

CENTRAL VALLEY REGIONAL WATER QUALITY CONTROL BOARD

577th BOARD MEETING MINUTES

FRIDAY, 15 OCTOBER 2021, 9:00 a.m.

BOARD MEETING LOCATION

Zoom Teleconference and Webcast

BOARD MEMBERS PRESENT

Avdis, Nicholas	Longley, Dr. Karl	Morgan, Nichole
Brar, Raji	Yang, Sean	(SWB)
Kadara, Denise		

BOARD MEMBERS ABSENT

Ramirez, Carmen
Bradford, Mark

STATE WATER BOARD OFFICE OF CHIEF COUNSEL AND ENFORCEMENT STAFF PARTICIPATING IN THE MEETING

Jahr, Jessica	Moskal, Chris
Lancaster, David	Toft-Dupuy, Bayley

REGIONAL BOARD STAFF PARTICIPATING IN THE MEETING

Baum, John "JJ"	Hatton, Scott	Rodgers, Clay
Braidman, Brett	Holmes, Kari	Smith, Bryan
Brown, Janelle	Howard, Meredith	Snyder, Clint
Chow, Bob	Laputz, Adam	Soria, Denise
Cole, Selina	Marshall, Jim	Tadlock, Stephanie
Cottrell, Maxine	Maxwell, Mindy	Walls, Russell
Coughlin, Gene	McDonnell, Sue	Warren, Eric
Flower, Christopher	Mostafa, Omar	Wilson, Angela
Freigen, Susan	Pulupa, Patrick	
Garver, Kelli	Rapport, Eric	

ADDITIONAL ATTENDEES PRESENT WHO WERE IDENTIFIED

Bourdon, Yao	Houdesheldt, Bruce	Kane, Nat
Cory, David	Huff, Kelly	Manhart-Glenn, Kandi
Denton, Debra	Humphry, Tami	Mein, Janis
Dunham, Tess	Hyde, Lindsay	Messina, Lester
Fojut, Tessa	Jaron	Miller, Ken

Perez, Jaime
Shu, Jeffrey
Stevenson, Max

Wackman, Michael
Wehr, Ellen
Webster, Debbie

Whitman, Adam

AGENDA ITEM 1 – CALL TO ORDER

Chair Longley called the 577th Board meeting to order and made introductions. Executive Officer (EO) Pulupa introduced staff. Vice Chair Kadara led the Pledge of Allegiance.

AGENDA ITEM 2 – BOARD MEMBER COMMUNICATIONS

Chair Longley submitted the following communications:

- 13 September 2021 – Participated in Monthly Regional Board Chairs' Meeting
- 4 October 2021 – Participated in Monthly Regional Board Chairs' meeting
- 6 October 2021 – Together with Board Member Avdis received a briefing on the Delta Regional Monitoring Program

Vice Chair Kadara submitted the following communications:

- 18 September 2021 – Dr. Ashok Gadgil of the Gadgil Lab at U.C. Berkeley informed Allensworth residents their Electro-Chemical Arsenic Remediation (ECAR) work had been peer-reviewed and published in Water Research Journal.
- 22 September 2021 – Participated in a brainstorming session to discuss a Small Growers Summit.

AGENDA ITEM 3 – STATE WATER BOARD LIAISON UPDATE

State Water Board Member Nichole Morgan provided an update as follows:

- On 8 July 2021, Governor Newsom signed an Executive Order calling on all Californians to voluntarily reduce water usage by 15%. Compared to 2020 levels, the State estimates an additional 15% voluntary reduction by urban water users could save enough water to supply more than 1.7 million households for one year. [Additional information and water saving tips](#) can be found at (www.saveourwater.com). Additionally, more information on [California's drought conditions and actions](#) can be found at (www.drought.ca.gov).
- On 21 September 2021, State Water Board adopted guidelines for the California Water and Wastewater Arrearages Payment Program and provided an overview of the survey. Of the 2,218 community water systems that charged for water, the 1,845 systems that responded to the survey represent 97.5% of the total

population served by those systems. Respondents reported approximately \$315 million in total residential and commercial arrearages (not including late fees). Ms. Morgan further noted the water shutoff moratorium was extended to 31 December 2021.

- On 21/22 October 2021, the water boards are convening the annual Water Quality Coordinating Committee (WQCC) Meeting. This year's meeting will reflect on and celebrate the upcoming 50th anniversary of the Clean Water Act, as well as the State Water Board's efforts to advance racial equity and environmental justice. Meeting materials and session links will be posted online.
- On 5 October 2021, the State Water Board held public comments on the proposed Resolution for the Recission of December 1, 2020, Establishment of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California (ISWEBE Plan) and Confirmation that the "Toxicity Provisions" Were Adopted as State Policy for Water Quality Control for All Waters of the State. This Resolution was in response to a January 2021 court ruling regarding the State Water Board's authority to regulate waters of the State. The Resolution was adopted by the State Water Board.

Comments from Board Members

Chair Longley thanked Ms. Morgan for the update and urged all Board Members to join the 21/22 October 2021 WQCC Meeting for important annual updates.

AGENDA ITEM 5 – EXECUTIVE OFFICER'S REPORT

Executive Officer (EO) Pulupa thanked new program managers (Chris Flower and Steve Meeks) on their efforts in the Cleanup and UST Programs and in closing additional cases. Specifically, for their efforts stepping into the new Program Manager roles and providing quality write-ups.

Comments from Board Members

Vice Chair Kadara commented the Cannabis Program seemed to be working well in the South part of the Valley. Vice Chair Kadara further stated the projected vs. actual enforcement numbers seemed low and asked if there was a reason for that (beyond the pandemic).

EO Pulupa stated some of the complexities staff within the Enforcement Program were working with included large enforcement and compliance cases that must appear before the Board for a live hearing. EO Pulupa further stated Kari Holmes, Enforcement Program Manager would be providing an Enforcement Program update to the Board detailing current activities.

Chair Longley commended EO Pulupa and staff for an excellent Executive Officer's report, as well as continued efforts to provide transparency to the work.

EO Pulupa asked the Board's preference regarding an in-person or virtual December 2021 Board Meeting. After some discussion, it was decided the December 2021 Board Meeting would be all virtual, with a focus on returning in February 2022 for a hybrid approach (with the in-person option to be held in downtown Sacramento).

AGENDA ITEM 6 – ADOPTION OF MINUTES FROM PRIOR BOARD MEETING

Motion to adopt previous Board meeting minutes from 13 August 2021.

Motioned: Member Avdis
Seconded: Vice Chair Kadara

Roll Call Vote:

Member Brar	Yes
Member Avdis	Yes
Member Yang	Yes
Vice Chair Kadara	Yes
Chair Longley	Yes

Approved by Roll Call Vote of 5-0-0

AGENDA ITEM 7 – PROPOSED 2022 BOARD MEETING CALENDAR DATES

The Board agreed to the 2022 Board Meeting schedule as follows:

17/18 February 2022
21/22 April 2022
9/10 June 2022
11/12 August 2022
13/14 October 2022
8/9 December 2022

AGENDA ITEM 8 – ADOPTION OF UNCONTESTED CALENDAR AGENDA ITEMS 16 THROUGH 18

UNCONTESTED CALENDAR

(Cal. Code Regs., tit. 23, section 647.2, subd. (f).) Uncontested items are those items that are not being contested at the Board Meeting and will be acted on without discussion. If any person or Board Member requests discussion, the item may be removed from the Uncontested Calendar.

