CALIFORNIA COASTKEEPER ALLIANCE

Public Comment
Proposed Recycled Water Policy Amendment
Deadline: 12/22/17 by 12 noon

December 22, 2017

Chair Felicia Marcus and Board Members
c/o Jeanine Townsend, Clerk to the Board
State Water Resources Control Board
1001 I Street, 24th Floor
Sacramento, CA 95814

Sent via electronic mail to: commentletters@waterboards.ca.gov

RE: Comments to A-2239(a)-(c).

Dear Chair Marcus and Board Members:

California Coastkeeper Alliance (CCKA) is a network of California Waterkeeper organizations working to protect and enhance clean and abundant waters throughout the state, for the benefit of Californians and California ecosystems. We appreciate the opportunity to comment on the Eastern San Joaquin River Watershed Agricultural Order SWRCB/OCC Files A-2239(a)–(c). CCKA has initiated its statewide agricultural advocacy program because it has become apparent that regulation of agricultural pollution is not on par with the threat, volume, risk to our environment and drinking water supplies, or regulation from other sources such as industrial stormwater. California needs a statewide agricultural policy to set forth minimum best practices that ensures California's waterways are protected from excessive agriculture pollution—the ESJ Order is not that policy. The State Water Board should be sourcing the best regulatory programs from around the state to set a successful statewide agriculture program; but instead, the State Water Board is using the ESJ Order to set a race to the bottom.

Polluted runoff is California's number one source of water pollution. More than 200 million pounds of pesticides are applied to California farms every year. Excess chemicals wash from the crops and fields and into our groundwater, waterways, and ocean where the chemicals are wasted for the farmer and harmful to people and wildlife. Over 100,000 square miles of groundwater are contaminated with nitrates. 80 percent of California's water goes to agricultural uses. Rampant, widespread over-pumping of groundwater and diversions diminish in-stream flows. Both farming and grazing are encroaching upon riparian zones, leading to higher nutrient and sediment pollution, along with higher water temperatures. One hundred and twenty California waterways are impaired due to grazing activities impacting riparian zones.

As climate change persists, and our drought becomes the new normal, agricultural impacts will only be exacerbated. Heavily diverted rivers will see even less flows during summer months due to diminished snowpack. Harmful algae blooms largely caused by nutrient pollution will only continue to intensify as water temperatures rise and agricultural nutrients continue to be loaded into the system. And riparian encroachment will cause even more damage as intense flood events cause rivers to expand past their channelized banks, eroding the riparian zone and destroying valuable aquatic habitat.

Each of our Waterkeepers have unique watershed issues, but collectively, we see the same persistent regulatory problems occurring in every region. California lacks consistent and effective regulations to ensure agricultural production meets water quality standards and prevents nuisance to the surrounding community. Throughout the state, we are unable to identify which agricultural management practices are working effectively to meet water quality standards because we lack the monitoring necessary to ensure compliance. To date, Water Boards have been unwilling to require individual growers to take accountability – and the ESJ Order goes a step further to mask polluters with anonymous reporting and aggregation of data.

The magnitude of agricultural pollution – and associated impacts – is not commensurate with the level of regulatory oversight. The ESJ Order directs the regulated community to police – and regulate – itself through so-called Third-Party coalitions. Would the State Water Board delegate regulatory authority to the California Stormwater Quality Association (CASQA) to regulate and enforce stormwater permittees? The ESJ purposefully hides compliance data from the public and aggregates it with the intent of preventing enforcement of bad actors. Would the state allow Western States Petroleum Association (WSPA) and the fracking industry to report anonymous data and shield itself from accountability when an oil spill occurred? The ESJ Order maintains the status quo for monitoring obsolete pesticides despite the record that present-day pesticides are causing widespread toxicity not detected by the ESJ's monitoring protocols. What if the Food and Drug Administration required Phillip Morris International to only report chemicals used from the 1950's – and not the hundreds of new chemicals added to modern day cigarettes? Government should regulate industries based on their risk to the public. But the agricultural sector has been given a free pass since the adoption of the Clean Water Act – despite mounting evidence that their activities are the most harmful to the nation's – and California's – waterways.

California's agriculture sector is booming while those impacted by agriculture pollution are exponentially affected. Between 2000 and 2011, crop revenue increased from $21 billion to $28 billion. During 2012 and 2013— the first two years of the recent drought—crop revenue continued to grow, reaching a record high of $34 billion in 2013. In 2014, crop revenue declined slightly, but even during the most severe drought on record, agricultural revenue from crop production in 2013 and 2014 was the highest and second highest, respectively, in California history.[1] Employment data suggest that overall agricultural employment has reached record-high levels.[2] Moreover, as recently as 2012, a survey by the California Farm Bureau Federation found that "farmers in every growing region of California reported having a difficult time hiring enough employees to work in agriculture and harvest their crops".[3] Employment has increased in every year since 2010 by an average of 9,000 jobs, and by 2014, California's agricultural sector employed a record high 417,000 people.[4] The agricultural sector is booming in California – while surrounding communities and watersheds pay the cost.

It is time for California to step up and protect its citizens from agricultural pollution. There are persistent problems throughout California's agricultural management due to the over reliance on iterative management practices and representative monitoring. The state needs a statewide agricultural program – but the ESJ Order only lowers the bar for minimum management practices, and worse yet, applies this low bar to the entire state – pulling regions attempting to get a control on agricultural pollution down with the ESJ region. Our comments highlight the demolition the ESJ Order will do to other agricultural programs throughout the state – theoretically in perpetuity. We request the State Water Board to not make the ESJ Order precedential, but instead, step back and develop a stand-alone agricultural policy that empowers regions to control ubiquitous agricultural pollution.

I. CALIFORNIA'S AGRICULTURAL PROGRAMS FAIL TO PROTECT WATERWAYS.

California produces nearly half of the nation's fruits, vegetables, and nuts, and leads the nation in dairy production. The scale of agriculture operations coupled with the lack of regulations protecting water quality and waters supplies take a heavy toll on California waters. More than 200 million pounds of pesticide and synthetic fertilizers are applied to California farms every year. Excess chemicals wash from the crops and fields and into our groundwater, waterways, and ocean where the chemicals harm people and wildlife. Over 100,000 square miles of groundwater is unsafe to drink because of nitrate contamination. Nitrate runoff creates the conditions for toxic algae blooms along our coastlines, which make swimming unsafe, poison sea lions and make crab and other shellfish toxic to eat.

[1] Heather Cooley et al., Impacts of California's Ongoing Drought: Agriculture; Pg. 8 (August, 2015); *available at* http://pacinst.org/wp-content/uploads/2015/08/ImpactsOnCaliforniaDrought-Ag.pdf.
[2] *Id* at 12.
[3] *Id*.
[4] *Id* at 17.

