D R A F T

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
NORTH COAST REGION
RESOLUTION NO. R1-2022-####

POLICY STATEMENT
FOR GROUNDWATER PROTECTION
IN THE NORTH COAST REGION

WHEREAS: the California Regional Water Quality Control Board North Coast Region, (Regional Water Board) finds that:

BACKGROUND

1. On April 15, 2021, the North Coast Regional Water Quality Control Board[1] (Regional Water Board) adopted Resolution R1-2021-0006 *Groundwater Basin Evaluation and Prioritization Results Supporting Salt and Nutrient Management Planning as Required by the State Water Resource Control Board Recycled Water Policy*. In adopting the Resolution, the Regional Water Board did the following: 1) accepted a process for prioritizing and evaluating groundwater basins; 2) accepted priority basins[2] as having a relatively high threat from salts and nutrients; 3) acknowledged that the priority status of groundwater basins may change and the list of priority basins will be updated a minimum of every five years as required by the Recycled Water Policy; 4) acknowledged that the Recycled Water Policy grants the authority to the Regional Water Board Executive Officer to determine priority groundwater basins for salt and nutrient management planning and to update the list of priority basins; and 5) directed staff to proceed with developing a non-regulatory Policy Statement for Groundwater Protection which outlines a range of strategies to protect high groundwater quality and improve degraded groundwater quality within the region and to present the Policy Statement for Board consideration within the shortest time practicable.

[1] There are nine Regional Water Boards that exercise rulemaking and regulatory activities by basins. This organization is a result of the landmark Porter-Cologne Act. The mission of the Regional Water Boards is to develop and enforce water quality objectives and implementation plans that will best protect the beneficial uses of the State's waters, recognizing local differences in climate, topography, geology and hydrology.

[2] Priority Basins: Santa Rosa Plain, Smith River Plain, Scott River Valley, Mad River Lowland, Eureka Plain, Eel River Valley, Anderson Valley, Fort Bragg Terrace Area, Ukiah Valley, Sanel Valley, Alexander Area, Cloverdale Area, Healdsburg Area, Rincon Valley, Wilson Grove Formation Highlands, Lower Russian River Valley, Fort Ross Terrace Deposits

2. **California Water Code Section 13000** - The Legislature finds and declares that the people of the state have a primary interest in the conservation, control, and utilization of the water resources of the state, and that the quality of all the waters of the state shall be protected for use and enjoyment by the people of the state. The Legislature further finds and declares that activities and factors which may affect the quality of the waters of the state shall be regulated to attain the highest water quality which is reasonable, considering all demands being made and to be made on those waters and the total values involved, beneficial and detrimental, economic and social, tangible and intangible. The Legislature further finds and declares that the health, safety and welfare of the people of the state requires that there be a statewide program for the control of the quality of all the waters of the state; that the state must be prepared to exercise its full power and jurisdiction to protect the quality of waters in the state from degradation originating inside or outside the boundaries of the state; that the waters of the state are increasingly influenced by interbasin water development projects and other statewide considerations; that factors of precipitation, topography, population, recreation, agriculture, industry and economic development vary from region to region within the state; and that the statewide program for water quality control can be most effectively administered regionally, within a framework of statewide coordination and policy.

3. **High Quality Waters** - The North Coast Region is abundant in high quality[3] groundwater resources and includes 63 groundwater basins or subbasins designated by the Department of Water Resources (DWR). A groundwater basin is defined as a hydrogeologic unit containing one large aquifer or several connected and interrelated aquifers. Groundwater is defined as subsurface water in soils and geologic formations that are fully saturated all or part of the year. Groundwater may also exist even where groundwater basins have not been identified such as in fractured rock formations. It also includes areas where saturation of the soils and geology fluctuate, including areas of capillary fringe. Groundwater bearing formations sufficiently permeable to transmit and yield significant quantities of water are called aquifers. In the context of water quality protection, groundwater includes all subsurface waters, whether these waters occur within the classic definition of an aquifer or identified groundwater basins.

4. **Reliance on Groundwater** - As stated in the California 2020 Water Resilience Portfolio, the North Coast Region[4] encompasses nearly 20,000 square miles with

[3] High-quality waters are waterbodies with constituent concentrations that are better than the conditions and values established by water quality objectives necessary for protecting beneficial uses.

[4] California has nine Hydrologic Regions overseen by Regional Water Boards with a duty to protect the quality of the waters within the Region for all beneficial uses. This duty is implemented by formulating and adopting water quality control plans and by prescribing and enforcing requirements on waste discharges. Specific responsibilities and procedures of the Regional Water Boards are contained in the Porter-Cologne Water Quality Control Act.

about half of the region protected as open space. The population totaled about 690,000 in 2017, less than two percent of the state's population, with the highest percentage of Native American tribal members of the state's nine Hydrologic Regions. Groundwater accounts for about one-third of water supply in the North Coast Region and in about half of the groundwater basins, groundwater comprises more than two-thirds of the water supply, with some communities relying solely on groundwater. In the North Coast Region, about 1,000 active public supply wells are regulated by the State Water Resources Control Board (State Water Board) - Division of Drinking Water and approximately 38,000 private domestic wells supply groundwater used for drinking water. Within North Coast groundwater basins, groundwater is nearly half of the water supply for about 250,000 acres of irrigated agricultural land. Generally, groundwater in the North Coast Region is the least degraded in the state. Statewide, salts and nutrients are the most common groundwater pollutants. Naturally occurring manganese, iron, and arsenic commonly occur in groundwater at concentrations requiring treatment before use as drinking water.

