



County of Santa Cruz



HEALTH SERVICES AGENCY
Environmental Health Division
701 Ocean St. Room 312, Santa Cruz, CA 95060
(831) 454-2022 TDD/ TTY: Call 711
EnvironmentalHealth@santacruzcountyca.gov
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AGENDA

SANTA CRUZ COUNTY WATER ADVISORY COMMISSION AND SMALL WATER SYSTEMS FORUM JOINT MEETING Wednesday June 3, 2026, 4pm

This meeting will be held in hybrid format. Commissioners are expected to attend in person.

In-Person: **Fifth Floor Redwood Room, 701 Ocean Street, Santa Cruz.**

Remote via Teams: [Click to Join Meeting](#)

Meeting ID: 225 778 097 171 379 Passcode: EE2re2fq

Dial in by phone +1 831-454-2222 Phone conference ID: 264 732 630#

A. OPENING

1. Call to Order
2. Roll Call

B. PUBLIC COMMUNICATIONS

Opportunity for the public to comment on items under the purview of the Water Advisory Commission but not on today's agenda.

C. CONSENT AGENDA

Items on the consent agenda are considered to be routine in nature and will be acted upon in one motion. Specific items may be removed by members of the advisory body or public for separate consideration and discussion. Routine items that will be found on the consent agenda are meeting minutes, drought response updates, and Groundwater Sustainability Agency updates.

1. Approval of Meeting Minutes for April 1, 2026
2. Update from Groundwater Sustainability Agencies
3. Drought Response Updates

D. COMMISSIONERS' REPORTS

Opportunity for Commissioners to provide brief updates

E. STAFF REPORTS AND ANNOUNCEMENTS

Opportunity for staff to provide brief updates

F. COMMISSION UNFINISHED BUSINESS and UPDATES

1. Local Primacy Agency Continuation Updates

Staff will provide updates on LPA Continuation discussions.

Attachments: Staff Report

Survey Results

G. NEW BUSINESS

1. New Environmental Health Software Tools

Staff will present how Environmental Health and the Water Resources program are utilizing new software and tools.

Attachments: Staff Report

Examples of Claude Code pilot outputs

H. CORRESPONDENCE

None

I. BOARD OF SUPERVISORS ACTION ON ITEMS AFFECTING WATER:

None

J. ITEMS OF INTEREST

K. AGENDA ITEMS FOR FUTURE MEETINGS

LAMP Updates

Ongoing evaluation of the LPA

Presentation by Sarah Perez on water supply

GSA annual reports

RCD presentation on recharge, maybe include LID requirements.

L. ADJOURNMENT



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Minutes

SANTA CRUZ COUNTY WATER ADVISORY COMMISSION AND SMALL WATER SYSTEMS FORUM JOINT MEETING

Wednesday April 1, 2026, 4pm

In-Person: **Solarium Conference Room, 1060 Emeline Avenue.**

Remote via Teams

A. OPENING

1. Call to Order
2. Roll Call

Cheap	Present
Ernst	Present
Lego	Present
Perez	Present
Wilson	Present
Lockwood	Absent with notification
Gillespie	Present

3. Elections of Officers as outlined in Santa Cruz County Code 2.38.120:

Gillespie nominated as Chair by Wilson,
 Lego Nominated as Vice Chair by Gillespie.

Cheap motions slate, Wilson seconds, unanimous

B. PUBLIC COMMUNICATIONS

Opportunity for the public to comment on items under the purview of the Water Advisory Commission but not on today's agenda.

none

C. CONSENT AGENDA

1. Approval of Meeting Minutes for February 4, 2026
2. Update from Groundwater Sustainability Agencies
3. Drought Response Updates

Lego moves consent agenda, Wilson seconds. Unanimous.

D. COMMISSIONERS' REPORTS

Opportunity for Commissioners to provide brief updates:

Lego: Board member of San Andreas Mutual Co. Now out of compliance with Chromium VI. Been working on getting help, using Moonshot Missions. Has evolved into getting the EPA to give them technical assistance for a preliminary technical report for Chromium VI mitigation evaluating centralized treatment and point of use. If using POU, you have to prove that centralized treatment is not economically feasible. Had their kickoff meeting and site visit with consultants. Will review preliminary findings in 2 weeks in time to make decisions and try to get grant funding or low interest loans.

Cheap question: any movement on the legal action to change the standards?

Lego: The judge who is doing the Chromium VI lawsuit is taking it under advisement and we will hear an answer in the next couple weeks to either issue a stay.

Wilson question: What about consolidating with Soquel Creek Water District?

Lego: Gone through LAFCO to get the extra territorial service agreement that allows them to work with SqCWD for emergency intertie. Need to find the money to connect the systems, which requires 700 feet of pipe.

E. STAFF REPORTS AND ANNOUNCEMENTS

County staff have arranged a visit to the Buena Vista Migrant Center PFAS treatment system on Tuesday April 21st at 10am. Commissioners will contact Ms Ryan if interested and available to attend.

F. COMMISSION UNFINISHED BUSINESS and UPDATES

1. Water Advisory Commission Workplan

The WAC will review the 2026-2027 Work Plan developed by the appointed subcommittee, and take action to approve it.

Attachments: 2026-2027 Work Plan Redline and Final

Commissioners Perez, Lego, Cheap met and reviewed the work plan. They made some minor changes and removed items that are covered under other existing items. Changes were reasonably minor but they think they reflect everything said at the prior meeting.

Gillespie moves to approve the updated work plan.

Wilson notes a lot gets lumped into Other. Makes friendly amendment "Current water quality issues include but are not limited to. Add a reference to LAMP with High Nitrate levels." Gillespie accepts amendment. Seconded by Wilson.

Unanimous.

G. SMALL WATER SYSTEMS FORUM

1. Small Water Systems Forum Support for Compliance

County staff will provide a presentation about managing emerging contaminants:

1. PFAS
2. Hexavalent Chromium
3. Point of Use Treatment Systems

Attachments: POU Treatment System Guidance Document

Nathan Salazar presents on items 1 and 2.

Lego mentions that if you treat for contaminants with a centralized treatment system, you end up with a brine. The nearest place that takes it is in Monterey which is an ongoing cost. With POU systems at each house, residents can just throw the filters away.

Sean Abbey presents on POU systems. The income thresholds are high, making it challenging to use that alone. POU systems must be owned and operated by the system and all homes must agree to be on it.

Question about septic system: is there a risk of concentrating it in the septic systems for systems that are using POU? Ms Ryan suggests this is something the County should investigate further. Troy Boone points out that the device must be approved by a 3rd party. Similar concerns exist with a centralized treatment system, but either way you are testing.

Question: Does the State have a clear statement on how much you need to drink over what time to get sick?

Response: The public health goal is zero and there is more information on their website.

Question: What level of diligence will the system need to do to ensure that all households are known and accounted for?

Response: Water systems should count connections already and those will be accounted for. Will also require an engineering study.

Comment: Waste disposal for central treatments is usually haul-away so it would not get into waste water streams.

Question: What information does the state need to see to get to POU systems if you can't afford an engineer?

Response: The state may come out with guidance but they have not yet. The County has created a guidance for what we're looking for.

Comment: Ion exchange can be useful but it can convert back from Chrome III to Chrome VI in some cases.

Commissioner Lego appreciates the document from County staff with Guidance as no single document has been provided by the State.

2. Feedback Regarding the Continuation of the Local Primacy Agency

County staff will be presenting an update on the status of the Local Primacy Agency and seeking feedback from the water system community.

Attachments: Staff Report

Paul Lego, small water system rep on the Commission: San Andreas Mutual has 140 service connections. Their annual budget is \$120k per year. However, they spent \$10k to litigate against Chrome VI because the cost of compliance is going to be much higher. Seeing the posture of the State which is focused on consolidation, they would pay double to keep local control. Understands that many companies can't do that, but the economics of dealing with someone that doesn't understand the situation, they believe it's cheaper to pay more to keep it local than to send it to the State, pay less for a year or two, and then have astronomical costs for compliance.

Troy Boone, water system operator: The State puts counties and small systems in a tough spot. When he staffed the LPA, he would always bring up during their annual meetings that they are increasing fees. In his experience, small water systems are an afterthought at all levels of the state. Large water systems can increase rates over thousands of people and it's no big deal. For small systems the State doesn't really acknowledge the impact and hasn't changed their tune. With future requirements, like 1188, requirements are going to increase. It's a tough position to put counties in. Small systems want local control but it's a tough spot to make the numbers work.

Adam Wachtel, water system operator: Based on his experience working for the Monterey County LPA and Soil control and current systems, the Monterey LPA may not have been performing well. Santa Cruz LPA also has problems and does not have

support or adequate staffing. However, Santa Cruz Environmental Health is approachable. Water board staff are behind locked doors, do not answer the phone, have coached and prepared statements for questions. County oversight personnel are approachable, and the Board of Supervisors is local and accessible. With the State Waterboards, any complaint would be very challenging to ask questions. Concerns would be sent to the legislatures. Centralization of authority and local control is also happening at a federal level.

