STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL COAST REGION

STAFF REPORT FOR REGULAR MEETING OF FEBRUARY 16-17, 2023
Prepared on February 3, 2023

ITEM NUMBER:	**11**
SUBJECT:	**Executive Officer's Report to the Board**
STAFF CONTACTS:	**Matt Keeling 805/549-3140** matt.keeling@waterboards.ca.gov
ACTION:	**Information/Discussion**
KEY INFORMATION:	**This item presents a brief overview of issues that may interest the Board. Upon request, staff can provide more detailed information about any item.**

INTEGRATED REPORT UPDATE

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Introduction

This is an informational update regarding the status of the Integrated Report, combining the federal Clean Water Act section 303(d) List of Impaired Waters and section 305(b) Surface Water Quality Conditions Report. The Clean Water Act section 303(d) List identifies waterbodies that do not meet one or more water quality standards[1] and are therefore "impaired." Clean Water Act section 305(b) requires states to report to USEPA on the condition of its surface water quality, including both impaired waterbodies and those that are attaining water quality standards.

California's Integrated Report is developed in "cycles" with each cycle occurring every two years. Each Integrated Report cycle consists primarily of assessments from the three Regional Water Quality Control Boards that are identified "on-cycle." The other six Regional Water Quality Control Boards are "off-cycle" but they may also assess new high-priority data and information. The Central Coast Region was on-cycle for the 2020-2022 Integrated Report and will be on-cycle again in 2028. See the August 2021 staff report[2] for summary information about the outcomes of the Central Coast Region's

[1] U.S. EPA defines water quality standards as consisting of three components: the designated uses of a waterbody (e.g., beneficial uses), criteria to protect designated uses (e.g., water quality objectives), and anti-degradation requirements to protect high quality waterbodies.
[2] August 2021 staff report – *Integrated Report Update, 2020-2022 Cycle*: https://www.waterboards.ca.gov/centralcoast/board_info/agendas/2021/aug/item8_stfrpt

2020-2022 Integrated Report. The 2020-2022 cycle included all data available through June 14, 2019.

Update – Central Coast Water Board participation in 2024 listing cycle
The Central Coast Water Board participated in an off-cycle assessment to 1) include additional data not previously assessed, 2) reassess data using the most current water quality criteria, and 3) make minor adjustments and improve the accuracy of some mapping information (e.g., waterbodies size, length, or location). Based on these assessments, staff propose revising the 303(d) List to add 29 waterbody-pollutant combinations and to remove one waterbody-pollutant combination. Details on these proposed revisions to the 303(d) List are available in the State Board's draft staff report.[3] A short summary of these assessments includes the following:

CCLEAN Data Inclusion
The Central Coast Long-term Environmental Assessment Network (CCLEAN) conducts required monitoring and reporting for several of the Monterey Bay area municipal and industrial dischargers. Routine monitoring occurs at both inland surface waters and ocean sites each year.

During the 2020-2022 Integrated Report, a significant amount of data from this program were left out of the assessment for various reasons.[4] This cycle, these issues were resolved, the data were assessed, and staff propose new listings for chlordane, DDT, dieldrin, PCBs, and toxaphene in the Monterey Bay; heptachlor epoxide in the Pajaro River; and bifenthrin in the lower Salinas River.

Toxicity Data Inclusion
Toxicity data collected through the Central Coast Ambient Monitoring Program (CCAMP) in August and December 2018 were not included in the 2020-2022 cycle assessment due to delays in data management at the State Water Board. The data were included during this 2024 cycle and did not result in any proposed listing/delisting changes. However, these data do add to the situation-specific weight of evidence supporting existing toxicity decisions for several waterbodies. Inclusion of these data ensures that the complete data set collected prior to 2019 has now been assessed and included in the Integrated Report.

Cyanotoxin Data Inclusion
Cyanotoxin data (e.g., anatoxin-a, cylindrospermopsin, microcystins, and saxitoxins) are often associated with harmful algal blooms. Cyanotoxin data collected during 2016-2018 were not included in the 2020-2022 cycle because these data were prioritized for inclusion in a more user-friendly state-wide public facing platform[5] due to the immediate public health consequences associated with cyanotoxins. For the 2024 cycle, staff

[3] https://www.waterboards.ca.gov/water_issues/programs/water_quality_assessment/
[4] CCLEAN data formatting issues that resulted in omitting these data from the previous assessment included the following: lack of datum for monitoring sites (necessary to geo-reference and map the monitoring locations), lack of reporting limits, and/or data with a sample matrix (e.g., water or sediment) that was not yet defined for use by the Integrated Report (specifically, "Extract_Samplewater").
[5] California Harmful Algal Blooms Portal: https://mywaterquality.ca.gov/habs/

assessed cyanotoxin data for 15 waterbodies that resulted in three new proposed listings: one for anatoxin-a (Lopez Lake) and two for microcystins (Laguna Lake and San Antonio Reservoir).

