

RESPONSE TO COMMENTS

Tentative WDRs/NPDES Permit For Discharges Of Residual Firework Pollutants From Public Firework Displays To Surface Waters In Los Angeles And Ventura Counties

Tentative Order No. R4-2023-XXXX
NPDES No. CAG994007

Comment Letter dated May 4, 2023, from Collier Walsh Nakazawa LLP

#	Comments	Response	Action Taken
A1	<p>Proposed Requirements [on visual monitoring and pollution control measures] focus on collection of data rather than mitigation or prevention. For the 2022 Big Bang on the Bay, Event Organizers were ordered to implement a similar visual monitoring program in an effort to provide data to the LA Water Board as it assessed whether to move forward with developing and implementing a NPDES General Permit for fireworks shows. Event Organizers understood that the 2022 visual monitoring requirements assisted the LA Water Board's investigation, rather than prevent or mitigate the risk of pollution. Moreover, the cost of implementing said visual monitoring program was \$5,429.82 and a continuing obligation to do the same would be cost prohibitive and serve only to provide redundant data.</p>	<p>As a preliminary matter, the Los Angeles Water Board notes that the Tentative Order is designed to require in-the-field activities that will reduce discharges. The Los Angeles Water Board acknowledges that Event Organizers' visual monitoring program assisted the Los Angeles Water Board in developing an NPDES General Permit. The visual monitoring requirements are intended to determine compliance with the discharge prohibition of wastes including plastic trash to navigable waters during fireworks displays. The visual monitoring requirements also serve as a tool to determine compliance with BMP implementation and its effectiveness. Every fireworks event has different environmental circumstances, such as temperature and wind velocity on the date of the fireworks event, which might cause low breaks or malfunctioning of mortars. Thus, the Los Angeles Water Board finds that visual monitoring for every fireworks display is necessary.</p>	<p>No revisions.</p>

#	Comments	Response	Action Taken
A2	Event Organizers question how the weight of the aerial shells and pyrotechnic device further pollution mitigation and/or prevention efforts.	As incendiary devices, fireworks explode and disperse material over a large area. The weighing of fireworks before launching serves as a baseline metric to determine how much material is being launched in the air and dispersed. When the discharger recovers a certain percentage of debris and trash generated by the firing of pyrotechnics, it could be considered as a part of a mitigating action. While it may be difficult to recover all the contents being fired in the air, weighing the fireworks before firing serves as a baseline metric to determine how much recoverable debris may be expected.	No revisions.

Comment Letter dated May 4, 2023, from CERF, Heal the Bay, Los Angeles Waterkeeper, and Surfrider Foundation

#	Comments	Response	Action Taken
B1	The prohibition of fireworks containing plastic is practical and economically feasible. Plastic should be prohibited in all shows. Per Dr. John Steinberg, dischargers' own pyrotechnic expert, using fireworks that do not contain plastic outer casings or have non-biodegradable inner components "is easily achieved." There are no particular advantages to using fireworks that contain	Section IV of the Tentative Order prohibits the "discharge of plastic trash to waters of the United States." The Los Angeles Water Board agrees that this prohibition is practical and economically feasible. This prohibition is also consistent with the Basin Plan, the Statewide Trash Amendments and numerous Trash TMDLs in the Los Angeles Region.	Revision was made.

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	<p>plastic versus those without plastic. As such, it is reasonable to prohibit the use of fireworks that contain plastic without any exceptions for practicality or economic reasons.</p>	<p>To avoid specifying the manner of compliance (Water Code § 13360), the Tentative Order does not foreclose the possibility that dischargers may be able to use plastic fireworks but implement BMPs that would successfully eliminate discharges of plastic to surface waters by their use. That said, in the event that discharges are unable to employ technologies that could catch or retrieve all plastic trash, the Tentative Order includes provisions governing fireworks made of biodegradable materials. Plastic trash in the Tentative Order is considered a non-biodegradable material. A definition of “biodegradable” is added into Attachment A of the Tentative Order to clarify the meaning of it.</p>	
B2	<p>The draft permit neglects to mandate an analysis of alternative fireworks options regarding both chemical constituents, such as perchlorate, and alternative firing ranges. We respectfully request that this analysis be comprehensive and obligatory.</p>	<p>Section VII.B. of the Tentative Order requires dischargers to prepare a Best Management Practices Plan (Plan). The Plan shall include pollution prevention, pollutants identification, and pollution control measures to avoid and/or mitigate potential impacts to receiving water quality. The Tentative Order requires the dischargers to use alternative fireworks materials and/or select an alternative debris fallout location as well as using other oxidizers instead of perchlorate while developing the Plan. The Tentative Order has been revised to state: “The Discharger shall prepare a BMP Plan</p>	<p>Revisions were made to section VII.B of the Tentative Order.</p>