The California Waterkeepers represent communities with serious watershed impacts resulting from uncontrolled, rampant agricultural pollution. In the North Coast, 400,000 acres of irrigated agriculture in the Klamath Basin has largely depleted the flows of major rivers and their tributaries. The Humboldt region faces a growing threat of marijuana cultivation, causing illegal diversions and sediment runoff into extremely sensitive aquatic ecosystems. And the Russian River has been put into a strait jacket as winery growth has encroached into riparian areas, resulting in high sediment and nutrient runoff. In the Central Coast, agricultural pollution significantly contributes to the region having the highest percentage of "highly toxic" surface waters in the state. And in Southern California where significant agricultural production still exists, discharges of waste from agricultural lands lead to some of the most polluted and Clean Water Act 303(d) impaired waterways in the United States.

a. Region 1

The primary pollutants associated with vineyards operations are sediment, nutrients, organic matter, pesticides and adverse impacts to the function of riparian areas. In the 1500 square mile Russian River watershed agriculture has been practiced for over 150 years mostly focused on areas near the Russian River and area streams where fertile flat ground is located near water sources. Wine grape production has occurred for almost 130 years in the watershed and since 1970 we have seen vineyard acreage in Sonoma County rise from less than 15,000 acres to 28,000 in 1989, 44,700 in 1998 to the current 61,000 acres today. Wine grape growing dominates the agricultural landscape with the largest concentration along the Russian River and its tributaries. In the last twenty years as available land has dwindled vineyards have moved to hillsides and tributary headwaters and ridge tops where soil erosion and water availability are issues.

In recent years the Russian River has experienced increasing amounts of pollution associated with vineyard operations and is now impaired (listed as polluted) for Sediment, Temperature and in some areas for nutrients. Some water quality studies have found pesticides in the water column associated with vineyards as well. The other major issue regarding vineyard operations is the loss of at least 75% of the riparian forest areas adjacent to streams in the watershed that is critical to filtering pollution from adjacent vineyards. We will cover the loss of riparian lands in greater depth in a separate report as multiple land uses such as gravel mining, dams and rural residences are also part of that problem.

During the rain season rainfall lands in the vineyards and after a few inches the soil becomes saturated and runoff occurs and it carries loose sediment and other pollutants to the Russian River. It is practically impossible to eliminate every molecule of pollution from stormwater in vineyards but it is possible to reduce pollutants to meet water quality standards using well good vineyard design, pre-rain season preparation and careful observation and response during the rains season.

Outside of urban areas rural roads and agricultural activities can generate pollutants such as dirt or sediment that wash into our creeks and river when it rains. Many old rural roads, old logging roads and many roads servicing agriculture where built years ago before techniques were developed to reduce the sediment release from dirt roads. Currently many property owners are re-building their dirt roads to reduce this problem by changing the slope of roads and upgrading road culverts that drain water. Another strategy is to move roads further from stream areas since roads right next to streams are difficult to fix and reduce the sediment release due to being so close to a stream. By moving roads further away when the opportunity is present it can greatly reduce water quality problems.

Studies focused on winter flows and in particular peak flow events caused by intense or prolonger rainfall that trigger the worst water quality concentrations. In one study, four rural tributaries were sampled in six sampling events capturing one 10-year storm, a 1-year storm and two smaller events. The study showed that higher flows, correlated with heavier rain events, produced higher concentrations of stormwater pollutants than smaller rain or flow events. The February 16, 2004 10-year event produced the highest levels of pollutants including Simazine a popular vineyard herbicide in 10 of 12 samples. In most of the six events Nitrate, Ammonia-Nitrate and

Orthophosphate all nutrients were mostly above water quality standards established to protect water quality. Turbidity was often elevated in most large rain events and still above safe levels for salmon in small events. Anytime we detect Simazine or any other pesticide in the water column particularly at high flows it is very bad for fish and wildlife as Simazine is a Triazine class herbicide widely implicated in frog and amphibian deformities and is listed as a developmental and reproductive toxin.

b. Region 3

The Central Coast Region has approximately 435,000 acres of irrigated land and approximately 3000 agricultural operations, which may be generating wastewater that falls into the category of discharges of waste from irrigated lands. The Central Coast Region has more than 17,000 miles of surface waters (linear streams/rivers) and approximately 4000 square miles of groundwater basins that are, or may be, affected by discharges of waste from irrigated lands.[5]

Nitrate pollution of drinking water supplies is a critical problem throughout the Central Coast Region. Studies indicate that fertilizer from irrigated agriculture is the largest primary source of nitrate pollution in drinking water wells and that significant loading of nitrate continues as a result of agricultural fertilizer practices. Researchers estimate that tens of millions of pounds of nitrate leach into groundwater in the Salinas Valley alone each year. Studies indicate that irrigated agriculture contributes approximately 78 percent of the nitrate loading to groundwater in agricultural areas. Hundreds of drinking water wells serving thousands of people throughout the region have nitrate levels exceeding the drinking water standard. This presents a significant threat to human health as pollution gets substantially worse each year, and the actual numbers of polluted wells and people affected are unknown.[6]

Agricultural use rates of pesticides in the Central Coast Region and associated toxicity are among the highest in the State. Agriculture-related toxicity studies conducted on the Central Coast since 1999 indicate that toxicity resulting from agricultural discharges of pesticides has severely impacted aquatic life in Central Coast streams. Some agricultural drains have shown toxicity nearly every time the drains are sampled. Twenty-two sites in the region, 13 of which are located in the lower Salinas/Tembladero watershed area, and the remainder in the lower Santa Maria area, have been toxic in 95% (215) of the 227 samples evaluated.[7]

c. Region 4

Agriculture is the dominant industry in Ventura County. California produces more than one-half of the nation's fruits and vegetables,[8] and Ventura County ranks 10th in the state for agricultural production.[9] It notably does this with proportionally less acreage per commodity than the other top ten counties.[10] Ventura County ranks among the three highest in field crops and the highest in revenue, at $7,442 per acre, and in percent of orchards. Local crops most commonly grown are lemons, strawberries, tomatoes, avocados, peppers (fruiting), and outdoor flowers.8 The value of agricultural production in Ventura County for the year 2001 was $ 1.05 billion dollars. In 1997, Ventura County ranked 29th out of all counties in the nation in the number of farms.

---

[5] Central Coast Regional Water Resources Control Board, ORDER NO. R3-2012-0011 CONDITIONAL WAIVER OF WASTE DISCHARGE REQUIREMENTS FOR DISCHARGES FROM IRRIGATED LANDS, pg. 1 (2012); *available at* https://www.waterboards.ca.gov/centralcoast/water_issues/programs/ag_waivers/docs/ag_order/final_agorder_atta_032612.pdf.
[6] Id at 1-2.
[7] Id at 2.
[8] California Department of Food and Agriculture, http://www.cdfa.ca.gov/statistics.
[9] California Farm Bureau Federation, http://www.cfbf.com/counties/co-56.htm.
[10] "A Comparative Analysis of Ventura County," UC Davis; http://migration.ucdavis.edu/rmn/changingface/cf_apr2002/lopez-apr2002.pdf.