Martin Mills, water system owner: Agrees that having local control with people who have seen their system. Thinks higher fees could possibly be absorbed. Needs time because they need to go through the PUC. Appreciates having regulators that understand their system.

Kelly Archer, water system operator: Wants to keep control local, understanding that EH is in a bind locally. Works with San Mateo which is state. Working with Monterey but aren't getting much response. Cost of compliance is so expensive. Having local, responsive people is really valuable.

Becky Stenbruner, water system customer: also supports local control as a customer. No guarantee that the state's fees will hold in the future and then we would have lost everything. Local people are here to help, the State, in her opinion, is there to consolidate.

3. Release of the Small Water System Consolidation Guidebook

County staff have completed the Strategies for Small Water System Resilience Guidebook, funded by a grant from the Department of Water Resources and including feedback provided by the Commission.

Attachments: Final Guidebook

Public comment to make available at libraries.

H. CORRESPONDENCE

No Discussion

I. BOARD OF SUPERVISORS ACTION ON ITEMS AFFECTING WATER:

No Discussion

J. ITEMS OF INTEREST

No Discussion

K. AGENDA ITEMS FOR FUTURE MEETINGS

LAMP Updates

New Environmental Health Software (HS Gov Tech)

Evaluation of the LPA

Presentation by Sarah Perez on water supply

Updates on Rountree PFAS

GSA annual reports – we put updates on the consent agenda but we could have an update from the agencies on the highlights of the reports.

RCD presentation on recharge, maybe include LID requirements.

L. ADJOURNMENT 6:10



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Subject: April 1, 2026 Water Advisory Commission Consent Agenda

Title: Groundwater Sustainability Agency Updates

Background

There are three groundwater basins in the County subject to the Sustainable Groundwater Management Act. The following updates come from the Groundwater Sustainability Agencies tasked with managing and monitoring those basins.

Pajaro Valley Water Management Agency

- Department of Conservation (DoC) Multibenefit Land Repurposing Grant, \$8.89 million: Staff and consultants continue to meet monthly with DoC staff and the Statewide Support Entity (SSE); PV Water staff and partners are planning an MLRP community outreach event on the evening of June 10, 2026; to date, PV Water has received approximately \$3.51 million of the grant award; more information and an input survey is available at:
<https://www.pvwater.org/pajaro-valley-mlrp>.
 - Department of Water Resources (DWR) Watershed Resilience Pilot Grant, \$2 million: PV Water staff have published the final Pajaro River Watershed Resilience Plan and submitted it to DWR; PV Water staff presented the Pajaro River Watershed Resilience Plan at the CA Water & Environmental Modeling Forum (CWEMF) on April 20, 2026 and to DWR staff during an internal, "Climate Change Speaker Series" meeting on May 12, 2026; finally, staff prepared and submitted Invoice No. 8 and the retention invoice in the amounts of \$89,518 and \$200,000 respectively; to date, PV Water has received approximately \$1.71 million of the grant award; more information, including the final plan is available at
<https://www.pvwater.org/prwrp>.
- College Lake Integrated Resources Management Project
 - Water Treatment Plant & Intake Facility
 - Work continues at the Intake Facility and Water Treatment Plant; commissioning meetings are ongoing. The 60-day process operational period is currently on hold due to seasonal pumping

restrictions; staff from MCI, Veolia, Carollo Engineers, and PV Water continue to work on improving the water treatment process to achieve turbidity levels as per the specifications. Veolia has prepared a plan regarding how to move forward with resolving the water quality issues with the Actiflo water treatment system. As part of this plan, Veolia will have staff onsite starting June 1, 2026, for approximately 3 weeks, to analyze and troubleshoot the Actiflo water treatment system. Veolia was also onsite the week of May 18 to conduct a thorough inspection with PV Water staff of the Actiflo units.

- Treated Water Pipeline
 - Project closeout activities are ongoing.
- Environmental: Monitoring continues per permit requirements; annual reports have been submitted per the permit requirements; staff and consultants are continuing work on a CA Dept. of Fish and Wildlife Routine Maintenance Agreement for continuing maintenance activities as described in the Adaptive Management Plan.
- Adaptive Management Plan (AMP): Staff and consultants are preparing the Water Year 2025 AMP Annual Report.
- Outreach Activities: Website and social media updates are ongoing.
- Watsonville Slough System Managed Aquifer Recharge & Recovery Projects
 - Permitting: Work on permit applications continues.
 - Environmental: Staff have authorized consultants to collect bathymetry data of portions of the Watsonville Slough System in support of permitting activities. The bathymetric survey is anticipated to occur in the next 30-days.
 - Outreach: Communications are ongoing; staff and the support team continue to meet with property owners.
 - Property Rights: Six of eleven properties have closed escrow, others remain pending.
- Supplemental Well No. 3 Improvements Project
 - The Board of Directors, on December 17, 2025, adopted Resolution 2025-10, Awarding Contract to Pacific Infrastructure Corporation for Construction of the Supplemental Well No. 3 Improvements Project, No. 30-62; Approve Finding Project Qualifies for Class 1 and 2 Categorical Exemption; the engineer's estimate was \$2,082,954; and Pacific Infrastructure's bid was \$1,636,000.
 - Staff issued the Notice to Proceed, effective January 20, 2026; the substantial completion date is May 20, 2027.

- Construction meetings commenced on March 9, 2026, and occur bi-weekly. The project is in the submittal period and onsite work has not commenced.
- Recycled Water Facility Electrical Upgrades Project
 - The General Contractor mobilized on Wednesday January 26, 2026. The Process MCC (Motor Control Center) and VFDs (Variable Frequency Drives) were procured and installed during the planned recycled water facility outage in early February; generator transfer switch testing was completed in the last week of April. While testing the new VFD for Distribution Pump No. 4, the motor failed. City staff pulled the motor and sent it to be repaired. Once Pump No. 4 motor is reinstalled, the contractor will return to re-test the VFD, which should be the last item before substantial completion. Motor repair will be completed outside of the project contract and costs will be included the quarterly Recycled Water Facility O&M billing.
 - SCADA security upgrades are currently being implemented.
- Sustainable Groundwater Management Act Well Monitoring Network Expansion
 - Permitting: Work is ongoing to obtain a Coastal Development Permit for wells in the Coastal Zone. Biological and cultural resource surveys to inform the permitting process occurred on February 26, 2026; consultants prepared reports documenting the surveys and are preparing a coastal development permit application.
 - Property Rights: Staff remains engaged with property owners about proposed wells that would be located on privately owned land.
- Environmental: Staff is engaged with consultants to prepare categorical exemptions in compliance with the California Environmental Quality Act.

Interested parties are invited to discuss the [Pajaro Valley Multibenefit Land Repurposing Program \(PV MLRP\)](#) on Wednesday, June 10, from 4:30–6:30 PM at Raíces y Cariño in Watsonville. This is a regional collaboration focused on how land use transitions on portions of least viable irrigated ag lands can advance groundwater sustainability, support farming, restore habitat, reduce flood risk, and benefit local communities.

Santa Cruz Mid-County Groundwater Agency

- The Agency Board will meet next on June 18, 2026, at 6:00 pm. At the meeting, the Board will:

- Receive an update from member agency representatives on what they believe is not working with the current Agency funding allocation model and which funding options should be considered for SGMA compliance.
 - Consider adoption of the Fiscal Year 2026/2027 budget.
- The Agency has recently completed a comprehensive update to its website (www.midcountygroundwater.org)

Santa Margarita Groundwater Agency

- The Agency Board met on May 28, 2026. At the meeting, the Board:
 - Received an update of hydrologic and groundwater level conditions in the Basin.
 - Received recommendations and provided direction on the Basin GSP Periodic Evaluation and GSP Amendment.
 - Approved the Fiscal Year 2026/2027 budget.
 - Appointed an ad hoc committee to oversee the process to fill a vacancy for a private well owner representative on the Agency Board.
- The next regular meeting of the Agency is on August 27, 2026, at 6:00 pm.

By: Sierra Ryan, Water Resources Program Manager with information from Rob Swartz and Brian Lockwood.



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Subject: June 3, 2026, Water Advisory Commission

Title: Drought Response & Outreach Plan (DROP) Update

Background:

On September 23, 2021, Senate Bill (SB) 552 was signed into law and requires that “a county shall establish a standing county drought and water shortage task force to facilitate drought and water shortage preparedness for state small water systems and domestic wells within the county’s jurisdiction”. The Water Advisory Commission assumed responsibility for implementing [SB 552](#) and receives regular updates on the progress of implementation.