5. **Groundwater Sustainability** – California's groundwater basins can provide a crucial buffer against drought and climate change. In times of drought, California is particularly dependent on groundwater which increases the potential for depletion of interconnected surface waters from groundwater pumping. The Sustainable Groundwater Management Act (SGMA) was enacted to address undesirable results caused by excessive groundwater pumping while accounting for population growth, climate change, and sea level rise. SGMA requires Groundwater Sustainability Agencies (GSAs) to adopt sustainability plans for high- and medium-priority groundwater basins. Under SGMA, basins must reach sustainability within 20 years of implementing their plans. The long-term planning required by SGMA will provide a buffer against drought and climate change and contribute to reliable water supplies regardless of weather patterns in the State. As of February 2022, seven GSAs representing North Coast groundwater basins[5] individually submitted Groundwater Sustainability Plans (GSPs) to the Department of Water Resources (DWR) for review and have initiated implementation of their GSPs. The DWR has up to two years to review and consider approving the GSPs. As part of Projects and Management Actions, many North Coast Region GSPs propose Flood Managed Aquifer Recharge, which is to divert surface water during periods of high flow to underground storage in groundwater basins in support of groundwater sustainability.

6. **Threats to Groundwater Quality** - In about a quarter of North Coast Region, groundwater basins, salts and nutrients are the most common pollutant and in certain areas have caused or threaten to cause an exceedance of water quality objectives and impacts to beneficial uses. Salts are typically measured as total dissolved solids and nitrate is the predominate nutrient of concern. Within the North Coast Region, waste discharges from Onsite Wastewater Treatment Systems

[5] Eel River Valley, Butte Valley, Ukiah Valley, Shasta Valley, Scott River Valley, Tulelake, and Santa Rosa Plain.

(OWTS), agricultural operations, and under-performing small domestic, municipal, and industrial (including winery) wastewater facilities are believed to be the primary threats to groundwater quality and a primary source of salts and nutrients found in groundwater. Infiltration of untreated municipal and industrial stormwater is a potential threat to groundwater quality. Irrigation using imported water, surface water, groundwater, and/or recycled water may increase salt and nutrient loading. Saltwater intrusion induced by sea level rise and falling groundwater elevations in coastal aquifers will reduce the capacity of an aquifer to assimilate salt loads and support beneficial uses.

7. **Aquifer Risk -** Established by Senate Bill 200 and administered by the State Water Board, the Safe and Affordable Funding for Equity and Resilience (SAFER) program helps water systems provide safe, accessible, and affordable drinking water supply with prioritization going to Disadvantaged Communities. The State Water Resources Control Board (State Water Board) Groundwater Ambient Monitoring and Assessment (GAMA) program provides annual reports, data tools, and maps to aid SAFER in identifying areas at risk of poor groundwater quality. The GAMA Aquifer Risk Map for 2021 shows sparse groundwater data coverage in the North Coast Region; 18.8 percent of the population and 25.8 percent of the disadvantaged population live in areas lacking adequate data to assess water quality risk in domestic water supply wells. For areas of the North Coast with adequate data, 17.8 percent of the population and 6.5 percent of Disadvantaged Communities have moderate or greater water quality risk[6].

8. **Environmental Justice** - On February 16, 2016, the State Water Board adopted Resolution No. 2016-0010 declaring the Human Right to Water as a core value and directing its implementation in Water Board programs and day-to-day activities. The resolution directs State Water Board staff and encourages Regional Water Boards, as resources allow, to meaningfully engage with communities that lack adequate, affordable, or safe drinking water, including providing community outreach, technical assistance, and financial resources, as part of Water Boards administration of programs or project funding pertinent to the human right to water. The North Coast Regional Water Board on April 18, 2019, adopted Resolution No. R1-2019-0024 also declaring the Human Right to Water as a core value and directing its implementation in board activities.

[6] The GAMA 2021 Aquifer Risk Map defines inadequate data coverage as census blocks with less than ten wells. The Aquifer Risk Map aggregates water quality from domestic wells and computes water quality risk as a percentile relative to all well data; moderate risk comprises all census block areas with greater than 50 percentile water quality risk.

EXISTING GOVERNANCE AND MANAGEMENT ACTIVITIES

9. **Beneficial Uses and Water Quality Objectives** - The Water Quality Control Plan for the North Coast Region (hereinafter the Basin Plan) designates the beneficial uses of groundwater within the North Coast Region. Existing and potential beneficial uses applicable to groundwater in the Region include, Municipal and Domestic Water Supply, Agricultural Supply, Industrial Service Supply, Industrial Process Supply, Native American Culture, Freshwater Replenishment to Surface Waters, and Aquaculture. The Basin Plan also establishes water quality objectives for the protection of these beneficial uses. Groundwater water quality objectives in the North Coast Region include objectives for bacteria, chemical constituents, radioactivity, taste and odors, and toxicity.

