Public Comments Received through 08/08/2022

Legistar #2022-0726

08/09/2022

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From: Paul Konanz
To: PermitSonoma-Wells-PublicInput
Subject: FW: Urban Well User Charges and Home Building
Date: Tuesday, July 12, 2022 3:49:46 PM

EXTERNAL

Urban well users are 0.6% of basin extraction, less than a pimple on the ass of this rhino. With city water as the main water source a side well is used for decorative watering and as a backup if the city water fails. I fail to see why we should pay more than a buck a year to support this new largely bureaucratic state monolith. Apply the 80/20 rule to chare the 20% of the users that represent 80% of the usage which would take only 20% of the overhead/bureaucrats and you are done. For grins below I've done your work for you highlighted in yellow. Those 3 users represent 80.5% of the usage.

Table 9 – Summary of Estimated Basin Extraction
Major Public Extractors 6,031.9
Minor Public Extractors 949.3
Agriculture 6,391.3
Turf Irrigation 2,250.3
Rural Residential 4,135.5
Commercial 1,332.5
Urban Wells 119.9
Appeal Allowance (3%) (636.3)
TOTAL ESTIMATED EXTRACTION 20,574.4

But no you won't do that. Instead you have created another bloated government agency that will only succeed in charging people to pay your expenses and will result in little to no improvement in our water basin level.

We are not getting enough rain to supply the population we have but NO ONE is stopping the building of more structures containing faucets, showers and/or toilets??? They cover more and more of the ground to restrict absorption and they use more water. You can't change the weather but you could

- Start fighting to stop building more water-using structures
- Start fighting for commercial desalination plant. Anyone mention the ocean is rising??

I'm not an activist and I'll be dead relatively soon so this isn't personal for me (except I feel bad for my grandkids) but it grates to see inefficient and misplaced efforts to make life worse for people that need water when tough decisions should be made for options closer to the root cause (too many people and not enough rain). Stop people and find new water sources.

Sincerely,

Paul
Dad to 6 including Brianne, FA

Ps: What is the proposed yearly charge for urban well users that are also on city water?

"Life is difficult...Once we truly know that life is difficult - once we truly understand and accept it - then life is no longer difficult. Because once it is accepted, the fact that life is difficult no longer matters." The Road Less Traveled

“Live Life without Moderation” Shifting Into High Gear

From: Rosalind Girard
To: PermitSonoma-Wells-PublicInput
Subject: FW: Comments on County well ordinance update
Date: Tuesday, July 26, 2022 1:57:13 PM

From: Nathan Quarles <Nathan.Quarles@sonoma-county.org>
Sent: Tuesday, July 26, 2022 1:24 PM
To: Rosalind Girard <Rosalind.Girard@sonoma-county.org>
Subject: FW: Comments on County well ordinance update

FYI.

From: Kimberly Burr <kimlarry2@comcast.net>
Sent: Tuesday, July 26, 2022 12:27 PM
To: Nathan Quarles <Nathan.Quarles@sonoma-county.org>
Cc: Sheryl Bratton <Sheryl.Bratton@sonoma-county.org>
Subject: Fwd: Comments on County well ordinance update

EXTERNAL

Dear Nathan: I see that it is the Board of Supervisors that will receive this on Aug. 9th. Please route appropriately. Thank you for your hard work on this.

July 26, 2022

Nathan Quarles
Board of Supervisors and Staff
Sonoma County, California
Re: Proposed Chapter 25B Changes to Address County Responsibilities Under the Public Trust Doctrine

Dear Mr. Quarles, Board of Supervisors, and Staff:
Thank you for your important work on behalf of all who reside in Sonoma County.
Thank you for bringing forward this Draft proposal (Draft) to update the county's well development policies to protect public trust resources.
I submit the following comments for the record.
The Structure of the Draft
The Declarations do not yet include the protection of public trust

resources.

In addition to declaring this Draft to achieve protection of public trust resources, it must contain a statement declaring that all the streams in the county are already formerly listed as impaired either for temperature, nutrients, and/or sediment.
The Purpose of the draft ordinance does not yet include the protection of public trust resources from well development activities.

Specific Changes Needed
Temperature and nutrients are tied to stream flow which in turn is dependent on groundwater which often supports these critical streams during periods of low precipitation. The Draft does not yet fulfill the county's duty to protect public trust resources. It must address the ongoing or past depletion of streams or public trust resources impacted -by pumping of groundwater, that are listed as impaired. This will require a cumulative impacts analysis. In addition, well activities in the past and future are important factors to consider in the effective protection and consideration of the public trust. Unfortunately, the county's past avoidance of such analysis and continued well permit approvals have lead to harm to public trust resources.
The statements in 25B-4 (d)3 that require a statement by the county whether the issuance of a new well permit might "substantially impair" a public trust resource is inappropriate. Respectfully, a *statement* is meaningless. Please modify this section. It would be more appropriate to say:
"Because Sonoma county watersheds and public trust resources are already substantially impaired, no well shall be approved that poses any threat to public trust resources in the next 100 years."
The listed anadromous fishery and other sensitive, significant and riparian dependent species are being adversely harmed and have been for many years due to over appropriation and pumping. These are directly tied to the land uses followed by well permits approved by the county.
In addition, the statement in section (d) (7) undermines the protections for public trust resources. "The Board of Supervisors may establish screening criteria to identify categories of water supply well permit applications which do not substantially impair public trust resources, and which shall be approved pursuant to a ministerial permit, where all requirements for a ministerial permit are

met. The Board of Supervisors shall consider impacts public trust resources and make findings consistent with protection of public trust resources when establishing any such screening criteria based on available data. “"

This section defers until some future date establishment of standards by the Board of Supervisors for ministerial well permits. The standards are not yet in place, reviewable, or guaranteed to be based on independent science. This process is further removed from public scrutiny by explicitly carving out a pool of permits that will not be subject to review. This section should be removed.

In order to avoid arbitrary standards, all wells must be subjected to a scientific analysis. There is a discrete number of wells in the county, and the county should start evaluating and metering in real time the biggest users first and those closest to watercourses. This must cover past wells that are likely contributing to stream flow reductions, existing wells, re-drills, repairs, replacement, etc.

The tests must evaluate the likelihood of whether or not well use could reduce stream flows, by how much, and at what time of year. Where such an evaluation suggests stream flow might be reduced during times of low precipitation over the long term, the well must be denied. Daily metering in real time is the most scientific manner in which the county can protect the public trust. As always, the cumulative use must be evaluated and fully mitigated.

Where stream flow may be impacted, applicants must be required to implement a verifiable plan *before* permit approval that fully mitigates the harm.

Individual wells (other than for single family home use as opposed to irrigation and processing) and high volume wells must be monitored daily in real time during times of low precipitation.

Set Backs from Watercourses and Wetlands

Well location and use are critical issues as far as protecting the public trust. The setback established in the Draft are inadequate at best and arbitrary at worst. It is well known that well use can effect watercourses many hundreds of feet away depending on time, use, hydrogeology, and weather patterns. All wells should be evaluated for their impacts based on metering in real time, location, geology, hydrology, weather patterns, cumulative impacts, volumes pumped, and timing of use. Independent science is required here to effectively protect the public trust.

In conclusion, the condition of our creeks and the species that depend upon them -including humans, have been left unprotected for many decades. I am hopeful, that this Draft will be modified to finally allow the county staff to manage groundwater extraction for the long term, by now inserting protections for impaired waterways and their inhabitants, and for the public trust.
Sincerely,
Kimberly Burr

"Balance - When we are urged to weigh the environmental impacts against the interests of developers, consider this...."We've lost nearly two-thirds of the world's wildlife since the first Earth Day 48 years ago."

—The Nature Conservancy

From: kacksback@aol.com
To: PermitSonoma-Wells-PublicInput
Subject: Revision to draft well permit ordinance
Date: Friday, July 29, 2022 12:23:08 AM

EXTERNAL

Not installing meters on wells that extract less than two-acre feet of water per year makes sense. Those properties of two acres or less do not have the area to grow gardens/grapes, etc. that would require extreme volumes of water to maintain.

Acreage above two acres are more likely to plant and consume at least double the water volume and should be metered. Just the existence of meters makes a more conscientious consumer.

Mary K. Johnson

From: Mark L
To: PermitSonoma-Wells-PublicInput
Subject: Proposed well permits
Date: Friday, July 29, 2022 8:27:41 PM

EXTERNAL

Public comment on proposed well permits:

I have a residential domestic well in unincorporated west county. We have started to wonder how long our water will last. Because the future always holds uncertainty, we must prepare for the certain future and the unknown future. We know that there will be less snow and melt off going forward. We don't know how long future droughts will be, but the trend over the past several decades is each drought becoming worse than the last. That is why I support well permits and meters for anyone using one acre-foot of water or more. Without this step, we are not going to have the data necessary for planning and water protection.

Mark Lobato

Sheryl Bratton
Clerk of the Board of Supervisors
575 Administration Drive, Room 102A
Santa Rosa, CA 95403
Email: Sheryl.Bratton@sonoma-county.org

Nathan Quarles
Deputy Director, Engineering and Construction
Permit and Resource Management Department
County of Sonoma
Email: Nathan.Quarles@sonoma-county.org

Well Ordinance Public Comments Email: PermitSonma-Wells-PublicInput@sonoma-county.org

4 August 2022

Subject: CALIFORNIA COASTKEEPER ALLIANCE COMMENTS ON THE PROPOSED AMENDMENT TO THE SONOMA COUNTY CODE CHAPTER 25B (WELL ORDINANCE)

To Sonoma County Board of Supervisors:

Thank you for the opportunity to comment on the proposed Amendment to the Sonoma County Code Chapter 25B (Well Ordinance).

The proposed amendment is a response to California Coastkeeper Alliance's (CCKA) Writ Action against the County. CCKA's lawsuit seeks to apply the 2018 *Environmental Law Foundation v. State Water Resources Control Board* ("ELF") decision clarifying the County's affirmative duty to take the public trust into account in the planning and allocation of groundwater well permits, as well as its continuing authority over permitted extractions. CCKA is pleased that the County is taking the first step towards meeting its public trust duties in regulating use of groundwater connected to surfaces waters. The County's acknowledgement of its public trust duty to protect salmon and other species in Sonoma County creeks and rivers, confirmation of the County's discretion to reject wells harming public trust resources, and the County's commitment to gauging new wells, are all important milestones.

Yet, as proposed by staff, the amendment adds only general language relating to Sonoma County's public trust duties and does not identify or address any public trust resources or uses in Sonoma County Creeks and rivers, including specifically the Russian River system. Further, the

proposed amendment fails to evaluate or address the ongoing and cumulative harms of existing permitted wells, or to define permitting criteria adequate to protect public trust resources. Moreover, contrary to the Notice of Categorical Exemption filed by the Sonoma County Permit and Resource Management Department ("Permit Sonoma"), the proposed amendment is subject to CEQA review prior to adoption. Therefore, rejection of the proposed amendment to the Sonoma County Code Chapter 25B (Well Ordinance) as submitted is both appropriate and required by law.

There is no reasonable debate that current levels of groundwater extraction in Sonoma County are unsustainable, and that a critical public trust resource—salmon—are at risk of extinction from that extraction. To protect this critical resource, and to comply with the law, the County must do more than state hopeful generalities. A well permitting ordinance that would meet the County's public trust duties and protect public trust resources in Sonoma County–including endangered salmon–must include at least the following elements:

1) A methodology for determining whether a proposed well will impact public trust resources, given current and future conditions, using modeling;
2) A requirement for gauging and metering on all wells across Sonoma County, including gauging on existing wells and around already impacted river and creek reaches sufficient to calibrate and verify the model;
3) Reference to and application of instream flow standards for all Sonoma County creeks to protect public trust resources that will be used in evaluating impacts to and establishing appropriate mitigation of harms to public trust resources from groundwater extractions;[1]
4) Reference to and application of groundwater level-based criteria that protect public trust resources and go beyond the Santa Rosa Plain GSP Minimum Threshold Levels to protect public trust resources;[2]
5) A requirement that any low volume domestic well or emergency well exempted from public trust review and limitations comply with specific mitigation measures intended to protect against potential public trust impacts (e.g., requirements to meet water conservation standards, limitations on use based on contribution to cumulative impacts on surface flows and public trust resources);;
6) A commitment to undertake and complete a study that will evaluate the cumulative impacts for all wells, and a mechanism to account for these impacts when permitting new wells and mitigating the impacts of current and existing groundwater impacts;

[1] While California Department of Fish and Wildlife and the State Water Resources Control Board develop and approve instream flow standards for Sonoma County creeks, use of National Marine Fisheries Service Bi-op standards, as well as modeled pre-pumping flows as developed by the Nature Conservancy can act as protective standards

[2] As explained below, the California Department of Fish and Wildlife's recent comment letter confirms that the MTs proposed in the SRPGSP do not protect salmonids in the Russian River system.

7) A program and mechanisms to be applied to both existing and future permitted wells countywide to restore instream flows and groundwater use to sustainable levels.

Therefore, Coastkeeper urges the Board return the draft amendment to staff, and to provide detailed direction as to the content and analysis required to protect Sonoma County's precious resources and to comply with law. Further, Coastkeeper urges the County to pause issuance of further groundwater extraction permits to prevent further harm to salmonids until an amended ordinance adequate to preserve instream flows for fish is implemented. Finally, we urge Sonoma County to suspend permit issuance unless and until the data and analysis are available to identify and mitigate impacts to surface waters from groundwater wells in Sonoma County rivers and creeks.

Coastkeeper looks forward to working with the Board to meet its duties and to protect public trust resources.

EXECUTIVE SUMMARY

Sonoma County has an ongoing duty to protect public trust resources—and specifically endangered salmon and other aquatic species—in Sonoma County. The County's duty extends to regulation of well permits where groundwater is connected to surface waters that support public trust resources. Further, the County must comply with CEQA when taking action that impacts the environment.

Every agency, scientist, non-profit, or consultant that has examined the issue confirms that salmonids in Sonoma County waters are severely impacted by low instream flows and high water temperatures and are threatened with extinction. Further, all available data confirms that current levels of groundwater pumping are causing or contributing to those low instream flows. Yet the proposed amendment fails to protect those endangered public trust resources. The proposed amendment provides only a vague prohibition on new wells impacting public trust resources, with no identification of those resources, or any methodology for evaluating or preventing impacts to salmon. Further, the proposed amendment includes significant exemptions from public trust analysis or mitigation, without analysis or factual support, and authorizes even broader future exempted categories of wells. As developed by staff, the proposed amendment also fails to comply with CEQA. Even as current levels of pumping have been killing and continue to kill fish, the proposed ordinance authorizes additional pumping near impacted creeks. There is no reasonable debate that the proposed amendment impacts the environment in Sonoma County. And because the proposed amendments modify the ordinance regulating construction of wells—wells with established cumulative impacts—no exemptions to CEQA apply.

I. <u>Legal Background</u>

A. The Public Trust Doctrine

The public trust doctrine is an "affirmation of the duty of the state to protect the people's common heritage of streams, lakes, marshlands and tidelands," enabled by its "authority as sovereign to exercise a continuous supervision and control." (*Nat. Audubon Society v. Super. Ct.* ("*Audubon*") (1983) 33 Cal.3d 419, 441, 425.) The legal concept that certain resources (e.g. navigable waters) and resource uses (e.g. commerce, fishing) must be preserved for the benefit of the public dates back as far as early Roman and English law. (*Id*. at pp. 433–34; Joseph L. Sax, *The Public Trust Doctrine in Natural Resource Law: Effective Judicial Intervention*, 68 Mich. L. Rev. 471 (1970).) The United States Supreme Court established in *Illinois Central Railroad v. Illinois* (1892) 146 U.S. 387 that states hold the land under navigable waters "in trust for the people of the State, in order that they may enjoy the navigation of the waters and carry on commerce over them." (*Envtl. Law Found. v. State Water Res. Control Bd.* ("*ELF*") (2018) 26 Cal.App.5th 844, 856–57 (quoting *Long Sault Development Co. v. Call* (1916) 242 U.S. 272, 278–79).) One of the most important public trust uses is "the preservation of those lands in their natural state, so that they may serve as ecological units for scientific study, as open space, and as environments which provide food and habitat for birds and marine life, and which favorably affect the scenery and climate of the area." (*Marks v. Whitney* (1971) 6 Cal.3d 251, 259–260.)

The public trust doctrine is codified in the California Constitution, which states that "[u]se of the people's waters is of vital public concern, and all waters shall be managed for the greatest public benefit." (Cal. Const., art. X, § 2.) The California Water Code implements this Constitutional mandate by providing that "All water within the State is the property of the people of the State" (§ 102) and that "the State shall determine what water of the State, surface and underground, can be converted to public use or controlled for public protection" (§ 104), as well as "in what way the water of the State, both surface and underground, should be developed for the greatest public benefit" (§ 105). A property right in water granted by the state is "only a usufruct—an interest that incorporates the needs of others" and it is the State's responsibility to account for "the public nature and the interdependency which the physical quality of the resource implies." (*ELF*, 26 Cal.App.5th at p. 856.) "[P]arties acquiring rights in trust property generally hold those rights subject to the trust, and can assert no vested right to use those rights in a manner harmful to the trust." (*Audubon*, 33 Cal.3d at p. 437.)

A county is a legal subdivision of the state and "shares responsibility for administering the public trust and may not approve of destructive activities without giving due regard to the preservation of these resources." (*ELF*, 26 Cal.App.5th at p. 868.) California's public trust doctrine imposes on all state agencies, including counties, "an affirmative duty to take the public trust into account in the planning and allocation of water resources." (*Audubon*, 33 Cal.3d at p. 446.) Prior to approval of any such allocation, state agencies such as counties must "consider the effect of [prospective water uses] upon interests protected by the public trust, and attempt, so far as feasible, to avoid or minimize any harm to those interests." (*Id.* at p. 426.) While the state

always retains the power to reconsider allocation decisions made "after due consideration of their effect on the public trust," its duty to do so is "even stronger when that decision failed to weigh and consider public trust uses." (*Id.* at p. 447.)

The California Supreme Court has recognized that "[t]he objective of the public trust has evolved in tandem with the changing public perception of the values and uses of waterways." (*Audubon*, 33 Cal.3d at p. 434 [internal quotations omitted].) In 1983, the *National Audubon* decision expanded the previously contemplated scope of planning and allocation activities that implicate the State's public trust duty to encompass "diversions from a nonnavigable tributary [that] impair the public trust in a downstream river or lake." (*Id.* at p. 436.) In 2018, the *ELF* decision clarified that this scope also encompasses planning and allocation activities involving groundwater "if the extraction of groundwater adversely affects a navigable waterway." (26 Cal.App.5th at p. 859.) "[T]he dispositive issue is not the source of the activity, or whether the water that is diverted or extracted is itself subject to the public trust." (*Id.* at pp. 859–60.) The *ELF* court described its holding as "unremarkable and well supported by the facts and logic of *National Audubon* and the precedent upon which it relies" because the application of the public trust doctrine "begins and ends with whether the challenged activity harms a navigable waterway and thereby violates the public trust." (*Id.* at p. 859.)

Therefore, California's Public Trust Doctrine prescribes that a county bears "a public trust duty to consider the impacts of new wells . . . when it issues permits for construction of the wells"; and where the county finds that "issuance of well permits will result in extraction of groundwater adversely affecting the public's right," the county has a duty to "protect public trust uses when feasible." (*Id.* at pp. 853–54.) The *ELF* court found that the Sustainable Groundwater Management Act of 2014 ("SGMA") does not "occupy the field" or "replace or fulfill public trust duties." (*Environmental Law Foundation*, 26 Cal.App.5th at p. 867.) Likewise, the Water Code's water rights appropriation framework does not limit the State's authority to protect the public trust from harms resulting from groundwater extraction. (*Id.* at p. 862.) Further, whether the relevant state action is a ministerial act exempt from analysis under the California Environmental Quality Act (CEQA) also "bears no relevance" to the State's authority and duty under the public trust doctrine. (*Id.* at p. 852 n.2.) Accordingly, "if the County's issuance of well permits will result in extraction of groundwater adversely affecting the public right to use the [stream] for trust purposes, the County must take the public trust into consideration and protect public trust uses when feasible." (*Id.* at pp. 853–54.)

