CASÁ Regulatory Workgroup Meetings

Thursday, September 10, 2015
Orange County Sanitation District
10844 Ellis Ave
Fountain Valley, CA 92708

General Meeting: 9:30 AM – 10:00 AM
Committee Meetings: 10:00 AM – 12:30 PM

Complimentary Airport Transportation offered by OCSD to/from John Wayne Airport

RSVP: Tom Meregillano by WEDNESDAY MORNING, September 9, 2015 at:
tmeregillano@ocsd.com or
Direct Phone: (714) 593-7457
CELL: (714) 655-7568

PICKUP TIME:
9:00 AM at Southwest Pickup/Arrival Area
(See white van with OCSD logo)

DROP OFF TIMES:
RETURN TRIPS meet in OCSD Administration Lobby:
12:30 PM for return to airport by 12:45 PM
or
2:30 PM for return to airport by 2:45 PM

Next Meeting – Conference Call:
October 8, 2015
Directions to Orange County Sanitation District (Plant 1)

10844 Ellis Avenue, Fountain Valley, CA 92708

(714) 962-2411

Directions to Plant 1 (Administrative Offices)

Going South on the 405 freeway, exit at Euclid Ave., go straight through signal, enter main gate and turn right.

Going North (from John Wayne Airport) on the 405 freeway, exit at Euclid Ave., turn right, immediately after underpass turn left at signal, enter main gate and turn right.

Important Parking Information: All drivers must stop at the guard shack to sign in and obtain a parking pass. The meeting will be held in our Administration offices. Parking is available, immediately after passing the guard shack, on the right-side of the road next to the Administrative offices. Public entry is allowed through the front entrance only.
CASA Regulatory Workgroup Meetings

Thursday, September 10, 2015
Orange County Sanitation District
10844 Ellis Ave
Fountain Valley, CA 92708

9:30 A.M. – 10:00 A.M. - GENERAL MEETING

1. Introductions
2. Future Meeting Schedule and Locations
3. Regulatory Issues with Acceptance of Low pH Trucked FOG (Zipkin)
4. Ebola Research Update (Kester)
5. Other Business and New Issues

10:00 A.M. – 12:30 P.M. – COMMITTEE MEETINGS
Low pH Trucked Waste Issue Summary

EPA has long-recognized the multiple benefits of digesting non-hazardous waste streams at Publicly Owned Treatment Works (POTWs).

http://www.epa.gov/region9/organics/ad/codigest.html  Trucking waste streams such as Fats, Oils, and Grease (FOG) to POTWs keeps FOG out of collection systems, preventing SSOs; diverts waste from landfill; and greatly boosts renewable energy generation through additional production of biogas. With EPA’s encouragement, hundreds of POTWs around the country are beginning to accept FOG and other trucked wastes, and are realizing the associated environmental benefits.

Much of the trucked waste currently processed safely at POTWs, however, is acidic. Prior to accepting a new waste stream, POTWs conduct a screening analysis to ensure that the waste will not impact the wastewater facilities, process, or regulatory compliance. Based on these analyses, many POTWs have determined they can accept low pH waste without negatively affecting their infrastructure, process, or compliance. The plot below shows pH data for FOG loads accepted at one POTW.

![Truck FOG pH History](image)

The problem is that technically, the Clean Water Act and EPA guidance prohibit acceptance of waste with pH lower than 5.0.

40 CFR §403.5(b)(2) states:

“(b) Specific prohibitions. In addition, the following pollutants shall not be introduced into a POTW: …(2) Pollutants which will cause corrosive structural damage to the POTW, but in no case Discharges with pH lower than 5.0, unless the works is specifically designed to accommodate such Discharges;”
While the statute does allow for an exception if the works is specifically designed to accommodate low pH discharges, the only published interpretation suggests it would be difficult to make that case. When, in 1999, EPA was considering modifying 403.5(b)(2), it stated,

“The existing regulation at 40 CFR 403.5(b)(2) provides that the 5.0 limit does not apply if the treatment works ‘is specifically designed to accommodate such discharges.’ This language suggests that the ability to accept low pH wastes must have been intended for the entire POTW, including the collection system, at the time of the construction of the POTW. In fact, as part of a 1984 EPA survey (‘Hydrogen Sulfide Corrosion in Wastewater Collection and Treatment Systems, Report to Congress;’ September 1991 (430/09-91-009)), half of the jurisdictions with severe corrosion problems in the collection systems were found to have minor or no corrosion problems at the wastewater treatment plants. However, the current rule does not clearly allow a POTW to document that all or part of its system can safely accept temporary excursions below pH 5.0 if it is not specifically designed to do so.”

64 Fed. Reg. 39566 (emphasis added)

EPA’s most recent Guidance Manual for Control of Wastes Hauled to POTWs was published in 1999. This Guidance acknowledges the possibility that FOG may be < 5 pH and/or require pretreatment, although it does not squarely confront the issue:

Industrial and commercial wastes which are not regulated by a categorical pretreatment standard may also be incompatible with treatment plant operations. These wastes can include wastes from the food processing industry, fats, oil and grease of animal or vegetable origin (e.g., from restaurants), petroleum-based oils (e.g., from auto repair shops, car washes), and a variety of metal and organic bearing wastes from a variety of industrial and commercial sources. Although not subject to categorical standards, these wastes may be subject to local limits.

Fats, oil, and grease of animal or vegetable origin collected from grease traps and petroleum-based oils collected from commercial or industrial sources (e.g., from oil/water separators) are sometimes hauled to POTWs. Fats, oil, and grease of animal or vegetable origin can be solid or viscous at ambient temperatures and can cause blockages in pipes, clogging of pumps, and coating and clogging of monitoring probes. In addition, oil and grease from grease traps may have a pH less than 5. Unlike animal and vegetable oils that can, in a dispersed state, be treated in aerobic and anaerobic biological systems, petroleum-based oils are degraded slowly by microorganisms and can reduce treatment efficiency. Accumulation of oil and grease in anaerobic digesters can reduce the effective capacity of the digesters. If contents are not kept well mixed and heated, solid scum layers can form and cause blockage in pipes. Because of the potential problems caused by the discharge of grease trap waste, some POTWs prohibit or place restrictions on its discharge, both through the collection system and as hauled waste. Other POTWs have the ability to remove oil and grease (e.g., through discharge to sludge drying beds or sludge digestion processes) and therefore establish procedures for accepting grease trap...
waste. When determining whether to accept grease trap waste, POTWs should consider the potential for the waste to cause pass through and interference. At a minimum, POTWs must prohibit the discharge of oil and grease in amounts that would cause pass through or interference.

Without clear guidance, POTWs accepting FOG and other low pH wastes are in compliance jeopardy. Every agency that takes FOG and other low pH waste is technically in violation of pretreatment standards. Now that many POTWs have successfully demonstrated the safety and environmental benefits of digesting low pH wastes, it seems appropriate for EPA to update its Trucked Waste Guidance to clarify that POTWs may accept low pH waste if they have determined that doing so will not cause corrosive structural damage or other deleterious effects.
<table>
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<tr>
<th>RWG MEETING DATE</th>
<th>LOCATION</th>
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| January 8        | Carollo Engineers  
2880 Gateway Oaks Drive, Suite 300  
Sacramento, CA 95833 | Annual Luncheon and New Year Gift Exchange  
CASA Winter Conference  
January 21-23, Palm Springs |
| February 12      | **Conference Call**  
8:30 – 10:30 Land Call  
10:30- 12:30 Water Call | CASA DC Conference  
February 23-25,  
Washington, DC |
| March 12         | Boy Scout Council  
1001 Davis Street  
San Leandro, CA 94577 | |
| April 9          | **Conference Call**  
8:30 – 10:30 Land Call  
10:30- 12:30 Water Call | CWEA Conference  
April 28-May 1, San Diego  
CASA Public Policy Forum  
April 27-28, Sacramento |
| May 14           | Orange County Sanitation District  
108 44 Ellis Avenue  
Fountain Valley, CA 92708 | Schedule:  
Shuttle bus offered from/to John Wayne Airport approx. 8:40 AM |
| June 11          | **Conference Call**  
8:30 – 10:30 Land Call  
10:30- 12:30 Water Call | WEF Residuals and Biosolids Conference  
June 7 - 10, Washington, D.C. |
| July 9           | Carollo Engineers  
2880 Gateway Oaks Drive, Suite 300  
Sacramento, CA 95833 | Special Afternoon Session with Regulators  
– details TBD |
| August           | **No Meeting** | CASA Conf. August 19-21  
San Diego, CA |
| September 10     | Orange County Sanitation District  
108 44 Ellis Avenue  
Fountain Valley, CA 92708 | Schedule:  
Shuttle bus offered from/to John Wayne Airport approx. 8:40 AM  
WEFTEC Conference  
September 26-30, Chicago |
| October 8        | **Conference Call**  
8:30 – 10:30 Land Call  
10:30- 12:30 Water Call | |
| November 12      | **Conference Call**  
8:30 – 10:30 Land Call  
10:30- 12:30 Water Call | Annual Retreat at  
EBMUD Pardree Center  
Valley Springs, CA |
| December 10      | Boy Scout Council  
1001 Davis Street  
San Leandro, CA 94577 | Annual Luncheon and Holiday Gift Exchange |

- If you would like to add an agenda item or schedule a presentation for an upcoming meeting, please contact one of the committee co-chairs at least 14 days before the designated meeting date.
- If you would like an “after RWG” meeting noted in the agenda package, please contact Jackie Kepke at least ten days before the designated meeting date.
### Discussion Items

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<td>Summary of Recent Meeting [Attached]</td>
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<td>3.</td>
<td>Resource Alignment</td>
<td>Adam Link</td>
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<td>Document Package from August Meeting [Attached]</td>
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<td>5.</td>
<td>Toxicity Updates</td>
<td>Phil Markle</td>
<td>15</td>
<td>Summary of April Draft Toxicity Plan and Summary [Attached]</td>
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<td>6.</td>
<td>CASA SWRCB Enforcement Policy Revision Workgroup</td>
<td>Adam Link</td>
<td>10</td>
<td>None</td>
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<td>7.</td>
<td>WEF Regulatory Update</td>
<td>Chris Stacklin</td>
<td>15</td>
<td>None</td>
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<td>8.</td>
<td>Regional Association Update (BACWA, CVCWA, SCAP)</td>
<td>Regional Leads</td>
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### Updates

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<tr>
<td>9.</td>
<td>Final USEPA Water Quality Standards Rule Published</td>
<td>Shannon Bishop</td>
<td>10</td>
<td><a href="http://water.epa.gov/lawsregs/lawsguidance/wqs_index.cfm">http://water.epa.gov/lawsregs/lawsguidance/wqs_index.cfm</a></td>
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<tr>
<td>10.</td>
<td>Final Waters of the US Rule Published / Litigation</td>
<td>Adam Link</td>
<td>5</td>
<td><a href="http://www2.epa.gov/cleanwaterrule/final-clean-water-rule">http://www2.epa.gov/cleanwaterrule/final-clean-water-rule</a></td>
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### Items that are out there:

- SWRCB Funding Fair
  - September 23, 2015 (Sacramento)
  - [http://www.cfcc.ca.gov/funding_fairs.htm](http://www.cfcc.ca.gov/funding_fairs.htm)
- SWRCB Bacteria Objectives
  - [http://www.waterboards.ca.gov/bacterialobjectives/](http://waterboards.ca.gov/bacterialobjectives/)
- SWRCB Groundwater Anti-Deg
  - [http://www.swrcb.ca.gov/plans_policies/antidegradation.shtml](http://www.swrcb.ca.gov/plans_policies/antidegradation.shtml)
- U.S. EPA's Revision/Development of Guidelines for Deriving Aquatic Life Criteria
  - [http://water.epa.gov/scitech/swguidance/standards/criteria/aqlife/guidelines.cfm](http://water.epa.gov/scitech/swguidance/standards/criteria/aqlife/guidelines.cfm)
- USEPA Selenium Criteria
  - [http://water.epa.gov/scitech/swguidance/standards/criteria/aqlife/selenium/](http://water.epa.gov/scitech/swguidance/standards/criteria/aqlife/selenium/)
- CABW Meeting Tuesday, Oct. 20 and Wednesday, Oct. 21 at UC Davis
  - Updated CABW Flyer [Attached]
Good morning Adam,

As promised, I would like to give you a quick summary of the meeting last week. I won’t go into too much details as copies of all of the presentations are now available online (http://www.sccwrp.org/elap ). The summary is divided into three parts: 1/ Current problems with California ELAP, 2/ Preliminary solutions recommended by the Expert Review Panel, 3/ My take on what I think is important to us (wastewater Lab community):

1/ Current problems with Cal ELAP:
  - Cal ELAP lacks credibility with clients, the environmental laboratory community, and other States. This was clearly illustrated in the various presentations given by stakeholders at this meeting as well as at the first meeting.
  - Cal ELAP lacks the ability to evaluate laboratories. Currently there is no specific standard to which labs can be assessed.
  - Cal ELAP does not have adequate qualified staff to conduct routine audits properly.
  - Cal ELAP lacks the necessary financial support. The current fee structure is “unsustainable”. Under the current fee structure, a laboratory certified for multiple methods that include hundreds of analytes can have the same fee as a laboratory certified for one method with only one analyte.

2/ Preliminary solutions recommended by the Expert Panel:
  - Rapidly establish a management system. This system must include performance criteria to which staff as evaluated against.
  - Design a management system based on ISO 17011.
  - Use third-party assessors to address the current staffing issues and to provide onsite assessment training to current staff.
  - Recognize other accreditation programs to reduce the current backlog and maintaining quality without sacrificing revenue.
  - Continue to communicate with ELAP clients.
· ELTAC membership designations should be revised by eliminating specific association and instead focusing on establishing general categories. By eliminating specific “seats”, there can be a larger pool of qualified candidates to select from.
· Working on establishing a new fee structure.

3/ Take home messages:
· I believe the Panel is moving toward recommending that ELAP adopts the current TNI (The NELAC Institute) standards for accreditation. ISO 17011 and 17025 were the foundation on which TNI was developed from. It would be a good idea for laboratories to start looking in this direction as it might take a while to get familiar with TNI standards. A copy of the 2003 TNI standards is available here: http://www.nelac-institute.org/content/CSDP/standards.php (the current 2009 standards can be purchased online but I think looking through the 2003 standards is helpful at this point).
· The cost for ELAP certification is definitely going to be much higher. Based on some preliminary numbers, the new fee can be as high as 3x the current fee for the program to be sustainable.
· ELAP is looking into reducing the current backlog by focusing on conducting onsite audits for drinking water labs only. Onsite audits for wastewater labs are optional at this point so if a wastewater lab was visited in the last two years and the lab has received acceptable PT results for all certified methods, there is a good chance that ELAP will waive the onsite audit for this cycle.
· The use of third-party assessors is going to be very difficult to implement in the current environment. I do not think that ELAP can implement this quickly unless they get support from labor unions and law makers. It remains as an option though.
· There is a possibility that ELAP will no longer designate “seats” for the makeup for ELTAC. Instead, there might be multiple general categories, such as wastewater community, drinking water community, end data users etc. We will not know for sure until probably September or October at the earliest. I will get in touch with Christine to find out more about this. Regardless, ELAP’s goal is to have ELTAC up and running by January 15, 2016.

The next meeting is tentatively scheduled for October 14-16, 2015 in Costa Mesa. The final report will most likely be available on October 22, 2015.