San Luis Obispo Creek Estuary Enterococcus Data Inclusion
Enterococcus data from San Luis Obispo Creek Estuary were inadvertently not assessed during the 2020-2022 cycle due to a database glitch. The data were assessed this cycle, resulting in a new proposed listing for Enterococcus and the Estuary.

Aluminum Data Reassessment
Staff reassessed aluminum data previously used to support Integrated Report recommendations using the 2018 USEPA Criteria, in response to public comments received during the 2020-2022 cycle. This resulted in the reassessment of data for 80 waterbodies and resulted in 12 new proposed listings. There were no delisting recommendations because of the reassessment.

Pesticide Data Reassessment
Some pesticide data from sediment samples were assessed without organic carbon-normalized calculations during the 2020-2022 cycle. The toxicity of some pesticides is dependent on the amount of organic carbon within sediment. Therefore, all data where the organic carbon-normalized concentration had not been correctly evaluated were reassessed using the appropriate carbon-normalized data. Pesticides reassessed included the pyrethroids (cypermethrin, deltamethrin, and permethrin). Reassessment resulted in six new proposed listings for these pyrethroid pesticides.

Pajaro River Estuary Correction
In the 2020-2022 cycle, Pajaro River Estuary was listed for permethrin incorrectly. This was an error in the assessment and the correct recommendation should have been, “do not list.” This has been corrected in the 2024 cycle with a “delist” recommendation.

Mapping Changes
Several waterbodies had minor waterbody adjustments to their size, length, or location to make the delineation more accurate. Minor changes also involved reassociating certain sample sites to a different waterbody that more accurately represents the sampling site location.

2024 Integrated Report Timeline
A schedule of upcoming tasks is shown in the table below.

Task	Date**
Central Coast Water Board staff complete data assessments and Integrated Report decisions (waterbody/pollutant combination fact sheets)	December 2022
Assist State Board staff with preparing the Central Coast Water Board section of the Integrated Report Staff Report	November - December 2022
Public comment period, led by State Board staff	February – April 2023
State Board staff host public workshop*	March 2023

Assist State Board staff with preparing Response to Comments, *if necessary*.	April – August 2023
State Board adoption hearing*	December 2023
State Board staff submittal to U.S. EPA	February 2024

* Central Coast Water Board staff will attend and be available for questions.
** Estimated

FLOOD INCIDENT RESPONSE

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Introduction

The region received significant amounts of rainfall in late December 2022 and early January 2023. On January 9, 2023, 6.41 inches of rain fell at the Cal Poly San Luis Obispo weather station, the highest daily amount recorded at the station since record keeping began in 1893. The scale, intensity and duration of the atmospheric river driven storms has resulted in estimates upwards of $1 billion dollars in impacts statewide – both direct and indirect - to homes and businesses, public infrastructure (e.g., roads, flood control and drainage systems, water and wastewater systems, etc.) and agriculture. Storm damages and associated costs are still be assessed. The Central Coast Region was one of the hardest hit areas in the state.

Water Board staff across our programs is working with agencies, facilities, and emergency management response and service providers to document impacts and help resolve problems. During the storm events and the weeks that followed, over 100 hours of staff time per week were diverted to storm incident related work.

This report discusses flood impacts that the various Water Board programs are responding to. Table 1 at the end of this report summarizes known and reported incidents and associated impacts.

Wastewater

Significant damage to wastewater collection, treatment, and disposal infrastructure occurred in many places across the region. Staff has been in contact with many wastewater agencies to document wastewater spills and damage and to assist with response efforts. Impacts include spills from collection systems, pond berm breaches, and pond inundation. Many facilities will require significant repairs and rebuilding. Staff is working with affected wastewater agencies on funding and emergency resources in coordination with county and state offices of emergency services. Some of the facilities with major flooding as noted below are in flood prone areas and have been flooded out in the past during significant storm events in 1995 and 1998. Staff are also beginning to have conversations with these municipalities about moving critical wastewater infrastructure out of flood prone areas given they are likely to flood again with the more frequent occurrence of atmospheric river storms like we recently experienced. Staff are also having conversations with our State Water Board counterparts about how we can

help facilitate relocation or consolidation efforts in the mid- to long-term with the provision of technical and financial assistance. Follow-up incident and spill reporting is ongoing along with staff inspections.