B. The California Environmental Quality Act

The California Environmental Quality Act ("CEQA") plays a critical role in ensuring local agencies do their part in protecting the environment and preventing environmental degradation. CEQA discloses projects' environmental impacts to decision makers; identifies

ways to reduce or avoid environmental impacts; and requires feasible alternatives or mitigation measures. This process informs the public of the agency's reasons for approving projects with significant environmental impacts, fosters interagency coordination regarding project review, and enhances public participation in the planning process. At the heart of the CEQA process is the Environmental Impact Report (EIR). If an activity qualifies as a project under CEQA, an EIR must be done unless an exemption applies. Even when a particular exemption applies, there are exceptions to the exemptions that require an EIR regardless of exemption status.

"Projects" under CEQA are defined as any activities undertaken by an agency that may cause a direct or reasonably foreseeable indirect physical environmental change and involves the issuance of a permit (CEQA Guidelines, § 15378(a).) "Significant effect on the environment" means a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance. (CEQA Guidelines, § 15382.) Projects that substantially degrade or deplete groundwater resources; or interfere substantially with groundwater recharge are considered to have significant effects on the environment and the kinds of physical changes in the environment CEQA is designed to address. (*Azusa Land Reclamation Co. v. Main San Gabriel Basin Watermaster* (1997) 52 Cal.App.4th 1166, 1189 ("*Azusa*"), referencing appendix G to the CEQA guidelines.)

Where a fair argument may be made that a project or activity has the potential to degrade the quality of the environment, even where evidence exists to the contrary, an EIR must be completed. (*Azusa*, at p. 1201.) This standard is a low threshold for further environmental review and "reflects a preference for resolving doubts in favor of environmental review when the question is whether any such review is warranted." (*Sierra Club v. County of Sonoma*, 6 Cal.App.4th 1307, 1316–17 (1992).) When an agency's decision is not supported substantial factual evidence, the agency's action is unlawful. (CEQA §§ 21168, 21168.5.)

Limited exemptions from full environmental review under CEQA are available. For example, Class 7 exemptions are designed to cover "actions taken by regulatory agencies as authorized by state law or local ordinance to assure the maintenance, restoration, or enhancement of a natural resource where the regulatory process involves procedures for protection of the environment. Examples include but are not limited to wildlife preservation activities of the State Department of Fish and Game. Construction activities are not included in this exemption." (CEQA Guidelines, § 15307.) Class 8 exemptions apply to actions that "assure the maintenance, restoration, enhancement, or protection of the environment." (CEQA Guidelines, §15308.) Specifically, Class 8 exemptions do not include construction activities or relaxation of standards allowing environmental degradation. (*Id*.)

The scope of a categorical exemption is a question of law and underlying factual determinations are subject to the substantial evidence test. (*Save Our Big Trees v. City of Santa Cruz* (2015) 241 Cal.App.4th 694, 706 ("*Big Trees*").) The County bears the burden of showing "substantial evidence supports its finding that a particular CEQA exemption applies." (*Bus Riders Union v. Los Angeles County Metropolitan Transportation Agency* (2009) 179 Cal.App.4th 101, 107.) A court will not uphold an agency's exemption determination if the record lacks evidence showing that the project falls within the exemption. (*Big Trees,* 241 Cal.App.4th at p. 712.)

II. Public Trust Resources in the Russian River System

The Russian River and its tributaries are navigable waterways protected by the Public Trust Doctrine and contain wildlife resources which are further protected by the public trust. (State Water Res. Control Bd. ("SWRCB") Res. No. 2011-0047, adding § 862 to Cal. Code Reg., tit. 23, div. 3.) The hydrologic system supports federally-listed endangered species such as the Central California Coast ("CCC") Coho salmon, California tiger salamanders, and California freshwater shrimp, as well as federally-listed threatened species and state-listed species of special concern including CCC Steelhead, California Coastal ("CC") Chinook salmon, chum salmon, western pond turtles, western tailed frogs, and foothill yellow-legged frogs. (*See* Cal. Dept. of Fish & Wildlife, State & Federally Listed Endangered & Threatened Animals of California (Feb. 9, 2021) and Cal. Dept. of Fish & Wildlife, Special Animals List (Feb. 2021).) Maps from NOAA Fisheries Protected Resources App, at <https://www.webapps.nwfsc.noaa.gov/portal/apps/webappviewer/index.html?id=7514c715b8594944a6e468dd25aaacc9>, show critical habitat in the lower Russian River system for the three federally-listed anadromous salmonid species in Figures 1 (CCC Coho), 2 (CCC Steelhead), and 3 (CC Chinook).

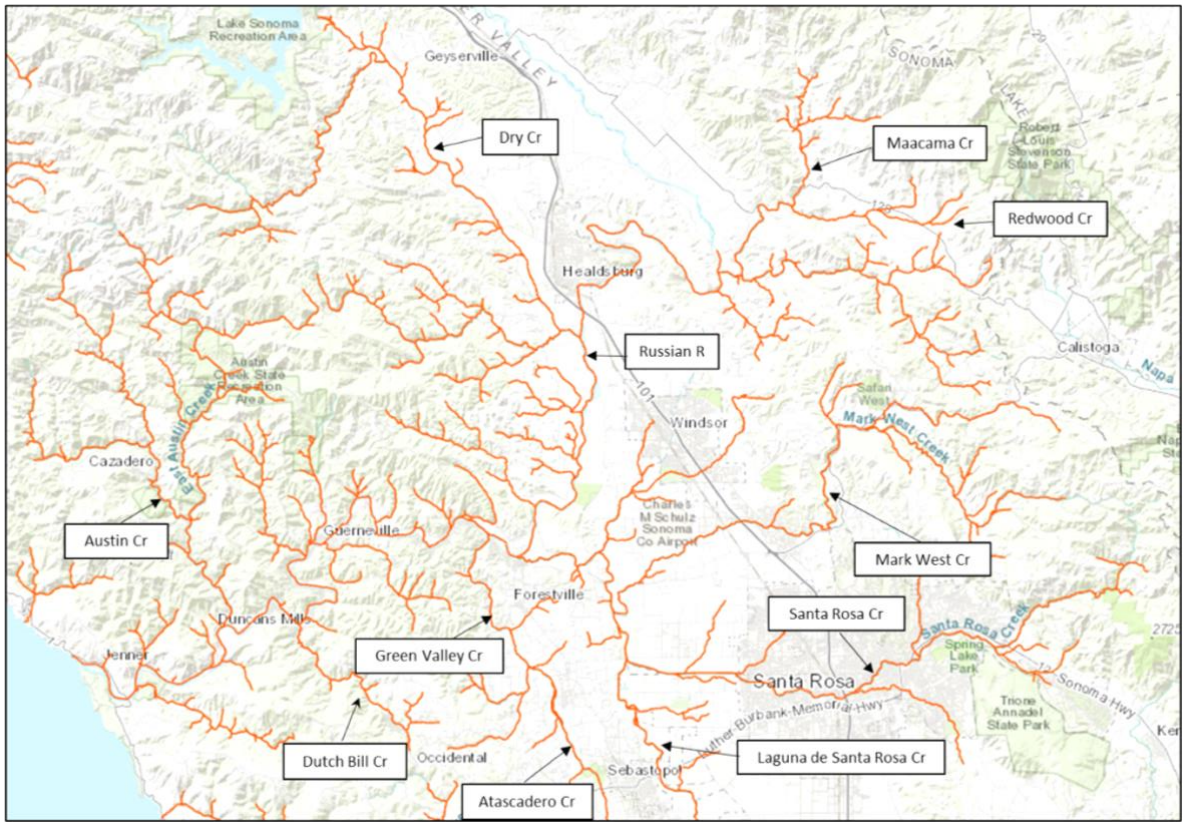


Figure 1. Critical habitat map for CCC Coho salmon. Source: NOAA Fisheries Protected Resources App.

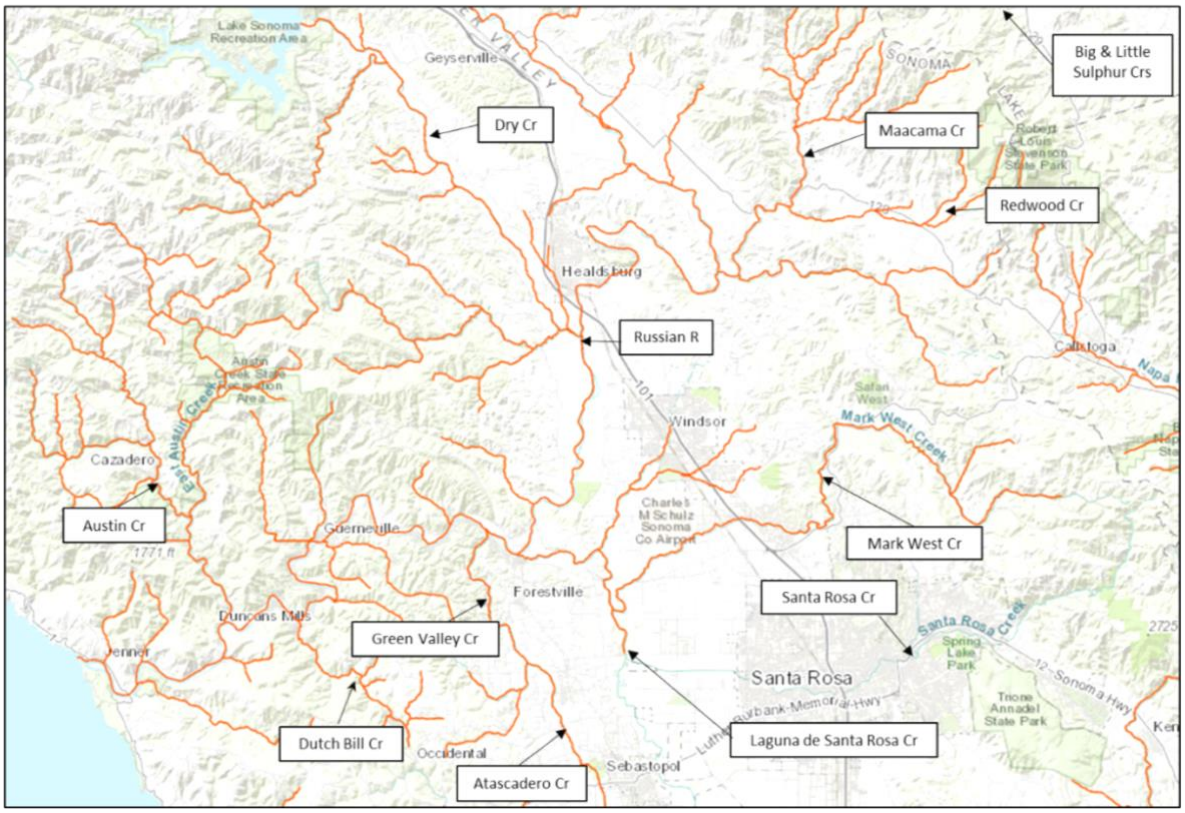


Figure 2. Critical habitat map for CCC Steelhead. Source: NOAA Fisheries Protected Resources App.

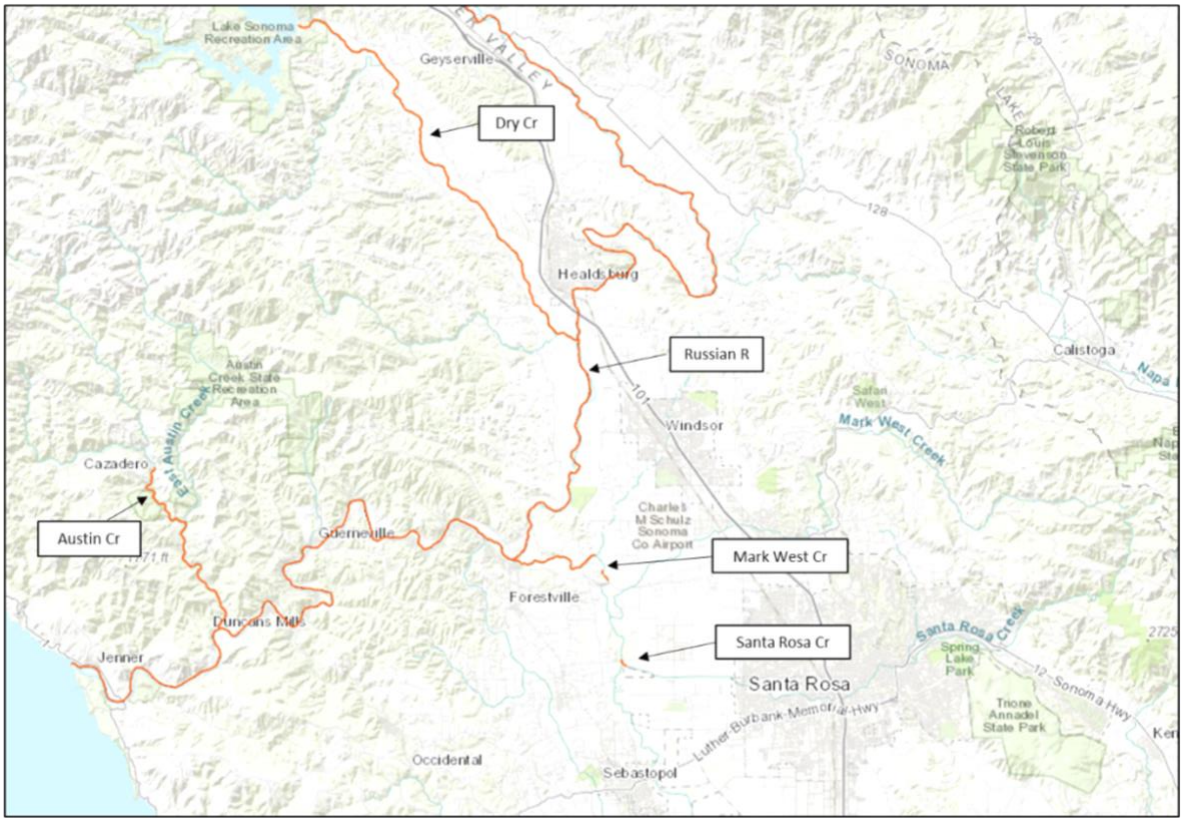


Figure 3. Critical habitat map for CC Chinook salmon. Source: NOAA Fisheries Protected Resources App.

Large, self-sustaining populations of CCC Coho salmon once occupied rivers and streams within the Russian River system. (Vander Vorste et al., *Refuges and ecological traps: Extreme drought threatens persistence of an endangered fish in intermittent streams* (July 2020) vol. 26, No. 7, Global Change Biology 3834, 3837.) However, the CCC Evolutionary Significant Unit of Coho salmon, for which the Russian River system supplies one third of total habitat, was "nearly extirpated by the late 1990s" and "listed as federally endangered in 2005 (70 FR 37160)." (*Id.*) As of NMFS's most recent Endangered Species Act Biological Opinion in 2008, "there is approximately 98 miles of coho salmon rearing habitat remaining in the Russian River watershed. This remaining habitat is only 14% of the estimated original 710 miles of historic coho salmon habitat in the Russian River watershed." (Nat. Marine Fisheries Service ("NMFS") Southwest Region, Endangered Species Act Sec. 7 Consultation Biological Opn. for Water Supply, Flood Control Operations, & Channel Maintenance (Sept. 24, 2008) p. 109.) Since the Russian River system accounts for one third of its habitat, "the survival and recovery of CCC coho salmon will likely depend on a substantial positive trend in the growth rate and abundance of coho salmon in the Russian River." (*Id.*, Executive Summary, at p. xvi.)

Substantial efforts are being made to restore CCC Coho salmon in the Russian River system. The Russian River Coho Salmon Captive Broodstock Program is a collaborative, conservation hatchery effort that is working to build a self-sustaining CCC Coho population

within the watershed. Partners include the US Army Corps of Engineers, the National Oceanic and Atmospheric Administration Fisheries Service, the California Department of Fish and Wildlife, Sonoma Water and CA Sea Grant. Since 2001, the Broodstock Program has been breeding CCC Coho salmon from local genetic stock at the Don Clausen Fish Hatchery at Lake Sonoma and releasing them as juveniles into historic CCC Coho streams in the Russian River watershed. California Sea Grant's Russian River Salmon and Steelhead Monitoring Program's observations of returning adult Coho salmon in the Russian River system showed near zero counts from 2000 to 2010, with improved counts—but remaining well below the delisting target of 10,100—of 192 to 763 returning adult Coho salmon from 2010 to 2020. (Cal. Sea Grant, Russian River Salmon and Steelhead Monitoring Program Reports and Publications, at <https://caseagrant.ucsd.edu/russian-river-salmon-steelhead/reports-publications> [as of July 20, 2022]; NMFS, Final CCC Coho Salmon ESU Recovery Plan (Sept. 2012) p. 260.) In 2020, the most recent year for which data is available, observations revealed a decade-low count of 214 adult Coho salmon returning to the Russian River system.

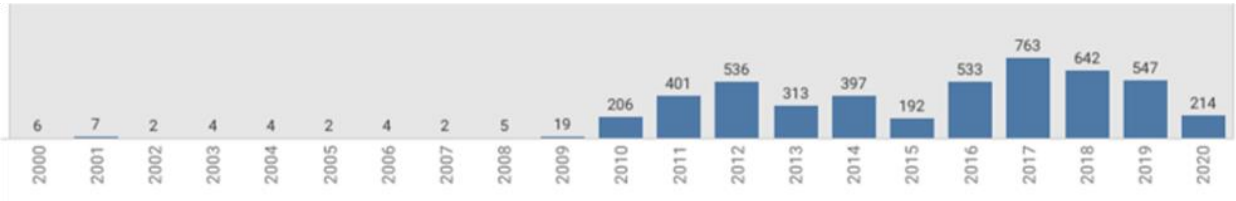
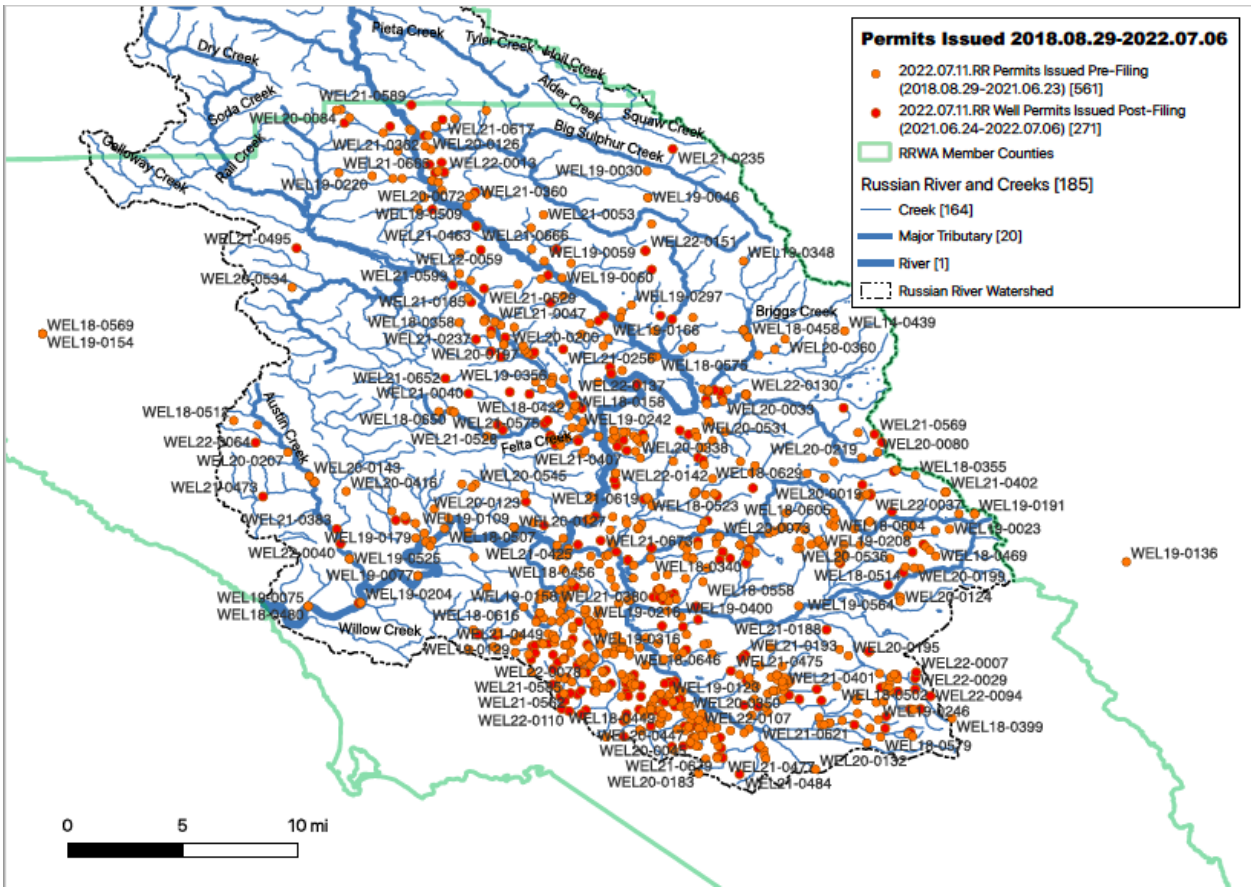


Figure 4. Estimated number of returning adult Coho salmon in the Russian River watershed from 2000 to 2020. Source: The Nature Conservancy, State of Salmon in California, <https://casalmon.org/salmon-rivers/#russian-river> [as of July 20, 2022].

