



COUNTY OF SONOMA

575 ADMINISTRATION
DRIVE, ROOM 102A
SANTA ROSA, CA 95403

SUMMARY REPORT

Agenda Date: 4/4/2023

To: Board of Supervisors

Department or Agency Name(s): Permit Sonoma

Staff Name and Phone Number: Nathan Quarles, (707) 565-1146 and Robert Pennington (707) 565-1352

Vote Requirement: Majority

Supervisorial District(s): Countywide

Title:

10:30 AM -Consideration of an Ordinance: (1) Amending Sonoma County Code Chapter 25B (Well Ordinance) to Add Provisions Related to Evaluation of Public Trust Resources, Well Monitoring, and Other Miscellaneous and Technical Changes; (2) Setting a Fee for Discretionary Well Permit Applications; and (3) Determining Exemption from the California Environmental Quality Act. Consideration of Urgency Ordinance for Temporary Extension of the Moratorium on Water Well Permitting.

Recommended Action:

- A. Adopt a resolution, (1) reading the title of, (2) waiving further reading of, (3) introducing for adoption an ordinance to amend Chapter 25B of the Sonoma County Code to address the County's public trust duty for proposed new water wells, to specify public trust review area and exemptions, to specify appropriate discretionary and ministerial permit pathways, to add, delete, or modify definitions, to add water conservation and well metering requirements, and to make other miscellaneous and technical corrections, to set an at-cost fee for discretionary well permit applications; and determining exemption from the California Environmental Quality Act;
- B. Set a hearing on April 18, 2023, for consideration of final adoption of the ordinance to amend Chapter 25B;
- C. Direct Permit Sonoma to return with a plan for program development, comprehensive studies, funding, and staffing; and
- D. Adopt an urgency ordinance extending a temporary moratorium on the processing and approval of water supply well permits until May 18, 2023, which is 30 days from adoption of the ordinance amending Chapter 25B, if the ordinance is adopted April 18, 2023 (second reading); and determine exemption of the urgency ordinance from the California Environmental Quality Act.

Executive Summary:

The County has a duty to consider impacts to public trust resources when making decisions on new well permit applications that could harm navigable waterways. As part of this duty, the County considers protection of public trust resources and mitigates impacts where feasible. -The revised ordinance as a whole represents the County's fulfillment of its duty and reflects its exercise of discretion regarding how to evaluate the public trust when issuing permits to extract groundwater. The public trust doctrine is an important and evolving area

of law.

In 2022 the County began the present legislative effort to update the well ordinance, Chapter 25B, to ensure clarity regarding how the County will implement its public trust duty. In August 2022, staff presented to the Board initial ordinance changes.

On October 4, 2022, the Board of Supervisors further considered revised Chapters 25B amendments. After conducting a public hearing, the Board ordered the director to convene a technical advisory committee and return to the Board within six months - April 2023 - with a revised ordinance. The Board also imposed a six-month moratorium on the processing or approval of water supply well permits unless the application was for an emergency well.

The Permit Sonoma Director convened a Technical Working Group and a Policy Working Group to advise the department on best available science and policies for development of a well ordinance including a framework for consideration of public trust resources. Recommendations of the working groups are summarized in Attachment G. The two groups each had six independent meetings and three joint meetings, with an initial joint meeting on November 17, 2022, and a final joint meeting on March 1, 2023. The Director commends group members for their expertise and extraordinary collaboration.

The current proposal was developed in conjunction with recommendations from technical and policy working groups formed by the Permit Sonoma Director (Attachment H). The current proposal is similar to the October 4, 2022, proposed version. Notable changes include: (1) substantial remapping of the [Public Trust Review Area <https://sonomacounty.maps.arcgis.com/apps/webappviewer/index.html?id=8baedfd50be640b0b11548537f89fee2>](https://sonomacounty.maps.arcgis.com/apps/webappviewer/index.html?id=8baedfd50be640b0b11548537f89fee2), (2) refinement of classes that are exempt from discretionary public trust review, (3) adjustment to requirements for metering, monitoring and water conservation that have been categorized and tailored for different types of permits to effectively preserve the public trust as much as possible and consistent with the public interest. Additional changes are further discussed in the staff report. Staff also proposes as part of the Board action, that the Board set an “at cost” fee for processing discretionary well permit applications of \$5,568. The proposed fee was not included in the Board’s March 21, 2023, Consolidated Fee Hearing - FY 23-24 for Permit Sonoma. The current well permit fee, which is for ministerial review, would not be adequate to cover county time and expense analyzing, reviewing and acting on a discretionary permit application.

In addition to the revised proposed ordinance, staff also recommends that the Board take action on an urgency basis to extend the existing temporary moratorium by a short period - only until the newly adopted ordinance becomes effective 30 days from adoption - to avoid a rush on permitting before the new code is effective. The moratorium would be extended to May 18, 2023, if the ordinance is adopted on April 18, 2023. As explained in more detail in this report, the proposed actions to adopt revisions to Chapter 25B, set an at-cost fee, and temporarily extend the moratorium, are exempt from review under the California Environmental Quality Act.

Discussion:

Public Trust Doctrine and Legal Background

The Public Trust Doctrine is a legal doctrine, reflected in Article X, section 4 of the California Constitution, that provides that the government holds certain natural resources ‘in trust’ for the benefit of current and future generations. Resources held in trust by the State, for public trust purposes, include tidelands, submerged land

and land underlying inland navigable waters. Public trust purposes or uses include commerce, recreation, fishing, wildlife habitat and preservation of trust lands in their natural state. The obligation to consider and protect the public trust uses extends to counties and other subdivisions of the State.

In 1983, the California Supreme Court in *National Audubon Society v. Superior Court* held that the Public Trust Doctrine “protects navigable waters from harm caused by diversion of non-navigable tributaries.” In 2018, *Environmental Law Foundation (ELF) v. State Water Resources Control Bd.*, to the California Court of Appeals considered well permitting in the Scott River watershed in Siskiyou County and found that the Public Trust Doctrine applies to permitting of groundwater wells if extraction of groundwater adversely impacts a navigable waterway. Note, groundwater is not a public trust resource. However, extraction of groundwater that is interconnected with a stream or river may result in reduced streamflow and impact public trust resources of a navigable waterway. Under the *ELF* decision, impacts to public trust resources must be considered and mitigated, if feasible, when a county issues permits for wells that may reduce flows and adversely impact public trust resources of navigable waters.