Please let me know if you have any questions in regard to the summary.
With best regards,
Huy
Dear Cindy Forbes / Laura Phelps,

The Association of California Water Agency (ACWA) is an organization of public water utilities whose combined membership supply over 90 percent of the water delivered in California for domestic, agricultural and industrial uses. [CASA, CMUA to be filled in later]

ACWA, CASA, and CMUA believe that high quality laboratory results are vitally important for the protection of public health and the environment. As such, it is essential that the Environmental Laboratory Accreditation Program (ELAP) ensures that laboratories provide public health officials and other data users with high quality results, so they are able to make informed decisions. The drinking water laboratories have been concerned for quite some time that ELAP has not been adequately discharging its duties. Thus we are very happy that the State Water Resources Control Board’s (SWRCB) has been willing to invest time and effort in providing ELAP with the necessary leadership and guidance to adequately discharge its functions. We would like to thank the SWRCB and ELAP management for these efforts.

We recognize that a part of this effort was the formation of the Expert Review Panel (ERP), which was formed to advice ELAP on how to be an effective regulatory agency. In anticipation of this review, the Stakeholder Advisory Committee (SAC), consisting of former members of the Environmental Laboratory Technical Advisory Committee (ELTAC) assisted consultants from Southern California Coastal Water Research Project (SCCRWP) in the formulation of these Charge Questions for the ERP to consider:

1) What should the State’s role be in the accreditation process?  
2) Are the philosophies, objectives and scope of ELAP clearly defined?  
3) Are they appropriate?  
4) Does ELAP have the capacity to support the program?  
5) How can California’s accreditation standards be improved?  
6) What should California’s approach be to recognizing accreditation by other states, national entities or private accreditation services?  
7) Should California rejoin NELAP?  
8) How can ELAP’s laboratory inspection program be made more robust?  
9) What are the appropriate qualifications for auditor/inspector team members in each of the specialty areas that ELAP certifies laboratories?  
10) How can California improve its proficiency testing program for quantifying laboratory quality?  
11) How can California improve its process for responding to concerns expressed by:  
    a. Laboratories that have concerns about the certification process, or
b. Clients who have concerns about the quality of a laboratory that has been certified by ELAP?

12) How should ELAP plan for future programmatic, testing and management needs?
13) Which program improvements are most urgent and can be accomplished within existing resources and authorities?
14) Which are the highest-priority, longer-term program improvements?

To date, the ERP has held two public meetings; one on March 17, 2015 in Costa Mesa and the second was on August 10, 2015 in Sacramento.

The first meeting largely consisted of presentations identifying the long history of difficulties and inadequacies of ELAP and some ideas on how ELAP might begin to become the agency it needs to be. The meeting exposed ELAP’s ineffectiveness at implementing regulations, due to poor leadership, lack of training and outdated regulations. This was evident in the lack of ELAP staff not reviewing annual Performance Testing Samples, which are a crucial component of the accreditation process. ELAP staff which conduct on-site visits have been inconsistent and have failed to accurately apply current standards. There have been complaints of these auditors behaving in an unprofessional manner and ELAP management not holding staff accountable for these inconsistencies and other shortcomings. We believe this lack of leadership was the core problem with ELAP. The March meeting seemed to correctly identify these important areas for ELAP’s improvement.

The second meeting however was of an entirely different nature. Instead of addressing the charge questions or the problems identified in the March meeting, the ERP largely confined itself to addressing the questions of whether ELAP should incorporate some or all of the elements of the accreditation requirements of The NELAP Institute (TNI) and whether ELAP should contract out the operation of some or all of its functions to Third Party Accreditors (TPA). These topics seem quite inappropriate as they are outside the scope of what the ERP was created for and were not responsive to the Charge Questions. ERP members expressed positions seemed to be at odds with ACWA/CASA/CMUA understanding of their position and the intention of the SWRCB. We will take this medium to clarify a few points:

**Accreditation Standards**

One of the Charge Questions asked: “How can California’s accreditation standards be improved?” seemed a pertinent and important question. Having improved accreditation standards available is an important tool for ELAP to better perform. However it was stated several times at the August meeting that
ELAP had no accreditation standards. This is an entirely different assessment from ELAP having accreditation standards that can be improved.

As a group, we believe that ELAP does indeed have accreditation standards; the California Health and Safety Code and the California Code of Regulations (CCR) constitute the accreditation standards for ELAP. As a regulatory enforcement body, ELAP can only enforce what is in California statutes and regulation. Analytical methods are cited by reference within the CCR. Within these two Codes are Sections of the Federal Code of Regulations (CFR), listing analytical methods which laboratories are required to use when analyzing sample for compliance, with the Safe Drinking Water Act, the Clean Water Act, the Resource Conservation and the Recovery Act.

We feel strongly that these are indeed the Accreditation Standards of ELAP. When ELAP auditors go into a laboratory for an on-site visit, it should be to require that the laboratory is complying with the requirements found in the statutes and regulations. This is true irrespective of whether ELAP uses none, some, or all of the proposed TNI requirements. What ELAP can benefit from, are standardized procedures, on how to conduct its functions such as OSAs or processing of applications.

With that said, ELAP’s current regulations are badly out of date and reference methods no longer found in 40 CFR Sections 136, 141, and 261. ERP’s response to the Charge Questions should not be to assert that there are no standards but that the standards need to be updated. Furthermore, ELAP needs trained staff on the existing methods so that each staff member consistently applies the standard in the same way, to all laboratories. Finally ELAP management needs to hold its staff accountable to the implementation of these standards.

**TNI and TPA**

There was almost no discussion by the members of the ERP at the March hearing about TNI and TPA but it was the main discussion at the August hearing. The ERP gave no indication that it was planning to discuss these topics except for the brief time that the agenda was made available before the hearing. Furthermore, none of the Charge Questions asked the ERP to determine if TPA or TNI was desirable. Asking whether ELAP should rejoin TNI is an entirely different question from requiring all laboratories to comply with some or all of TNI’s requirements. This topic seems beyond the scope of the ERP’s charge and it was brought up in a manner that minimized the ability of affected laboratories to realize the impact and given appropriate time for discussion. TNI has a long history of being a highly contentious subject among environmental laboratories in general but especially in California. The amount of prior public notice and public participation was much too limited for such a significant set of topics.
Beyond the procedural matters, TNI and TPA represent a misdirection of efforts. ELAP had offered TNI compliant accreditation for nearly ten years but all of the problems that were identified at the March meeting are still present. TNI and TPA are not designed to be the resolution of a lack of leadership and accountability. Adopting TNI or TPA will not improve ELAP's accreditation standards, its inconsistencies between assessors, its inaccuracies of assessments, or force ELAP to evaluate Performance Testing Samples.

Finally, it cannot go without comment that the makeup of the ERP is both bias and problematic in regards to these sorts of recommendations. Four of the five members are current members of the TNI Board of Directors. Two members are former chairs of the Board of Directors and one is the current Treasurer. Similarly, the invited speakers also showed a consistent pattern with the current TNI Board of Directors and members of various other TNI committees, such as the Advocacy Committee. Some members and speakers are also professionals involved in TPA who would benefit from ELAP allowing TPA. It is hard to ignore the significant conflict of interest with this ERP committee, its membership and recommendations that materially will benefit TNI.

**Time Frame**

It would also appear that the time frame for the proposal and lack of discussion of these issues is far too compressed. This is especially troubling because various laboratories realized that such significant and controversial topics as TNI and TPA were being proposed but not given the time to discuss and offer counter arguments. There is clearly a need for more time and more opportunity for public comment and input. The vast majority of laboratories have no idea that ELAP is considering such a significant change. There will need to be a significant effort to communicate these proposals to as many laboratories as possible.

A number of members of the ERP expressed a concern that the proposed recommendations be adopted quickly; that time was of the essence. This desire seems misplaced. First, almost any change proposed will require changes in regulations and statute. That will be a time consuming process irrespective of other variables. Second, the changes to ELAP must necessarily be quite significant, it is essential that they be done correctly. It seems far more important that these changes be well thought out rather than simply hurried along.

**Recommendations**

The ERP and ELAP started off in the right direction at the March meeting by addressing the “nuts and bolts” of fixing ELAP; updating regulations and
accreditation standards, training staff, developing and maintaining a consistent standard operating procedure and other steps which are detailed and specific to ELAP. However, the ERP seems to have moved its focus on extraneous and abstract items like TNI and TPA, which will not address the actual problems with ELAP. We propose a more open and transparent process with the ERP and representation on its membership committee from the many laboratories within California. It is our recommendation that the ERP and ELAP return to its original focus and avoid these unnecessary detours.
MINIMUM MONITORING FREQUENCIES IN NPDES PERMITS

This document is a summary of regulations, policies, and Regional Water Board practices that establish minimum monitoring frequencies in NPDES permits. As monitoring requirements are site-specific and facility-specific, this document is not intended to be formal guidance.

APPLICABLE REGULATIONS

Effluent monitoring for specific parameters – 40 CFR section 122.21 (i)(4)(iv-vi)

iv. The following applicants must sample and analyze for the pollutants listed in Appendix J, Table 2 of this part, and for any other pollutants for which the State or EPA have established water quality standards applicable to the receiving waters:

a. All publicly owned treatment works (POTWs) with a design flow rate equal to or greater than one million gallons per day;

b. All POTWs with approved pretreatment programs or POTWs required to develop a pretreatment program; or

c. Other POTWs, as required by the Director.

v. The Director should require sampling for additional pollutants, as appropriate, on a case-by-case basis;

vi. Applicants must provide data from a minimum of three samples taken within four and one-half years prior to the date of the permit application. Samples must be representative of the seasonal variation in the discharge from each outfall. Existing data may be used, if available, in lieu of sampling done solely for the purpose of this application. The Director should require additional samples, as appropriate, on a case-by-case basis.

Effluent monitoring for whole effluent toxicity – 40 CFR section 122.21(j)(5)(iv)

iv. Each applicant required to perform whole effluent toxicity testing pursuant to paragraph (j)(5)(ii) of this section must provide:

a. Results of a minimum of four quarterly tests for a year, from the year preceding the permit application; or

b. Results from four tests performed at least annually in the four and one half year period prior to the application, provided the results show no appreciable toxicity using a safety factor determined by the permitting authority.

Monitoring Requirements – 40 CFR section 122.44(i)(2)

Except as provided in paragraphs (i)(4) and (i)(5) of this section, requirements to report monitoring results shall be established on a case-by-case basis with a frequency dependent on the nature and effect of the discharge, but in no case less than once a year. For sewage sludge use or disposal practices, requirements to monitor and report results shall be established on a case-by-case basis with a frequency dependent on the nature and effect of the sewage sludge use or disposal practice; minimally this shall be as specified in 40 CFR part 503 (where applicable), but in no case less than once a year.
Monitoring Requirements – 40 CFR section 122.44(i)(4)

1. Requirements to report monitoring results for storm water discharges associated with industrial activity (other than those addressed in paragraph (i)(3) of this section) shall be established on a case-by-case basis with a frequency dependent on the nature and effect of the discharge. At a minimum, a permit for such a discharge must require:

2. The discharger to conduct an annual inspection of the facility site to identify areas contributing to a storm water discharge associated with industrial activity and evaluate whether measures to reduce pollutant loadings identified in a storm water pollution prevention plan are adequate and properly implemented in accordance with the terms of the permit or whether additional control measures are needed;

3. The discharger to maintain for a period of three years a record summarizing the results of the inspection and a certification that the facility is in compliance with the plan and the permit, and identifying any incidents of non-compliance;

4. Such report and certification be signed in accordance with 40 CFR section 122.22; and

5. Permits for storm water discharges associated with industrial activity from inactive mining operations may, where annual inspections are impracticable, require certification once every three years by a Registered Professional Engineer that the facility is in compliance with the permit, or alternative requirements.

Monitoring Requirements – 40 CFR section 122.44 (i)(5)

Permits which do not require the submittal of monitoring result reports at least annually shall require that the permittee report all instances of noncompliance not reported under sections 122.41(l) (1), (4), (5), and (6) at least annually.
APPLICABLE GUIDANCE DOCUMENTS

Central Tenets of the NPDES Permitting Program

The Clean Water Act and NPDES regulations require permitted facilities to monitor the quality of their discharge and report data to the permitting authority. Each state will have unique policies and procedures to establish appropriate frequencies, procedures, and locations for monitoring; however, there are certain tenets that may not be waived by these procedures.

The following conditions subject permits to disapproval:

- Any permit that does not require at least annual monitoring for all pollutants limited in the NPDES permit, unless the permittee has applied for and been granted a specific monitoring waiver by the permitting authority, and this specific waiver is included as a condition of the permit.

- Any permit that does not require monitoring to be performed at the location where limits are calculated and applied (i.e., the monitoring location cannot be at a location that includes flows that were not accounted for in limits development; e.g., cooling water, storm water).

- Any permit that does not require that the results of all monitoring of permitted discharges conducted using approved methods, be submitted to the permitting authority.

U.S. EPA’s Technical Support Document

There is no fixed guidance on establishment of monitoring frequencies. The decision on the monitoring frequency is case-specific and needs to consider a number of factors, including those listed below:

- Type of treatment process, including retention time;
- Environmental significance and nature of the pollutant or pollutant parameter;
- Cost of monitoring relative to the discharger’s capabilities and benefit obtained;
- Compliance history;
- Number of monthly samples used in developing the permit limit; and
- Effluent variability.

Based upon an array of data analyzed for both individual chemicals and whole effluent toxicity, and independent of other considerations, U.S. EPA has observed that ideally 10 or more samples per month provides the greatest statistical likelihood that the average of the various monthly values will approach the true monthly long term average value. In practice, however, selection of monitoring frequencies will need to consider the previously mentioned factors and arrive at a reasonable compromise of the appropriate considerations.
WATER BOARD PRACTICES

Statewide NPDES Permit for Biological and Residual Pesticide Discharges to Waters of the United States from Vector Control Applications (Vector Control Permit)

The following practices are established in the Vector Control Permit:

- The State Water Board Deputy Director of the Division of Water Quality (Deputy Director) may add monitoring and reporting requirements to the Monitoring and Reporting Program. (Page 22, Section IX.B.2)

- The Deputy Director may approve reductions in monitoring frequencies if the Discharger makes a request and the request is backed by statistical trends of monitoring data submitted. (Page 23, Section IX.B.3)

- Monitoring frequencies may be adjusted by the Deputy Director to a less frequent basis if the Discharger or Coalition makes a request and the request is backed by statistical trends of monitoring data submitted. (Page C-6, Section IV.A.5)

Receiving water monitoring is necessary to determine the impacts of the discharge on the receiving stream. All testing for both toxicity and individual chemicals have some degree of uncertainty associated with them. The more limited the amount of test data available, the larger the uncertainty. The intent of this General Permit’s sampling program is to select a number that will detect most events of noncompliance without requiring needless or burdensome monitoring. Table 3-1 of the EPA Region 9 and 10 Toxicity Training Tool provides guidance on the selection of the appropriate sample number. It shows that six is the minimum number of samples where there is about a 50 percent chance of detecting at least one toxic event for the three probabilities of occurrence shown on the table.

Staff also used EPA’s Technical Support Document for Water Quality-Based Toxics Control (TSD) to determine the appropriate number of samples that would be needed to characterize the impacts of the residual pesticide discharge from pesticide applications. Page 53 of the TSD recommends using a coefficient of variation (CV) of 0.6 when the data set contains less than 10 samples. Table 3-1 of the TSD shows that with a CV of 0.6, the multiplying factors used to determine whether a discharge causes, has the reasonable potential to cause, or contributes to an excursion above a state water quality standard begin to stabilize when the sample number is six. Thus, the Vector Control Permit requires six samples to characterize the effects of residual pesticide discharge from pesticide applications.

Los Angeles Regional Water Board

The Los Angeles Regional Water Board prepared a memorandum on the definition and application of reasonable potential analyses to effluent limitation determinations and effluent monitoring frequency for priority pollutants, pesticides, and radioactive pollutants in NPDES permits for POTWs.