In its 2021 Community Update, California Sea Grant noted the previous year's decade-low count, together with the devastating widespread drying in the Russian River stream ecosystems, concluding: "The increased severity and frequency of drought and the groundwater depletion associated with climate change and human impacts pose a significant threat to our keystone salmon and other native species." (Cal. Sea Grant, Russian River Salmon and Steelhead Monitoring Update 2021 (Jan. 21, 2021) pp. 2–3.)

A. Groundwater Extraction in the Russian River System

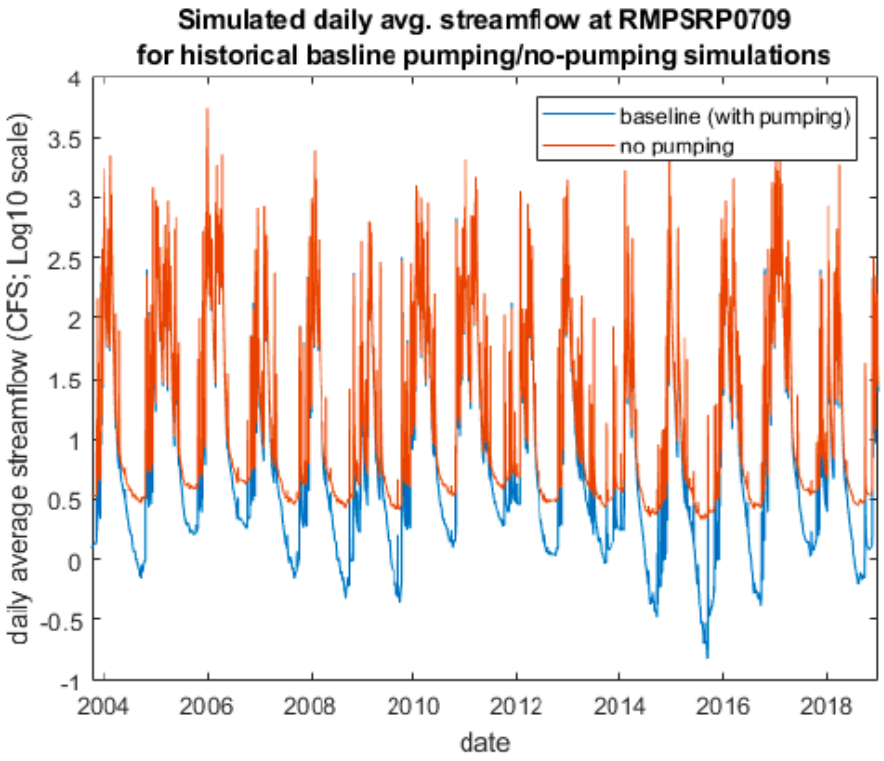
Sonoma County has permitted over 832 groundwater wells in the Russian River system since the 2018 *ELF* decision. These wells surround the Russian River, its tributaries, and other surface waters essential to salmon.

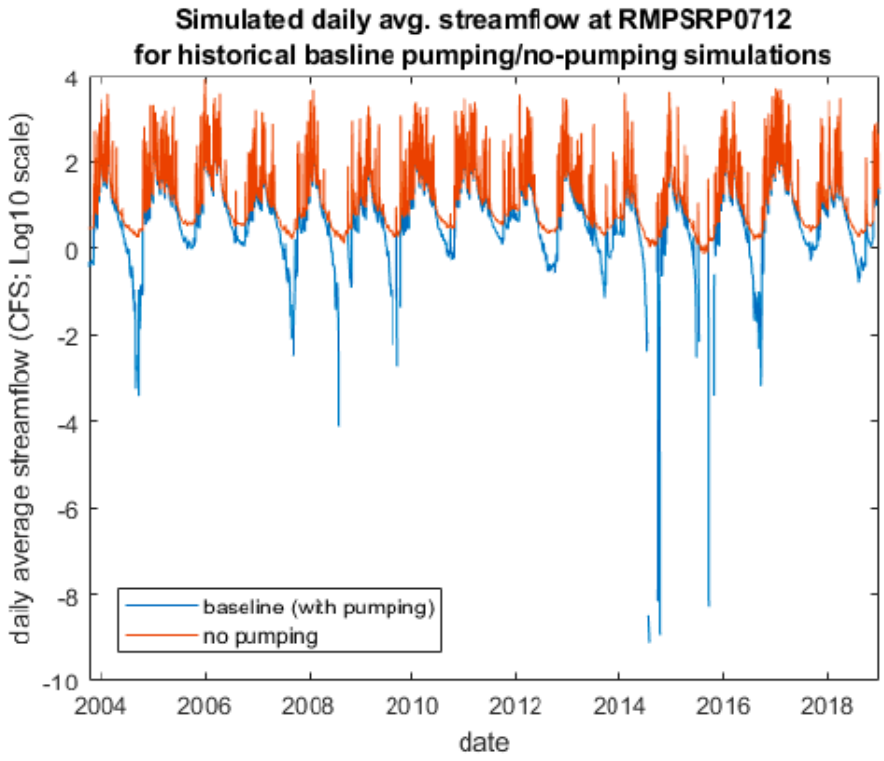


Groundwater in subsurface aquifers located along tributaries of the Russian River is in hydraulic communication with surface water resources and, therefore, groundwater extraction influences the streamflow of adjacent surface waters. (Vander Vorste et al., at p. 3835–3837.) Hydrogeologic consultants O'Connor Environmental, Inc. ("OEI") generated a comprehensive model of groundwater interconnection with surface flows in the Green Valley/Atascadero and Dutch Bill Creek watersheds using seven surface flow gages and seven groundwater elevation monitoring wells in preparation of a 2016 report for the Gold Ridge Resource Conservation District. (OEI, Integrated Surface and Groundwater Modeling and Flow Availability Analysis for Restoration Prioritization Planning: Green Valley/Atascadero and Dutch Bill Creek Watersheds (2016).) The OEI report shows significant surface water to groundwater exchanges (*id*. at pp. 101–103); minimal groundwater discharge to surface flows in the summer months (*id.* at pp. 110–113); and significant depletion of groundwater in the region between October 2009 and October 2014 (*Id*. at p. 117).

In the Appendices of its Groundwater Sustainability Plan, the Santa Rosa Plain Groundwater Sustainability Agency (SRPGSA) presented results of a model simulating depletion of interconnected surface water flows by groundwater pumping. (Santa Rosa Plain Groundwater Sustainability Agency (2021) Groundwater Sustainability Plan for the Santa Rosa Plain

Subbasin, app. 4-D.) In several cases, predicted surface flows with pumping drop below zero, indicating dry creek beds, where the predicted flows without pumping indicate positive surface flows (Figures 5–6). (*Id*.)





Figures 5─6. Simulated surface water flow depletion by groundwater pumping at two monitoring sites. Source: Groundwater Sustainability Plan for the Santa Rosa Plain Subbasin, app. 4-D, at pp. 10, 12.

The model showed the largest reductions in surface flows by groundwater pumping in the lower reaches of the Laguna de Santa Rosa Creek, Santa Rosa Creek, and Mark West Creek (Figure 6). (*Id*., app. 4-C, at p. 119.)

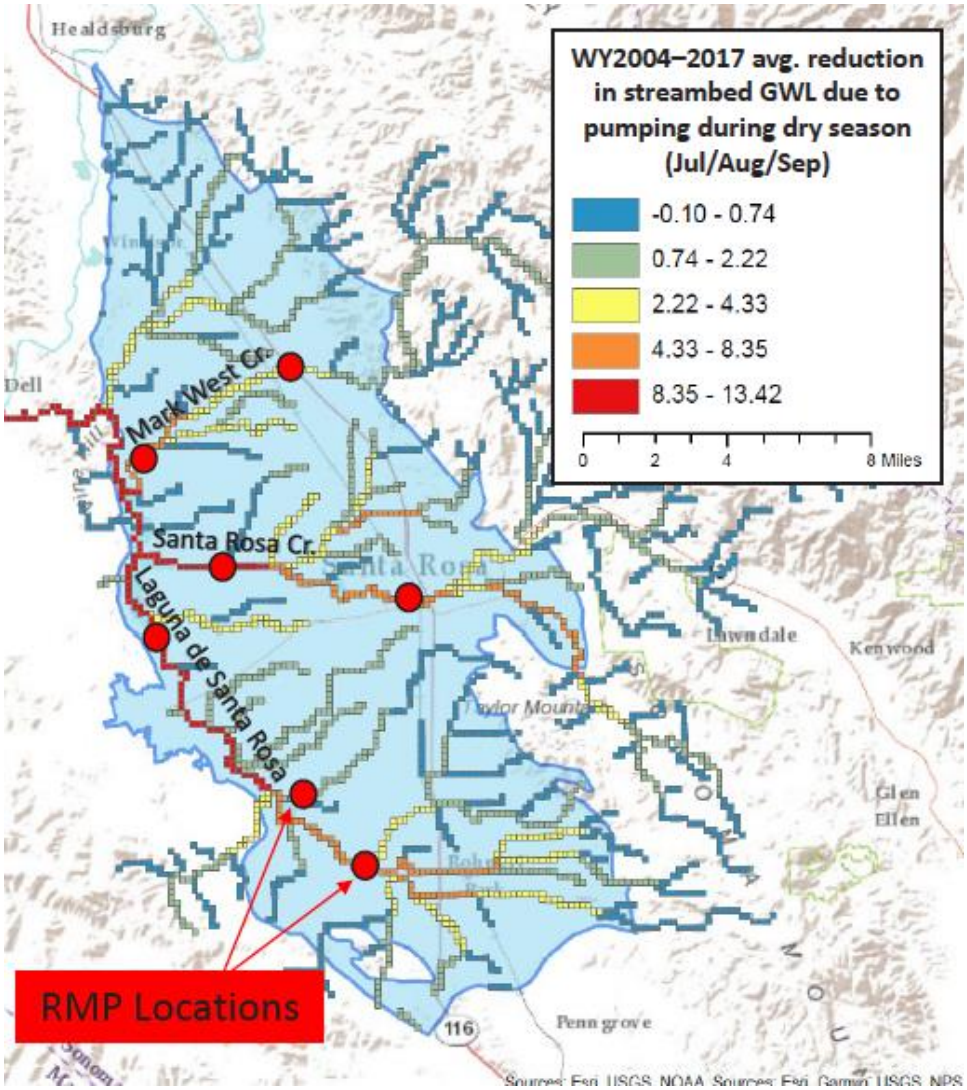


Figure 6. Estimated average reduction in surface flows due to pumping during summer months in the Santa Rosa Plain. Source: Groundwater Sustainability Plan for the Santa Rosa Plain Subbasin, app. 4-C, at p. 119.

The California Natural Flows Database, developed by The Nature Conservancy, the U.S. Geological Survey, and other partners, also simulates depletion of interconnected surface water flows by groundwater pumping, using aggregated observed surface flow data from available stream gages paired with modeled estimates of predicted surface flow in the absence of human water use. (Zimmerman et al., The Nature Conservancy, *California Unimpaired Flows Database v2.1.0*, at <https://rivers.codefornature.org/>.) Figure 7 represents all months between 2014 and 2021 when mean monthly surface flow measured at any of six stream gage sites fell below 0.1

cubic foot per second (cfs), juxtaposed against the modeled ranges of mean surface flow at those sites in the absence of human water use. (*Id*.)

Stream	COMID Site	Year	Month	Current Min Flow cfs	Natural Flow (range) cfs	
Austin	8271049	2015	Aug	<0.1	1.39	1.39
Austin	8271049	2020	Aug-Oct	<0.1	1.01	2.00
Austin	8271049	2021	July-Sept	<0.1	0.63	3.12
Big Sulphur	8271875	2014	July-Sept	<0.1	2.03	3.40
Big Sulphur	8271875	2015	Aug-Sept	<0.1	2.02	2.48
Big Sulphur	8271875	2020	Sept-Oct	<0.1	2.14	2.14
Big Sulphur	8271875	2021	July-Sept	<0.1	1.05	2.00
Laguna	8273287	2014	July-Oct	<0.1	2.96	4.46
Laguna	8273287	2015	Aug-Nov	<0.1	2.98	10.26
Laguna	8273287	2016	Aug-Sept	<0.1	3.83	4.23
Laguna	8273287	2018	July-Sept	<0.1	3.97	4.99
Laguna	8273287	2019	Sept-Oct	<0.1	3.87	5.78
Laguna	8273287	2020	July-Nov	<0.1	1.86	15.00
Laguna	8273287	2021	June-Sept	<0.1	1.99	6.09
Laguna	8273639	2021	Aug-Sept	<0.1	0.98	1.77
Laguna	8273659	2015	July-Oct	<0.1	1.36	2.75
Laguna	8273659	2018	Aug-Sept	<0.1	2.04	2.04
Laguna	8273659	2021	June-Sept	<0.1	0.95	2.76
Maacama	8272605	2014	July-Sept	<0.1	0.86	1.65
Maacama	8272605	2015	July-Oct	<0.1	0.67	3.84
Maacama	8272605	2016	Aug-Sept	<0.1	1.64	1.97
Maacama	8272605	2018	Aug-Sept	<0.1	0.89	1.64
Maacama	8272605	2020	Oct	<0.1	2.52	2.52
Maacama	8272605	2021	July-Sept	<0.1	0.40	1.66

Figure 7. Data compiled from the California Unimpaired Flows Database v2.1.0 for all months when mean monthly surface flow measured at six stream gage sites fell below 0.1cfs [as of May 11, 2022].

Numerous state and federal agencies have acknowledged and responded to the severe impact of groundwater extraction on surface water flows in the Russian River system. NMFS's most recent Biological Opinion assessing critical habitat degradation for the region's endangered species concludes "Stream desiccation is likely the result of intensive groundwater pumping in this semi-arid region." (NMFS Southwest Region 2008, at p. 86.) In a 2016 letter to the Sustainable Groundwater Management Section of the California Department of Water Resources ("CDWR"), NMFS reiterated:

> Over-extraction of streamflow (both surface and hydrologically-linked groundwater) within the state has been harming various salmon and steelhead populations for several

decades, and has been consistently noted as a leading threat to salmon and steelhead survival in various NMFS recovery plans. (e.g., NMFS 2012, 2013, 2014a, 2014b). (Maria Rea & Lisa Van Atta, NMFS, letter to CDWR (Jan. 12, 2016) at p. 2.)

In 2015, the State Water Resources Control Board adopted a drought-related emergency regulation requiring "enhanced conservation measures for all users of surface and sub-surface water diverted" from the Dutch Bill Creek, Green Valley Creek, Mark West Creek, and Mill Creek watersheds, where "the connectivity between surface water and sub-surface water is significant, and sub-surface withdrawals can have a significant effect on surface water flow." (SWRCB Res. No. 2015-0045 (June 17, 2015) pp. 2–3.) The regulation targeted these tributaries specifically for their role as high priority critical habitat for public trust resources, stating that "[i]n this severe drought, action is needed to maintain connectivity in the pools to support the rearing habitat of juvenile CCC coho salmon and CCC steelhead." (*Id.* at p. 2.)

In a 2015 comment letter submitted prior to the previous revisions to Sonoma County Code Chapter 25B, NMFS advised the County that "[w]ells for rural residential use or agriculture can place an enormous strain on groundwater aquifer levels, which can in turn lower summer baseflows where aquifers and streams are hydrologically connected." (Lisa Van Atta, NMFS, letter to Nathan Quarels, Sonoma Cty. Permit & Resources Management Division (Aug. 26, 2014) p. 2.) At that time, NMFS recommended sweeping revisions to the County's well permitting ordinance, warning that "the end result of granting ministerial well permits absent groundwater aquifer analysis is the steady, cumulative loss of summer baseflow and the attendant disappearance of associated aquatic resources, including nursery habitats for steelhead and salmon." (*Id.*) NMFS further stated that groundwater pumping that "affects the aquifer-surface flow connection . . . must legally have an appropriative water right." (*Id.*)

In a 2018 letter to the County regarding its cannabis permitting protocols, NMFS again warned that continued permitting of groundwater extraction wells "will likely impair summer baseflows in the future," and recommended limiting such permits in the Mark West Creek and Green Valley Creek watersheds "until the effects of long-term, chronic groundwater depletion and its impact on summer baseflow are properly analyzed." (Robert Coey, NMFS, letter to Tennis Wick, Sonoma Cty. Permit Resource Management Dept. (Aug. 30, 2018) at p. 5.)

In a comment on the Draft 2019 Sustainable Groundwater Management Act Basin Prioritization Phase 2 Process and Results for the Wilson Grove Highland Formation Groundwater Basin, the California Department of Fish and Wildlife ("CDFW") urged the California Department of Water Resources ("CDWR") that "[t]he overwhelming preference for groundwater extraction, combined with the documented streamflow impairment, strongly suggests that any meaningful water management strategy in this area, must address groundwater." (Gregg Erickson, CDFW, memorandum to Craig Altare, CDWR (May 30, 2019)

p. 3.) The comment cited data showing that 93% of individual water diversions in the Upper Green Valley Creek and Purrington Creek watershed areas were sourced from groundwater extraction wells, compared to 4% diverted from surface water. (*Id.*)

Most recently, in a comment letter to the CDWR regarding the Santa Rosa Plain Groundwater Basin Final Groundwater Sustainability Plan, the CDFW urged formulation of more conservative Sustainable Management Criteria for depletion of interconnected surface waters, stating:

> Minimum Thresholds should ensure regional groundwater extractions do not lead to significant and adverse impacts on fish or wildlife resources by meeting plant and animal species temporal/spatial water needs including water availability especially for Threatened and Endangered species and Species of Special Concern. They should be designed to account for climatic/water year type variability. Where specific data are lacking, MTs should be conservative with respect to preserving fish and wildlife beneficial users of groundwater from undesirable results. . . . Setting Minimum Thresholds and measurable objectives using data from years with historically low rainfall (i.e., 2014-2016) would likely create historically high streamflow depletion rates and potentially negatively impact [groundwater dependent ecosystems] and their critical habitat.