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		(Plan) that describes procedures to ensure that residual firework pollutants discharges will not adversely affect receiving waters. While developing the Plan, an analysis of alternatives should be conducted to determine the BMPs. The Plan, along with the alternative analysis, shall be submitted as a component of the NOI to the Los Angeles Water Board.”	
B3	The fireworks permit should require the cleanup of all event-related material, not just non-biodegradable material, and an appropriate debris cleanup or any mitigation measures to offset the environmental impact of the fireworks display.	<p>Pollution Control Requirements in the Tentative Order already require cleanup of all event-related material. (See Pollution Control Requirements 11, 12, 14 and 15.) In addition, Pollution Control Requirement 14 and 16 are revised to further clarify the cleanup of all event-related materials. Requirement 14 has been revised to state, “Collect all non-hazardous solid waste resulting from the set-up, firing, and strike of the public display, including wires, boxes, and packaging, and properly disposed of the solid waste. <u>Pick up fireworks debris on the nearby shoreline in the morning of the day immediately following the fireworks event.</u>”</p> <p>Requirement 16 has been revised to state, “Ensure that any <u>floatable degradable</u> and non-biodegradable components of the fireworks-related waste are collected after the event.”</p>	Revision was made.
B4	It is important to acknowledge that fireworks displays near or on a waterway inevitably	The comment seeks to place the responsibility of cleanup of all fireworks display <i>observers</i> –	No revisions.

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	<p>result in significant pollution from attendees.... Dischargers must assume responsibility for all indirect debris caused by the fireworks display, including debris left behind by attendees on beaches or in boats.</p>	<p>essentially all beach-related trash from the 4th of July or New Year’s Eve - onto the fireworks display company. The Los Angeles Water Board does not find that the fireworks operator has sufficient control over all beachgoers to impose such a requirement.</p>	
B5	<p>The trajectory and angle of the fireworks should be directed away from waterways. While the visual monitoring outlined in Attachment E section VII.A of the draft permit can help identify debris after the show, it is essential to consider these factors in discharge trajectory. Meteorological data is readily available and accurate as well as typical fallout zones; therefore, trajectories should account for this well-established science.</p>	<p>The Los Angeles Board disagrees that the general permit should require that the trajectory and angle of the fireworks be directed away from waterways. However, the Los Angeles Water Board agrees that meteorological data should be considered in the determination of trajectories, angle of the fireworks, and typical fallout zones. As the commenter stated, section VII.A of the MRP of the Tentative Order requires the dischargers to conduct visual monitoring in consideration of meteorological data. Section VII.B of the Tentative Order also require the dischargers to select “firing range locations and designs that reduce residual firework pollutant discharges” and “an alternative debris fallout location to eliminate or reduce residual firework pollutant discharges to waters of the United States.” However, to further clarify the requirements, section VII.B of the Tentative Order, Pollution Control Requirement 4, is revised to state, “Select firing range locations <u>based on readily available meteorological data</u> and designs that reduce residual firework</p>	<p>Revisions were made.</p>