The monitoring frequencies for priority pollutants, pesticides, and radioactive pollutants vary and are generally based on the following three criteria:

Criterion 1: Monitoring frequency will be monthly for those pollutants with reasonable potential to exceed water quality objectives (i.e. monitoring has shown exceedances of the objectives); or
NPDES COST OF COMPLIANCE
RECOMMENDATION B

Criterion 2: Monitoring frequency will be quarterly, for those pollutants in which some or all of the historic effluent monitoring data detected the pollutants, but without reasonable potential to exceed the water quality objectives; or

Criterion 3: Monitoring frequency will be semiannually for those pollutants in which all of the historic effluent monitoring data have had non-detected concentrations of the pollutants without current reasonable potential to exceed water quality objectives. Since a minimum of 10 data points is needed to conduct the reasonable potential analysis over the course of the five-year permit, semi-annual monitoring is the lowest frequency of monitoring that Regional Water Board staff will recommend to the Los Angeles Regional Water Board.

Los Angeles Regional Water Board staff finds that this approach is consistent with the California Toxics Rule, State Implementation Plan and State Water Board Order 2003-0009 and is protective of water quality.

STATISTICAL DISCUSSION

During the development of the 2005 Ocean Plan reasonable potential procedure, staff considered having a minimum sample size. In the end, staff did not include that requirement. One example uses nickel data from the City of San Francisco's ocean outfall and shows the effect of sample size on a reasonable potential analysis. Using the Ocean Plan tolerance bound method, an effluent limit would be needed for sample sizes of five or less, but no reasonable potential would be found for a sample size of six or more.

There are a number of consequences from decision-making errors during the reasonable potential analysis. It is important to avoid the error of failing to give an effluent limitation when one is needed.

Reasonable potential analysis is a sensitive test by design. Minimal evidence is necessary to conclude that there is a reasonable potential to exceed the water quality standard and that an effluent limitation is required. The reasonable potential analysis procedures in the TSD, the California Ocean Plan, and the State Implementation Policy are all examples of a reversed-null hypothesis test. The null hypothesis to be tested is that the discharge is exceeding the water quality standard. If the monitoring data is sufficient to reject this null hypothesis, we conclude there is no reasonable potential and an effluent limitation is not required. Generally, small sample sizes will make it harder to reject the null hypothesis. A larger sample size will more accurately reflect the population and will provide for a better reasonable potential analysis.
Collect samples from a minimum of six application events for each active ingredient in each environmental setting (flowing water and non-flowing water) per year, except for glyphosate. If there are less than six application events in a year, collect samples during each application event for each active ingredient in each environmental setting (flowing water and non-flowing water). If the results from six consecutive sampling events show concentrations that are less than the receiving water limitation/trigger for an active ingredient in an environmental setting, sampling shall be reduced to one application event per year for that active ingredient in that environmental setting. If the yearly sampling event shows exceedance of the receiving water limitation/trigger for an active ingredient in an environmental setting, then sampling shall return to six application events for that active ingredient in each environmental setting. For glyphosate, collect samples from one application event from each environmental setting (flowing water and non-flowing water) per year.

**Fact Sheet:**
Staff also used EPA's Technical Support Document for Water Quality-Based Toxics Control (TSD) to determine the appropriate number of samples that would be needed to characterize the impacts of the residual pesticide discharge from pesticide applications. Page 53 of the TSD recommends using a coefficient of variation (CV) 0.6 when the data set contains less than 10 samples. Table 3-1 of the TSD shows that with a CV of 0.6, the multiplying factors used to determine whether a discharge causes, has the reasonable potential to cause, or contributes to an excursion above a state water quality standard begin to stabilize when the sample number is six. Thus, this General Permit requires six samples per year for each active ingredient in each environmental setting (flowing water and non-flowing water) to characterize the effects of residual pesticide discharge from pesticide applications. However, after a Discharger or Coalition has provided results from six consecutive sampling events showing concentrations that are less than the receiving water limitation/trigger for an active ingredient in a specific environmental setting, sampling shall be reduced to one application event per year for that active ingredient in that environmental setting. Similarly, this General Permit contains a reduced monitoring frequency of once per year (instead of six) at each environmental setting for glyphosate. The reduced monitoring frequency is based on staff’s review of available data from 2004 to 2008 that showed no exceedance of the permit limitation for glyphosate under Order No. 2004-0009-DWQ.
### Existing Regional Water Board Permit Language to Adjust Monitoring Frequency

<table>
<thead>
<tr>
<th>Permit Language</th>
<th>Order No. NPDES No.</th>
<th>Facility Name</th>
<th>Facility Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>RB 1 - North Coast</td>
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<td>POTW</td>
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</table>

1. Title 22 Drinking Water Constituents are those pollutants for which the California Department of Public Health has established Maximum Contaminant Levels (MCLs) at title 22, division 4, chapter 15, article 4, section 64431 (Inorganic Chemicals) and article 5.5, section 64444 (Organic Chemicals) of the CCR. Duplicate analyses are not required for pollutants that are identified both as CTR and title 22 pollutants. Monitoring required in future permit terms may be reduced to only those pollutants detected in the title 22 sampling conducted during this term.

2. The monitoring frequency for TDS, chloride, boron, and sodium may be reduced to annually if the previous year of monitoring data demonstrates that concentrations of these constituents are consistently lower than water quality objectives for protection of groundwater.

3. The groundwater monitoring frequency may be reduced to quarterly, upon demonstration by the Permittee that the disposal of wastewater has not caused groundwater quality objectives to be exceeded or statistically significant degradation of groundwater quality, for a period of two years, and approval by the Regional Water Board Executive Officer.
### Existing Regional Water Board Permit Language to Adjust Monitoring Frequency

<table>
<thead>
<tr>
<th>Permit Language</th>
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<tbody>
<tr>
<td><strong>RB 2 - San Francisco Bay</strong></td>
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<tr>
<td><strong>Attachment E-MRP, page E-3, Footnote 3</strong></td>
<td><strong>ORDER NO. R2-2012-0051</strong></td>
<td>Central Marin Sanitation Agency</td>
<td>POTW</td>
</tr>
<tr>
<td>If after three months the Discharger has demonstrated full compliance with the enterococcus effluent limitation, the minimum monitoring frequency shall be reduced to four times per year. The four samples shall be collected in different calendar months during the higher recreational water contact season (June to October). If the enterococcus effluent limitation is later exceeded, the Discharger shall conduct 5/Month accelerated sampling for at least three consecutive months. If full compliance is demonstrated after the three-month period, the Discharger may return to the 4/Year sampling frequency.</td>
<td><strong>NPDES NO. CA0038626</strong></td>
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<tr>
<td><strong>Attachment E-MRP, page E-4, Footnote 10</strong></td>
<td><strong>ORDER No. R2-2015-0034</strong></td>
<td>Novato Sanitary District</td>
<td>POTW</td>
</tr>
<tr>
<td>If the fecal coliform effluent limitation is exceeded, the Discharger shall accelerate sampling to 3/Week for at least three consecutive months. If full compliance is demonstrated during the three months, the Discharger may return to 1/Quarter sampling.</td>
<td><strong>NPDES No. CA0037958</strong></td>
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<tr>
<td><strong>Attachment E-MRP, page E-4, Footnote 6</strong></td>
<td><strong>ORDER No. R2-2014-0024</strong></td>
<td>City of Palo Alto</td>
<td>POTW</td>
</tr>
<tr>
<td>The minimum monitoring frequency shall be once per quarter. If the fecal coliform effluent limitation is exceeded, the Discharger shall conduct 2/Week accelerated sampling for at least three consecutive months. If full compliance is demonstrated after the three month period, the Discharger may return to the 1/Quarter sampling frequency.</td>
<td><strong>NPDES No. CA0037834</strong></td>
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<tr>
<td><strong>Attachment E-MRP, page E-4, Footnote 6</strong></td>
<td><strong>ORDER No. R2-2014-0012</strong></td>
<td>Cities of South San Francisco and San Bruno and North Bayside System Unit (NBSU)</td>
<td>POTW</td>
</tr>
<tr>
<td>Four samples shall be collected each year in different calendar months during the higher recreational water contact season (June to October). If the enterococcus effluent limitation is exceeded, the Discharger shall conduct 5/Month accelerated sampling for at least three consecutive months. If full compliance is demonstrated after the three-month period, the Discharger may return to the 4/Year sampling frequency.</td>
<td><strong>NPDES No. CA0038130</strong></td>
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<tr>
<td><strong>Attachment E-MRP, page E-5, Footnote 6</strong></td>
<td><strong>ORDER No. R2-2015-0021</strong></td>
<td>Las Gallinas Valley Sanitary District</td>
<td>POTW</td>
</tr>
<tr>
<td>If after one full discharge season (November through May) the Discharger has demonstrated full compliance with the bis(2-ethylhexyl)phthalate effluent limitation, the minimum monitoring frequency shall be reduced to twice per year. If the bis(2-ethylhexyl)phthalate effluent limitation is later exceeded, the Discharger shall return to sampling once per month for at least six consecutive months. If full compliance is demonstrated at the end of the six-month period, the Discharger may return to sampling just twice per year.</td>
<td><strong>NPDES No. CA0037851</strong></td>
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</table>
## Existing Regional Water Board Permit Language to Adjust Monitoring Frequency

<table>
<thead>
<tr>
<th>Permit Language</th>
<th>Order No. NPDES No.</th>
<th>Facility Name</th>
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<tbody>
<tr>
<td><strong>RB 4 - Los Angeles</strong></td>
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<td>PCBs mean the sum of 41 congeners when monitoring using USEPA proposed method 1668c. PCB-18, 28, 37, 44, 49, 52, 66, 70, 74, 77, 81, 87, 99, 101, 105, 110, 114, 118, 121, 123, 126, 128, 138, 149, 151, 153, 156, 157, 158, 167, 168, 169, 170, 177, 180, 183, 187, 189, 194, 201, and 206 shall be individually quantified. Permit language: PCBs as congeners shall be analyzed using method EPA 1668c for three years and may be discontinued for the remaining life of this Order if none of the PCB congeners are detected using method EPA 1668c.</td>
<td>Order R4-014-0212 NPDES No. CA0053619</td>
<td>Pomona WRP</td>
<td>POTW</td>
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<td><strong>RB 5F - Fresno</strong></td>
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<td>Monitoring shall be conducted monthly (1/month) for the first two (2) years following the effective date of the permit. However, if methyl bromide is detected at or above the criterion, thereby triggering the study contained in Provision VI.C.2.c., then monitoring shall continue for the entirety of the study. If the results of two years of monitoring indicate a baseline trend for the concentration of this constituent in the influent, the Discharger may submit a written request to the Executive Officer to reduce or eliminate this requirement.</td>
<td>Order R5-2014-0042 NPDES No. CA0053619</td>
<td>Mariposa Public Utility District</td>
<td>POTW</td>
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<tr>
<td><strong>Table E-3</strong></td>
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<tr>
<td>Priority pollutants shall be sampled once during the first year of this Order. If any pollutants are detected in the effluent, the Discharger shall collect and analyze quarterly (1/quarter) samples for the detected constituents for one year. (Also in Table E-4) If the quarterly monitoring detects the constituent at or above its effluent limitation, the Discharger shall increase monitoring to once per month for three months or until the constituent is detected below its effluent limitation, whichever is longer. Monthly monitoring is required for the first 24 months following the effective date of this Order, after which the Discharger may reduce monitoring to once per quarter. The Discharger shall notify the Central Valley Water Board in writing if and when it decides to begin quarterly monitoring.</td>
<td>Order R5-2011-0013 NPDES No. CA0053619</td>
<td>Rockwell Automation, Inc. and Porterville Unified School District</td>
<td>Groundwater Cleanup System</td>
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</table>
### Table E-3. Effluent Monitoring
If the results of 12 months of monitoring indicate that the discharge does not cause or have reasonable potential to cause or contribute to an excursion above applicable water quality criteria, the Discharger may submit a written request to the Executive Officer to reduce or eliminate this requirement.

### Table E-5. Receiving Water Monitoring Requirements
Monitoring required at RSW-001 only. If the results of four quarterly monitoring events indicate that the discharge does not cause or have reasonable potential to cause or contribute to an excursion above applicable water quality criteria, the Discharger may submit a written request to the Executive Officer to reduce or eliminate this requirement.

### Table E-6. Recycled Water Monitoring Requirements - Monitoring Location REC-001
Monitoring shall be conducted quarterly for the first 2 years following the effective date of the permit.

### Table E-8a. Receiving Water Monitoring Requirements at RSW-001
Monitoring shall be conducted monthly for the first two years following the effective date of the permit and quarterly (1/quarter) thereafter.

1. If the dioxin monitoring shows dioxin (or dioxin equivalent) is above the CTR criteria, the Discharger shall commence quarterly (1/quarter) monitoring for one year.

2. Semi-annual (2/year) monitoring is required for the first three years, after which the Discharger may reduce monitoring to once per year, unless directed by the Executive Officer to monitor more frequently.

### Table E-5. Receiving Water Monitoring Requirements
Semi-annual (2/year) monitoring is required for the first three years, after which the Discharger may reduce monitoring to once per year, unless directed by the Executive Officer to monitor more frequently.

<table>
<thead>
<tr>
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<th>Facility Name</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Table E-3. Effluent Monitoring</td>
<td>Order R5-2013-0018</td>
<td>The Vendo Company</td>
<td>Groundwater Remediation System</td>
</tr>
<tr>
<td>Table E-5. Receiving Water Monitoring Requirements</td>
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<tr>
<td>Table E-6. Recycled Water Monitoring Requirements - Monitoring Location REC-001</td>
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<tr>
<td>Table E-8a. Receiving Water Monitoring Requirements at RSW-001</td>
<td>Order R5-2011-0082</td>
<td>Atwater Regional Wastewater Treatment Facility</td>
<td>POTW</td>
</tr>
</tbody>
</table>
### Effluent Monitoring Requirements – Monitoring Location EFF-001

If the results of 8 quarters of monitoring indicate that the discharge does not cause or have reasonable potential to cause or contribute to an excursion above applicable water quality criteria, the Discharger may submit a written request to the Executive Officer to eliminate this requirement.

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td></td>
<td>Order R5-2014-0005</td>
<td>El Portal Wastewater Treatment Facility</td>
<td>National Park Service, WWTF</td>
</tr>
</tbody>
</table>

### Table E-3a. Effluent Monitoring Requirements – Monitoring Location EFF-A

If the results of 24 months of monitoring indicate that the discharge does not cause or have reasonable potential to cause or contribute to an excursion above applicable water quality criteria, the Discharger may submit a written request to the Executive Officer to eliminate this requirement.

If the results of 8 quarters of monitoring indicate that the discharge does not cause or have reasonable potential to cause or contribute to an excursion above applicable water quality criteria, the Discharger may submit a written request to the Executive Officer to eliminate this requirement.

