creek Water District <melanies@soquelcreekwater.org>, Heidi Luckenbach <hluckenbach@santacruzca.gov>, Ralph Bracamonte <rmb@centralwaterdistrict.us.com>, Sierra Ryan <sierra.ryan@santacruzcountyca.gov>, Becky Steinbruner <ki6tkb@yahoo.com>

Dear Santa Cruz MidCounty Groundwater Agency Board and Staff,
I am hereby placing ON NOTICE the Santa Cruz MidCounty Groundwater Agency ("MGA") and all Real Parties in Interest inclusive (Soquel Creek Water District, the City of Santa Cruz, Central Water District, and the County of Santa Cruz) that I intend to file legal action to remedy the failure of the MGA to conduct current Airborne Electromagnetic analysis ("AEM") using the identical flight lines as the 2017 AEM studies.

Because the PureWater Soquel Project is due to finally become operational in 2026, it is imperative that the MGA have accurate, complete and current data showing the saltwater / freshwater interface condition of the Basin now or within the next six months.

I have repeatedly requested the MGA Board consider initiating such study, but your Board has been unresponsive. Your Board has failed to publicly discuss the issue as an agenda item.

On September 17, 2025, I wrote your Board to formally request the MGA conduct a new AEM analysis using the identical flight lines as the 2017 AEM analysis because the State's 2022 AEM flight lines largely did not comport, thereby providing incomplete data. I also pointed out that the Basin's Groundwater Sustainability Plan ("GSP") promised the AEM analysis would be repeated in 2022.

The MGA has failed to uphold the promise to the State of California and the public that the GSP would rely upon gathering accurate, and complete data in order to monitor the saltwater / freshwater interface conditions that are imperative for fulfilling the mandate under the Sustainable Groundwater Management Act (SGMA).

Without a new AEM analysis that is based on identical flight lines of the 2017 AEM study, the MGA cannot make any accurate report to the State Department of Water Resources ("DWR") regarding the efficacy of the PureWater Soquel Project in achieving groundwater sustainability in the future because the MGA has failed to ascertain accurate, complete and current information that would support any such claim moving forward,

The MGA will also have failed to act with transparency to the public.

Although the PureWater Soquel Project is purportedly due to become operational in early 2026, there is ample time to commission a new AEM analysis that would not be significantly affected by the Project's treated water injection activity if such analysis is conducted within the next six months.

This is because the models provided by Soquel Creek Water District in 2022 grant application to the Federal Bureau of Reclamation and other Project documents indicate the injected water will travel very slowly within the Purisima Aquifer.

- The model on page 22 of the March 15, 2022 District Application for PureWater Soquel Project grant funding with the Bureau of Reclamation claims **the injected water will take 9-12 years minimum to travel to the Highway One area, and 23-25 years to reach the wells in the downstream flow production and private wells.**
- https://www.usbr.gov/watersmart/title/docs/applications/authorized/2022/TitleXVI-Soquel-Creek-Water-District-508.pdf

Simulations of injected treated water at the Project's injection wells provided to the Central Coast Regional Quality Control Board for Permit R3-2023-0033 indicates more rapid travel time but still supports the MGA's ability to conduct a new AEM analysis within the next six months: (pages 42-25):
https://www.waterboards.ca.gov/centralcoast/board_info/agendas/2023/dec/item_11_att01.pdf

Simulations provided in the PureWater Soquel Project Engineer's Report (pages 234-236) in Figures 11-2 and 11-3 are dated September 30, 2025 but must be updated to support accurate recharge information and reporting. https://www.soquelcreekwater.org/DocumentCenter/View/2074/Pure-Water-Soquel-Engineering-Report-PDF

Therefore, it is possible to assess the freshwater/saltwater interface situation with scientific confidence if an AEM flight line and analysis is conducted within the next six months, and it is imperative that the MGA do so.

I hereby make one final request that the MGA Board consider commissioning a new AEM analysis that will follow identical flight lines as were conducted in the 2017 AEM analysis. If your Board elects not to do so, I will have exhausted all

remedies for relief and will be forced to file legal action.