(Erin Chappell, CDFW, letter to Monica Reis, CDWR (Apr. 8, 2022) p. 3.)

B. Impacts of Groundwater Extraction to Public Trust Resources in the Russian River System

Ongoing depletion of groundwater resources in the Russian River system has severely reduced instream flow during the dry season, leading to persistent habitat loss for coho salmon and other public trust resources. "Insufficient summer streamflow has been identified as a bottleneck to recovery of Russian River salmonid populations." (California Sea Grant, 2020 Wetted Habitat Assessment Overview (December 3, 2020) at p. 1.) Salmonid species have rigorous habitat requirements, chief among which are adequate stream flows and cool water temperatures, necessary for the anadromous fish to successfully migrate, reproduce, grow, combat diseases, and survive to persist and perpetuate the species. Many impairments in water quality and physical habitat are closely associated with inadequate stream flows. As lamented by CDFW in advising more protective groundwater policy in Sonoma County: "Despite the substantial investment of efforts to recover Coho salmon in Green Valley Creek, no policy mechanism exists to comprehensively address the predominant water use type in the basin: groundwater extraction." (CDFW 2019, at p. 3.)

Migrant adult salmon require sufficient water depths in riffles in order to reach spawning areas, which in the Russian River system may be well over 40 miles from the Pacific Ocean.

Adult CCC Coho salmon also require unimbedded and silt-free gravel for successful reproduction, preferentially spawning in stream reaches with alluvial substrate, which is "particularly sensitive to water withdrawals from diversions and groundwater pumping, increasing the risk of dewatering redds and stranding juvenile fish." (Vander Vorste et al., at p. 3842.) Field observations demonstrate that "[h]ydrologic connectivity is critical in supporting rearing juvenile coho salmon throughout the summer season" and that "hydrogeological factors (e.g. clay substrate v. alluvium, riparian cover, land use, etc.) play a strong role in influencing" variations in CCC Coho survival rate. (Sarah Nossamon et al., Flow and Survival Studies to Support Endangered Coho Recovery in Flow-Impaired Tributaries of the Russian River Basin (May 2018) at p. 3.)

CCC Coho salmon, in particular, are susceptible to "ecological traps," which occur when residual pools in intermittent stream reaches become atypically dry, "especially when river flow regimes are altered by anthropogenic activities." (Vander Vorste et al., at p. 3835). Fish trapped in disconnected and drying pools face "declines in dissolved oxygen as well as increased water temperatures, competition, and/or predation." (*Id.*) A study funded by CDFW and NMFS analyzing hydrological and ecological data between 2014 and 2017 observed, in the two creeks for which sufficient data existed, 84% and 93%, respectively, of CCC Coho salmon in stream reaches where pools become disconnected during drought events and 32% and 42% in stream reaches where pools become disconnected in years with average stream flow. (OEI, Salmonid Rearing Habitat Delineation & Restoration Prioritization: East Austin, Pena, Mill, and Redwood Creek Watersheds (June 2018) at pp. 44–45).

Russian River Coho Water Resources Partnership ("RRCWRP") calculated stream connectivity thresholds, representing the amount of water required to keep all pools connected by continuous surface flow, within three Green Valley Creek priority reaches between 2010 and 2018. (RRCWRP, Upper Green Valley Creek Streamflow Improvement Plan (2019) p. 76.) Comparing field observations of the onset of disconnection each summer season with hydrographs generated from representative flow gages, RRCWRP determined the approximate flow level at which one or more pools within each reach became disconnected. (*Id.* at pp. 76–78) Figure 8 shows the number of dry season days during which surface flows at three priority reaches fell below the calculated connectivity threshold. (*Id*. at p. 77.)

Reach name	Connectivity threshold (ft^3/s)	Priority reach range (river km from mouth)	Flow gage river km	Number of days below threshold								
				2010	2011	2012	2013	2014	2015	2016	2017	2018
Green Valley Reach A	0.20	9.78 -10.76	9.39	21	22	82	118	115	n/a	n/a	n/a	n/a
Green Valley Reach B	0.20	10.76 -13.03	12.70	n/a	n/a	n/a	n/a	n/a	123	119	90	119
Green Valley Reach C	0.20	13.03 -16.76	14.12	75	83	123[1]	123[2]	123	123	118	105	112

[1] *Missing 54 days of flow data (after 8/23); total number of days extrapolated based on flow on end date and neighboring flow conditions through end of season.*

[2] *Missing 49 days of flow data (after 8/28); total number of days extrapolated based on flow on end date and neighboring flow conditions through end of season.*

Figure 8. Dry season days below connectivity threshold in the Green Valley Creek priority reaches. Source: RRCWRP, Upper Green Valley Creek Streamflow Improvement Plan (2019) p. 77.

"Juvenile CCC coho salmon and CCC steelhead can survive very dry conditions in these watersheds in pools in the upper watersheds, provided the pools have sufficient water and stream connectivity to maintain appropriate temperature, dissolved oxygen, and other water quality conditions." (SWRCB 2015, at p. 2.) However, groundwater extraction reduces "the influx of cooler groundwater [that] tends to keep instream surface waters cooler — a dynamic that is particularly important for cold-water fish in late summer/early fall when ambient air temperatures tend to be warmer." (Stanton Kibel et al., *Fisheries Reliant on Aquifers: When Groundwater Extraction Depletes Surface Water Flows*, 54 U.S.F. L. Rev. 473, 481.) Diminished streamflow also leads to loss of connection between pools, such that "movement of individuals among pools could no longer occur, preventing salmon from relocating to pools that may have had more suitable environmental conditions as drought conditions worsened over the summer." (Vander Vorste et al., at p. 3841.)

California Sea Grant's UC Coho Salmon and Steelhead Monitoring Report: Summer-Fall 2015 documented Coho salmon and steelhead redds and rearing juveniles in stream reaches that would later become intermittent or dry:

> A total of 224 salmonid redds were documented during the winter of 2014-2015 in streams where wetted habitat surveys occurred in the summer of 2015. Of these, 65% were observed in reaches that later went dry, 18% in reaches that became intermittent, and 17% in reaches that remained wet. . . .
>
> At the time snorkeling surveys were conducted, surface flows were already extremely low and it is unlikely that fish had the opportunity to move out of drying reaches into reaches that remained wet. PIT tag antenna data on specific study reaches indicates that almost no movement occurred between mid-June and December of 2015 (UC unpublished data). We therefore conclude that salmonids observed in reaches that later became dry had no chance of surviving the summer. Previous research conducted by UC through the Partnership, has documented inverse relationships between juvenile coho

survival and the number of days that pools are disconnected from surface flow (UC unpublished data). Given these relationships and the length of time that pools in intermittent reaches were disconnected during the summer of 2015 (over four weeks in most reaches), it is likely that most juveniles in intermittent reaches perished.

(Obedzinski et al., UC Coho Salmon and Steelhead Monitoring Report: Summer-Fall 2015 (2016) at pp. 21-22.) Although other factors could account for the drying of stream channels in those study reaches, groundwater pumping is likely a significant contributing factor critical to the survival and viability of CCC Coho salmon.

To reiterate, every agency, coalition, non-profit, or consultant that has examined the issue has confirmed the significant, detrimental impact of current levels of groundwater extraction on surface streamflow in the Russian River system, and consequently on salmonids and other public trust resources.

III. The Proposed Amendment to the Sonoma County Code Chapter 25B Will Not Ensure the County Meets Its Duties under the Public Trust Doctrine to Protect Public Trust Resources

As submitted, the proposed ordinance amendment adds generalized language responding to Sonoma County's public trust duties when issuing permits for the construction of groundwater extraction wells—essentially repeating the County's duties as articulated by the *ELF* decision. The proposed amendment does not specifically identify or address any public trust resources or uses in the Russian River system, grapple with the ongoing and cumulative harms of existing permitted wells, nor define permitting criteria adequate to meet its duties to protect public trust resources.

A. Terms of the Proposed Amendment

As proposed, the Amendment:

- Adds definitions for the terms "navigable waters," "new water supply well," and "public trust resources" (sec. 25B-3);

- Adds a "public trust resources limitation" prohibiting permit issuance "if in the determination of the Enforcing Agency it will have an adverse impact on public trust resources of navigable waters after the imposition of mitigation measures that protect those public trust resources" (sec. 25B-4(d)(1));

- Adds a requirement, without any definition, that any applicant for a new water supply well "shall provide as part of its application information to the satisfaction of the

Enforcing Agency that is sufficient for the Enforcing Agency to determine that the issuance of the new water supply well permit will or will not have an adverse impact on public trust resources of navigable waters after imposition of all feasible mitigation measures that can be imposed to protect the public trust resources" (sec. 25B-4(d)(2));

- Adds a requirement that "the Enforcing Agency shall make written findings as to whether the issuance of the requested permit will or will not substantially impair public trust resources in navigable waters after the imposition of feasible mitigation measures to protect those public trust resources" and provides that "[a]ny project features or mitigation measures that are necessary to the Enforcing Agency's written findings for approval of any new water supply well permit shall become conditions on the new water supply well permit" (sec. 25B-4(d)(3));

- Adds a procedure to appeal permit application determinations to the Board of Supervisors (sec. 25B-4(d)(4));

The amendment then articulates a series of exceptions to the undefined process for preventing impacts to public trust resources:

- Adds multiple procedures for the Board of Supervisors to make exemptions and exceptions to the "public trust resources limitation" (sec. 25B-4(d)(5) and (7));

- Adds a procedure for an applicant for a new water supply well to request expedited processing "where the proposed well drilling is immediately necessary to protect human life, health, and safety or property due to a sudden, unforeseen impairment in the quantity or quality of water available," where "accompanied by verifiable evidence demonstrating necessity of the proposed well" (sec. 25B-5(d));

- Defines an exemption to the "public trust resources limitation" for any "replacement well limited to 2.0 acre feet or less per year that serves a parcel that is solely used for domestic purposes." (sec. 25B-5(e)(1));

The amendment requires gauging—but only for new wells, and only starting 5 months from the hearing date:

- Adds a requirement that any "water supply well for which a permit is issued after January 1, 2023, shall be installed with a totalizing water meter" and, unless abandoned, monitor and report readings to the Enforcing Agency as specified in permit conditions (sec. 25B-5(z)).

Finally, the amendment continues the requirement that issuance of well permits be "consistent with any regulations adopted by the board of supervisors" to implement an approved groundwater management plan (sec. 25B-4(b)). Because the GSP for the Santa Rosa Plain sets a "minimum threshold" level for potentially restricting groundwater pumping many feet below the streambed, pumping "consistent with" the SRP GSP will not protect salmon dependent on adequate instream flow.

B. The Proposed Amendment Does Not Identify or Address the Russian River System's Public Trust Resources and Uses nor Define Standards for Their Protection in Well Permit Issuance

Notwithstanding the decades of science and policymaking dedicated to characterizing the Russian River system's public trust resources and uses, the proposed amendment fails to mention surface streamflow or identify any wildlife or habitat dependent on it. The ordinance under consideration cannot itself adequately consider or prevent harm to public trust resources, nor ensure the lawful issuance of permits for construction of new water supply wells, without even naming the subject matter(s) it purports to protect.

Moreover, the "public trust resources limitation" added to qualify the well permitting framework defines no standards for limiting permit issuance beyond "the determination of the Enforcing Agency [that] it will have an adverse impact on public trust resources of navigable waters after the imposition of mitigation measures that protect those public trust resources" (sec. 25B-4(d)(1)), subject to appeal to the Board of Supervisors (sec. 25B-4(d)(4)). Even this general "limitation" is illusory: the "Enforcing Agency" may approve permit applications subject to the public trust resources limitation at its discretion (sec. 25B-5(e)(2)), and request the Board of Supervisors consider "overriding considerations" concurrently with any appeal (sec. 25B-4(d)(5)–(6)). Despite its stated intent "to address evaluation of impacts to public trust resources for proposed water supply wells," the proposed amendment fails to articulate any cognizable standards for evaluation of such impacts.

C. The Proposed Amendment Fails to Grapple with the Ongoing and Cumulative Harms of Existing Permitted Wells to the Russian River System's Public Trust Resources and Uses

The proposed amendment expressly limits its added requirements to permits for construction of "new water supply wells." Permit Sonoma does not require any gauging or reporting of the ongoing operation of existing permitted wells. As NMFS advised Permit Sonoma in 2018 regarding cannabis permitting, "[i]ncomplete consideration of existing and abandoned wells could lead to insufficient data generation when evaluating: 1) interconnections with the nearest surface water bodies and 2) pumping well interference with surrounding wells."

(NMFS 2018, at pp. 2-3.) Without quantification of the individual and cumulative impacts of existing well operations, it is impossible for the County to adequately consider or prevent harm where feasible to public trust resources and uses according to law when issuing new permits.

D. The Existing Requirement that Well Permit Issuance be "Consistent With" Regulations Implementing Adopted Groundwater Management Plans Likely Ensures Harm to the Russian River System's Public Trust Resources

As currently in force, section 25B-4(b) requires issuance of well permits:

> in areas where a groundwater management plan has been approved and has been adopted by the county the requirement for the issuance of well permits and any limitations imposed on well permits shall be consistent with any regulations adopted by the board of supervisors to implement the adopted groundwater management plan.

However, the Santa Rosa Plain Groundwater Sustainability Plan, the only groundwater management plan presently approved by the County, imposes no restrictions on groundwater extraction until a Minimum Threshold ("MT") for groundwater levels, representing the greatest depletion for the three years between 2004 and 2018, is met. (SRPGSA, App. 4-D, at p. 3.) The SRPGSP provides no explanation as to how the MT will prevent impacts to interconnected surface waters and endangered salmonids, or even any relationship between surface flows and the MT.

In fact, the limited analysis provided in the SRPGSP confirms the continued harms to endangered salmonids that will result from the proposed MT. For example, at monitoring location RMPSRP0707, identified as a critical bottleneck to significant salmonid spawning habitat, the SRPGSP indicates that predicted streamflow without pumping would be robust, peaking at over 3.5 cfs and never dipping below 0.5 cfs. (SRPGSP, App. 4-D, at p. 9.) However, streamflow with pumping consistently dips below 0.5 cfs, and between 2019 and 2021 fell below the approximate streambed elevation at all times—meaning current levels of groundwater pumping dried out this tributary for two years. (*Id.* at pp. 9, 25.) Yet the SRPGSP, proposes an MT of 111.4 ft above mean sea level for this location—12.9 feet below the approximate streambed elevation. (SRPGSA, at p. 4-55.)

CDFW's recent comment letter confirms that the MTs proposed in the SRPGSP do not protect salmonids in the Russian River system:

> [T]he GSP states "undesirable result occurs if MTs are exceeded at 40 percent of RMP wells during drought years and 10 percent of RMP wells during non-drought years." It is unclear how these percentages relate to ecological impacts. The GSP should identify monitoring metrics for GDEs that will enable the GSA to characterize GDE vulnerability

> to groundwater depletion and associated undesirable results, and to undertake management intervention accordingly. . . . Setting Minimum Thresholds and measurable objectives using data from years with historically low rainfall (i.e., 2014-2016) would likely create historically high streamflow depletion rates and potentially negatively impact GDEs and their critical habitat.

(CDFW 2022, at p. 3.)

Since the SRP GSP's established MT has no relationship to public trust protection, section 25B-4(b)'s requirement that well permits issuance be "consistent with" this approved groundwater management plan will authorize, rather than prevent, harm to the Russian River system's public trust resources and uses. The County should revise this element of its ordinance to ensure public trust resources are protected consistent with the recommendations provided above.

E. Exemptions to the "Public Trust Resources Limitation" Violate the County's Fiduciary Duties to Consider and Prevent Harm Where Feasible to the Public Trust

The proposed amendment provides current and future exceptions to the public trust analysis and mitigation First the "public trust resources limitation" would not apply to any "proposed replacement water supply well" (sec. 25B-5(e)(1)). The proposed amendment and staff report provides no facts or analysis supporting the implicit assertion that replacement wells—either individually or cumulatively—have no impact on public trust resources.

Second, public trust analysis and mitigation will be applied on an expedited basis to wells "where the proposed well drilling is immediately necessary to protect human life, health, and safety or property due to a sudden, unforeseen impairment in the quantity or quality of water available" (sec. 25B-5(d)). Obviously protection of human health is good public policy, and Coastkeeper supports accelerated permitting where appropriate. However, "emergency" wells are not exempt from the County's public trust duty. At a minimum, the impacts of these "emergency" wells must be evaluated and offset or otherwise mitigated elsewhere in the groundwater basin. We are concerned that by expediting review, necessary consideration of public trust impacts will be insufficient. We therefore recommend imposition of mandatory mitigation measures and continuing oversight of these wells to adjust mitigation as necessary to protect public trust resources (as described in our recommendations provided above).

Third, the proposed amendment allows the Board of Supervisors to "establish screening criteria to identify categories of water supply well permit applications which do not substantially impair public trust resources, and which shall be approved pursuant to a ministerial permit" (sec. 25B-4(d)(7)). As with the other provisions of the proposed amendment, 25B-4(d)(7) provides no

definition, guidance, or limitation on the future "categorical" exemptions—exemptions which can easily swallow the rule.

Finally, the proposed amendment includes an exemption from protection of public trust resources where the Supervisors find:

> "…overriding considerations that balance protection of public trust resources with the health, safety, and welfare needs of the community, including the need for drinking water…" (sec.25B-4(d)(5)

Thus, where the supervisors determine that the need for drinking water outweighs impacts to public trust resources, public trust resources are sacrificed. As climate change and over-appropriation continues to impact water supplies, political pressure to issue well permits at the cost of river ecosystems is likely to increase. However, the California Supreme Court has specifically rejected this sort of discretionary trade off. Instead, the Supreme Court stated:

> Thus, the public trust is more than an affirmation of state power to use public property for public purposes. It is an affirmation of the duty of the state to protect the people's common heritage of streams, lakes, marshlands and tidelands, surrendering that right of protection only in rare cases when the abandonment of that right is consistent with the purposes of the trust. *Nat'l Audubon Soc'y v. Superior Court*, 33 Cal. 3d 419; 441.

Section 25B-4(d)(5)'s authorization of destruction of aquatic public trust resources is clearly inconsistent with the purposes of the trust. Section 25B-4(d)(5) discretionary exception renders the proposed amendment's prohibition on harming public trust resources meaningless, and therefore illegal. To remedy this flaw, we propose the ordinance be revised to comport with the Supreme Court's conclusion that impacts to the public trust be mitigated as required.

IV. CEQA

A. Class 7 and 8 Categorical Exemptions to CEQA Do Not Apply to the Amendment

Staff asserts that the amendment is exempt from CEQA under California Code of Regulations § 15307 and § 15308 (Class 7 and 8 exemptions). The board states the basis of their determination is that the ordinance "does not in itself approve any construction activities, but instead imposes a requirement to consider and address impacts to public trust resources when permitting new water supply wells." (Ordinance at p. 2.)

Both categorical exemptions explicitly do not apply to construction activities. And while staff asserts that "the ordinance itself does not approve any construction activities," the ordinance being amended is titled "Chapter 25B Water Well Construction Standards." As the title states, Chapter 25B sets standards for obtaining permits and *constructing* water wells. The amended ordinance chapter uses the word "construction" 62 times. Staff's argument that its amendment to the well construction standards ordinance does not directly involve approval of well construction is specious at best. As such, exemptions 7 and 8 do not apply.