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<thead>
<tr>
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</thead>
<tbody>
<tr>
<td></td>
<td>Order R5-2014-0005</td>
<td>CLOVIS SEWAGE TREATMENT AND WATER REUSE FACILITY</td>
<td>SEWAGE TREATMENT AND WATER REUSE FACILITY</td>
</tr>
</tbody>
</table>
### Table E-3 Effluent Monitoring

<table>
<thead>
<tr>
<th>Permit Language</th>
<th>Order No. NPDES No.</th>
<th>Facility Name</th>
<th>Facility Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 Monitoring is required 1/month ONLY during the 3rd year of the permit term and shall be concurrent with receiving surface water sampling. The Discharger may cease monitoring for the following constituents if they are non-detect in the first 3 monthly samples: total cyanide, asbestos, dioxin, and EPA Method 608 PCBs and chlorinated pesticides. The Discharger is not required to conduct effluent monitoring for priority pollutants that have already been sampled in a given month, as required in Table E-3.</td>
<td>Order R5-2010-0002-01</td>
<td>City of Turlock Water Quality Control Facility</td>
<td>Water Quality Control Facility</td>
</tr>
</tbody>
</table>

### Table E-9 Ash Monitoring Requirements

<table>
<thead>
<tr>
<th>Permit Language</th>
<th>Order No. NPDES No.</th>
<th>Facility Name</th>
<th>Facility Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 Upon Executive Officer approval, sampling frequency may be reduced after two consecutive years of data has been submitted.</td>
<td>Order R5-2015-0070</td>
<td>Sierra Pacific Industries Quincy Division</td>
<td>Water Quality Control Facility</td>
</tr>
</tbody>
</table>

### Table E-1. Effluent Monitoring

<table>
<thead>
<tr>
<th>Permit Language</th>
<th>Order No. NPDES No.</th>
<th>Facility Name</th>
<th>Facility Type</th>
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</thead>
<tbody>
<tr>
<td>5 Monitoring shall be conducted twice per month for the first year following the permit effective date and then monthly thereafter.</td>
<td>ORDER R5-2015-0026</td>
<td>City of Manteca &amp; Dutra Farms Inc Wastewater Quality Control Facility</td>
<td>Wastewater Quality Control Facility</td>
</tr>
</tbody>
</table>

### Table E-7. Recycled Water Use Area Monitoring Requirements

<table>
<thead>
<tr>
<th>Permit Language</th>
<th>Order No. NPDES No.</th>
<th>Facility Name</th>
<th>Facility Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Or less frequently if approved by the Central Valley Regional Water Board Executive Officer</td>
<td>ORDER R5-2015-0027</td>
<td>CITY OF TURLOCK REGIONAL WATER QUALITY CONTROL FACILITY</td>
<td>REGIONAL WATER QUALITY CONTROL FACILITY</td>
</tr>
</tbody>
</table>

### Table E-8. Receiving Water Monitoring Requirements

<table>
<thead>
<tr>
<th>Permit Language</th>
<th>Order No. NPDES No.</th>
<th>Facility Name</th>
<th>Facility Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Constituents with weekly sampling frequency may be reduced to monthly at RSW-001 when the San Joaquin River is at “monitor stage” (river elevation is at 48.0 feet (15,242 cfs) at the West Main Bridge near Patterson (SJP) gauging station) and all monitoring is not required while the San Joaquin River is at “flood stage” (river elevation is at 54.7 feet at the SJP gauging station).</td>
<td>ORDER R5-2013-0094</td>
<td>CITY OF YUBA CITY WASTEWATER TREATMENT FACILITY</td>
<td>WASTEWATER TREATMENT FACILITY</td>
</tr>
</tbody>
</table>
### Existing Regional Water Board Permit Language to Adjust Monitoring Frequency

<table>
<thead>
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</thead>
<tbody>
<tr>
<td>RB 6 - Lahontan</td>
<td>WWDR/NPDES R6V-2012-0038 and in R6V 2011-0081</td>
<td>CA Department of Fish and Game Black Rock Fish Hatchery</td>
<td>Fish Hatchery</td>
</tr>
</tbody>
</table>

3. After at least 12 monthly samples, the Executive Officer may reduce receiving water sample frequency to 1/year for specific constituents if the Discharger requests a reduction and can demonstrate constituent results are less than the method detection limit (MDL), the concentrations indicate no reasonable potential to exceed numeric receiving water limitations or the constituent concentrations have less than statistically insignificant variation (at a 90% confidence level).

4. After at least 8 quarterly samples, the Executive Officer may reduce receiving water sample frequency to 1/year for specific constituents if the Discharger requests a reduction and can demonstrate constituent results are less than the method detection limit (MDL), the concentrations indicate no reasonable potential to exceed numeric receiving water limitations or the constituent concentrations have less than statistically insignificant variation (at a 90% confidence level).
## Existing Regional Water Board Permit Language to Adjust Monitoring Frequency

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<tr>
<td><strong>RB 9 - San Diego</strong></td>
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</table>
| Attachment E, section V.B: If the results of a chronic toxicity test exceed the limitations specified in this Order, the Discharger shall: 2. Increase the frequency of the toxicity test(s) that violated the effluent limitation to least two times per month until the results of at least three consecutive toxicity tests meet the required standard. Re-sampling should occur under conditions that mimic the conditions of the initial non-compliant toxicity test. | R9-2006-0043  
CA0001350 | Encina Power Plant | Power Plant |
| Attachment E, section B.1.b: Based on this Regional Board’s evaluation of the Initial Monitoring results, this Regional Board may modify the frequency and constituents listed for the Ocean Plan Table 1 and Table 2 monitoring. | R9-2005-0008  
CA0107239 | Scripps Institution Of Oceanography | Aquaria |
| section C.2: Whenever the analyses of municipal storm water discharges from Outfall 002 exceeds the effluent limitations listed in Table 1. Table A Effluent Limitations, Table 2. Protection of Marine Aquatic Life Effluent Limitations for the Seawater System Discharges, Table 3. | | | |
| a. review its Storm Water Management Plan/Program (SWMP) and modify the SWMP as necessary to reduce the concentrations of those constituents that exceed the effluent limitations; | | | |
| b. after modifying the SWMP, sample and analyze the next storm water runoff event for the specific constituents that exceeded the effluent limitations, and compare to previous monitoring data and evaluate for best management practices (BMP) effectiveness and improvement; and | | | |
| c. document the review and the modifications to the SWMP, and document the sampling analysis and comparison. | | | |
### Existing Regional Water Board Permit Language to Adjust Monitoring Frequency

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<tr>
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</table>
| **Attachment E, section V.A.6:** If a chronic WET permit limit or trigger is exceeded and the source of toxicity is known (e.g., a temporary plant upset), the permittee must conduct one additional toxicity test using the same species and EPA WET test method. This WET test must begin within 14 days of receipt of WET test results exceeding a chronic WET permit limit or trigger. If the additional toxicity test does not exceed a chronic WET permit limit or trigger, the permittee may return to their regular testing frequency.  
  b. If a chronic WET permit limit or trigger is exceeded and the source of toxicity is not known, the permittee must conduct six additional toxicity tests using the same species and EPA WET test method, approximately every two weeks, over a 12 week period. This testing must begin within 14 days of receipt of WET test results exceeding a chronic WET permit limit or trigger. If none of the additional toxicity tests exceed a chronic WET permit limit or trigger, the permittee may return to their regular testing frequency.  
  c. If one of the additional toxicity tests (in paragraphs 6.a or 6.b) exceeds a chronic WET permit limit or trigger, within 14 days of receipt of this WET test result, the permittee must initiate a TRE using as guidance, according to the type of treatment facility, the EPA TRE manual, Toxicity Reduction Evaluation Guidance for Municipal Wastewater Treatment Plants (EPA/ 833/B-99/002, 1999) or EPA TRE manual, Generalized Methodology for Conducting Industrial Toxicity Reduction Evaluations (EPA/600/2-88/070, 1989). In conjunction, the permittee must develop and implement a Detailed TRE Work Plan that must contain the following: further actions undertaken by the permittee to investigate, identify, and correct the causes of toxicity; actions the permittee will take to mitigate the effects of the discharge and prevent the recurrence of toxicity; and a schedule for such actions.  
  d. The permittee may initiate a TIE as part of a TRE to identify the causes of toxicity using the same species and EPA WET test method and, as guidance, EPA WET TIE/TRE method manuals: Toxicity Identification Evaluation: Characterization of Chronically Toxic Effluents, Phase I (EPA/600/6-91/005F, 1992); Methods for Aquatic Toxicity Identification Evaluations, Phase II Toxicity Identification Procedures for Samples Exhibiting Acute and Chronic Toxicity (EPA/600/R-92/080, 1993); Methods for Aquatic Toxicity Identification Evaluations, Phase III Toxicity Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity (EPA/600/R-92/081, 1993).                                                                 | R9-2011-0032       | SeaWorld, San Diego | Aquaria        |
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<tr>
<td><strong>Section VI.C.2.d:</strong> If a toxicity effluent limit or performance goal is exceeded and the source of toxicity is known (e.g., a temporary plant upset), then the Discharger shall conduct one additional toxicity test using the same species and test method. This test shall begin within 14 days of receipt of test results exceeding the toxicity effluent limit or performance goal. If the additional toxicity test does not exceed the toxicity effluent limit or performance goal, then the Discharger may return to their regular testing frequency. If a toxicity effluent limit or performance goal is exceeded and the source of toxicity is not known, then the Discharger shall conduct six additional toxicity tests using the same species and test method, approximately every two weeks, over a 12 week period. This testing shall begin within 14 days of receipt of test results exceeding the toxicity effluent limit or performance goal. If none of the additional toxicity tests exceed the toxicity effluent limit or performance goal, then the Discharger may return to their regular testing frequency. If one of the additional toxicity tests (in paragraphs d.i or d.ii of this Section) exceeds the toxicity effluent limit or performance goal, then the Discharger shall notify the Executive Officer and Director.</td>
<td>R9-2009-0001 CA0107409</td>
<td>Point Loma WWTP &amp; Ocean Outfall</td>
<td>POTW</td>
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### Existing Regional Water Board Permit Language to Adjust Monitoring Frequency

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<tr>
<td><strong>Attachment E, section IV, effluent monitoring:</strong> For Ocean Plan Table 1 parameters (except chlorine, daily monitoring): The Discharger shall monitor quarterly, except ammonia, which shall be twice per month, if any analysis for this constituent yields a result higher than the applicable effluent limitation or performance goal specified in this Order. The increased minimum frequency of monitoring shall remain in effect until the results of a minimum of four consecutive analyses for this constituent are below all applicable effluent limitations or performance goals specified in this Order.</td>
<td>R9-2012-0012 as amended by R9-2014-0098 CA0107417</td>
<td>SOCWA SAN JUAN CREEK OCEAN O/F</td>
<td>POTW</td>
</tr>
<tr>
<td><strong>Section VI.C.2.c:</strong> If the performance goal for chronic toxicity is exceeded in any one test, then within 15 days of the exceedance, the Discharger shall begin conducting six additional tests, biweekly, over a 12 week period. If the toxicity performance goal is exceeded in any of these six additional tests, then the Discharger shall notify the San Diego Water Board. If no toxicity is detected in any of these additional six tests, then the Discharger may return to the testing frequency specified in the MRP.</td>
<td>R9-2012-0013 as amended by R9-2014-0105 CA0107611</td>
<td>SOCWA Aliso Creek Ocean Outfall</td>
<td>POTW</td>
</tr>
<tr>
<td><strong>Attachment E, section VII:</strong> The intensive water quality monitoring is required if the Executive Officer determines that 1) the effluent does not at all times comply with the effluent limitations and performance goals at section IV.A of this Order, or 2) the receiving water limitations at section V.A of this Order are not being consistently achieved.</td>
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Existing Regional Water Board Permit Language to Adjust Monitoring Frequency

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<tr>
<td>Attachment E, section III.B, Table E-3: For Bis(2-ethylhexyl)phthalate at EFF-001A, monitoring frequency may be reduced to 2/year after four consecutive months of results of non-detect. If the parameter is detected, monitoring shall return to monthly. The Discharger shall use a ML equal to or less than five µg/L and shall use sample collection and handling techniques to reduce the possibility of contamination.</td>
<td>R9-2015-0002</td>
<td>Ray Stoyer WRF</td>
<td>POTW</td>
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<tr>
<td>Attachment E, section III.B Table E-4 and section IV.A Table E-5a: If exceedances of applicable receiving water limitations for total coliform, fecal coliform, and/or enterococcus specified in section V.A.1 of the Order are observed immediately downstream of Discharge Point No. 001 (at Monitoring Location RSW-001a), the Discharger shall increase effluent monitoring frequency for that parameter(s) from once a week to daily (AND the receiving water monitoring frequency at Monitoring Locations RSW-001 and RSW-001a for that parameter(s) to three times per week) until the receiving water has demonstrated compliance at Monitoring Location RSW-001a with applicable receiving water limitations for that parameter(s) specified in section V.A.1 of the Order for a minimum of one week or the Discharger demonstrates to the San Diego Water Board that Facility effluent is not a contributing source of that parameter(s) to the downstream receiving water exceedances at Monitoring Location RSW-001a.</td>
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<tr>
<td>Attachment E, section III.C.7: When there is discharge more than one day in a calendar month, the Median Monthly summary result shall be used to determine if accelerated testing needs to be conducted. When there is discharge of only one day in a calendar month, the Maximum Daily single result shall be used to determine if accelerated testing needs to be conducted. Once the Discharger becomes aware of this result, the Discharger shall implement an accelerated monitoring schedule within 48 hours for the Ceriodaphnia dubia test, and within 5 calendar days for both the Pimephales promelas and Selenastrum capricornutum tests. However, if the sample is contracted out to a commercial laboratory, the Discharger shall ensure that the first of four accelerated monitoring tests is initiated within seven calendar days of the Discharger becoming aware of the result. The accelerated monitoring schedule shall consist of four toxicity tests (including the discharge IWC), conducted at approximately two week intervals, over an eight week period; in preparation for the TRE process and associated reporting, these results shall also be reported using the EC25. If each of the accelerated toxicity tests results in &quot;Pass&quot;, the Discharger shall return to routine monitoring for the next monitoring period. If one of the accelerated toxicity tests results in &quot;Fail&quot;, the Discharger shall immediately implement the TRE Process conditions set forth below. During accelerated monitoring schedules, only TST results (&quot;Pass&quot; or &quot;Fail&quot;, &quot;Percent Effect&quot;) for chronic toxicity tests shall be reported as effluent compliance monitoring results for the chronic toxicity MDEL and MMEL.</td>
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## Existing Regional Water Board Permit Language to Adjust Monitoring Frequency

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<tr>
<td><strong>Attachment E, section IV, effluent monitoring:</strong> Oil and Grease, Turbidity, and all the Ocean Plan Table 1 parameters (except chlorine, daily monitoring): The minimum frequency of monitoring for this constituent is automatically increased to twice the minimum frequency specified, if any analysis for this constituent yields a result higher than the effluent limit specified in this Order for this constituent. The increased minimum frequency of monitoring shall remain in effect until the results of a minimum of four consecutive analyses for this constituent are below all effluent limits specified in this Order for this constituent.</td>
<td>R9-2010-0086 with one addendum, CA0107981</td>
<td>HARRF Disch to San Elijo Ocean Outfall</td>
<td>POTW</td>
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<td>R9-2010-0087, CA0107999</td>
<td>SAN ELIJO WPCF</td>
<td>POTW</td>
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<td>R9-2012-0004, CA0108031</td>
<td>Fallbrook Public Water District Plant 1</td>
<td>POTW</td>
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<td>**R9-2011-0016 as amended by R9-2012-0042 and R9-2012-0060, CA0107433</td>
<td>OCEANSIDE OCEAN OUTFALL</td>
<td>POTW</td>
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<td>**R9-2011-0019 with one addendum, CA0107396</td>
<td>Encina Ocean Outfall</td>
<td>POTW</td>
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<td></td>
<td>**R9-2013-0012 (does not include Attachment E, section IV, effluent monitoring), CA0109347</td>
<td>Southern Region Tertiary Treatment Plant</td>
<td>POTW</td>
</tr>
</tbody>
</table>

**Section VI.C.2.c:** If the effluent limit for chronic toxicity is exceeded in anyone test, then within 15 days of the exceedance, the Discharger shall begin conducting six additional tests, bi-weekly, over a 12 week period. If the toxicity effluent limitation is exceeded in any of these six additional tests, then the Discharger shall notify the Executive Officer. If no toxicity is detected in any of these additional six tests, then the Discharger may return to the testing frequency specified in the MRP.

**Attachment E, section VII:** The intensive water quality monitoring is required if the Executive Officer determines that 1) the effluent does not at all times comply with the effluent limitations and performance goals at section IV.A of this Order, or 2) the receiving water limitations at section V.A of this Order are not being consistently achieved.

