From: Nicole Gleason
Sent: Wednesday, May 04, 2016 6:50 PM
To: Poonum Patel; Patrick Nevis
Cc: George Rodarakis; Eric Papathakis
Subject: CMC: Summary of Background Information and Comparable Enforcement Actions
Attachments: CMC - Pipe.pdf; SWRCB Enforcement Policy.pdf

Poonum –

Rather than providing our correspondence to the Regional Board which is protected by the mediation privilege, I'm summarizing below information regarding CMC, the State Board's Enforcement Policy and how our facts compare to a recently approved settlement agreement with the Rego Dairy and to an enforcement action brought against the Tosta Dairy. In addition, a copy of the Enforcement Policy and pictures of the broken pipe in the middle of the rupture are attached.

The Property and the Rupture

CMC, which is comprised of family and extended-family members, acquired the Site on May 30, 2014. CMC intended to convert the Site into a creamery that would be operated by, and generally for, the family. CMC never operated the either of the two former dairies. The rupture, discussed below, occurred eighteen months after CMC acquired Site.

Regarding the former John Nunes Dairy #1, located on the western portion of the dairy, CMC submitted a closure plan shortly after escrow closed. With the Central Valley Regional Water Quality Control Board's (Regional Board) approval, CMC removed a waste settling basin, a manure separator, a manure storage pad, three freestall barns, two calf barns, a commodity barn, and a milk barn in 2014 and 2015. Demolishing the former John Nunes Dairy #1 was a significant expense for the newly formed CMC, and reduced their short-term income potential. However, it was the first step towards establishing the creamery and was celebrated as a major milestone. It also provided obvious environmental benefits since it eliminated potential future primary release sources.

In preparation for the significant redevelopment costs associated with the creamery, CMC began approaching investors and leased a portion of the remaining dairy. The tenant housed approximately 400 mixed age heifers on the Site. Additionally, the tenant agreed and acknowledged that it would maintain and repair the facility, including the lagoon, and that it would ensure compliance with all laws, regulations and permit requirements.

On the morning of November 20, 2015, Turlock Irrigation District (TID) notified CMC that the pond had ruptured due to unknown causes (CMC believes the rupture was caused by an unknown pipe buried within the lagoon wall). CMC immediately moved to fix the problem. Calling on their network, CMC family members were able to immediately orchestrate response actions. Within two hours of being notified that the lagoon berm had failed, CMC repaired the lagoon and had begun pumping water back to the lagoon. Within six hours, CMC cleared nearly all water from the roadway and arranged to have over one million gallons of water from the TID lateral diverted to a family friend's field. The family identified any domestic wells in the water's pathway, tested wells at two neighboring properties, and sampled the water that had discharged from the

lagoon. Within eight hours, the remaining water along West Linwood Avenue (down to the smallest of micro-puddles) had been vacuumed and removed. Ultimately, the County deemed the cleanup complete in less than twelve hours.

In the days that followed, CMC paid to have affected wells and other identified property sanitized, and they graded and re-graveled their neighbors' damaged driveways. Moreover, within forty-eight hours of the Regional Board's December 2, 2015 directive, CMC provided replacement water to neighboring properties.

CMC, in a show of good faith, met with the Regional Board on February 22, 2016, to review the recently issued California Water Code section 13267 directive and the collected data, and to confirm the next steps. Nine days after the meeting, CMC family members discovered that the Regional Board intends to assess a $3 million penalty, the maximum amount possible. Although CMC does not believe that the release gives rise to a penalty in any amount, and questions whether the Regional Board is using its discretion to reach a fair result or is applying its enforcement policy in a consistent and fair manner, the family remains committed to cooperating with the Regional Board. However, a $3 million penalty is beyond reasonable and beyond CMC's ability to pay.

The State Board's Enforcement Policy

The State Water Board's stated policy is "that the Water Boards shall strive to be fair, firm, and consistent in taking enforcement actions throughout the State, while recognizing the unique facts of each case." (Enforcement Policy at p. 2.) Two California State Legislators applauded the Water Board's adoption of the Enforcement Policy because "predictable, consistent and fair enforcement is required to ensure compliance with water rights laws." Enforcement actions must provide consistent treatment for violations that are similar in nature and have similar water quality impacts. (*Ibid*.) When the calculated penalty is disproportionate to recent assessments for similar conduct assessed under the same Enforcement Policy, the penalty warrants an adjustment. (Enforcement Policy at p. 19.) For example, in the enforcement action against Morning Star Packing Company, the Regional Board issued an administrative civil liability order (Order No. R52016-0008), in which it reduced the base penalty because another recently issued order assessed a smaller penalty for a similar violation. (Attachment A to ACLO R5-2016-0008 at p. 16.)

We also note that in addition to the adjustment tools that allow the Regional Board to assess a penalty in line with the enforcement actions cited below, the Regional Board has additional mechanisms it may use to adjust the base liability amount to meet the Enforcement Policy's overarching requirement that it be consistent and fair. Penalty reducing methods include: assessing the penalty on a per day basis, instead of per gallon basis; use of the high volume discharge per gallon factor; a SEP credit for the closure of the former dairy; a SCAP grant for any future response actions required by the Regional Board; an adjustment of the final penalty amount to reflect the lack of an economic benefit or need to deter; an adjustment of the final penalty amount based upon inability to pay; an adjustment of the final penalty to reflect an inability to continue in business; a cash payment plan; and any other adjustments as justice may require. Last, we note that during settlement negotiations, the Enforcement Policy instructs the Regional Board to consider weaknesses in the enforcement action that may adversely impact the team's ability to obtain the calculated liability including equitable factors, mitigating circumstances, evidentiary issues or other weaknesses.

The Regional Board has the Discretion to Treat the Release as a "High Volume Discharge" Per the Provisions of the Enforcement Policy

We reviewed enforcement actions involving releases from sewer facilities in order to better understand the Regional Board's assertion that CMC's high volume discharge should not be treated similarly to other high volume discharges. Pursuant to the Enforcement Policy, it is necessary to reduce the per gallon penalty from $10 to $2 or $1 for high volume discharges to avoid an inappropriately large penalty. As we understand the Regional Board's position, the Regional Board does not believe that partially treated wastewater is equivalent to wastewater released from a dairy lagoon. As such, the Regional Board has stated it will not reduce the per gallon factor from $10 to $2. The Regional Board's position is not consistent with prior enforcement practices throughout the state.

The Regional Board has in fact reduced the per gallon factor for discharges of raw sewage directly to creeks and other waterways to less than twenty-five cents ($0.25) per gallon. Although over 2 million gallons of raw sewage was released by the City of Isleton, which had a history of violations and failed to cooperate with the Regional Board on prior releases, the Regional Board assessed the City a penalty at the rate of $0.21 per gallon in 2010. The penalty totaled $415,000, but the discharger was able to offset $375,000 of the penalty by studying the capacity of its system and replacing the system that failed. The remaining portion of the penalty paid to the Regional Board totaled $15,000 and was paid in eight monthly installments. Other enforcement actions involving large volume discharges revealed similar themes: although raw sewage was discharged directly to sensitive receptors, the per gallon factor was reduced to less than $0.25. In 2005, the Regional Board collected $0.13 per gallon from the City of Modesto for a release of 1,198,314 gallons of raw sewage that was discharged directly to Dry Creek. In 2008, the City of Sacramento discharged over 800,000 gallons of raw sewage directly into Arcade Creek, and the Regional Board assessed a penalty of $201,000, which equates to a $0.24 per gallon.

Contrary to the position taken by the Regional Board in the CMC action, we contend that the High Volume Discharge provision is not limited to sewage spills or releases of stormwater from municipalities or construction sites, but applies to other high volume discharges, including dairy wastewater. The Regional Board's recent enforcement actions comport with our understanding of the scope of the Regional Board's discretion to apply the High Volume Discharge adjustment to high volume discharges not specifically referenced in the Enforcement Policy. The complaint issued to Morning Star Packing Company calculated the per gallon penalty using the $2 per gallon penalty, rather than the $10 penalty, for a high volume discharge from the tomato packing facility's wastewater ponds. As such, we continue to hold the position that any penalty assessed against CMC should reflect the application of the High Volume Discharge adjustment.

Comparison to Central Valley Dairy Lagoon Wastewater Enforcement Action - the Rego Dairy

In July 2012, the Regional Board issued an administrative civil liability complaint against the Rego Dairy #2 ("Rego Dairy"), located in Gustine, Merced County (the "Rego Complaint"). (R5-2012-0554.) The Regional Board performed an inspection at Rego Dairy #2 in February 2012 and discovered a series of violations including onsite burial of dead cows, a lagoon plumbed to discharge directly into a drainage ditch that was a tributary to the Central California Irrigation District Main Canal, and a septic system designed to drain to the

same drainage ditch. Notably, each of these violations, by their nature, includes an element of knowing and intentional conduct by the perpetrators. During the inspection, the Regional Board collected samples from the various points within the drainage ditch, and test results found concentrations of ammonia in all samples at levels toxic to aquatic organisms. (*Id*. at pp. 2-3.)

The Regional Board, in March 2012, issued a Cleanup and Abatement Order to the Rego Dairy that required it to immediately stop all off-property discharges to the drainage ditch, remove all dead cows and dispose of them properly, and make multiple improvements to the lagoon. (Rego Complaint at p. 3.) The Regional Board conducted follow up inspections to assess the dairy's compliance with the CAO and noted significant compliance issues that remained unaddressed. (*Ibid*.)

On July 13, 2012, the Regional Board issued an administrative civil liability complaint to the Rego Dairy. The Complaint included violations for discharges from three distinct areas: (1) dead cow burial ground; (2) the lagoon; and (3) septic area. (Rego Complaint at pp. 5-8.)

i. Dead Cow Burial Ground

The Rego Dairy buried dead cows on the property from 2002, when it purchased the property, up until the Regional Board inspection in February 2012. (Rego Complaint at p. 5.) During its inspection, Regional Board staff discovered a large animal burial zone that included at least fifty dead cows in various stages of decomposition, some of which were in a manure pile. (Rego Complaint at p. 5.) A stream of water was discharging from the burial area to the drainage ditch. (*Ibid*.) Water samples collected from the drainage ditch exceeded water quality objectives for ammonia, unionized ammonia, total dissolved solids, and total kjeldhl nitrogen. (*Ibid*.)