The following paragraphs summarize examples of the most significant storm related impacts to wastewater treatment plants (WWTP) in the Central Coast Region. All of the municipal wastewater facilities noted below serve disadvantaged communities. Table 1 includes all known significant sanitary sewer overflows (SSOs) and impacts to WWTP infrastructure.

San Ardo WWTP. San Ardo's wastewater ponds were completely inundated by Salinas River flood waters on January 10. A sewer force main tributary to the WWTP suspended under the Cattlemen Road bridge over the Salinas River was also damaged. The ponds and other infrastructure will need to be cleaned and rehabilitated. Wastewater is being pumped and hauled to King City for treatment and disposal until the force main can be repaired and the treatment ponds can receive wastewater.

Chualar WWTP. Chualar's wastewater ponds were flooded with stormwater from adjacent agricultural areas on January 12. Wastewater was pumped and hauled to Soledad until flood waters receded enough to allow use of the ponds.

Salinas Industrial WWTP. The Salinas River breached pond berms, and flood water entered disposal/treatment Pond 1 on January 13. This is an industrial WWTP receiving fruit and veg processing waste and no domestic sewage. The City of Salinas asked processors to reduce or stop operations as much as feasible. Although flood water has receded, the plant was still not operating at the time of the preparation of this update; influent wastewater is being diverted to Monterey 1 Water's regional treatment plant.

Guadalupe WWTP. On January 10, the Santa Maria River breached treated wastewater holding ponds and a wet weather percolation pond and flooded spray irrigation fields. The city is working to get the pump station that delivers effluent to the disposal area operational so the ponds can be drawn down to remove storm flood water; it is uncertain how much treated wastewater remained in the ponds after the flooding event. Staff are working with Guadalupe City staff to evaluate alternatives for where to send flood waters removed from the ponds. Evaluation and repair of pond berms will follow removal of the stormwater and treated wastewater.

401 Program

The recent storms have significantly impacted the Clean Water Act section 401 program. The 401 program primarily regulates projects and activities that occur within waterbodies. The recent storms have increased the need for such projects and activities significantly. The most common types of projects and activities resulting from the recent storms include creek bank stabilization, debris basin clearing, creek clearing, bridge repair, and road repair. The primary parties implementing these projects and activities are public agencies, such as municipalities, flood control districts, and Caltrans.

Since the commencement of the recent storms, the 401 program has received approximately 15 applications to conduct emergency work within waterbodies. Many applications are for single projects that will be conducted by a single entity. However, a substantial number have been “blanket” applications from a responsible party seeking authorization to implement a group of projects. Examples of organizations submitting blanket applications are Caltrans, the Santa Barbara County Flood Control District, and County of San Luis Obispo. Authorization of blanket applications can address a wide range of projects that have already been identified, while also allowing for newly identified projects to be covered under the initial authorization. As an example, the blanket authorization approach for San Luis Obispo County addresses approximately 30 individual projects, though more projects will likely be added as they are identified. Blanket authorizations allow for efficient handling of permitting for both 401 program staff and applicants.

401 program staff is regulating emergency projects in accordance with the status of the emergency. When the emergency is in the initial response mode, staff seeks to facilitate the emergency response by streamlining the typical permitting processes. Emergency permits allow for emergency work to commence prior to staff authorization if necessary. In addition, staff has developed a single emergency project application form for a variety of different permits, so that critical time does not need to be spent by applicants determining the correct form to use. Furthermore, during the emergency response stage, staff will typically authorize projects to proceed as proposed, but may condition the project to assess impacts to waterbodies and implement mitigation after-the-fact. This approach allows for emergencies to be addressed promptly in the short term, while also providing long-term protection of water quality and beneficial uses of waters. As emergency projects shift to the recovery stage, 401 program staff increases regulatory oversight by potentially conditioning projects prior to authorization and reviewing monitoring data to regularly assess compliance.

During the recent storms, 401 program staff has been implementing procedures developed and put in place during previous emergencies. These procedures have been effective in allowing critical projects to proceed while providing an appropriate level of regulatory oversight. Moving forward, 401 program staff can further facilitate emergency preparedness by continuing its efforts to issue program-level permits to municipalities which typically conduct numerous projects. These program-level permits can front load requirements and authorization for future emergency projects, improving permitting efficiency and water quality protection for such projects.

The following paragraphs provide two examples:

Honda Bridge, Santa Barbara County. Bridge footings were undermined. Substantial placement of hardscape material by heavy equipment within the creek will be necessary to stabilize the footings. This work will reduce and negatively impact habitat. Work will likely need to be conducted within creek flows, which will likely impact creek water quality.