**Attachment E, section VII.A:** For surf one stations: If a single sample exceeds any of the single sample bacterial standards, repeat sampling at that location shall be conducted to determine the extent and persistence of the exceedance. Repeat sampling shall be conducted within 24 hours of receiving analytical results and continued until the sample result is less than the single sample bacterial standards or until a sanitary survey is conducted to determine the source of the high bacterial densities.
Attachment E, section III.A, influent monitoring: For influent monitoring, for all parameters except flow and temperature, the minimum frequency shall be increased from 1/Week to 5/Week, 1/Month to 1/Week, or 1/Quarter to 1/Month, as appropriate, if any result for this parameter exceeds the applicable interim or final influent limitation specified in this Order, as appropriate. The increased minimum frequency of monitoring shall remain in effect until the results of a minimum of four consecutive analyses for this parameter are below all applicable interim or final influent limitation specified in this Order, as appropriate. Only a few parameters currently have influent limitations. This can change in June 2015.

Attachment E, section III.B, effluent monitoring: For effluent monitoring, Oil and Grease, Dissolved Oxygen, and all the Ocean Plan Table 1 parameters (except chlorine, daily monitoring): The minimum frequency of monitoring for this constituent is automatically increased to twice the minimum frequency specified, if any analysis for this constituent yields a result higher than the effluent limit specified in this Order for this constituent. The increased minimum frequency of monitoring shall remain in effect until the results of a minimum of four consecutive analyses for this constituent are below all effluent limits specified in this Order for this constituent.

Attachment E, section VII.A: For surf one stations: If a single sample exceeds any of the single sample bacterial standards, repeat sampling at that location shall be conducted to determine the extent and persistence of the exceedance. Repeat sampling shall be conducted within 24 hours of receiving analytical results and continued until the sample result is less than the single sample bacterial standards or until a sanitary survey is conducted to determine the source of the high bacterial densities.
## Existing Regional Water Board Permit Language to Adjust Monitoring Frequency

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<tr>
<td><strong>Attachment E. section III.C.5.b:</strong> If the effluent toxicity test does not meet all test acceptability criteria (TAC) specified in the referenced test method, Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms (U.S. EPA 2002, EPA-821-R-02-013) (see Table E-8, below), then the Discharger must resample and re-test within 14 days.</td>
<td>Tentative Order R9-2015-0026 CA0108944</td>
<td>HARRF Disch to Escondido Creek</td>
<td>POTW</td>
</tr>
<tr>
<td><strong>Attachment E. section III.C.7:</strong> When there is discharge more than one day in a calendar month, the Median Monthly summary result shall be used to determine if accelerated testing needs to be conducted. When there is discharge of only one day in a calendar month, the Maximum Daily single result shall be used to determine if accelerated testing needs to be conducted. Once the Discharger becomes aware of this result, the Discharger shall implement an accelerated monitoring schedule within 48 hours for the Ceriodaphnia dubia test, and within 5 calendar days for both the Pimephales promelas and Selenastrum capricornutum tests. However, if the sample is contracted out to a commercial laboratory, the Discharger shall ensure that the first of four accelerated monitoring tests is initiated within seven calendar days of the Discharger becoming aware of the result. The accelerated monitoring schedule shall consist of four toxicity tests (including the discharge IWC), conducted at approximately two week intervals, over an eight week period; in preparation for the TRE process and associated reporting, these results shall also be reported using the EC25. If each of the accelerated toxicity tests results in &quot;Pass&quot;, the Discharger shall return to routine monitoring for the next monitoring period. If one of the accelerated toxicity tests results in &quot;Fail&quot;, the Discharger shall immediately implement the TRE Process conditions set forth below. During accelerated monitoring schedules, only TST results (&quot;Pass&quot; or &quot;Fail&quot;, &quot;Percent Effect&quot;) for chronic toxicity tests shall be reported as effluent compliance monitoring results for the chronic toxicity MDEL and MMEL.</td>
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### Permit Language

**Attachment E. section V.A.6 and section V.B.6:**

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<tbody>
<tr>
<td>a. If an acute (or chronic) WET permit trigger is exceeded and the source of toxicity is known (e.g., a temporary plant upset), then the Discharger shall conduct one additional toxicity test using the same species and test method. This test shall begin within 14 days of receipt of test results exceeding an acute (or chronic) WET permit trigger. If the additional toxicity test does not exceed an acute (or chronic) WET permit trigger, then the Discharger may return to their regular testing frequency.</td>
<td>R9-2010-0012, CA0108952</td>
<td>Sweetwater Authority Groundwater Demin</td>
<td>Brine</td>
</tr>
<tr>
<td>b. If an acute (or chronic) WET permit trigger is exceeded and the source of toxicity is not known, then the Discharger shall conduct six additional toxicity tests using the same species and test method, approximately every two weeks, over a 12 week period. This testing shall begin within 14 days of receipt of test results exceeding an acute (or chronic) WET permit trigger. If none of the additional toxicity tests exceed an acute (or chronic) WET permit trigger, then the Discharger may return to their regular testing frequency.</td>
<td>R9-2013-0006 As amended by R9-2014-0071, CA0109045</td>
<td>SOUTH BAY WATER RECLAM PLANT</td>
<td>POTW</td>
</tr>
</tbody>
</table>

**Attachment E, section IV:**

For effluent monitoring, all the Ocean Plan Table 1 parameters: The minimum frequency of monitoring for this constituent is automatically increased to twice the minimum frequency specified, if any analysis for this constituent yields a result higher than the effluent limit specified in this Order for this constituent. The increased minimum frequency of monitoring shall remain in effect until the results of a minimum of four consecutive analyses for this constituent are below all effluent limits specified in this Order for this constituent.

**Section VI.C.2.c, Toxicity Reduction Requirements:** If the performance goal for chronic toxicity is exceeded in anyone test, then within 15 days of the exceedance, the Discharger shall begin conducting six additional tests, bi-weekly, over a 12 week period. If the toxicity performance goal is exceeded in any of these six additional tests, then the Discharger shall notify the Executive Officer. If no toxicity is detected in any of these additional six tests, then the Discharger may return to the testing frequency specified in the MRP.

***(both) Attachment E, section V.A.5:**

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<tr>
<td>a. If the results of acute toxicity monitoring are reported as &quot;Fail&quot; and the likely source of toxicity is known (e.g., a temporary plant upset), then the Discharger shall conduct one additional toxicity test using the same species and test method. This test shall begin within 14 days, or within the shortest time period possible (e.g., the next storm event, or next discharge event), of receipt of test results reported as &quot;Fail&quot; for acute toxicity. If the additional toxicity test does not result in a determination of &quot;Fail&quot;, then the Discharger may return to their regular testing frequency.</td>
<td>R9-2009-0099, CA0109134</td>
<td>National Steel &amp; Shipbuilding Co (NASSCO)</td>
<td>Shipyard</td>
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<tr>
<td>b. If the results of acute toxicity monitoring are reported as &quot;Fail&quot; and the source of toxicity is not known, then the Discharger shall conduct accelerated toxicity testing using the same species and test method. The accelerated toxicity monitoring shall include monitoring of the next 4 storm events. This testing shall begin within 14 days of receipt of test results reported as &quot;Fail&quot; for acute toxicity or at the next storm event. If none of the additional toxicity tests result in a determination of &quot;Fail&quot;, then the Discharger may return to the regular testing frequency.</td>
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**(only 0099) Attachment E, section V.B.5:**

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<tbody>
<tr>
<td>a. If the results of chronic toxicity monitoring exceed the effluent limitation and the likely source of toxicity is</td>
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<tr>
<td>(a) If the results of chronic toxicity monitoring exceed the effluent limitation and the likely source of toxicity is known (e.g., a temporary plant upset), then the Discharger shall conduct one additional toxicity test using the same species and test method. This test shall begin within 14 days, or within the shortest time period possible (e.g., the next storm event, or next discharge event), of receipt of test results which exceed the chronic toxicity effluent limitation. If the additional toxicity test does not exceed the chronic toxicity effluent limitation, then the Discharger may return to their regular testing frequency.</td>
<td><strong>R9-2009-0081</strong></td>
<td>US Naval Base Coronado (NBC)</td>
<td>Shipyard</td>
</tr>
<tr>
<td>(b) If the results of chronic toxicity monitoring exceed the chronic toxicity effluent limitation and the source of toxicity is not known, then the Discharger shall conduct accelerated toxicity testing using the same species and test method. The accelerated toxicity monitoring shall include monitoring of the next 4 storm events or 4 effluent samples. This testing shall begin within 14 days of receipt of test results which exceed the chronic toxicity effluent limitation or at the next storm event. If none of the additional toxicity tests exceed the chronic toxicity effluent limitation, then the Discharger may return to their regular testing frequency.</td>
<td><strong>R9-2008-0049</strong></td>
<td>Continental Maritime Shipyard</td>
<td>Shipyard</td>
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**(only 0081) Attachment E, Table E-13:** Pollutants that are likely to be present in storm water discharges in significant quantities shall be sampled. The pollutants shall be selected based upon the pollutant source assessment required in section VII of the SWPPP requirements contained in Attachment G, visual observations, and inspection records. If these pollutants are not detected in significant quantities after two consecutive sampling events, the Discharger may eliminate the pollutant from future analysis until the pollutant is likely to be present again. The Discharger shall select appropriate analytical test methods that indicate the presence of pollutants in storm water discharges in significant quantities.

**Attachment E, section III.C.4:** A chronic toxicity test result during routine monitoring indicating a “fail” with a percent effect at or above 0.50 is an exceedance of the chronic toxicity MDEL. The Discharger shall implement corrective action to abate the source of the toxicity within 24 hours from the time the Discharger becomes aware of an MDEL exceedance, if the source of toxicity is known (e.g. operational upset). The Discharger shall also conduct an additional toxicity test during the next discharge event after receiving results of an exceedance as required in section III.C.5 of this MRP.

**Attachment E, section III.C.5:** If the follow-up toxicity test result is “fail,” the Discharger shall implement an accelerated chronic toxicity monitoring schedule of the next three storms. If any one of the additional tests result in a “fail” and exhibit a percent effect greater than or equal to 0.25, the Discharger shall implement an approved TRE Work Plan as set forth below in section III.C.7 of this MRP. The requirement for a TRE may be waived by the San Diego Water Board on a case-by-case basis if implementation of a previously approved TRE Work Plan is already underway for the sampled discharge point. If all of the additional tests result in a “pass” or if none of the tests result in a “fail” and exhibit a percent effect equal to or greater than 0.25, the Discharger may return to routine monitoring for the following monitoring period.

**Attachment E, section III.C.5:** If the additional test result for industrial storm water results in a “pass” or a “fail” at a percent effect less than 25%, the Discharger may return to routine monitoring for the following monitoring period. If the additional test results in a “fail” at a percent effect greater than or equal to 25%, the Discharger shall implement an accelerated monitoring schedule for chronic toxicity as set forth below. The Discharger shall implement an accelerated chronic toxicity monitoring schedule for the next three Qualifying Storm Events (QSEs). If any one of the additional tests result in a “fail” and exhibit a percent effect equal to or
### Existing Regional Water Board Permit Language to Adjust Monitoring Frequency

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<tr>
<td><strong>TENTATIVE ORDER R9-2015-0034</strong></td>
<td><strong>TENTATIVE ORDER R9-2015-0034</strong></td>
<td>BAE System San Diego Repair</td>
<td>Shipyard</td>
</tr>
<tr>
<td>Attachment E, table E-2, footnote: Pollutants that are likely to be present in storm water discharges in significant quantities shall be sampled. The pollutants shall be selected based upon the pollutant source assessment required in the SWPPP requirements contained in Attachment G, visual observations, and inspection records. If these pollutants are not detected in significant quantities after two consecutive sampling events, the Discharger may eliminate the pollutant from future analysis until the pollutant is likely to be present again. The Discharger shall select appropriate analytical test methods that indicate the presence of pollutants in storm water discharges in significant quantities.</td>
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<tr>
<td>Attachment E, section III.D.4.j: Sampling Frequency Reduction Certification</td>
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i. The Discharger is eligible to reduce the number of QSEs sampled each reporting year in accordance with the following requirements:

(a) Results from four consecutive QSEs that were sampled (QSEs may be from different reporting years) did not exceed any NALs; and

(b) The Discharger is in full compliance with the requirements of this Order and has updated, certified, and submitted all documents, data, and reports required by this Order during the time period in which samples were collected.

(c) The Discharger has certified that it meets conditions a) and b) above.

ii. The San Diego Water Board may notify a Discharger that it may not reduce the number of QSEs sampled each reporting year if the Discharger is subject to an enforcement action.

iii. Upon Sampling Frequency Reduction certification, the Discharger shall collect and analyze samples from one QSE within the first half of each reporting year (July 1 to December 31), and one QSE within the second half of each reporting year (January 1 to June 30). All other monitoring, sampling, and reporting requirements remain in effect.

iv. A Discharger may reduce sampling per the Sampling Frequency Reduction certification unless notified by the San Diego Water Board that: (1) the Sampling Frequency Reduction certification has been rejected or (2) additional supporting documentation must be submitted. In such instances, a Discharger is ineligible for the Sampling Frequency Reduction until the San Diego Water Board provides Sampling Frequency Reduction certification approval. Revised Sampling Frequency Reduction certifications shall be certified and submitted by...
### Existing Regional Water Board Permit Language to Adjust Monitoring Frequency

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<tr>
<td><strong>Attachment E, sections V.A.4 and 5 and sections V.B.4 and 5 and section V.D:</strong> If acute (or chronic) toxicity exceed MDEL, conduct an additional acute (or chronic) toxicity test within the same calendar month that the exceedance occurred or, in the event laboratory monitoring results are not received during the same month when the sampling was performed, the next qualifying storm event after receiving results of an exceedance for storm water If the additional test result for industrial storm water from high risk areas results in a &quot;pass&quot;, the Discharger may return to routine monitoring for the following monitoring period. The Discharger shall implement an accelerated chronic toxicity monitoring schedule, as required by section V.B.5 of this MRP for industrial process wastewater discharges, consisting of four, five-concentration chronic toxicity tests, conducted at approximately two-week intervals, over an eight-week period. All toxicity tests conducted during an accelerated monitoring schedule shall, at a minimum, include the IWC and four additional concentrations. The additional effluent concentrations should provide useful information regarding the intensity and persistence of the toxic effect(s). If all of the additional tests result in a &quot;pass&quot;, the Discharger may return to routine monitoring for the following monitoring period.</td>
<td>Order R9-2013-0064 TSO R9-2013-0095 CA0109169</td>
<td>US Naval Base San Diego</td>
<td>Shipyard</td>
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<td><strong>Attachment E, Tables E-10 and E-11:</strong> Pollutants that are likely to be present in storm water discharges in significant quantities shall be sampled. The pollutants shall be selected based upon the pollutant source assessment required in section VII of the SWPPP requirements contained in Attachment G, visual observations, and inspection records. If these pollutants are not detected in significant quantities after two consecutive sampling events, the Discharger may eliminate the pollutant from future analysis until the pollutant is likely to be present again. The Discharger shall select appropriate analytical test methods that indicate the presence of pollutants in storm water discharges in significant quantities.</td>
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</table>
### Existing Regional Water Board Permit Language to Adjust Monitoring Frequency