10. **Reports of Waste Discharge**[7] - any person discharging waste or proposing to discharge waste, other than to a community sewer system, that could affect the quality of the waters of the state, is required to file a Report of Waste Discharge (ROWD) with the Regional Water Board to obtain coverage under Waste Discharge Requirements (WDRs) or a waiver of WDRs.

11. **Anti-Degradation Policy** – State Water Board Resolution No. 68-16, Statement of Policy with Respect to Maintaining High Quality of Waters in California, requires that whenever the existing quality of water is better than the quality established in plans and policies as of the date on which such polices became effective,(e.g. water quality objectives established in such plans and policies) such existing water quality shall be maintained unless otherwise provided by the provisions of the state Antidegradation Policy. The state Antidegradation Policy allows a discharge that may degrade high quality water if the change in water quality is: 1) consistent with the maximum benefit to the people of the State, 2) will not unreasonably affect present and anticipated beneficial use of such water, and 3) will not result in water quality less than that prescribed in water quality control policies and plans. Further, any activities that result in discharges to such high-quality waters are required to

[7] Water Code section 13260 subdivision (a)

use: the best practical treatment or control[8] necessary to avoid pollution[9] or nuisance[10] and maintain the highest water quality consistent with the maximum benefit to the people of the State.

12. **Waste Discharge Requirements** - It is the policy of the State Water Board to protect the State's ground waters through the development of Water Quality Control Plans (Basin Plans) and the issuance of Waste Discharge Requirements (WDRs)[11]. The purpose of WDRs and the regional Basin Plans is to ensure, to the greatest extent possible, that discharges to the State's waters do not adversely affect the quality and beneficial uses of such waters. Water Code section 13263 subdivision (a) requires the Regional Water Board, after any necessary hearing, prescribe requirements as to the nature of any proposed discharge, existing discharge, or material change in an existing discharge, except discharges into a community sewer system, with relation to the conditions existing in the disposal area or receiving waters upon, or into which, the discharge is made or proposed. The requirements shall implement any relevant water quality control plans that have been adopted, and shall take into consideration the beneficial uses to be protected, the water quality objectives reasonably required for that purpose, other waste discharges, the need to prevent nuisance, and the provisions of Water Code Section 13241 [Water

---

[8] To evaluate the best practicable treatment or control method, a discharger should compare the proposed method to existing proven technology; evaluate performance data, e.g., through treatability studies; compare alternative methods of treatment or control; and/or consider the method currently used by the discharger or similarly situated dischargers. This information would usually be included in the report of waste discharge. The costs of the treatment or control should also be considered, and would be considered in determining the "maximum benefit to the people of the State. If such treatment or control results in a discharge that maintains the existing water quality, then a less stringent level of treatment or control would not be in compliance with the Resolution. If the discharge, even after treatment, unreasonably affects beneficial uses or does not comply with applicable provisions of Water Quality Control Plans, the discharge would be prohibited. From State Water Board February 16, 1995 Memorandum *Q's and A's Resolution No. 68-16*.

[9] Water Code section 13050 - Pollution means an alteration of the quality of the waters of the state by waste to a degree which unreasonably affects either of the following: (A) The waters for beneficial uses. (B) Facilities which serve these beneficial uses. Pollution may include contamination.

[10] Water Code section 13050 - Nuisance means anything which meets all of the following requirements: (1) Is injurious to health, or is indecent or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property. (2) Affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal. (3) Occurs during, or as a result of, the treatment or disposal of wastes.

[11] State Water Board Administrative Procedures Manual – Water Quality – Chapter 2 Waste Discharge Requirements

Quality Objectives]. Water Code section 13263 subdivision (d) allows a regional water board to prescribe waste discharge requirements although no discharge report has been filed.

13. **Statewide and Regional General Orders** – General waste discharge requirements have been issued by the State and/or Regional Water Boards when all of the following criteria apply to the discharges in that category for which the General Order is being issued: (1) The discharges are produced by the same or similar operations; (2) The discharges involve the same or similar types of waste; (3) The discharges require the same or similar treatment standards; and,(4) The discharges are more appropriately regulated under general discharge requirements than individual discharge requirements.[12]

14. **Discharge Limitations and Cleanup Levels**[13] - The Basin Plan requires the Regional Water Board, in setting waste discharge requirements, consider, among other things, the potential impact on beneficial uses within the area of influence of the discharge, the appropriate water quality objectives, the existing quality of receiving waters, and the Antidegradation Policy. When issuing waste discharge requirements, the Regional Water Board will make a finding as to the beneficial uses to be protected and establish requirements to protect those uses, to meet water quality objectives and the Antidegradation Policy. In setting discharge limitations and cleanup levels, the Regional Water Board need not authorize the utilization of the full waste assimilation capacities of the receiving waters[14]. Therefore, in some cases, with appropriate considerations and findings, the Regional Water Board may adopt discharge limitations and cleanup levels that are more stringent in order to preserve high quality waters and to fully protect the existing and potential beneficial uses. As described in State Water Board guidance, when effluent limitations are included in Waste Discharge Requirements, effluent limitations: 1) must be in compliance with applicable State regulations, policies, and plans; 2) Shall be expressed as specific numerical limits[15] in statistically significant terms; 3) Shall provide a margin of safety