WASTE DISCHARGE REQUIREMENTS (AGENDA ITEM 16)

- a. Caltrans, Panoche Hills CAPM 06-0X270 Project, Fresno County – Consideration of New Waste Discharge Requirements
- b. County of Kern, Arvin Sanitary Landfill, Kern County – Consideration of Revised Waste Discharge Requirements Order R5-2010-0086
- c. Meridian Beartrack Company and Meridian Gold Company, Royal Mountain King Mine, Calaveras County – Consideration of Revised Waste Discharge Requirements Order R5-2016-0055-01
- d. O'Neill Beverages Co LLC, Reedley Winery Class II Surface Impoundment, Fresno County – Consideration of Revised Waste Discharge Requirements Order 5-01-141
- e. South San Joaquin Irrigation District, Nick C. DeGroot Water Treatment Plant, Stanislaus County – Consideration of Revised Waste Discharge Requirements Order R5-2014-0026
- f. Stanislaus County Department of Environmental Resources, Fink Road Landfill, Stanislaus County – Consideration of Revised Waste Discharge Requirements Order R5-2008-0144

RESCISSIONS (AGENDA ITEM 17)

- a. Calmat Company DBA Vulcan Materials Company, Erin Marsha Talbert, and Earl P. Knobloch; River Rock Sand and Gravel Facility, Fresno County – Waste Discharge Requirements Order 85-312
- b. City of Live Oak, Live Oak Wastewater Treatment Plant, Sutter County – Order R5-2016-0039, (NPDES Permit CA0079022)
- c. Foster Farms Livingston, Water Reclamation Requirements, Merced County – Order 93-091
- d. The Boeing Company, Sigma Complex, In-situ Groundwater Bioremediation Project, Inactive Rancho Cordova Test Site, Sacramento County – Waste Discharge Requirements Order R5-2010-0126

CHANGE OF NAME AND/OR OWNERSHIP (AGENDA ITEM 18)

- a. Coastal Partners, LLC, Vehicle Inspection Center, Placer County – Waste Discharge Requirements Order R5-2021-0015
- b. Lucky Travel Plaza and Cisco Grove Holdings LLC, Cisco Grove Chevron, Placer County – Waste Discharge Requirements Order 87-211

- c. Tejon Ranchcorp and Tejon-Castac Water District, I5 Eastside Wastewater Discharge Ponds, Kern County – Waste Discharge Requirements Order 5-01-002
- d. Wheelabrator Shasta Energy Company, Inc., Wheelabrator Shasta Energy Company, Shasta County – NPDES/Waste Discharge Requirements Order R5-2019-0070 (NPDES Permit No. CA0081957)

Motioned: Member Avdis
 Seconded: Vice Chair Kadara

Roll Call Vote:

Member Brar	Yes
Member Yang	Yes
Member Avdis	Yes
Vice Chair Kadara	Yes
Chair Longley	Yes

Approved by Roll Call Vote of 5-0-0

AGENDA ITEM 9 – Approval of the Strategic Plan

EO Pulupa stated the Strategic Plan was initiated in August 2019 to help develop guiding principles for the Board. Mission and Vision Statements were developed in Fall/Winter 2020 and strategy sessions were held between the Board and the Strategic Planning Committee. In the Summer of 2020, extensive water quality program engagement followed, and an outreach plan was developed. In Fall/Winter 2021, a stakeholder outreach survey was conducted. Approximately 500 stakeholders (representing a broad spectrum of interests) responded. In Spring/Summer 2021, a stakeholder forum convened. Discussions of strategic objectives continued into the Summer of 2021. In late Summer 2021, the Strategic Plan was publicly noticed. EO Pulupa reviewed the final public comments, responses to comments, and final edits with the Board.

The proposed four key strategic objectives contained in the Strategic Plan are Adaptive Prioritization (the process by which an evaluation of what regulations are being imposed and why (to ensure staff was adequately tailoring requirements for the protection of beneficial uses in a streamlined and economical manner), Commitment to Engagement with Underserved and Underrepresented Communities, Development of a Climate Change Dashboard/Portal, and Internal Process Improvements. EO Pulupa indicated most stakeholder comments were supportive of the Strategic Plan and indicated many communities (including many foothill communities and grower communities) should be included in those communities considered to be underrepresented, disadvantaged, and underserved (in addition to communities like disadvantaged communities and tribal groups that have been historically underserved by the Board and its programs). EO Pulupa further stated some changes to the Strategic Plan (in response to comments) included the addition of verbiage to include a human right to water reference. Further

additions included a reference to the Wastewater Consolidation Program, clarification that Adaptive Prioritization did not change the Board's responsibility to protect beneficial uses, source water protection as an essential element of the Board's climate change work, and a reference to the Racial Equity Resolution pending before the State Water Board.

EO Pulupa then reviewed the changes to the Strategic Plan in detail and added staff was careful to address the comments and concerns of all stakeholders.

Questions and Comments from Board Members

As it related to Strategic Objective #2 (Commitment to Engagement with Underserved and Underrepresented Communities), Vice Chair Kadara commented it was important to ensure language was clear and written in a way that was easily understandable. Building community capacity and working towards participatory parity to engage the community in ways that were respectful of their time and allowed for meaningful and significant engagement was vital towards reaching this objective. As an example, Vice Chair Kadara noted the resource link on the Board's home page included tribal community engagement but did not specifically address disadvantaged communities. As it related to racial equity on page 16, Vice Chair Kadara asked to include the word "proactive" to ensure staff was doing due diligence in promoting racial equity and inclusion. She further stated she felt it was a very good Strategic Plan.

EO Pulupa indicated he would address the concerns related to underserved and underrepresented communities. As it related to the racial equity, EO Pulupa indicated he would add the language "including the impending Racial Equity Resolution being considered by the State Water Board and any following Resolution adopted by the Central Valley Water Board, to be proactive in the promotion of civility, inclusion, and staff diversity."

Chair Longley stated it was important to provide phrasing documents for highly technical work products, so they are understood by the public.

Member Avdis stated the human right to water was an important fundamental right of an advanced society and the strategic plan provided an opportunity to focus and prioritize the vision going into the future as an organization. Member Avdis asked what actions were being taken to achieve plan goals and objectives and how those goals would be communicated via on-going reporting and monitoring. Additionally, he stated it was important to continue the dialogue and stakeholder engagement to facilitate transparency and openness of the regulatory process.

Chair Longley stated the Board had a system whereby it would be discussing Board Member participation in Committee working groups related to the Board's program areas in February 2022. Participation in the working group/committee was restricted to two Board Members and required participants to become familiar with the issues within that program area.

EO Pulupa indicated the Portfolio Management document was being updated to address specifics and would serve as framework to develop annual work plans to address strategic plan objectives. In December 2021, the Board would hear from the 19 water quality programs to determine proposed priorities for the upcoming fiscal year (which begins July 1). Program Managers would then develop annual work plans (in conjunction with the Assistant Executive Officers) based on those priorities. In August 2022, the Board would hear a report on what the priorities were and how they were influenced by the strategic objectives.