<table>
<thead>
<tr>
<th>Permit Language</th>
<th>Order No. NPDES No.</th>
<th>Facility Name</th>
<th>Facility Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>*, <strong>Section VI.C.2.a and Attachment E, section V:</strong> If the performance goal for chronic toxicity is exceeded then the Discharger shall: ii. Within 15 days from the time the Discharger becomes aware of the exceedance, the Discharger shall conduct six additional toxicity tests within a 12-week period. If no toxicity is detected in any of the additional six tests, then the Discharger may return to the testing frequency specified in the MRP.</td>
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<tr>
<td><strong>Attachment E, Table E-2:</strong> For Ocean Plan Table 1 and 2 parameters, The minimum frequency of monitoring for this constituent is automatically increased to twice the minimum frequency specified, if any analysis for this constituent yields a result higher than the applicable effluent limitation or performance goal specified in this Order. The increased minimum frequency of monitoring shall remain in effect until the results of a minimum of four consecutive analyses for this constituent are below all applicable effluent limitations or performance goals specified in this Order.</td>
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<tr>
<td><strong>Attachment E, section VIII.A:</strong> For surf one stations: If a single sample exceeds any of the single sample bacterial standards, repeat sampling at that location shall be conducted to determine the extent and persistence of the exceedance. Repeat sampling shall be conducted within 24 hours of receiving analytical results and continued until the sample result is less than the single sample bacterial standards or until a sanitary survey is conducted to determine the source of the high bacterial densities.</td>
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<td><strong>Attachment E, section VIII:</strong> The intensive water quality monitoring is required if the Executive Officer determines that 1) the effluent does not at all times comply with the effluent limitations and performance goals at section IV.A of this Order, or 2) the receiving water limitations at section V.A of this Order are not being consistently achieved.</td>
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<tr>
<td><strong>section VI.C.2.b.3:</strong> If the toxicity effluent limitation or performance goal identified in Section IV.B of this Order are exceeded, then within 15 days of the exceedance, the Discharger shall begin conducting six additional toxicity tests over a 6-month (at least one sample per calendar month, for a total of two samples per calendar month) period and provide the results to the Regional Water Board. The additional monthly toxicity tests will be incorporated into the semiannual discharge monitoring reports submitted pursuant to MRP No. R9-2006-0065.</td>
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<tr>
<td>R9-2014-0004 CA0109193</td>
<td>Genentech Inc. (Oceanside)</td>
<td>Brine</td>
<td></td>
</tr>
<tr>
<td>*R9-2012-0015 (only first section) CA0109215</td>
<td>Palomar Energy Center to San Elijo Ocean Outfall</td>
<td>Brine</td>
<td></td>
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<tr>
<td>**R9-2012-0006 (only first two sections) CA0109258</td>
<td>Stone Brewing Co.</td>
<td>Brine</td>
<td></td>
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<tr>
<td>R9-2006-0065 CA0109223</td>
<td>Carlsbad Desalination Project</td>
<td>Brine</td>
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</tbody>
</table>
**Attachment E, sections V.B.4 and V.B.5:** If an acute toxicity test result during routine monitoring exceeds the acute toxicity MDEL, the Discharger shall conduct an additional acute toxicity test within the same calendar month that the exceedance occurred or, the next qualifying storm event after receiving results of an exceedance for storm water discharges. If the additional test result for industrial storm water from high risk areas results in a “pass”, the Discharger may return to routine monitoring for the following monitoring period.

**Attachment E, sections V.C.4 and V.C.5 and V.E:** A chronic toxicity test result during routine monitoring indicating a “fail” with a percent effect at or above 0.50 is an exceedance of the chronic toxicity MDEL. The Discharger shall conduct an additional toxicity test within the same calendar month that the exceedance occurred or, in the event laboratory monitoring results are not received during the same month when the sampling was performed, the next discharge event after receiving results of an exceedance.

If the additional test result for industrial process wastewater results in a “pass”, the Discharger may return to routine monitoring for the following monitoring period. If the verification test results in a “fail” at a percent effect greater than or equal to 0.25, the Discharger shall implement an accelerated monitoring schedule for chronic toxicity as set forth below in section V.E of this MRP.

The Discharger shall implement an accelerated chronic toxicity monitoring schedule, as required by section V.C.5 of this MRP for industrial process wastewater discharges, consisting of four, five-concentration chronic toxicity tests, conducted at approximately two week intervals, over an eight-week period. All toxicity tests conducted during an accelerated monitoring schedule shall, at a minimum, include the IWC and four additional concentrations. The additional effluent concentrations should provide useful information regarding the intensity and persistence of the toxic effect(s). If all of the additional tests result in a “pass”, the Discharger may return to routine monitoring for the following monitoring period. If any one of the additional tests result in a “fail” and exhibit a percent effect equal to or greater than 0.25, the Discharger shall implement an approved TRE Work Plan as set forth below in section V.F of this MRP. The requirement for a TRE may be waived by the San Diego Water Board on a case-by-case basis if implementation of a previously approved TRE Work Plan is already underway for the sampled discharge point.

**Attachment E, Table E-7:** Pollutants that are likely to be present in storm water discharges in significant quantities shall be sampled. The pollutants shall be selected based upon the pollutant source assessment required in section VII of the SWPPP requirements contained in Attachment G, visual observations, and inspection records. If these pollutants are not detected in significant quantities after two consecutive sampling events, the Discharger may eliminate the pollutant from future analysis until the pollutant is likely to be present again. The Discharger shall select appropriate analytical test methods that indicate the presence of pollutants in storm water discharges in significant quantities.
### Existing Regional Water Board Permit Language to Adjust Monitoring Frequency

<table>
<thead>
<tr>
<th>Permit Language</th>
<th>Order No.</th>
<th>Facility Name</th>
<th>Facility Type</th>
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<tbody>
<tr>
<td><strong>Attachment E, section IV.A.2:</strong> The Discharger shall follow the methods for chronic toxicity tests as established in Code of Federal Regulations, title 40, section 136.3 using a single-concentration test design for routine monitoring, or a five-concentration test design for additional toxicity testing if the limitation is exceeded.</td>
<td>R9-2013-0026</td>
<td>Dana Point Shipyard</td>
<td>Boatyard</td>
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<td></td>
<td></td>
<td>Driscoll Custom Boats</td>
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<td>Driscoll Mission Bay</td>
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<td>Marine Group Boat Works</td>
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<td>Koehler Kraft</td>
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<td>Neilsen Beaumont Marine</td>
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<td>Oceanside Marine Centre, Inc</td>
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<td></td>
<td></td>
<td>Shelter Island Boatyard</td>
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<td></td>
<td></td>
<td>Marine Group Boat Works</td>
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<td></td>
<td></td>
<td>Marine Group Boat Works</td>
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<tr>
<td><strong>Attachment E, section IV.C.1:</strong> If the chronic toxicity effluent limit is exceeded, then the Discharger shall conduct one additional toxicity test using the same species and test method. Sampling for this toxicity test shall be at the next qualifying storm event or the next discharge event after notification of the failing toxicity test results. If the additional toxicity test does not exceed the applicable toxicity effluent limitation, then the Discharger may return to the regular testing frequency.</td>
<td>TENTATIVE ORDER R9-2015-0013</td>
<td>multiple facilities under this general order</td>
<td>Groundwater Extraction</td>
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<tr>
<td><strong>Attachment E, Tables E-2, E-3, E-4, E-5, E-6, footnote:</strong> If the pollutant is not detected in the effluent for six consecutive months, the monitoring frequency for this pollutant may be reduced to once per quarter. Upon detection of this pollutant in the effluent, the monitoring frequency shall return to monthly.</td>
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<tr>
<td><strong>Attachment E, section III.A.1.d.ii:</strong> Conduct an additional chronic toxicity test within two weeks of being notified of the failed test results. If the follow-up test results in a “Pass”, no further action is required. If the follow-up test results in a “Fail” at a percent effect greater than or equal to 0.25, the Discharger shall conduct accelerated monitoring every 2 weeks over a 6 week period. All toxicity tests conducted during an accelerated monitoring schedule shall, at a minimum, include the IWC and four additional concentrations. The additional effluent concentrations should provide useful information regarding the intensity and persistence of the toxic effect(s).</td>
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<td><strong>Attachment E, section III.B.1.c.ii:</strong> Conduct an additional acute toxicity test within two weeks of being notified of the failed test results. If the follow-up test results in are below 0.3 TUa, no further action is required.</td>
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<td><strong>Attachment E, section III.B.2.c.ii:</strong> Conduct an additional chronic toxicity test within two weeks of being notified of the effluent limit exceedance. If the follow-up test results are less than or equal to 1 TUc no further action is required. If the follow-up test results are greater than 1 TUc, the Discharger shall conduct accelerated monitoring every 2 weeks over a 6 week period.</td>
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Page 23
NPDES COST OF COMPLIANCE
RECOMMENDATION C

SURROGATE CONSTITUENTS

The following table identifies surrogate constituent or parameter monitoring that properly represents and can be substituted for other constituent or parameter monitoring. Documentation that supports the reliability of the surrogate constituents or parameters is also included.

<table>
<thead>
<tr>
<th>Parameter Required</th>
<th>Example Permit Language (w/ Region)</th>
<th>Potential Surrogate</th>
<th>Current Examples</th>
<th>Scientific Literature / Basis for Reliability</th>
<th>Legal / Regulatory Considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Dissolved Solids (TDS)</td>
<td>Order R5-2014-0072 MRP Influent, Effluent, RSW and RGW monitoring</td>
<td>Electrical Conductivity (EC, Specific @ 25°C)</td>
<td>Both TDS and EC are run on same samples to estimate salt content</td>
<td><em>Standard Methods for the Examination of Water and Wastewater</em>, Methods 2510 (EC), 2520 (Salinity), and 2540C. Note interferences.</td>
<td>Both TDS and EC are measured to estimate salt content of waters. EC measurements require only electrode measurement, whereas TDS requires filtration, oven drying, and scale measurements, resulting in higher test error. EC more accurately estimates actual salinity compared to TDS, as TDS also measures dissolved organic matter in influents and natural waters, resulting in false high results. EC can only measure ions, resulting in minimal interferences. <strong>Cost per sample:</strong> EC: $20-$30 TDS:$40-$50 (Savings 25%-50%)</td>
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</tbody>
</table>
EXAMPLES OF UNNECESSARY REPORTS

Constituent Studies

Order No. R5-2010-0019 (City of Chico) assigned effluent limits for copper, chlorodibromomethane, and dichlorobromomethane. In spite of having effluent limits for these constituents, the order still required the submittal of constituent studies for each.

Order No. R5-2010-0080 (City of Corning) assigned effluent limits limits for dichlorobromomethane. In spite of having an effluent limit for this constituent, the order still required the submittal of a constituent study.

Salinity Elimination Management Plan

Dischargers must prepare a Salinity Evaluation and Minimization Plan (SEMP) with every new discharge permit issued regardless of whether the effluent poses a threat to water quality objectives for salinity-based constituents.

Salinity in the discharge should be evaluated when the reasonable potential analysis is conducted. Facilities with discharges that have reasonable potential to exceed water quality objectives of the receiving water or facilities with discharges that currently exceed water quality goals for salinity should be required to prepare an SEMP. Facilities with discharges that do not have reasonable potential should not be required to prepare this plan or conduct follow up activities in an effort to reach compliance. For small, non-complex systems, a SEMP can cost approximately $25,000 (on average) including consultant fees, staff requirements, and contracting efforts. This cost increases with the complexity of the system.

Quarterly and Annual Reports

Under NPDES permit requirements, permittees have to submit quarterly reports and an annual report. Doing both is redundant as it is the same information, including lab data. If quarterly reports are required, an annual report should not be required that results in added time and resources when the Water Boards already have the same data from the quarterly report.

Similarly, permittees are required to submit annual hydrostatic test reports for discharging hydrostatic test water under NPDES general permits. The requirement to submit annual reports is redundant given that quarterly reports are already required.

Toxics Management Plan

Under a few specific TMDL monitoring requirements around the state, permittees must develop a toxics management plan even if they certify that their facility will not be discharging. The plan does not have to be implemented unless they decide to discharge. In this regard, permittees are required to develop a plan that they do not intend or need to use because they are not discharging and do not plan to discharge into an impaired water body. This is time and resource extensive. Development of this plan should only be required for permittees that will be discharging.

Additionally, implementation of these toxic management plans is costly. One permittee determined that implementation of its toxics management plan would require 80 samples to test fish tissues at a cost of $6,000 per sampling event. The permittee has the option of joining a group to develop the program for $12,300 per year. While this can provide cost savings, it is important to note that the permittee has not discharged under its NPDES permit since 2010.
40 CFR part 503 Requirements

Some NPDES permits contain 40 CFR part 503 requirements. These requirements greatly vary among the regions and can be streamlined.
SUMMARY OF APRIL 22, 2015 DRAFT OF SWRCB TOXICITY PLAN

1. MDEL Exceedance will be an accelerated testing trigger but not a violation (page 13).

2. Accelerated testing will consist of three tests conducted within 45 days and initiated within 7 days of failing MMEL or MDEL. Failing a single accelerated test will trigger a TRE (page 12).

3. Additional tests to demonstrate compliance with the MMEL (maximum total of three) must be conducted within 20 days after the first test – not within the calendar month (page 12).

4. Routine toxicity monitoring will continue during the TRE (page 13).

5. Exceedance of the MMEL (or MDEL) during accelerated testing or the TRE will not result in a violation if the TRE is completed within six months (or longer with permitting authority approval) and all accelerated testing and TRE testing is conducted in a timely manner.

6. The draft Plan does not allow consideration of a multiple concentration test design and even removed the requirement to utilize a multiple concentration test design during accelerated testing (page 10 and 12).

7. The draft plan still requires dischargers to follow the methods for CHRONIC TOXICITY TESTS as established in the following United States Environmental Protection Agency (U.S. EPA) method manuals: Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms, Fourth Edition (EPA-821-R-02-013) – which requires use of a multiple concentration test design (page 10).
Subject: FW: Water Quality Standards Final Rule  
Date: Wednesday, September 2, 2015 at 4:08:24 PM Pacific Daylight Time  
From: Adam Link

I just cross-checked our Tri-TAC/CASA WQS letter with the final rule. I plan to go over it in more detail over the next few days, but I found in my initial review that many of the proposed changes we supported remained. In addition, our request for highest attainable use clarification was incorporated, but our requestes regarding anti-deg were not addressed.

Also, I think it is important to note that EPA did not make the rule changes that were requested by the NGOs, which would have made the new requirements much broader and more stringent.

My quick analysis is summarized below:

- Water Quality Standards Determinations- we supported the proposed clarifications, which remained in the final rule.
- Designated Uses
  - We requested clarifications to the definition of “highest attainable use”, these were incorporated and EPA even went a step further to confirm that there is no required highest attainable use where the State demonstrated the relevant use specific in section 101(a)(2) of the Act and sub-categories of such a use are not attainable. In addition, EPA also added a few subsections, including “(n) Practicable, in the context of 131.12(a)(2)(ii), means technological possible, able to be put into practice and economically viable.” This is a very favorable addition (I assume OMB requested this change).
  - We requested examples of how a highest attainable use would be determined- these were not included.
  - We supported the proposed language confirming when a use attainability analysis is not required, which remained in the final rule.
- Triennial Review
  - We supported the clarification that States and tribes must solicit and consider public comments, which remained in the final rule.
  - We requested that the reference to section 304(a) be removed from this section, but this change was not incorporated into the final rule.
- Antidegradation Implementation
  - We requested that the anit-deg provisions were left general so States and tribes have the flexibility to implement as necessary; however, the final rule includes the requirements to identify high quality waters and complete an alternatives analysis (these requirements were included in the proposed rule also).
- Compliance Schedules
  - We supported the proposed language stating that compliance schedules are “not themselves water quality standards”, but this was removed in the final rule.

I did not review the variance portion of the rule, I believe Debbie Webster provided those written comments. I hope you find the quick summary helpful. I can provide greater details in the next few days and at the meeting next week, but wanted to get you my initial thoughts for your article.

~Shannon
EPA Administrator Gina McCarthy signed the final Water Quality Standards Rule August 5 and NACWA conducted a detailed review of the rule to identify changes made and whether the Association's January 2014 comments were addressed.