---

[12] Partial list of waste discharge categories regulated by general orders: Wine, Beverage, and Food Processing, Recycled Water, Compost, Biosolids, Small Domestic Wastewater Treatment Systems, Sanitary Sewer Collection Systems, Dairies, Wineries.
[13] Water Quality Control Plan for the North Coast Region Section 3.5.1.
[14] State Water Code Section 13263 (b)
[15] Water Quality Control Plan for the North Coast Region Section 3.5.1. When it is necessary to derive numeric values in order to develop discharge limitations and cleanup levels that implement narrative water quality objectives, or to evaluate compliance with narrative water quality objectives, the Regional Water Board may consider all relevant and scientifically valid evidence. Generally, numeric values are derived from validated site-specific data, scientific peer-reviewed literature, and numeric values established in other state or federal laws, regulations, plans, policies, or guidelines, or developed and published by other governmental or non-governmental agencies and organizations. On a case by case basis, the Regional Water Board may

to assure that receiving water quality is maintained well within the limits established in the Basin Plan; 4) Must be established on all discharges where possible; and 5) Shall reflect the degree of treatment required to assure the protection of beneficial uses of receiving water.[16]

15. **Cleanup and Abatement**[17] – a person who has discharged or discharges waste into the waters of this state in violation of any waste discharge requirement or other order or prohibition issued by a regional water board or the state water board, or who has caused or permitted, causes or permits, or threatens to cause or permit any waste to be discharged or deposited where it is, or probably will be, discharged into the waters of the state and creates, or threatens to create, a condition of pollution or nuisance, shall, upon order of the regional water board, clean up the waste or abate the effects of the waste, or, in the case of threatened pollution or nuisance, take other necessary remedial action, including, but not limited to, overseeing cleanup and abatement efforts

16. **Cease and Desist**[18] - When a regional water board finds that a discharge of waste is taking place, or threatening to take place, in violation of requirements or discharge prohibitions prescribed by the regional water board or the state board, the board may issue an order to cease and desist and direct that those persons not complying with the requirements or discharge prohibitions (a) comply forthwith, (b) comply in accordance with a time schedule set by the board, or (c) in the event of a threatened violation, take appropriate remedial or preventive action. In the event of an existing or threatened violation of waste discharge requirements in the operation of a community sewer system, cease and desist orders may restrict or prohibit the volume, type, or concentration of waste that might be added to that system by dischargers who did not discharge into the system prior to the issuance of the cease and desist order. Cease and desist orders may be issued directly by a board after notice and hearing.

17. **Solid Waste Disposal Sites** – The State Water Board Land Disposal Program implements statewide regulations[19] for sites and facilities where waste is discharged to land. Requirements for siting, operation, and closure of waste disposal sites are enforced through the issuance of WDRs and compliance and enforcement efforts to ensure adequate protection of water quality. These wastes include solid wastes or liquid wastes that that have the potential to impact water quality.

---

collect or require that a discharger collect site-specific data or conduct site-specific water quality assessments or studies for the purpose of supporting the development of appropriate discharge limitations or cleanup levels, which translate the applicable narrative water quality objective for unique site conditions.

[16] State Water Board Administrative Procedures Manual – Water Quality – Chapter 2 Waste Discharge Requirements

[17] Water Code section 13304

[18] Water Code section 13301

[19] Cal. Code Regs. tit. 27 § 20080

Regulated facilities such as landfills, mines, surface impoundments, and waste piles require containment and monitoring in order to protect surface water and groundwater quality. The goals of the program are primarily preventative. However, the program includes a response action component to ensure adequate protection of water quality.

18. **Monitoring and Reporting Programs and Investigative Orders**[20] - A Regional Water Board, in establishing or reviewing any water quality control plan or waste discharge requirements, or in connection with any action relating to any plan or requirement authorized by the Water Code, may investigate the quality of any waters of the state within its region; and In conducting an investigation specified a regional water board may require that any person who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge waste within its region, or any citizen or domiciliary, or political agency or entity of this state who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge, waste outside of its region that could affect the quality of waters within its region shall furnish, under penalty of perjury, technical or monitoring program reports which the Regional Water Board requires. The burden, including costs, of these reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports. In requiring those reports, the regional water board shall provide the person with a written explanation with regard to the need for the reports and shall identify the evidence that supports requiring that person to provide the reports.

19. **State Water Board Enforcement Policy** – The Porter-Cologne Water Quality Control Act grants Water Boards authority to implement and enforce water quality laws, regulations, policies, and plans to protect the groundwater and surface waters of the State. The Enforcement Policy reaffirms the principle of Progressive Enforcement which contemplates an escalating series of actions beginning with notification of violations and compliance assistance, followed by enforcement orders compelling compliance, culminating in a complaint for civil liabilities. It is the policy of the State Water Board that every violation results in the appropriate enforcement response consistent with the priority of the violation established in accordance with the Enforcement Policy. The Policy acknowledges that enforcement prioritization enhances the Water Boards' ability to leverage their scarce enforcement resources and to achieve the general deterrence needed to encourage the regulated community to anticipate, identify, and correct violations. To that end, the Water Boards rank violations and prioritize cases for formal discretionary enforcement action to ensure the most efficient and effective use of available resources. Each Regional Water Board has designated an Enforcement Coordinator to assist with prioritizing cases and implementing the Enforcement Policy in their respective region. On a biennial basis, the State Water Board Office of Enforcement proposes statewide enforcement priorities and vets them with the Regional Water Board enforcement teams.