If the public trust is not considered, and impacts are not mitigated where feasible, then well permit decisions may cause unnecessary and unjustified harm to trust resources. As a matter of practical necessity, the County may be able approve a well permit, “despite foreseeable harms to public trust uses, if it bears in mind its duty as a trustee to consider the effect of the decision on the public trust, and to preserve, so far as consistent with the public interest, the uses protected by the trust.” As a result, the present code update effort is designed to preserve public trust uses as much as possible and consistent with the public interest. It reflects the County’s fulfillment of its public trust duty and reflects its exercise of discretion regarding how to evaluate the public trust when issuing permits to extract groundwater.

Lawsuit

California Coastkeeper Alliance filed a lawsuit against the County of Sonoma on July 13, 2021, seeking the County’s compliance with the public trust doctrine when issuing well permits. After the County commenced the current effort to update its well ordinance to address the public trust duty and imposed a temporary moratorium, the litigation settled and the case was dismissed at the end of 2022.

Navigable Waters

Within Sonoma County, the main stem of the Russian River from Jenner to the Sonoma/Mendocino County line and waterways identified as navigable by the U.S. Army Corp of Engineers survey Navigable Waterways as of August 2, 1971, are considered navigable and subject to review under the Public Trust Doctrine. This list of waterways is not exhaustive, and additional waterways may be determined to be navigable by California or federal agencies, or the courts.

Current Well Ordinance

The current well ordinance, adopted on July 28, 2015 (Ordinance No. 6121), covers well permitting procedures, construction standards and setbacks, destruction, and water treatment, but does not explicitly require consideration of impacts to public trust resources for individual well permits. Currently all well permit applications are ministerial, meaning they are subject to objective codified standards which, if met, result in

permit issuance and cannot be conditioned.

Well Ordinance Presented to the Board on October 4, 2022

The proposed well ordinance presented to the Board previously on October 4, 2022, included a new section 25B-4(d) titled “Public Trust Resource Limitation” that details a discretionary public trust review process and requires consideration of and written findings regarding impacts to public trust resources prior to issuance of a permit for a new water supply well located within an area specified as the Public Trust Review Area. The Public Trust Review Area (presented on October 4, 2022) was informed by geology and hydrogeology and included alluvial and sedimentary aquifers where available information indicates the aquifer is interconnected with a navigable water or interconnected with a tributary stream that flows to a navigable water.

The October 2022 draft ordinance contained provisions regarding permit processing, written findings by the County, appeal provisions, additional information requirements for discretionary reviews and other administrative provisions. These provisions have been carried forward into the proposed draft.

The October 4, 2022, proposed ordinance also specified certain classes of well permits were exempt from discretionary public trust review, including:

1. Injection wells.
2. Replacement residential water wells that are limited to 2.0-acre feet or less per year.
3. A public water well for which environmental review under the California Environmental Quality Act is complete.
4. Water wells where total groundwater use of the parcel is limited to 2.0-acre feet per year, and where the applicant implements groundwater monitoring and conservation requirements.
5. Water wells where total groundwater use of the parcel is limited to and does not exceed the amount of groundwater used as of the date of ordinance adoption for legally established land uses, and where the applicant implements groundwater monitoring and conservation requirements.

The October 4, 2022, proposed ordinance specified water conservation requirements required of exempt classes (4) and (5) above include:

1. Limits on groundwater use to 2-acre feet per year or the historic groundwater use of the parcel.
2. Individual well meters for all separate service connections served by a shared well.
3. Conformance with water efficient landscape regulations.
4. Prohibition of non-functional/ornamental turf.
5. Efficient toilets and showerheads.
6. Water conservation plans for commercial, industrial, and institutional sites.

7. Limits on groundwater use for vineyard and orchard irrigation.

The October 4, 2022, proposed ordinance required well metering of all water wells for which applications were submitted after October 4, 2022, except for water wells that serve a parcel that is solely used for domestic purposes with a cumulative groundwater use on the parcel of 2.0-acre feet or less per year. The October 4 ordinance also required the landowner to maintain and calibrate well meters.

Board Direction and Action on October 4, 2022

On October 4, 2022, the Board of Supervisors considered and deliberated upon proposed amendments to Chapter 25B and directed staff to (1) convene a technical advisory committee, and (2) return to the Board within six months (March or early April of 2023) with a revised limited scope ordinance for addressing public trust. The Board of Supervisors also adopted, on an urgency basis, a six-month moratorium on the processing or approval of water supply well permits, unless the application was for an emergency well.

The Board directed staff to form a technical advisory committee that would serve the Director of Permit Sonoma and recommend revisions to the well ordinance. The Board made specific direction that the advisory committee should consider revisions to the Public Trust Review Area, coordination with groundwater sustainability agencies, water conservation and metering requirements, and the discretionary review process.

Technical and Policy Working Group Process (November 17, 2022 - March 1, 2023)

The Director of Permit Sonoma convened a Technical Working Group and a separate Policy Working Group to advise the Director of Permit Sonoma on best available science and policies for development of a well ordinance of revised scope that includes a framework for consideration of public trust resources. The two working groups each had six independent meetings and three joint meetings, with an initial joint meeting on November 17, 2022, and a final joint meeting on March 1, 2023. Facilitation services were provided by Gina Bartlett of Consensus Building Institute. Technical support services were provided by O'Connor Environmental Inc. and Sonoma Water.

Members of the Technical Working Group included:

- Jay Jasperse, Chair
- Bruce Abelli Amen, Baseline Environmental Consulting
- Sam Boland-Brien, State Water Resources Control Board
- Andy Casarez, Sonoma County Agriculture & Vineyard Conservation Coordinator
- Ken Johnson, Geotechnical engineer
- Laurel Marcus, Fish Friendly Farming
- Jessica Maxfield, California Department of Fish and Wildlife
- Brad Petersen, Vineyard manager - Silver Oak Winery
- Matt Petersen, Peterson Drilling and Pump
- Rick Rogers, National Marine Fisheries Service
- Melissa Rohde, Rohde Env. Consulting, LLC
- Marcus Trotta, Santa Rosa Plain, Petaluma Valley, and Sonoma Valley GSA Plan Manager

Members of the Policy Working Group included:

- Rue Furch, Co-Chair, Sonoma County Water Coalition
- Mike Martini, Co-Chair, Ag and Development Interests
- Ben Campanile, Jerry and Don's Yager Pump & Well Service
- Rob Cantu, North Coast Builders Exchange
- Brock Dolman, Occidental Arts and Ecology Center
- Dayna Ghirardelli, Sonoma County Farm Bureau
- Carol Lexa, North Bay Association of Realtors
- Sandi Potter, Petaluma GSA Administrator
- Mike Sangiacomo, Vineyard Manager
- Monty Schmitt, The Nature Conservancy
- Charlie Schneider, CalTrout
- Carolyn Wasem, Jackson Family Wines

The working groups discussed the following broad topics:

- Adverse Impacts
- Public Trust Review Area
- Well Classification
- Well Implementation Requirements - Conservation and other Measures
- Monitoring and Metering Requirements
- Discretionary Review Process
- Adaptation - Medium and Long Term Program Development Recommendations

Effort was made to find broad support or consensus on policy options from all working group members. Where consensus was not achieved, the range of supported policy options were discussed and documented. Outcomes and recommendations of the working groups are summarized in a joint recommendations report (Attachment G). Alternative policy options related to the Public Trust Review Area, ministerial well classes, water conservation requirements, and metering/monitoring requirements that were discussed by the working groups are provided to the Board for their review in Attachment G. In addition, recommendations for the discretionary review process, medium and long term program development, and adaptation were discussed.