Pesticides, herbicides, fungicides, insecticides, and other toxic substances are used extensively in agriculture, especially for sensitive high value crops such as Ventura County's strawberries. The County is also home to some of the largest sod farms in the world, another agribusiness commodity that employs vast quantities of harmful "agritoxins". "Agritoxin" refers to the toxic substances used in agriculture. The term includes pesticides, insecticides, and herbicides. Agritoxins threaten Ventura County's health and environment in a variety of ways. Polluted irrigation water and stormwater runoff destroy fragile coastal wetlands, along with their plant and animal communities. Agritoxins percolate into groundwater, polluting both drinking and irrigation water supplies. Many types of these chemicals are bioaccumulative, meaning that they are stored in the bodies of humans and animals, slowly building up to lethal doses. Agricultural workers and children are the most at risk and the least able to defend themselves from exposure. Agritoxins also pollute the air. Application methods do not restrict these poisons to the crop fields alone. Aerial spraying and wind drift distribute agritoxins over a wide area.

Sediment at the shoreline and in bays, lagoons, and estuaries near agricultural fields often contain banned pesticides such as DDT and organochlorine pesticides. Unfortunately, these pesticide-contaminated waterbodies are commonly home to wildlife and may be prime recreational areas. Many of Ventura County's waterbodies and nearshore marine habitats are contaminated from agricultural effluent. All three of the county's watersheds and several Watershed Management Areas are listed on the Clean Water Act's 303 (d) list of impaired waterbodies. Waterbodies listed for agritoxin impairment include: Ventura River Estuary for DDT; Santa Clara River Estuary for toxaphene and Chem A pesticides {the sum of the chemicals aldrin, dieldrin, chlordane, endrin, heptachlor, heptachlor epoxide, HCH (including lindane), endosulfan, and toxaphene}; McGrath Lake for chlordane and DDT; Port Hueneme Harbor for DDT; and Calleguas Creek for chlopyrifos, chlordane, DDT, and Chem A pesticides.

The Regional Board acknowledges that discharges of wastes from agricultural lands continue to impair receiving waters in Ventura County leading to some of the most polluted and Clean Water Act 303(d) impaired waterways in the United States, and that water quality discharged from agricultural lands has not improved over the last 10 years under the previous Agricultural Waiver Orders. Despite 10 years of implementation of the Region's Agricultural Waiver, water quality throughout the region remains significantly impaired by agricultural contaminants. Statistical trends are difficult to establish based on existing monitoring data. Existing data does show that water quality impairments continue broadly and may be worsening in some areas. There is little evidence that the existing program has made meaningful progress in improving water quality or attaining water quality standards throughout the Region.

a. Region 5

Discharges from irrigated agriculture are the largest source of pollution to Central Valley waterways. The State Water Board's 2010 Integrated Report Clean Water Act Section 303(d) List /305(b) Report identifies some 730 waterbody impairments in the Central Valley. Agriculture is identified as the source of 269 of these segments covering 1,572 waterway miles and 96,147 acres of open water. The Central Valley Regional Board's assessment of data collected at 313 Central Valley sites revealed that: toxicity to aquatic life was present at 63 percent of the monitored sites; pesticide water quality standards were exceeded at 54 percent of sites; one or more metals violated criteria at 66 percent of the sites; human health standards for bacteria were violated at 87 percent of monitored sites; and more than 80 percent of the locations reported exceedances of general parameters (dissolved oxygen, pH, salt, TSS).

The existing and previous ESJ Orders' lack of enforceable standards has led to widespread water quality impairments due to agricultural actives. Historic and ongoing nonpoint source discharges impact Central Valley surface waters.[11] Significant portions of major rivers and the Delta are impaired by discharges from agriculture.[12]

[11] *Id.* at 41.
[12] *Id.*

Pesticides and nutrients are also major ingredients of surface agricultural drainage.[13] They have found their way to ground and surface waters in many areas of the basins.[14] Fish and aquatic wildlife deaths attributable to pesticide contamination of surface water occur periodically.[15] Nitrate and DBCP (1,2-Dibromo-3-chloropropane) levels exceeding the State drinking water standards occur extensively in Central Valley groundwater basins. [16] Domestic supply wells have been closed because of DBCP, EDB, nitrates, and other contaminants in several locations.[17] The Regional Water Board has identified over 7000 sites with confirmed releases of constituents of concern which have adversely impacted or threaten to impact the quality of groundwater resources.[18] The iterative, representative management of agricultural activities in the Central Valley has failed. It is time for a new water quality control regime that begins to hold individual growers responsible for their impairments. Yet, the Draft Order only perpetuates these impairments due to the lack of enforceable standards.

II. THE STATE WATER BOARD SHOULD NOT ABDICATE REGULATORY AUTHORITY OVER TO COALITIONS TO SELF-REGULATE.

Third-Party Coalitions in the Central Valley have proven unreliable. Growers have been required to implement management measures to prevent pollution since the adoption of the irrigated lands Waiver in 2003. A large percentage of rivers, streams and channels in the Central Valley are impaired by pollutants discharged from irrigated lands. In those places where downstream violations have been detected, the Third-Party Coalition has surveyed farmers for existing management measures and asked their members to perhaps employ additional management measures. However, because there is effectively no monitoring of receiving waters adjacent to where farms are discharging and effectively no monitoring of actual discharges to evaluate the effectiveness of management measures, water quality standards violations in those waters will remain undetected and the effectiveness of implemented management measures will remain unknown. The Regional Board will continue to have no evidence demonstrating any likelihood that any current management measures will achieve water quality standards in those waters.

The Third-Party Coalition cannot adequately demonstrate measurable progress towards water quality objectives. In the Regional Board's 2012 Response to Comments, staff suggested that the Eastside Coalition's 1 April 2012 Management Plan Update Report identifies specific management practices implemented and that the Coalition had been able to document measurable progress towards improved water quality because of a claimed reduction in chlorpyrifos exceedances and a reduction in *Ceriodaphnia dubia* toxicity test results. When the new management practices were reviewed, the new measures in first and second priority watersheds amounted to 4,102 acres (about 1% of irrigated acres in the Coalition area). And while *C. dubia* toxicity declined from 16 percent to 2 percent, zooplankton (*H. azteca*) toxicity increased from 14 percent to 20 percent. Exceedances from chlorpyrifos were down; which was to be expected given the 82 percent reduction in use. Growers have shifted to cheaper and more effective (toxic) products that are not reflected in monitoring. Further, there is no chronic toxicity monitoring and the current acute toxicity monitoring fails to capture episodic events when toxicity is likely to be present.