Please respond. Thank you.
Sincerely,
Becky Steinbruner

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Becky Steinbruner
From:ki6tkb@yahoo.com
To:MidCounty Groundwater Agency Board
Cc:Becky Steinbruner

Wed, Sep 17 at 11:06 AM

Dear MidCounty Groundwater Agency Board,
I have read the agenda packet and want to request a public presentation of the AEM analysis report recently completed by GIP; (Item 6.3 pg. 72)
"In 2022, the Department of Water Resources conducted AEM surveys in high- and medium-priority groundwater basins throughout California, including Basins in Santa Cruz County. The flightlines of 2017 and 2022 AEM surveys were not identical, however ***there are some areas where the surveys overlapped or were in close proximity.***

In December 2024, the MGA Executive Team approved the sole source selection of Geophysical Imaging Partners (GIP) to evaluate the 2017 and 2022 AEM investigations ***with a focus on saltwater intrusion in the area from Rio Del Mar to La Selva Beach to investigate the presence of increasing chlorides in the Seascape area****. Mr. Halkjaer, previously of Ramboll, is now a partner with GIP and was determined to be uniquely qualified to conduct an evaluation of the two surveys. The objective of the investigation was to ensure that the two datasets were processed using the same procedures and techniques to ensure the data were comparable. In March 2025, an amendment to the agreement added an additional task to consider available alternatives for additional analysis.* ***The processing of the data was successfully completed at a cost of $9,800. The data will be incorporated into the report on the current seawater intrusion investigation"***

Here are my comments:
1) The GIP evaluation should also include the common flight lines that covered the areas near beaches to provide a comparison of the status of the potential advancement saltwater intrusion interface. Did it?

2) The GIP evaluation should be presented publicly to the MGA Board and the public. When will this presentation be scheduled and how can the information be publicly accessed?

3)The GSP stated that there would be a follow-up AEM evaluation conducted by the MGA in 2022. (page 27 and page 410)
5.1.1.4.5 Data Collection: Offshore Airborne Electromagnetics Geophysical Surveys
In May 2017, the MGA successfully completed an offshore Airborne Electromagnetic (AEM) geophysical survey to assess groundwater salinity levels and map the approximate location of the saltwater/freshwater interface in the offshore groundwater aquifers. ***This important data will inform the assessment of the extent and progress of seawater intrusion into the Basin and the management responses. The MGA anticipates repeating the AEM survey on a five-year interval (2022) to identify movement of the interface and assess seawater intrusion.*** *The estimated cost is presented in Table 5-1.*

https://www.midcountygroundwater.org/sites/default/files/uploads/MGA_GSP_2019.pdf
The State's unorthodox AEM flight lines did not satisfy the MGA's plan to repeat the 2017 AEM study to determine the whether the saltwater /freshwater interface had changed, and that would verify the extent of the saltwater intrusion issue in the Basin.

4) The MGA Executive Committee narrowed the focus of the comparison of the 2017 and 2022 analysis to only include the Seascape area, but should have include the shoreline flight patterns as well. In effect, the GSP intention has not been fulfilled.

5) The GSP stated on page 406 that the MGA would budget $30,000 annually to accrue to the anticipated $150,000 cost of a new AEM study every five years. Therefore, since the MGA did not conduct any AEM study in 2022 or since the 2017 initial AEM study, **there is money available in the budget for a new AEM study that will comply with the terms of the GSP approved by the State and give a clear picture to the MGA and the public the status of the seawater intrusion.** The GIP comparative analysis cost was $9,800.

6) It is imperative that the MGA conduct a new AEM study, repeating the flight lines of the 2017 AEM study, before the PureWater Soquel Project and/or City ASR projects become operational in order to determine and verify the true effectiveness of the individual projects.

Otherwise, how would the MGA be able to scientifically verify the impacts of the seawater intrusion well project component that have been significantly funded with public monies?

7) It is imperative that Montgomery & Associates have this critical data to accurately inform the modeling work those consultants are doing for the grant-funded *Water Optimization Analysis* work that appears to be on-going and will be critical to effective and efficient operation of the PureWater Soquel Project and the City of Santa Cruz's ASR work.

Therefore, I again request, as I have done so publicly at the past three MGA Board meetings, that the MGA immediately fund a new AEM study that will follow the 2017 flight lines. It is critical that the work commence this year and before any of the PureWater Soquel Project's three SWIP wells become operational.

Please respond.
Thank you.
Sincerely,
Becky Steinbruner

Gmail

Tim Carson <admin@midcountygroundwater.org>

Response to opening on the Board.

2 messages

Douglas M Thomson Sr. <douglasmthomsonsr1@yahoo.com> Mon, Oct 13, 2025 at 9:54 AM
To: "admin@midcountygroundwater.org" <admin@midcountygroundwater.org>

To the Board.

I think that it is a mistake to look for residents who own Wells to fill the two positions. I think that you are better off putting someone who is a Scientist that works with our Water Agencies to fill at least one of the positions even if they are not a Resident.

I recommend Mr. Darnell Shaw, since he has experience treating Water Agency Reservoirs and other waterways tin our State.

His contact email address is darnellshaw33@gmail.com His phone number is 415-994-6463.

I own parcel 037-231-12. The property is located across the street from one of the Soquel Creek Water Districts Water Pump Stations. The location is near the intersection of Park Avenue and Cabrillo College Drive Soquel, Ca. 95073.