Debris Basins, Santa Barbara County. The Santa Barbara County Flood Control District is clearing sediment and debris from creeks and basins. To prevent additional flooding from future storms, the district is clearing numerous creeks and basins that have filled with storm-related debris, such as sediment and vegetation. The cleared material is sorted and clean rock and sediment material is placed on Goleta and Carpinteria beaches. To date, testing has shown that the material meets standards for grain size composition for beach placement. Further analytical results for potential contamination are still pending, though operations in the past have shown material from similar sources to be clean and suitable for beach placement.

Stormwater

The recent storms have impacted the stormwater program and the facilities the program regulates. Protection of stormwater quality is challenging under the high stormwater flows and volumes experienced during the recent storms. Industrial and construction stormwater facilities have experienced flooding and failure of best management practices. Municipalities are faced with significant maintenance tasks to keep their stormwater conveyance systems functioning properly.

Stormwater program staff has increased inspections in response to the recent storms. During inspections following such large storms, staff focuses on assessing presence of best management practices and proper implementation. Staff places less emphasis than usual on best management practice performance, due to the difficulty facilities face in managing extreme stormwater flows. Staff also focuses on maintenance of best management practices that have failed or been compromised. In general, staff takes a compliance assistance approach during inspections following storms that result in emergencies. Stormwater program staff has also seen an uptick in flooding-related complaints. Staff typically refers these complaints to municipal staff, since municipalities approve drainage plans and maintain stormwater conveyance systems.

To facilitate improved stormwater management during extreme storms, staff plans to include assessment of facility preparedness for high stormwater flows during future inspections. Staff can assess presence and sufficiency of back-up materials to control flows. Staff can also review emergency best management practice implementation plans for adequacy. The Central Coast Water Board's post-construction stormwater requirements continue to require new development and redevelopment projects to reduce and manage stormwater runoff volumes and rates. Stormwater program staff plans to continue to make regulatory oversight of post-construction stormwater implementation a priority. Over the long-term, this focus will contribute to alleviating excess stormwater runoff from developed areas.

Wildfire Resiliency

The recent storms have resulted in significant erosion and sediment transport in previously burned areas such as the CZU fire area in Santa Cruz, the Colorado fire area in Big Sur, and the Thomas fire area in Santa Barbara. Wildfire Resiliency program staff has been assessing the effectiveness of erosion and sediment control measures

implemented in utility work zones within these burned areas. Wildfire Resiliency program staff is coordinating with utility staff to identify measures that were effective and measures that need maintenance or improvement. Staff plans to pursue maintenance and improved performance of erosion and sediment control where needed.

Over the long term, Wildfire Resiliency program staff is working on developing a general permit to facilitate vegetation thinning while protecting the quality and beneficial uses of waters. The development and issuance of this permit will allow for work to occur to reduce fire fuels. Such work should assist with wildfire prevention, which in turn will reduce the frequency and amount of erosion from burned areas.

Moving forward, Wildfire Resiliency program staff continues to look for opportunities to facilitate watershed recovery from wildfires and resulting erosion. Staff has participated in review of grants projects aimed at wildfire recovery and will continue to do so. Staff plans to participate in watershed and regional scale wildfire recovery planning efforts where opportunities arise.

Irrigated Lands Program

Irrigated Lands Program (ILP) staff received several complaints regarding stormwater runoff discharges from farms due to the January 2023 storm events. These discharges were caused by significant rainfall and associated flooding of agricultural areas that in some cases may have resulted in or contributed to significant flooding of adjacent residential neighborhoods, other neighboring farming operations and county roads, and caused erosion and damage to roadside ditches, channels and streams in irrigated agricultural areas. When reviewing and responding to complaints, staff consider the significance of the storm events and a grower's ability to anticipate and manage erosion and stormwater runoff. Typically, staff require the alleged dischargers to submit the sediment and erosion management section of their farm plans, report management practices that will be implemented to reduce erosion and sediment-laden stormwater runoff discharges, and submit timelines for implementing those management practices. If warranted, staff can also require photo documentation of the management practices after they are implemented and stormwater discharge monitoring and reporting to the Central Coast Water Board. ILP staff expects to see increased sediment-laden stormwater runoff discharges from commercial irrigated agricultural lands because of climate change (e.g., increased storm duration, frequency, and intensity) and will work with growers and service providers as appropriate to help mitigate impact to the extent feasible in the future.