Proposed Amendments to the Well Ordinance

The proposed revised ordinance is largely consistent with the proposed well ordinance presented to the Board on October 4, 2022.

Substantive changes include:

1. Defining the Public Trust Area with reference to a map. The proposed map was developed using an updated and technically informed methodology that considered aquatic habitat sensitivity and value for salmonids, and best available estimates of streamflow depletion.
2. Ministerial well permit class definitions were refined and two additional ministerial well classes were added, including (1) water wells that result in zero net increase in groundwater use, and (2) water wells that serve as a point of diversion associated with a water right regulated by the State Water Resources

Control Board.

- Water Conservation requirements were refined and split into Level 1 and Level 2 conservation requirements. Level 1 water conservation requirements will be required for all well permits (excluding injection wells and public water wells) county wide. Level 1 and 2 water conservation requirements will be required of certain well permit classes within the Public Trust Review Area.
- Well metering and monitoring requirements are largely consistent with the earlier proposal and require monthly measurements and annual reporting of metered groundwater use, excluding residential parcels using less than 2.0-acre feet per year. Water level monitoring and reporting is proposed for wells on parcels that use greater than 5.0-acre feet per year.

Public Trust Review Permitting Framework

Under the proposed ordinance, water well permits located outside the Public Trust Review area will be ministerial and processed in a similar fashion as they are under the current ordinance. However, all water well permits (excluding public water wells and injection wells) will be subject to Level 1 water conservation requirements discussed below. Water well permits within the Public Trust Review Area will be subject to discretionary public trust review, unless the well qualifies as one of the ministerial well classes. Level 1 and 2 water conservation requirements are dependent on the ministerial well class. Figure 1 provides a diagram illustrating the proposed permitting process for public trust review.

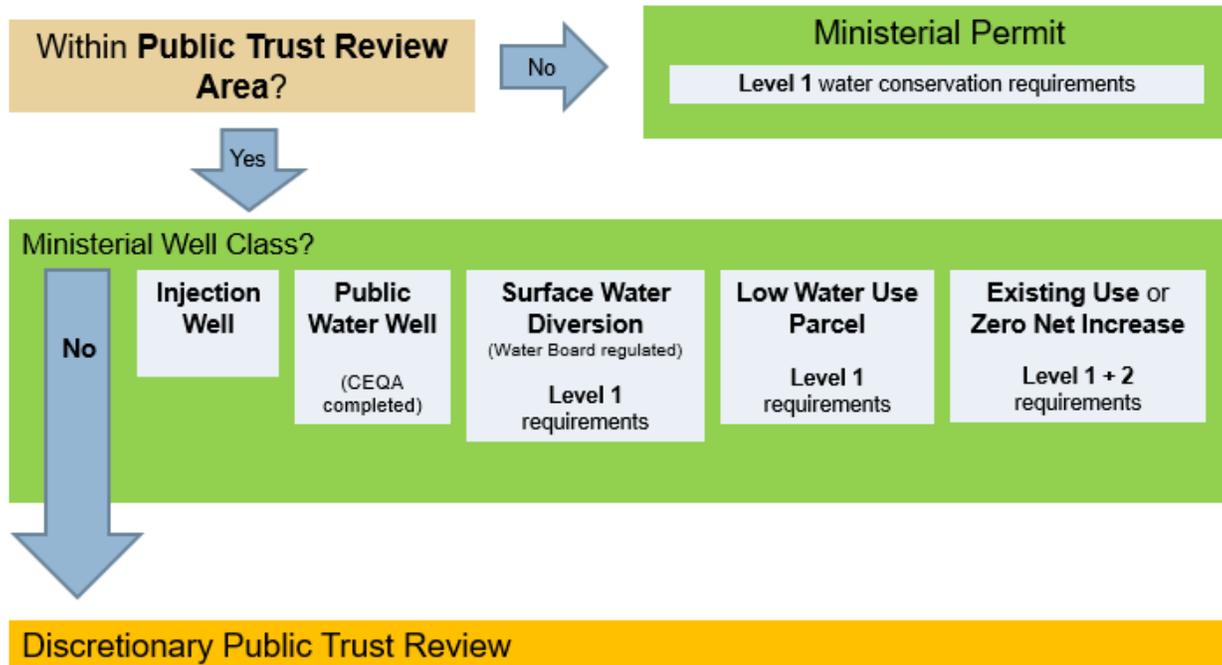


Figure 1. Permit process flow chart for public trust review.

Public Trust Review Area

Figure 2. Map of the Public Trust Review Area.

The Public Trust Review Area was mapped using a decision framework developed in coordination with the technical working group and presented to the policy working group. This approach considers two primary factors: (1) the value and sensitivity of public trust resources to streamflow depletion and (2) estimated existing rates of dry season streamflow depletion (Table 1). All areas of the County were categorized as either Low, Medium, or High Risk, and these designations are used to define the areas included within the Public Trust Review Area. Note, “risk” categories are relative and intended for screening purposes. Risk category is not intended to represent areas where adverse impacts to public trust resources do or do not exist.

Low risk areas include areas classified as Low Habitat Value and Sensitivity, and areas classified as Moderate Habitat Value and Sensitivity and Low existing streamflow depletion. Low risk areas are not included in the proposed Public Trust Review Area.

Medium risk areas include areas classified as Moderate Habitat Value and Sensitivity and Moderate existing streamflow depletion as well as areas classified as High Habitat Value and Sensitivity and Low existing streamflow depletion (Table 1). In Medium risk areas, the Public Trust Review Area consists of stream buffers of 100, 250 or 750 feet designed to be protective of acute streamflow depletion impacts from near stream wells.

High risk areas include areas classified as Moderate Habitat Value and Sensitivity with High existing streamflow depletion, and areas classified as High Habitat Value and Sensitivity with Moderate or High existing streamflow depletion. High risk areas also include the areas classified as Very High Habitat Value and Sensitivity regardless of the level of existing streamflow depletion. In High-risk areas, the Public Trust Review Area consists of entire subwatersheds, designed to be protective of both acute and cumulative streamflow depletion impacts

Table 1: Public trust decision framework indicating which areas were included in the Public Trust Review Area based on the results of the resource sensitivity and existing streamflow depletion classes.