There is nothing in the record to indicate that the WDRs' regional monitoring approach can detect violations of water quality standards in all upstream waters or that it can evaluate the effectiveness of management measures to prevent violations in waters well upstream of the regional or representative monitoring locations. By eliminating measurement of what is happening in local waters adjacent to dischargers or measurement of what is being locally discharged, the WDRs cannot evaluate whether management measures are "tailored to a specific site and circumstances."[19] Nor is there any evidence upon which the Regional Board could determine that implemented

[13] *Id*. at 46.
[14] *Id*.
[15] *Id*.
[16] *Id*.
[17] *Id*.
[18] *Id*.
[19] *Id*.

management measures are "highly likely" to be successful in attaining standards in those upstream waters. There is no evidence of any studies or data demonstrating the effectiveness of any management measures implemented by Third-Party Coalitions to achieve discharges that comply with water quality standards.

After seven years of implementation, the Third-Party Coalition has not produced substantive information describing the locations of management practices actually in place in the Coalition area and the effectiveness of such practices, roundly demonstrates that the WDRs have no feedback mechanism to evaluate management measures, especially one designed to establish "a strong correlation between the specific implemented management measures and the relevant water quality requirements."[20]

Third-Party Coalitions in Region 4 have also demonstrated themselves to be unreliable. Despite having 10 years to collect data, Ventura County growers have been completely unable to verify the effectiveness of their management practices. A technical thesis sponsored by the Ventura County Agricultural Irrigated Lands Group ("VCAILG") itself analyzed 7 years of its cooperative monitoring program data and concluded, "Water quality and BMP implementation data collected and organized by VCAILG is currently insufficient in quantity to associate any potential reduction in total pollutant loading with grower action."[21] In its most recent annual report, after 10-years of implementation, VCAILG could not identify predictive relationships between its BMP adoption rate data (the only BMP data gathered) and water quality data.[22] The failure of VCAILG to provide any adequate verification monitoring or feedback mechanisms to ensure any meaningful progress toward achieving quantifiable reductions in pollutant discharges equates to non-compliance with state policy.

1. *The Third Party should not develop the nitrogen removal coefficients*.

The General WDRs improperly directs the Third Party to develop the nitrogen removal coefficients without input from the public or any oversight by the State or Regional Water Board. The nitrogen coefficients will eventually be used to determine A/R ratios, which will be used to determine the effectiveness of growers' nitrogen management practices. By allowing the Third Party to develop the nitrogen coefficients without oversight, the General WDRs violates the Nonpoint Source Policy. "Before approving . . . a specific NPS . . . program, a RWQCB must determine that there is a high likelihood the implementation program will attain . . . stated water quality objectives. This includes consideration of the MPs to be used and the process for ensuring their proper implementation, as well as assessment of . . . effectiveness."[23] As mentioned above, the nitrogen coefficients are an important piece that will be used to measure the effectiveness of MPs. Leaving this important task to the Third Party with no input from the public, State Board, or Regional Board violates the Nonpoint Source Policy's explicit instruction that the Regional Board determine there is a "high likelihood" of success the program will attain water quality objectives. The Boards cannot determine the likelihood of success if they have no say in the development of the process which will be used to evaluate management practices of nitrogen. If the Regional or State Board cannot develop the coefficients, then at a minimum, any coefficients developed by the Third Party should be reviewed and commented on by the public and formally approved by the Regional Board. Formal oversight by the Regional Board is necessary to meet the requirements of the Nonpoint Source Policy.

2. *The State Water Board should require regular submission of all underlying data to the Central Valley Board, along with all correspondence between the Third Party and the growers*.

The Nonpoint Source Policy requires "sufficient feedback mechanisms" so the Board, dischargers, and the public can determine whether the program is effectively meeting its "stated purpose(s)."[24] By not requiring regular

[20] *Id.*
[21] Jorge et al., 2015.
[22] VCAILG, 2015.
[23] *Id.* at 11.
[24] State Water Resources Control Board, POLICY FOR IMPLEMENTATION AND ENFORCEMENT OF THE NONPOINT SOURCE POLLUTION CONTROL PROGRAM Cite to NPS Policy, pg. 13 (May 20, 2004).

submission of all underlying data and correspondence between the Third Party and the growers, the General WDRs does not provide "sufficient feedback" to allow the Board and the public to determine effectiveness. Requiring submission of all data and correspondence will ensure that the Board, along with the public, can verify that the data is being reported and summarized accurately. Oversight of the Third Party is imperative to the program's success. Without oversight, there is a chance that inaccurate or incomplete data will be reported to the Board which could in turn compromise the efforts to address on-going water quality problems. Having a strong mechanism to scrutinize the practices of the Third Party will help combat their bias in favor of the growers and encourage accurate and complete reporting.

The State Board purports to strike the balance between the "value of fully functioning third party" against "additional burdens of receiving data that is largely anonymous."[25] It opts to strike that "balance" by withhold key information about discharges from the public. Further, while the State Board had previously found that "housing the data set with the Central Valley Water Board supports the long-term security and integrity of the data set, given public agencies' obligations for record retention" it instead reverses course and states that the Third Party can store this information offsite for 10 years.[26] The Regional Board can, on a case-by-case basis, "require submittal of specific names or locations, or names or locations generally, should the Central Valley Water Board make a determination that it is necessary."[27]

The State Board represents that it will "periodically evaluate" whether the framework is "sufficient to enable to the oversight and transparency necessary to ensure measurable progress toward achieving quality requirements and may require disclosure of name and location data in the future if we find it is not."[28] This "evaluation" will start in 2022 when the Regional Board is first required to "report" on this issue to the State Board and only occur every two years.[29]

3. The Third Party should not be responsible for upstream monitoring.

The General WDRs improperly delegates upstream monitoring activities to the Third Party. By delegating upstream monitoring, enforcement responsibilities are improperly deferred to the Third Party. It is clear from the Nonpoint Source Policy that enforcement responsibility ultimately rests with the Regional and State Boards.[30] "The SWRCB and RWQCBs may not delegate their NPS authorities and responsibilities to another agency, and may not indefinitely defer taking necessary action if another agency is not properly addressing a NPS problem."[31] The sole purpose of upstream monitoring is to determine which discharger(s) is/are responsible for an exceedance of water quality in an effort to identify who to take enforcement action(s) against. In other words, upstream monitoring is an investigative tool to identify bad actors. Because this tool will solely be used for informing enforcement activities, it should be the Regional Water Board's responsibility not the Third Party's.