Updates:

- Currently, roughly 300 applicants have enrolled in the Regional Waterboards free well testing program. 264 wells have been tested and there is a steady stream of new applicants.
 - Of the outreach efforts, new applicants noted the mailers and the billboard as how they found out about the program.
- Since the April meeting, 22 new testing results have been received. Of those tested, 2 exceeded a drinking water MCL, specifically Nitrate, 123-TCP, or Hexavalent Chromium (CR6).
 - In total, 42 wells have exceeded an MCL, or 15.9% of all wells tested.
- Staff provided guidance to well-owners with 123-TCP exceedances.
- The POU installer faced a delay in delivery of the POU treatment systems for the Rountree Facility in South County, which is above the limit for PFOA. The units have now shipped and installation will be scheduled immediately upon arrival..

By: Sean Abbey

Water Quality Specialist III



County of Santa Cruz



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Subject: June 3 2026, Water Advisory Commission

Title: Results of the Local Primacy Agency (LPA) Survey

Recommended Action: Provide Water Resources staff with feedback and perspectives that can be used to inform upcoming discussions with County leadership.

Background:

At the April 1, 2026 WAC meeting, Commissioners met with the Small Water System Forum. During this conversation, the benefits of maintaining a local regulator for 68 Public Water Systems were weighed against the high cost of operating the LPA. As discussed during the meeting, staff subsequently sent out a survey to collect input from the regulated systems.

Updates:

- Staff evaluated existing workload for LPA staff and compiled a list of upcoming requirements that will increase workload over the next 5 years, demonstrating a need to invest additional staff time should the Primacy be maintained with the County:
 - SB 552 compliance for items such as backup water supply, fire flows, generators
 - Cross Connection Control Plans
 - Hexavalent Chromium standards compliance
 - PFAS standards compliance
 - Combined Radium (226-228) standards compliance
 - Longer reports for Sanitary Surveys
 - SB 1188 compliance for technical, managerial, and financial solvency
- The Division of Drinking Water confirmed that they would request 2 FTEs to cover an LPA of this size.
- The survey was sent to 68 systems, requesting only one response per system.
- The survey was open for 2 weeks, and 26 responses were received, 38% of total systems.

- Overall, there was significant support for maintaining the LPA.
- 20 systems (77%) were willing to pay higher fees to maintain the LPA.
- 6 systems (23%) were willing to increase fees by double or more
- 6 system (23%) were not willing to increase fees
- 5 systems (19%) would prefer to reduce fees by returning primacy to the Division of Drinking Water.
- Staff are speaking with the Health Services Agency Director, CEO, and may meet with Supervisors to discuss.

By: Sierra Ryan and Sean Abbey

Commented [SR1]: Sean to provide a few summary statistics

LPA System Survey - sent to 68 Small Water Systems

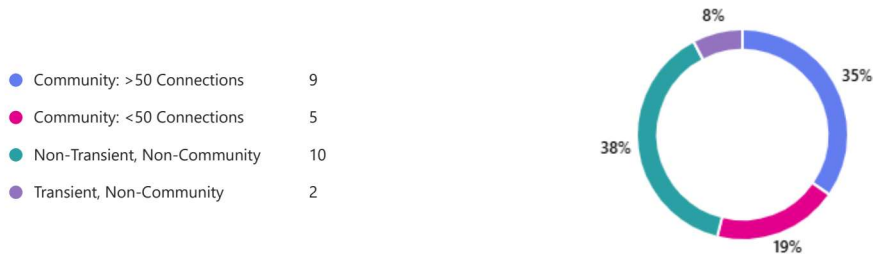
Responses Overview Closed

Responses 26	Average Time 05:58	Duration 56 Days
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1. Only one survey should be completed per water system. Are you the only water system representative that is completing a survey?



2. What type of water system do you represent?



3. With all factors being equal, would your water system prefer the LPA remain your regulator?



4. Please explain your previous answer. Comments are listed in full at the end.

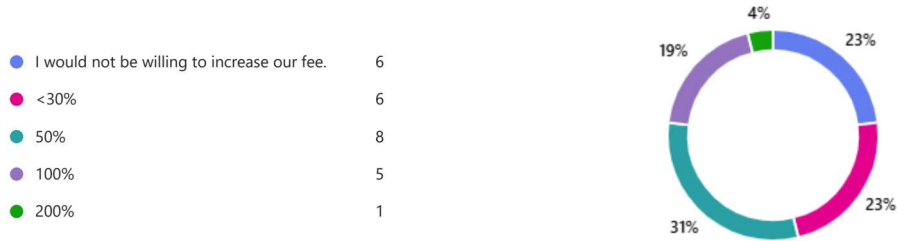
21 Responses

Latest Responses

"The LPA has been a continuous resource and guidance to the Kitayama Brothers ... "
 "I believe having a local regulator provides better oversight and response to water..."
 "local control modulates the cumbersome state regulatory system"

...

5. Continuing to operate the LPA will require increasing permit fees. By how much would you be willing to increase your current fee to maintain the LPA as the regulator.



6. Would you be more open to increasing permit fees if it were phased in over several years?



7. The annual permit fees for the Division of Drinking Water are generally lower than current LPA fees. Would your system prefer a reduction in permit fees or to maintain the LPA as your regulator?



8. Is there anything else that you would like us to know?

Comments are listed in full at the end.

11
Responses

Latest Responses

"The county of Santa Cruz EHS-DDW is a resource for regulatory guidance that we..."

...

Please explain your answer to the question "With all factors being equal, would your water system prefer the LPA remain your regulator?"

Water systems require constant attention but are also need to be constantly available for users. To safely bridge that balance between management and accessibility, local LPA is the safer, preferred option. We can get quick answers and eyes on our systems from locals with local knowledge.

Given the ever increasing complexity of regulations and enforcement for all water systems, I believe it's essential that we have local representatives available to help small water systems navigate the complexities of water systems compliance. Dealing with the State Water Board can be a chanalangeing

Our LPA works with us to provide workable solutions to our compliance and regulatory issues. My experience with DDW is a complete lack or concern other than strict adherence to regulations. DDW has zero interest in working with us.

County personnel have been very helpful whenever we have questions or problems with our system or questions with reports. Dealing with the State I'm sure will not be as supportive a relationship... Additionally the seminars/meetings they occasionally organize

Much prefer working with a local agency than with State bureaucracy

Change is always scary, but we also we have not heard great things about DDW oversight. We enjoy the local connections and local knowledge provided by SCCEH.

Local folks know our issues and are more responsive

We value being able to get a hold of an individual for help, but we have also received that when working with the state. I would prefer to keep our fees low, or get lower fees to operate.

We prefer the local knowledge and context our County LPA regulators have. They are more understanding and compassionate, and provide real help and support in problem solving for us!

Your fees and permits are already to high

I like working with the local/ county representatives. I think they do a great job and are very helpful. But if it come down to paying out more for permit fees, I feel all permits fees across the board are to expensive.

The LPA has local knowledge.

it is unclear what changes the state DDW would bring.

The LPA has a long standing relationship with the ntnc school water system, understands the details of our system and has continuously supported and guided our system to which we have no complaint nor wish any

We appreciate the guidance and support we have received from our LPA. Raise the rates but please leave the LPA in place. It takes years to achieve the level system knowledge that they have obtained with regards to the details of our NTNC SCHOOL Systems.

The LPA has a long standing relationship with the ntnc school water system, understands the details of our 3 NTNC SCHOOL water systems and has continuously supported and guided our system to which we have no keep control local

local control modulates the cumbersome state regulatory system

I believe having a local regulator provides better oversight and response to water system needs.

The LPA has been a continuous resource and guidance to the Kitayama Brothers water system; of which we would prefer to continue with them as our regulatory agency.

appreciate the local services

Is there anything else that you would like us to know?

Of all locally regulated environmental concerns, I can think of none more deserving of local control, than water. Plus, state is a step towards federal, both being closer to imminent domain issues.

Managing a small water system without local regulator support, would only make an already difficult job, much harder. I strongly recommend maintaining the LPA.

The County needs to examine the Benefit to Cost ratio for ALL of its programs. There are many programs that are expensive for the service level they provide. These should be cut so LPA can survive without water company total funding.

We highly value the support that Sean and others give us and would like to do whatever we can to continue you as the LPA

We like the county

It really is about the County prioritizing items in the budget and budget efficiency vs increasing fees.

We appreciate the guidance and support we have received from our LPA. Raise the rates but please leave the LPA in place. It takes years to achieve the level system knowledge that they have obtained with regards to the details of our systems.

At PVUSD we have come to appreciate the consistent guidance and support we have received from our LPA. Raise the rates but please leave the LPA in place. It takes years to achieve the level system knowledge that they have obtained with regards to the details of our systems.

We would prefer to keep all systems as they currently are, even if an increase in fees

The county of Santa Cruz EHS-DDW is a resource for regulatory guidance that we wish to continue.

We appreciate the guidance and support we have received from our LPA. Raise the rates but please leave the LPA in place. It takes years to achieve the level system knowledge that they have obtained with regards to the details of our systems.