[20] Water Code section 13267 subdivision (a)

20. **Local Agency Management Programs** – the Water Quality Control Policy for Siting, Design, Operation, and Maintenance of Onsite Wastewater Treatment Systems (OWTS Policy) adopted by State Water Board Resolution No. 2012-0032, established a statewide, risk based, tiered approach for the regulation and management of OWTS (also known as septic systems) installations and replacements and sets the level of performance and protection expected from OWTS. In early 2021, Regional Water Board staff estimated more than 30,000 OWTS[21] are in service within the North Coast Region. The OWTS Policy provides for local agencies to submit a Local Agency Management Program (LAMP) for Regional Water Board approval, and upon approval manage the installation of new and replacement OWTS under that program. As part of an approved LAMP, local agencies shall maintain a water quality assessment program to determine the general operation status of OWTS and to evaluate the impact of OWTS discharges, and assess the extent to which groundwater and local surface water quality may be adversely impacted. The focus of the assessment should be areas with certain characteristics[22]. The assessment program will include monitoring and analysis of water quality data, review of complaints, variances, failures, and any information resulting from inspections. The assessment may use existing water quality data from other monitoring programs and/or establish the terms, conditions, and timing for monitoring done by the local agency. At a minimum this assessment will include monitoring data for nitrates, pathogens, and may include data for other constituents which are needed to adequately characterize the impacts of OWTS on water quality. A Water Quality Assessment Report must be prepared by all local agencies with an approved LAMP and submitted to the Regional Water Board every five years.

[21] March 2021 North Coast Regional Water Board Staff Report for Groundwater Basin Evaluation and Prioritization.

[22] a) degree of vulnerability to pollution from OWTS due to hydrogeological conditions; b) high quality waters or other environmental conditions requiring enhanced protection from the effects of OWTS; c) shallow soils requiring a dispersal system installation that is closer to ground surface than is standard; d) OWTS is located in area with high domestic well usage; e) dispersal system is located in an area with fractured bedrock; f) dispersal system is located in an area with poorly drained soils; g) surface water is vulnerable to pollution from OWTS; h) surface water within the watershed is listed as impaired for nitrogen or pathogens; i) OWTS is located within an area of high OWTS density; j) a parcel's size and its susceptibility to hydraulic mounding, organic or nitrogen loading, and whether there is sufficient area for OWTS expansion in case of failure; k) geographic areas that are known to have multiple, existing OWTS predating any adopted standards of design and construction including cesspools; l) geographic areas that are known to have multiple, existing OWTS located within either the pertinent setbacks of the OWTS Policy, or a setback that the local agencies finds is appropriate for that area.

21. **Point Source Discharge Prohibition[23] -** Point source waste discharges, except as stipulated by the Thermal Plan, the Ocean Plan, and the action plans and policies contained in the Point Source Measures section of the Basin Plan, are prohibited to all surface water bodies in the North Coast Region except for the Mad, Eel and Russian Rivers and their tributaries during the wet season when dilution exceeds 100:1.

22. **Salt and Nutrient Management Plans** –The State Water Board adopted the Policy for Water Quality Control for Recycled Water (Recycled Water Policy) on February 3, 2009 and amended the Policy on January 22, 2013. The State Water Board approved a second amendment to the Recycled Water Policy on December 11, 2018, with an effective date of April 8, 2019. It is the intent of the Recycled Water Policy that salts and nutrients from all sources be managed on a basin-wide or watershed-wide basis in a manner that ensures attainment of water quality objectives and protection of beneficial uses. The State Water Board found that the appropriate way to address salt and nutrient management is through developing regional or sub-regional salt and nutrient management plans rather than through imposing requirements solely on individual projects. The Recycled Water Policy calls for the development of locally driven and controlled collaborative processes open to all stakeholders that will prepare salt and nutrient management plans for each basin/sub-basin in California.

    The Regional Water Board finds that a combination of regional management plans and individual or programmatic project requirements are necessary to protect beneficial uses. The Recycled Water Policy recognizes that some groundwater basins in the state contain salts and nutrients exceed or threaten to exceed water quality objectives in the applicable Basin Plans and that not all Basin Plans include adequate implementation procedures for achieving or ensuring compliance with the water quality objectives for salt or nutrients. However, in the absence of an approved salt and nutrient management plan (SNMP), the Regional Water Board may impose specific requirements to ensure the preservation and maintenance of high-quality groundwater.