The current surface water quality monitoring program, as established in the 2012 General WDRs and preserved in the current 2017 Proposed Order, is comprised of a few "core" sites and "represented" sites that are located in surface receiving waters—i.e. waters that "receive" discharges.[32] The Third Party monitors only a few "core" sites, asserted to be representative of "represented" sites elsewhere in the watershed.[33] The Third Party monitors

[25] 2017 Proposed Order redline at 51.
[26] 2017 Proposed Order redline at 56; MRP V.D redline at 24 ("The third-party shall maintain all INMP Summary Reports received by the third-party and maintain all electronic database tables created from the INMP Summary Reports for a minimum of 10 years…").
[27] 2017 Proposed Order redline n.63.
[28] 2017 Proposed Order redline at 51.
[29] 2017 Proposed Order redline at 79.
[30] State Water Resources Control Board, POLICY FOR IMPLEMENTATION AND ENFORCEMENT OF THE NONPOINT SOURCE POLLUTION CONTROL PROGRAM Cite to NPS Policy, pg. 10 (May 20, 2004).
[31] *Id.*
[32] 2017 Proposed Order at 56-60; MRP § III.A-C, pp. 4-8.
[33] *Id.*

the represented sites only if a core site has an exceedance.[34] In this way, the General WDRs adopt a representative monitoring approach, rather than a regional or watershed-based approach.[35] The monitoring program under the General WDRs must ensure that "existing and developing water quality problems are in fact detected and subsequently corrected and must provide for sufficient density of monitoring to achieve that purpose."[36]

III. THE STATE WATER BOARD MUST REMOVE ANONYMOUS REPORTING.

The ESJ Order allows coalitions to withhold key information about which growers are over-applying nitrogen and the location of impressible discharges to the state's waterways. The State Water Board directs farming coalitions to "permanently associate each Member with a unique, anonymous identifier (Anonymous Member ID)." As if anonymizing data was not egregious enough, the State Water Board goes a step further, stating that the "Third Party summarizes and aggregates the data, conducts a quality assessment of the information, and submits the summary to the Central Valley Water Board." The State Water Board goes to great lengths to make the ESJ Order unenforceable, and to hide from the public the Order's inability to control agriculture pollution.

The State Water Board's complete change in course comes without any explanation. In the 2016 Draft ESJ Order, the State Water Board rejects the concept of anonymizing data by stating that this "option is less compelling because it limits use of the data to analysis and oversight where management practices have failed and does not allow for the more complete analysis and identification of effective management practices..."[37] The Revised 2017 Draft Order makes no explanation as to why the State Water Board's original position was a mistake – or why it's new position of anonymizing data is warranted.

The State Water Board has already rejected growers concerns regarding privacy. In the 2016 Draft Order, the State Water Board stated that "we are not persuaded that submission of management practice information to the Central Valley Water Board runs counter to competitive advantage and trade secret concerns."[38] Furthermore, in the Central Coast Order WQ 2013-0101, the State Water Board retained the requirement for growers to make available to the Central Coast Water Board information related to management practice implementation. In doing so, the State Water Board recognized "growers' arguments that such reporting could lead, through a Public Records Act request, to disclosure of sensitive business information. However, we found that the existing exceptions to the Water Code and to the Public Records Act, which allow withholding of information deemed trade secrets and secret processes, was sufficient to protect the most sensitive submitted data." The State Water Board makes no justification or explanation as to why it is rejecting its own logic in the Central Coast 2013 Order or the Draft 2016 ESJ Order by allowing growers in the Revised 2017 ESJ Order anonymize data.

Anonymizing data violates California law. California has a long history of protecting the people's right to access government data. Two key parts of the Brown Act have not changed since its adoption in 1953. One is the Brown Act's initial section, declaring the Legislature's intent:

> "In enacting this chapter, the Legislature finds and declares that the public commissions, boards, and councils and the other public agencies in this State exist to aid in the conduct of the people's business. It is the intent of the law that their actions be taken openly and that their deliberations be conducted openly."

Here, the State Water Board is purposefully delegating its authority to Farming Coalitions to self-regulate themselves and to hide any oversight and accountability from the People. The Brown Act goes further to state:

---

[34] *Id*.
[35] 2017 Proposed Order at 59; see also MRP § III.A-C, pp. 4-8.
[36] 2017 Proposed Order at 60; *see also* 2017 Proposed Order at 17; MRP § II, p. 3; MRP § III.C.1, p. 7.
[37] 2016 Draft Order at 29.
[38] *Id*.

> "The people of this State do not yield their sovereignty to the agencies which serve them. The people, in delegating authority, do not give their public servants the right to decide what is good for the people to know and what is not good for them to know. The people insist on remaining informed so that they may retain control over the instruments they have created."

By allowing the regulated community to anonymize its data - and hide it from the public - the State Water Board is deciding what is good for the people to know and what is not good for them to know.

Anonymizing data violates the California Constitution. The people reconfirmed the Brown Act's intent 50 years later in the November 2004 election by adopting Proposition 59, amending the California Constitution to include a public right of access to government information:

> "The people have the right of access to information concerning the conduct of the people's business, and, therefore, the meetings of public bodies and the writings of public officials and agencies shall be open to public scrutiny."

The State Water Board is rejecting the right of the people to access information concerning the conduct of the people's business. Agricultural pollution – particularly nitrate pollution – is ubiquitous in California's agricultural communities threatening communities, public health, and our aquatic ecosystems more than any other source of pollution that the State Water Board regulates. Yet, the State Water Board is preventing the public from knowing who and where agricultural pollution is occurring in the state.

Anonymizing data violates established case law. The recent Zamora case plainly rejected the notion that data can be hidden from the public. The court held that "two pillars of the Water Quality Act are to protect the quality of community water supplies and to promote public access."[39] "The public is entitled to know whether the Regional Board is doing enough to enforce the law and protect the public's water supplies."[40] Just like the State Water Board's reasoning in the 2013 Central Coast Order, the court held that the "strong interest in public accountability cannot be overcome by vague notions of privacy or unsupported allegations of terrorist threats to polluted groundwater supplies."[41]

Critical to the effectiveness of groundwater monitoring programs in general, and the Central Coast agricultural program in particular, is transparency, a strong public policy of public disclosure expressed in the Water Quality Act and acknowledged by the State Board. (See, e.g., §13269, subd. (a)(2) ('[rn]onitoring requirements [must be designed to verify] the adequacy and effectiveness of the waiver's conditions [and that] [m]onitoring results shall be made available to the public.')) Public accountability of administrative agencies is an important tenet of American jurisprudence. (See International Federation of Professional and Technical Engineers, Local 21, AFL-CIO v. Superior Court (2007) 42 Cal.4'h 319, 328-329 ["Openess in government is essential to the functioning of a democracy. 'Implicit in the democratic process is the notion that government should be accountable for its actions.'[Citation.]" (addressing PRA request)].)[42]

Anonymous data conflicts with the recommendations of the Expert Panel. The Panel concluded that the "Legislature should enact legislation that establishes a framework of statutory authority for the Water Boards…[to] increase public accessibility to monitoring data and assessment information."[43] The U.C. Davis Report also concluded that "nitrogen fertilizing material application is the main source of nitrate in groundwater. A system to track the application of nitrogen fertilizing materials is a critical element in managing groundwater

[39] See Z*amora v. Central Coast Regional Water Quality Control Board* (Oct. 28, 2016) San Luis Obispo Sup. Ct. No. 15CV-0247.
[40] *Id* at 2.
[41] *Id* 3.
[42] *Id* 13.
[43] *See*, RECOMMENDATIONS ADDRESSING NITRATE IN GROUNDWATER STATE WATER RESOURCES CONTROL BOARD REPORT TO THE LEGISLATURE; *available at* https://www.waterboards.ca.gov/water_issues/programs/nitrate_project/.

quality."[44] The State Water Board seems to cherry-pick recommendations from its Expert Reports – picking only those that weaken the ESJ Order rather than incorporating key recommendations that are considered "critical elements" for nitrate management.