Staff further asserts that Class 7 and 8 exemptions apply to their ordinance because they are imposing a requirement to consider and address impacts to public trust resources to "assure the maintenance, restoration, enhancement, and protection of natural resources and the environment." The amendment as proposed instead at a minimum guarantees continued, unsustainable levels of pumping—and thus severe impacts to salmon. The proposed amendment also exempts broad categories of wells from any public trust review, further impacting instream resources.

In addition, the amendment provides that "the requirement for the issuance of well permits and any limitations imposed on well permits shall be consistent with any regulations adopted by the board of supervisors to implement the adopted groundwater management plan." (Ordinance, Ex. A, at p. 5.) As noted above, the SRPGSP admits it fails to protect salmon, and only promises progress towards reducing the impacts at some future, undetermined date. Allowing pumping "consistent with" the SRPGSP is "relaxation of standards allowing environmental degradation" again rendering the exception to CEQA inapplicable.

B. The Cumulative Impact Exceptions to the Exemptions Apply

CEQA guidelines state that even if a project is categorically exempt from CEQA, the exemption does not apply if, over time, the cumulative impact of successive projects of the same type have a significant impact; or, if there is a reasonable possibility that the activity will have a significant effect of the environment due to unusual circumstances. (CEQA Guidelines, § 15300.2) Thus, even if the Class 7 and 8 categorical exemptions applied to the board's ordinance, the cumulative impacts exception would preclude reliance on the exemptions. An agency may not rely on a categorical exemption where "the cumulative impact of successive projects of the same type in the same place, over time is significant." (CEQA Guidelines § 15300.2 (b).) The cumulative impacts of groundwater pumping wells on Sonoma County's already over-subscribed groundwater resources, and the interconnected surface waters, cannot be reasonably disputed. See Section II above.

C. The "Common Sense" Exemption Does Not Apply

Staff further asserts that the amendment is exempt from CEQA under the "common sense" exemption, claiming "it can be seen with certainty that there is no possibility that this ordinance may have a significant effect on the environment." (Ordinance, at p. 2) Staff states the basis for this determination is that the ordinance makes "miscellaneous technical, clarifying, or conforming changes to permit requirements and facilitates data collection related to public trust resources through metering and eliminates emergency well drilling without prior review or approval." (Ordinance, at p. 2) Further, staff claims that adoption of the ordinance "will not result in any direct or indirect physical change to the environment and will instead assure the maintenance, restoration, enhancement, and protection of natural and public trust resources and the environment by providing a framework for discretionary review of applications requiring a public trust analysis."

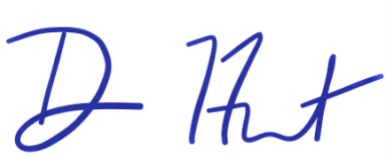
CEQA's "common sense" exemption can be relied on only if a factual evaluation of the agency's proposed activity reveals that it applies. (*Muzzy Ranch Co. v. Solano County Airport Land Use Com.* (2007) 41 Cal.4th 372, *as modified* Sept. 12, 2007.) Whether a particular activity qualifies for the "common sense" exemption presents an issue of fact, and the agency invoking the exemption has the burden of demonstrating it applies. (CEQA Guidelines, § 15061(b)(3). Before determining that an activity is exempt from CEQA under the "common sense" exemption, the agency must examine the evidence presented in the administrative record. (CEQA Guidelines, § 15061(b)(3).) This exemption applies only where "it can be seen with certainty that there is no possibility that the activity in question may have a significant effect on the environment." (CEQA Guidelines, § 15061(b)(3).) "[It] is reserved for those obviously exempt projects where its absolute and precise language clearly applies." (*Cal. Farm Bureau Fed.* (2006) 143 Cal.App.4th 173, 194 (internal quotations omitted); *see also Davidson Homes v. City of San Jose* (1997) 54 Cal.App.4th 106, 117 ("If legitimate questions can be raised about whether the project might have a significant impact . . . the agency cannot find with certainty that a project is exempt.").)

Again, there is no reasonable dispute additional groundwater wells in aquifers connected to surface waters—the majority of aquifers in Sonoma County—will further impact public trust resources. Staff provides no basis for its bald assertion otherwise, failing to meet the burden required to apply the exemption.

In sum, the proposed amendment to the Sonoma County Code Chapter 25B (Well Ordinance) fails to satisfy the County's fiduciary duties, as clarified by the *Environmental Law Foundation v. State Water Resources Control Board* decision, to consider adverse effects to the Russian River system's public trust resources and uses when issuing water well permits and to prevent harm to public trust resources and uses where feasible. Moreover, despite the Notice of Categorical Exemption filed by Permit Sonoma, the proposed amendment is subject to CEQA review prior to adoption.

For all the foregoing reasons, Coastkeeper requests that the Board of Supervisors reject the Amendment to the Sonoma County Code Chapter 25B (Well Ordinance) as submitted, and direct Permit Sonoma to develop well permitting criteria that protect the Russian River system's public trust resources and comply with law.

Sincerely yours



Drevet Hunt
Legal Director
California Coastkeeper Alliance

cc: Don McEnhill, Russian Riverkeeper
Jaime Neary, Russian Riverkeeper

From: Matt Clifford, Trout Unlimited

To: Permit Sonoma at PermitSonoma-Wells-PublicInput@sonoma-county.org

Date: August 4, 2022

Subject: Comments on the Sonoma County Well Ordinance Amendment (Sonoma County Code Chapter 25B)

Dear Permit Sonoma:

Trout Unlimited (TU), submits the following comments on the proposed amendment to the Sonoma County Code Chapter 25B (Well Ordinance), which would require permits for new water supply wells to undergo an analysis to limit impacts to public trust resources in surface water. TU is the nation's oldest and largest coldwater fisheries conservation organization. For decades, TU has worked with landowners, water users, and the County of Sonoma to improve streamflow, fisheries habitat, and watershed health throughout Sonoma County.

The proposed Well Ordinance Amendment is a big step in the right direction. One of the major threats to the survival and health of threatened and endangered salmon and steelhead populations in Sonoma County is depletion of surface streamflow caused by groundwater pumping. The lack of accurate information about water diversion, particularly groundwater pumping, is also one of the major obstacles to managing water to protect fisheries and other public trust resources in coastal streams. These concerns will continue to become more significant in light of the more-frequent extreme dry years Sonoma County is experiencing as a result of our changing climate, and the corresponding low-flow conditions that are exacerbated by pumping of groundwater aquifers that feed baseflow in rivers and streams that provide crucial habitat for dwindling populations of California Central Coast coho salmon, North Coast steelhead, and other sensitive species. In light of these trends, TU believes that approval of Well Ordinance amendment is especially warranted and timely.

While we do welcome the adoption of the proposed amendment, we note that it defers certain key aspects of how it will be applied and enforced to future processes. As discussed in more detail below, the ultimate effectiveness of the ordinance in protecting public trust resources will depend on the substantive requirements developed in the course of these processes, and TU looks forward to providing input on those issues as they move forward.

TU offers following specific comments on the proposed amendment.

Section 25B-2, Purpose

Because the proposed amendment will expand the existing purpose of the well ordinance, it should include an amendment to this section. The existing language states that the purpose of Chapter 25B is "is to protect **the groundwater resource of the county** through standards regulating the placement, construction, reconstruction, abandonment and destruction of wells and borings." The proposed amendment would add a new purpose: to protect public trust resources in navigable **surface** waterways. That purpose is not encompassed within the existing language of Section 25B-2, and should be added.

Section 25B-3, Definitions, "public trust resources"

We recommend two modifications to the proposed definition of "public trust resources." First, we would like to see the definition refer to fish habitat specifically, to supplement the existing general references to "wildlife habitat" and "natural resources," since fish habitat is one of the most important resources in the Sonoma County streams affected by the ordinance. Second, to reflect the very broad scope of the public trust doctrine as articulated by the California Supreme Court, the definition should present the listed resources as a non-exhaustive list, ("for purposes including . . .") rather than an exhaustive list, as implied by the current text.

Section 25B-4(d), public trust resources limitation

This section establishes a basic requirement that the County not issue permits for new wells within the contributing watershed of navigable waters unless it determines, based on information submitted by the applicant, that the well will have an adverse effect on public trust resources in those waters. While that basic framework makes sense as a means of preventing impacts from new wells, it leaves many of the details unaddressed, making it difficult to predict what level of protection the ordinance will provide in actual practice. Following are some recommendations regarding specific issues within this section.

Applicability to tributaries: We strongly support the requirement that the public trust provisions apply to all applications for new wells "*within the contributing watershed of* navigable waters." This phrasing is crucial, because while the extent of mainstem navigable streams in Sonoma County is relatively limited, California law expressly requires that public trust requirements "apply fully to a case in which diversions from a nonnavigable tributary impair the public trust in a downstream river or lake." *National Audubon Society v. Superior Court*, 658 P.2d 709 (Cal. 1983). In Sonoma County, navigable rivers like the Russian are fed by extensive tributary networks that are crucial to supporting fisheries in the mainstem – both through direct contribution of flow and by providing habitat for critical life stages of species such as coho salmon and steelhead. Because of this, and the widespread interconnectivity of groundwater and surface water in the basin, the number of wells that have the potential to adversely impact public trust resources is quite large.

Cumulative impacts: In the great majority of cases, the impacts of any individual proposed well will be quite small in the overall context of the contributing watershed. At the same time, however, it is undeniable that the combined impacts of existing and future proposed wells is very large. As the County considers the effects of each new well application, it will be crucial to keep these overall cumulative effects in mind and not focus solely on the incremental impacts of the particular well in question – to do otherwise would risk continuing the "death of a thousand cuts" that has led to current levels of streamflow depletion in the Russian and other Sonoma County watersheds.

Existing baseline: In a similar vein, as the County considers the public trust impacts of each proposed well, it must bear in mind the substantially impaired baseline condition of the affected streams. Thanks to the many thousands of water supply wells and other water diversions that already exist in Sonoma County, many streams routinely suffer from severe dewatering during the late summer and fall – especially but not exclusively during critically dry years such as those that have been common over the last two decades. The fact that flows are already low enough to impair the growth and survival of native fish means there will be many cases in which *any* additional impacts from new wells – no matter how small – will further exacerbate these conditions and cause additional harm to native species. (For an

example of how the large number of existing wells in tributary aquifers are affecting baseline conditions in sensitive tributary streams, see the results of the informational order issued by the State Water Resources Control Board for the Mark West Creek watershed in 2015). The County should be fully prepared to deny or carefully condition well permits in such cases.

Information required: The proposed ordinance requires well permit applicants to submit sufficient information to enable the County to determine whether there will be adverse impacts to public trust resources, but provides no specific guidance on what type of information this should be or at what level of detail. While we understand the need to allow for different circumstances, we believe the ordinance can and should provide a more detailed technical description of the hydrological and other information that applicants must submit, in order to provide more guidance not only to the public but also to applicants and their consultants. We believe the County should provide further opportunity for public input in developing these requirements, either in connection with this amendment or in a future process.

Screening criteria: Section 25B-4(d)(7) provides that "[t]he Board of Supervisors may establish screening criteria to identify categories of water well permit applications which do not substantially impair public trust resources, and which shall be approved pursuant to a ministerial permit, where all requirements for a ministerial permit are met." Any such criteria are a crucial component of the ordinance. While we certainly understand the desirability of such criteria, which could be used to screen out a significant number of wells that do not have a reasonable potential to affect surface waters, this is a case where the devil is very much in the details, as setting the criteria too loosely would have significant implications for the overall effectiveness of the ordinance in protecting the public trust. We urge the County to commit to developing any screening criteria through a process that is transparent to the public and open for future public comment and participation.

Again, we are glad to see the County propose this measure, which we think has the potential to provide much-needed and long overdue protection to native fisheries, drinking water, and other public trust resources supported by rivers and streams throughout Sonoma County. Thank you for your work on this initiative, and for your consideration of the above comments.

Sincerely,

Matt Clifford
Trout Unlimited

August 5, 2022

Board of Supervisors
Sonoma County
575 Administration Drive
Room 100 A
Santa Rosa, California 95403

Subject: Comments regarding proposed Public Trust Well Ordinance (August 9th Board of Supervisors agenda item 33).

Honorable Member of the Sonoma County Board of Supervisors:

The Russian River Property Owners Association (RRPOA), Sonoma Alliance for Vineyards & Environment, and the Sonoma County Farm Bureau, all representing the agricultural industry and agricultural landowners in Sonoma County, have serious concerns regarding the proposed public trust well ordinance you are considering on August 9th and accordingly we respectfully urge you to postpone adoption to allow for a more deliberative process to receive input from affected property owners, stakeholders, and technical experts. We understand the Board feels pressure to respond to the public trust lawsuit regarding well permitting in the Russian River watershed and hope an ordinance can moot the legal challenge, but the rushed and highly flawed draft well ordinance would create significant, unintended consequences, if adopted.

We believe that as the result of the recommended deliberative process outlined below in this letter, an alternative to the proposed ordinance can be prepared in an expeditious manner that addresses public trust concerns while avoiding or reducing the potential impacts, costs, and risks of the Ordinance as presently written.

The draft ordinance lacks clear definitions and standards and proposes a discretionary permitting process subject to CEQA that is destined to cause years of delay, great expense, and litigation. This ordinance would result in a de facto moratorium on new and replacement wells, which would have a devastating impact on agriculture, industry and production of new housing throughout the County. We will provide additional legal and technical comments and recommendations before and at the August 9th hearing.

It has been our experience, and that of our technical and legal advisors, that any significant regulatory public policy adopted in haste often results in disastrous unintended consequences and is doomed to failure. This draft ordinance comes to the Board for potential adoption a mere three weeks after public notice and without any prior opportunity for the public to give input. It comes to the Board without objective biological and hydrological criteria for protection of public trust resources. Worse, it puts the onus on landowners to prove a negative – that a new or replacement well will not adversely impact public trust resources. It would be the applicant's burden to provide both a public trust impact threshold and evidence of no adverse impact.

In contrast, there are several recent, local examples where stakeholders worked in cooperation with policy makers to craft thoughtful and effective solutions, such as:

- The California Tiger Salamander was listed as endangered more than 20 years ago. Over the past three and a half years the first significant agreement has been crafted to address habitat conservation while maintaining economic vitality. The Safe Harbor Agreement that was just approved was the work of stakeholder involvement.
- The Tubbs Fire was five years ago followed by two significant fire events in the County. After more than 18 months, we are close, but we have yet to adopt meaningful policy addressing access into evacuation areas. Broad stakeholder involvement continues to be instrumental in the process.
- Modifications that have led to a very successful VESCO Ordinance took almost two years to receive input and craft meaningful Best Management Practices.
- The three existing Sonoma County Groundwater Sustainability Agencies took five years to form and to prepare Groundwater Sustainability Plans. Importantly, those Groundwater Sustainability Plans have *future* plans for studying surface water-groundwater interactions that would inform the foundation for a public trust well ordinance.

The rush to get out of one lawsuit would likely lead to a raft of new lawsuits. Because the draft ordinance lacks objective screening criteria and public trust impact thresholds, any well permit approvals that actually receive PRMD approval may be litigated by the same interests that brought the current public trust lawsuit. Because the draft ordinance would make nearly all well permits discretionary approvals appealable by any interested party and subject to CEQA, the ordinance also weaponizes NIMBY and fee-seeking plaintiff lawsuits. Ministerial land uses and building permits could now be challenged if a discretional well permit is needed.

Ultimately, this draft ordinance is simply too flawed for you to adopt on August 9th. Yet, while we are critical of the draft ordinance, we acknowledge that the County has public trust responsibilities. Accordingly, we commit to work with the County and other affected agencies and organizations to fulfill those obligations through a procedurally reasonable and technically sound ordinance.

Therefore, it is our joint recommendation that the Board of Supervisors, recognizing the public trust issues at hand and also the need for a more inclusive and deliberative process, form a diverse Working Group to prepare an alternative ordinance and related procedural guidelines. Such a Working Group, building on other examples, would include appointed public officials with related expertise, industry and landowner representatives, and technical experts (hydrologists, economists, etc.). As for the scope of the Working Group effort, we believe it should be guided by six clearly stated objective features of the alternative ordinance that have been derived from our review of the proposed ordinance as well as our involvement in other regulatory programs. These objectives or features include:

1. Limit the geographic applicability of public trust requirements to the watersheds targeted by the lawsuit and for which the County has scientific evidence of groundwater pumping impacts to public trust resources. Such pumping impacts are presently known or presumed in Dutch Bill Creek, Green Valley Creek, Upper Mark West Creek, and Mill Creek watersheds.
2. Develop the public trust objective standard criteria for regulating these targeted watersheds. These criteria would define: the navigable water stream segments; the area of interconnected groundwater subject to public trust requirements; thresholds of significance for public trust impacts; and a suite of measures that could be adopted by the applicant to avoid well pumping impacts to public trust resources.
3. Limit public trust requirements to permitting of new wells. Replacement wells with no expansion in use would not require public trust determinations as these wells are part of the existing environmental baseline.
4. Transfer responsibility for the public trust determinations to the Groundwater Sustainability Agencies for wells within their boundaries reflecting their broader efforts to conserve water, enhance groundwater storage, and regulate groundwater use.
5. Rely on ministerial approvals for well applications that meet the object standard thresholds of significance and compliance with potential impact avoidance measures adopted by the applicant.
6. Apply a discretionary approval process, subject to CEQA, for well applications that do not meet the thresholds of significance, with the provision for an appeal to the Board of Supervisors.

The RRPOA, SAVE, and the Sonoma County Farm Bureau, along with their technical and legal advisors, stand ready to participate in the recommended Working Group to develop a public trust well ordinance and related procedures sufficient to meet public trust concerns while avoiding the pernicious impacts and litigation risks of the ordinance as currently written. Thank you for your consideration of our concerns and our recommendation.

Sincerely,

Brad Petersen
President
Russian River Property Owners Association

Ken Lafranchi
President
Sonoma Alliance for Vineyards & Environment

Jennifer Beretta
President
Sonoma County Farm Bureau

Fircrest Mutual Water Company
Belmont Terrace Mutual Water Company

Sheryl Bratton
Clerk of the Board of Supervisors
575 Administration Drive, Room 102A
Santa Rosa, CA 95403
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Nathan Quarles
Deputy Director, Engineering and Construction
Permit and Resource Management Department
County of Sonoma
Email: Nathan.Quarles@sonoma-county.org

Submitted via Email: PermitSonoma-Wells-PublicInput@sonoma-county.org

5 August 2022

Subject: COMMENTS ON THE PROPOSED AMENDMENT TO THE SONOMA COUNTY CODE CHAPTER 25B (WELL ORDINANCE)

To Sonoma County Board of Supervisors:

The above-listed organizations represent citizens in Sonoma County and statewide with a keen interest in ensuring groundwater is sustainably and equitably managed for the benefit of all Californians and the ecosystems we all depend on for our health and welfare. We thank you for the opportunity to comment on the proposed Amendment to the Sonoma County Code Chapter 25B (Well Ordinance Amendment or Amendment) to ensure public trust resources are protected when issuing groundwater well permits.

We are pleased that the County is taking the first step to ensure the public trust resources are protected from the impacts of groundwater extraction. The County's acknowledgement of its public trust duty to protect salmon and other species in Sonoma County creeks and rivers, confirmation of the County's discretion to reject wells harming public trust resources, and the County's commitment to gauging new wells, are all important milestones. However, the Amendment does not do enough to ensure the County meets its obligations as trustee of the

County's rivers, streams, interconnected groundwaters, and the wildlife dependent on these waters.

Every agency, scientist, non-profit, or consultant that has examined the issue confirms that public trust resources in Sonoma County waters are severely impacted by low instream flows and high-water temperatures. This is evidenced by endangered salmon populations and unhealthy ecosystems with algal blooms that deprive people of recreational opportunities. Further, wells throughout the County continue to go dry due to existing pumping at unsustainable levels.