The Dairy General Order prohibits disposing of dead animals in any "liquid manure or process wastewater." (Rego Complaint at p. 6.) Photographs confirmed that the Rego Dairy had been disposing of dead cows on the property from March 2008 through March 2012. (*Id*. at p. 5.) The Regional Board Prosecution Team alleged that the Rego Dairy, through burying the dead cows, had violated the Dairy General Order from March 2008 through March 2012, for a total of 1,484 days. (*Ibid*.)

ii. Lagoon Design and Maintenance

The Regional Board discovered during its February 2012 inspection a PVC pipe on the lagoon that was discharging manure wastewater directly to the drainage ditch. The pipe had been partially plugged, but the blockage failed. (Rego Complaint at p. 6.) Regional Board staff confirmed through historic photos that the pipe was in place as far back as 2008. (*Ibid*.) At the time of the inspection, staff observed that the lagoon was filled with solids, allowing only a few inches of freeboard. An active, gravity-flow discharge from the lagoon pipe to the drainage ditch was also observed during the inspection. (*Ibid*.) Staff further noted erosion paths that indicated the lagoon had overtopped into the drainage ditch. (*Ibid*.) The drainage ditch contained a significant amount of manure wastewater. (*Ibid*.)

The Regional Board alleged that the Rego Dairy violated Water Code sections 13376 and 13385 by discharging lagoon wastewater to the drainage ditch. The Regional Board determined that the lagoon had

been full since 2008 and had been discharging some manure waste through the pipe every day from February 2008 through March 28, 2012. (Rego Complaint at p. 7.) "The Central Valley Water Board, however, [] exercise[ed] its discretion to allege the discharge violation [occurred] from February 1, 2012, the [day the] violation was discovered until March 28, 2012, the date the pipe was confirmed to be capped, a total of 57 days." (*Ibid*.)

iii. Septic System Design and Maintenance

The dairy contained three or four homes occupied by the dairy workers. Regional Board staff witnessed associated septic waste bubbling to the ground surface. (Rego Complaint at p. 7.) "The septic waste was flowing along the ground surface and had been directed down a swale to the drain ditch." (*Ibid*.) The Regional Board performed a subsequent, follow up inspection and again found septic waste flowing in the same location as during the previous inspection. (*Ibid*.) Staff also discovered a septic line actively discharging directly to the drainage ditch. The dairy informed Regional Board staff that the septic discharge pipe was in place when the Rego owners purchased the property in 2002. (*Ibid*.) Regional Board staff commented, "[i]t is likely the [Rego Dairy] has violated Water Code Section 13385 every day since the pipe was installed decades ago." (*Ibid*.)

Regional Board staff alleged that the Rego Dairy violated Water Code sections 13376 and 13385 by discharging septic waste directly to the drainage ditch. (Rego Complaint at p. 7.) Although the Regional Board staff found it likely that the discharge had occurred for decades, the board exercised its discretion and alleged a discharge violation occurred from February 1, 2012, the date the discharges were first observed, until May 23, 2012, the date the discharges ceased, for a total of 113 days. (*Id*. at pp. 7-8.)

iv. Rego Dairy Penalty Assessment

The Regional Board noted in the complaint that the maximum penalty it could have assessed against Rego totaled $9,120,000. (Water Code section 13385 carries a maximum penalty of $10,000 for each day the violation occurred, while Water Code section 13350 carries a penalty of $5,000 for each day the violation occurs.) In reality, the Regional Board could have calculated an even higher maximum penalty. The Board obtained admissions from the owners and additional photographic evidence showing that each violation had occurred for many years; however, the Board did not calculate the violation days based on when the violation commenced. Instead, the Board used its discretion to allege Rego's violations began on the day the Regional Board inspected the dairy and discovered the violations. For example, the Rego owners admitted burying dead cows from 2002 through 2012 (approximately ten years), but the Board alleged the violation began on March 2008 (approximately four years). The Regional Board, therefore, could have assessed a penalty even higher than $9.1 million. However, despite the Executive Officer's statement regarding the egregious nature of the violations, the Regional Board assessed a penalty far less than the maximum amount permitted by law.

After setting $9.12 million as the maximum penalty using the date of the inspection as the commencement date, the Regional Board again significantly reduced the penalty by further limiting the number of violation days used to calculate the total penalty. As provided in the Enforcement Policy, because the violations lasted more than thirty days, the Regional Board has discretion to reduce the number of

violation days if certain findings are made. After evaluating the violations and making the requisite findings, the Regional Board decided to reduce the number of violation days for each violation. For example, the Regional Board alleged that Rego had violated the Dairy General Order for 1484 days, but reduced the assessment to 42 days when calculating the final penalty. (Attachment A to ACL Complaint No. R5-2012-0554 at p. 3.) Ultimately, the Regional Board assessed a penalty of $272,928 against the Rego Dairy and settled for $83,702. (Order No. R5-2013-0546 (Rego Settlement) at p. 4.) The Prosecution Team explained that it believed the adjustment from $272,928 to $83,702 was fair based upon the Rego Dairy's lack of financial resources, the fact that the dairy farm was no longer operating, and the dairy's cooperation in complying with the CAO.

Here, the discharge on the CMC property was not the result of any knowing or intentional conduct by CMC or its tenant. The breach was likely caused by conditions created and existing prior to CMC's assumption of ownership and control of the property. Like Rego Dairy, CMC has demonstrated its lack of financial resources and, despite the lack of financial resources, CMC has expressed a willingness to cease operation of the facility, thereby terminating its main revenue source. Finally, CMC has, to the best of its ability, cooperated and complied with every request made by the Regional Board. Nevertheless, the Regional Board has maintained its position that it will pursue the maximum penalty against CMC.

v. Rego Dairy, CMC, and Fair and Consistent Enforcement

As discussed above, each of the Water Boards are to be fair and consistent in their enforcement actions, and must provide consistent treatment for violations that are similar in nature and have similar water quality impacts. (Enforcement Policy at p. 2.) Moreover, a penalty reduction is appropriate when the calculated amount is disproportionate to recent assessments for similar conduct under the same Enforcement Policy. (Enforcement Policy at p. 19.) The Regional Board issued the Rego Complaint in July 2012 and assessed the penalty using the Enforcement Policy effective today. Additionally, Rego provides guidance with respect to the current enforcement action as both enforcement actions relate to lagoon discharges that occurred at dairies within the Central Valley. As such, in the current enforcement action against CMC, the Regional Board must consider how it assessed the base penalty amount, the final penalty amount and settlement terms in the Rego Dairy enforcement action.

In Rego, the dairy owner actively and intentionally violated multiple provisions of the Water Code and Dairy General Order. First, Rego admitted to burying dead cows, a violation of the Dairy General Order, immediately upon purchasing the dairy and continuing this practice for ten years thereafter. Rego then allowed wastewater to discharge from the dead cow burial ground directly to a drainage ditch that led to the Central California Irrigation District Main Canal. Second, the lagoon was designed so that wastewater would discharge through a PVC pipe directly to the drainage ditch. The Regional Board determined that the lagoon discharged directly to the drainage ditch daily for a four year period. Erosion patterns evidenced that the lagoon had overtopped into the drainage ditch. Third, septic waste had been directed through a swale to the drainage ditch. Moreover, a septic discharge pipe discharged directly to the drainage ditch. Rego stated the pipe had been there when he purchased the dairy in 2002, ten years prior to the enforcement action.

With these facts in mind, the Regional Board must consider what took place at the Rego Dairy and compare it with CMC's discharge. Rego intentionally created three distinct discharge sources that violated the Dairy General Order and the Water Code. Commenting on the severity of the Rego Dairy violations, Water Board Executive Officer Pamela Creedon stated, in a July 23, 2012, press release, "[t]hese violations are extremely egregious." In contrast to Rego, CMC suffered a one-time, unfortunate event in which the lagoon berm failed. CMC did not intend for the lagoon berm to fail or for the wastewater to discharge. When the berm did fail, however, CMC did everything within its power to stop the discharge and remediate any potential damage. Within twelve hours, CMC recaptured nearly all the discharged water.

A side by side objective comparison between CMC's discharge with the Rego's discharge clearly shows that the Rego Dairy caused a more severe violation of the Water Code and Dairy General Order than CMC. In addition, Rego only addressed its violations once the Regional Board had issued a corrective order whereas CMC mobilized immediately upon discovering the discharge and remediated any potential harm.

vi. The Regional Board Must Exercise Its Discretion to Reach a Fair and Reasonable Result

The Regional Board proposes the maximum penalty against CMC without any reductions. Moreover, during our April 4, 2014, meeting, Regional Board staff stated they are reluctant to consider any penalty reductions as they consider CMC's discharge to be the worst violation they have seen in three years. In contrast to the Regional Board's current position, when assessing the penalty against Rego, it found room within the enforcement policy calculation mechanisms and within the Regional Board's discretion to reach a final penalty that totaled *less than 3%* of the maximum penalty. That is, with respect to multiple intentional violations that occurred over decades, and which the Water Board Executive Officer acknowledged were extremely egregious violations, the Regional Board imposed a penalty that amounted to less than 3% of the maximum penalty.

When comparing the penalty the Regional Board seeks to impose against CMC and the penalty imposed against Rego, the result is clearly inequitable and fails to comply with the Enforcement Policy's requirement that the Water Boards treat enforcement actions in a fair and consistent manner. The Rego Dairy violations were objectively worse than CMC's one-time, accidental discharge. The Regional Board, however, was able to reduce the penalty due to provisions within the Enforcement policy, Rego's response to the discharge, and through exercising its discretion. The Water Board Executive Officer Pamela Creedon issued a statement explaining how the Regional Board reached its final penalty assessment in a press release. Ms. Creedon stated that the Regional Board calculated the penalty, in part, on the severity of the violation and the dairyman's cooperation in the cleanup efforts. As noted above, Rego ultimately settled with the Regional Board for a total liability of $83,702. (Order No. R5-2013-0546 (Rego Settlement) at p. 4.)

With respect to CMC, the Regional Board must exercise its discretion and reduce the proposed penalty in order to comply with the Enforcement Policy's directive that the Water Boards must treat enforcement actions in a fair and consistent manner. For example, the Enforcement Policy allows for a per gallon penalty reduction for high volume discharges that may be applied to CMC's discharge. Furthermore, the Regional Board should recognize CMC's extraordinary efforts to remediate the discharge and reduce the

penalty. Absent the Board's exercise of discretion, CMC will suffer a penalty approximately twelve times the penalty imposed against Rego, and nearly 36 times Rego's settlement amount.

Based upon the foregoing, if the Regional Board continues to seek the maximum penalty from CMC while previously having assessed a minimal penalty against Rego, the Regional Board will have failed to comply with the Enforcement Policy's directive that the Water Boards treat enforcement actions in a fair and consistent manner.