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Subject: June 3 2026, Water Advisory Commission

Title: Uses New of Technology in Environmental Health

Recommended Action: Provide Water Resources staff with feedback on priorities for new tools

Background:

Environmental Health and specifically the Water Resources Program, has been modernizing software tools that will increase efficiency, transparency, and effectiveness of many aspects

HS GovTech:

EH has held an ongoing expenditure agreement with Accela for its current Environmental Health Data Management System, Envision Connect, since 2002. On August 9, 2024, Accela notified EH that they would be sunsetting Envision Connect, including its maintenance and support, effective December 31, 2025.

In Spring, 2024, Environmental Health selected HS GovTech and their cloud-hosted solution, HS Cloud Suite (HS Cloud). HS GovTech's solution met EH's requirements for all its programs (Consumer Protection, Land Use, Hazardous Materials, and Water Resources). HS Cloud will manage EH's internal business workflows, including permitting, billing, payments, complaints, inspections, plan checks, public record access, daily activity and time tracking, reporting, analytics, and more. It will also enhance the user experience for both EH customers through the customer portal and staff. Additionally, HS Cloud fully integrates with the California Environmental Reporting Systems (CERS), enabling EH as the Certified Unified Program Agency (CUPA) to continue meeting the mandatory electronic reporting requirements.

The transition of all of the Environmental Health Data that had been stored in Envision Connect took place on May 29, 2026. Two databases, the Environmental Health Land Use Information System (EH LUIS) and Water Quality Lab database are planned for incorporation in Phase II.

Claude Code RAG-MCP

The County recently selected Claude as its preferred AI tool. Claude has immense capabilities to synthesize large quantities of information, and answer questions or perform tasks with that information through chat-bot features. Technically, the tool is called RAG (retrieval-augmented generation) paired with an MCP (Model Context Protocol) server. The useful mental model is 'a research assistant with a perfect memory for our documents and data – who can also interpret complex datasets, synthesize them into clear summaries, and generate graphics or visualizations on the fly.' The key distinction from a generic AI chatbot is that it only works from our actual materials, not the open internet, and it can process raw data alongside written documents to answer questions more completely.

Kevin has been piloting uses for this technology. Three examples are attached:

- 1) A well permitting tool that can help staff interpret and implement the updates to Santa Cruz County Codes chapter 7.70, 7.73, the Resource Protection Policy, the and the Groundwater Concern Areas GIS layer.
- 2) Additions to the well layer to include e-logs and then evaluate them spatially.
- 3) Synthesis of decades of fish monitoring data along with documentation from the Streamwood Program.

By: Sierra Ryan and Kevin Harmon

PROMPT 1: Well Permit Intake — APN 046-131-18

Pilot demonstration: SCC Well Permitting MCP + `well-permit-intake` skill

Date: 2026-05-14 **Property:** 80 Tulsa Ln, Watsonville (unincorporated)

This prompt captures a single end-to-end run of the well-permit intake workflow: the staff prompt, the mid-workflow clarifying questions and selections, and the final structured intake. Citations point to the Santa Cruz County Code (SCCC) and the County's Resource Protection Policy (RPP).

A. Staff prompt to the assistant

"I have an incomplete, new well permit application at APN 046-131-18 in Watsonville. The applicant says it will be a replacement well for a well that is not performing well anymore. It will be domestic use plus a small vineyard that's about 0.6 acres."

B. Initial parcel context (pulled before any tier interview)

Tools run in parallel: `well_lookup_by_apn` and `parcel_regulation_check`.

Existing wells on the parcel

Two records, both filed under permit **08-179**:

- **WCR0113050** — Domestic, completed 2008-11-19 by Maggiora Bros Drilling. Total completed depth 420 ft; perforated 300–400 ft (AI-extracted, verify); yield 10 gpm; static water level 282 ft. *This is the well the applicant is now seeking to replace.*
- **Destruction record (no WCR)** — Empty record, same permit 08-179. Interpreted by the lookup as destruction of an *older predecessor well* at the time of the 2008 drilling — i.e., the 2008 job was itself a "drill new + destroy old" event. Historically relevant but not the well being replaced now.

Block-level legacy DB scan also surfaced six records under neighboring APNs in the 046-131-** block (drill dates 1969–2018). Most likely different parcels in the same block; worth checking if the applicant references any prior well history.

Parcel flags worth surfacing up front

- **Biotic routing triggered** — SC Long-toed Salamander range (`SCLTSSTAT =Yes`), Archeologic Resources (`ARCHEOSITE =Yes`), Known Cultural Resources (500). CC South County Environmental Planner team.
- **Coastal Zone = Yes** — walk the RPP §8 ladder. Most replacement domestic wells exit at §8(1).
- **STDZONETWO = Yes** (STDZONEONE = No) — relevant only if this lands as Tier 2/3.
- **PRIPWTLNDS = Water Body** — additional biotic input.
- **GSA = Pajaro Valley** — notify PV Water of new well construction.
- **No water district, no Control Zone, no seawater intrusion, not in 100-yr flood zone.**

C. Clarifying questions to the staff member, with selections

Three multi-choice questions were presented before the tier interview was completed. Selections are highlighted below.

Q1 — Annual volume: What's the total estimated annual pumping for the replacement well (domestic + vineyard combined)?

1. <2 af/yr total — combined domestic + vineyard <2 acre-feet per year. Drives Tier 1.
2. 2 af/yr or more — disqualifies the Tier 1 non-domestic <2 af/yr prong; replacement → Tier 2.
3. **Not yet stated — need to ask applicant. ← selected**

Q2 — Vineyard use: Is the vineyard commercial (grapes sold or for a commercial wine operation) or non-commercial (personal/hobby)?

1. Commercial agriculture — conservation form is EHD 302. Not de minimis.
2. Non-commercial / personal — still non-domestic for de minimis purposes; 0.6 ac exceeds the 0.5-ac non-commercial landscaping cap anyway.
3. **Unknown — need to ask applicant. ← selected**

Q3 — Vs. prior well: Is the applicant proposing any increase in pumping or expansion of use vs. the existing 2008 well?

1. **No increase / no new use — supports the RPP §8(1) coastal exemption and the Tier 2 "no significant increase" test if it lands there. ← selected**
2. Some increase / expansion proposed — may shift §8 analysis off §8(1) and push a Tier 2 candidate to Tier 3.
3. Unknown — need to ask applicant.

How the selections shape the intake: Volume and vineyard-commercial-status are deferred to the applicant, so the intake frames the two viable tier outcomes (Tier 1 if total <2 af/yr; Tier 2 if ≥2 af/yr) and flags what changes between them. The "no expansion of use" answer secures the §8(1) coastal exemption path, pending Biotic-Planning's sensitive-habitat call.

D. Structured intake — Well Permit Intake — APN 046-131-18

1. Property Summary

- **Address:** 80 Tulsa Ln, Watsonville
- **Acres:** 2.534
- **City limits:** Unincorporated
- **GSA:** Pajaro Valley
- **Water District:** None (parcel is not inside any district's service area)
- **Watershed:** Pajaro / Watsonville Slough sub-basin
- **Groundwater basin:** Pajaro Valley
- **Shallow groundwater:** Potential

2. Existing Wells on Parcel

Two records under permit 08-179 (see Section B above). No address/APN inconsistencies — both records show mapped and derived address as 80 Tulsa Ln.

3. Permit Type & Tier

- **Permit type:** Replacement
- **Use type:** Mixed — domestic + agricultural irrigation (~0.6-ac vineyard)
- **Estimated pumping:** Not yet provided. Plausible range for this footprint: 0.5–1 af/yr domestic + 0.3–0.9 af/yr for 0.6-ac vineyard (drip-irrigated grapes, before any frost protection) ≈ **0.8–1.9 af/yr**. <2 af/yr is the likely outcome, but unconfirmed.
- **De minimis: No.** De minimis is domestic-only; vineyard irrigation is non-domestic, which forecloses de minimis regardless of volume.
- **Vs. prior well:** No increase or expansion of use (confirmed).

Determined Tier — ambiguous pending volume confirmation:

- **If total <2 af/yr → Tier 1** under SCCC 7.70.110(E)(1)'s "non-domestic well using <2 af/yr" prong. Per the ordinance, replacement status does not push this case to Tier 2 — Tier 2 is reserved for non-de minimis replacements that fail the Tier 1 volume test.
- **If total ≥2 af/yr → Tier 2** under SCCC 7.70.110(E)(2): non-de minimis replacement well with no significant increase in water use.
- Both outcomes are **ministerial** and **CEQA-exempt** (no discretionary review triggered by other chapters, pending confirmation under item 6 below).

Coastal Zone (RPP §8 outcome): §8(1) exemption likely, pending Biotic-Planning confirmation. This is a replacement well serving an existing legal structure (the 2008 domestic well implies an existing SFD), with no increase or expansion of use. The §8(1) test requires that the well or access road not encroach into sensitive biotic habitat — that's a location-specific determination Biotic-Planning makes, and the parcel-scale flags (salamander range, water body, archeological resources) do *not* by themselves disqualify §8(1). If Biotic-Planning clears encroachment, this exits the §8 ladder at step 1 and proceeds ministerial. Do *not* default to §8(4) CDP-required.