A grower's ability to respond to flooding and other impacts from storm events on their farms may interfere with their ability to comply with ag order requirements, financially and/or logistically. For example, the January 2023 storm events coincided with the invoicing period for members of Central Coast Water Quality Preservation, Inc. (Preservation, Inc.), the approved third-party program. Some growers may be struggling to recover from flood damage and pay their Preservation, Inc. membership fees. If a grower is not a member of Preservation, Inc., they are required to pay increased permit fees and complete individual monitoring and reporting requirements. This emphasizes

the need for the existing ag order requirement to prioritize assistance and consider flexibility for limited resource growers[6] as well as disadvantaged and environmental justice communities who will be disproportionately affected by climate change. Staff is currently coordinating with Preservation, Inc. and technical assistance providers to further identify opportunities to assist these growers.

Thousands of acres of crops were also impacted by the January 2023 storm events, and in the Central Coast Region, some estimates of the financial impact are already available.[7] This flooding resulted in some crops being lost (not harvested) and some crop plantings being delayed due to wet and/or flooding conditions. We expect that year 2023 ag order reporting will reflect a reduction in certain crop types grown and harvested, total nitrogen applied, and total nitrogen removed. Additionally, some growers who implemented nitrogen scavenging management practices (e.g., cover crops, high carbon amendments, woody mulch) may not be eligible for a nitrogen scavenging credit (RSCAVENGE) due to flooding.

Finally, as a result of increased precipitation and infiltration in irrigated agriculture areas, groundwater levels and quality are likely to also change. Groundwater trend monitoring is essential to track trends and inform well users of the quality of the water being used for irrigation and domestic purposes. Staff is currently coordinating with Preservation, Inc. on the development of a regional groundwater and trend monitoring work plan as required by the ag order.

Land Disposal

The Land Disposal Unit oversees active and closed landfills in addition to compost operations within the Central Coast Region. Landfills and compost facilities within the Central Coast Region did not sustain major damage from the storms in early January 2023. Staff is coordinating with landfill and compost facility operators to further evaluate impacts and assist in corrective actions as necessary. Staff has conducted post-storm site inspections and will continue to conduct stie inspections as necessary to evaluate water quality impacts.

Landfill operators are required to design and operate their facilities to manage a 100-year, 24-hour storm event. The storms from early January 2023 do not appear to have exceeded the 100-year, 24-hour storm event. Landfills in the Central Coast Region have

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[6] The term “limited resource farmer or rancher” means a participant “with direct or indirect gross farm sales not more than the current indexed value in each of the previous two years, and who has a total household income at or below the national poverty level for a family of four, or less than 50 percent of county median household income in each of the previous two years.”
USDA Self-Determination Tool: https://lrftool.sc.egov.usda.gov/

[7] January 2023 news regarding some of the financial impacts to the Central Coast agricultural industry:
Storm damage to Calif. strawberries nears $200m (farmprogress.com)
"It's not going to be a quick turnaround:" Monterey County assesses farmland damage after storms (kcbx.org)
GSA of California highlights resilience of Salinas area during flooding (ProduceBlueBook.com)

not reported significant issues resulting from the storms. Operators and Central Coast Water Board staff have documented some relatively minor issues at landfills including landfill cover erosion, localized slope failures on landfill covers, sediment discharges and track out of mud from vehicles on local roads, and temporary flooding of some landfill operations areas. To date Central Coast Water Board staff has not documented any landfill failures that resulted in exposed waste or discharge of waste offsite.

Compost operators are required to design onsite drainage systems and detention ponds to contain a 25-year, 24-hour storm event. Some compost operators reported that their ponds filled requiring discharges to land. One compost operator procured four baker tanks to increase site storage and to maintain detention pond capacity. Those tanks were filled, and that water will be reused on site to moisture condition compost piles. Central Coast Water Board staff has not documented significant issues at compost facilities within the Central Coast Region.

Oil and Gas Program

Chevron reported flooding of portions of the San Ardo Oil Field adjacent to the Salinas River and preemptive shutdown of at-risk oil and injection well, conveyance pipelines and access corridor infrastructure for safety purposes. Chevron did not report any significant damage or waste discharges. Staff are planning a follow-up inspection of the San Ardo Oil field to confirm storm related impacts. Staff reached out to other oil field operators in the region regarding storm related impacts and conducted inspections of various waste pile management facilities in Cat Canyon. No oil field related water quality related impacts have been observed or reported to date.

Total Maximum Daily Load (TMDL) Program

The large volumes of rain and rapid increases in flows significantly increase turbidity and sediment loading. This problem is magnified in watersheds with burn scars (e.g., Santa Cruz County, Big Sur, and Santa Barbara County) where soils are exposed and loose because of a lack of vegetation. TMDL implementation actions that address turbidity or sediment impacts can be rendered ineffective during these types of rain events. When developing implementation strategies, the TMDL program will continue to consider climate change, and how storms like these may impact implementation effectiveness.