Habitat Value and Sensitivity	Low Streamflow Depletion (0 – 10%)	Moderate Streamflow Depletion (10 – 20%)	High Streamflow Depletion (>20%)
Low	Not included	Not included	Not included
Moderate	Not included	Stream buffers	Sub-watershed
High	Stream buffers	Sub-watershed	Sub-watershed
Very High	Sub-watershed	Sub-watershed	Sub-watershed

Evaluation of the sensitivity of public trust resources focuses on aquatic habitat value of salmonids. Coho salmon and steelhead trout are used as indicator species sensitive to streamflow depletion to represent public trust resource value and sensitivity. Existing summer rearing habitat or priority recovery habitat for Coho is designated as High or Very High Habitat Value and Sensitivity. If not designated as high or very high, existing critical habitat for Steelhead is designated as Moderate Habitat Value and Sensitivity. Limited adjustment to Habitat Value and Sensitivity were made based off input on specific habitat conditions of select watersheds from fisheries experts. This approach received general support from technical and policy working group members including National Marine Fisheries Service, California Department of Fish and Wildlife, and State Water Resources Control Board participants.

Streamflow depletion is the reduction in streamflow relative unimpaired flow conditions. Unimpaired flow conditions are flow conditions in the absence of groundwater or surface water diversion or augmentation. The dry season includes the months of July, August, and September, and is regarded as the period when streams in Sonoma County are most sensitive to reduced flows from groundwater extraction. Estimates of existing rates of dry season streamflow depletion were developed using parcel specific estimates of groundwater pumping and estimates of groundwater recharge across Sonoma County. The ratio of estimated groundwater pumping to estimated groundwater recharge was found to be a useful predictor of dry season streamflow depletion as derived from well calibrated distributed hydrologic models for Mark West Creek, Green Valley Creek, and Mill Creek watersheds. This approach received tentative support from technical and policy working group members including National Marine Fisheries Service, California Department of Fish and Wildlife, and State Water Resources Control Board participants. Technical working group members agreed that improvement to estimates of streamflow depletion should be a continued and long-term commitment.

Presumptive standard for environmental flow protection from Richter 2012 were used to classify each subwatershed as having a Low, Moderate, or High level of streamflow depletion. According to Richter a high level of ecological protection is presumed to be provided when flow alterations are no greater than 10% and a moderate level of protection is provided when flow alterations are in the 11-20% range.

The proposed Public Trust Review Area covers approximately 313 square miles (18% of the county) with stream buffer areas accounting for approximately 94 square miles and subwatersheds accounting for approximately 219 square miles (Figure 2). Areas within stream buffers include the Gualala River and tributaries, and the Austin, Freezeout, Jenner Gulch, Sheephouse, Pena, Gill, Crocker, Sausal, Bidwell, Porter, Willow, Adobe, and portions of the Salmon Creek and Maacama Creek watersheds. Areas within the Public Trust Review Area where the entire subwatershed is included are Dutch Bill, Green Valley, Mark West, Mill, Miller, Gird, Wine, Crane, and Atascadero Creek. The upper Salmon Creek watershed, large portions of the upper and middle Sonoma Creek watershed, and the northeastern portion of the Petaluma River watershed are also included.

Aquifers adjacent the mainstem of the Russian River and Dry Creek were excluded from the Public Trust Review Area because flow in these waterways is regulated by reservoir releases from Lake Mendocino and Lake Sonoma, and dry season flows are much greater than natural or unimpaired flows. Sonoma Water is mandated to maintain minimum instream flows of the Russian River Project through State Water Resources Control Board Decision 1610. Exclusion of these areas from the Public Trust Review Area was supported by members of the technical working group from Sonoma Water and the State Water Resources Control board. Recommendations were made to revisit inclusion of these areas in the future as surface water regulation and

water supply management requirements of the Russian River Project evolves.

Policy and technical working group members could generally support the proposed Public Trust Review Area. Some members recommended that the entirety of Sonoma County should be included, while others supported a reduced area limited to the Russian River watershed.

Staff support the proposed area because best available information was used to identify areas where groundwater extraction has moderate or high potential of impacting sensitive natural resources. Staff do not support expanding the Public Trust Review Area to the entirety of the County because additional areas have low risk and the additional costs for permitting and related requirements are not considered commensurate to the potential impact. In the interest of implementing a consistent public trust framework, staff do not support reducing the Public Trust Review Area to areas only within the Russian River watershed.

Ministerial Well Classes

The proposed ordinance reflects the County's exercise of discretion regarding how to evaluate the public trust when issuing permits to extract groundwater by specifying certain ministerial classes of well permits that are exempt from additional discretionary public trust review, including:

1. Injection Well. A well that is used solely for injecting water into the underground.
2. Public Water Well. A public water well for which environmental review under the California Environmental Quality Act is complete.
3. Surface Water Diversion Well. A water well that serves as a point of surface water diversion for an appropriative water right regulated by the California State Water Resources Control Board, Division of Water Rights. Subject to Level 1 water conservation requirements.
4. Well for Low Water Use. A water well where total groundwater use of the parcel is limited to 2.0-acre feet or less per year. Subject to Level 1 water conservation requirements.
5. Well for Existing Use. A water well where total groundwater use of the parcel is limited to and does not exceed the amount of groundwater used as of the date of ordinance adoption for legally established land uses. Subject to Level 1 and 2 water conservation requirements.
6. Net Zero Groundwater Increase. Water well, where the proposed use would not result in a net increase in groundwater use from the local aquifer through implementation of water conservation measures, rainwater catchment or recycled water reuse system, water recharge project, agricultural practices that increase infiltration and soil moisture capacity, or local groundwater management project. Subject to Level 1 and 2 water conservation requirements.

Policy and technical working group members reached consensus for all ministerial well classes listed above, except for the "Well for Low Water Use" class. Various alternative options for the "Well for Low Water Use" class were discussed and are summarized below.

Some working group members supported creating a "low" water use class from 0 - 0.5-acre feet per year subject to Level 1 requirements, and a separate "moderate" water use class from 0.5 - 2.0-acre feet per year

that would be subject to Level 1 and 2 water conservation requirements. One rationale being that the average groundwater use of a rural single-family residence is commonly estimated to be 0.5-acre feet per year. A water use greater than 0.5-acre feet per year would be above the average and deserving of greater review and water conservation requirements, particularly in areas with sensitive public trust resources. Other working group members argued that rural residences commonly use greater than 0.5-acre feet per year and limiting use to 0.5-acre feet would overly restrictive.