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		<p>pollutant discharges.” In addition, the Pollution Prevention requirement is revised to state “select an alternative debris fallout location <u>based on readily available meteorological data</u> to eliminate or reduce residual firework pollutant discharges to waters of the United States.”</p>	
B6	<p>Dischargers must engage in monitoring their discharges to enable a fate and transport study that can provide a better understanding of the impacts of fireworks and inform future mitigation measures. To achieve this goal, it is recommended that a passive deposition sampler, wipe test, or similar procedure should be used to characterize the scope and type of discharges to water.</p>	<p>The Los Angeles Water Board agrees that additional monitoring of the fallout zone is appropriate. Section VII.F and MRP of the Tentative Order has been updated with additional monitoring requirements for dischargers to conduct sampling in “real time” within the fallout zone to better assess the impacts of the chemical constituents of fireworks during fireworks displays.</p>	<p>Revisions were made.</p>
B7	<p>A barge wall or other barrier should be included in the permit to mitigate discharges from the launch site. Dr. John Steinberg includes this measure as “easily achievable,” where he suggests that a “retaining wall [be] around three of the four sides contain fuses and other debris to the surface of the barge.” Dischargers should be required to implement a fence or alternative barrier to prevent low-level discharges from the launch from entering receiving waters. For example, the Port of San Diego requires barges to be</p>	<p>Section VII.B Pollution Control Requirement 8 already contains provisions concerning deployment of containment measures for the same purpose. However, the Los Angeles Water Board agrees that it is broadly defined, and has revised Pollution Control requirement 8 to clarify the requirements as follows, “Prior to fireworks displays, deploy containment measures to collect and <u>set up a retaining wall/fence or other barrier around three of the four sides of the launch site</u> to control the mobility of fireworks</p>	<p>Revision was made.</p>

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	<p>equipped with a fire-retardant debris barrier that extends six feet (6') in height, with openings no larger than ¼ inch, around the perimeter of the fireworks launch area to contain and capture debris.9 Although section VII.B.7 of the draft permit requires containment measures generally and broadly, this language does not specify the type of containment measures that would be adequate for a barge. The Board should require walls of at least 6 feet in height surrounding the barge.</p>	<p>debris and particulate matter, and <u>to avoid fuses and other debris falling into the surface water.</u>"</p> <p>The Los Angeles Water Board has avoided further specification of details concerning barriers to ensure compliance with Water Code Section 13360, which states that a regional water board may not "specify the design, location, type of construction, or particular manner in which compliance may be had with that requirement".</p>	

Comment Letter dated May 4, 2023, from Pyro Spectacular

#	Comments	Response	Action Taken
C1	<p>Using alternative fireworks as an absolute requirement is not possible. Such fireworks are not commercially available. While attempts have been made to substitute perchlorate containing fireworks, those attempts have not proven successful on the scale necessary to ensure safety and commercial viability.</p>	<p>The Tentative Order does not require the use of alternative fireworks as an absolute. The Los Angeles Water Board also acknowledges that non-perchlorate fireworks are still in development and we are unaware of the commercial availability of non-perchlorate fireworks. As part of the BMP evaluation and implementation, dischargers should continue to search for such alternatives, as new alternatives could become available anytime in the future, and then use those alternative fireworks to the extent practicable and economically achievable.</p>	No revisions.

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C2	<p>Requiring fireworks crew to handle cameras and other recording devices distracts them from their primary duties. Only crew members may be aboard an active fireworks barge. This means that a separate camera crew is not permitted either aboard the barge or in the safety zone around the barge. Taking videos and other similar evidence gathering activities is distracting and dangerous to those involved in the fireworks. Crews need to be thinking about fireworks safety, not how they might look in the video or where a particular video might show up or be misused.</p>	<p>The Tentative Order does not require fireworks crews to handle cameras and other recording devices. The use of stationary tripods and related devices such as GoPro cameras can be used to safely capture video recordings as required without posing any risks to the operating crew. The photographic devices can be set up and secured in multiple locations covering the angles necessary to capture the extent of debris and potential fallout area in the immediate vicinity of the barge, and water adjacent to the barge.</p>	<p>No revisions.</p>
C3	<p>Requiring fireworks crews to immediately sweep the launch area after a display exposes them to the risk that a hang fire (an unlaunched aerial shell) will explode and injure that crewmember.The clean-up must begin after a reasonable cool down period established by the operator-in-charge based on the circumstances then present and only after the fireworks have been cleared from the launch area.</p>	<p>The Los Angeles Water Board agrees that potential safety risks exist to fireworks crewmembers sweeping the launch area immediately after the fireworks displays due to possibilities of explosion of a hang fire (an unlaunched aerial shell) or malfunctioned mortars. Thus, Pollution Control requirement 14 is revised to state: <u>“When the fireworks have been cleared from the launch area, immediately following the public display of fireworks, rake or sweep the decks of each barge or floating platform that contained fireworks to gather fireworks debris and prevent it from being deposited into the water”</u>.</p>	<p>Revisions were made.</p>