4. Parcel Regulating Overlays

Category	Field	Value
Land Use	STDZONEONE (Tier 1 Standards Zone)	No
	STDZONETWO (Tier 2-3 Standards Zone)	Yes
	LIMITEDGWS (Potentially Limited Groundwater)	No
	KARSTAREAS	No
	SEAINTRZNE (Seawater Intrusion)	No
	HUNYRFLOOD (100-yr Flood Zone)	No
	COASTALZN	Yes
Water District / GSA	WDREVVZONE (Review Zone)	No
	WDCTRLZONE (Control Zone)	No
	GWSUSAGNCY	Pajaro Valley

	WATERDIST	None
	WATDISTSOI (Sphere of Influence)	None
Biotic-Planning	PRIPWTLNDS	Water Body
	PLNENVTEAM	South County
	STREAMTYP	—
	STREAMNAME	—
Biotic / Cultural triggers	ARCHEOSITE	Yes
	SCLTSSTAT (SC Long-toed Salamander range)	Yes
	KNOWNCULTR	500

5. Biotic / Cultural Routing

- **Triggered: Yes.** Route to Biotic-Planning Department.
- **CC:** Environmental Planner team — **South County**.
- **Triggering fields:** ARCHEOSITE, SCLTSSTAT, KNOWNCULTR, PRIPWTLNDS (Water Body).
- Biotic-Planning also makes the §8(1) sensitive-habitat encroachment call.

6. Standards, Requirements & Conservation

Tier-specific construction standards (drive the answer with volume):

- **If Tier 1 (most likely):** STDZONEONE = No → no tier-keyed stream-proximity standards apply. STDZONETWO is *not relevant to Tier 1 wells*, even though the parcel is in it. Standard SCCC 7.70.090 setbacks (septic, animal enclosures, property lines), the 50-ft default annular seal floor under 7.70.090(D), and DWR Bulletin 74-81/74-90 construction standards still govern.
- **If Tier 2:** STDZONETWO = Yes → RPP §2.c applies: **100-ft setback** from streambank (outside riparian woodland and 100-yr floodplain, whichever greater), **200-ft minimum annular seal** or to first impermeable layer (whichever is less), no completion in alluvium with direct hydraulic connection to surface water. A specific streambank reference will need to be identified — the parcel flags Water Body under PRIPWTLNDS but no stream name; verify what surface-water feature is driving STDZONETWO before applying the 100-ft setback.

Required studies: None ordinance-mandated for Tier 1 or Tier 2.

Required field tests:

- Yield test per County procedures (replacement well; useful for documenting that the new well outperforms the underperforming 2008 well).
- Water quality testing (replacement)- TDS, chloride, nitrate, hexavalent chromium (south of Valencia Creek)
- Bulletin 74-81/74-90 construction-standards compliance.

Water Use Efficiency requirement (SCCC 7.70.110(D), RPP §8):

- Non-de minimis, mixed domestic + agricultural use.
- **Required form depends on the vineyard's commercial status (unknown, action item):**

- If commercial agriculture → **EHD 302** (Agricultural Conservation Questionnaire) for the vineyard, plus Health Officer-specified WUE evaluation for the domestic portion per RPP §8(a) since this is non-de minimis.
 - If non-commercial / personal — still not de minimis (0.6 ac exceeds the 0.5-ac non-commercial residential landscaping limit), so a full WUE evaluation per SCCC 7.70.110(D)(1) is needed.
- **Future-use certification (D(3))**: Not required — no expansion of use is proposed.

Metering: Required under SCCC 7.70.110(D)(5) regardless of Tier 1 vs. Tier 2 outcome, because non-de minimis.

Deed notice: Not required (no limited-yield area; LIMITEDGWS = No).

Maximum annual water use cap: N/A unless Health Officer has specified one for the applicable tier; none currently identified.

7. Action Items for Staff

- [] **Confirm total annual pumping volume with applicant** — drives the Tier 1 vs. Tier 2 determination and whether the STDZONETWO construction standards (100-ft setback / 200-ft seal / no alluvium completion) apply.
- [] **Confirm whether the vineyard is commercial or non-commercial** — drives the conservation-form selection (EHD 302 vs. non-de-minimis WUE evaluation).
- [] **Route to Biotic-Planning; CC South County Environmental Planner team** — triggered by SCLTSSTAT, ARCHEOSITE, KNOWNCULTR, and Water Body. Biotic-Planning's §8(1) sensitive-habitat encroachment determination is also needed before the Coastal Zone analysis is complete.
- [] **Coastal Zone — apply RPP §8 ladder**. Expected outcome: §8(1) exemption (replacement well, existing SFD, no expansion of use) **pending** Biotic-Planning confirmation. If Biotic-Planning identifies encroachment into sensitive habitat, drop to §8(2) and re-evaluate.
- [] **Issue conservation form** to applicant after vineyard's commercial status is confirmed.
- [] **Confirm meter installation plan** with applicant (required, non-de minimis).
- [] **Notify Pajaro Valley Water (GSA)** of new well construction per GSA coordination expectations.
- [] **If Tier 2 lands**: identify the surface-water feature driving STDZONETWO so the 100-ft setback can be applied to a specific streambank; PRIPWTLNDS reads "Water Body" but no stream name is on the parcel record.
- [] **Verify discretionary-review status under other SCCC chapters** (16.20, 16.30, 16.32, 16.40, 16.42). Nothing in the parcel data flags a discretionary trigger besides the Coastal Zone routed through §8, but confirm with the applicant whether the project requires any non-ministerial approval.
- [] **Verify AI-extracted fields on WCR0113050** (total drill depth 430 ft, perforations 300–400 ft, permit date 10/29/2008) against the underlying WCR PDF if those values feed into the replacement-well design.

Generated by the SCC Well Permitting MCP pilot (`scc-well-permitting-pilot`) running the `well-permit-intake` skill. Outputs are decision support, not a permit determination — the staff member is the decision-maker. Verify AI-flagged fields against source WCR PDFs before relying on them in a permit decision.

PROMPT 2: Q&A Replacement vs. New Well

Prompt

A property has a destroyed well, perhaps from as old as 20 years ago. No other water source since. The owner called and wants to drill a new well. Will this be considered a replacement well or new well?

Response

Replacement vs. New Well - destroyed prior well, no use since

Based on the ordinance text (RPP Sec. 1(7), SCCC 7.70.020(W)(6)) and how the County applies it, this scenario most likely lands on the new-well side - but the answer hinges on facts not yet in hand.

The legal test (not elapsed time)

A replacement well must (1) serve an existing use, (2) with no significant increase in water use, and (3) replace a destroyed (or to-be-destroyed) prior source. The ordinance has no clock - 20 years is not automatically disqualifying - but it does require continuity of an existing use.

Why "no other water source since" is the problem

If the parcel has had no water source for ~20 years, there is no existing use for the new well to replace. The "existing use" prong of the replacement test fails on its face. The case for replacement would require something like an occupied legal structure kept in use by hauled water, a neighbor share, or a public connection - i.e., the use never stopped, only the source changed.

Questions worth asking the owner before finalizing the call

- Was the residence (or other legal structure) continuously occupied / in use during the gap? If yes, where did water come from?
- Is the proposed use the same as what the destroyed well served, or is it a new / expanded use (new house, added ADU, ag conversion)?
- Is there a legal existing structure on the parcel today, or is this paired with a new building permit?

If the answer to #1 is "no occupied use during the gap" or #3 is "no existing structure," it is a new well. If there has been continuous occupancy on hauled water with no volume increase, it could still be defensibly called a replacement.

Practical effect on the permit

For a de minimis domestic well the tier outcome is usually Tier 1 either way, but the new vs. replacement label changes the permit form / fee, whether a destruction-permit cross-reference goes in the file, and how D(3) future-use certification is framed.

[VERIFY] The ordinance imposes no time limit, but EHD may have an administrative working rule for very stale destructions - worth confirming internally before committing on a 20-year gap case.

PROMPT 3: Supplemental Irrigation Well - 728 San Andreas Rd

Prompt

A grower called and wants to drill a supplemental irrigation well alongside their existing three wells at 728 Andreas Rd. Estimated 15 acre-feet per year on top of what the old wells production. What tier is this and what does the applicant need to submit?

Response

Well Permit Intake - APN 046-201-28

1. Property Summary

- Address: 728 San Andreas Rd, Watsonville 95076.
- Acreage: 211.974 acres; unincorporated Santa Cruz County.
- GSA: Pajaro Valley (PV Water) - independent well registration, Basin Management Plan, and Augmentation Charges run in parallel with the County permit. Coordinate.
- Water District: None (no SqCWD 7.70.120 triggers).

2. Existing Wells on Parcel

The well layer returns 3 records associated with this address, but one is mapped to a neighboring APN - verify against the file before treating it as a parcel-resident well. WCR numbers below are clickable links to the DWR Well Completion Report PDF.