Comparison to Central Valley Dairy Lagoon Slurry and Wastewater Enforcement Action - the Tosta Dairy

Recently, the Regional Board addressed discharge violations at the Henry Tosta Dairy ("Tosta Dairy"), located in Tracy, San Joaquin County. The Tosta Dairy illegally accumulated significant volumes of slurry manure in the central part of its production area, an area not designed for manure storage. (Cleanup and Abatement Order No. R5-2012-0708 (the "Tosta CAO") at p. 4.) The slurry had significant water content, a depth of approximately three feet, and covered approximately three to four acres. (*Ibid*.) The slurry surrounded one monitoring well and covered at least one additional monitoring well. (*Id*. at p. 5.) The Regional Board issued a CAO ordering the Tosta Dairy to develop a plan to address removal of the slurry manure from the production area. (*Id*. at p. 7.)

The Regional Board conducted a series of follow up inspections, thirteen in total, and found that five months after ordering the Tosta Dairy to remove the slurry manure, the Tosta Dairy had failed to comply. (Administrative Civil Liability Order R5-2013-0095 ("Tosta Order") at p. 2; Administrative Civil Liability Complaint R5-2012-0561 (the "Tosta Complaint") at p. 6.) Further, not only did the Tosta Dairy fail to remove the slurry manure, the dairy continued placing and storing manure and liquid wastewater in the production area after receiving the CAO. (Attachment A to Administrative Civil Liability Order R5-2013-0095 ("Attachment A") at p. 9.)

Regional Board staff sampled three monitoring wells in July 2012, one of which was located in the slurry manure. (Tosta Complaint at p. 2.) The wellhead was covered with manure solids and slurry, and shoveling was required to access the well head. (*Ibid*.) Sample results detected nitrate as nitrogen at 13.5 mg/L and total dissolved solids ("TDS") at 14,700 mg/L. A second set of samples taken in October detected nitrate as nitrogen at 26 mg/L and TDS at 15,302. (*Id*. at p. 3.) Each sample collected exceeded the respective MCL. (*Ibid*.) The Regional Board found that "[t]he monitoring wells located in the production area indicate an alteration in the quality of waters of the groundwater by waste to a degree which unreasonably affects the waters for beneficial uses." (*Ibid*.) Moreover, due to the manure and slurry's proximity to the well and the shallow depth to groundwater, Regional Board staff found that waste had unreasonably impacted groundwater quality. (*Ibid*.)

The Tosta Dairy also had issues properly maintaining its multiple settling basins and lagoons (collectively "ponds"). On several occasions, Regional Board staff found the ponds lacked the required freeboard, oftentimes providing no freeboard at all during inspections. (Tosta CAO at p. 4.) On two occasions, Board staff witnessed ponds overtopping and flooding access roads. (Tosta Complaint at p. 7; Attachment A at p. 11.) In addition, one of the ponds utilized a pipe to discharge waste from the pond to the Main Drain canal

of the Naglee Burk Irrigation District (the Board did not appear to assess a penalty for the discharge pipe). (Tosta CAO at p. 7.)

Commenting on the severity of the violations, Ms. Creedon commented,

> These violations are extremely serious, and are compounded by the lack of cleanup and remediation activities…. The vast majority of dairy operators in the Central Valley work hard to follow good environmental practices and to abide by the Dairy General Order. The lack of good management practices at both this large dairy and the Heifer Ranch [a related enforcement action involving the intentional burying of dead cows by Tosta], and the operator's blatant disregard for the law, the Dairy General Order, and the subsequent Cleanup and Abatement Orders, has created unhealthy and dangerous conditions, polluting the waters of the State of California.

In addition to the violations described above, the Tosta Dairy had a history of discharge violations. In 2002, a wastewater discharge to the Naglee-Burk drain was investigated by the Regional Board and the Department of Fish and Game. (Attachment A at p. 4.) The Tosta Dairy, rather than utilize the storage ponds, had been pumping wastewater to a 15-acre area that discharged to the drain. (*Ibid*.) The dairy additionally deposited manure scraped from the barn directly into the Main Drain canal of the Naglee-Burk Irrigation District. (*Ibid*.) During inspections, the Regional Board noted that the Tosta Dairy had failed to take steps to abate the discharge, and witnessed ongoing discharges into the Naglee-Burk drain. (*Ibid*.) Ultimately, the Tosta Dairy settled with the County for $141,730. (*Ibid*.)

In contrast to CMC's actions, the Tosta Dairy exhibited a clear and absolute disregard for the law and the Regional Board's orders. First, in violation of the Dairy General Order, the Tosta Dairy intentionally placed a three foot layer of manure waste and wastewater over a three to four acre area, burying and surrounding wells in the process. CMC, on the other hand, did not intentionally cause the lagoon wall to fail or intentionally cause wastewater to discharge. While it is currently unknown what caused the lagoon failure, CMC strongly believes the pipe buried within the lagoon wall caused the rupture. Because CMC had only recently acquired the property and did not build the lagoon, CMC could not have reasonably discovered the pipe prior to the discharge.

Second, up until three months after being issued the CAO, the Tosta Dairy continued to place manure waste in the field in violation of the Water Code and Dairy General Order. CMC's lagoon wall rupture, in comparison, was a one-time occurrence that CMC remedied as quickly and efficiently as possible. As discussed above, and in meetings with the Regional Board, CMC mobilized its network immediately upon discovering the berm had failed and did not wait for the Regional Board to issue a CAO. CMC worked throughout the day until all wastewater had been cleared from the road within 12 hours.

Third, the Tosta Dairy's ponds continually lacked freeboard required by the Dairy General Order. During multiple subsequent inspections, the Regional Board noted the ponds had no freeboard and had even overtopped the berms, flooding access roads. With respect to CMC, the Regional Board has

produced no evidence that CMC's lagoon lacked the required freeboard at any time during CMC's ownership. As you know, the Regional Board never inspected the site until the day of the rupture, after the lagoon failed. Therefore, unlike Tosta, CMC had neither a history of violations nor any ongoing violations at the subject property.

In sum, the Tosta Dairy has established a pattern of intentional violations and a clear disregard for environmental laws. CMC, on the other hand, has gone to great lengths to comply with the Dairy General Order and the Regional Board's orders. As such, the Regional Board's penalty assessment must reflect CMC's remediation efforts, commitment to compliance, good faith and diligence.

i. Tosta Dairy Assessed Penalties

The Regional Board issued the Tosta Dairy a $685,000 penalty. (Tosta Order at p. 4.) Regional Board staff had initially recommended a penalty of $1,140,713, of which $371,250 was assessed for the discharge violation, but the Regional Board reduced the recommended penalty because the Tosta Dairy had taken preliminary steps to remove excess manure from portions of the site, and had obtained funding to bring the site into compliance. (Tosta Order at p. 4; Attachment A at pp. 4, 17.) We understand that the Tosta Dairy, however, filed a petition for review of the Regional Board's order. Thus, despite the Regional Board's extraordinary oversight efforts, the Tosta Dairy has yet to pay a penalty for its egregious actions and the Regional Board is continuing to devote resources to the enforcement action.

In stark contrast to the Regional Board's enforcement action against the Tosta Dairy, CMC has demonstrated its respect for environmental laws, the Regional Board and its enforcement authority. However, it is in this context that the Regional has repeatedly stated it will seek the maximum penalty of $3 million from CMC. That is, the Regional Board is seeking a maximum $3 million penalty for a one-time, accidental discharge when in the recent past, the Regional Board has exercised its discretion and imposed reduced penalties, even when those penalties were issued for lengthy and intentional violations. In order to comply with the Enforcement Policy's requirement that the Water Boards maintain a consistent and fair enforcement policy, the Regional Board must treat CMC consistent with prior enforcement actions and exercise its discretion to significantly reduce the penalty.

If you have any follow up questions before you talk again with Andrew, please let me or George know.

Best,
Nicole

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STATE WATER RESOURCES CONTROL BOARD

WATER QUALITY ENFORCEMENT POLICY

Effective May 20, 2010

CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY

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INTRODUCTION

The State Water Resources Control Board (State Water Board) and the Regional Water Quality Control Boards (Regional Water Boards) (together "Water Boards") have primary responsibility for the coordination and control of water quality in California. In the Porter-Cologne Water Quality Control Act (Porter-Cologne), the Legislature declared that the "state must be prepared to exercise its full power and jurisdiction to protect the quality of the waters in the state from degradation...." (Wat. Code, § 13000). Porter-Cologne grants the Water Boards the authority to implement and enforce the water quality laws, regulations, policies, and plans to protect the groundwater and surface waters of the State. Timely and consistent enforcement of these laws is critical to the success of the water quality program and to ensure that the people of the State have clean water. The goal of this Water Quality Enforcement Policy (Policy) is to protect and enhance the quality of the waters of the State by defining an enforcement process that addresses water quality problems in the most efficient, effective, and consistent manner. In adopting this Policy, the State Water Board intends to provide guidance that will enable Water Board staff to expend its limited resources in ways that openly address the greatest needs, deter harmful conduct, protect the public, and achieve maximum water quality benefits. Toward that end, it is the intent of the State Water Board that the Regional Water Boards' decisions be consistent with this Policy.

A good enforcement program relies on well-developed compliance monitoring systems designed to identify and correct violations, help establish an enforcement presence, collect evidence needed to support enforcement actions where there are identified violations, and help target and rank enforcement priorities. Compliance with regulations is critical to protecting public health and the environment, and it is the preference of the State Water Board that the most effective and timely methods be used to assure that the regulated community stays in compliance. Tools such as providing assistance, training, guidance, and incentives are commonly used by the Water Boards and work very well in many situations. There is a point, however, at which this cooperative approach should make way for a more forceful approach.

This Policy addresses the enforcement component (i.e. actions that take place in response to a violation) of the Water Boards' regulatory framework, which is an equally critical element of a successful regulatory program. Without a strong enforcement program to back up the cooperative approach, the entire regulatory framework would be in jeopardy. Enforcement is a critical ingredient in creating the deterrence needed to encourage the regulated community to anticipate, identify, and correct violations. Appropriate penalties and other consequences for violations offer some assurance of equity between those who choose to comply with requirements and those who violate them. It also improves public confidence when government is ready, willing, and able to back up its requirements with action.

In furtherance of the water quality regulatory goals of the Water Boards, this Policy:

- Establishes a process for ranking enforcement priorities based on the actual or potential impact to the beneficial uses or the regulatory program and for using progressive levels of enforcement, as necessary, to achieve compliance;

- Establishes an administrative civil liability assessment methodology to create a fair and consistent statewide approach to liability assessment;

- Recognizes the use of alternatives to the assessment of civil liabilities, such as supplemental environmental projects, compliance projects, and enhanced compliance actions, but requires standards for the approval of such alternatives to ensure they provide the expected benefits;

- Identifies circumstances in which the State Water Board will take action, even though the Regional Water Boards have primary jurisdiction;

- Addresses the eligibility requirements for small communities to qualify for carrying out compliance projects, in lieu of paying mandatory minimum penalties pursuant to California Water Code section 13385;

- Emphasizes the recording of enforcement data and the communication of enforcement information to the public and the regulated community; and

- Establishes annual enforcement reporting and planning requirements for the Water Boards.