Unfortunately, the Amendment fails to protect these endangered and already impaired public trust resources. The current proposal provides only a vague prohibition on new wells impacting public trust resources, with no identification of what those resources are, or any methodology for evaluating or preventing impacts. Further, the proposed amendment includes significant exemptions from public trust analysis and mitigation requirements, without analysis or factual support, and authorizes development of even broader future exempted categories of wells.

To effectively meet its duties as trustee, the Amendment must ensure the County's decisions to grant permits to extract groundwater are founded on reliable scientific information and modeling regarding the impacts of a proposed well, both individually and cumulatively with all other existing groundwater extractions. In addition, the County must develop and implement a program that provides continuing oversight on both existing and proposed water wells to ensure that all users take steps, when necessary, to ensure the impacts of groundwater extraction on public trust resources is mitigated.

A well permitting ordinance that would meet the County's public trust duties and protect public trust resources must include at least the following:

1) A methodology for determining whether a proposed well will impact public trust resources, given current and future conditions, using modeling;
2) A commitment to undertake and complete a study that will evaluate the cumulative impacts analysis for all wells, and a mechanism to account for these impacts when permitting new wells and mitigating the impacts of current and existing groundwater impacts;
3) Reference to and application of groundwater level-based criteria that protect public trust resources and go beyond the Santa Rosa Plain GSP Minimum Threshold Levels;[1]

[1] The California Department of Fish and Wildlife's recent comment letter confirms that the MTs proposed in the SRPGSP do not protect salmonids in the Russian River system:

> [T]he GSP states "undesirable result occurs if MTs are exceeded at 40 percent of RMP wells during drought years and 10 percent of RMP wells during non-drought years." It is unclear how these percentages relate to ecological impacts. The GSP should identify monitoring metrics for GDEs that will

4) Reference to and application of instream flow standards for all Sonoma County creeks to protect public trust resources that will be used in evaluating impacts to and establishing appropriate mitigation of harms to public trust resources from groundwater extractions;[2]
5) A requirement that any new low volume domestic well or emergency well exempted from public trust review nonetheless be required to comply with specific mitigation measures intended to protect against potential public trust impacts (e.g., requirement to meet water conservation standards, limitations on use based on contribution to cumulative impacts on surface flows and public trust resources, metering of "emergency" wells).
6) A program and mechanisms to be applied to both existing and future permitted wells countywide to restore instream flows and groundwater use to sustainable levels.

In addition to the above requirements and to ensure that new wells protect the County's public trust values, the County must enact requirements for **existing** wells to mitigate existing and resulting cumulative harms to those resources. At minimum, the county should require metering of existing wells when determined by a hydrological study to have an influence on interconnected groundwaters. The county should also implement the measures identified in item (5) above to restore public trust resources and ensure their sustainability.

We therefore urge the Board return the draft amendment to staff, and to provide detailed direction as to the content and analysis required to protect Sonoma County's precious resources, and to comply with law. Further, we urge the County to pause issuance of further groundwater extraction permits to prevent further harm to public trust resources until an amended ordinance adequate to protect public trust resources is developed and adopted. Finally, we urge Sonoma County to suspend permit issuance unless and until the data and analysis are available to identify and mitigate impacts to surface waters from groundwater wells in Sonoma County rivers and creeks.

> enable the GSA to characterize GDE vulnerability to groundwater depletion and associated undesirable results, and to undertake management intervention accordingly. . . . Setting Minimum Thresholds and measurable objectives using data from years with historically low rainfall (i.e., 2014-2016) would likely create historically high streamflow depletion rates and potentially negatively impact GDEs and their critical habitat.

(CDFW 2022, at p. 3.)

[2] While California Department of Fish and Wildlife and the State Water Resources Control Board develop and approve instream flow standards for Sonoma County creeks, use of National Marine Fisheries Service Bi-op standards, as well as modeled pre-pumping flows as developed by the Nature Conservancy can act as protective standards.

Sincerely,

Don McEnhill, Executive Director
Russian Riverkeeper

Jennifer Clary, California Director
Clean Water Action

Konrad Fisher, Director
Water Climate Trust

Roger Dickinson, Policy Director
CivicWell

Sarah Davis, President
Fircrest Mutual Water Company

Jean Tillinghast, President
Belmont Terrace Mutual Water Company

Kamran Nayeri, Editor & Publisher
Our Place in the World

A watershed community
dedicated to preserving, protecting,
and restoring the Mark West Creek and its
watershed as a natural and community
resource.

Friends of the Mark West Watershed
6985 Saint Helena Road
Santa Rosa, CA 95404
Email: info@markwestwatershed.org
Tel: 707-538-5307
www.markwestwatershed.org

August 7, 2022

To: Sonoma County Board of Supervisors
RE: Well Ordinance Amendment

The Friends of the Mark West Watershed (FMWW) is a community of neighbors, landowners, and supporters dedicated to preserving, protecting, and restoring the Mark West Creek and its watershed as a natural and community resource. FMWW is a 501(c)(3) non-profit organization that works to engage the community in hands-on ecologically-based stewardship projects and educational opportunities. FMWW also collaborates with several other non-profit and governmental agencies invested in the ecological health and sustainability of the Mark West Watershed. We are commenting on the County's well ordinance amendment with a focus on our critically impaired watershed, yet also affirming that water as a public trust resource needs protection throughout Sonoma County.

Mark West Creek has been identified as a high priority stream for preservation and restoration of critical habitat for steelhead and coho salmon by numerous federal, state, and local agencies. Our watershed is a significant area for conservation and protection because of its high water quality, extensive in-stream and riparian habitat, and endangered species. The Mark West Watershed was selected in 2014 as one of only five watersheds under the California Water Action Plan to receive coordinated efforts by the State Water Resources Control Board and California Department of Fish and Wildlife to enhance stream flows in systems that support critical habitat for anadromous fish. Significant public funds have been expended for studies and restoration projects for the Mark West Watershed.

The science continues to support a very careful consideration of any new impacts to our critically impaired watershed. The recent O'Connor Environmental streamflow analysis of the Mark West Watershed, in partnership with the Sonoma RCD and FMWW, and funded by the state Wildlife Conservation Board, (study highlights included at the end of this letter) demonstrates that streamflow in recent years is at critically low levels threatening salmon reproduction and survival. The study concludes that any and **all groundwater use in our watershed depletes streamflow over time, regardless of**

the time of use, or the distance from the stream. All new water uses in our watershed must be carefully considered. Any new wells permitted in our watershed would likely tip the balance in the wrong direction. **We ask that the well ordinance amendment specifically indicate that no new wells would be permitted in impaired watersheds like ours without significant, measurable, and scientifically verifiable mitigations**. Such mitigations should also take climate change into account as the availability of rainwater from year to year is no longer a guarantee.

If new well permits are considered for approval in impaired watersheds, analysis of impacts must conclude, based on verifiable scientific evidence, that **no** streamflow reduction will result. Such analysis must include consideration of all relevant hydrological factors including other wells on the site and in the area, use of rainwater capture systems, intercepted spring flows etc. and the most current studies of watershed hydrology and endangered fish status. Any mitigation proposal must be supported by scientific evidence and include detailed monitoring and reporting requirements to demonstrate the sufficiency of the mitigation.

We would additionally ask that since the well ordinance is being amended to include public trust protections, **there should be new language added to the declarations section 25B-1 which specifically states the County's interest in protecting groundwater as a public trust resource**. It would further benefit the ordinance amendment to look carefully at current wells that may have a negative impact on streamflows and identify ways to mitigate those impacts as well.

Overall, we are so very grateful that the County is now considering possible negative impacts to public trust resources when permitting new water supply wells. We hope that the comments in this letter can help the County refine this ordinance amendment so that public trust resources are protected for generations to come.

Sincerely,

Harriet Buckwalter
FMWW Co-Chair
hbuck@sonic.net
markwestwatershed.org

Highlights from Mark West Flow Study 2017-2020

WCB State of California Wildlife Conservation Board

Coast Range Watershed Institute

OEI

Friends of the Mark West Watershed · California

Sonoma Resource Conservation District

INTRODUCTION

Integrated Surface and Groundwater Modeling and Flow Availability Analysis for Restoration Prioritization Planning, Upper Mark West Creek Watershed, Sonoma County, CA

Author: O'Connor Environmental, Inc., under the direction of Coast Range Watershed Institute
For: Sonoma Resource Conservation District
Funded by: State of California, Wildlife Conservation Board
Date: December 2020

This study was conducted to help us better understand streamflow dynamics in the Mark West Watershed, and to identify how we can improve streamflow for the benefit of fish, people, and overall ecosystem function. The study is focused on the upper 40 mi2 of the watershed in the hills above the Santa Rosa Plain. We chose this area because of its importance for endangered coho salmon ; it has been identified as a core area for protection and restoration by multiple national fisheries agencies.

We learned about the watershed and its streamflow conditions by developing a complex hydrologic model. The model was developed by incorporating existing data on topography, geology, vegetative cover, and climate, and then calibrated using real-time data collected from stream gauges and groundwater wells in the watershed. This model covered a 10-year study period (2009-2019) and provides us information on the availability of streamflow throughout the watershed and the year, how that might be impacted by climate change, and how streamflow conditions intersect with habitat conditions for fish. The model also allows us to test out different conservation project scenarios, helping us to understand what types of projects will provide the greatest benefits for streamflow and fish. Below are some highlights of what we learned.

MARK WEST WATERSHED HYDROLOGY

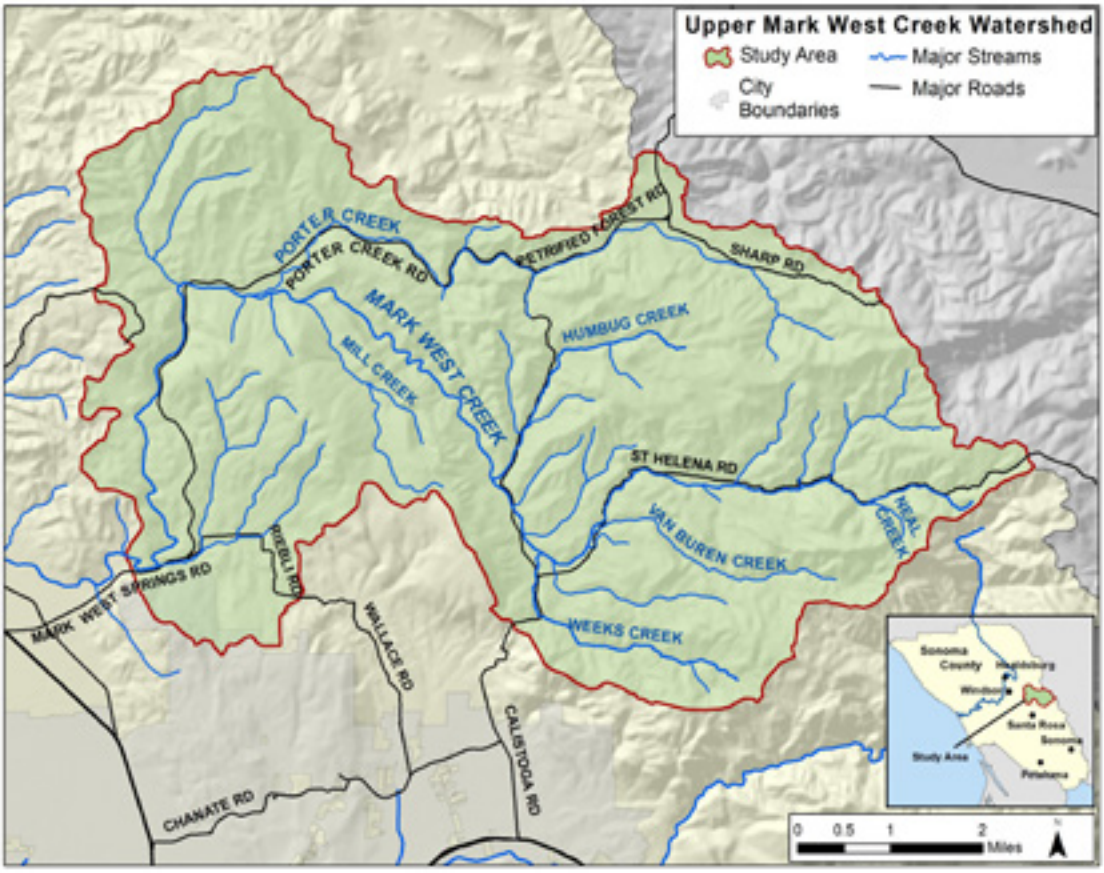


figure 1: Area Study

Hydrology and Streamflow

Rainfall, streamflow, and groundwater recharge in the watershed very widely from year to year, with annual precipitation ranging from 19.5 inches (2014) to 61.2 inches (2017) and streamflow depth ranging from 0.7 to 2.7 feet . In wet years, the average summer streamflow in Mark West Creek was about 0.7 cubic feet per second (cfs) downstream of Van Buren Creek and was 1.5 cfs downstream of Porter Creek, whereas in dry years these flows declined to about 0.3 and 0.7 cfs, respectively. Average summer riffle depths above 0.1-0.3 ft in most locations (0.2-0.4 ft during drought year). Salmonids require a minimum riffle depth of 0.2 ft for suitable flow conditions.

Most summer streamflow in the watershed, critical for over summer survival of juvenile coho, comes from groundwater seeps and springs. Modeling indicates that the watershed area upstream of Van Buren Creek generates 55% of the total springflow in the watershed. Groundwater recharge potential also varies widely throughout the watershed, based on factors such as soil type, topography, and rainfall patterns. The best areas for recharge include the upper Mark West Creek watershed upstream of and including the Van Buren Creek watershed, as well as the upper Humbug Creek watershed.

Existing Water Use

Total water use in the watershed was estimated to be approximately 430 ac-ft/yr. About 85% of the total use in the watershed is from groundwater with the remaining 15% coming from surface water sources. About 81% of the total surface water use comes from pond storage, 10% comes from direct stream diversions, and 9% comes from springs.

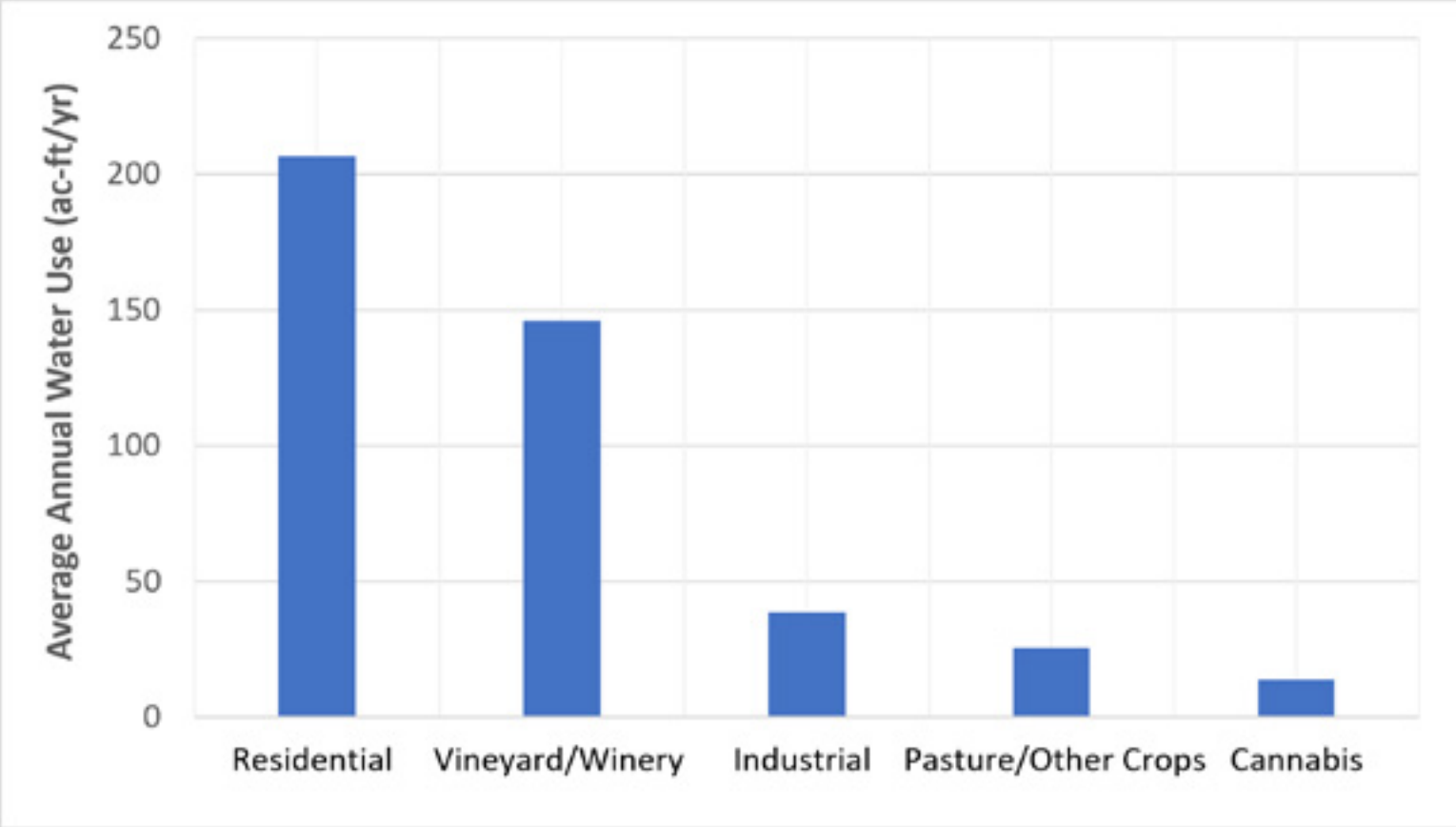


figure 2: Water use in the Mark West Creek watershed study area by major water use category

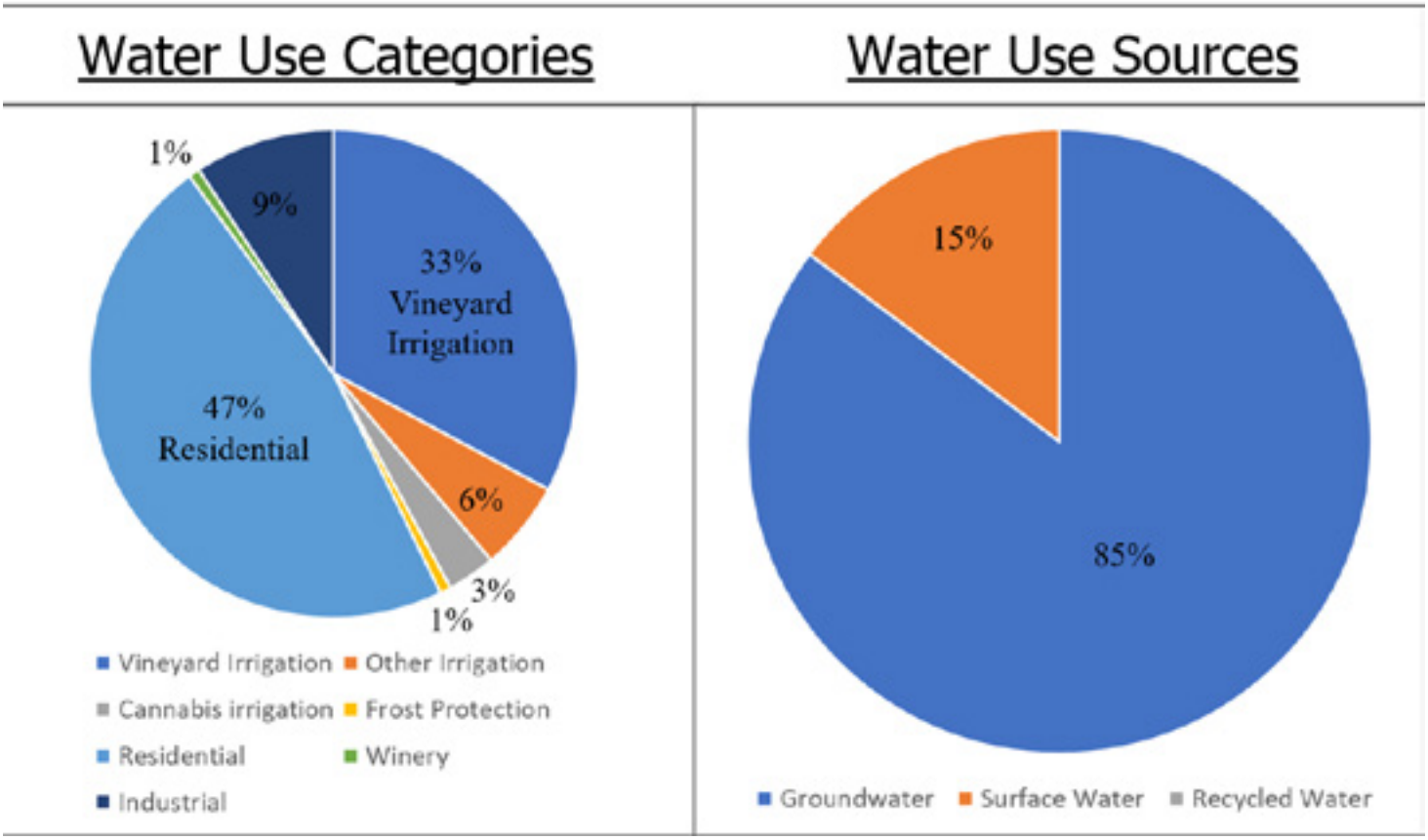


figure 3: Water use in the Mark West Creek watershed study area by major water use category and source

Looking at the watershed balance across the year, there is often enough water to meet existing human needs in an average and wet year, however in a dry year the watershed has a net deficit of water.