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C4	<p>Requiring fireworks companies to collect visual and other evidence for a small, litigious sector of the environmental community's use against the fireworks industry and display hosts in recent and ongoing efforts to collect attorney fees in litigation is not aligned with the interests of justice. The use of federal law for the purpose of generating environmental litigation by attacking celebrations that have been conducted for centuries, and threatening to sue hosts to obtain a permit that is not readily available is abhorrent to the concept of justice. As noted in the proposed order, there is no significant risk to the receiving waters, and placing people in personal danger to collect pictures is excessive and on balance unnecessary.</p>	<p>Please see the response to comment to A1.</p>	<p>No revisions.</p>
C5	<p>It is important to emphasize that while responsible environmental groups may have concerns about fireworks, this does not mean that all fireworks displays are inherently harmful or should be regulated to the point that it becomes a safety concern. It is possible to have a constructive dialogue that recognizes the value of both fireworks celebrations and environmental protection, and seeks to find a balance between the two. As noted in the opening paragraphs of this letter, so far, the</p>	<p>The Los Angeles Water Boards' primary priority is protection of water quality from fireworks pollutants. However, constructive dialogue among parties is encouraged to ensure that July 4th and New Years' celebrations can proceed in an environmentally friendly way. In response to the comment, the Los Angeles Water Board staff reached out to other regulators such as the Coast Guard and the State Fire Marshal and had a meeting with the State Fire Marshal. For safety reasons, the State Fire Marshal recommended using the shipping manifest</p>	<p>Revisions were made.</p>

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	<p>conversation seems to be more of a monologue in which the fireworks industry and other regulators are not even spectators, let alone participants.</p>	<p>weights of the fireworks instead of live weighing of the fireworks, and Section VII.B Pollution Control requirement 16 is revised accordingly. The State Fire Marshal further suggested to use the term “Safe and Sane fireworks” instead of “consumer fireworks” because the term “consumer fireworks” is vague. A definition of “Safe and Sane fireworks” is added to Attachment A of the Tentative Order, and the term “consumer fireworks” in section II.A of the Tentative Order is replaced with “Safe and Sane fireworks.”</p>	
C6	<p>The selection of the firing range is a given in all cases. If other locations, e.g., land sites, were available they would have been chosen because the cost of mounting a barge firing site is far greater. Alternative locations do not offer the viewing or safety area of that selected in the NOI. If the location is not acceptable to the Board, then alternative, less effective sites might be considered.</p>	<p>See responses to comment B5</p>	<p>No revisions.</p>
C7	<p>Inspecting areas for safety doesn't seem to be within the jurisdiction of the Water Board.</p>	<p>The comment suggests that the Los Angeles Water Board does not have jurisdiction to <i>require</i> safe practices as part of the BMPs. The text of the Order is intended to recognize that staff will consider measures that protect the</p>	<p>No revisions.</p>

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		health and safety of everyone present (which would include operating crew members).	
C8	If deployment of containment measures prior to a display is intended to mean something other than a boat to help find any debris after the display, we object because such deployments can delay, impair, or even prevent rapid access to and escape from the barge in the event of an emergency. Such measures are also hazards to navigation, particularly in the dark where heavy boating traffic may be present for the display.	<i>“Deploy containment measures”</i> means the use of walls/netting on the firing area and the securing of wires and other pyrotechnic devices on the barge in order to prevent firework debris from falling into the water. To clarify the meaning of this requirement, Pollution Prevention requirement 8 is revised. Please also see response to comment B7.	Revision is made.
C9	The need for BMP effectiveness evaluations after every display is excessive. Annual review is more than enough and probably excessive at that. The standard BMPs have been practiced for more than a decade, and few problems have been seen.	BMPs need to be evaluated during each discharge event to ensure the strategies included in the BMP are deployed at each individual event, to ensure the objective of the plan is achieved, and to learn what can be improved. Each event and site present its own individual challenges. Evaluating BMPs after each event allows the discharger to determine what measures were effective for that particular event.	No revisions.
C10	It is not legal to remove labels from display shells whatever they are constructed of. Outer plastic coverings (bags) may be safely removed. It is not clear how the qualifiers	Removing the outer plastic coverings or bags should be carried out before shooting and exploding the fireworks devices. However, section VII.B, Pollution Control requirement 10	Revisions were made.