I don't believe that the pump stations are affecting our ground water in the manner that the District believes it will. I believe that they are guessing and this is why we need to conduct more research by multiple agencies in addition to the Soquel Creek Water District.

The ocean water intrusion in this location is too close to the ocean. The saltwater intrusion in this area is less than a half mile away from the Districts pump stations are located at along the Cabrillo College Drive.

I recommend that further studies be conducted by several agencies so that we can understand the relationship between saltwater intrusion into our freshwater aquifer to better understand the affect the pumped water is having on the water quality in the aquifer over a long period of time.

Our aquifer has been here for millions of years and yet we were able to draw from the aquifer without having the need to pump treated water??? into the aquifer until recently.

I believe we need to stop drawing from the aquifer until such time that it has been restored to its natural state. We can connect to other water sources to meet our needs.

If I am mistaken, than our State should consider creating a closed loop water system that connects to all our states water resources so that it can be delivered anywhere in the State at all times.

Here are my concerns:

- **Potential for contamination:** Injecting treated water could inadvertently introduce contaminants, including pathogens, disinfection byproducts, or industrial chemicals, into the aquifer. Depending

on the type and quality of the treated water, it could degrade the quality of the native groundwater.

- **Mobilization of existing contaminants:** The mixing of injected water and native groundwater can cause a chemical reaction that mobilizes heavy metals or radionuclides naturally present in the soil. Changes in pH and oxidation levels can cause these contaminants to dissolve into the groundwater.
- **Changes in aquifer geochemistry:** Differences in water chemistry can cause aquifer clogging, reducing the efficiency of the injection wells. For example, if acidic treated water is injected into a limestone aquifer, it can dissolve minerals and change the flow path of the water.
- **Unexpected flow paths:** The geology of an aquifer can be highly complex and contain faults or layers of different permeability. This can cause the treated water to flow in an unexpected direction, potentially contaminating a different part of the aquifer or discharging into the ocean.
- **Infrastructure risks:** If the injection pressure is too high, it can induce small seismic events or damage the well's infrastructure, potentially causing water to migrate into adjacent aquifers.

Considerations for a coastal aquifer

Pumping treated water a half-mile from the ocean places it directly in the critical transition zone where freshwater and saltwater meet.

- **Hydraulic pressure is key:** In a coastal aquifer, freshwater sits on top of denser saltwater. Pumping treated freshwater creates a mound that increases hydraulic pressure to repel the saltwater. The success of the project is highly dependent on managing this pressure correctly.
- **Monitoring is critical:** To ensure the system functions as a barrier and does not simply push contaminants towards drinking water sources, extensive monitoring is required. This involves tracking groundwater levels, chloride, and conductivity levels to detect any sign of intrusion or contamination.
- **Project-specific variables:** The specific outcome depends on multiple factors unique to the project site, including:
    - **The quality of the treated water being injected.**
    - **The geology of the aquifer**, including its permeability and any confining layers.
    - **The rate and duration of the pumping.**
    - **The proximity of other wells** or natural discharge areas.

It is my belief that the board should consider Mr. Shaw as a Consultant or possible board

member since he is actively working on my property. Mr. Shaw is working with our County, CDFW, our State Water Board and other Agencies to address the contaminated Arroyo running through my property.

Mr. Shaw is also actively working on other important Water Projects in our State. He also works with many important individuals whose knowledge and contributions to our Water Agencies would be very helpful to the Board and our nearby Water Agencies in our State and County.

The Arroyo that runs through my property, runs from the Forest of Nisene Marks State Park through town to where my property is located. From there the Arroyo continues downstream ½ mile where it empties into the ocean at New Brighten State Park.

My property is the last remaining privately owned property. It is located next to HWY 1 bordering Aptos, Soquel and Capitola. The property is in a protected habitat that has not been maintained or monitored until I purchase the property in 2022.

After I purchased the property, I had to remove 40 Homeless campers and more than 40 tons of hazardous materials from 6 Campsites. I had to dig into the ground to remove their hazards and discovered that the Arroyo has been contaminated for many years.

It appears that the entire Arroyo is contaminated from the ocean at New Brighten State Park to the Forest of Nisene Marks State Park.

I had two a Biotic Studies conducted by two Biologist. Mr. Shaw my current Biologist went much further and prepared reports to include the Arroyo. He submitted the reports to the County, State and Federal Agencies.

Sadly, my neighbor, Mr. Novin failed to finish building the Homekey Apartment Complex to house Veterans and Youths coming out of the Foster Care Program. The unfinished project is currently polluting the County Right of Way, my property and the Arroyo to the ocean.

Mr. Shaw is addressing the issue and has prepared a Biotic and Restoration Report to address the issue.

Sadly, the Santa Cruz County Environmental Department refuses to address the issue. According to Matt Johnston who retired recently, said that this was a Civil Issue. We disagree and are taking steps to address the issue ourselves.