IMPLEMENTATION COMPLEXITIES AND CHALLENGES

23. General Permits for the Discharges of Storm Water from Municipal Separate Storm Sewer Systems (MS4 Permits) regulate discharges from municipal stormwater systems. In the North Coast Region, three permits are currently in effect and will be

[23] Basin Plan Chapter 4.1.1

considered for re-adoption in the near future – Phase I (large[24]), Phase II (small[25]), and Caltrans. The Phase II and Caltrans MS4 General Permits are issued by the State Water Board and the Phase I MS4 permit by the Regional Water Board. Discharges of stormwater and non-stormwater from an MS4, particularly in an urbanized area, have a high potential to convey pollutants to receiving waters. The higher percentage of impervious area in urbanized areas correlates to a greater pollutant loading, resulting in turbid water discharges, nutrient enrichment, bacterial contamination, and toxic compounds. Pollutants of concern in these discharges include, but are not limited to: heavy metals, bacteria, nutrients (e.g., phosphorus and nitrogen), pesticides, petroleum hydrocarbons, sediment, and trash. For new developments and redevelopments, MS4 Permits require implementation of post-construction Best Management Practices (BMPs) which encourage onsite treatment and infiltration of retained stormwater through small scale infiltration-based landscape features, otherwise known as Low Impact Development (or LID) BMPs. Criteria for use of infiltration-based devices/facilities may include pollutant source controls, prohibitions in high-risk areas, separation from groundwater, setbacks from sensitive receptors, and standard engineering designs. However, the long-term effectiveness of these measures at controlling the discharge of pollutants to groundwater (esp. constituents of emerging concern[26]) from stormwater infiltration BMPs is not well understood. Some municipalities and land development projects are electing to use large scale stormwater retention facilities for flood control and/or to eliminate discharges to surface waters without providing stormwater treatment. Such facilities may cause the discharge of pollutants to groundwater and are not currently authorized under MS4 Permits.

24. The Industrial General Permit (an NPDES Permit) regulates stormwater and non-stormwater discharges associated with certain industrial activities through requirements necessary to meet water quality standards. Within the North Coast Region nearly 400 facilities are subject to Industrial General Permit (IGP) regulations including: 1) construction materials mining/processing; 2) wine, beverage, and food processing; 3) transportation, trucking, and warehousing; and 4) scrap metal/auto dismantling. The IGP encourages dischargers to utilize BMPs that infiltrate or reuse storm water where feasible and incentivizes an Onsite Compliance Option for

[24] Co-permittees: County of Sonoma, City of Cloverdale, City of Cotati, City of Healdsburg, City of Rohnert Park, City of Santa Rosa, City of Sebastopol, Sonoma County Water Agency, City of Ukiah, Town of Windsor.
[25] Urban Clusters of Arcata, McKinleyville, Eureka, Fortuna, Fort Bragg, Yreka, unincorporated Urban Areas of Humboldt and Mendocino Counties, and City of Trinidad.
26 Vast numbers of chemicals that are generally unregulated in the U.S. or have limited regulation in environmental media. CECs may include –pharmaceuticals, flame retardants, newly registered contemporary use pesticides, newly developed commercial products, including nanomaterials. Generally, CECs have likely been present in water bodies, sediments and tissues but at concentrations that were not detectable by commonly used analytical methods.

infiltrating industrial stormwater that includes protections for groundwater. The IGP also provides for a "No Discharge" status where facilities have filed a Notice of Non-Applicability; however, a "No Discharge" determination does not cover storm water containment systems that discharge industrial pollutants to groundwater. A facility must determine whether designs that incorporate infiltration may discharge to and contaminate groundwater. If there is a threat to groundwater, facilities must contact the Regional Water Board prior to construction of infiltration design elements. Through site inspections and review of annual reports, Regional Water Board staff have determined that many dischargers have reduced and/or eliminated surface discharges of industrial stormwater through the use of Storm Water Containment and Discharge Reduction BMPs which divert, infiltrate, reuse, contain, retain, or reduce the volume of storm water runoff. However, sampling and analysis of influent to infiltration BMPs is not being performed which leaves open the question if groundwater quality is being protected.

25. As of 2022 in the North Coast Region, approximately 125 wastewater dischargers are covered under individual WDRs which are issued for the duration of the discharge and do not contain an expiration date. Approximately 100 wastewater dischargers (primarily wine, beverage, and food processors along with several small domestic wastewater systems) are covered under general WDRs or a waiver of WDRs. As new general WDRs are issued by the State or Regional Water Board, staff must prioritize the review of discharges covered under existing individual or general WDRs for transition to the new general WDRs[27]. In some cases, a discharger may not be eligible for coverage under the new general permit and will remain covered by an individual WDR that may also require an update. The Water Code and State Water Board guidance directs Regional Water Boards to periodically review all WDRs and revise as needed[28]. The guidance further provides for a review and update based upon threat to water quality (Category 1, 2, or 3, with 1 being highest) on a schedule between 3 to 10 years (highest to lowest threat). A majority of the approximately 125 individual wastewater WDRs in the North Coast Region are outdated and have not been reviewed/updated on the recommended schedule. However, in the event that (a) workplan allocations of staff resources do not permit the scheduling of all outdated WDRs for review, or (b) it becomes impossible to complete all updates scheduled for the fiscal year, updates should be prioritized on the basis of threat to water quality.[29] Review of existing requirements in the review/update process, at a minimum, should take into account the following factors: 1) Compliance with the Basin Plan; 2) Changes to the definition of pollution or the impact on beneficial uses; 3) Changes in the characteristics of the receiving water;

[27] As of Spring 2022, approximately 100 wineries in the North Coast are eligible for transition to the new statewide winery order and approximately 50 enrollees in the rescinded small domestic wastewater to be transitioned to the 2014 small domestic wastewater order.
[28] Water Code section 13263 subsection (e)
[29] State Water Board Administrative Procedures Manual – Water Quality – Chapter 3 Review/Update of Waste Discharge Requirements