Member Avdis indicated he appreciated the comments regarding adaptive prioritization and reiterated this strategic objective did not mean scaling back on regulating, but rather provided an opportunity to focus programs within the context of the core mission of protecting beneficial uses. Further, Member Avdis asked about the various public tools and programs available from State Water Board and how those could potentially assist staff with implementing the 19 water quality programs.

EO Pulupa indicated staff was simplifying where possible and provided an example of the CV-SALTS Program that had become complex and interfaced with the State Water Board's SAFER Program, Arrearages Program, and the California Department of Food and Agriculture. EO Pulupa stated he did not want to put too much of a burden on the Program Manager who also had regular supervisory work to perform. EO Pulupa further stated staff aimed to be less complex when interacting with dischargers and growers and confirmed staff was involved with State Water Board Programs. The Central Valley Water Board was the largest of all the Water Boards in California and therefore managed program areas not present in other regions.

Member Yang commented he appreciated the comments from stakeholders and Board members and felt it was particularly important to ensure disadvantaged communities were able to understand the language and programs available to them. Member Yang also felt it was important to ensure there was no overlapping programmatic work, that accurate data was being collected for reporting purposes, and solutions were data driven moving forward.

EO Pulupa indicated part of the Strategic Plan was structured to allow the collection and reporting of data in the format the Board could use to make informed decisions. He also noted the Chair at the State Water Board was also an advocate for reviewing new technologies that allowed the data being collected to be more meaningful.

Comments from Interested Persons

Bruce Houdesheldt, Northern California Water Quality, stated they were closely aligned with the mission of the Regional Board to protect beneficial uses and today marked an important milestone as the Board approved the Strategic Plan. He recognized the importance of data and technical information to craft programs moving forward. Mr. Houdesheldt applauded the Board for undertaking the strategic planning process and shifting the focus to integrating data to ensure the Board was collecting meaningful and actionable information. Bruce closed by stating he was committed to proactively working with the Board and staff on the successful implementation of the Strategic Plan.

Tami Humphry, with North Eastern California Water Association (NECWA), thanked the Board for the opportunity to speak and stated she was honored to operate a 5th generation ranch (since 1876) that raised orchard grass, meadow grass, and wild rice along with a commercial natural cow calf operation. She indicated she was speaking on behalf of NECWA, a nonprofit organization formed in 2003 by a group of visionary ranchers and farmers with a mission to protect water quality, the environment, and wildlife in the northeastern California region. She further noted NECWA is assisting landowners in the upper Pit River watershed comply with the Irrigated Lands Regulatory Program (ILRP) waste discharge requirements. The sub-watersheds encompass approximately 3,067,000 acres extending from the Warner mountains in MODOC County to Shasta Lake in Shasta County. She further indicated NECWA spent over \$1.9 million on monitoring and reporting and was committed to proactively continue working with the Board and staff on the successful implementation of the Strategic Plan and objectives.

Kelly Huff, District Manager, Sacramento Valley Water Quality Coalition, Dixon Resource Conservation District (RCD), thanked the Board and staff for taking time to work through a thoughtful and inclusive strategic planning process. She indicated the process encouraged the Board and staff to reflect on what was working well and what could be improved upon. Ms. Huff indicated her resounding support for the proposed strategic objective of adaptive prioritization and offered full commitment to assisting the Board and staff on this objective. Additionally, Ms. Huff indicated they were encouraged by recent developments to adjust requirements for lower risk activities and felt it made a measurable difference when obtaining regulatory buy-in from members. She closed by stating they were appreciative of the Board and staff's efforts to strengthen and build relationships with other organizations and local sub-watershed groups.

EO Pulupa stated the comments were consistent with the Strategic Plan values and Member Avdis' statements regarding responding site-specific issues and continuing to review permits to ensure staff was collecting only useful information as staff sought to protect beneficial uses.

Lester Messina, Colusa Glenn Sub-Watershed, indicated he served as a technical and outreach partner to one of the 13 sub-watersheds which comprised the Sacramento Valley Water Quality Coalition. Mr. Messina reviewed his past activities while working at Glenn County Agricultural Commissioner's Office and stated local regulatory programs like the ILRP allowed local agencies to determine the best course of action related to undesirable effects to groundwater supply, while utilizing the Central Valley Water Board as a backstop when necessary. Local issues being solved by local agency oversight, coupled with self-regulation, could bring significant and desirable compliance cost savings for growers based on risk, while allowing Regional Board staff to dedicate more time to other water quality programs. Mr. Messina closed by stating they looked forward to mutual solutions now and in the future.

Kandi Manhart-Belding, Executive Officer, Colusa Glenn Sub-Watershed, thanked the Board for the opportunity to comment and stated for more than 16 years she had worked with the Glenn county RCD (and just over 14 of those years as the sub-watershed coordinator). She further stated they are one of the 13 sub-watershed groups

in the Sacramento Valley Water Quality Coalition making up approximately 24% (300,000 acres) of irrigated lands. Ms. Manhart-Belding indicated she worked closely with 1,800 growers to help them meet the ILRP regulations. Additionally, as it related to the strategic goal of Adaptive Prioritization and strengthening and building relationships with other organizations, she indicated she saw this as using success stories among partnerships to help continue the protection of water quality. Working with all government agencies through the RCD, they addressed resource concerns through partnerships and voluntary approaches and felt this method was critical for long-term strategies which was more powerful than enforcement. If there are resource concerns at the local level, the growers wanted to address them at the local level. Ms. Manhart-Belding indicated Colusa Glenn was identified as a successful case study in a World Resources Institute and American Farmland Trust Water Quality Targeting Report in 2017. The success was primarily due to the work the growers put in to implement conservation practices funded through a Natural Resources Conservation Service Program to address a chlorpyrifos and toxicity. Growers went above and beyond and voluntarily chose to implement over \$9 million in conservation practices. The plan was deemed complete and in 2014 and there were no exceedances since. Today, there are hundreds of millions of dollars to implement with conservation funds throughout the State and encouraged the Board to look to their partners on ways to achieve water quality resilience.

EO Pulupa indicated the Regional Board saw successful examples of partnering, such as the California Dairy Quality Assurance Program which significantly aided in the initial implementation of the Dairy General Order. EO Pulupa stated this was something that would be considered as the Board continued to develop and evolve under the Strategic Plan.

EO Pulupa made some additional changes to the verbiage under strategic engagement with underserved and underrepresented communities and adaptive prioritization.

Motioned: Vice Chair Kadara

Seconded: Member Yang

Roll Call Vote:

Member Brar	Yes
Member Yang	Yes
Member Avdis	Yes
Vice Chair Kadara	Yes
Chair Longley	Yes

Approved by Roll Call Vote of 5-0-0

AGENDA ITEM 10 – Order Amending Multiple Waste Discharge Requirements General Orders for Growers that are Members of a Third-Party Group – *Consideration of an Order to Exempt Managed Wetlands*

Susan Fregien, Sr. Environmental Scientist, ILRP, presented a Resolution to the Board to exempt manage wetlands in the Sacramento San Joaquin basin from the ILRP Waste Discharge Requirements. Ms. Fregien described managed wetlands, provided historical context, highlighted relevant activities over the past 17 years, and reviewed the reasons managed wetlands were not a good fit in the ILRP.