The State's water quality requirements are not solely the purview of the Water Boards and their staffs. Other agencies, such as, the California Department of Fish and Game have the ability to enforce certain water quality provisions in state law. State law also allows members of the public to bring enforcement matters to the attention of the Water Boards and authorizes aggrieved persons to petition the State Water Board to review most actions or failures to act of the Regional Water Boards. In addition, state and federal statutes provide for public participation in the issuance of orders, policies, and water quality control plans. Finally, the federal Clean Water Act (CWA) authorizes citizens to bring suit against dischargers for certain types of CWA violations.

I.
FAIR, FIRM, AND CONSISTENT ENFORCEMENT

It is the policy of the State Water Board that the Water Boards shall strive to be fair, firm, and consistent in taking enforcement actions throughout the State, while recognizing the unique facts of each case.

A. Standard and Enforceable Orders

The Water Board orders shall be consistent except as appropriate for the specific circumstances related to the discharge and to accommodate differences in applicable water quality control plans.

B. Determining Compliance

The Water Boards shall implement a consistent and valid approach to determine compliance with enforceable orders.

C. Suitable Enforcement

The Water Boards' enforcement actions shall be suitable for each type of violation, providing consistent treatment for violations that are similar in nature and have similar water quality impacts. Where necessary, enforcement actions shall also ensure a timely return to compliance.

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D. Environmental Justice

The Water Boards shall promote enforcement of all health and environmental statutes within their jurisdictions in a manner that ensures the fair treatment of people of all races, cultures, and income levels, including minority and low-income populations in the state.

Specifically, the Water Boards shall pursue enforcement that is consistent with the goals identified in Cal-EPA's Intra-Agency Environmental Justice Strategy, August 2004 (http://www.calepa.ca.gov/EnvJustice/Documents/2004/Strategy/Final.pdf) as follows:

- Ensure meaningful public participation in enforcement matters;
- Integrate environmental justice considerations into the enforcement of environmental laws, regulations, and policies;
- Improve data collection and availability of violation and enforcement information for communities of color and low-income populations; and,
- Ensure effective cross-media coordination and accountability in addressing environmental justice issues.

E. Facilities Serving Small Communities

The State Water Board has a comprehensive strategy for facilities serving small and/or disadvantaged communities that extends beyond enforcement and will revise that strategy as necessary to address the unique compliance challenges faced by these communities (see State Water Resources Control Board Resolution No. 2008-0048). Consistent with this strategy, reference in this Section E. to small communities is intended to denote both small and disadvantaged small communities.

Publicly owned treatment works (POTWs) and sewage collection systems that serve small communities must comply with water quality protection laws. The State Water Board recognizes that complying with environmental laws and regulations will require higher per capita expenditures in small communities than in large communities. When water quality violations occur, traditional enforcement practices used by the Water Boards may result in significant costs to these communities and their residents, thereby limiting their ability to achieve compliance without suffering disproportionate hardships.

In recognition of these factors, informal enforcement or compliance assistance will be the first steps taken to return a facility serving a small community to compliance, unless the Water Board finds that extenuating circumstances apply. Informal enforcement is covered in Appendix A. Compliance assistance activities are based on a commitment on the part of the entity to achieve compliance and shall be offered in lieu of enforcement when an opportunity exists to correct the violations. Compliance activities that serve to bring a facility into compliance include, but are not limited to:

- Education of the discharger and its employees regarding their permit, order, monitoring/reporting program, or any applicable regulatory requirements;
- Working with the discharger to seek solutions to resolve violations or eliminate the causes of violations; and,
- Assistance in identifying available funding and resources to implement measures to achieve compliance.

Further, the Water Boards recognize that timely initiation of progressive enforcement is important for a noncompliant facility serving a small community. When enforcement is taken before a large liability accumulates, there is greater likelihood the facility serving the small community will be able to address the liability and return to compliance within its financial capabilities.

II.
ENFORCEMENT PRIORITIES FOR DISCRETIONARY ENFORCEMENT ACTIONS

It is the policy of the State Water Board that every violation results in the appropriate enforcement response consistent with the priority of the violation established in accordance with this Policy. The Water Boards shall rank violations and then prioritize cases for formal discretionary enforcement action to ensure the most efficient and effective use of available resources.

A. Ranking Violations

The first step in enforcement ranking is determining the relative significance of each violation. The following criteria will be used by the Water Boards to identify and classify significant violations in order to help establish priorities for enforcement efforts.

1. Class I Priority Violations

Class I priority violations are those violations that pose an immediate and substantial threat to water quality and that have the potential to cause significant detrimental impacts to human health or the environment. Violations involving recalcitrant parties who deliberately avoid compliance with water quality regulations and orders are also considered class I priority violations because they pose a serious threat to the integrity of the Water Boards' regulatory programs.

Class I priority violations include, but are not limited to, the following:

a. Significant measured or calculated violations with lasting effects on water quality objectives or criteria in the receiving waters;

b. Violations that result in significant lasting impacts to existing beneficial uses of waters of the State;

c. Violations that result in significant harm to, or the destruction of, fish or wildlife;

d. Violations that present an imminent danger to public health;

e. Unauthorized discharges that pose a significant threat to water quality;

f. Falsification of information submitted to the Water Boards or intentional withholding of information required by applicable laws, regulations, or enforceable orders;

g. Violation of a prior enforcement action-- such as a cleanup and abatement order or cease and desist order--that results in an unauthorized discharge of waste or pollutants to water of the State; and

h. Knowing and willful failure to comply with monitoring requirements as required by applicable laws, regulations, or enforceable orders because of knowledge that monitoring results will reveal violations.

2. Class II Violations

Class II violations are those violations that pose a moderate, indirect, or cumulative threat to water quality and, therefore, have the potential to cause detrimental impacts on human health and the environment. Negligent or inadvertent noncompliance with water quality regulations that has the potential for causing or allowing the continuation of an unauthorized discharge or obscuring past violations is also a class II violation.

Class II violations include, but are not limited to, the following:

a. Unauthorized discharges that pose a moderate or cumulative threat to water quality;

b. Violations of acute or chronic toxicity requirements where the discharge may adversely affect fish or wildlife;

c. Violations that present a substantial threat to public health;

d. Negligent or inadvertent failure to substantially comply with monitoring requirements as required by applicable laws, regulations, or enforceable orders, such as not taking all the samples required;

e. Negligent or inadvertent failure to submit information as required by applicable laws, regulations, or an enforceable order where that information is necessary to confirm past compliance or to prevent or curtail an unauthorized discharge;

f. Violations of compliance schedule dates (e.g., schedule dates for starting construction, completing construction, or attaining final compliance) by 30 days or more from the compliance date specified in an enforceable order;

g. Failure to pay fees, penalties, or liabilities within 120 days of the due date, unless the discharger has pending a timely petition pursuant to California Water Code section 13320 for review of the fee, penalty, or liability, or a timely request for an alternative payment schedule, filed with the Regional Water Board;

h. Violations of prior enforcement actions that <u>do not</u> result in an unauthorized discharge of waste or pollutants to waters of the State;

i. Significant measured or calculated violations of water quality objectives or promulgated water quality criteria in the receiving waters; and

j. Violations that result in significant demonstrated impacts on existing beneficial uses of waters of the State.

3. Class III Violations

Class III violations are those violations that pose only a minor threat to water quality and have little or no known potential for causing a detrimental impact on human health and the environment. Class III violations include statutorily required liability for late reporting when such late filings do not result in causing an unauthorized discharge or allowing one to continue. Class III violations should only include violations by dischargers who are first time or infrequent violators and are not part of a pattern of chronic violations.

Class III violations are all violations that are not class I priority or class II violations. Those include, but are not limited to, the following:

a. Unauthorized discharges that pose a low threat to water quality;

b. Negligent or inadvertent late submission of information required by applicable laws, regulations, or enforceable orders;

c. Failure to pay fees, penalties, or liabilities within 30 days of the due date, unless the discharger has pending a timely petition pursuant to California Water Code section 13320 for review of the fee, penalty or liability; or a timely request for an alternative payment schedule, filed with the Regional Water Board;

d. Any “minor violation” as determined pursuant to California Water Code section 13399 et seq. (see Appendix A. C.1a);

e. Negligent or inadvertent failure to comply with monitoring requirements when conducting monitoring as required by applicable laws, regulations, or enforceable orders, such as using an incorrect testing method;

f. Less significant (as compared to class II violations) measured or calculated violations of water quality objectives or promulgated water quality criteria in the receiving waters; and

g. Violations that result in less significant (as compared to class II violations) demonstrated impacts to existing beneficial uses of waters of the State.

B. Enforcement Priorities for Individual Entities

The second step in enforcement ranking involves examining the enforcement records of specific entities based on the significance and severity of their violations, as well as other factors identified below. Regional Water Board senior staff and management, with support from the State Water Board Office of Enforcement, shall meet on a regular basis, no less than bi-monthly, and identify their highest priority enforcement cases. To the greatest extent possible, Regional Water Board shall target entities with class I priority violations for formal enforcement action.

In determining the importance of addressing the violations of a given entity, the following criteria should be used:

1. Class of the entity's violations;

2. History of the entity

    a. Whether the violations have continued over an unreasonably long period after being brought to the entity's attention and are reoccurring;

    b. Whether the entity has a history of chronic noncompliance;

    c. Compliance history of the entity and good-faith efforts to eliminate noncompliance;

3. Evidence of, or threat of, pollution or nuisance caused by violations;

4. The magnitude or impacts of the violations;

5. Case-by-case factors that may mitigate a violation;

6. Impact or threat to high priority watersheds or water bodies (e.g., due to the vulnerability of an existing beneficial use or an existing state of impairment);

7. Potential to abate effects of the violations;

8. Strength of evidence in the record to support the enforcement action; and

9. Availability of resources for enforcement.

C. Automated Violation Priorities

It is the goal of the State Water Board to develop data algorithms to assign the relative priority of individual violations consistent with this Policy by January 1, 2012. This automated system should simplify the ranking of violations and facilitate prioritization of cases for enforcement.

D. Setting Statewide and Regional Priorities

On an annual basis, the State Water Board will propose statewide enforcement priorities. These priorities may be based on types of violations, individual regulatory programs, particular watersheds, or any other combined aspect of the regulatory framework in which an increased enforcement presence is required. These priorities will be documented in an annual enforcement report and reevaluated each year.

As part of the State Water Board's annual enforcement prioritization process, each Regional Water Board will identify and reevaluate its own regional priorities on an annual basis. This will also be included in a regional annual enforcement report.