WCR (source)	Type / Year	Depth / Yield / Casing	Mapped APN	Notes
WCR0284247	Domestic (DWR) / 1990	470 ft / 2,000 gpm / 30 in	046-201-28	Use classification almost certainly wrong - 2,000 gpm + 30 in casing is industrial irrigation, not domestic. County permit 89-229. Verify against WCR PDF.
WCR0232033	Irrigation (DWR) / 1973	240 ft	046-201-28	Exact-unverified location confidence.
WCR0177327	Irrigation (DWR) / 2002	400 ft / 1,200 gpm	046-201-26 (neighbor)	AI-derived address (728) differs from mapped address (482 San Andreas Rd). Confirm with grower whether this well is on the subject parcel or a neighboring parcel they also operate.

3. Permit Type and Tier

- Permit type: Supplemental.
- Use type: Agricultural irrigation.
- Estimated pumping: 15 af/yr additional, on top of existing wells.
- De minimis: No - de minimis is domestic-only, and 15 af/yr exceeds the 2 af/yr threshold regardless.
- Determined Tier: 4 (provisional, pending site verification) - SCCC 7.70.110(E)(4); RPP Sec. 1.2(d).

Reasoning: SEAINTRZNE = Yes-Portion + non-de minimis well triggers Tier 4 per RPP Sec. 1.2(d) (any new, supplemental, or replacement non-de minimis well in a seawater intrusion area). The Tier 4 trigger overrides what

would otherwise be a Tier 3 path (new use / >2 af/yr / <50 af/yr). The 'significant increase' disqualifier from Tier 2 also fails - supplemental + 15 af/yr added is unambiguously an increase over the prior wells.

Open question driving the provisional flag: SEAINTRZNE is 'Yes-Portion' - only part of the 212-acre parcel sits inside the polygon. If the proposed well location falls outside the SEAINTRZNE polygon, the parcel-level Tier 4 trigger does not fire and the well drops to Tier 3. Pin the proposed well coordinates to the SEAINTRZNE layer before locking the tier.

Coastal Zone (RPP Sec. 8 outcome): Sec. 8(1) does NOT apply - supplemental well that adds 15 af/yr is 'increase or expansion of use.' Most likely path is Sec. 8(2)(a) Coastal Exclusion (ag use, parcel >10 ac), contingent on three siting checks the parcel data can't resolve: (i) well >100 ft from Gallighan Slough or other waterbody; (ii) well not between the coast and the first public through road (San Andreas Rd is itself the candidate first-through-road here - well must be east/inland of it); (iii) lands designated for agriculture in the General Plan. If any fail, Sec. 8(4) CDP path applies. If that CDP is discretionary, it becomes a second discretionary process running in parallel with the Tier 4 review.

4. Parcel Regulating Overlays

- STDZONEONE (1,000-ft stream buffer): Yes-Portion - not applicable to a Tier 3/4 well.
- STDZONETWO (2,000-ft stream buffer): Yes-Portion - applies if Tier 3; if Tier 4 the construction standard is set by discretionary conditions.
- SEAINTRZNE: Yes-Portion - drives Tier 4 (verify polygon vs. well siting).
- COASTALZN: Yes - walks RPP Sec. 8 ladder above.
- LIMITEDGWS / KARSTAREAS / HUNYRFLOOD / WDCTRLZONE / WDREVVZONE: No.
- GWSUSAGNCY: Pajaro Valley.
- PRIPWTLNDS: Perennial; Water Body. STREAMTYP / STREAMNAME: Perennial / Gallighan Slough.
- Septic concern: Fast perc. Shallow groundwater: Potential.

5. Biotic / Cultural Routing

Triggered: Yes. Route to Biotic-Planning Department. CC South County Environmental Planner team (PLNENVTEAM).

- ARCHEOSITE (Archeologic Resources): Yes-Portion.
- SCLTSSTAT (SC Long-toed Salamander Range): Yes-Portion - federally listed; siting will need habitat clearance.
- RIPWOODLND (Riparian Woodlands): Yes-Portion.
- KNOWNCULTR (Known Cultural Resources): 500.

6. Standards, Requirements, and Conservation

Tier-specific standards (Tier 4): Discretionary review under SCCC 7.70.110(E)(4); subject to CEQA per RPP Sec. 1.2(d). Construction conditions are set through the discretionary process - the RPP Sec. 2 prescriptive setback/seal standards do not directly govern; Tier 4 conditions can be at least as protective.

Construction-standards zone: STDZONETWO = Yes-Portion. If the tier reduces to Tier 3 after siting verification, RPP Sec. 2.d applies (200-ft seal or first impermeable layer, whichever less; no fixed setback - siting governed by streamflow depletion modeling against the Critical Streams Table; nearby-well drawdown <=5 ft after 180 days per Theis/Cooper-Jacob). STDZONEONE is not separately relevant to a Tier 2/3/4 well.

Required studies and tests for Tier 4 in seawater intrusion area (RPP Sec. 2.c, Sec. 3):

- Electronic log (e-log) of the borehole - mandatory for non-de minimis wells in seawater intrusion areas.
- Qualified-professional evaluation of likely seawater intrusion / groundwater quality impact, accounting for sea level rise. The Health Officer may deny the permit if the well is expected to worsen intrusion (RPP Sec. 2.c).

- Stream depletion analysis against Gallighan Slough / Critical Streams Table if Tier 3 path applies, or per RPP Sec. 3 if a Tier 4 well is within 1/2 mile of a non-exempt stream or in a critical-stream watershed.
- Nearby-well drawdown analysis (modified Theis / Cooper-Jacob, ≤ 5 ft after 180 days) - three existing high-yield wells in the immediate area make interference a real concern.
- Standard yield test and water quality testing per SCCC 7.70.

Water use efficiency (SCCC 7.70.110(D), RPP Sec. 8):

- Use type: Agricultural - EHD 302 Agricultural Conservation Questionnaire is the starting form, but Tier 4 / non-de minimis triggers a fuller WUE evaluation per RPP Sec. 8(a) and SCCC 7.70.110(D)(1) at the Health Officer's direction.
- Future-use certification (SCCC 7.70.110(D)(3)): only if the well will serve uses developed after completion - confirm with applicant.
- Metering: Required (non-de minimis, SCCC 7.70.110(D)(5)).
- Maximum annual water use cap: Health Officer may set per SCCC 7.70.110(D)(4); expect a metered cap tied to the 15 af/yr estimate.
- PV Water: Independent registration, metering, and Augmentation Charge obligations apply through the Pajaro Valley GSP - separate from the County tier review, must run in parallel.

7. Action Items for Staff

- Resolve Tier 4 vs. Tier 3: plot the proposed well location against the SEAINTRZNE polygon. Inside = Tier 4; outside = Tier 3.
- Verify the third well (WCR0177327): mapped to APN 046-201-26 (neighboring parcel). Confirm with grower whether it's on the subject parcel or a different parcel they operate.
- Verify use classification of WCR0284247 - coded as Domestic but 2,000 gpm / 30 in casing reads as ag/irrigation; check county permit 89-229.
- Confirm the 15 af/yr estimate and ask the grower how it was derived (cropped acreage, ET-based, historical metered, etc.).
- Confirm 'supplemental' framing: are all three existing wells continuing to pump, or is one failing? If one is failing and being de facto replaced, the tier analysis changes.
- Route to Biotic-Planning Department; CC South County Environmental Planner team. Flag SC long-toed salamander, riparian woodlands, archaeological / cultural resources.
- Coastal Zone - walk RPP Sec. 8 ladder: confirm (i) well >100 ft from Gallighan Slough / waterbody, (ii) well east of San Andreas Rd (not coast-side), (iii) General Plan ag designation. If all yes, Sec. 8(2)(a) Coastal Exclusion - CDI prepares Notice of Coastal Exclusion to the Coastal Commission. If any no, Sec. 8(4) CDP path.
- Order Tier 4 analyses: qualified-professional seawater intrusion evaluation; e-log; nearby-well drawdown analysis; stream depletion analysis against Gallighan Slough.
- Issue EHD 302 and notify applicant the Health Officer will require a fuller WUE evaluation under RPP Sec. 8(a).
- Coordinate with PV Water on GSP / Basin Management Plan compliance, well registration, and Augmentation Charges.
- Confirm metering plan with applicant (non-de minimis).
- D(3) future-use certification if any portion of the 15 af/yr will serve uses developed after well completion.
- CEQA: Tier 4 wells are subject to discretionary review under CEQA - coordinate with Planning on the appropriate environmental document (likely IS/MND given the SEAINTRZNE + biotic stack).