Anonymous reporting is illegal according the California Constitution, the Brown Act, and the Zamora case – and flies in the face of good public policy as stated by the state's own expert panels. The public and the regional board will not have access to location or names of dischargers of Nitrates. It will be harder if not impossible for the Regional Board to target problem areas and track the effectiveness of management practices. Given the complexity of the problem, we need to collect and share more data so that we can understand and model how discharges are affecting ground and surface water. Therefore, we request the State Water Board to remove direction to anonymize and aggregate data, and make all location and name identifiers in compliance reports available to the public.

IV. THE STATE WATER BOARD SHOULD NOT ALLOW OTHER REGIONS TO USE A TIERING STRUCTURE.

The State Water Board goes to great lengths to explain why tiering is not appropriate. The State Water Board first relies upon the Agricultural Expert Panel, which "found that good nitrogen management is essential in all areas, not just high vulnerability areas, and recommended against differential requirements for nitrogen management based on risk." The Agricultural Expert Panel thus effectively rejected risk categorization for groundwater requirements, recommending that uniform requirements apply to all dischargers.

The State Water Board agrees with the Agricultural Expert Panel's conclusion that "distinguishing between high vulnerability and low vulnerability areas for groundwater is at best an inexact science and that groundwater protection requirements…should instead apply uniformly to all areas." With this assertion, the State Water Board directs revisions to the ESJ Order "to remove the distinction between the requirements for high vulnerability and low vulnerability groundwater areas and to impose the requirements currently imposed only on Members in high vulnerability groundwater areas on all Members." We support this direction.

However, the State Water Board then inexcusably exempts surface water protections from the same inexact science of tiering. The State Water Board states that it leaves "open the possibility that risk-based designations continue to be used for differentiating surface water protection..." Even more egregiously, the State Water Board specifically points to the Central Coast tiering as a model for which the rest of the state can follow when developing tiers for surface water protections. The State Water Board States that tiering can include "the risk-based tier designations in the Central Coast irrigated lands programs or possibly categories based on farm-size."

The Central Coast tiering program is not a model that should be followed. The Central Coast Waiver uses a tiering structure in an attempt to focus regulatory effort on those farming operations that pose the most risk to human health and the environment. Tier 3 is the more restrictive tier and requires more care and monitoring than the previous 2004 Waiver, which failed to meaningfully improve water quality. Tier 1 is less restrictive than the 2004 Waiver and Tier 2 is about the same.

Tier 3, the most restrictive tier, is defined to include any discharger that "grows crop types with high potential to discharge nitrogen to groundwater at the farm/ranch…, and farm/ranch total irrigated acreage is greater than or equal to 500 acres," or that "applies chlorpyrifos or diazinon at the farm/ranch, and the farm/ranch discharges irrigation or stormwater runoff to a waterbody listed for toxicity or pesticides on the 2010 List of Impaired Waterbodies." Because there are few irrigated agricultural operations in the Central Coast larger than 500 acres, Tier 3 generally applies to dischargers based on the second condition, the use of diazinon and chlorpyrifos, two organophosphate pesticides.

[44] *Id.*

The use of diazinon and chlorpyrifos has been declining for many years, and dischargers are rapidly replacing them with more toxic (pyrethroids) and more persistent (neonicotinoids) alternatives. Pyrethroid pesticides, such as permethrin, are far less soluble in water than organophosphates, such as diazinon and chlorpyrifos. This characteristic makes them especially toxic to bees, fish and aquatic insects.[45] Neonicotinoids, meanwhile, are believed to contribute to honey bee colony collapse disorder.[46] Indeed, a recent study published by the National Institutes of Health explains that neonicotinoids are becoming ever more popular "largely due to their high toxicity to invertebrates, the ease and flexibility with which they can be applied, their long persistence, and their systemic nature, which ensures that they spread to all parts of the target crop."[47] "However," the study explains, "these properties also increase the probability of environmental contamination and exposure of nontarget organisms…Persistence in soils, waterways, and nontarget plants is variable but can be prolonged; for example, the half-lives of neonicotinoids in soils can exceed 1,000 days, so they can accumulate when used repeatedly…Breakdown results in toxic metabolites, though concentrations of these in the environment are rarely measured."[48]

When the Central Coast Regional Board was developing the 2012 Waiver, Staff estimated that early proposed waivers would have placed 11 percent of dischargers and 54 percent of irrigated acreage in Tier 3. Staff significantly reduced those numbers for the 2012 Waiver, estimating that approximately 100 farm operations and 14 percent of irrigated acreage would be in Tier 3.

Things are even worse in practice; perhaps as the result of switching pesticides, far fewer farms and far less acreage are in Tier 3. As of May 2015, roughly 49 farm operations totaling approximately 21,000 acres, only 4.6 percent of the total irrigated acreage in the Region, are in Tier 3. Of those 49 operations, 35 (71 percent) self-report that they have no discharge, which means they have no discharge monitoring requirements.[49] Requiring undefined improved management practices for less than 5 percent of irrigated acreage, as the 2012 Waiver does, will not result in improved water quality in the Central Coast.[50]

The Central Coast Waiver's emphasis on pesticides no longer in widespread use, combined with the low number of growers enrolled in Tier 3, have resulted in surface water conditions deteriorating since the Waiver was adopted. According to a presentation given by the dischargers' water quality testing program, conditions at monitoring sites in some of the most cultivated areas are deteriorating. For pesticides, the trends are exactly what would be expected if dischargers were switching away from diazinon and chorpyrifos (which cause toxicity in water) to pyrethroid pesticides (which cause toxicity in sediment. For nitrates, in the contiguous lower Salinas and Pajaro systems, two sites show improving trends while six sites show worsening trends.

The Central Coast Waiver's tiering structure incentivizes growers to switch to new classes of pesticides that are more toxic and more persistent than existing pesticides, and growers are in fact switching to these new pesticides. Moreover, tiering allows growers to game the system and get out from conducting critical assessments to determine whether their management practices are working – as exemplified by the Central Coast Waiver. Tiering incentivizes more toxic pesticides leads to an illegal agricultural program. The State Water Board should not be endorsing such programs statewide.