E. Mandatory Enforcement Actions

In addition to these criteria for discretionary enforcement, the Water Boards will continue to address mandatory enforcement obligations imposed by the law (e.g. Wat. Code § 13385, subds.(h) and (i)). As detailed in Section VII, these mandatory actions should be taken within 18 months of the time that the violations qualify for the assessment of mandatory minimum penalties.

III.
ENFORCEMENT ACTIONS

The Water Boards have a variety of enforcement tools to use in response to noncompliance by dischargers. With certain specified exceptions California Water Code section 13360, subdivision (a) prohibits the State Water Board or Regional Water Board from specifying the design, location, type of construction, or particular manner in which compliance may be had with a particular requirement. For every enforcement action taken, the discharger's return to compliance should be tracked in the Water Board's enforcement database. See Appendix A for additional information.

IV.
STATE WATER BOARD ENFORCEMENT ACTION

The Regional Water Boards have primary responsibility for matters directly affecting the quality of waters within their region. The State Water Board has oversight authority in such matters and may, from time to time, take enforcement action in lieu of the Regional Water Board as follows:

- In response to petitions alleging inaction or ineffective enforcement action by a Regional Water Board;
- To enforce statewide or multi-regional general permits;
- To address violations by the same discharger in more than one region;
- Where the Regional Water Board's lead prosecutor has requested that the State Water Board take over the enforcement action;
- Where a Regional Water Board is unable to take an enforcement action because of quorum problems, conflicts of interest, or other administrative circumstances;
- Where a Regional Water Board has not investigated or initiated an enforcement action for a class I priority violation in a manner consistent with this Policy; and
- Actions where the Executive Director has determined that enforcement by the State Water Board is necessary and appropriate.

Where the State Water Board decides to pursue such enforcement, the Office of Enforcement will coordinate investigation of the violations and preparation of the enforcement action with the staff of the affected Regional Water Board to ensure that the State Water Board will not duplicate efforts of the Regional Water Board. Except under unusual circumstances, the Regional Water Board enforcement staff will have the opportunity to participate and assist in

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any investigation and the Office of Enforcement will seek input from the Regional Water Board enforcement staff in the development of any resulting enforcement action. Such action may be brought before the State Water Board or the Regional Water Board, as may be deemed appropriate for the particular action. The decision as to where to bring the enforcement action will be discussed with the affected Regional Water Board enforcement staff. Enforcement actions requiring compliance monitoring or long-term regulatory follow-up will generally be brought before the appropriate Regional Water Board.

V.
COORDINATION WITH OTHER REGULATORY AGENCIES

A. Hazardous Waste Facilities

At hazardous waste facilities where the Regional Water Board is the lead agency for corrective action oversight, the Regional Water Board shall consult with Department of Toxics Substance Control (DTSC) to ensure, among other things, that corrective action is at least equivalent to the requirements of the Federal Resource, Conservation, and Recovery Act (RCRA).

B. Oil Spills

The Water Boards will consult and cooperate with the Office of Spill Prevention and Response at the Department of Fish and Game (OSPR) for any oil spill involving waters under the jurisdiction of OSPR.

C. General

The Water Boards will work cooperatively with other local, state, regional, and federal agencies when violations, for which the agency itself is not responsible, occur on lands owned or managed by the agency. Where appropriate, the Water Boards will also coordinate enforcement actions with other agencies that have concurrent enforcement authority.

VI.
MONETARY ASSESSMENTS IN ADMINISTRATIVE CIVIL LIABILITY (ACL) ACTIONS

A. Penalty Calculation Methodology

As a general matter, where, as in the California Water Code, a civil penalty structure has been devised to address environmental violations, civil penalties do not depend on proof of actual damages to the environment. Courts in reviewing similar environmental protection statutes have held that a plaintiff need not prove a loss before recovering a penalty; instead, the defendant must demonstrate that the penalty should be less than the statutory maximum. In certain cases, a strong argument can be made that consideration of the statutory factors can support the statutory maximum as an appropriate penalty for water quality violations, in the absence of any other mitigating evidence. Moreover, as discussed below, the Porter-Cologne Act requires that certain civil liabilities be set at a level that accounts for any "economic benefit or savings" violators gained through their violations. (Wat. Code, § 13385, subd. (e).) Economic benefit or savings is a factor to be considered in determining the amount of other civil liabilities. (Wat. Code, § 13327.) The Water Boards have powerful liability provisions at their disposal which the Legislature and the public expect them to fairly and consistently implement for maximum enforcement impact to address, correct, and deter water quality violations.

While it is a goal of this Policy to establish broad consistency in the Water Boards' approach to enforcement, the Policy recognizes that, with respect to liability determinations, each Regional Water Board, and each specific case, is somewhat unique. The goal of this section is to provide a consistent approach and analysis of factors to determine administrative civil liability. Where violations are standard and routine, a consistent outcome can be reasonably expected using this Policy. In more complex matters, however, the need to assess all of the applicable factors in liability determinations may yield different outcomes in cases that may have many similar facts.

Liabilities imposed by the Water Boards are an important part of the Water Boards' enforcement authority. Accordingly, any assessment of administrative civil liability, whether negotiated pursuant to a settlement agreement or imposed after an administrative adjudication, should:

- Be assessed in a fair and consistent manner;
- Fully eliminate any economic advantage obtained from noncompliance;[1]
- Fully eliminate any unfair competitive advantage obtained from noncompliance;
- Bear a reasonable relationship to the gravity of the violation and the harm to beneficial uses or regulatory program resulting from the violation;
- Deter the specific person(s) identified in the ACL from committing further violations; and
- Deter similarly situated person(s) in the regulated community from committing the same or similar violations.

The liability calculation process set forth in this chapter provides the decision-maker with a methodology for arriving at a liability amount consistent with these objectives. This process is applicable to determining administratively-adjudicated assessments as well as those obtained through settlement. In reviewing a petition challenging the use of this methodology by a Regional Water Board, the State Water Board will generally defer to the decisions made by the Regional Water Boards in calculating the liability amount unless it is demonstrated that the Regional Water Board made a clear factual mistake or error of law, or that it abused its discretion.

The following provisions apply to all discretionary administrative civil liabilities (ACLs). Mandatory Minimum Penalties (MMPs) required pursuant to California Water Code section 13385, subdivisions (h) and (i), are discussed in Chapter VII.

General Approach

A brief summary of each step is provided immediately below. A more complete discussion of each step is presented later in this section.

<u>Step 1.</u> *Potential for Harm for Discharge Violations* – Calculate Potential for Harm considering: (1) the potential for harm to beneficial uses; (2) the degree of toxicity of the discharge; and (3) the discharge's susceptibility to cleanup or abatement.

[1] When liability is imposed under California Water Code § 13385, Water Boards are statutorily obligated to recover, at a minimum, all economic benefit to the violator as a result of the violation.

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Step 2. *Per Gallon and Per Day Assessments for Discharge Violations* – For discharges resulting in violations, use Table 1 and/or Table 2 to determine Per Gallon and/or Per Day Assessments. Depending on the particular language of the ACL statute being used, either or both tables may be used. Multiply these factors by per gallon and/or per day amounts as described below. Where allowed by code, both amounts should be determined and added together. This becomes the initial amount of the ACL for the discharge violations.

Step 3. *Per Day Assessments for non-Discharge Violations* – For non-discharge violations, use Table 3 to determine per day assessments. Multiply these factors by the per day amount as described below. Where allowed by the California Water Code, amounts for these violations should be added to amounts (if any) for discharge violations from Step 2, above. This becomes the initial amount of the ACL for the non-discharge violations.

Step 4. *Adjustment Factors* – Adjust the initial amounts for each violation by factors addressing the violator's conduct, multiple instances of the same violation, and multiple day violations.

Step 5. *Total Base Liability Amount* – Add the adjusted amounts for each violation from Step 4.

Thereafter, the Total Base Liability amount may be adjusted, based on consideration of the following:

Step 6. *Ability to Pay and Ability to Continue in Business* – If the ACL exceeds these amounts, it may be adjusted downward provided express findings are made to justify this.

Step 7. *Other Factors as Justice May Require* – Determine if there are additional factors that should be considered that would justify an increase or a reduction in the Total Base Liability amount. These factors must be documented in the ACL Complaint. One of these factors is the staff costs of investigating the violations and issuing the ACL. The staff costs should be added to the amount of the ACL.

Step 8. *Economic Benefit* – The economic benefit of the violations must be determined based on the best available information, and the amount of the ACL should exceed this amount. (Note that the Economic Benefit is a statutory minimum for ACLs issued pursuant to California Water Code section 13385.)

Step 9. *Maximum and Minimum Liability Amounts* - Determine the statutory maximum and minimum amounts of the ACL, if any. Adjust the ACL to ensure it is within these limits.

Step 10. *Final Liability Amount* – The final liability amount will be assessed after consideration of the above factors. The final liability amount and significant considerations regarding the liability amount must be discussed in the ACL Complaint and in any order imposing liability.

STEP 1 - Potential for Harm for Discharge Violations

Calculating this factor is the initial step for discharge violations. Begin by determining the actual or threatened impact to beneficial uses caused by the violation using a three-factor scoring

system to quantify: (1) the potential for harm to beneficial uses; (2) the degree of toxicity of the discharge; and (3) the discharge's susceptibility to cleanup or abatement for each violation or group of violations.

Factor 1: Harm or Potential Harm to Beneficial Uses

The evaluation of the potential harm to beneficial uses factor considers the harm that may result from exposure to the pollutants or contaminants in the illegal discharge, in light of the statutory factors of the nature, circumstances, extent and gravity of the violation or violations. The score evaluates direct or indirect harm or potential for harm from the violation. A score between 0 and 5 is assigned based on a determination of whether the harm or potential for harm is negligible (0), minor (1), below moderate (2), moderate (3), above moderate (4), or major (5).

0 = Negligible - no actual or potential harm to beneficial uses.

1 = Minor - low threat to beneficial uses (i.e., no observed impacts but potential impacts to beneficial uses with no appreciable harm).

2 = Below moderate – less than moderate threat to beneficial uses (i.e., impacts are observed or reasonably expected, harm to beneficial uses is minor).

3 = Moderate - moderate threat to beneficial uses (i.e., impacts are observed or reasonably expected and impacts to beneficial uses are moderate and likely to attenuate without appreciable acute or chronic effects).

4 = Above moderate – more than moderate threat to beneficial uses (i.e., impacts are observed or likely substantial, temporary restrictions on beneficial uses (e.g., less than 5 days), and human or ecological health concerns).

5 = Major - high threat to beneficial uses (i.e., significant impacts to aquatic life or human health, long term restrictions on beneficial uses (e.g., more than five days), high potential for chronic effects to human or ecological health).