Central Coast Ambient Monitoring Program

The Central Coast Ambient Monitoring Program (CCAMP) implements ambient surface water quality sampling across the region in coordination with and in support of the State Water Board's Surface Water Ambient Monitoring Program (SWAMP). Field sampling staff had to adjust field work around the storms and wait for flood flows to recede to safely implement field sampling activities. In some cases, field sampling staff were not able to collect samples from the same historical locations due to significant changes in the stream channels, eroded banks, and the accumulation of debris. In other cases, staff were not able to collect samples or otherwise access historical sampling stations

due to road closures or the inability to safely conduct flow transects at some sites due to deep channels and swift water. In all, CCAMP staff were not able to sample 12 of 63 sites scheduled for sampling in January in the areas of Big Sur, Santa Barbara, and Santa Inez. Post storm sampling will be representative of post storm conditions as part of a long-term water quality data set and potential outlier data will be qualified by a record of visual observations, photos and weather patterns along with flow estimates made during sampling activities.

Grants Program

The January 2023 severe storms significantly impacted several Clean Water Act section 319(h) NPS Program grant-funded sites. Grant projects in Scott Creek (Santa Cruz County) an unimpaired, high-quality water and the post-fire restoration sites along Carpinteria Creek watershed (Santa Barbara County) were damaged. The Carpinteria Creek watershed projects designed to enhance riparian vegetation, stabilize streambanks, and improve aquatic habitats for threatened and endangered salmonids following the Thomas Fire and subsequent debris flow were completely destroyed.

Grantees do consider a project's resiliency to climate change (e.g., more frequent and intense storm events) as part of project planning and design. However, as storm event intensities increase, project teams need to evaluate post-fire hydrology and the approach to restoration and revegetation. Staff will continue to coordinate with State Water Board and grantees to assess and document project progress and outcomes. Impacts and associated lessons learned from the recent storms will be used to inform future watershed restoration projects.

Department of Defense Program

At Vandenberg Space Force Base, the Air Force delayed the base-wide, first quarter 2023 groundwater sampling event. After the Air Force contractor could safely begin field work, some wells at sites WP013, SD024, and SD032 were inaccessible due to standing water. The contractor plans to gauge and sample those sites when conditions improve. Because of saturated soil conditions, the Air Force contractor temporarily shut down soil vapor extraction systems at ST042 and SA228. To ensure sample results are representative, the Air Force contractor has rescheduled soil gas sampling at sites TU670, SA251, and SA280.

At former Fort Ord, the Army reported that none of the groundwater extraction and treatment systems at the Operable Unit 2 (OU2) landfill, Operable Unit Tetrachloride Plume, and Sites 2/12 were damaged during recent storm events. Because of power supply fluctuations, some individual extraction well pumps were shut down for several hours until the subcontractor could reset the system.

The Army's soil vapor extraction system at Sites 2/12 and the landfill gas extraction and treatment system at OU2 did not experience any power outages. There was some erosion of the vegetative cover in one area of the OU2 landfill; however, the linear low-

density polyethylene liner remained intact. Erosion repairs are underway at the OU2 landfill as of the date of this report.

The Army did not report any erosion of the vegetative cover at the former Fort Hunter Liggett landfill.

Site Cleanup Program

Because of the loss of power, several soil vapor extraction systems were shut down at a few site cleanup program sites (e.g., One Hour Martinizing in Monterey). Ongoing soil excavation activities at the former Unocal San Luis Obispo Tank Farm in San Luis Obispo were suspended until conditions improved and the contractors could safely begin work again.

Enforcement Response

During the storm events, Central Coast Water Board enforcement staff provided support to the permitting programs with the numerous unauthorized discharges impacting waters of the state and public health associated with the storms. Additionally, enforcement staff helped facilitate communication between program staff and the State Water Board's Emergency Management Program and partner agencies regarding significant storm-related spills. Enforcement staff received and disseminated storm-related complaints received through the California Environmental Protection Agency environmental complaint system and notices of spills of hazardous materials, including sewage, received through the California Governor's Office of Emergency Services (Cal OES) emergency notification system. The Central Coast Water Board also notified dischargers of the requirement to notify Cal OES of spills of hazardous materials, to ensure that all applicable entities were informed of spills. Enforcement staff will apply a reasonableness test when evaluating and pursuing enforcement based on the significance of the storm and best management practices applied by the dischargers.

Conclusions

More frequent atmospheric river event storms of significant intensity and duration are anticipated in the future that will require us to shift resources to emergency response. More importantly, it requires us to change how we approach our work in general as it relates to mitigating and adapting to climate change. We and the entities we regulate will need to be more proactive versus reactive in anticipating and mitigating the impacts associated with severe storms and sea level rise. Doing so will require significant investments in staff resources, the provision of technical and financial assistance, and ongoing dialogue and coordination. This will be no easy task, but the storm is upon us requiring collective action.