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	<p>“prior to use” and “before they are launched” differ. Fireworks are not “detonated.”</p>	<p>of the Tentative Order is revised to address safety and regulation concerns in removal of labels from display shells (Section 988 of the Title 19 of California code of Regulation). In addition, the qualifier “prior to use” and “the word “detonated” are removed.</p>	
C11	<p>Describing how fireworks will be “secured” is vague. They are loaded, fired, and cleared as required by state law and regulation, consistent with industry codes and standards.</p>	<p>Securing fireworks is simply ensuring debris is reduced when firing occurs. If these processes are already included within industry standards and best practices, dischargers will not need to do anything new other than document these processes.</p>	No revisions.
C12	<p>The weight of the fireworks is based on the weight of the loaded packing boxes shipped to the site. There is no individual weighing of devices. It is not possible to indicate on the plan the percentages of waste that will be created.</p>	<p>These measurements provide an estimation of the waste that may be expected. While not completely accurate, there is a clear correlation between the amount of fireworks being consumed and the amount of waste generated. Dischargers will not be required to individually weigh the fireworks; however, the more accurate the estimate of total weight is, the better the estimate of wastes generated. The Tentative Order has been updated to allow use of shipping manifest weight instead of live weighing of the fireworks.</p>	Revision is made.
C13	<p>The transmittal list did not include members of the fireworks industry such as Coast Guard, and State Fire Marshal.</p>	<p>The Los Angeles Water Board staff reached out to interested parties who have previously indicated interest in this issue and subsequently</p>	Revisions were made.

#	Comments	Response	Action Taken
		reached out to the Coast Guard and State Fire Marshal. The Tentative Order has been revised based on their suggestions. Please see response to comment C5.	

Comments Received from Sierra Club’s Los Cerritos Wetlands Task Force and Puvunga Wetlands Protectors

#	Comments	Response	Action Taken
D1	<p>We question the rationale for allowing “residual firework pollutant discharges associated with the public display of fireworks” to be “lawfully discharged” by granting NPDES permits for such displays. Fireworks in general, and fireworks shows in particular, emit pollutants that are known to be hazardous to public health and to the environment, including to surface waters, marine life, and wildlife. Categorizing public displays of fireworks as “minor discharges” to be permitted on a case by case basis, ignores the cumulative impacts of an expanding industry operating in coastal zones and coastal waters already severely impacted by pollution. we request that Discharges of Residual Firework Pollutants from Public Fireworks Displays to Surface Waters in Los Angeles and Ventura not be “lawfully discharged” but instead be prohibited.</p>	<p>The Los Angeles Water Board has authority to designate activities as major or minor. The Los Angeles Water Board classified the fireworks display general permit as a minor discharge permit because there is no discharge flow rate associated with the discharge. Discharge flow rates of less than 1 million gallons per day for municipal facilities or less than 50,000 gallons per day of discharge from industrial or other non-municipal facilities are considered minor discharges. In addition, as a practical matter, fireworks shows over surface waters are currently taking place in two to four locations in the region and only occur twice per year.</p> <p>The Los Angeles Water Board understands the commenter’s concerns about potential for water quality impairments related to fireworks shows over receiving waters.</p>	No revision.