Staff considered this alternative, but in considering the public trust and public interests, nevertheless, are in favor of using the 2.0-acre feet per year threshold for consistency with state law. California Water Code 10721 defines “de minimis extractor” as a person who extracts of less than 2.0-acre feet per year for domestic purposes. The recent governor’s executive order N-7-22 exempts permits for wells that will provide less than 2.0-acre feet per year of groundwater for individual domestic users from additional requirements and review specified in paragraph 9a and 9b of that order. Staff are also concerned that requiring arduous water conservation measures or discretionary review for parcels that use greater than 0.5-acre feet per year, but less than 2.0-acre feet, could have undue economic impact and substantially restrict many “by right” land uses and the reasonable use of one’s property, including use of water for human health and habitation.

Some working group members supported splitting the Well for Low Water Use class between wells that support existing uses versus wells that would be supporting new uses. Wells supporting existing uses would include replacement wells and additional wells and would be subject to Level 1 requirements. Wells supporting new uses would be subject to Level 1 and 2 requirements. One rationale being that wells supporting existing uses (including additional wells for backup or augmented supply) where the existing uses are vested should not be subject to more stringent Level 2 water conservation measures in order to continue those uses unchanged. Staff agree that water conservation requirements should be commensurate with the groundwater use and potential impact, and that wells associated with new development should have greater requirements for water conservation given the lower cost to implement water conservation measures during the construction phase.

However, staff finds it is not necessary to split the Well for Low Water Use class between wells that support existing and new uses. Instead the Level 1 requirements of the proposed ordinance make clear which requirements apply to existing and new development, and which apply to new development only. Staff consider the Level 1 conservation requirements to be reasonable and appropriate for the Low Water Use class.

Water Conservation Requirements

The proposed well ordinance specifies basic (Level 1) water conservation requirements for all water wells throughout the County, except for Public Water Wells and Injection Wells.

Level 1 water conservation requirements include:

1. Leak and water conservation audit;
2. Water efficient faucets and showerheads;
3. New landscapes shall comply with the water efficient landscape regulations contained in Sonoma County Code section 703 Water Efficient Landscape;

4. For development after October 4, 2022, grass lawns are prohibited, unless compliant with Water Efficient Landscape Regulations;
5. For existing development prior to October 4, 2022, grass lawns shall be no greater than 2500 square feet, unless compliant with Water Efficient Landscape Regulations;
6. Disconnected downspouts; and
7. Compliance with water conservation requirements adopted by a Groundwater Sustainability Agency.

The proposed well ordinance specifies Level 1 and additional Level 2 water conservation requirements for “Well for Existing Use” and “Net Zero Groundwater Increase” class wells.

Level 2 water conservation requirements include:

1. Water efficient water closets and urinals;
2. Water conservation plans for commercial industrial, institutional sites;
3. Water conservation plan for agricultural sites;
4. Limits on vineyard and orchard irrigation to the existing use or 0.6-acre feet per acre; and
5. Frost protection plan for vineyards.

Staff consulted with water efficiency experts from Sonoma Water and technical working group members in development of Level 1 and Level 2 water conservation requirements. Policy and technical working group members had consensus for all Level 1 and Level 2 water conservation requirements listed above.

Level 1 requirements are generally consistent with current building code, drought regulations, and conservation programs for residents served by public water systems. Level 1 requirements are expected to be effective conservation measures of relatively low cost.

Level 2 requirements are expected to have low to moderate costs and are considered appropriate for larger water users. Upgrades of water closets and urinals are consistent with current code and water conservation programs for residents served by public water. Agricultural water conservation practices leverage existing programs (e.g. enrollment in existing frost protection program and/or agricultural conservation program) and align with current best management practices such as use of drip irrigation, soil moisture or plant stress monitoring, and regular irrigation system maintenance. Annual vineyard irrigation rates of 0.6 acre feet per acre are consistent with average irrigation rates estimated by Permit Sonoma in *Policy and Procedure 8-2-1 Water Supply, Use and Conservation Assessment Guidelines* <<https://permitsonoma.org/policiesandprocedures/8-2-1watersupplyuseandconservationassessmentguidelines>>, and by local Groundwater Sustainability Agencies through their recent rate and fee studies adopted in 2022. Irrigation limits are prescribed to maintain or reduce net irrigation demand from existing vineyards and orchards within the Public Trust Review Area. Technical and working group members representing agricultural interests expressed support for Level 2 water conservation measures.

Some policy group members supported not requiring any water conservation requirements on replacement wells for parcels using less than 2.0-acre feet per year. Staff consider the Level 1 conservation requirements to be reasonable and appropriate. Costs for implementation of Level 1 requirements are expected to be relatively low and commensurate with the groundwater use, yet are also protective of public trust resources.

Well Metering and Monitoring Requirements

The proposed well ordinance specifies water metering and monitoring in association with all water well permits throughout the County, except for Public Water Wells, Injection Wells, and low water use residential wells. Groundwater metering and monitoring includes:

1. Installation of a totalizing water meter;
2. Annual reporting of monthly well meter records;
3. Annual reporting of monthly water level measurements for sites using greater than 5.0-acre feet per year; and
4. Annual reporting of water conservation plan implementation for sites using greater than 5.0-acre feet per year.

Policy and technical working group members generally supported the proposed metering requirements.

Many technical and policy working group members advocated for metering of all wells including residential and domestic wells using less than 2.0-acre feet per year. One rationale is that there is a lack of metered data on which to base estimates of water use for rural residential parcels. A mandatory metering program would help to fill the data gap and thus improve the accuracy of water use estimates and groundwater models that are used to simulate streamflow depletion and assess adverse impacts. Another rationale is that metering and reporting can encourage water conservation and facilitate permit compliance.

Staff does not recommend mandatory metering of low water use residential wells. This recommendation is based on a number of factors including: (1) consistency with the Sustainable Groundwater Management Act; (2) public perception; and (3) implementation. Under the Sustainable Groundwater Management Act, domestic extractors may not be metered. Recent public outreach in relation to fee studies by local groundwater sustainability agencies found that many rural residents oppose any mandatory metering of private wells and consider such a program an invasion of privacy. Similar observations were conveyed to staff by technical and policy working group members.

In addition, from a practical standpoint, any metering program will require time and resources for meter maintenance, calibration, reporting, and compliance tracking. Poorly maintained and uncalibrated meters could result in the submittal of erroneous data. Staff expect that metered data provided by residential users would be of lower quality compared with higher water use commercial and agricultural users. The cost for the Department to administer a metering program per site (excluding meter installation, maintenance, and calibration) is expected to be between \$150 and \$450 per year. The permittee would have the additional cost of maintaining and calibrating the meter and collecting and reporting data. Staff recommend a voluntary metering program be developed for low water use residential wells.