Managed wetlands are areas that receive seasonal semi-permanent or permanent wetland flooding to stimulate natural processes to promote food production and habitat for the benefit of wetland dependent species. Along with artificial flooding, other routine maintenance and management activities are typically required to maintain the habitat, wildlife, and other ecological benefits. Artificial flooding or irrigation is necessary to create and maintain these wetlands for optimal habitat. Today, managed wetlands did not occur in the areas where they once existed naturally (before the major hydrologic and land use changes that largely eliminated natural stream flows and flooding patterns in the Central Valley). Because natural flooding no longer occurs, managed wetlands simulate historic patterns and conditions to provide habitat for wetland-dependent species. Wetlands management is performed by federal, state, local agencies, private organizations and individuals, and nonprofit groups.

Today 90-95% of the wetland habitat is gone. What remains are isolated by man-made control structures and largely exist due to artificial flooding. Managed wetlands provide critical habitat for the remaining wildlife.

Wetland managers have been actively engaged since the ILRP began in 2003 and have consistently communicated that wetlands were not a good fit in the ILRP. Additionally, wetland managers requested changes during the development of the long-term program and adoption of the General Orders. At that time, the Board committed to convene a Managed Wetlands Workgroup with the purpose of identifying an alternative to regulation. Following several meetings of the Managed Wetlands Workgroup, a two-day public workshop was held in 2015. This workshop provided a useful educational forum about managed wetlands and paved the way for Order changes (to try to make the Program a better fit for managed wetlands).

The Resolution was developed because the Program requirements largely do not apply to exclusively managed wetlands. Exclusively managed wetlands do not include lands where irrigated agriculture and wetlands operations are rotated on the same field. They are managed only for wetland habitat. Therefore, exclusively managed wetlands were not a good fit in the ILRP because managed wetlands do not include high risk activities known to cause water quality impairments from irrigated agriculture. For example, wetland managers use very low amounts of herbicides as spot treatments to control invasive leaves. They do not use pesticides and fertilizers known to cause

exceedances. Additionally, managed wetlands do not contribute to sediment erosion and discharge issues.

Ms. Fregien provided a summary of public comments received and actions taken on the draft administrative Resolution. One comment letter requested the Board provide an option for exclusively managed wetlands to voluntarily enroll in the ILRP and staff added this option to the Resolution. After making described changes, staff released the draft Resolution in August 2021 for a second 30-day public comment.

Ms. Fregien indicated staff was recommending the exemption of exclusively managed wetlands from the ILRP and noted the Resolution did not exempt commercial agriculture and managed wetlands that are rotated on the same land. However, the Resolution allowed for voluntary enrollment of exclusively managed wetlands if desired. Additionally, she noted that while the Board maintained the authority to regulate managed wetlands (if necessary), staff was not aware of a need to develop a regulatory alternative. If regulation was needed in the future, staff would develop appropriate language.

Comments from Interested Persons

Jeffrey Shu, California Department of Fish and Wildlife, stated he appreciated the opportunity to speak and provide comments to the Board. He indicated he has worked on water quality issues for the Department since the ILRP was implemented. Mr. Shu further stated the proposed Resolution provided meaningful relief from monitoring and reporting requirements of constituents by eliminating the cost of those requirements. Resources can then be redirected to protecting existing wetlands and other areas of water quality concerns. Lastly, he indicated the Department supported staff's recommendation.

Ellen Wehr, Grassland Water District, stated they were a unique water district providing water to state wildlife areas, national wildlife refuges, and private habitat conservation easements. She expressed strong support for the proposed Resolution and acknowledged the value wetlands provide for California in terms of water quality improvements and essential habitat for species. She further stated approval of the Resolution would allow the Water District to conserve limited financial resources and focus on securing water and improving water quality. Ms. Wehr closed by thanking the Board and staff for considering the Resolution.

Bruce Houdesheldt, Northern California Water Association (NCWA), stated they cherished the wetlands and the species dependent upon those wetlands and voiced support for adoption of the Resolution. He further stated the Northern California Water Association, California Rice Commission, Cal Trout, and Ducks Unlimited signed a Memorandum of Understanding that had science-based reactivation of floodplains to provide critical benefits for fish, birds, and people.

EO Pulupa indicated he strongly supported the Resolution and thanked staff for their work. The question before the Board was whether the ILRP was the right vehicle to regulate managed wetlands and he felt the resounding answer from staff and

stakeholders was it was not. EO Pulupa concluded by indicating he recommended adoption of the proposed Resolution.

Comments from Board Members

Member Avdis thanked staff for the presentation and commented this was a welcome development in protection of habitat species and biodiversity in the State given the loss of wetlands over the last century.

Vice Chair Kadara stated it was a great presentation and she was in support of the Resolution. Further, Vice Chair Kadara commented it was important to exempt the wetlands from the ILRP regulations.

Motioned: Member Avdis

Seconded: Member Brar

Roll Call Vote:

Member Brar Yes

Member Yang Yes

Member Avdis Yes

Vice Chair Kadara Yes

Chair Longley Yes

Approved by Roll Call Vote of 5-0-0

AGENDA ITEM 11 – Delta Regional Monitoring Program, Governance Structure and Implementing Entity – *Consideration of a Resolution Approving the Delta Regional Monitoring Program Governance Structure and Implementing Entity*

Selina Cole, Environmental Scientist, provided an overview of the Delta Regional Monitoring Program, water quality issues that are a focus for the Program, current Program structure, proposed new governance structure, and additional programmatic changes.

Ms. Cole discussed the Sacramento and San Joaquin Delta and noted the Delta combined with the San Francisco Bay to create the largest estuary on the West Coast. Nearly all the Central Valley watershed drains into the Delta supplying fresh water to 2/3 of the state's population, as well as millions of acres of farmland. The Delta estuary is also a critical ecosystem for fish and wildlife (including many rare and endangered species). Increasing strain from climate change, droughts, and wildfires were just a few of the many challenges affecting the Delta ecosystem.

In the early 2000's, populations of the four most abundant resident pelagic fishes showed declines to record lows. This multi-species decline triggered new inquiries by multiple state, federal, and university researchers into the potential role of contaminants. These inquiries highlighted shortcomings in the ability of existing monitoring efforts.

Water quality data from existing monitoring programs was spatially restricted, could not easily be combined, and was not adequate to support a rigorous analysis of potential causes. The rapid multi-species decline fast tracked a growing awareness in the scientific community that many stressors on ecosystem functions are interrelated and must be addressed more holistically. This created an increasing desire among water quality and resource managers throughout the State for more integrated information about ambient conditions across watersheds and regions. At the time, there was a lack of coordinated monitoring and data evaluation among the different agencies and groups monitoring water quality, water flows, and ecological conditions in the Delta. This lack of coordination resulted in the inability to conduct regional assessments and highlighted the need to form a regional monitoring program (RMP).