#	Comments	Response	Action Taken
		<p>The Los Angeles Water Board issued investigative orders, pursuant to California Water Code section 13267, to fireworks organizers in Long Beach Harbor and Alamitos Bay to monitor water quality before and after the fireworks displays. According to the monitoring reports submitted to the Los Angeles Water Board in 2017, 2018, and 2022 and reports submitted to the San Diego Regional Water Board (Annual Fireworks Monitoring Reports, SeaWorld, 2013 – 2019), the Los Angeles Water Board has not found evidence that the fireworks displays caused water quality impairment to receiving waters from perchlorate or metals. However, previous water quality monitoring did not provide water quality impacts during the fireworks displays. Thus, the Los Angeles Water Board added a special study requirement to conduct real time monitoring of water quality during the fireworks displays. (See response to comment B6). At this time, we do not have data specific to the quantity of trash related to firework shows; however, the post fireworks display reports submitted to the San Diego Water Board after the July 4th fireworks displays in 2021 suggests large quantities of trash are associated with fireworks shows. The Los Angeles Water Board has determined that trash (and plastic trash in particular) related to fireworks shows</p>	

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		must be regulated to avoid impacts to beneficial uses.	
D2	<p>Under RECEIVING WATER LIMITATIONS, the Tentative Plan states that, “The discharge shall not cause or contribute to any of the following.....Toxic or other deleterious substances in concentrations or quantities that cause deleterious effects on wildlife, waterfowl, or other aquatic biota or render any of these unfit for human consumption, either at levels created in the receiving waters or as a result of biological concentration.” However, the focus of the Tentative Waste Discharge Requirements appears to be limited to regulating a) the composition of the fireworks themselves, b) the manner in which fireworks displays are conducted, and c) how applicants will document compliance with a and b.</p> <p>Monitoring is limited in both time and scope and the selection of those tasked with monitoring is left up to the discharger.</p>	The comment appears to be concerned that the discharge is causing deleterious effects as a result of discharges of chemicals. See response to comment D1.	No revision.
D3	We request that, if not prohibited outright, public fireworks discharges should be regulated with a greater concern for public safety, marine life and wildlife.	Many agencies regulate fireworks shows to ensure the shows are conducted in a manner that is protective of public safety, the environment and marine life and wildlife. The Tentative Order is limited to areas within the Los Angeles Water Board’s jurisdiction (and so	No revision.

#	Comments	Response	Action Taken
	Such displays should be prohibited where water and or air quality is already impacted by pollutants, where marginalized populations live and/or recreate, and/or where marine life and wildlife populations are already at risk, near breeding and nesting sites (especially during nesting/breeding season). CA law prohibits the “harassment” of wildlife, and the consequences of sound waves from explosive devices are known to harm multiple marine species and bird species.	does not address decibel levels or air quality) but does contain a provision requiring compliance with the Endangered Species Act (section III.C.9 of Attachment F of the Tentative Order), which prohibits harassment of threatened and endangered species. The staging of firework shows as authorized under this Order does not excuse the Discharger from obtaining appropriate authorization from all other responsible agencies.	
D4	Fragmenting the regulatory process allows individual agencies to deny responsibility for regulating toxins by looking to others to act in the public interest. The Tentative Plan states that “The AQMD historically has not required permits for equipment associated with fireworks displays at theme park activities or annual celebrations” and future states that “AQMD Rule 219-Exemptions From Written Permit Requirements, specifically exempts pyrotechnic equipment from written permit requirements.” This is an admission of the failure of another CA agency to adequately regulate toxic	See responses to comments D1 and D3.	No revision.

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	emissions, even as the evidence is irrefutable that failure to do so has, does, and will cost lives.		
D5	The Sierra Club questions the use of BMPs as the best way to prevent discharges of pollutants.	The Los Angeles Water Board agrees that BMPs historically used are not sufficient to prevent discharges of plastic trash, which is why the Tentative Order prohibits the use of fireworks containing plastic components, unless the dischargers submit a BMP plan that contemplates complete capture of all plastic trash. These measures, along with traditional BMPs, will minimize or eliminate the amount of trash and debris impacting beneficial uses. See also responses to D1 and D3, regarding the impacts of chemicals in fireworks (perchlorate and metals).	No revision.
	The Los Angeles Waterboard staff initiated a few changes including AB2108 findings.	Section III.C.11 of Attachment F of the Tentative Order now includes a finding regarding AB 2108 notice requirements.	Revisions were made.