4) Changes in the number of parameters or the level for a given constituent; 5) Compliance with statewide plans and policies; 6) Compliance with federal and State laws and regulations; 7) Compliance with Regional Water Board policies and practices e.g., waivers, guidelines, legal opinions; and 8) Changes to the characteristics of the discharge site (e.g., technical changes).[30]

26. In preparing NPDES Permits (for point source discharges to surface waters), Regional Water Board staff benefit from a federally promulgated permit writer's manual (in addition to the State Implementation Policy[31]) which provides guidelines for evaluating the potential for discharges to exceed water quality objectives and compliance with the State Anti-Degradation Policy, in selecting effluent limits, and in selecting monitoring and reporting requirements. In preparing individual WDRs for discharges of wastewaters, Regional Water Board staff do not benefit from guidelines contained in the NPDES permit writer's manual and thus some inconsistency and inefficiency arises in selecting effluent limits, evaluating the potential for discharges to exceed water quality objectives, compliance with the State's anti-degradation policy, and in selecting monitoring and reporting requirements.

27. An implication of the successful implementation of the Basin Plan Point Source Discharge Prohibition which prohibits point source discharges throughout the region or restricts them to the Mad, Russian, and Eel Rivers (and their tributaries) during the dry season (see Finding 21), has been a shift to the disposal and discharge of treated wastewater to land. The discharge of treated wastewater to land can result in percolation to groundwater, which if not properly treated and disposed is a threat to groundwater quality.

28. As noted in Finding 7 of this resolution, there is limited existing groundwater quality data to inform an evaluation of the impact of OWTS discharges and to assess the extent to which groundwater and local surface water quality may be adversely impacted. The OWTS Policy allows the use of existing water quality data from other monitoring programs to inform the required water quality assessment program. However, water quality data from private groundwater wells is sparse because sampling and testing of private groundwater wells is not required by State law and local well permitting agencies have limited authority to require testing of groundwater quality in private wells. Some private well owners sample and test their wells as part

[30] State Water Board Administrative Procedures Manual – Water Quality – Chapter 2 Waste Discharge Requirements

[31] The State Implementation Policy (SIP) applies to discharges of toxic pollutants into the inland surface waters, enclosed bays, and estuaries of California subject to regulation under the State's Porter-Cologne Water Quality Control Act and the federal Clean Water Act. Such regulation may occur through the issuance of National Pollutant Discharge Elimination System permits or other relevant regulatory approaches. The SIP establishes a standardized approach for permitting discharges of toxic pollutants to non-ocean surface waters in a manner that promotes statewide consistency.

of real estate transactions or when taste, color, and odor is noticeable; however, the results are not required to be made public.

29. Many Small and Disadvantaged Communities in the North Coast have old and undersized wastewater collection and treatment facilities and are inadequately operated and maintained due to a lack of financial resources. These wastewater facilities can pose significant public health and safety threats and adversely affect beneficial uses of surface water and groundwater. However, even when infrastructure deficiencies are identified and improvements recommended, many small and disadvantaged communities lack the financial and technical resources to plan and construct wastewater collection and treatment improvement projects.

30. Groundwater recharge using available surface waters during high-flow periods is being considered in many North Coast groundwater basins to augment groundwater supplies and offset surface water use during low-flow periods. Currently, there are no regional or statewide general WDRs or waiver of WDRs that specifically authorize groundwater recharge using untreated surface waters. When properly managed, recharge projects can have positive impacts; however, potential concerns include surface waters with a lower water quality than the receiving groundwater and migration of constituents within surface soils (into groundwater) such as total dissolved solids, nitrate, lead, arsenic, boron, and organics, such as pesticides. Constituents may be anthropogenic or naturally occurring and may be mobilized through unintended geochemical interactions.

THEREFORE, BE IT RESOLVED THAT:
The Regional Water Board is committed to the protection of high-quality groundwater and the restoration of degraded groundwater to support all beneficial uses now and in the future especially given increasing reliance on groundwater in the North Coast Region. Groundwater supplies in the North Coast Region are currently used for: 1) drinking water, sanitation, and hygiene consistent with the Human Right to Water described in Regional Water Board Resolution No. R1-2019-0004[32]; 2) agriculture and industry which are major economic drivers in the region, 3) Native American ceremonies and traditions; 4) aquaculture operations; and 5) replenishment of flows to streams (e.g. contribution to instream flows) to maintain beneficial uses of surface water,

[32] https://www.waterboards.ca.gov/northcoast/board_decisions/adopted_orders/pdf/2019/19_0024_NCRP_Resolution.pdf

especially cold freshwater habitat, migration of aquatic specifics, wildlife habitat, and spawning, reproduction, and early development of fish.