Ms. Cole reviewed the governance structure for the Delta RMP over the past nine years. The Steering Committee consisted of representatives from each program participant group and was the decision-making body for the Program. The Technical Advisory Committee (TAC) consisted of technical representatives reflected in the steering committee membership. The TAC was responsible for developing, reviewing, and revising the monitoring designs and special studies. In coordination with the technical subcommittees, the TAC would provide recommendations to the Steering Committee for approval. The Aquatic Science Center was the implementing agency responsible for the overall program management including physical tracking, meeting facilitation, and monitoring project oversight.

The process of revising the program structure and governance began in August 2019 when the Steering Committee formed a Governance Subcommittee. This Subcommittee was composed of only Steering Committee members and had representatives from wastewater, stormwater, Environmental Protection Agency (EPA), and Regional Board staff. The nonprofit organization (Delta RMP) created a Board of Directors. The Board of Directors formed two different types of committees: Committees of the Board and Advisory Committees. The Board of Directors and Committees of the Board had decision making authority. The Advisory Committees made recommendations to the Board of Directors but did not have any decision-making authority. Under the old structure, the Steering Committee made all binding decisions for the Program.

The regulatory agencies (including the Regional Water Board, State Water Board, and EPA) participate on the Advisory Committees on both the Steering Committee and several technical committees. Advisory Committees may be composed of any number of Board Directors or other people who are not Directors. The Committees of the Board must be comprised of Board Directors. The Board of Directors determine the target composition for all committees. Members of the Advisory Committees are appointed by the Board of Directors.

The role of the Regional Board is an advisory role and staff ensured effective and efficient program implementation, as well as appropriate discharger participation in lieu of individual permit requirements. The Resolution was developed with three main goals: 1) Board approval of the new implementing entity and governance structure, 2) maintain regulatory oversight of the Program due to reduced or modified individual monitoring requirements, and 3) ensure continued program value.

Meredith Howard, Delta RMP Program Manager reviewed the scope and objectives of data collection and procedures, as well as types of quality assurance and quality control measures required to meet those objectives. The annual reporting requirement provided a mechanism to document the challenges the Program encountered, any changes to the monitoring work plan, quality assurance project plan, data management plan, or other project deviations.

Ms. Howard closed by reviewing the late revisions to the Resolution and recommended Board adoption.

Comments from Interested Persons

Debbie Webster, Central Valley Clean Water Association, thanked the Board for their time and stated she was representing the Delta RMP President. The Delta RMP was formed in April 2021 and staff was working diligently to ensure the Delta RMP continued to function and produce cost effective scientific information critical to understanding regional water quality conditions and trends in the Delta. One major accomplishment was the ability to continue the work despite many logistical and COVID/drought related challenges. Ms. Webster agreed that allowing the option for various permittees to participate in the Delta RMP in lieu of individual monitoring, provided superior scientific information. The Delta RMP is and has been involved in a collaborative stakeholder process and they believed most of the Delta RMP participants would not see much of a difference between the old structure and the new structure because the new structure is very similar in its government. Ms. Webster indicated they were committed to honor the collaborative stakeholder process would continue to work to provide high quality scientific information as described in the Resolution. She thanked the Regional Board for their commitment to this monitoring program.

Mike Wackman, Wackman Consulting, stated he was the Executive Director of the San Joaquin County Delta Water Quality Coalition and was currently serving as the Vice President of the newly formed Delta RMP. Mr. Wackman stated the dischargers, and its stakeholders were committed to this Program, with countless hours spent forming the new structure and entity. Mr. Wackman thanked staff and stated they were instrumental in moving this Program forward. Additionally, there were many dischargers that spent countless hours, but noted the contribution did not account for all the time, effort, and resources the discharger communities and agencies put towards the success of the Program. He further stated he believed those continued partnerships would move forward in the coming years and the Program would only get better as it transitioned into becoming more efficient and effective.

Debra Denton, Scientist (U.S. EPA recently retired), indicated she was speaking strictly as a private citizen. Ms. Denton applauded the leadership of Dr. Meredith Howard and her staff on the development of the Resolution and Attachment A. Ms. Denton stated she felt it was paramount to the continued success of the Program. She also felt it was important the Board was the entity that developed and defined the water quality goals and metrics. Ms. Denton felt the Program was slow to move forward in addressing pesticide values above toxicity-based metrics, such as the Ulatis Creek site. This site is an important input to downstream critical fish habitat, the delta smelt. Based on the

presentation by staff today, Ms. Denton was hopeful whenever results were above established metrics, the Regional Board's actions would require management plans be developed to resolve water quality issues identified in annual reports. Ms. Denton stated it's important to get this Resolution and Attachment A adopted today and to continue to have accountability in using public funds.

Bruce Houdesheldt, Director of Water Quality, NCWA, stated the Ulatis Creek site was a representative monitoring site in the Sacramento Valley Water Coalition and one in which Kelly huff (Dixon RCD), along with the coalition, actively managed. There are a couple of management plans related to agricultural inputs for toxicity and the Coalition was working its way through those plans, which included robust outreach and documentation of management practices protective of water quality.

Questions and Comments from Board Members

EO Pulupa extended thanks to Debbie Webster and Mike Wackman for working with Regional Board staff to make this a better project. This work represented a transition point for the Delta RMP evolution in terms of where the Board will work with the RMP and the type of organizational structure that the RMP will use. A great deal of work went into this Resolution by Dr. Meredith Howard and her staff. EO Pulupa extended a special thank you to Dr. Denton as many staff had worked with her for many years. EO Pulupa stated it was his recommendation to move forward with the Resolution.

Chair Longley, Member Avdis, and Vice Chair Kadara thanked staff for their hard work and felt the presentation was thorough.

Motioned: Member Avdis
Seconded: Vice Chair Kadara

Roll Call Vote:

Member Yang	Yes
Member Avdis	Yes
Vice Chair Kadara	Yes
Chair Longley	Yes

Approved by Roll Call Vote of 4-0-0

AGENDA ITEM 12 – Compliance and Enforcement Program Update

Kari Holmes, Enforcement Program Manager provided an update on FY 2020/2021 achievements, 2021/2022 program goals, and enforcement core priorities.

The Compliance Enforcement Program establishes inspection goals each fiscal year. Ms. Holmes reviewed the inspection site numbers and noted all goals were met or exceeded, except for NPDES wastewater major facilities at 86% of goal and land disposal landfill at 73% of goal. However, overall inspection goals for 2020/2021 were consistent at 112% compliance average. The COVID-19 pandemic impeded some on-

site inspections, as they are an integral step in achieving compliance. In the 2020/2021-year, Region 5 completed 1,570 inspections. Ms. Holmes noted this was a tremendous accomplishment considering obstacles. EO Pulupa concurred and felt staff did an excellent job getting into the field. The more Regional Board staff presence in the field, the better overall compliance with permit enrollment and requirements. Ms. Holmes indicated staff was back to normal with completing inspections. Ms. Holmes reviewed the number and types of enforcement action (minor and major) last year as 1,414 between the three offices. Region 5 contributed to approximately 30% of statewide enforcement actions since fiscal year 2015/2016 to current. Ms. Holmes then highlighted three case examples from last year (Altamont Landfill, Setton Pistachio, and Sumiden Wire Products). Inspection goals for 2021/2022 remain consistent with prior years. Ms. Holmes then reviewed additional enforcement goals for 2021/2022.