Public Trust Doctrine and Rationale for Ministerial Well Classes

Currently, under Chapter 25B, unless a well is part of a larger discretionary project, a permit for that well will be ministerial. Review of such permits is relatively streamlined, and because they are ministerial, they are not subject to CEQA.

Ministerial permits are those permits that are issued if all objective criteria established by the ordinance for issuance are met. Ministerial permits are subject to requirements codified in the ordinance. Ministerial permits are not reviewed using discretion, and only require the exercise of minimal judgment to determine if requirements are met. Ministerial permits are subject to ordinance requirements, but not subject to additional conditions. For example, if under the ordinance wells require a minimum well seal of twenty feet in depth, then staff compare the well application and design to determine the proposed well seal meets the minimum seal depth requirement. In that scenario, staff are not allowed to use a higher level of judgment to determine, for example, on a case-by-case basis, what the appropriate minimum seal depth should be in order to be protective. For such ministerial permit, they do not have discretion to require a deeper seal. However, for discretionary permits, staff exercises discretion and judgment on a case-by-case basis to see if more subjective ordinance standards are met and can impose conditions on the permit to help meet such standards. Discretionary permits are thus subject to ordinance requirements and may also be subject to additional conditions.

The proposed ordinance includes certain limited ministerial pathways for issuance of well permits where the risk of potential impacts to public trust resources are expected to be relatively low for a variety of reasons such as type of well, location of well, amount of water use, habitat value, and relative connection to public trust resources. The proposed ministerial permit pathways were developed in consideration of the County's public trust duty. The creation of these ministerial permit pathways represents the exercise of the County's discretion regarding how it will evaluate the public trust when issuing permits to extract groundwater. The creation of these pathways is itself a fulfillment of the County's duty to consider the public trust.

The current proposal includes the following ministerial permits:

- Wells outside the Public Trust Review Area is proposed as a ministerial class. The Public Trust Review area is intended to define areas where sensitive public trust resources may be impacted by groundwater extraction. Thus, wells outside this area are expected to have low potential to impact public trust resources. Level 1 water conservation measures are considered appropriate requirements. Monitoring and adaptive program development will also ensure that the Public Trust Review area is updated as needed to include areas where moderate or high potential for adverse impacts exists;
- Injection Well is proposed as a ministerial class as these wells are generally intended to improve groundwater conditions and are expected to increase groundwater storage, increase groundwater discharge to waterways, and benefit public trust resources. In addition, discharge of potable or non-potable water to injection wells is regulated by the California State Water Resources Control Board;
- Public Water Well is proposed as a ministerial class because the public agency's decision to develop a well is discretionary and subject to compliance with CEQA. Environmental impacts, including impacts to public trust resources, are expected to be addressed through that public agency's process. In addition, many public water wells are water supply wells for separate government entities including cities and water agencies that will act as the lead agency under CEQA and have responsibility to

consider impacts to public trust resources, independent of the County;

- Surface Water Diversion Well is proposed as a ministerial class as surface water diversions through these wells are regulated by the State Water Resources Control Board. Impacts to public trust resources are expected to be addressed through the Water Board’s regulatory process;
- Wells for low water use parcels are proposed as a ministerial class as these wells are considered de minimis in nature and Level 1 water conservation measures are considered appropriate mitigating requirements for these uses. California Water Code 10721 defines “de minimis extractor” as a person who extracts of less than 2.0 acre feet per year for domestic purposes. The recent governor’s executive order N-7-22 exempts permits for wells that will provide less than 2.0 acre feet per year of groundwater for individual domestic users from additional requirements and review specified in paragraph 9a and 9b of that order. The proposed ordinance is generally consistent with state definitions and exemptions, which limit regulation, metering and permitting review. However, under the proposed ordinance, low water use wells would be required to implement Level 1 water conservation requirements, which are considered effective and commensurate with the groundwater use. Staff anticipate that with Level 1 water conservation requirements, net groundwater use from existing low water use parcels will decrease over time. New development on existing parcels may increase groundwater use; however, new structures and landscapes are required to meet current water efficiency requirements specified in the building code, and grading would meet standards that include specifications for low impact development that maximizes infiltration of stormwater. Minor and major subdivisions generally require discretionary review that would consider impacts to groundwater resources and interconnected surface waters;
- Well for Existing Use is proposed as a ministerial class as these wells will generally serve existing/vested land uses, and Level 1 + 2 water conservation measures are considered appropriate mitigating requirements for these uses. This category of well would generally apply for wells that will serve a parcel that has an existing use rate of greater than 2.0 acre feet per year. With Level 1 + 2 water conservation requirements, net groundwater use of these parcels is expected to decrease over time; and
- Net Zero Groundwater Increase is proposed as a ministerial class. Level 1 + 2 water conservation measures in combination with innovative and beneficial water conservation measures are expected to offset and reasonably mitigate for potential impacts associated with increased groundwater extraction.

Well Permit Statistics and Zoning

Under the proposed ordinance, most well permits will be ministerial, less than 5% are expected to require discretionary review. From 2017 through 2021, an average of 143 of the 317 well permits were processed each year were located on parcels that intersect the Public Trust Review Area. Of those, roughly 90% are for residential uses, 10% are for agriculture, and less than 1% are for commercial uses. Staff are unable to determine definitively from permit data which well permits would have qualified as a ministerial class; however, most residential wells are expected to qualify as a low water use well. Assuming residential wells are ministerial and some fraction of wells for agriculture and commercial uses are also ministerial, less than 15 well permits a year are expected to be subject to discretionary public trust review under the proposed

ordinance.

Public Outreach

Policy working group meetings and joint technical and policy working group meetings were open to the public, and conducted on the following dates listed below.

- November 17, 2022
- November 30, 2022
- December 14, 2022
- January 11, 2023
- January 25, 2023
- February 01, 2023
- February 08, 2023
- February 22, 2023
- March 01, 2023

Working group members were specifically instructed to discuss and reach out to stakeholders about the well ordinance and public trust review. While Director working groups are not required to be open to the public, in this case the Director of Permit Sonoma nevertheless opened them to the public to view the groups' discussions and deliberations to increase transparency.

Additionally, as further public outreach, staff presented the revised amended ordinance at public meetings for the Board of Directors of Petaluma Valley, Sonoma Valley, and Santa Rosa Plain Groundwater Sustainability Agencies on March 23, 27, and 30, respectively. Presentations included a summary of the ordinance followed by a question and comment period.

Specific Proposed Amendments:

Section 25B-3: Adds definitions for “navigable waters”, “public trust review area”, “public trust resources”, and “special flood hazard area”. Revises definition of “replacement well”. Deletes definition for “area of special flood hazard”.