In general, the final rule tracks closely with the proposal, with mostly minor changes to further clarify the Agency's intent. A number of more significant changes, however, were made by EPA to key sections based on comments it received. While NACWA's comments on the proposal recommended that EPA not proceed with the regulation and instead address any issues through guidance, a number of positive changes were made in the final rule. This Advocacy Alert outlines the changes EPA made to the six areas it proposed to address: 1) Administrator's Determination; 2) Highest Attainable Use; 3) Triennial Reviews; 4) Anti-Degradation; 5) Variances; and, 6) Compliance Schedules.

Overview of the Final Water Quality Standards Rule

The final rule only directly impacts states and their development and implementation of water quality standards programs. However, several elements of the rule will ultimately have impacts for permittees. This is why NACWA has been following EPA's efforts to propose and finalize these revisions since the late 1990s, when EPA issued an Advanced Notice of Proposed Rulemaking (ANPRM) exploring a long list of potential changes to the WQS program. EPA narrowed that list to the six main areas it proposed to modify in 2013 (78 Fed. Reg. 54518; September 4, 2013): 1) Administrator's Determination; 2) Highest Attainable Use; 3) Triennial Reviews; 4) Anti-Degradation; 5) Variances; and, 6) Compliance Schedules.

The final rule largely accomplishes EPA's stated objectives in all six areas, but key changes were made in response to comments. While NACWA's comments on the proposal recommended that EPA address these issues as needed through guidance rather than through rulemaking, the Agency did make positive changes to the provisions on highest attainable use, triennial review, and variances. The additional clarity on the variance provisions in particular, though limiting some past flexibility, will hopefully encourage more states to use this tool, a positive outcome for permittees. The significance of the rule's impact could depend on what state you are in and how your state may have already been implementing some of these changes. For example, some states were already implementing their anti-degradation provisions consistent with the rule.

EPA's website provides a redline comparison of the proposed and final regulatory language for those interested in seeing the actual revisions, but below is a section by section summary of how things changed from proposal to final.
Administrator's Determination – EPA sought to clarify what constituted an official ‘Administrator's Determination’ to avoid claims, like those made in Florida, that guidance or some other EPA document could be construed as an official determination. Such a determination is made when a new or revised water quality standard is necessary to meet the requirements of the Clean Water Act. Stakeholders in Florida used a decade-old statement from an EPA guidance document to claim that such a determination had been made for nutrients in that state. Clarification of what constitutes a determination is important for identifying EPA's subsequent legal obligations and opportunities to challenge EPA action.

- NACWA supported the proposed change and EPA made only minor, clarifying revisions in the final rule.

Designated Uses/Highest Attainable Use – EPA proposed changes to clarify that when a designated use is determined to be unattainable, the state should ensure that it replaces the use with the “highest attainable use” (HAU). EPA also sought to clarify when a use attainability analysis (UAA) is and is not required for a 101(a)(2) use. The agency is hoping that the HAU requirement will limit the number of instances where states remove a 101(a)(2) use altogether and instead encourage states to develop subcategories or modified 101(a)(2) uses.

- NACWA expressed concern with the wording of the proposed changes, highlighting that some states felt that the changes would limit their flexibility or would mandate additional controls to make incremental progress toward 101(a)(2), fishable/swimmable, uses. In the final rule, EPA retains the HAU provision, making mostly minor revisions to clarify its intent.
- In addition, new language was added to the definition of “highest attainable use” indicating that there is no required highest attainable use where the state has demonstrated that the relevant 101(a)(2) use and any sub-categories are not attainable. This is helpful clarification. While EPA expects such situations to be “rare”, it added the language to clarify that it was a possible outcome.
- NACWA's comments on enhancing the use of UAAs and revisiting flawed existing uses were not addressed.

Triennial Reviews – EPA proposed to outline in more detail what states were required to do during their triennial reviews, including conduct public hearings.

- NACWA commented that EPA went too far in proposing to require states to re-examine their criteria in light of any new or revised 304(a) criteria recommendations that EPA may have published. In the final rule, the language stating that states “shall re-examine” any criteria for which EPA has published new or revised recommendations has been struck from the rule. Instead, EPA requires states to explain their rationale if they choose not to update or revise their standards based on these new or updated federal recommendations. This is a positive change. While the requirement to review is still implicit, EPA focuses instead on requiring that the public and EPA understand the state's reasoning for not updating.
- The preamble to the rule also clarifies that states have the authority to prioritize updates to their standards and chose not to update particular criterion, as long as they provide an explanation. EPA stresses that the state must still seek comment on all standards, even if they do not plan to update them.

Anti-degradation – EPA's proposed changes were intended to require states to follow a more structured process when making anti-degradation/high-quality water decisions to increase transparency and opportunities for public comment.

- None of NACWA's comments were satisfactorily addressed by EPA.
- Though EPA made a few positive wording changes to remove words like 'must ensure' from the discussion of anti-degradation implementation provisions and did not require EPA approval of state implementation procedures, EPA made two significant organizational changes from the proposal. In the proposal, EPA included language about state implementation and use of the parameter by parameter or waterbody by waterbody approaches for making high quality water determinations as well as the need to conduct an alternatives analysis. In the final rule, language
addressing these elements was moved from the paragraph on implementation to the anti-degradation policy paragraph in order to, in EPA's words, ensure consistency with federal regulations and increase accountability and transparency. So while state implementation procedures remain not subject to EPA review, including these elements as components of the state policy will subject them to EPA review and approval.

- EPA also retained language limiting the use of the waterbody by waterbody approach for reviewing high quality waters to restrict states from removing a waterbody from high quality status simply because it does not meet all of the 101(a)(2) uses.
- The main positive highlight from the rule on anti-degradation was the discussion in the preamble on the use of de minimis exclusions that many states have developed. EPA confirms that such exclusions, where consistent with the CWA and the state's anti-degradation policies, are allowed.

**Variances** – EPA proposed to outline what states must document and submit to EPA for an approved variance.

- This section of the final rule was significantly revised. Language indicating that variances should expire no later than 10 years after state adoption has been removed, which is positive. But the provisions for renewal of variances have been struck from the final rule as well. Instead of limiting the length of the variance and allowing for renewals, the rule allows for more open-ended variances, but with requirements for revisiting variances at regular intervals and loss of the variance if it is not revisited.
- NACWA believes the new, final language on variances, though potentially limiting some past flexibility the states may have had, is a positive indication that EPA is committed to ensuring this important tool is actually used.
- The final rule clarifies that the new language on variances does not apply to waters in the Great Lakes basin, which are governed by separate variance provisions outlined in the 1995 *Great Lakes Water Quality Guidance*.

**Compliance Schedules** – EPA proposed to require states that intend to authorize the use of compliance schedules for water quality based effluent limits (WQBELs) in Clean Water Act permits to first adopt permit compliance schedule authorizing provisions. The proposal required that such provisions be consistent with the Clean Water Act and be reviewed and approved by EPA as a water quality standard.

- NACWA commented that it did not think that EPA needed to add a specific requirement to the WQS regulations to accomplish this and that EPA would have the opportunity to review any compliance schedules that were used in a particular permit proceeding. EPA finalized the proposed language with some clarifying changes.
- EPA struck language clarifying that individual compliance schedules were not water quality standards themselves, but the preamble does reiterate that individual compliance schedules are not water quality standards and not subject to EPA approval.

**Water Quality Trading** – While EPA did not seek comment on it, NACWA requested that EPA add new language in 131.13 to expressly recognize that water quality trading programs can be used to meet water quality based effluent limitations in appropriate circumstances. EPA did not address this comment in the final rule language or preamble.

The pre-publication version of the final *Water Quality Standards Rule* was made available immediately after the rule was signed. The rule will be formally published in the *Federal Register* in the coming weeks.
22nd Annual Meeting
California Aquatic Bioassessment Workgroup
3rd Annual California Chapter Society of Freshwater Science

October 20 and 21, 2015
9 am – 4 pm

The Ballroom
Activities and Recreation Center Conference Facility
University of California
Davis, CA

REGISTRATION
There is no fee to attend, but registration is required.

PRE-REGISTRATION

Waterboard Employees: Follow established procedures and submit training request form through your liaison.
Other agencies/attendees: Email your contact information to academy@waterboards.ca.gov to request registration. You will receive an email confirmation of registration.

Location Information:

Directions: Interstate 80 to Hwy 113 north toward Woodland. Take Russell Boulevard exit and turn right on Russell Boulevard. Turn right on La Rue Road. Turn left on Orchard Road and drive directly into Visitor Parking Lot 25.

Parking: Permits are required and cost $9.00 per day. Parking permit dispensers accept quarters, one-dollar bills, five-dollar bills, or VISA and MasterCard.

Online campus map: http://facts.ucdavis.edu/map.lasso

For more information, contact:
Toni Marshall
Water Boards’ SWAMP Program
(916) 322-2518
tmarshall@waterboards.ca.gov
# CASA Biosolids Land Committee Agenda – September 10, 2015

**Orange County Sanitation District**  
**10844 Ellis Avenue**  
**Fountain Valley, CA**

<table>
<thead>
<tr>
<th>Topics</th>
<th>Lead Person</th>
<th>Attachments</th>
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<tbody>
<tr>
<td><strong>1. County Updates</strong></td>
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<tr>
<td>Kern County Litigation</td>
<td>G. Kester, Diane Gilbert</td>
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<td>Ordinance Status</td>
<td>G. Kester/L. Baroldi/D.Gilbert/T.Meregillano</td>
<td>CASA – Letter San Bernardino County</td>
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<td>▪ San Bernardino</td>
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<td><strong>2. State and Federal Regulatory/Legislation/Initiatives</strong></td>
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<td>CalRecycle Regs: Co-Digestion Exemption/Compost/In-Vessel Digestion</td>
<td>G. Kester</td>
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<td>CDFA Healthy Soils Initiative - Fire Ravaged Lands and Mine Reclamation</td>
<td>G. Kester</td>
<td>CASA Biosolids Handout – Healthy Soils Initiatives</td>
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<td>▪ Biosolids Handout - Healthy Soils Initiatives</td>
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<td>Climate Change Pillar on Natural and Working Lands</td>
<td>G. Kester</td>
<td>CASA Carbon Sequestration Letter</td>
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<td>State Water Board Draft Environmental Impact Report and Proposed General Waste Discharge Requirements for Composting Operations</td>
<td>G. Kester</td>
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<td>Cap and Trade Investment Plan</td>
<td>G.Kester</td>
<td>CASA/CWCCG Letter</td>
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<td><strong>3. Biosolids Research/Innovative Technologies</strong></td>
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<td>UC Davis – Endocrine Disrupting Compounds (EDC) Research</td>
<td>G. Kester</td>
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<td>CASA WERF Proposal – Fire reclamation</td>
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<td>WERF - Rare Metal Study</td>
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<td><strong>4. Regional Facilities Updates</strong></td>
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<td>BAB2E</td>
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<td>So. Cal &amp; Central Valley</td>
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<td>Westlake Farms</td>
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<td><strong>5. Industry Association Updates</strong></td>
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<td>CASA</td>
<td>G. Kester</td>
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<tr>
<td>▪ CASA Conference – San Diego</td>
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# CASA Biosolids Land Committee Agenda – September 10, 2015
Orange County Sanitation District
10844 Ellis Avenue
Fountain Valley, CA

<table>
<thead>
<tr>
<th>Topics</th>
<th>Lead Person</th>
<th>Attachments</th>
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<td>▪ Strategic Planning</td>
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<td>CWEA</td>
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<td>SCAP</td>
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<td>CVCWA</td>
<td>D. Webster</td>
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## 6. Conference and Webinars

- California Bioresources Alliance's 10th annual symposium, "Building Healthy Soils": November 4th - 5th, 2015 at the Central Valley Regional Water Quality Control Board, 11020 Sun Center Drive, Rancho Cordova

August 13, 2015

Michael Wetzel
High Desert Government Center
15900 Smoke Tree Street
Hesperia, CA 92345

Subject: San Bernardino County Biosolids Ordinance

Dear Mr. Wetzel:

The California Association of Sanitation Agencies (CASA) is pleased to submit comments on the recently released draft revised biosolids ordinance for San Bernardino County. CASA is a statewide association of municipalities, special districts, and joint powers agencies that represent more than ninety percent (90%) of the sewered population of California, including several in San Bernardino County. CASA has long been a proactive leader on wastewater treatment, biosolids management, recycled water, air quality, renewable energy, and climate change mitigation issues.

CASA appreciates the County’s efforts to revise its ordinance and to allow for the potential of increased biosolids recycling in the unincorporated parts of the County. Biosolids recycling to agricultural and other lands is a time proven practice that increases organic matter and improves soil health, increases crop production and yield, reduces the need to irrigate, sequesters carbon long-term in the soil, and reduces or eliminates the need to use fossil fuel based inorganic fertilizer. Biosolids recycling is also supported by the Statewide General Order No. 2004-0012-DWQ (GO) for land application issued by the State Water Boards along with a Programmatic Environmental Impact Report in 2004. Earlier this year Governor Brown introduced the Healthy Soils Initiative to ensure California soils will support production agriculture for future generations of Californians. The Initiative is being implemented by the California Department of Food and Agriculture. As the state works toward returning to 1990 levels of carbon dioxide equivalent emissions to mitigate climate change impacts, there is increased recognition of the importance of sequestering carbon in the soil and reduced dependence on fossil fuel. Furthermore, the state has adopted a legislative goal to recycle 75% of the solid waste generated in the state by 2020. Recycling of all biosolids help achieve these goals and are supported in policy and regulation across the state. Two national academies of science reports have supported the federal regulations for the land application of biosolids along with decades of research at universities across the globe.

CASA requests several modifications to the draft ordinance in support of everything outlined above:

1. The allowance for the land application of Class B biosolids as stipulated in both federal (40CFR503) and state (GO) regulations. In fact the California State Water Boards in adopting the statewide GO and PEIR state that the land application of Class B biosolids is the highest and most beneficial use option available for the management of biosolids; and

2. The allowance for use of biosolids for the reclamation of fire ravaged land, superfund mine sites, overgrazed rangeland, and brownfields. Such reclamation has been shown to be
exceedingly successful and is supported at both the state and federal levels. It often requires a one time application at rates higher than the agronomic rate and would thus be prohibited by the ordinance. However, extensive research across the nation and within California, have documented the benefits of such reclamation projects and can be tremendous assets to California.

3. The allowance of Class A Exceptional Quality biosolids such as compost or heat dried pellets for use in landscaping, golf courses, home use, and other beneficial practices as provided for in part 503 without the restrictions outlined in the draft ordinance. Such restrictions seem intended for bulk application on agricultural land, but as written would seem to apply to all practices. Clarification is therefore requested, and provisions articulated to exclude uses described above.

4. Definitions are not consistent with state or federal law in several cases and should be revised accordingly.

Clarification of these issues is respectfully requested and CASA stands ready to assist in any way the County would desire, which could include: assisting with language revisions, the development of requirements or standards, providing data on research and the science to support such practices, and we would be happy to answer any questions or to provide further clarification as appropriate.

Thank you very much for your consideration of these requests and please don’t hesitate to contact me with any questions or for more information at gkester@casaweb.org or 916-844-5262.

Sincerely,

Greg Kester
Director of Renewable Resource Programs

cc: Scott Couch – State Water Resources Control Board
    Johnny Gonzales – State Water Resources Control Board
    Lauren Fondahl – US Environmental Protection Agency Region 9
What are Biosolids?

Biosolids are a nutrient-rich, natural by-product of wastewater after it is treated. It is highly processed and analyzed to ensure public safety. Biosolids are generally used in one of four forms:

- moist solid
- dried pellets
- liquid
- compost

Biosolids are often used as a fertilizer and to improve soil health, but may also be used as daily cover at landfills.