For the 2021/2022 fiscal year, priorities include coordination between permitting and compliance and enforcement, ensuring compliance with the CV-SALTS Program, environmental justice and disadvantaged communities (as it relates to water quality and public health), and implementing business rules to ensure accurate tracking of goals and enforcement actions. Coordination includes bi-weekly meetings with staff, a workload distribution matrix, documentation of decisions, and interoffice enforcement communication between the three offices. As it relates to compliance in the CV-SALTS Program, staff is continuing participation in a team that is coordinating between the Program and Compliance and Enforcement, establishing routine meetings, and evaluating enforcement options for salt and nitrate compliance. As it relates to environmental justice and disadvantaged communities, staff was reviewing the EPA environmental justice initiative and working with the Fresno office and looking at metal shredders, composters, and gas facilities, reviewing SB 205 and increased industrial storm water general permit enforcement and enrollment, looking at illegal trash dumping, and surface, groundwater, and drinking water impacts. As it relates to implementing business rules to ensure accurate tracking, staff is working on database entries (CIWQS, SMARTS, GeoTracker), conducting senior and peer review of entries, and tracking all orders, inspections, and complaints. Additional 2021/2022 enforcement priorities include the focus on completing mandatory minimum penalties within 18 months of discovery, NPDES facilities in significant non-compliance, compliance with PFAS/PFOA 13267 Orders, two pre-treatment compliance inspections, two audits of sanitary sewer collection systems, participation in the Mule Creek strategic work group, supplemental environmental projects, and stormwater construction and industrial general permit renewals.

Comments from Board Members

Vice Chair Kadara and Member Avdis thanked Ms. Holmes for the presentation and felt it was a very thorough report.

AGENDA ITEM 13 – Status of Draft General Waste Discharge Requirements for Mid-Sized Municipal Wastewater Treatment Plants

Eric Rapport, Senior Engineering Geologist, reviewed the draft General Order uses and its background, case examples, permit approach, other permit issues, and the timeframe to complete the final draft Order. Mr. Rapport then reviewed the California Water Code that allowed the Regional Board to prescribe General Waste Discharge Requirements for a category of discharges based on similar operations, waste types, and treatment standards.

Mr. Rapport noted staff is drafting this general order for mid-sized wastewater treatment plants with design flows from 100,000 to 1 million gallons per day. The Program target calls for 5, 10, and 15-year permit review and revision cycles. This general order should help staff meet these targets. The Central Valley Region has approximately 120 mid-sized wastewater treatment plants. The Rancho Cordova office is drafting a General Order for nut and seed drying operations and the Fresno office is drafting a General Order for food processors.

Staff is designing the General Order to account for location-specific conditions, while providing a unified consistent approach to protect water quality and regulate discharges. Mr. Rapport noted this project began in 2017. The initial approach included the inventory of wastewater treatment plants within project scope. Those were then subdivided into four groups based on design flow. Those were then sorted by threatened complexity ratings. An initial shortlist was then developed from the Fresno, Sacramento, and Redding office jurisdictions. While hydrogeological conditions are diverse, effluent and groundwater limits are consistent.

Mr. Rapport indicated staff's review supported a General Order. Useful information was also obtained from another region. In 2020, a General Order for wastewater treatment plants similar in scope to this project was initiated in Region 3. Regional Board staff incorporated portions of Region 3's General Order into findings. Next, staff composed a working draft drawing largely from recent individual waste discharge requirements and the State Water Board's General Order for small domestic wastewater treatment plants, which focused on treatment system types as categories.

To further focus on the diverse hydrogeology, staff also drafted companion guidance documents to help target monitoring reporting programs on local threats to shallowest hydraulically unconfined groundwater that is groundwater potentially vulnerable to pollution and vertical recharge. The approach generally considers subregions within the Central Valley. The General Order will set requirements for different categories of site conditions within subregions.

In 2019, the State Water Board approved the proposed Region 5 Basin Plan amendments for CV-SALTS for their control of salinity and nitrate discharges. Staff is developing draft text to consistently implement CV-SALTS amendments. Earlier this year, staff invited the Central Valley Clean Water Association (CVCWA) to review a working draft. CVCWA represents many of the wastewater treatment plant operators and regularly participates in regulatory discussions. Staff is now compiling and

addressing CVCWA's informal comments. Staff will also provide opportunity for public comments from other stakeholders and interested persons. Assuming there are no major changes in project scope, staff anticipated a draft permit for Board consideration mid to late 2022.

Comments from Board Members

Chair Longley thanked staff for the presentation and stated this project was important to focus resources on discharges that pose a larger threat to water quality and he looked forward to the draft permit next year.

AGENDA ITEM 14 – Overview of the Board's Forest Activities Program (Wildfire, Timber Harvest, Utilities, and Vegetation Management)

Angela Wilson, Supervising Engineering Geologist, updated the Board on the Forest Activities Program. Ms. Wilson reviewed the three Program components: 1) commercial timber harvest, 2) SB 901 (the addition of utility corridors and forest practice rule exemptions), and 3) SB 456 (pre- and post-fire management activities).

Forest management activities include roads, watercourse crossings, and hillslope disturbances. Nonpoint source pollution is considered the leading cause of water pollution in the nation and can come from roads and land disturbing activity. Roads used to support forest management activities are usually non-paved, remote, and located in mountainous terrain. These roads can concentrate stormwater flows and cause significant sediment impacts to headwater streams, especially when they are legacy roads that have been in place for an extended period. Watercourse crossings, when undersized, poorly placed or aligned, can also cause significant sediment impacts to surface waters. Hillslope disturbance created during management activities can lead to unstable soils and leave bare areas that can be mobilized by precipitation events and runoff. Soil erosion and sediment discharges are the primary concerns for water quality. Pesticide applications (typically herbicides) can also result in discharges of the chemicals as well as exacerbating soil loss. Stream temperatures can also be increased by removal of shade-producing canopies through these activities. Positive impacts of forest management activities include legacy road and crossing repair, fish passage/habitat access improvement, and wetland/meadow restoration.

Ms. Wilson reviewed the Forest Practice Act of 1973 and noted commercial timber harvest was an area of regulatory oversight. The Act governs commercial timber harvesting activities on private and state-owned lands (roughly a 13.3 million acres). The Act was intended to ensure sustained production of wood products while protecting California's natural resources. Additionally, the Act established the Board of Forestry requiring the promulgation of the forest practice rules and assigned Cal Fire as the CEQA lead agency (an implementing and enforcing arm the Act). Forest practice rules are a prescriptive set of best management practices established as standards of practice for operations that occur under an approved Timber Harvesting Plan.

In California, to engage in the selling, bartering, or trading of a commercial timber species, a landowner (whether large and industrial or small and private) must follow the Forest Practice Act and rules to obtain a Timber Harvest Plan or a Timber Harvest Plan exemption. Ms. Wilson then reviewed the process for the most commonly used plan, the Timber Harvest Plan. A waterboard or Department of Fish and Wildlife permits are obtained as necessary. Annual notices of operations are provided to Cal Fire. The landowner or their designee then conducts any monitoring and reporting requirements. Once operations are concluded, a notice of completion is filed, as well as any final notices required by the State Water Board.