Factor 2: The Physical, Chemical, Biological or Thermal Characteristics of the Discharge

The characteristics of this discharge factor are scored based on the physical, chemical, biological, and/or thermal nature of the discharge, waste, fill, or material involved in the violation or violations. A score between 0 and 4 is assigned based on a determination of the risk or threat of the discharged material, as outlined below. For purposes of this Policy, "potential receptors" are those identified considering human, environmental and ecosystem health exposure pathways.

0 = Discharged material poses a negligible risk or threat to potential receptors (i.e., the chemical and/or physical characteristics of the discharged material are benign and will not impact potential receptors).

1 = Discharged material poses only minor risk or threat to potential receptors (i.e., the chemical and/or physical characteristics of the discharged material are relatively benign or are not likely to harm potential receptors).

2 = Discharged material poses a moderate risk or threat to potential receptors (i.e., the chemical and/or physical characteristics of the discharged material have some level of toxicity or pose a moderate level of concern regarding receptor protection).

3 = Discharged material poses an above-moderate risk or a direct threat to potential receptors (i.e., the chemical and/or physical characteristics of the discharged material exceed known risk factors and /or there is substantial concern regarding receptor protection).

4 = Discharged material poses a significant risk or threat to potential receptors (i.e., the chemical and/or physical characteristics of the discharged material far exceed risk factors or receptor harm is considered imminent).

Factor 3: Susceptibility to Cleanup or Abatement

A score of 0 is assigned for this factor if 50% or more of the discharge is susceptible to cleanup or abatement. A score of 1 is assigned for this factor if less than 50% of the discharge is susceptible to cleanup or abatement. This factor is evaluated regardless of whether the discharge was actually cleaned up or abated by the violator.

Final Score – "Potential for Harm"

The scores for the factors are then added to provide a Potential for Harm score for each violation or group of violations. The total score is used in the "Potential for Harm" axis for the Penalty Factor in Tables 1 and 2. The maximum score is 10 and the minimum score is 0.

STEP 2 - Assessments for Discharge Violations

For violations of NPDES permit effluent limitations, the base liability should be established by calculating the mandatory penalty required under Water Code section 13385(h) and (i). The mandatory penalty should be adjusted upward where the facts and circumstances of the violation warrant a higher liability.

This step addresses per gallon and per day assessments for discharge violations. Generally, it is intended that effluent limit violations be addressed on a per day basis only. Where deemed appropriate, such as for a large scale spill or release, both per gallon and per day assessments may be considered.

Per Gallon Assessments for Discharge Violations

Where there is a discharge, the Water Boards shall determine an initial liability amount on a per gallon basis using on the Potential for Harm score and the extent of Deviation from Requirement of the violation. These factors will be used in Table 1 below to determine a Per Gallon Factor for the discharge. Except for certain high-volume discharges discussed below, the per gallon assessment would then be the Per Gallon Factor multiplied by the number of gallons subject to penalty multiplied by the maximum per gallon penalty amount allowed under the California Water Code.

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TABLE 1 - Per Gallon Factor for Discharges										
	Potential for Harm									
Deviation from Requirement	1	2	3	4	5	6	7	8	9	10
Minor	0.005	0.007	0.009	0.011	0.060	0.080	0.100	0.250	0.300	0.350
Moderate	0.007	0.010	0.013	0.016	0.100	0.150	0.200	0.400	0.500	0.600
Major	0.010	0.015	0.020	0.025	0.150	0.220	0.310	0.600	0.800	1.000

The Deviation from Requirement reflects the extent to which the violation deviates from the specific requirement (effluent limitation, prohibition, monitoring requirement, construction deadline, etc.) that was violated. The categories for **Deviation from Requirement** in Table 1 are defined as follows:

Minor – The intended effectiveness of the requirement remains generally intact (e.g., while the requirement was not met, there is general intent by the discharger to follow the requirement).

Moderate – The intended effectiveness of the requirement has been partially compromised (e.g., the requirement was not met, and the effectiveness of the requirement is only partially achieved.

Major – The requirement has been rendered ineffective (e.g., discharger disregards the requirement, and/or the requirement is rendered ineffective in its essential functions).

For requirements with more than one part, the Water Boards shall consider the extent of the violation in terms of its adverse impact on the effectiveness of the most significant requirement.

High Volume Discharges

The Water Boards shall apply the above per gallon factor to the maximum per gallon amounts allowed under statute for the violations involved. Since the volume of sewage spills and releases of stormwater from construction sites and municipalities can be very large for sewage spills and releases of municipal stormwater or stormwater from construction sites, a maximum amount of $2.00 per gallon should be used with the above factor to determine the per gallon amount for sewage spills and stormwater. Similarly, for releases of recycled water that has been treated for reuse, a maximum amount of $1.00 per gallon should be used with the above factor. Where reducing these maximum amounts results in an inappropriately small penalty, such as dry weather discharges or small volume discharges that impact beneficial uses, a higher amount, up to the maximum per gallon amount, may be used.

Per Day Assessments for Discharge Violations

Where there is a discharge, the Water Boards shall determine an initial liability factor per day based on the Potential for Harm score and the extent of Deviation from Requirement of the violation. These factors will be used in Table 2, below, to determine a Per Day Factor for the violation. The per day assessment would then be the Per Day Factor multiplied by the maximum per day amount allowed under the California Water Code. Generally, it is intended that effluent limit violations be addressed on a per day basis. Where deemed appropriate, such

as for a large scale spill or release, it is intended that Table 2 be used in conjunction with Table 1, so that both per gallon and per day amounts be considered under Water Code section 13385. Where there is a violation of the permit not related to a discharge incident, Step 3/Table 3 below should be used instead.

TABLE 2 - Per Day Factor for Discharges

	Potential for Harm									
Deviation from Requirement	1	2	3	4	5	6	7	8	9	10
Minor	0.005	0.007	0.009	0.011	0.060	0.080	0.100	0.250	0.300	0.350
Moderate	0.007	0.010	0.013	0.016	0.100	0.150	0.200	0.400	0.500	0.600
Major	0.010	0.015	0.020	0.025	0.150	0.220	0.310	0.600	0.800	1.000

The categories for **Deviation from** Requirement in Table 2 are defined as follows:

Minor – The intended effectiveness of the requirement remains generally intact (e.g., while the requirement was not met, there is general intent by the discharger to follow the requirement).

Moderate – The intended effectiveness of the requirement has been partially compromised (e.g., the requirement was not met, and the effectiveness of the requirement is only partially achieved).

Major – The requirement has been rendered ineffective (e.g., discharger disregards the requirement, and/or the requirement is rendered ineffective in its essential functions).

For requirements with more than one part, the Water Boards shall consider the extent of the violation in terms of the adverse impact on the effectiveness of the most significant requirement.

The Water Boards shall apply the above per day factor to the maximum per day amounts allowed under statute for the violations involved. Where allowed by code, both the per gallon and the per day amounts should be determined and added together. This becomes the initial amount of the ACL for the discharge violations.

STEP 3 - Per Day Assessments for Non-Discharge Violations

The Water Boards shall calculate an initial liability factor for each non-discharge violation, considering Potential for Harm and the extent of deviation from applicable requirements. These violations include, but are not limited to, the failure to conduct routine monitoring and reporting, the failure to provide required information, and the failure to prepare required plans. While these violations may not directly or immediately impact beneficial uses, they harm or undermine the regulatory program. The Water Boards shall use the matrix set forth below to determine the initial liability factor for each violation. The per day assessment would then be the Per Day Factor multiplied by the maximum per day amount allowed under the California Water Code. For multiple day violations, please refer to the Adjustment Factors in Step 4, below.

Table 3 shall be used to determine the initial penalty factor for a violation. The Water Boards should select a penalty factor from the range provided in the matrix cell that corresponds to the appropriate Potential for Harm and the Deviation from Requirement categories. The numbers in parenthesis in each cell of the matrix are the midpoints of the range.

TABLE 3 - Per Day Factor			
	Potential for Harm		
Deviation from Requirement	Minor	Moderate	Major
Minor	0.1 (0.15) 0.2	0.2 (0.25) 0.3	0.3 (0.35) 0.4
Moderate	0.2 (0.25) 0.3	0.3 (0.35) 0.4	0.4 (0.55) 0.7
Major	0.3 (0.35) 0.4	0.4 (0.55) 0.7	0.7 (0.85) 1

The categories for **Potential for Harm** in Table 3 are:

Minor – The characteristics of the violation present a minor threat to beneficial uses, and/or the circumstances of the violation indicate a minor potential for harm.

Moderate – The characteristics of the violation present a substantial threat to beneficial uses, and/or the circumstances of the violation indicate a substantial potential for harm. Most incidents would be considered to present a moderate potential for harm.

Major –The characteristics of the violation present a particularly egregious threat to beneficial uses, and/or the circumstances of the violation indicate a very high potential for harm. Additionally, non-discharge violations involving particularly sensitive habitats should be considered major.

The categories for **Deviation from** Requirement in Table 3 are:

Minor – The intended effectiveness of the requirement remains generally intact (e.g., while the requirement was not met, there is general intent by the discharger to follow the requirement).

Moderate – The intended effectiveness of the requirement has been partially compromised (e.g., the requirement was not met, and the effectiveness of the requirement is only partially achieved).

Major – The requirement has been rendered ineffective (e.g., discharger disregards the requirement, and/or the requirement is rendered ineffective in its essential functions).

For requirements with more than one part, the Water Boards shall consider the extent of the violation in terms of the adverse impact on the effectiveness of the most significant requirement.

For any given requirement, the Deviation from Requirements may vary. For example, if a facility does not have a required response plan or has not submitted a required monitoring report, the deviation would be major. If a facility has a prepared a required plan or submitted the required monitoring report, but significant elements are omitted or missing, the deviation would be moderate. If a facility has a required plan or submitted the required monitoring report with only minor elements missing, the deviation would be minor.

STEP 4 – Adjustment Factors

Violator's Conduct Factors

There are three additional factors that should be considered for modification of the amount of the initial liability: the violator's culpability, the violator's efforts to cleanup or cooperate with regulatory authorities after the violation, and the violator's compliance history. Not all factors will apply in every liability assessment.

TABLE 4 – Violator's Conduct Factors

Factor	Adjustment
Culpability	Discharger's degree of culpability regarding the violation. Higher liabilities should result from intentional or negligent violations than for accidental, non-negligent violations. A first step is to identify any performance standards (or, in their absence, prevailing industry practices) in the context of the violation. The test is what a reasonable and prudent person would have done or not done under similar circumstances. Adjustment should result in a multiplier between **0.5 to 1.5**, with the lower multiplier for accidental incidents, and higher multiplier for intentional or negligent behavior.
Cleanup and Cooperation	Extent to which the discharger voluntarily cooperated in returning to compliance and correcting environmental damage, including any voluntary cleanup efforts undertaken. Adjustment should result in a multiplier between **0.75 to 1.5,** with the lower multiplier where there is a high degree of cleanup and cooperation, and higher multiplier where this is absent.
History of Violations	Prior history of violations. Where there is a history of repeat violations, a minimum multiplier of **1.1** should be used to reflect this.