1-Mile Radius of 187 San Andreas Rd, Watsonville, CA 95076

Santa Cruz County Environmental Health Division | May 28, 2026

REQUEST: *I'm interested in reviewing the history of seawater intrusion in a specific area over time and would like to identify any available electric logs associated with WCRs. The area of interest is within a one-mile radius of 187 San Andreas Rd.*

1. Seawater Intrusion Context — Pajaro Valley / San Andreas Rd Area

Regulatory Overlay

The area surrounding 187 San Andreas Rd falls within the mapped Seawater Intrusion Zone (GroundwaterConcernAreasMap.pdf) and within the Pajaro Valley Water Management Agency (PVWMA) boundary, which SCCC 7.70 designates as the “Pajaro groundwater protection zone.” Per RPP §2(c), any new, supplemental, or replacement non-de minimis well in a seawater intrusion area requires an e-log and may require a professional evaluation of likely intrusion impacts, including sea level rise effects. The Health Officer may deny drilling if the well is expected to worsen intrusion.

San Andreas Rd is also the reference boundary cited in RPP §8 Coastal Zone exclusion provisions as the “first public through road paralleling the coast.” Parcels seaward of San Andreas Rd may not qualify for the Coastal Zone agricultural or proposed-SFD exclusion paths (RPP §8(2)(a)).

Historical Regulatory Context

SCCC 7.70.130 documents that the Board of Supervisors held hearings on declaring a groundwater emergency in the Pajaro Valley due to overdraft-driven conditions. A parallel drilling moratorium was enacted under SCCC 7.70.120 in the Soquel Creek Water District in 1981 over seawater intrusion in the Soquel-Aptos Groundwater Basin, establishing a county-wide pattern of coastal aquifer management responses. The Pajaro Valley Groundwater Basin is now managed under SGMA by PVWMA, with seawater intrusion designated as the primary undesirable result.

On-the-Ground Evidence — APN 052-181-19 (Harkins Slough Area, ~0.685 mi)

APN 052-181-19, approximately 0.685 miles from 187 San Andreas Rd near W Beach Rd, hosts a dense cluster of wells consistent with active managed recharge operations. Nine remediation/recharge wells (RW-1 through RW10, permit 00-238) were drilled March–April 2001 by Maggiora Bros Drilling at depths of 112–182 ft, all carrying e-log = yes. Three injection wells (RW-11, RW-12, RW-13) followed in July 2012, and two additional injection wells (HSPRW15, HSPRW16) were completed in October 2023. The “HSPRW” prefix likely identifies these as Harkins Slough Project Recharge Wells, consistent with the PVWMA Harkins Slough Recharge and Recovery Project. Monitoring well MW-5 (WCR0026151, 1988) at nearby APN 052-191-23 predates the recharge infrastructure and reflects early aquifer characterization of intrusion conditions.

2. Wells with E-Log (e-log = yes) — 21 Wells within 1 Mile

76 wells total within 1 mile of 187 San Andreas Rd; 21 carry e-log = yes in the County well layer. WCR numbers shown in blue are clickable hyperlinks to the DWR Well Completion Report PDF (cadwr.app.box.com). WCR numbers shown in orange have no DWR Box URL. Fields annotated “(AI)” were extracted by automated processing — verify against the source PDF before relying on them in a permit decision. [!] Address cells in orange flag a discrepancy between the AI-derived address and the mapped parcel address.

A. Agricultural / Production Wells (5 wells)

WCR (linked)	APN	Address	Type	Depth	Notes / Yield	Date
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WCR0039348	052-211-12	(no address)	Irrigation	330 ft	3,400 gpm	1989
WCR0195396	052-191-59	303 San Andreas Rd [!]	Irrigation	280 ft	850 gpm	1978
WCR0221230	052-181-17	(no address)	Irrigation	270 ft	1,500 gpm	1985
WCR0168435	052-561-04	2410 W Beach Rd [!]	Irrigation	560 ft	40 gpm	1988
WCR0176152	052-561-02	(no address)	Irrigation	510 ft	1,600 gpm	1977

B. Domestic / Public Supply Wells (3 wells)

WCR (linked)	APN	Address	Type	Depth	Notes / Yield	Date
WCR0168425	052-191-24	25 San Andreas Rd	Domestic	255 ft	Seal 160 ft (AI)	1983
WCR0106901	052-311-09	327 San Andreas Rd	Domestic	—	100 gpm	1990
319656	052-181-18	187 San Andreas Rd B	Public Supply	630 ft (AI)	Beylik 1991	1991

[!] Well 319656: no DWR Box URL — all fields AI-extracted. Verify against county IFILE before use in a permit decision.

C. Monitoring / Characterization Wells (3 wells)

WCR (linked)	APN	Address	Type	Depth	Notes / Yield	Date
WCR0026151	052-191-23	31 San Andreas Rd	Monitoring	303 ft (AI)	Owner: MW-5	1988
WCR0046927	052-191-23	31 San Andreas Rd	Test Well	600 ft (AI)	—	1975
WCR0314863	052-561-02	(no address)	Test Well	457 ft (AI)	—	1976

D. Remediation / Recharge Wells — APN 052-181-19 (≈0.685 mi) | 10 wells, elog = yes

All drilled by Maggiora Bros Drilling Inc (Lic. 249957) under County Permit 00-238 (issued 2000-10-17). Consistent with PVWMA Harkins Slough Recharge and Recovery Project. Additional injection wells from 2012 (RW-11–13) and 2023 (HSPRW15–16) are present on this parcel but carry a different elog value and are referenced in the context section only — not included in the elog = yes count above.

WCR (linked)	Owner No.	Type	Depth	Yield	Date Completed
WCR0048727	RW-2	Remediation	170 ft	40 gpm	2001-03-09
WCR0246269	RW3	Remediation	180 ft	50 gpm	2001-03-15
WCR0020403	RW4	Remediation	182 ft	40 gpm	2001-03-20
WCR0134069	RW5	Remediation	180 ft	20 gpm	2001-03-22
WCR0134068	RW6	Remediation	160 ft	16 gpm	2001-03-26
WCR0302302	RW7	Remediation	151 ft	40 gpm	2001-03-29
WCR0038493	RW8	Remediation	146 ft	95 gpm	2001-04-02
WCR0257488	RW9	Remediation	142 ft	80 gpm	2001-04-05
WCR0134067	RW10	Remediation	150 ft	80 gpm	2001-04-15
WCR0134070	RW-1	Remediation	160 ft	72 gpm	2001-04-10

3. Notes & Data Quality Flags

- Locations are derived from parcel centroids. Distances are approximate; the actual well may be elsewhere on the parcel. Verify against the WCR sketch for precision-sensitive decisions.
- Fields annotated "(AI)" were extracted from WCR PDFs by automated processing and should be verified against the source document before use in a permit decision.

- [!] Well 319656 (APN 052-181-18): no DWR Box URL is available for this record. All fields are AI-extracted. The county IFILE should be checked for the source scan.
- Seawater intrusion zone mapping source: GroundwaterConcernAreasMap.pdf (SCC Well Ordinance update materials).
- Applicable ordinance: SCCC 7.70 (Well Ordinance); RPP §2(c) (seawater intrusion area e-log and evaluation requirement); SCCC 7.70.120 (Soquel Creek drilling moratorium); SCCC 7.70.130 (groundwater emergency provisions).

Streamwood Challenge Area Assessment

Background Section

Prepared for the Water Advisory Commission · May 2026

About This Document

The Background section of the Streamwood Challenge Area Assessment was developed primarily using the County's AI-assisted water resources knowledge base · a system that gives the user access to a curated library of technical documents through a conversational interface.

Documents the AI had access to:

Federal recovery plans, published research papers, Board of Supervisors policy documents, FEMA Flood Insurance Studies, and monitoring reports · totaling dozens of source documents. When asked questions, the system searched this library and retrieved the most relevant passages to inform the response. Nearly all factual content in this section was sourced directly from those documents and cited to a specific report.

For the steelhead monitoring statistics:

Rather than summarizing a pre-written narrative, the AI directly queried the County's juvenile steelhead monitoring database · containing decades of annual fish density and habitat data across four watersheds · and performed the statistical analysis on the fly. Fish density trends, drought-year comparisons, baseflow correlations, and the mainstem vs. tributary patterns described in this section were all calculated from raw database records during the drafting session.

Validation:

Staff reviewed each claim and citation against the original source documents to confirm accuracy before the text was finalized.

Background

Santa Cruz County's Streamwood Program · formally the Large Woody Material (LWM) Management Program · has its roots in the aftermath of the catastrophic January 1982 storms, which caused widespread flooding and infrastructure damage across the County. Prior to 1982, County crews followed a practice of systematically cutting and removing wood accumulations from stream channels as a preventive flood control measure. A reconnaissance survey conducted by Singer and Swanson (1983) following the January 4, 1982 flood that damaged Soquel Village fundamentally challenged this approach. Surveying 16 miles of stream and interviewing local residents and agency staff, Singer and Swanson concluded that the major source of logs in the Soquel Avenue Bridge logjam was forested hillslopes that failed during the storm itself, not pre-existing in-channel wood. The flood damage occurred despite thorough pre-storm wood cutting by County crews.

Subsequent County review concluded that regular cutting of instream wood may offer little or no flood protection and may in fact increase flood hazards, stream bank erosion, and damage to roads and bridges, with flood-enhancing consequences occurring precisely when flood control is most needed (Santa Cruz County, 2009).