Section 25B-4: Defines the Public Trust Review Area as areas that are (1) within the contributing watershed of a navigable water, and (2) within any of the following: Area where the underlying aquifer is interconnected with navigable surface waters or a tributary stream that flows to a navigable water, and available information indicates groundwater extraction has moderate or high potential of impacting public trust resources including instream habitat of anadromous fish.

Adds a public trust limitation to permitting for water wells within the Public Trust Review Area. This section requires that the Department consider and make findings as to whether the issuance of the water well permit will cause or exacerbate a substantial adverse impact on public trust resources in navigable waters after the imposition of feasible mitigation measures before approving a permit or conditionally approving a permit for water supply well.

Creates an appeal process and process for the Department to seek an overriding considerations determination

from the Board of Supervisors due to health, safety and welfare needs of the community.

This section also exempts certain classes of well permits from the discretionary public trust review. The permit classes described below will continue to be processed as ministerial. □

1. Injection Well. A well that is used solely for injecting water into the underground.
2. Public Water Well. A public water well for which environmental review under the California Environmental Quality Act is complete.
3. Surface Water Diversion Well. A water well that serves as a point of surface water diversion for an appropriative water right regulated by the California State Water Resources Control Board, Division of Water Rights. Subject to Level 1 water conservation requirements.
4. Well for Low Water Use. A water well where total groundwater use of the parcel is limited to 2.0-acre feet or less per year. Subject to Level 1 water conservation requirements.
5. Well for Existing Use. A water well where total groundwater use of the parcel is limited to and does not exceed the amount of groundwater used as of the date of ordinance adoption for legally established land uses. Subject to Level 1 and 2 water conservation requirements.
6. Net Zero Groundwater Increase. Water well, where the proposed use would not result in a net increase in groundwater use from the local aquifer through implementation of water conservation measures, rainwater catchment or recycled water reuse system, water recharge project, agricultural practices that increase infiltration and soil moisture capacity, or local groundwater management project. Subject to Level 1 and 2 water conservation requirements.

Level 1 and 2 water conservation requirements are specified in Section 25B-13

Section 25B-5: Makes minor technical corrections to remove the expiration date of applications subject to the public trust limitation determination and to provide for an at-cost fee model for such applications. This section is modified to eliminate the provision for emergency well drilling without review and approval by the County before drilling occurs, while adding a provision for requesting expedited review where well drilling is necessary due to emergency circumstances to protect human life, health, safety, and property. Clarifies the difference between, and standards applicable to, discretionary and ministerial well permits. Well permits for geotechnical borings and well types that are not for water supply, and certain limited replacement wells, will not require public trust review and will continue to be processed in a ministerial fashion. Finally, this section revises requirements for notifying Permit Sonoma of the date and time for seal placements to facilitate and align with inspection work-flow.

Section 25B-6: Adds a requirement that water wells, for which a permit application was submitted after October 4, 2022, be installed with a totalizing water meter, except for water wells that serve a single residential user and uses 2.0-acre feet or less of water per year. This section also adds a 90-day timeline for well destruction when a replacement well has been completed and makes technical correction to code references. In response to past recommendations from the Regional Water Quality Control Board, and to better align with current practices, this section is modified to address the circumstances when an exception to

minimum setbacks from known contaminated sites is permitted.

Section 25B-9: Makes a technical correction, clarifying that well completion reports must be submitted to in compliance with California Water Code Section 13751.

Section 25B-12: Specifies well metering and reporting requirements. Collection of meter readings on a monthly interval is proposed with an annual reporting requirement. Water wells that serve a single residential user and use 2.0-acre feet or less of water per year are exempt from metering and reporting requirements. Collection of water level measurement on a monthly interval is proposed with an annual reporting requirement. Water wells that use 5.0-acre feet or less of water per year are exempt from water level and reporting requirements.

Section 25B-13: Limits cumulative groundwater extraction from certain classes of wells that were exempt from public trust review. Requires Level 1 water conservation requirements of all water well permits except public water wells and injection wells. Requires and Level 1 + 2 water conservation requirements certain wells permits that are exempt from the discretionary public trust review.

Proposed Level 1 water conservation requirements include:

1. Complete a leak and water conservation audit of indoor and outdoor water systems.
2. All showerheads within all existing habitable spaces on the project parcel shall meet current water efficiency standards defined in the 2022 CA Green Code or most current version or be retrofit with aerators or flow regulators and have flow rates of 1.8 gallons per minute or less.
3. All faucets within all existing habitable spaces on the project parcel shall meet current water efficiency standards defined in the 2022 CA Green Code or most current version or be retrofit with aerators or other flow regulators and have flow rates of 1.8 gallons per minute or less for kitchen faucets and 1.2 gallons per minute or less for lavatory faucets.
4. New landscapes shall comply with the water efficient landscape regulations contained in Sonoma County Code section 703 Water Efficient Landscape.
5. For development after October 4, 2022, irrigated grass lawns are prohibited, unless compliant with Sonoma County Code section 7D3 Water Efficient Landscape.
6. For existing development prior to October 4, 2022, irrigated grass lawns shall be no greater than 2500 square feet, unless compliant with Sonoma County Code section 7D3 Water Efficient Landscape.
7. All downspouts shall be disconnected, and roof rainwater routed to disposal locations that maximize infiltration and minimize erosion, unless determined to (1) pose a risk to onsite structures or geologic hazards, or (2) be infeasible due to other site constraints.
8. Compliance with applicable water conservation requirements adopted by a Groundwater Sustainability Agency, as applicable to the project site.

Proposed Level 2 water conservation requirements are listed below.

1. All water closets within all existing habitable spaces on the project parcel shall meet current water efficiency standards defined in the 2022 CA Green Code or most current version or have an efficiency of 1.6 gallons per flush or less.
2. All urinals within all existing habitable spaces on the project parcel shall meet current water efficiency standards defined in the 2022 CA Green Code or most current version or have an efficiency of 0.125 gallons per flush or less.
3. All commercial, industrial, and institutional sites shall submit and implement a water conservation plan that details best management practices to reduce groundwater use to the maximum extent feasible.
4. All commercial, industrial, and institutional sites shall submit and implement a water conservation plan that details best management practices to reduce groundwater use to the maximum extent feasible.
5. All agricultural sites that use greater than 2.0 acre-feet per year shall:
 - a. Submit and implement agricultural water conservation practices plan that includes irrigation design, scheduling, and maintenance, soil moisture monitoring or plant stress monitoring, and other agricultural water conservation best management practices. Enrollment in an agricultural practices monitoring and certification program, approved by the Director, shall fulfill this requirement.
 - b. Submit and implement a frost protection plan. Enrollment in a frost water demand management program, approved by the State Water Resources Control Board, Director, or Sonoma County Agricultural Commissioner shall fulfill this requirement. Sites that do not use water for frost protection are exempt from this requirement.
 - c. Vineyards and orchard irrigation. Vineyards and orchards shall limit growing season groundwater use to the existing use prior to October 4th, 2023, supported by metered data or a site-specific irrigation demand analysis; if no data or analysis is provided then a limit of 0.6 acre-feet per acre per year or less shall apply. When calculating existing groundwater use, the average over the three-to-five-year period immediately prior shall be used.