After each of the above factors is considered for the violations involved, the applicable factor should be multiplied by the proposed amount for each violation to determine the revised amount for that violation.

Multiple Violations Resulting From the Same Incident

By statute, certain situations that involve multiple violations are treated as a single violation per day, such as a single operational upset that leads to simultaneous violations of more than one pollutant parameter. (Water Code § 13385, sub. (f)(1).) For situations not addressed by statute, a single base liability amount can also be assessed for multiple violations at the discretion of the Water Boards, under the following circumstances:

a. The facility has violated the same requirement at one or more locations within the facility;

b. A single operational upset where violations occur on multiple days;

c. The violation continues for more than one day;

d. When violations are not independent of one another or are not substantially distinguishable. For such violations, the Water Boards may consider the extent of the violation in terms of the most egregious violation;

e. A single act may violate multiple requirements, and therefore constitute multiple violations. For example, a construction dewatering discharge to a dewatering basin located on a gravel bar next to stream may violate a requirement that mandates the use of best management practices (BMPs) for sediment and turbidity control, a requirement prohibiting the discharge of soil silt or other organic matter to waters of the State, and a requirement that temporary sedimentation basins be located at least 100 feet from a stream channel. Such an act would constitute three distinct violations that may be addressed with a single base liability amount.

If the violations do not fit the above categories, each instance of the same violation shall be calculated as a separate violation.

Except where statutorily required, multiple violations shall not be grouped and considered as a single base liability amount when those multiple violations each result in a distinguishable economic benefit to the violator.

Multiple Day Violations

For violations that are assessed a civil liability on a per day basis, the initial liability amount should be assessed for each day up to thirty (30) days. For violations that last more than thirty (30) days, the daily assessment can be less than the calculated daily assessment, provided that it is no less than the per day economic benefit, if any, resulting from the violation. For these cases, the Water Board must make express findings that the violation:

a. Is not causing daily detrimental impacts to the environment or the regulatory program;

b. Results in no economic benefit from the illegal conduct that can be measured on a daily basis; or,

c. Occurred without the knowledge or control of the violator, who therefore did not take action to mitigate or eliminate the violation.

If one of the above findings is made, an alternate approach to penalty calculation for multiple day violations may be used. In these cases, the liability shall not be less than an amount that is calculated based on an assessment of the initial Total Base Liability Amount for the first day of the violation, plus an assessment for each five day period of violation until the 30th day, plus an assessment for each thirty (30) days of violation. For example, a violation lasting sixty-two (62) days would accrue a total of 8 day's worth of violations, based on a per day assessment for day 1, 5, 10, 15, 20, 25, 30, and 60. Similarly, a violation lasting ninety-nine (99) days would accrue a total of 9 day's worth of violations, based on a per day assessment for day 1, 5, 10, 15, 20, 25, 30, 60, and 90.

STEP 5 – Determination of Total Base Liability Amount

The Total Base Liability Amount will be determined by adding the amounts above for each violation, though this may be adjusted for multiple day violations as noted above. Depending on the statute controlling the liability assessment for a violation, the liability can be assessed as either a per day penalty, a per gallon penalty, or both.

STEP 6 – Ability to Pay and Ability to Continue in Business

If the Water Boards have sufficient financial information necessary to assess the violator's ability to pay the Total Base Liability Amount or to assess the effect of the Total Base Liability Amount on the violators ability to continue in business, the Total Base Liability Amount may be adjusted to address the ability to pay or to continue in business.

The ability of a discharger to pay an ACL is determined by its revenues and assets. In most cases, it is in the public interest for the discharger to continue in business and bring its operations into compliance. If there is strong evidence that an ACL would result in widespread hardship to the service population or undue hardship to the discharger, the amount of the assessment may be reduced on the grounds of ability to pay. For a violation addressed pursuant to California Water Code section 13385, the adjustment for ability to pay and ability to continue in business can not reduce the liability to less than the economic benefit amount.

If staff anticipates that the discharger's ability to pay or ability to continue in business will be a contested issue in the proceeding, staff should conduct a simple preliminary asset search prior to issuing the ACL complaint. Staff should submit a summary of the results (typically as a finding in the Complaint or as part of staff's initial transmittal of evidence to the discharger), in order to put some evidence about these factors into the record for the proceeding and to give the discharger an opportunity to submit additional financial evidence if it chooses. If staff does not put any financial evidence into the record initially and the discharger later contests the issue, staff may then either choose to rebut any financial evidence submitted by the discharger, or submit some financial evidence and provide an opportunity for the discharger to submit its own rebuttal evidence. In some cases, this may necessitate a continuance of the proceeding to provide the discharger with a reasonable opportunity to rebut the staff's evidence. As a general practice, in order to maintain the transparency and legitimacy of the Water Boards' enforcement programs, any financial evidence that the discharger chooses to submit in an enforcement proceeding will generally be treated as a public record.

STEP 7 – Other Factors As Justice May Require

If the Water Board believes that the amount determined using the above factors is inappropriate, the amount may be adjusted under the provision for "other factors as justice may require," but only if express finding are made to justify this. Examples of circumstances warranting an adjustment under this step are:

a. The discharger has provided, or Water Board staff has identified, other pertinent information not previously considered that indicates a higher or lower amount is justified.

b. A consideration of issues of environmental justice indicates that the amount would have a disproportionate impact on a particular disadvantaged group.

c. The calculated amount is entirely disproportionate to assessments for similar conduct made in the recent past using the same Enforcement Policy.

Costs of Investigation and Enforcement Adjustment

The costs of investigation and enforcement are "other factors as justice may require", and should be added to the liability amount. These costs may include the cost of investigating the violation, preparing the enforcement action, participating in settlement negotiations, and putting on a hearing, including any expert witness expenses. Such costs are the total costs incurred by

the Water Boards enforcement or prosecution staff, including legal costs that are reasonably attributable to the enforcement action. Costs include the total financial impact on the staff of the Water Board, not just wages, and should include benefits and other indirect overhead costs.

STEP 8 – Economic Benefit

The Economic Benefit Amount shall be estimated for every violation. Economic benefit is any savings or monetary gain derived from the act or omission that constitutes the violation. In cases where the violation occurred because the discharger postponed improvements to a treatment system, failed to implement adequate control measures (such as BMPs), or did not take other measures needed to prevent the violations, the economic benefit may be substantial. Economic benefit should be calculated as follows:

a. Determine those actions required to comply with a permit or order of the Water Boards, an enforcement order, or an approved facility plan, or that were necessary in the exercise of reasonable care, to prevent a violation of the Water Code. Needed actions may have been such things as capital improvements to the discharger's treatment system, implementation of adequate BMPs, or the introduction of procedures to improve management of the treatment system.

b. Determine when and/or how often these actions should have been taken as specified in the order or approved facility plan, or as necessary to exercise reasonable care, in order to prevent the violation.

c. Estimate the type and cost of these actions. There are two types of costs that should be considered; delayed costs and avoided costs. Delayed costs include expenditures that should have been made sooner (e.g., for capital improvements such as plant upgrades and collection system improvements, training, development of procedures and practices) but that the discharger is still obligated to perform. Avoided costs include expenditures for equipment or services that the discharger should have incurred to avoid the incident of noncompliance, but that are no longer required. Avoided costs also include ongoing costs such as needed additional staffing from the time determined under step "b" to the present, treatment or disposal costs for waste that cannot be cleaned up, and the cost of effective erosion control measures that were not implemented as required.

d. Calculate the present value of the economic benefit. The economic benefit is equal to the present value of the avoided costs plus the "interest" on delayed costs. This calculation reflects the fact that the discharger has had the use of the money that should have been used to avoid the instance of noncompliance. This calculation should be done using the USEPA's BEN [2]computer program (the most recent

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[2] USEPA developed the BEN model to calculate the economic benefit a violator derives from delaying and/or avoiding compliance with environmental statutes. Funds not spent on environmental compliance are available for other profit-making activities or, alternatively, a defendant avoids the costs associated with obtaining additional funds for environmental compliance. BEN calculates the economic benefits gained from delaying and avoiding required environmental expenditures such as capital investments, one-time non-depreciable expenditures, and annual operation and maintenance costs.

BEN uses standard financial cash flow and net present value analysis techniques based on generally accepted financial principles. First, BEN calculates the costs of complying on time and of complying late adjusted for inflation and tax deductibility. To compare the on time and delayed compliance costs in a common measure, BEN calculates the present value of both streams of costs, or "cash flows," as of the date of initial noncompliance. BEN derives these values by discounting the annual cash flows at an

(Continued)

version is accessible at http://www.waterboards.ca.gov/plnspols/docs/wqplans/benmanual.pdf) unless the Water Board determines, or the discharger demonstrates to the satisfaction of the Water Board, that, based on case-specific factors, an alternate method is more appropriate for a particular situation. However, in more complex cases, such as where the economic benefit may include revenues from continuing production when equipment used to treat discharges should have been shut down for repair or replacement, the total economic benefit should be determined by experts available from the Office of Research Planning and Performance or outside experts retained by the enforcement staff.

e. Determine whether the discharger has gained any other economic benefits. These may include income from continuing production when equipment used to treat discharges should have been shut down for repair or replacement.

The Water Boards should not adjust the economic benefit for expenditures by the discharger to abate the effects of the unauthorized conduct or discharge, or the costs to come into or return to compliance. In fact, the costs of abatement may be a factor that demonstrates the economic extent of the harm from the violation and, therefore, may be a factor in upwardly adjusting any monetary liability as a benefit from noncompliance. The discharger's conduct relating to abatement is appropriately considered under "cleanup and cooperation" liability factor.

The Economic Benefit Amount should be compared to the adjusted Total Base Liability Amount. The adjusted Total Base Liability Amount shall be at least 10 percent higher than the Economic Benefit Amount so that liabilities are not construed as the cost of doing business and that the assessed liability provides a meaningful deterrent to future violations.

STEP 9 – Maximum and Minimum Liability Amounts

For all violations, the statute sets a maximum liability amount that may be assessed for each violation. For some violations, the statute also requires the assessment of a liability at no less than a specified amount. The maximum and minimum amounts for each violation must be determined for comparison to the amounts being proposed, and shall be described in any ACL complaint and in any order imposing liability. Where the amount proposed for a particular violation exceeds to statutory maximum, the amount must be reduced to that maximum. Similarly, the minimum statutory amount may require raising the amount being proposed unless there is a specific provision that allows assessment below the minimum. In such cases, the reasons for assigning a liability amount below this minimum must be documented in the resolution adopting the ACL.