Soil Enrichment

Biosolids provide multiple benefits for healthy, sustainable soils, such as:

- Improving soil’s ability to absorb and store moisture; reducing the need to irrigate, and providing natural drought-resistance
- Improving soil quality and crop health, and increasing crop yields by providing nutrients, beneficial metals, organic matter, and other benefits.
- Storing carbon in the soil and reducing greenhouse gas emissions and energy consumption (unlike fossil-fuel-based, inorganic fertilizer)
- Most of the nitrogen in biosolids is organic, acting as a slow-release fertilizer, providing nitrogen when the crop needs it rather than all at once

Land Reclamation

Because biosolids have high organic content, they’re exceptional at reclaiming fire-ravaged land while reducing the potential severity of future fires. And, coupled with their ability to strongly bind contaminants, they are also highly beneficial for reclaiming superfund mine sites, contaminated urban soils such as brownfields, overgrazed rangeland, and select wetlands.
Highly Regulated for Safety
To ensure public and environmental safety, all aspects of biosolids use are carefully planned and implemented according to comprehensive federal, state, and local regulations.

Biosolids and the Environment
It’s a common misconception that biosolids contain harmful levels of heavy metals. First, pre-treatment requirements regulate what can be discharged to wastewater treatment plants. Then, rigorous treatment, management practices, and regulatory oversight lower metal content and minimize or eliminate viable pathogens and the possibility of attracting any carriers of pathogens.

Helping California Achieve Legislative Goals
A process called anaerobic digestion, used to treat solids from more than 90% of wastewater flow at California treatment plants, actually produces methane, which is then used as a fuel source. Coupled with biosolids recycling, this allows wastewater treatment plants to help the state achieve its legislative goals and mandates, including:

- A return to 1990 levels of carbon dioxide equivalent emissions
- The production of at least 33% of energy needs from renewable sources
- The recycling of 75% of the solid waste generated in the state
- A 10% reduction in the carbon intensity of transportation fuel
- Healthy soils for production agriculture
- Reduce short-lived climate pollutants for climate change mitigation

Want to Learn More About Biosolids?
Please visit casaweb.org for our biosolids factsheet and additional information.
August 31, 2015

California Air Resources Board
Attn: Mr. Michael Tollstrup
PO Box 2815
Sacramento, CA 95812

Dear Mr. Tollstrup:

The California Association of Sanitation Agencies (CASA) is pleased to submit comments on the Climate Change Pillar on Natural and Working Lands. CASA appreciates the opportunity to work with the State toward proactive solutions for this critical pillar to advance soil health and mitigate climate change.

CASA is a statewide organization representing cities, counties, and special districts that provide essential public services through wastewater collection, treatment, biosolids management and recycling, renewable energy production, and water recycling services to millions of Californians. CASA's membership includes small, medium, and large agencies representing more than 90% of California's sewered population. CASA members are actively engaged as partners with the state to fulfill by 2020 a number of mandates and initiatives intended to deliver renewable energy and mitigate climate change impacts. These include: (1) providing 33% of the state’s energy needs from renewable sources; (2) reducing carbon dioxide equivalent emissions to 1990 levels; (3) reducing the carbon intensity of transportation fuel used in the state by 10%; and (4) recycling 75% of the solid waste generated in the state. Additionally, CASA is committed to assisting the state in implementing the Healthy Soils Initiative and in minimizing the release of Short Lived Climate Pollutants (SLCP).

Publicly owned treatment works (POTWs) must responsibly manage biosolids which are produced as part of the wastewater treatment process. CASA strongly recommends that the benefits of biosolids be explicitly included in the further development of plans to implement this pillar. Roughly 60% of the biosolids managed in California each year are land applied in agricultural or horticultural settings which improve soil health, sequester carbon, and increase crop production. Biosolids help to mitigate climate change by reducing or eliminating the use of fossil fuel intense inorganic fertilizer and by increasing long-term sequestration of carbon in soil. Roughly 0.22 gallons of fossil fuel is required to produce every pound of inorganic nitrogen fertilizer, illustrating the tremendous offset gained by using biosolids as a substitute. Because biosolids are an organic matrix, rich in organic carbon and nitrogen as well as other valuable micro and macro nutrients, biosolids improve soil tilth, reduce the need for irrigation because of their excessive water holding capacity, and increase crop production.

Furthermore, biosolids can be utilized to reclaim fire-ravaged land, control erosion, and reduce the potential severity, and climate change impacts, of future fires by allowing native vegetation
to outcompete invasive species which become dried out fuel by early summer. Such reclamation can aid in the reduction of the release of black carbon through wild fires. CASA has a California based research team already in place and research objectives scoped to help quantify the benefits of biosolids for fire reclamation and suppression.

CASA supports the Marin Carbon Project and the other invaluable efforts presented at the August 5th workshop. We would, however, recommend that other research teams, including Stanford based ReNUWit, be consulted to ensure the complete spectrum of options are taken into consideration while developing the implementation plan.

CASA stands ready to assist the State in the development of its implementation plan and to provide any information or data to support the use of biosolids that may be desired. Please feel free to contact me at gkester@casaweb.org or at 916-844-5262 with any questions or for further clarification.

Sincerely,

Greg Kester
Director of Renewable Resource Programs
September 1, 2015

Mary Nichols, Chair
California Air Resources Board
1001 “I” Street
Sacramento, CA 95814

Submitted electronically:
http://www.arb.ca.gov/lispub/comm2/bcsform.php?listname=investplan2015-
ws&comm_period=1

Re: California Wastewater Climate Change Group and California Association of
Sanitation Agencies Comments on the Cap-and-Trade Auction Proceeds Draft Concept
Paper for the Second Investment Plan (Fiscal Years 2016-17 through 2018-2019)

Dear Chairman Nichols and Board Members:

The California Wastewater Climate Change Group (CWCCG) and California Association
of Sanitation Agencies (CASA) appreciate the opportunity to comment on the Cap-and-
Trade Auction Proceeds Draft Concept Paper for the Second Investment Plan. The
CWCCG and CASA are statewide groups of municipalities that collect and treat over 90
percent of municipal wastewater in California, many of whom also provide recycled
water services and actively participate in the beneficial use of biosolids and biogas. Our
joint mission is to address climate change policies, initiatives, and challenges through a
unified voice advocating for wastewater community perspectives. Our members are
focused on helping the State achieve its multiple mandates and goals by 2020 (and
beyond to 2030 and 2050), including:

– Reducing carbon dioxide equivalent emissions to 1990 levels
– Reducing carbon intensity of transportation fuel used in the State by 10 percent
– Providing 33 percent of the State’s energy needs from renewable sources
– Recycling 75 percent of the solid waste generated in the State
– Increasing the carbon in soil under the Healthy Soils Initiative
– Reducing short-lived climate pollutant (SLCP) emissions (which is a key theme of
the Second Investment Plan)

As stated in the SLCP Reduction Strategy, CWCCG and CASA agree that publicly owned
(wastewater) treatment works (POTWs) are part of the solution. We strongly support
the inclusion of wastewater related projects as part of the Second Investment Plan,
and recommend that wastewater projects (and their co-benefits) be made more
explicit in the listed Investment Concepts. We provide examples of projects to consider
as Investment Concepts, as well as recommended text edits to the Concept Paper.

The primary focus for POTWs is water quality and providing an essential public service;
however, the wastewater sector can "maximize resource recovery from a wide array of
waste streams and potential end-products." Of tremendous importance is the fact that
POTWs can do this largely by utilizing existing infrastructure (e.g., anaerobic digesters), with minor modifications. This makes wastewater projects immediate, cost effective, and extremely competitive candidates for funding through Cap-and-Trade auction proceeds.

Anaerobic digestion (AD) is a typical part of the wastewater treatment process employed at many POTWs across the state. More than 90 percent of wastewater flow in California is treated at POTWs that have AD as the solids treatment process. The AD process produces biomethane, which is converted into power at the majority of these POTWs. This power production generally provides between 40 and 70 percent of the POTW's energy needs, significantly reducing demand from the grid and offsetting the need for fossil-fuel based power with a renewable energy source. The acceptance of hauled-in organic waste such as fats, oils and grease (FOG), food waste (source separated), vegetative food waste (cannery, food processing, etc.), and others for anaerobic digestion at POTWs is a steadily increasing practice, and an important management option for this valuable waste stream. The addition of these feedstocks into the AD system leads to the production of more biomethane (and hence, additional power production) and simultaneously diverts organics from landfills. Some wastewater entities have been able to meet 100 percent of their power needs by taking advantage of these processes and are now able to produce excess renewable energy that could potentially be fed back to the grid. The biomethane produced (or a portion of it) can, if cost effective, be processed into low carbon intensity transportation fuel or used for pipeline injection. This may especially be attractive in air districts certified as being in severe nonattainment for ground level ozone standards under the Clean Air Act. Allocating a portion of Cap-and-Trade auction proceeds to POTW’s is essential to making many of these projects cost effective. Some of the investments that POTWs can make include:

- Upgrading AD systems (improved mixing, heating, etc.) to increase biomethane generation
- Constructing receiving facilities to accept hauled-in organic waste for co-digestion to increase biomethane generation
- Upgrading power generating and heating systems to convert biomethane into usable energy
- Addition of emission controls to power generating equipment (as may be required in some Air Districts) thereby allowing continued production and utilization of biomethane opposed to flaring it
- Development and implementation of systems designed to process biomethane into low carbon fuel
- Construction of facilities to condition biomethane for pipeline injection (offsetting natural gas use)
- Increasing biosolids land application which minimizes the use of fossil fuel based inorganic fertilizer, sequesters carbon in the soil, and significantly enhances soil health and crop production

This is an extensive, though certainly not exhaustive, list of the types of multi-benefit projects that POTWs could engage in with Cap-and-Trade auction proceeds. Additionally, there are many opportunities for POTWs to partner with other sectors (e.g., forestry, transportation, agriculture, etc.) to realize significant air quality improvements.

The SLCP Reduction Strategy correctly states that POTWs are capable of contributing toward multiple statewide goals in a single project (e.g., co-digesting organic waste with wastewater solids):

- Significantly reducing emissions of methane by maximizing the use of existing anaerobic digesters through the receipt of hauled-in organic waste for co-digestion
- Increasing the productive use of the captured biomethane through power generation, pipeline injection, or conversion to transportation fuel
– Sequestering carbon in soil and avoiding use of fossil fuel-intense inorganic fertilizer while improving soil health through the application of biosolids to agricultural land and increasing the soils water holding capacity

Furthermore, biosolids can also be used to reclaim superfund mine sites and fire ravaged land, reducing the potential severity of future wild fires (the primary source of black carbon).

In addition to the co-benefits listed above, many POTWs are located near or in the midst of disadvantaged communities - improvements to increase efficient operation, reduce flaring (wasting) a renewable resource (biomethane), and contribute to other greenhouse gas emissions reducing projects will directly benefit these communities.

Specific edits to the Concept Paper and recommendations for your consideration are provided in Appendix A attached.

Support and funding are needed to advance practices which constitute the “low hanging” fruit in the reduction of greenhouse gas emissions (including SLCPs). We recommend allocation of cap-and-trade auction proceeds to the State Water Resources Control Board as a key source of funding for POTW projects.

Please contact us if you have any questions at (916) 446-0388 or via email at gkester@casaweb.org and sdeslauriers@carollo.com. We welcome the opportunity to further discuss the wastewater community’s position and help ARB proactively achieve the commendable State goals and mandates for 2020 and beyond.

Sincerely,

Greg Kester
CASA Director of Renewable Resources Program

Sarah A. Deslauriers, P.E.
CWCCG Program Manager

cc: Ryan McCarthy – ARB
Fran Spivey-Weber – Board Member, SWRCB
Dorene D’Adamo – Board Member, SWRCB
Scott Smithline – Director, CalRecycle
Karen Ross – Secretary, CDFA
Jenny Lester Moffitt – Deputy Secretary, CDFA
Julia Levin – Executive Director, BAC
Greg Kester – Director of Renewable Resource Programs, CASA
Bobbi Larson – Executive Director, CASA
## Appendix A

<table>
<thead>
<tr>
<th>Category</th>
<th>CWCCG/CASA Comments/Recommendations</th>
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<tr>
<td>General</td>
<td>POTWs are referenced inconsistently (and at times erroneously) throughout the Concept Paper as water agencies, water utilities, sanitation agencies, waste agencies, wastewater treatment facilities, water treatment plants, etc. We recommend they be referenced as <strong>Publicly Owned Treatment Works (POTWs)</strong> throughout the Concept Paper to eliminate confusion.</td>
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<tr>
<td>Page 20, 3rd Paragraph</td>
<td>The third and fourth sentences contain incorrect information. We recommend rewording the sentences to correct it:</td>
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<td>&quot;Addressing this need will require redirecting organic matter originally sent to municipal waste facilities (such as landfills) to compost and anaerobic digestion facilities (including sanitation agencies) that can use it to generate useful products, such as biogas and digestate (i.e., agricultural soil amendment). Biogas can generate renewable energy onsite, be used as a local low-carbon transportation fuel, or be injected into a pipeline for use in other locations.&quot;</td>
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<tr>
<td>Page 20, Last Paragraph</td>
<td>Remove &quot;...or water treatment&quot; from the first sentence. Organic waste should be diverted to sanitation agencies (or &quot;water treatment&quot; as it is referred to in the original sentence) for processing and generating useful byproducts. The new sentence should read:</td>
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<td>&quot;There are also additional opportunities for achieving greenhouse gas reduction from utilizing the resources from the organic waste, whether it is generated from natural and working lands or diverted from landfills.&quot;</td>
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<td>Transportation &amp; Sustainable Communities</td>
<td>Figure 3 (Page 12), under Alternative Fuels and Infrastructure, <strong>POTWs</strong> should be listed as Potential Recipients for incentives for in-State production of low carbon intensity renewable fuels and fueling infrastructure.</td>
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<td>Clean Energy &amp; Energy Efficiency</td>
<td>Figure 5 (Page 17), under Low-Carbon Water System, <strong>POTWs</strong> should be listed as Potential Recipients for incentives for renewable energy generation, improved energy efficiencies (including pumps, turbines, and existing desalination plants), and reduced demand for carbon-intensive water.</td>
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<td>Natural Resources &amp; Waste Diversion</td>
<td>Figure 7 (Page 21), under Protect and Grow Carbon Stocks on Natural and Working Lands, <strong>POTWs</strong> should be listed as Potential Recipients for incentives to:</td>
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<td>- Improve management and restoration activities on public and private natural and working lands to improve carbon sequestration.</td>
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<td>- Support for net greenhouse gas reductions and carbon sequestration on agricultural and working lands, including healthy soil practices.</td>
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<td>Figure 7 (Page 21), under Reduce Methane Release from Organic Waste, <strong>POTWs</strong> should be listed as Potential Recipients for incentives to:</td>
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<td>- Create compost from organic byproducts of anaerobic digestion.</td>
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<td><em>Edit:</em> This should also be listed under the Waste-to-Fuel category, not only the Landfill category.</td>
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<td>- Equipment and infrastructure to create transportation fuel from digester biogas.</td>
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<td><em>Edit:</em> The Waste-to-Fuel category investment concept should list wastewater biogas. We suggest rewording the statement to read -</td>
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<td>&quot;Equipment and infrastructure to create transportation fuel from wastewater digester, dairy digester, biomass, and existing landfill biogas to fuel on-site heavy duty trucks.&quot;</td>
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<td>While not in the jurisdiction of POTWs, communities served by septic tank systems looking to convert to centralized systems or potential expansion of municipal systems to install collection systems for areas using septic systems could also be considered in this category of Investment Concept. The co-benefits of these types of projects include: decrease in vented methane from septic tanks; increase in digested solids leading to an increase in biogas generation for onsite power generation, pipeline injection, or conversion to transportation fuel; increase in production of biosolids which are a soil amendment that can be land applied to improve soil health resulting in carbon sequestration in the soil below and offset the use of fossil fuel intense inorganic fertilizer.</td>
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