Table 1 – Summary of Storm Incidents and Associated Impacts*

Program/Spill Type	Facility	County	Impact
WWTP	San Ardo WWTP	Monterey	Wastewater ponds flooded by overflowing Salinas River on 1/10/2023. Town was under evacuation orders. Waste being trucked to King City. • Salinas River has inundated the sewer ponds and filled the ponds with silt and debris; debris and flood waters need to be removed and ponds inspected for further damage. • Concrete valve boxes at ponds; remove debris and silt, inspect for plugged lines (silt) remove silt and debris. • Concrete headworks structure, remove silt/debris repair as necessary. • Access driveway(s) are in need of regrading and or rock placement/repair.
WWTP	Chualar WWTP	Monterey	Salinas River breached the WWTP on 1/12/2023. Chualar pumped and trucked as much wastewater as feasible the morning of the storm to Salinas sewer pump station. Wastewater pumped and hauled to Soledad WWTP until ponds able to receive wastewater. 1/23: Chualar lift station is pumping the WWTP ponds. All ponds have more than 2 ft of freeboard. removed sediment from weir between ponds 2a and 2.

Program/Spill Type	Facility	County	Impact
WWTP	Salinas Industrial WWTP	Monterey	Levee breached at Salinas River by Davis Road and down the main facility entrance. Flood water entered disposal/treatment Pond 1 1/13 in early morning. This is an industrial WWTP with fruit and veg processors, low level of chlorine and BOD. City emptied ponds as much as possible leading up to event by pumping to M1W's regional treatment plant from Pond 3 pump station and asked processors to reduce or stop operations as much as feasible. Debris in ponds 1 and 2, damaged to levee and rapid infiltration beds, damage to entrance roadway; some silt at influent pump station.
WWTP	Cal Poly Dairy Unit	San Luis Obispo	Despite efforts to empty the dairy ponds prior to the storm, the main dairy pond overflowed. The effluent was directed to a storm drain flow through a pipe, under Mt. Bishop Rd, to a basin between the experimental strawberry field and C33. Waste reached Stenner Creek. Some waste was discharged to the city sewer.
WWTP	Courtside Cellars	San Luis Obispo	Percolation ponds damaged by Salinas River flooding. Facility did not have process water in the pond at the time of flooding. Facility is working on repairs and continuing to discharge to the disposal pond, with daily monitoring to ensure nothing is released.
WWTP	Templeton CSD/Meadowbrook WWTP	San Luis Obispo	Southeastern percolation pond inundated with Salinas River water. Facility pumped water from lower percolation pond to

Program/Spill Type	Facility	County	Impact
			upper percolation ponds in anticipation of continued rain events. OES notified. Facility submitted a 5-day spill report.
WWTP	Guadalupe WWTP	Santa Barbara	On January 10, 2023, the Santa Maria River breached treated wastewater holding ponds, breached wet weather percolation pond, and flooded spray irrigation fields. No sanitary sewer overflows occurred. The city expects to start pumping from the wet weather pond to the disposal areas on February 6.
WWTP	Laguna County Reclamation Facility	Santa Barbara	A portion of percolation Pond 1 levee broke due to Orcutt Creek storm surge. Levee breach discovered after gaining access through the flooded roads to the lower pond area. We received an email about the break on 1/17/2023. By that time they had already repaired the break and provided photos of before and after
WWTP	Big Basin Water Company	Santa Cruz	It is believed that this WWTP has been spilling raw sewage during the storms as well as dry periods over the last two years as a result of damage caused by the CZU Complex fire which also destroyed most of 30 homes tributary to this facility. Staff are working with Santa Cruz County to pump and haul while evaluating mid- and long-term solutions to provide viable wastewater services to the community. Currently, only three residences and one fire station are discharging wastewater to the facility.
SSO	Pajaro CSD	Monterey	SSO < 1000 gallons