Wetlands are affected by the Forest Practice Act and rules. California has approximately 36 million acres of forest land which is divided between private and state ownership. There are over 13.3 million acres the rules apply and roughly 23 million acres of Federal ownership where the rules do not apply. The Central Valley region has 16.8 million forested acres (5.8 million in private/state ownership and 11 million in federal lands). On average, 50% of the timber harvested commercially each year in the state comes from the forests in the Central Valley Region.

With the adoption of the State Forest Practices Act from 1973 through 2003, Central Valley Water Board staff participated in the review of commercial timber harvesting plans in a minimal capacity. Involvement during that period was voluntary. During that time, staff were only able to only focus on those plans with the highest potential threats to water quality. With no State Water Board specific permitting mechanisms in place prior to 2003, staff participation was focused on providing an infield presence to assist with identifying water quality protective measures needed on a site-specific basis. In 2001, legislative change to Porter Cologne Act resulted in initiation of formalized permitting of commercial harvesting activity in the form of conditional waivers of waste discharge requirements starting in 2003. Early versions of the conditional waivers solely addressed commercial harvest conducted under Forest Practice Rules Timber Harvest Plans. In 2005, coverage was included for the Forest Service commercial harvesting activity and then visual monitoring and adaptive management requirements were also included in 2005 because of another legislative change. In 2012, AB 1492 resulted in the formalization of the State Water Board's involvement in timber harvest review. In 2017, the Regional Board adopted the Timberland Management Activities General Order WDRs. Through the transition to permitting these projects, staff had become more involved in administrative and procedural tasks related to tracking permit enrollment and compliance data. Since 2008, staff has been prioritizing oversight of post-fire salvage activities due to the potential for water quality impacts in these sensitive environments. After a fire, ground cover is significantly reduced which causes increases in runoff and stream flow. Debris (usually in the form of burned logs, sticks, and sediment) can be transported downslope and then downstream where it can cause impairment and even failure of watercourse crossings.

In 2012, AB 1492 established the Timber Regulation and Restoration Plan that supports the regulatory agencies through a 1% fee on retail wood products. While prohibiting fees from being collected for the permitting of timber harvesting activities in the State, it formalizes State Water Board involvement in the review team process by requiring 100% of Timber Harvest Plans to be reviewed. In addition, AB 1492 called for more field

inspections, required the development of ecological performance measures and evaluation, required annual reports to the legislature, and provided additional staffing resources. It is now what we would consider as stable and mature component and it is staffed with 11 experienced and capable individuals across the Region in all three offices.

In 2018, SB 901 was signed into law. This expansive legislation primarily responds to wildfire concerns across the state (concerns about fuel management and wildfire ignitions caused by utilities). The bill was aimed to provide improved wildfire prevention response and recovery in the State. It does so through several initiatives including establishing the Catastrophic Wildfire Cost and Recovery Commission. There were changes to several activities conducted under the Forest Practice Act and rules. Timber Harvest Plan exemptions were modified, and the small landowner exemption was expanded. SB 901 also expanded the requirement for CalFire to monitor and report on all forest practice rule exemptions annually. The Bill also required investor-owned utilities to improve pre-fire vegetation management practices (particularly in higher fire risk areas). In addition, electric utilities are now required to prepare and submit annual Wildfire Mitigation Plans.

Given the significant portion of high-risk fire areas, SB 901 granted nine positions to address the workload. Hiring occurred in late 2019 and into early 2020. Six of those positions came to the Forest Activities Program for oversight of the vegetation management components. In addition, the Regional Board received a \$40,000 helicopter contract to assist with inspections in the Region. The helicopter contract is critical given these high-risk fire areas are very remote and extremely difficult to access from the ground. Ms. Wilson then reviewed the utility specific efforts being addressed by staff in response to SB 901. A statewide permit is expected for State Water Board consideration in late 2022.

Ms. Wilson reviewed the background and composition of SB 456 and the actions leading up to its enactment. The Wildfire and Forest Resilience Task Force Action Plan identifies roughly 100 ambitious key actions to address wildfire and forest resilience throughout the State over time and across all ownerships under four categories: 1) increase pace to scale to 1 million acres annually; 2) strengthen protection of communities; and 3) manage forests to achieve economic and environmental goals; and 4) drive innovation and measure progress of action plan implementation.

Ms. Wilson reviewed key action item 1.33. This requires resources agencies to partner with Cal OES, the Office of Planning and Research, and other federal, state, and local agencies to develop a coordinated strategy to prioritize and restore non-federal burned areas and communities as part of the State's overall long-term recovery and resilience strategy. In summary, SB 456 reiterates many of the key action items outlined in the Action Plan, makes the Task Force and Action Plan permanent fixtures, requires the Action Plan be updated every five years until 2042, and requires annual reports to the legislature.

Ms. Wilson concluded her presentation by reviewing the steps for Action Plan implementation from the Regional Board's perspective. Additionally, she reviewed the steps for the Federal NPS Permit development and scope.

Comments from Board Members

Vice Chair Kadara stated Ms. Wilson and the entire team in Redding had been doing a fantastic job with the Program. Additionally, Vice Chair Kadara asked about utilities and fire prevention plans and their success. Ms. Wilson replied the first wildfire mitigation plan presented from the utilities to the California Public Utilities Commission (CPUC) in February of 2019 was the first plan staff reviewed. Ms. Wilson stated the plan did not contain the level of specificity that was required, and feedback was provided to the CPUC and changes were made. Plans reviewed in 2020 were a bit better. The plans provided a lot of information and data. While the wildfire mitigation plans are requirements, there was a missing link on the CPCU side to be able to require significant changes to those plans to address concerns raised. The 2021 plans were better, but felt PG&E was focused on postfire utility recovery, fixing utility lines, and restoring power back to impacted people. Staff had not seen green vegetation management activities originally expected from the utility.

Vice Chair Kadara asked as to the status as to the commercial timber harvest as it relates to the fires. Ms. Wilson stated that had been a bit more challenging for the Redding sub-region due to the Dixie fire impacts to industrial landowners. Sierra Pacific Industries is the largest industrial landowners in the State. It had been difficult to get the salvage activities complete before the next fire hit, causing cumulative effects. Ms. Wilson also stated the Redding staff was spending a great deal of time on post-fire activities.

EO Pulupa thanked Angela for the presentation and stated Ms. Wilson, her team, and Clint Snyder deserved recognition because there had been a significant increase of programs that have happened in this area in the past six years, which has transformed staff's obligations. Secondly, as it related to timber harvest, the review period for a timber harvest plan is a few days on the front end and then within 10 days the Board must visit these properties and provide an assessment of best management practices. Ms. Wilson and her team had been able to manage to do those inspections within that that specified time. EO Pulupa stated it was extraordinary how quick that review must occur and credited staff on their ability to be so productive given the tight deadlines.

Chair Longley mentioned it was important to manage fuels due to the significant impact on fires, which impact water quality.