This and subsequent research drove a gradual shift in management philosophy. From the early 1980s onward, the County began testing a policy of limited or no wood removal in selected reaches, documenting effects on flood dynamics and habitat over more than two decades of systematic observation, which refined understanding of which wood posed genuine hazards and which provided habitat value with minimal flood risk (Santa Cruz County, 2009). Dave Hope, who led the County's logjam removal program from 1980 to 2000, was central to this institutional learning and has since become a strong advocate for wood retention.

The ecological role of streamwood is well-established: large wood creates pools, sorts and retains gravel, traps fine sediment and organic matter, provides cover and refuge for juvenile and adult salmonids, and contributes to the channel complexity that supports diverse aquatic communities (Abbe & Montgomery, 1996; Lassetre & Kondolf, 2012). Santa Cruz County streams provide habitat for two federally threatened steelhead (*Oncorhynchus mykiss*) Distinct Population Segments (DPS). The Central California Coast (CCC) Steelhead DPS includes the County's coastal streams within the Santa Cruz Mountains Diversity Stratum, including the San Lorenzo River, Soquel Creek, Aptos Creek, Scott Creek, and Waddell Creek. The South-Central California Coast (SCCC) Steelhead DPS includes streams draining to the Pajaro River - the Pajaro forming the boundary between the two DPS at the Santa Cruz-Monterey County line - encompassing Corralitos Creek and other Pajaro tributaries within Santa Cruz County (NMFS, 2012, 2016). Both recovery plans identify loss of large woody debris and the resulting loss of habitat complexity as documented threats. The CCC plan establishes retention and recruitment of large woody debris as a recurring recovery action across the Santa Cruz Mountains Diversity Stratum, with watershed-specific action steps for the San Lorenzo River, Soquel Creek, Aptos Creek, Scott Creek, and Waddell Creek among others. The San Lorenzo recovery action directs partners to "encourage retention and recruitment of large woody debris for all historical salmonid rearing habitats in the San Lorenzo River," and the parallel Soquel Creek action uses essentially identical language for "all historical steelhead rearing habitats in Soquel Creek." Both the Soquel and Aptos Creek narratives in the recovery plan recommend that naturally occurring instream wood should be left in place unless it can be demonstrated to threaten adjacent infrastructure, with the Soquel action specifying that this determination should be made "by a qualified hydrologist working in conjunction with a qualified fisheries biologist" and adding that "actions to restore natural processes of LWD recruitment, storage, and transport should be encouraged and implemented where feasible" (NMFS, 2016). The SCCC plan establishes parallel recovery objectives for the Pajaro River sub-watersheds that include Corralitos Creek and other Santa Cruz County tributaries within the SCCC DPS (NMFS, 2012). The County's retention-first streamwood management policy is closely aligned with these federal recovery actions across both DPS.

The County's annual juvenile steelhead monitoring program covers four watersheds - the San Lorenzo, Soquel, Aptos, and Pajaro (Corralitos) - the basins with the most concentrated stream-corridor infrastructure and the watersheds in which the Streamwood Program operates. Other major Santa Cruz County coastal streams (Scott, Waddell, and Gazos creeks), which drain largely undeveloped or state-park land, are monitored separately by fisheries biologist Jerry Smith of San Jose State University and by the NMFS Southwest Fisheries Science Center at the Scott Creek life-cycle monitoring station - the only life-cycle monitoring station within the Santa Cruz Mountains Diversity Stratum, in continuous operation since 2003 (NMFS, 2016, 2024). Long-term monitoring within the County's annual program documents sustained declines in mainstem rearing densities, with the longest record for the San Lorenzo River, the County's largest and most-studied steelhead stream. Size Class II/III (fish ≥ 75 mm standard length) densities on the San Lorenzo mainstem averaged

approximately 15 fish per 100 ft during the late 1990s (1997-2002) but fell to approximately 4 fish per 100 ft during the 2020-2022 drought years · a decline of about 70 percent · with a parallel trajectory on the Soquel mainstem (9.5 to 2.5 fish per 100 ft over the same period) and a similar pattern on the Aptos mainstem within its available record (D.W. Alley & Associates, 1997-2025). Corralitos Creek · characterized by the Resource Conservation District of Santa Cruz County as the most accessible high-quality steelhead habitat in the lower Pajaro system, and the County's most productive monitored steelhead stream within the South-Central California Coast DPS · has exhibited more resilient densities, with a 2020-2022 mainstem size-II/III average of approximately 9 fish per 100 ft, well above the contemporaneous values in the County's CCC mainstem reaches (D.W. Alley & Associates, 1981-2019; Podlech, 2020-2025; Resource Conservation District of Santa Cruz County, n.d.). County-wide mainstem averages dropped to approximately 4 fish per 100 ft in both 2021 and 2022 · comparable to other multi-year drought lows in the monitoring record, including the 2014-2016 period, when 2015 reached the absolute minimum at approximately 3 fish per 100 ft. Partial recovery in 2023-2024 brought averages to approximately 8 fish per 100 ft, before a partial re-decline to approximately 5 fish per 100 ft in 2025 (D.W. Alley & Associates, 2025; Podlech, 2025). These trends correlate closely with reductions in May-September baseflow in the San Lorenzo (Big Trees gage, USGS 11160500: about 42 cfs in 1997-2002 to about 16 cfs in 2020-2022) and Soquel (Soquel Village gage, USGS 11160000: about 15 cfs to about 3 cfs), the two watersheds with continuous baseflow records integrated into the monitoring framework (USGS, n.d.). Alley's monitoring framework explicitly links spring-summer baseflow to juvenile rearing success, since most steelhead growth occurs before late-summer baseflow declines (D.W. Alley & Associates, 2013, 2014). Pool frequency, pool depth, and escape-cover index · the last a composite measure of overhanging vegetation, undercut banks, and submerged structure · are habitat features directly influenced by large wood, and Alley's habitat assessment framework tracks pool depth and escape-cover availability as the primary site-level metrics, on the basis that juvenile Size Class II/III steelhead are concentrated in pool habitat (D.W. Alley & Associates, 2009, 2010). Tributary sites in the San Lorenzo and Soquel watersheds also declined but less steeply than the corresponding mainstems. In a repeated-sites comparison restricted to monitoring locations sampled in both 1997-2002 and 2020-2022 · San Lorenzo tributaries declined approximately 50 percent and Soquel tributaries approximately 60 percent, versus approximately 70 percent at the corresponding repeated mainstem sites. This pattern is consistent with the Alley reports' observation that in tributary channels, juvenile Size Class II/III steelhead are concentrated primarily in pools and step-runs (D.W. Alley & Associates, 2009, 2010). In these smaller, steeper channels where naturally occurring pools are fewer and shallower, retained instream wood plays a disproportionate role in creating the scour pools and overhead cover on which rearing juveniles depend. Taken together, these monitoring trends indicate sustained pressure on the County's steelhead populations. The case for preserving in-channel habitat features · pools, hydraulic complexity, and cover · that large wood creates and maintains rests on the federal recovery plans, the County's documented monitoring record, and the well-established habitat preferences of rearing juvenile steelhead. These objectives align with the County's own broader in-channel habitat enhancement work, including fish-passage and riparian restoration projects, and with parallel efforts by CDFW, NOAA, the Resource Conservation District of Santa Cruz County, State Parks, and other regional partners pursuing similar restoration goals across the same watersheds.

In 2009, the Santa Cruz County Board of Supervisors formally adopted the current LWM Management Policy. The policy recognizes the value of retaining large woody material in streams and creeks to the greatest extent possible, in support of sediment sorting, stream bank and channel stability, pool and refuge formation, and stream habitat function generally. County staff are directed not to remove, cut up, or otherwise modify accumulations of large woody material in streams that support salmonids or other special-status species unless such accumulations pose a "clear and immediate threat to public safety, public infrastructure or aquatic habitat" (Santa Cruz County, 2009). The policy defines large woody material as stumps, rootwads, and logs of average diameter greater than 6 inches and length greater than 10 feet, and carves out separate flood-control

maintenance regimes for the Pajaro River and Salsipuedes Creek channels operated under existing agency mandates and resource-agency permits. The Streamwood Program is administered jointly by the Environmental Health Division's Water Resources team and the Department of Community Development and Infrastructure, and individual interventions are permitted through CDFW's Lake and Streambed Alteration Agreement Program.

Despite the policy's retention orientation, certain constrained reaches - characterized by dense infrastructure, limited floodplain capacity, and close proximity to structures - have required repeated staff interventions. The atmospheric river sequence of water year 2023, which delivered a series of storms across California from late December 2022 through March 2023, produced significant wood recruitment events in several program-managed reaches. Staff evaluated the same constrained reaches repeatedly as successive storms delivered new material to the channel. This experience identified the need for a more systematic, anticipatory approach to managing streamwood in high-priority locations, and provided the immediate impetus for this Challenge Area Assessment.