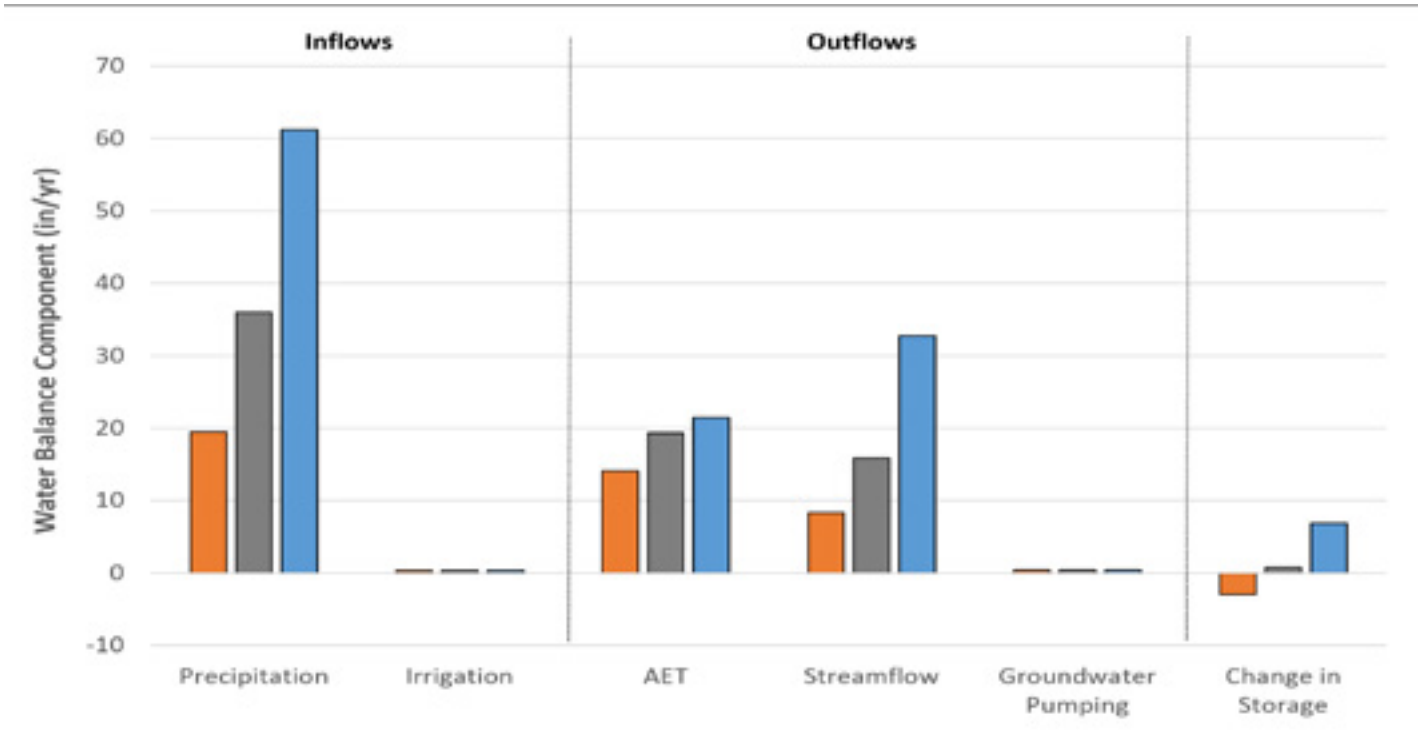
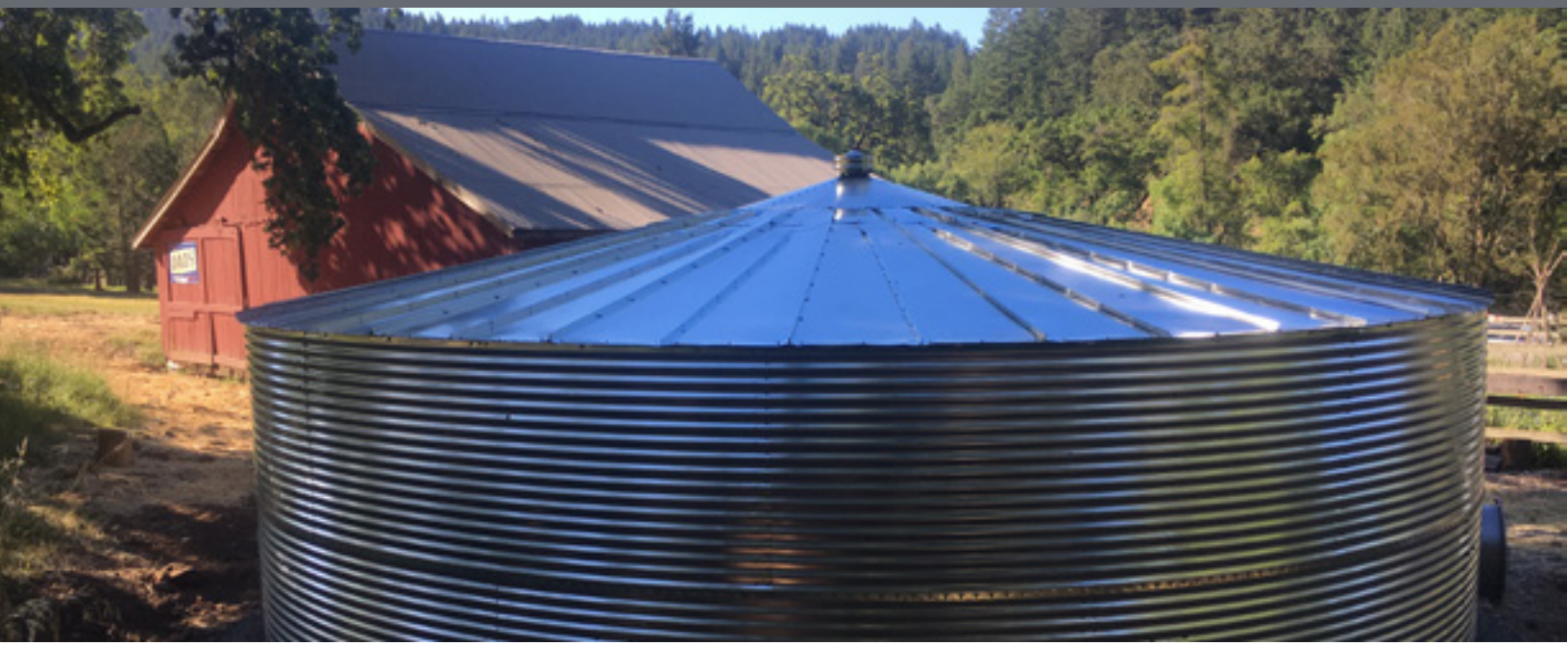


figure 4: Mean Annual Watershed Water Balance



Fish Habitat

Mark West Creek is a critical watershed for endangered coho salmon. Summer snorkel surveys quantified coho population for the study. In 2019, nearly all (98%) of the 734 observed coho were found in pools along Mark West Creek between Humbug Creek and Porter Creek. As mentioned above, salmonids require a minimum riffle depth of 0.2 ft for suitable flow conditions as well as deeper pools for resting areas. Temperature is critical for salmonid survival with temperatures above 18° C considered impaired and above 23° C considered lethal. **While streamflow is not the primary control water temperature, deep pools** (greater than 3.5 feet) can provide cooler refuge for fish during summer heat. **Encouraging the formation of stable deep pools and maximizing shade on the stream surface are likely the most important immediate mitigation actions.**

Most stream reaches in the watershed have both flow and temperature conditions that are considered "impaired" with regard to salmonid habitat. Based on this information, the **best areas for salmonid habitat are located within a roughly 4-mile reach of Mark West Creek between about 0.2 river miles upstream of Humbug Creek and about 2 river miles upstream of Porter Creek.**

"We will be able to make much smarter decisions about what projects can make the biggest impact the better. Projects such as protection of infiltration basins, rain water catchment, and recharge projects are expensive propositions. We want to make sure we are making the best use of these projects to make the biggest difference in the functioning of the system for all - fish and people."

- Penny Sirota, Co-Chair
Friends of the Mark West Watershed

Streamflow Enhancement Solutions

If all surface and groundwater use was ceased, modeling suggests that the mean summer streamflow would eventually increase by 6% in the high priority reach described above and 8% at the watershed outlet. Since the cessation of water use is likely unfeasible, the study looked at multiple streamflow enhancement solutions to determine the most effective measures along with predictions of climate change effects on streamflow. The solutions modeled include spring and summer flow releases from ponds, replacing surface water diversions with a well or offsetting with winter storage, managing grassland with compost application, managing forests with thinning, managing stormwater runoff with infiltration, and offsetting pumped groundwater with winter storage.

The pond release scenario generated the largest increases in summer streamflow of the stand-alone scenarios, with increases of about 13 - 14% (0.08 cfs in the high priority reach and 0.16 cfs at the watershed outlet). In the high priority reach, the next largest increases were from the forest management scenario, followed by the runoff management scenario. At the watershed outlet this order was reversed; runoff management generated about a 3% increase in summer streamflow in the high priority reach and a 10% increase at the outlet, whereas forest management generated about a 6% increase at both locations. The grassland management scenario generated the smallest increases in summer flows on the order of 2%.

Spring pond releases during drought conditions substantially increase flows in the identified high priority reach during a critical 3-week smolt outmigration period in May, extending the duration of passable conditions by approximately two weeks. The increases in flow associated with the summer pond release scenario also increased riffle depths significantly over the critical summer low flow period but the changes were not large enough to consistently maintain depths above 0.2-ft in the high priority reach.

Overall Salmonid Habitat Classification

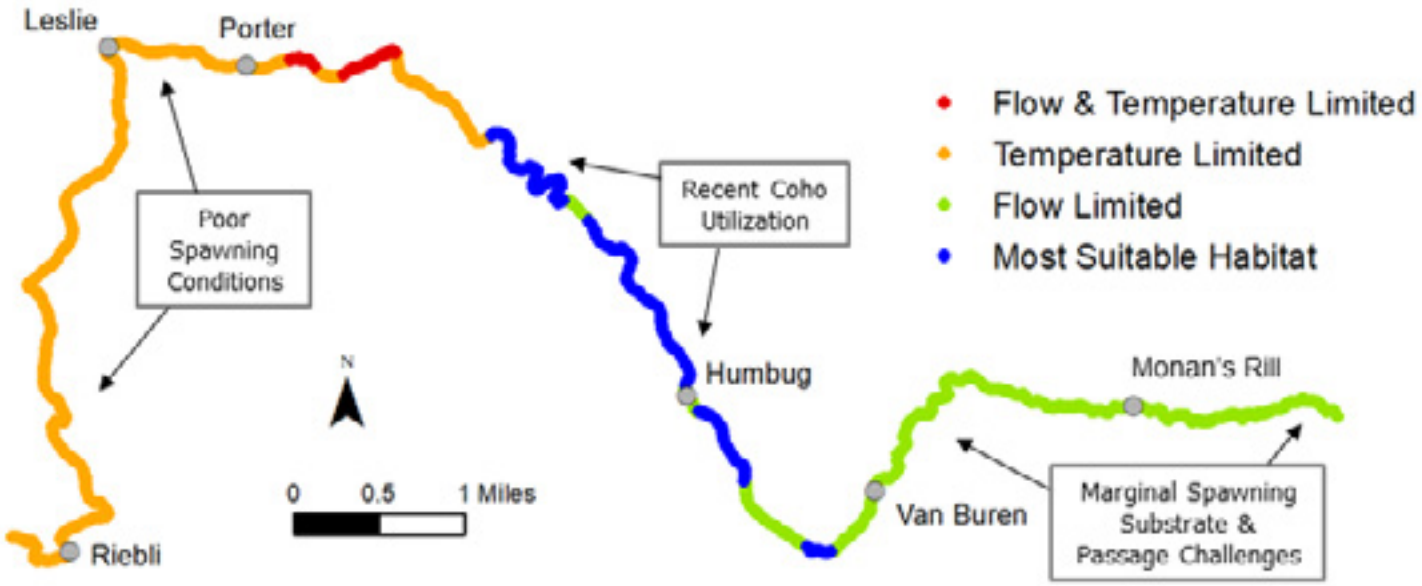


figure 5: Priority Salmonid Habitat Reach

While runoff, forest, and grassland management may not directly result in substantial streamflow improvement, these efforts have multiple benefits and are likely important strategies for managing fire risk and mitigating climate change impacts. These various benefits are in addition to the primary non-hydrologic benefits of forest and grassland management projects in reducing fuel loads and sequestering carbon respectively.

Replacing direct stream and spring diversions with storage and/or groundwater pumping is a viable approach for enhancing streamflow conditions but offsetting groundwater pumping with storage or shifting the timing of pumping from summer to winter is unlikely to lead to appreciable improvements in flow conditions. Of the six general strategies considered, replacement of direct diversions is the second most-effective strategy after pond releases, whereas offsetting groundwater pumping was found to be the least effective strategy. Streamflow enhancement activities should focus on upstream of Mill Creek confluence (upstream of Van Buren is highest priority)

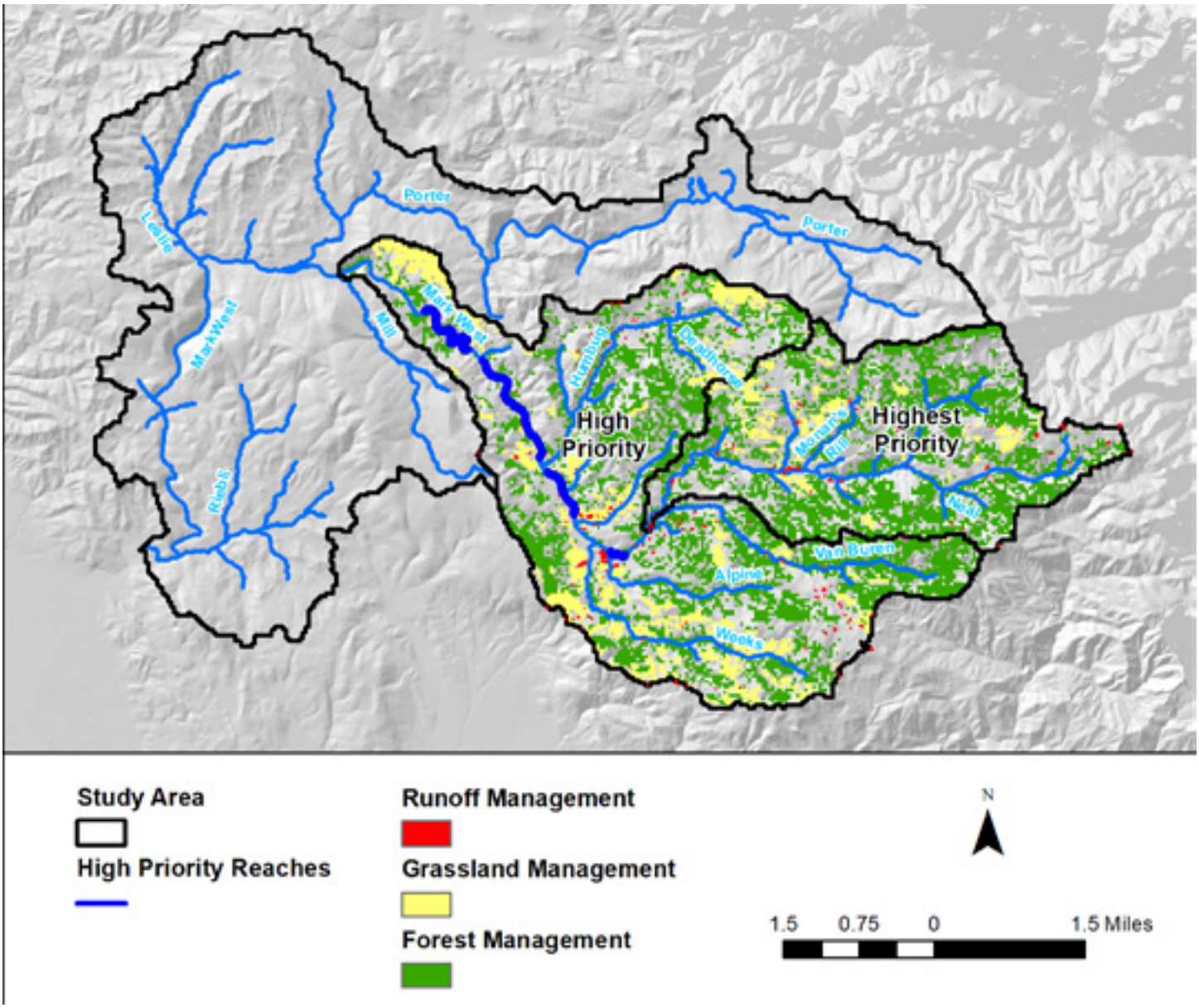


figure 6: Locations of the identified high priority reaches for habitat enhancement projects and high priority watershed areas for flow enhancement projects.