Member Avdis stated he appreciated the thorough presentation.

AGENDA ITEM 15 – Irrigated Lands Groundwater Protection Values

Eric Warren, Water Resource Control Engineer (Fresno office) provided an update on the development of groundwater protection values for the ILRP. He provided context for the groundwater protection values, applicable general order requirements, and

discussed responses to comments. In February 2018, the State Water Board issued Water Quality Order 2018-0002 in response to a petition of WDRs for growers in the Eastern San Joaquin River Watershed. The order contained targeted changes to the monitoring and reporting requirements, one of which was the development of a groundwater protection formula and subsequent calculation of values and targets for townships within high vulnerability areas.

The revisions identified three key steps in this process. First was development of a groundwater protection formula for the purpose of defining a method for estimating the current nitrogen load to groundwater from agricultural lands. Second is to use the formula to calculate leaching estimates known as groundwater protection values for townships within high vulnerability areas. The values reflect the current estimated nitrogen loading rate and must be submitted to the Board within six months from EO approval of the formula based on the loading estimates. The final step is for coalitions to establish target loading rates necessary for achieving compliance. Moving forward, it would be reviewed and revised as necessary every five years they will also be made available for public review and comment prior to executive officer approval so with this process.

In July 2020, staff received a proposed groundwater protection formula which relied on a process-based model known as the Central Valley Soil and Water Assessment Tool (CV-SWAT). The model is used to simulate crop growth, water transport, and nitrogen leaching under various climate, soil, and management scenarios. Results from thousands of different model runs are compiled into a root zone library that can be used with grow reported data to identify an appropriate nitrogen leaching estimate. Field level results are then aggregated to a single Township building estimate known as the groundwater protection value. The methodology was conditionally approved by the EO in January 2021. In July 2021, staff received the results of those calculations in the Groundwater Protection Values report. In total, the automated workflow is executed to create a root zone library based on approximately 75,000 model runs containing more than 200 million data points.

The proposed groundwater protection values were made available for public comment and two letters were received. Mr. Warren reviewed the comments, as well as the staff response to each comment. While staff agreed that local community impacts are a concern, other elements of the ILRP (such as CV-SALTS Early Action Plans) were specifically designed to address this issue. The results of the groundwater protection value calculations may have utility in supporting these efforts. The group's final comment addressed the process and timing for updating groundwater protection values. The General Orders language includes a requirement to update the groundwater protection targets every five years. However, the specific language developed by State Water Board was silent on whether the groundwater protection values also needed updating. It was staff's position that appropriate targets cannot be developed without up-to-date loading estimates. Staff would be working with the coalitions and interested persons to clarify expectations for the groundwater protection target update process.

A second comment letter was received from the Environmental Law Foundation which discussed transparency and public accessibility of the field specific data used to

develop the root-zone library. It was their opinion this data (as a component of the value calculation process) should be made available to the public. Field-specific data from State Water Board was reported to the Regional Board in a manner which maintained the confidentiality of grower data. In the context of groundwater protection value development, this created an issue for interested persons who may want to directly reproduce the model outputs. In review of the groundwater protection formula, staff worked with the coalition groups to identify additional information and alternative approaches that could be used to confirm the model is producing valid nitrogen loading estimates. As a result, the formula's conditional approval identified several elements that needed to be provided in the groundwater protection values report. This included defining and identifying the specific model parameters used, conducting a sensitivity analysis to determine which parameters were exhibiting the largest influence on nitrogen loss, a summary for each model domain describing the range of nitrogen losses for the top five crops, water budget and nitrogen mass balance for each Township, and comparisons to available literature estimates and alternative transport models such as HYDRUS.

Mr. Warren then turned the presentation over to Tess Dunham and Ken Miller on behalf of Central Valley Agricultural Water Quality Coalitions. Mr. Miller reviewed the 19 July 2021 Groundwater Protection Values Report and provided an example of reporting for a Township to highlight the level of detail. Mr. Miller provided detailed data to the Board regarding a comparison of CV-SWAT estimates to other estimates. He noted the goal was to understand the level of consistency in these estimates that occur across different methodologies.

Tess Dunham stated she has been working with the 13 coalitions that submitted the Groundwater Protection Values report, as well as helping facilitate the environmental team. Ms. Dunham further stated she assisted with the development of the formula and calculation of the values. Ms. Dunham stated the next step was to determine Township targets. Final targets are to be set at level so irrigated agriculture no longer causes or contributes to exceedances of water quality objectives. As it related to timing, targets may include phased Groundwater Protection Program (GWP) targets and schedule for meeting final targets. She noted CV-SALTS compliance may allow for an extension of time up to 35 years. Township targets are due within one year of the submittal of GWP values report (19 July 2022). They anticipate submitting a proposed approach for calculating GWP targets in the next 4 to 6 weeks. They are communicating that approach to environmental justice stakeholders in the next 4 to 8 weeks. They can then move forward with calculating targets.

Comments from Board Members

Chair Longley clarified what staff is modeling is vertical transport to the bottom of the root zone and analysis on other locations, this would have to be used in conjunction with a with a groundwater transport model. Eric Warren verified that was accurate.

Chair Longley asked what kind of measures are going to be taken to be continually assessing both accuracy and sensitivity of the model. Chair Longley further stated he

recommended there be an independent verification of the model to lend value to the Program in the future.

Tess Dunham indicated while there's nothing specific in the ILRP about updating the GWP values, they anticipate and expect GWP values to be updated on a 5-year increment. With each of those updates, staff would again re-evaluate as more data from the growers became available and staff would continue to evaluate data and information within CV-SWAT. Mr. Miller indicated they were working with UC Davis to continue data collection and develop information to integrate into the workflow. Mr. Miller confirmed the model being used is the Colorado model.

Comments from Interested Persons

Nathaniel Kane, Executive Director, Environmental Law Foundation, stated this report fundamentally relied on “secret data.” In 2018, when State Water Board adopted the ESJ Program, it contained confidentiality requirements. The GWP process had not begun yet, and coalitions relied on detailed field level data which was not available to the public. The data did not include acreage, location information, or the location of management practices. When the State Water Board adopted this Order, it announced intention to revisit the confidentiality provisions and provided direction to the regions if that data should necessary later, Regional Boards could revisit the confidentiality provisions. Mr. Kane felt because there was now a model with detailed output that is potentially useful but rested on a secret foundation. Mr. Kane felt it was necessary to verify the feedback mechanism to ensure the program was working. He felt it was important to be able to show that individual growers were meeting receiving water limitations. He further stated monitoring programs needed to be reproducible and available to the public. Because this was not the current practice, he felt the GWP did not comply with the Non-Point Source Policy and urged the Regional Board to look at the secret data issue. Member Avdis asked Tess Dunham to respond, and she indicated the Non-Point Source Policy issue was currently in litigation. However, that litigation would not impede furtherance of GWP monitoring and reporting.

Bruce Houdesheldt commented he felt it was important for staff to continue partnerships with other agencies to avoid duplication of efforts.

EO Pulupa indicated staff was working diligently at making data standards the same.

Meeting Adjourned

The Board meeting adjourned at 5:00 p.m. to the 9/10 December 2021 virtual Board Meeting.