Program/Spill Type	Facility	County	Impact
SSO	Lopez Reservoir Recreational Area	San Luis Obispo	Broken treated effluent pipe, unknown volume of discharged treated wastewater. Facility still inoperable.
SSO	Atascadero	San Luis Obispo	Spill reported beginning on 01/09/2023 at 12 pm. Sewage surging out of manholes due to stormwater inflow. Wastewater/stormwater mix has been flowing down the road between Hwy 41 and Sycamore Rd into Atascadero Creek and Paloma Creek. Possible break in line allowing stormwater into the lines. 01/11/2023 - City reported that a small amount of wastewater exited the wet well of Lift Station 13 during the storm event. They are still calculating volumes.
SSO	Morro Bay	San Luis Obispo	9900 gallons of sewage released to Morro Creek on 1/10/23
SSO	San Luis Obispo	San Luis Obispo	12/31/22. Blockage in a main sewage collection lateral partially due to storm surge in the area. The spill location was at manhole ID K09-20 which is located near 1043 Higuera St. The spill entered San Luis Obispo Creek through a storm drain and was unrecoverable. County Public Health closed Avila Beach as a result.
SSO	Santa Barbara City	Santa Barbara	5,000 gallons of sewage discharged into Mission Creek. SSO. Vernon Road and Serena Road
SSO	Montecito SD	Santa Barbara	Montecito Sanitary district called to report sewer overflow that affected San Ysidro Creek Waterway. Initial estimates 5760 gallons caused by erosion of the bank from recent

Program/Spill Type	Facility	County	Impact
			rains. Pipeline has been temporary repaired; area was cleaned up and disinfected.
SSO	Santa Cruz Co Sanitation District	Santa Cruz	Soquel Creek was impacted by the release of unknown volume. Clean up was completed by Santa Cruz County Public Works.
SSO	Santa Cruz Co Sanitation District	Santa Cruz	A stoppage in a sewer pipe from roots and grease was the cause of the release. The release was stopped and contained. Soquel Creek was impacted by the release. Clean up was completed by Santa Cruz County Public Works.
SSO	City of Scotts Valley	Santa Cruz	Reporting party states due to the storm event the Police Department notified them that a manhole was overflowing at their facility. The spill led into the storm drain that eventually leads into Carbonero Creek. The overflow has been stopped and contained.
SSO	Santa Cruz Co Sanitation District	Santa Cruz	Release due to pump station failure at 2759 Lode Street which resulted in a discharge to Moran Lake. The release was stopped and contained.
SSO	Santa Cruz Co Sanitation District	Santa Cruz	A storm surge resulted in a sewage overflow from a manhole cover and into Rodeo Creek Gulch. Technicians were dispatched to the site and a nearby pump station. The pump station was brought back on-line, stopping the overflow. The district completed a cleanup of the impacted surface areas. The release to the creek was unrecoverable.

Program/Spill Type	Facility	County	Impact
401	Arroyo Grande Levee Breach	San Luis Obispo	Work within creek to repair levee breaches and other damaged portions.
401	County of San Luis Obispo	San Luis Obispo	Several locations identified so far need various repairs and maintenance. These locations will typically involve removing materials from blocked bridges and culverts, reshaping channels, and stabilizing banks and structures.
401	Honda Bridge, Union Pacific Railroad	Santa Barbara	Footings for the bridge are undermined. Substantial placement of hardscape material by heavy equipment within creek will be necessary to stabilize the footings. This work will reduce and negatively impact habitat. Work will likely need to be conducted within creek flows, which will likely impact creek water quality.
401	Various debris basins and channels operated by Santa Barbara County Flood Control District (SBCFCD)	Santa Barbara	Various debris basins and channels throughout South Santa Barbara County are full and need to be cleaned out to restore capacity and prevent further flooding. The material will mostly be placed on Goleta and Carpinteria Beaches. Clearing of basins and channels may impact habitat and beneficial uses in those locations. Placement of material on beaches will result in increased turbidity. The material should be free of other contaminants. Monitoring will be conducted to confirm that.
401	Emergency Rock Revetment at Waterfront (Santa Barbara beach by harbor)	Santa Barbara	City built a 400' long by 15' high rock revetment along the beach west of the harbor to protect facilities. Revetment will likely increase erosion of beach. Will need to work with

Program/Spill Type	Facility	County	Impact
			other agencies to address and mitigate subsequent impacts (within Coastal Commission Jurisdiction).
401	Caltrans Blanket Emergency Notification	Various	About 15 locations identified so far need various repairs and maintenance. These locations will typically involve removing materials from blocked bridges and culverts, reshaping channels, and stabilizing banks and structures.

* Note: most of the SSO related impact language taken directly from initial and follow-up spill reports and is essentially unfiltered.

PROGRAM PERFORMANCE MEASURES
Please see the following standard attachments.

ATTACHMENTS

1. Table 1 - 401 Water Quality Certification Applications Received
2. Table 2 - 401 Water Quality Certifications Issued
3. Table 3 - Groundwater Section, Case Closure Performance Scoreboard
4. Table 4 - Groundwater Case Closures
5. Table 5 - Enrollments In General Orders/Waivers

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