Fees

Permit Sonoma's current fee schedule provides for flat fees for plan review of ministerial well permits in the amount of \$625 for Class I water wells, \$750 for Class II water wells, and \$375 for well reconstruction. The cost of staff time to process discretionary well permits under an amended well ordinance is anticipated to exceed the amount of the existing fee, due to the complexity of the public trust analysis and that the discretionary review entails additional work, including ensuring compliance with the California Environmental Quality Act. Since Department staff does not yet have data supporting a flat fee for discretionary well permits, staff recommends the Board establish an at-cost fee, based on existing hourly rates, for discretionary well permits as part of its adoption of this proposed ordinance.

The Department proposes that the deposit for the public trust review fee would be equivalent to 32 hours of

staff time of an Engineer or Professional Geologist in the amount of \$5,568. The proposed fee was not included in the Board's March 21, 2023 Consolidated Fee Hearing - FY 23-24 for Permit Sonoma. The current well permit fee, which is for ministerial review, would not be adequate to cover county time and expense analyzing, reviewing and acting on a discretionary permit application.

The current fees for ministerial well permits, will continue to apply to all wells which are subject to ministerial approval. However, additional staff time will be required to screen well permit applications to determine if applications are ministerial or discretionary, subject to monitoring requirements, and/or subject to water conservation requirements. A fee is not being proposed to capture this additional staff time.

In conjunction with the additional permit application screening and proposed monitoring and conservation requirements, the Department expects to return to the Board in late 2023 or 2024 to request that it adjust fees for ministerial permits and establish fees in connection with staff review and processing of submitted well meter reports. In the near term, additional review work will be accommodated with existing staffing with support from hydrogeologic consultants.

Both working groups recommended that the County not only review for potential impacts to public trust resources but to also conduct the impact analysis where it is required under the ordinance, rather than requiring applicants to provide such analysis. To facilitate that recommendation and to cover the County's expense, staff recommends the proposed at-cost fee. The concept of County staff conducted an impact analysis is a common practice for discretionary reviews. The working groups recommended this approach to provide consistency, to hopefully streamline the review process and to reduce the cost of analysis. The scope of the impact analysis is proposed to be at the watershed scale.

CEQA

Adoption of the proposed ordinance amendments to Chapter 25B and at-cost fee are exempt pursuant to the categorical exemptions provided at State CEQA Guideline § 15308 for Actions by Regulatory Agencies for Protection of the Environment because the amendments are regulatory in nature and are designed to assure the maintenance, restoration, or enhancement or protection of natural resources and the environment and at § 15061(b)(3) because the amendments and associated fee create and fund an application review process designed to protect public trust resources, where no exception to applicability of the exemptions under § 15300.2, and because it can be seen with certainty that there is no possibility that this ordinance or application fee may have a significant effect on the environment. The County's approval of the ordinance and fee will not authorize any construction activities, but instead impose requirements, consistent with existing law, to consider impacts to public trust resources via discretionary permit applications, subject to an at-cost fee, and to facilitate data collection through metering, and to make other related changes, none of which result in any direct physical change to the environment on their own, and which are designed to be protective of public trust resources and the environment. Discretionary applications for new water supply wells under the amended ordinance must comply with CEQA, unless exempt. Ministerial applications remain exempt from CEQA.

Temporary Moratorium

Staff propose a separate urgency ordinance for your Board's consideration that if adopted would temporarily extend the current 6-month moratorium until an adopted ordinance becomes effective. The proposed

amendments to Chapter 25B would become effective on May 18, 2023, or 30 days following the proposed adoption date of April 18, 2023, would be the second meeting following the Board's introduction and consideration of the ordinance on April 4, 2023.

The purpose of the temporary moratorium is to protect public trust resources by preventing an undue rush on well permitting by applicants seeking to avoid potential public trust review under the amended ordinance during recognized multi-year drought conditions. The urgency ordinance is exempt from CEQA pursuant to CEQA Guidelines § 15308 and § 15061(b)(3), as an action protective of the environment and where it can be seen with certainty that there is no possibility the action could have a substantial effect on the environment.

Recommendation

Staff recommends the Board adopt the ordinance amendments to Chapter 25B and approve an at-cost fee applicable to processing discretionary well permits to facilitate compliance with the County's public trust responsibility; and provide direction to staff regarding returning with a fee in connection with staff review and processing of well meter reports, plan for program development, comprehensive studies, and staffing. Staff further recommends adoption of the urgency ordinance extending the current temporary moratorium until the amendments to Chapter 25B become effective

Strategic Plan:

N/A

Prior Board Actions:

- 10/04/2022: Adoption of urgency ordinance to establish a temporary moratorium until April 4, 2023 (Ordinance Number 6392); Board action directing the Permit and Resources Director to convene a Technical Advisory Committee to advise on proposed amendments to Chapter 25B, the County's Well Construction Ordinance.
- 08/09/2022: Board action directing staff to (1) conduct additional public outreach; (2) return to Board in September or October with revised limited scope for addressing public trust; and (3) report on plan for scoping a longer-term effort on remaining related issues.
- 04/05/2022: The Board adopted Ordinance No. 6372
- 07/28/2015: The Board adopted Ordinance No. 6121
- 02/28/1978: The Board adopted Ordinance No. 2326

FISCAL SUMMARY

Narrative Explanation of Fiscal Impacts:

If data supports adjustments to ministerial fees, as well as establishment of a well monitoring fee and a flat fee replacing the proposed at-cost fee, which is included in the proposed ordinance, then those fees will be presented a later date for the Board's consideration.

Narrative Explanation of Staffing Impacts (If Required):

See above

Attachments:

Attachment A: Board Resolution

Attachment B: Ordinance (without exhibit A)

Attachment C: Exhibit. A to Ordinance (Stricken)

Attachment D: Ordinance with Exhibit A (Clean)

Attachment E: Urgency Ordinance Extending Temporary Moratorium

Attachment F: Staff PowerPoint

Attachment G: Director Working Group Final Report

Attachment H: Public Trust Review Area Delineation Report

Attachment I: List of Technical References

Attachment J: CEQA Notice of Exemption

Attachment K: Public Comments

Related Items "On File" with the Clerk of the Board:

Not Applicable