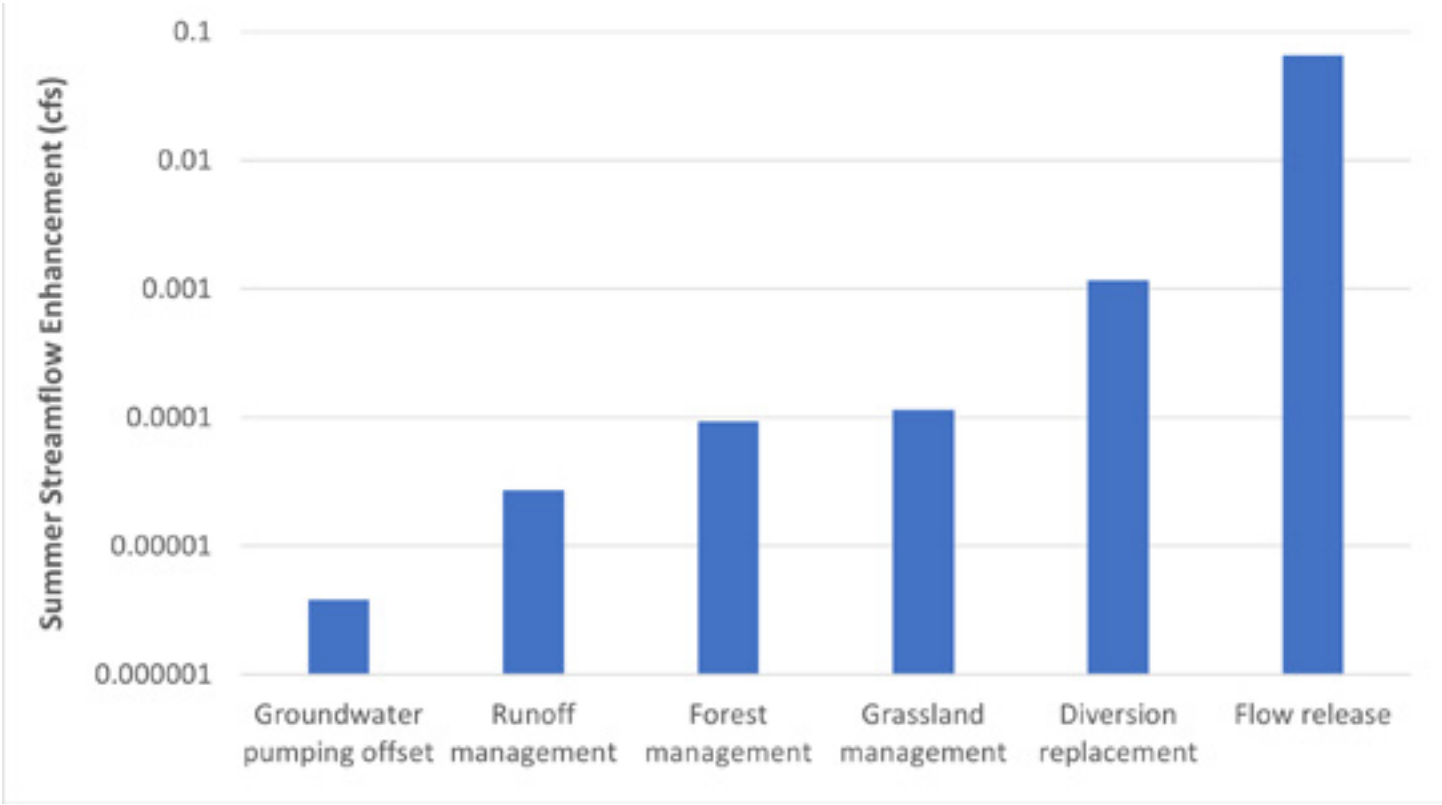


figure 7: Summary of the simulated increase in mean summer streamflow for the six primary individual flow enhancement actions represented by the model scenarios and normalized to a $25,000 average project cost.

On a cost basis, the streamflow benefits of one flow release project were found to be more than 50 times greater than an average surface water diversion replacement project and more than 500 times greater than an average grassland management project (the second and third most effective strategies).

Combined Solutions

With all of the land/water management scenarios combined (pond releases with forest, grassland and runoff management) mean summer discharges in the high priority reach increased by about 21% (0.13 cfs) and by about 28% (0.31 cfs) at the watershed outlet.

figure 8: Simulated changes to the 10-yr average mean summer streamflow for the combined management scenario (Scenario 8; note the scale in the legend is different from previous figures for other scenarios).

Climate Change

Four climate change scenarios were modeled to represent likely changes to precipitation and temperatures as predicted by available climate model data. The climate change scenarios generated a wide range of predictions with three of the four scenarios indicating decreases in summer streamflow of between 6 and 47% and one scenario indicating increases of about 15 to 19%. The mitigated scenarios indicate that **pond releases can likely offset a significant portion of the projected decreases in summer streamflow predicted by some of the models and if combined with forest, grassland, and runoff management, are likely large enough to completely offset the projected decreases.**

"My favorite aspect of this watershed is how involved and engaged the landowners are particularly the Friends of Mark West Watershed group in improving the health and resilience of their watershed."

- Kevin Cullinen, Project Manager
Sonoma Resource Conservation District

All four climate change scenarios indicate substantial decreases in springtime flows ranging from 35 - 62%. These changes greatly exceed the potential flow improvements associated with the various enhancement scenarios. Forest management generates the largest increases in mean spring discharges (~5 - 6%), and the other individual scenarios only increase spring flows by ~1 - 2%. None of the actions are capable of fully mitigating against the large decreases in springtime flows predicted by the climate scenarios. **Spring streamflow declines caused by climate change represents a dire threat to salmonids, only partial mitigation feasible is springtime pond releases, which could provide a short critical period of passable flow times to coincide with peak smolt outmigration window.**

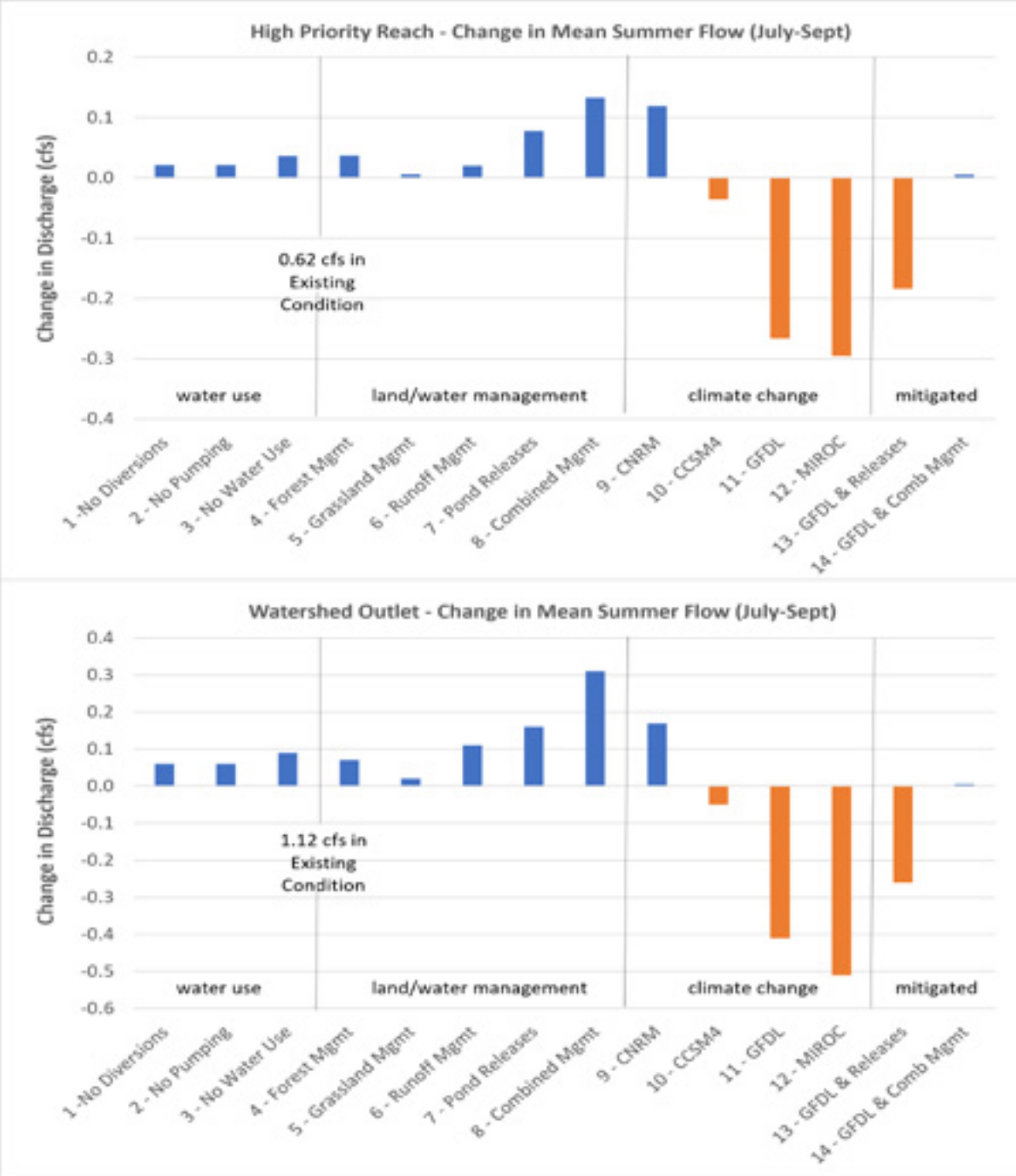
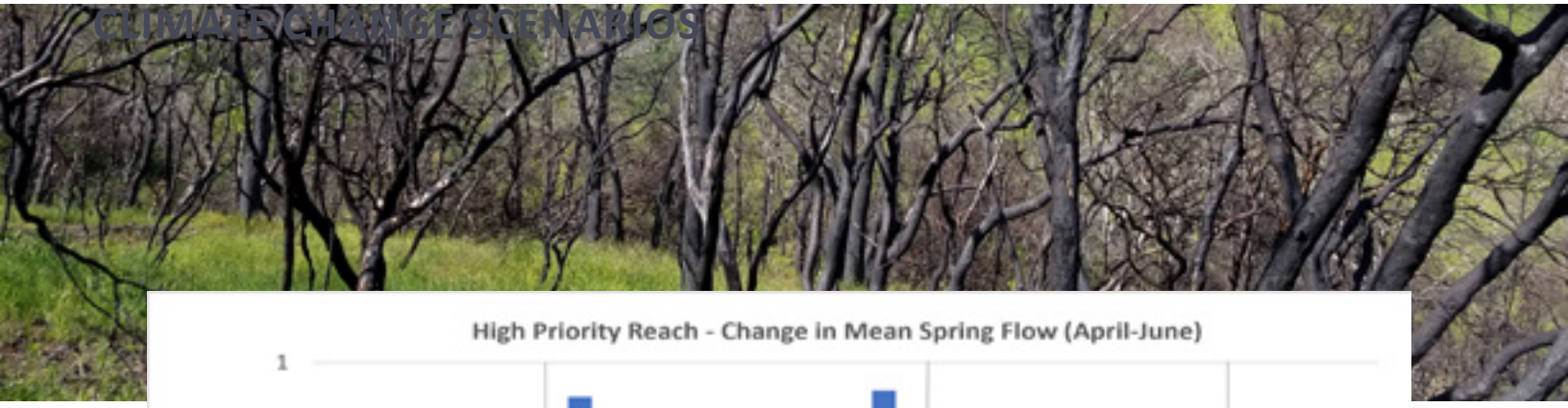


figure 9a: Summary of the simulated changes in mean summer streamflow for Scenarios 1-14 averaged over the high-priority habitat reach (top) and at the watershed outlet (bottom).



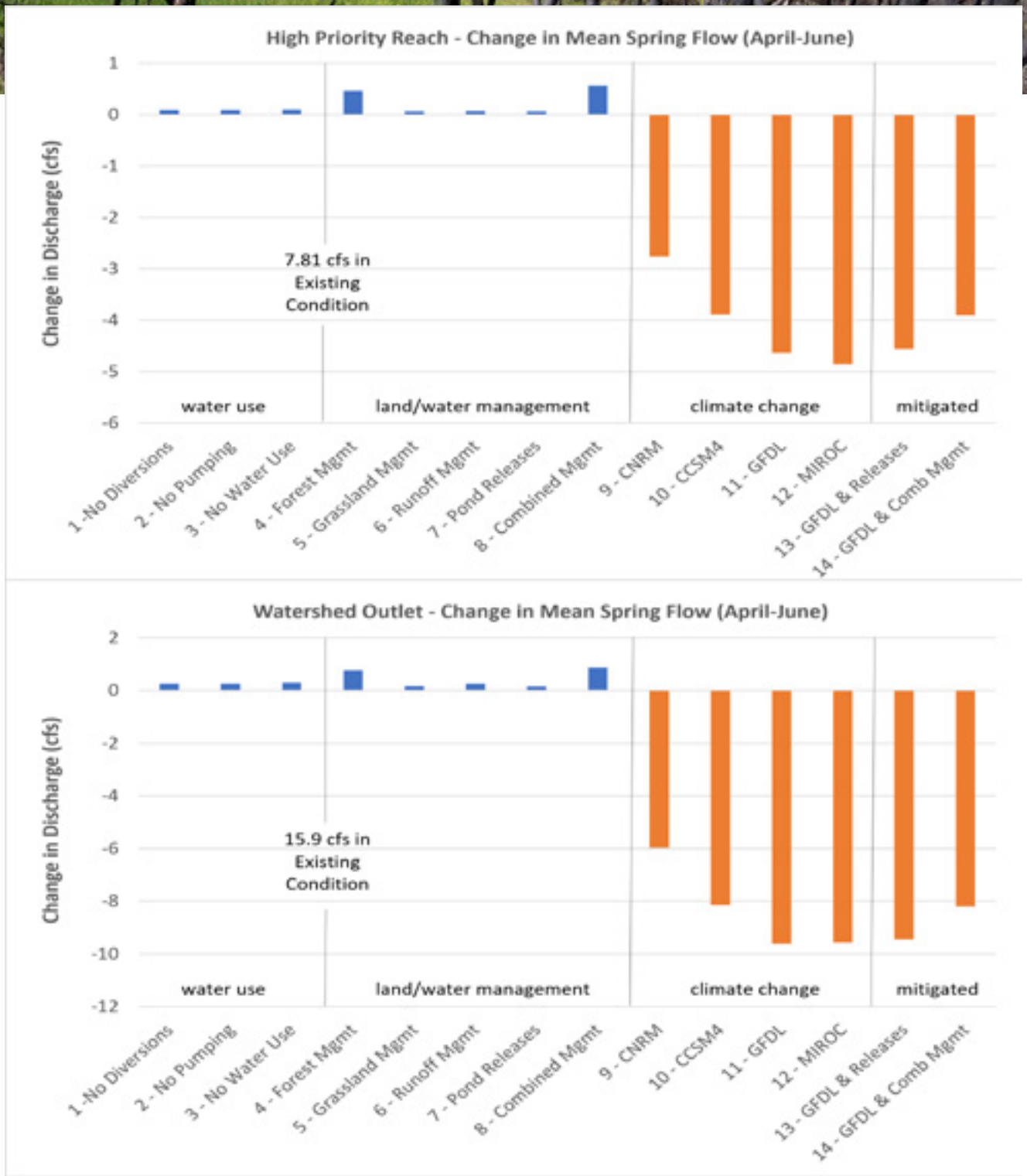


figure 9b: Summary of the simulated changes in mean springtime streamflow for Scenarios 1-14 averaged over the high-priority habitat reach (top) and at the watershed outlet (bottom).

Key Findings

- Summer streamflow mostly caused by spring discharge, concentrated upstream of Van Burren Creek.
- Streamflow is not the primary control on temperature and encouraging formation of stable deep pools and maximizing shade on the stream surface are likely the most important immediate mitigation actions.
- Releasing water from existing ponds in the watershed shows the largest potential increases in average summer streamflow, with increases of about 13-14%. Pond releases could also be timed to occur over a 3-week period in spring to improve conditions for outmigrating fish, extending the period when fish are able to pass through by two weeks.
- Replacing a surface water diversion with a well is the second most effective solution for increasing streamflow
- Runoff, forest, and grassland management have multiple benefits and are likely important strategies for managing fire risk and mitigating climate change impacts in addition to streamflow improvement.
- Streamflow enhancement activities should focus on upstream of Mill Creek confluence (upstream of Van Buren is highest priority)
- Summer streamflow declines caused by climate change can be mitigated with a combined solution strategy
- Spring streamflow declines caused by climate change represents a dire threat to salmonids, only partial mitigation feasible is springtime pond releases, which could provide a period of passable flow times to coincide with peak outmigration window

"Cumulative long-term effect of groundwater use on surface flows appears to develop over a period of decades and although there is some evidence that wells proximate to streams have somewhat greater influence on surface flows, cumulative watershed-wide groundwater withdrawals ultimately cause streamflow depletion and short-term reductions in groundwater use are not likely to generate comparable short-term increases in streamflow."

-Matt O'Connor, PhD, CEG
President, O'Connor Environmental, Inc.

RECOMMENDATIONS

Future Studies and On-the-Ground Project Implementation

- **Installation of large wood to encourage formation and protection of existing deep pools as in-stream large wood (logs and trees) densities are low in Mark West Creek**
- **Conduct planning study for the upper watershed to identify parcels most suitable for grassland, forest, and runoff management projects and that these projects be implemented where feasible.**
- **Conduct landowner outreach on pond flow release and surface diversion replacement and/or offset**
- **Post fire flow modeling – Mark West Watershed has experienced fires in 2017, 2019, and 2020, burning 73% of the watershed; this is a unique opportunity to model post-fire impacts on streamflow hydrology**
- **Finalize Concept Designs – CRWI and SRCD staff in partnership with Pepperwood Preserve and Sonoma County Regional Parks staff identified five streamflow enhancement conceptual projects to be considered for future development and implementation. These included:**

    1. Mark West Regional Park headquarters facilities - runoff collection and infiltration from roofs & hardscape; based on the preliminary park master plan.
    2. Mark West Regional Park tributaries - infiltration enhancement in existing fan-like terrace and floodplain from the north facing slope opposite park headquarters.
    3. Pepperwood Preserve - organic enrichment of grassland soils and broad enhancement of soil hydrologic characteristics with compost treatment.
    4. Pepperwood Preserve – creating a reservoir at lip of homestead meadow for recharge enhancement.
    5. Mark West Regional Park and/or Pepperwood Preserve - Ephemeral/ intermittent channel manipulation to enhance recharge (e.g. treating an incised channel with something like check dams to increase the duration of saturation and/or raising channel bed so that available existing alluvial terraces or floodplains can receive and infiltrate more water that would otherwise runoff as stormflow). This could conceivably be implemented on either property. Opportunities exist at Pepperwood but potentially more potential for flow enhancement for salmonids at Mark West Regional Park**.**

Thank you to the landowners and our dedicated partners for your support and investment in this important study in the Mark West Creek Watershed.

From: Ray Kaufman
To: PermitSonoma-Wells-PublicInput
Subject: Commerical vs public vs private
Date: Monday, August 8, 2022 10:53:36 AM

Unless one is a lawyer or has experience in real estate development, fully understanding the implications of the proposed regulations is difficult to discern. In layman terms here are my concerns based on the development next door to us: 17700 Carriger Road.

A number of us have expressed concerns regarding this development. Specifically in terms of well water usage: How would your proposed regulations effect us as private home owners adjacent to this development? There are 20 private homes with wells mostly around 1/2 or less to an acre bordering 17700 Carriger Road. A developer purchased the approximately 97 acre parcel. He has planted a 20 acre vineyard (to enhance the value of the property), with plans to construct two 8 bedroom villas to be rented out. At this point, a private business venture with no local ties or concern in our small community on a rural road, could impact our water supply. Will the new regulations continue to put business development in a rural area over the homeowners? The next issue of concern is ground water pollution. The 20 acre vineyard will not be organic. The way it was planted and looking at the plants, they are going to be farmed for volume over quality. It will not be an organic vineyard. All this adds up to a lot more chemicals used to maintain the vineyard than a responsible environmentally conscious organic or sustainable grape grower would. This could effect the safety of the ground water not just for the 20 homes bordering 17700 Carriger Road, but other homes in the area as well.

I hope and expect the proposed regulations to address issues like this so home owners would be protected over business interests, especially in rural areas with limited water resources.

Sincerely,

Ray Kaufman
17854 Carriger Road
Sonoma, Ca 95476