---

[45] See, e.g., http://npic.orst.edu/factsheets/Permtech.html.
[46] See Renee Johnson, "Honey Bee Colony Collapse Disorder," Congressional Research Service Review (July 7, 2010), available at http://www.fas.org/sgp/crs/misc/RL33938.pdf.
[47] J.M. Bonmatin, et al., "Environmental fate and exposure; neonicotinoids and fipronil," Environ. Sci. Pollut. Res. Int. 2015; 22: 35–67 (Aug. 7, 2014), available at http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4284396/.
[48] Id.; see also National Pesticide Information Center, "Imidacloprid (Neonicotinoid) Technical Fact Sheet, available at http://npic.orst.edu/factsheets/imidacloprid.pdf.
[49] See http://www.waterboards.ca.gov/centralcoast/board_info/agendas/2015/may/item15/item15_presentation%20Compliance_ACF.pdf.
[50] See http://www.waterboards.ca.gov/centralcoast/board_info/agendas/2015/may/item15/item15_presentation%20Compliance_ACF.pdf.

We request the State Water Board remove the directive to leave open the possibility for risk-based surface water protection requirements. We respectfully request the following changes to the ESJ Order, Page 26:

> The uniform application of requirements for groundwater protection shall be precedential for irrigated lands programs statewide. But we leave open the possibility ~~that risk-based designations continue to be used for differentiating surface water protection requirements and~~ for phasing in groundwater protection requirements. We also decline to direct a uniform set of criteria for risk designation and leave the regional water boards with considerable discretion to design reasonable frameworks for differentiation and prioritization. ~~In addition to the high/low vulnerability approach of the Eastern San Joaquin Agricultural General WDRs, such criteria may, for example, include the risk-based tier designations in the Central Coast irrigated lands programs or possibly categories based on farm-size.~~

V. THE STATE WATER BOARD SHOULD REQUIRE TOXICITY MONITORING TO TEST CURRENTLY APPLIED PESTICIDES.

New testing protocols have not kept pace with the switch from diazinon and chlorpyrifos to pyrethroids and neonicotinoids; consequently, the toxicity of California's waters may be seriously underestimated. And data collected by growers themselves in fact demonstrates worsening conditions, both in terms of nitrate pollution and toxicity.

The State Water Board is not setting an appropriate statewide standard for toxicity monitoring. The ESJ Order allows aquatic toxicity testing using a standard 3-species test using a water flea (*Ceriodaphnia dubia*), flathead minnow (*Pimephales promelas*), and algae (*Selenastrum capricornutum*). This test is generally effective for testing for organophosphate pesticides such as Diazinon and chlorpyrifos, and for most herbicides. While the flathead minnow is sensitive to pyrethroid pesticides, pyrethroids adhere to sediment particles and are found only in lower amounts in the water itself.

The use of diazinon and chlorpyrifos has been declining for many years, and dischargers are rapidly replacing them with more toxic (pyrethroids) and more persistent (neonicotinoids) alternatives. Noenicitinoid imidacloprid has become the largest selling pesticide in the world, is extensively used throughout California, is persistent in the environment, is highly soluble and poses a risk for groundwater contamination, and is of growing concern. Strawberries and wine grapes, important crops for Regions 1,3, and 4, use imidacloprid extensively.[51]

Current toxicity monitoring throughout the state is not contemporary to detect toxicity from currently applied pesticides. Whether by coincidence or design, the dischargers' monitoring program in the Central Coast, which the Regional Board relies on for water quality data and to determine regulatory compliance, uses a tiny crustacean for toxicity testing: *Ceriodaphnia dubia*, commonly known as a water flea. *Ceriodaphnia*, which is not native to the Central Coast Region, is most sensitive to organophosphate pesticides such as chlorpyrifos and diazinon.

Federally backed toxicity testing currently exists to test for in vogue pesticides applied in California. EPA-approved test crustacean, *Hyalella azteca*, is native to California and is an important food for native fishes, including the federally endangered South Central Coast steelhead trout. *Hyalella* are sensitive to pyrethroid pesticides, and are often used in combination with *Chironomus* (a midge, or small fly), which are sensitive to neonicotinoid pesticides.

Current toxicity monitoring – required by the ESJ Order - has been demonstrated to fail. When non-native *Ceriodaphnia* and native *Hyalella* were tested side-by-side in Quail Creek in the Salinas Valley, the results were noticeably different: samples using *Ceriodaphnia* more often met toxicity standards, while samples using

[51] 2017 CC Comments pg. 7.

Hyalella more often failed them.[52] A follow-up test was conducted to determine the accuracy of the toxicity test the growers were using. The results of that test are reported in the May 2015 Executive Officer's Report to the Central Coast Regional Board. Dischargers' testing under the Central Coast Waiver, using *Ceriodaphnia*, found no toxicity at any of the listed sites, while independent testing, using *Hyalella* and *Chironomus*, found 89 percent of the same sites to be toxic.[53]

These data suggest two things. First, as growers substitute some organophosphate pesticides in favor of more toxic and persistent pyrethroids and neonicotinoids, toxicity is increasing, or at least not improving, in the Central Coast Region. Second, the Central Coast Waiver's monitoring program, which tests for toxicity caused by organophosphate pesticides but not pyrethroid and neonicotinoid pesticides, may be vastly underestimating the toxicity of California's waters.

Hidden pesticide toxicity is not only a Central Coast problem. Pesticide use in Region 1 is ubiquitous and any statewide surface water monitoring program must ensure growers are testing for the appropriate pesticides. Almost 2 million pounds of active pesticide ingredients are applied to just vineyards with a total pesticide product application of almost 3 million pounds applied in over 65,000 individual application events. Pesticides are used every day of the year in vineyards with most applications occurring during winter and spring months when rain can occur and move pesticides to streams. Some of these products are widely known to be very toxic to aquatic ecosystems such as 1,3-Dicloropropene, which is a fungicide and nematicide. 1,3-Dichloropropene is a listed carcinogen, groundwater contaminant that is acutely toxic (kills things instantly) and suspected reproductive and developmental toxin and over 150,000 pounds were used in 2012 in Sonoma County.

We request that statewide monitoring and reporting requirements include toxicity testing using a panel of test organisms including the 3-species test (already in the draft); *Hyalella* (already in the Draft), sensitive to pyrethroid pesticides; and adding *Chironomus*, sensitive to neonicotinoid pesticides.

We further request that a narrative requirement be added for an annual evaluation of pesticides in use, in consultation with UC Davis Marine Pollution Studies Laboratory at Granite Canyon, to determine if the panel of test organisms should be modified.

VI. THE STATE WATER BOARD NEEDS TO IDENTIFY AND REQUIRE BEST MANAGEMENT PRACTICES TO PREVENT SEDIMENT POLLUTION.

The State Water Board's direction in the ESJ Order is insufficient to control sediment pollution throughout the state. The State Water Board finds that the existing sediment controls is sufficient in the ESJ and directs sediment plans be created throughout the state without any guidance. The State Water Board allows Sediment and Erosion Control Plan "to be prepared by the Member and must either conform to a site-specific recommendation from the Natural Resources Conservation Service or be certified." This is not enough oversight or guidance to ensure sediment pollution is controlled in sensitive regions like Region's One and Three.