At the end of the day, we are responsible for protecting and preserving our environment even if our Government Officials are unable. Please consider my concerns and recommendations.

Please feel free to reach out to my Biologist or myself anytime.

Have a Wonderful rest of the year.

Very Respectfully,

Douglas M. Thomson Sr.

Retired Distinguished Naval Veteran

Santa Cruz Mid-County Groundwater Agency <admin@midcountygroundwater.org> Tue, Oct 14, 2025 at 11:58 AM

To: "Douglas M Thomson Sr." <douglasmthomsonsr1@yahoo.com>

Dear Mr. Thomson,

This email acknowledges receipt of your comments submitted via email related to the Santa Cruz Mid-County Groundwater Agency's Private Well Owner Director Solicitation.

The Board of Directors will be informed of your comments.

Regards,
Tim Carson
Administrative Services
SANTA CRUZ MID-COUNTY GROUNDWATER AGENCY
5180 Soquel Drive | Soquel, CA 95073
831.204.0008 *voicemail*
admin@midcountygroundwater.org | www.midcountygroundwater.org
[Quoted text hidden]

Gmail

Tim Carson <admin@midcountygroundwater.org>

Re: MGA Seeks Private Well Owners for Director Positions

2 messages

Nora Hochman <nolden98@comcast.net> Wed, Oct 1, 2025 at 10:27 AM
To: admin@midcountygroundwater.org

This is a disingenuous invitation to join a board that meets once every three months.

If the District was serious about representation from well owners, the committee would meet every month. Otherwise, it's obvious that this is a completely staff driven function.

Hence, it's disingenuous.

> On Oct 1, 2025, at 9:27 AM, Santa Cruz Mid-County Groundwater Agency <admin@midcountygroundwater.org> wrote:
>
> View this email in your browser
>
> SANTA CRUZ MID-COUNTY GROUNDWATER AGENCY
>
> SOQUEL CREEK WATER DISTRICT
>
> *Groundwater is a vital resource, together let's protect it.*
>
> ## MGA Seeks Private Well Owners to Serve on Board of Directors
>
> The Santa Cruz Mid-County Groundwater Agency (MGA) is accepting applications to fill two vacancies for Private Well Owner Directors on the Board of Directors. The MGA is a public agency formed in 2016 to comply with California's Sustainable Groundwater Management Act. The MGA is responsible for groundwater management in the Mid-County Groundwater Basin in the communities of Soquel, Aptos, Capitola, Live Oak, and La Selva Beach.
>
> To be eligible, an applicant must either own, manage, or be served by: 1) a private or shared domestic well; 2) a small water system well; or 3) a well used for commercial, industrial, institutional, recreational, or agricultural purposes. The well must be located within the Santa Cruz Mid-County Groundwater Basin. The time commitment is approximately 5 - 10 hours per quarter, including evenings. Terms are for four years. The position is unpaid.
>
> MGA is seeking candidates that are passionate about our community's future and sustainability of the Basin. An ideal candidate will have a demonstrated ability to work with others in a collaborative setting and be able to effectively represent the interests of Private Well Owners in the Basin. They will be open to learning about, and working with, people whose interests may

conflict with their own and are willing to make educated compromises that are respectful of competing viewpoints. Desired candidates will have the means and motivation to communicate with the community they are representing. They will have knowledge, skills, and experience that will benefit the MGA and the implementation of the Groundwater Sustainability Plan.

Visit the MGA's website at midcountygroundwater.org to download a copy of the application.

Applications are accepted via email to admin@midcountygroundwater.org or by mail or delivery to the Soquel Creek Water District, 5180 Soquel Drive, Soquel, CA 95073.

Applications Due: 4 p.m. October 29, 2025

The Santa Cruz Mid-County Groundwater Agency (MGA) is a joint partnership between the County of Santa Cruz, Soquel Creek Water District, Central Water District, the City of Santa Cruz and private well-owner representatives to meet the mandates of the State's Sustainable Groundwater Management Act.

Our mailing address is:
Santa Cruz Mid-County Groundwater Agency
5180 Soquel Drive
Soquel, CA 95073

Santa Cruz Mid-County Groundwater Agency <admin@midcountygroundwater.org> Wed, Oct 1, 2025 at 4:51 PM
To: Nora Hochman <nolden98@comcast.net>

Ms. Hochman,

This email acknowledges receipt of your comment submitted via email related to the Santa Cruz Mid-County Groundwater Agency's Private Well Owner Director solicitation.

Regards,

Administrative Services
SANTA CRUZ MID-COUNTY GROUNDWATER AGENCY
5180 Soquel Drive | Soquel, CA 95073
831.204.0008 *voicemail*
admin@midcountygroundwater.org | www.midcountygroundwater.org
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