The Regional Water Board directs staff to use all existing authorities to protect high-quality groundwater, restore degraded groundwater, and to develop a Work Plan for implementation of the actions listed below. By December 2023, provide an update on the Work Plan to the Regional Water Board and subsequently incorporate Work Plan actions into the annual work planning process. The following actions are aimed at addressing the complexities and challenges outlined in Findings 23-30:

1. In coordination with State and Regional Water Board staff, continue to advance internal guidance for WDR permit writers which informs selection of effluent limitations and/or appropriate BMPs to control discharges, compliance with the State anti-degradation policy, evaluation of potential changes to groundwater quality, evaluation of receiving water quality, identification of sensitive receptors, and selection of monitoring and reporting requirements. Implementation of this action will address challenges associated with lack of guidance for WDR permit writers described in Finding 26.

2. Continue to refine the process of prioritizing and conducting reviews and preparing revisions to individual WDRs and the possible transition of individual WDRs to general WDRs in accordance with the State Water Board Administrative Procedures Manual. Take into consideration that some dischargers may need time schedule orders and grant and/or loan funding in order to comply with new requirements. In the process of prioritizing the review/update of WDRs for Publicly Owned Treatment Works, consider Water Code Sections 13288 and 13289 [Provision of Sewer for Disadvantaged Communities]. Implementation of this action will address challenges associated with outdated WDRs described in Finding 25.

3. Continue to evaluate facilities (through inspections and report reviews) covered under statewide general Waste Discharge Requirements that have potential to discharge poorly or untreated wastewater and/or stormwater to groundwater. Identify and implement appropriate regulatory authorities to protect groundwater quality from discharges of poorly treated or untreated wastewater and/or stormwater to groundwater. Implementation of this action will address challenges and complexities as described in Findings 23, 24, and 25.

4. Continue participating in State Water Board-led venues for the review/update of requirements in statewide general WDRs to protect groundwater quality that could be affected by infiltration of poorly or untreated wastewater and/or stormwater. Develop recommended permit provisions for protecting groundwater quality from discharges of poorly or untreated wastewater and/or stormwater. Implementation of this action will address potential conveyance of pollutants to groundwater as described in Findings 24 and 25.

5. Continue to provide: 1) compliance assistance to Small and Disadvantaged Communities with wastewater collection and treatment facilities which face challenges in meeting water quality standards and permit requirements; and 2) technical assistance to Small and Disadvantaged Communities seeking funding for needed water quality improvement projects. Incorporate compliance and technical assistance tasks into relevant Division and Unit annual workplans. Implementation of this action will address challenges faced by these communities due to lack of capacity as described in Finding 29.

6. Consider the need for a general order or a waiver of waste discharge requirements for groundwater recharge[33] using untreated surface waters which protects groundwater quality while encouraging and incentivizing groundwater recharge projects. Implementation of this action would address some of the regulatory challenges and complexities related to the development and implementation of groundwater recharge projects as described in Finding 30 above. Governor Newsom's Executive Order N-7-22 directs Regional Water Boards to prioritize water quality certifications, waste discharge requirements, and conditional waivers of waste discharge requirements to accelerate approvals for projects that enhance the ability of a local or state agency to capture high precipitation events for local storage or recharge, consistent with water right priorities and protections for fish and wildlife.

7. Continue working with Local Agencies through the OWTS Policy to develop Water Quality Assessment Programs which will evaluate the impact of OWTS discharges and assess the extent to which groundwater and local surface water quality may be adversely impacted. Identify and engage in opportunities to support local agency implementation of robust Water Quality Assessment Programs to include funding support and partnering with other municipalities and districts. Engage with the State Water Board Groundwater Ambient Monitoring and Assessment Program to support groundwater quality data collection in Small and Disadvantaged Communities served by OWTS and private domestic wells. Continue participating in State Water Board-led venues for the review/update the OWTS Policy and develop recommended policy provisions for protecting groundwater quality from OWTS discharges to groundwater. Implementation of this action will address the lack of groundwater quality data needed to assess impacts of OWTS on groundwater as described under Finding 28.

8. Continue requiring groundwater monitoring in Monitoring and Reporting Programs for recycled water projects in priority groundwater basins which lack an approved Salt and Nutrient Management Plan as described in the Recycled Water Policy. Continue working with stakeholders in the Santa Rosa Plain Groundwater Basin to

[33] Groundwater recharge is the augmentation of groundwater, by natural or artificial means, with surface water or recycled water. Groundwater recharge is not a beneficial use of water on its own, but rather is one method of diverting and storing water that takes advantage of the natural storage capacity of groundwater aquifers.

utilize Salt and Nutrient Management Planning to protect and restore groundwater quality.

9. Acknowledging that Regional Water Boards have no explicit statutory authority to require actions related to groundwater extraction pursuant to the Sustainable Groundwater Management Act, continue to work with the State Water Board to provide information where the implementation of Groundwater Sustainability Plans may impair, restore, and/or protect the quality of groundwater and surface waters. Continue to engage with all GSAs charged with implementing GSPs and look for opportunities to support groundwater quality monitoring activities in groundwater basins.

10. Continue to engage with local, regional, state, tribal, and federal agencies which influence the monitoring, protection, and restoration of groundwater quality.

11. Through the Triennial Review process, consider the need to amend the Basin Plan should existing authorities of the Regional Water Board be insufficient to protect high quality groundwater and restore degraded groundwater supplies.

Certification:

I, Matthias St. John, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of a Resolution adopted by the California Regional Water Quality Control Board, North Coast Region, on October ##, 2022.

_____
Matthias St. John
Executive Officer