The State Water Board needs to set best management practices to protect sensitive watersheds throughout California – and in particular Region's with salmonid species. Soil erosion is the biggest issue as it is very harmful to salmon and damages water supply infrastructure for municipal and domestic use and smothers macro-invertebrates living at the bottom of the stream. Soil erosion is also harmful in that many pollutants such as

[52] Table comparing toxicity rates based on the 2012 Waiver's testing method and more comprehensive methods. Extracted from B.M. Phillips, et al., "The Effects of the Landguard A900 Enzyme on the Macroinvertebrate Community in the Salinas River, California," 69 Arch. Environ. Contam. and Toxicol. 1, 5 (June 29, 2015), available at http://www.ncbi.nlm.nih.gov/pubmed/26118992.

[53] *available at* www.waterboards.ca.gov/centralcoast/board_info/agendas/2015/may/item23/item23_stfrpt.pdf, and are represented in a table copied from the report.

Phosphorous and many pesticides and herbicides absorb on to soil particles. Once the soil enters a stream the "hitch-hiking" pollutant is generally separated from the soil particle and can then harm wildlife or aquatic processes.

Many authorities on water quality state that buffers between 25 and 50 meters will measurably increase water filtration.[54] In most areas of the Russian River riparian buffers do not exist beyond the top of bank. Certified sediment management programs – without proper oversight from the Water Boards – do not lead to adequate management practices as illustrated by the Fish Friendly Farming certified vineyard that has planted vines in the creek channel and actively cultivates it each year. This stream contains spawning steelhead that literally have to swim through the vineyard to get to spawning grounds and are exposed to pollutants used in the vineyards.

The goal of the federal and state Clean Water Act is to protect and preserve beneficial uses of water. The WILD beneficial use goes well beyond basic water quality and states that: Uses of water that support terrestrial ecosystems including but not limited to, preservation and enhancement of terrestrial habitats, vegetation, wildlife (e.g. Mammals, birds, reptiles, amphibians, invertebrates), or wildlife water and food sources.[55] We know from the CA Department of Fish and Wildlife (DFW) that many species existence is tied to riparian areas and loss of riparian habitat often leads of species extinction.[56] Further DFW states that "riparian or upland habitat surrounding wetlands and streams is documented to function as essential and core habitat for many aquatic and riparian dependent amphibian and reptile species and should not be viewed merely as a disturbance buffer for aquatic habitat from surrounding land use practices".[57] The Western Pond Turtle, a California Species of Special Concern, that is native to the Russian River, "will spend as much as seven months of each year on land and females lay eggs as many as 400 meters (1,312 ft) from streams".[58]

Aside from riparian areas functioning under the Clean Water Act as water quality filtration areas, the CWA places an affirmative duty on the North Coast Waterboard to protect areas well away from the stream to fulfill their mandate to protect the WILD beneficial use. In addition, the other beneficial uses that need to be consider are; GWR, Groundwater Recharge, FRSH, Freshwater Replenishment, WQE, Water Quality Enhancement, FLD, Flood Peak Attenuation and WET, Wetland Habitat. California's current Agriculture program is not mandating, prioritizing or incentivizing riparian buffers that will need to be required to protect beneficial uses.

Permanent over crops between vineyard rows and even under vines is a great way to maintain erosion control and keep costs down in a vineyard. For a variety of reasons most vineyards plow under cover crops to bare soil in late April and May to reduce water competition (which is often a minor factor) or to seal the soil to prevent evaporative losses of water and other reasons. In the Russian River we frequently have wet springs and some of the highest concentrations of turbidity and total suspended solids have occurred in late spring rains after many vineyards have plowed under cover crops and the saturated ground and loose soil easily erode and deliver sediment to streams. Often when cover crops are plowed under, the roads at the edge of vineyard that are adjacent to streams are also loosened increasing sediment discharge despite requirements to have "vegetated filter strips" which are summarily plowed under as well. This is an especially risky practice if there is any chance of a late season rain storm.

---

[54] California Department of Fish and Wildlife, 2014. Technical Memorandum: Development, Land Use and Climate Change Impacts on Wetland and Riparian Habitats – A summary of Scientifically supported conservation strategies, mitigation measures and best management practices. CDFW Northern Region. And Johnson, C.W. and S. Buffler. 2008. Riparian buffer design guidelines for water quality and wildlife habitat functions on agricultural landscapes in the Intermountain West case study. General Technical Report RMRS-GTR-203. United States Department of Agriculture, Forest Service, Rocky Mountain Research Station. Fort Collins, CO.

[55] See, North Coast Waterboard Basin Plan.

[56] California Department of Fish and Wildlife, 2014. Technical Memorandum: Development, Land Use and Climate Change Impacts on Wetland and Riparian Habitats – A summary of Scientifically supported conservation strategies, mitigation measures and best management practices. CDFW Northern Region

[57] *Id.*

[58] *Id.*

Geomorphic studies show that the largest intense rain events move the majority of sediment so sizing drainage systems for those largest events will reduce pollution. Typical urban design storms criteria using the 85th percentile of rain events will ensure drainage failure since soil erosion increases with increasing rainfall as opposed to urban pollution reducing after first increment of rainfall. Lastly, just as in urban areas high efficiency drainage also moves pollutants rapidly to streams along with the water and if that vineyard will use nutrients or pesticides it will end up in the stream.

Existing roads to and within vineyards continue to contribute sediment to waterways and must be upgraded to meet newer design standards intended to prevent soil erosion. Vineyards with roads at the top of bank provide no ability to protect the WILD beneficial use in addition to meeting water quality standards. In addition, roads distant from streams are a large source of pollutants and often produce as much sediment as the entire vineyard.

The State Water Board should provide statewide guidance on sediment and erosion control. At a minimum, growers should know where the water goes and learn drainage patterns. Growers should avoid underdrains that reduce groundwater recharge and erode stream channels. Growers should be incentivized to break up concentration of flows and to look for places to let water slow down and settle – providing the multiple benefits of water supply and improved water quality similar to California's stormwater program. Growers should be incentivized to create detention ponds or swales for water to reduce pollutants and increase groundwater recharge. For Summer seasonal crops, growers should void any cultivation or grading until after May 15th or if rain is forecast within 48 hours. These are just a small set of best management practices that the state should be requiring growers to incorporate into Sediment and Erosion Plans.

Allowing growers to self-certify their plans – even through a Third-Party program – has already demonstrated to be insufficient. The State Water Board needs to be more proactive at controlling sediment pollution – particularly in salmonid watersheds. At a minimum, the State Water Board should set mandatory riparian buffer zones, require a minimum 25-foot setback for roads, incentivize stormwater capture and infiltration to reduce runoff from heavy rain events, and set minimum crop cover requirements.

***

California needs a statewide agricultural policy to set forth minimum best practices that ensures California's waterways are protected from excessive agriculture pollution—the ESJ Order is not that policy. The State Water Board should be sourcing the best regulatory programs from around the state to set a successful statewide agriculture program; but instead, the State Water Board is using the ESJ Order to set a race to the bottom.

Sincerely,

Sean Bothwell
Policy Director
California Coastkeeper Alliance