STEP 10 – Final Liability Amount

The final liability amount consists of the added amounts for each violation, with any allowed adjustments, provided the amounts are within the statutory minimum and maximum amounts.

The administrative record must reflect how the Water Board arrived at the final liability amount. In particular, where adjustments are made to the initial amount proposed in the ACL complaint, the record should clearly reflect the Water Board's considerations, as the staff report or complaint may not reflect those considerations, or for any adjustments that are made at hearing

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average of the cost of capital throughout this time period. BEN can then subtract the delayed-case present value from the on-time-case present value to determine the initial economic benefit as of the noncompliance date. Finally, BEN compounds this initial economic benefit forward to the penalty payment date at the same cost of capital to determine the final economic benefit of noncompliance.

that are different from those recommended in the ACL complaint or that further support the final liability amount in the administrative civil liability order.

B. Settlement Considerations

The liabilities resulting from the above methodology are for adoption by the Water Boards after formal administrative proceedings. The calculated liabilities may be adjusted as a result of settlement negotiations with a violator. It is not the goal of the Enforcement Policy to address the full range of considerations that should be entertained as part of a settlement. It is appropriate to adjust the administrative civil liabilities calculated pursuant to the methodology in consideration of hearing and/or litigation risks including: equitable factors, mitigating circumstances, evidentiary issues, or other weaknesses in the enforcement action that the prosecution reasonably believes may adversely affect the team's ability to obtain the calculated liability from the administrative hearing body. Ordinarily, these factors will not be fully known until after the issuance of an administrative civil liability complaint or through pre-filing settlement negotiations with an alleged violator. These factors shall be generally identified in any settlement of an administrative civil liability that seeks approval by a Water Board or its designated representative.

Factors that should not affect the amount of the calculated civil liability sought from a violator in settlement include, but are not limited to, the following:

1. A general desire to avoid hearing or minimize enforcement costs;

2. A belief that members of a Water Board will not support a proposed liability before that Water Board has considered the specific merits of the enforcement case or a similar case;

3. A desire to avoid controversial matters;

4. The fact that the initiation of the enforcement action is not as timely as it might have been under ideal circumstances (timeliness of the action as it affects the ability to present evidence or other timeliness considerations are properly considered); or

5. The fact that a water body affected by the violation is already polluted or impaired.

Except as specifically addressed in this Policy, nothing in this Policy is intended to limit the use of Government Code 11415.60

C. Other Administrative Civil Liability Settlement Components

In addition to a reduction of administrative civil liabilities, a settlement can result in the permanent suspension of a portion of the liability in exchange for the performance of a Supplemental Environmental Project (see the State Water Board's Water Quality Control Policy on Supplemental Environmental Projects) or an Enhanced Compliance Action (see Section IX).

As far as the scope of the settlement is involved, the settlement resolves only the claims that are made or could have been made based on the specific facts alleged in the ACL complaint. A settlement shall never include the release of any unknown claims or a waiver of rights under Civil Code section 1542.

VII.
MANDATORY MINIMUM PENALTIES FOR NPDES VIOLATIONS

Mandatory penalty provisions are required by California Water Code section 13385, subdivisions (h) and (i) for specified violations of NPDES permits. For violations that are subject to mandatory minimum penalties, the Water Boards must assess an ACL for the mandatory minimum penalty or for a greater amount. California Water Code section 13385(h) requires that a mandatory minimum penalty of $3,000 be assessed by the Regional Water Boards for each serious violation. A serious violation is any waste discharge that exceeds the effluent limitation for a Group I pollutant by 40 percent or more, or a Group II pollutant by 20 percent or more (see Appendices C and D), or a failure to file certain discharge monitoring reports for a complete period of 30 days (Wat. Code §§ 13385, subd. (h)(2), 13385.1.). Section VII.D. of this Policy addresses special circumstances related to discharge monitoring reports. Section VII.E. of this Policy addresses situations where the effluent limitation for a pollutant is less than or equal to the quantitation limit.

California Water Code section 13385(i) requires that a mandatory minimum penalty of $3,000 be assessed by the Regional Water Boards for each non-serious violation, not counting the first three violations. A non-serious violation occurs if the discharger does any one of the following four or more times in any period of 180 days:

(a) violates a WDR effluent limitation;
(b) fails to file a report of waste discharge pursuant to California Water Code section 13260;
(c) files an incomplete report of waste discharge pursuant to California Water Code section 13260; or
(d) violates a whole effluent toxicity effluent limitation where the WDRs do not contain pollutant-specific effluent limitations for any toxic pollutants.

A. Timeframe for Issuance of Mandatory Minimum Penalties (MMPs)

The intent of these provisions of the California Water Code is to assist in bringing the State's permitted facilities into compliance with WDRs. The Water Boards should issue MMPs within eighteen months of the time that the violations qualify as mandatory minimum penalty violations. The Water Boards shall expedite MMP issuance if (a) the discharger qualifies as a small community with financial hardship, or (b) the total proposed mandatory penalty amount is $30,000 or more. Where the NPDES Permit is being revoked or rescinded because the discharger will no longer be discharging under that permit, the Water Boards should ensure that all outstanding MMPs for that discharger are issued prior to termination of its permit to discharge.

B. MMPs for Small Communities

Except as provided below, the Water Boards do not have discretion in assessing MMPs and must initiate enforcement against all entities that accrue a violation. However, California Water Code section 13385, subdivision (k), provides an alternative to assessing MMPs against a POTW that serves a small community. Under this alternative, the Regional Water Boards may allow the POTW to spend an amount equivalent to the MMP toward a compliance project that is designed to correct the violation.

A POTW serving a small community is a POTW serving a community that has a financial hardship and that:

1. Has a population of 10,000 or fewer people or

2. Lies completely within one or more rural counties.[3]

A POTW serving incorporated areas completely within one or more rural counties is considered a POTW serving a small community.

"Financial hardship" means that the community served by the POTW meets one of the following criteria:

- Median household income[4] for the community is less than 80 percent of the California median household income;

- The community has an unemployment rate[5] of 10 percent or greater; or

- Twenty percent of the population is below the poverty level.[6]

"Median household income," "unemployment rate," and "poverty level" of the population served by the POTW are based on the most recent U.S. Census block group[7] data or a local survey approved by the Regional Water Board in consultation with the State Water Board.

"Rural county" means a county classified by the Economic Research Service, United States Department of Agriculture (ERS, USDA) with a rural-urban continuum code of four through nine. The table below identifies qualified rural counties at the time this Policy was adopted. The list of qualified rural counties may change depending on reclassification by ERS, USDA. Consult the classification by ERS, USDA in effect at the time the enforcement action is taken.

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[3] The determination of the size of population served by the POTW and "rural county" status shall be made as of the time the penalty is assessed, not as of the time the underlying violations occurred.

[4] **Median household income**
The median income divides the income distribution into two equal groups, one having incomes above the median and the other having incomes below the median.

[5] **Unemployed**
All civilians, 16 years and older, are classified as unemployed if they (1) were neither "at work" nor "with a job but not at work" during the reference week, (2) were actively looking for work during the last 4 weeks, and (3) were available to accept a job. Also included as unemployed are civilians who (1) did not work at all during the reference week, (2) were waiting to be called back to a job from which they had been laid off, and (3) were available for work except for temporary illness.

[6] **Poverty**
Following the Office of Management and Budget's Directive 14, the Census Bureau uses a set of income thresholds that vary by family size and composition to detect who is poor. If the total income for a family or unrelated individual falls below the relevant poverty threshold, then the family or unrelated individual is classified as being "below the poverty level."

[7] **Block group**
A subdivision of a census tract (or, prior to 2000, a block numbering area). A block group is the smallest geographic unit for which the Census Bureau tabulates sample data. A block group consists of all the blocks within a census tract beginning with the same number. Example: block group 3 consists of all blocks within a 2000 census tract numbering from 3000 to 3999. In 1990, block group 3 consisted of all blocks numbered from 301 to 399Z.

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Qualified Rural Counties		
Alpine	Inyo	Nevada
Amador	Lake	Plumas
Calaveras	Lassen	Sierra
Colusa	Mariposa	Siskiyou
Del Norte	Mendocino	Tehama
Glenn	Modoc	Trinity
Humboldt	Mono	Tuolumne
Based on 2003 USDA Rural-Urban Continuum Codes for California		

For purposes of California Water Code section 13385, subdivision (k)(2), the Regional Water Boards are hereby delegated the authority to determine whether a POTW, that depends primarily on residential fees (e.g., connection fees, monthly service fees) to fund its wastewater treatment facility (operations, maintenance, and capital improvements), is serving a small community, in accordance with the requirements set forth in this Policy.

The State Water Board will continue to make the determination of whether a POTW, that does not depend primarily on residential fees to fund its wastewater treatment facility, is serving a small community for purposes of California Water Code section 13385 (k)(2).

If a POTW believes that the U.S. Census data do not accurately represent the population served by the POTW or that additional factors such as low population density in its service area should be considered, the POTW may present an alternative justification to the State or Regional Water Board for designation as a "POTW serving a small community." The justification must include a map of service area boundaries, a list of properties, the number of households, the number of people actually served by the POTW, and any additional information requested by the State or Regional Water Board. The Regional Water Board shall consult with the State Water Board when making a determination based upon these additional, site-specific considerations.

C. Single Operational Upset

In accordance with California Water Code section 13385, subdivision (f)(2), for the purposes of MMPs only, a single operational upset that leads to simultaneous violations of one or more pollutant parameters over multiple days shall be treated as a single violation. The Regional Water Board shall apply the following US EPA Guidance in determining if a single operational upset occurred: "Issuance of Guidance Interpreting Single Operational Upset" Memorandum from the Associate Enforcement Counsel, Water Division, U.S.EPA, September 27, 1989 (excerpted below).

US EPA defines "single operational upset" as "an exceptional incident which causes simultaneous, unintentional, unknowing (not the result of a knowing act or omission), temporary noncompliance with more than one CWA effluent discharge pollutant parameter. Single operational upset does not include… noncompliance to the extent caused by improperly designed or inadequate treatment facilities". The US EPA Guidance further defines an "exceptional" incident as a "non-routine malfunctioning of an otherwise generally compliant facility." Single operational upsets include such things as an upset caused by a sudden violent storm, some other exceptional event, or a bursting tank. A single upset may result in violations of multiple pollutant parameters. The discharger has the burden of demonstrating that the violations were caused by a single operational upset. A finding that a single operational upset has occurred is not a defense to liability, but may affect the number of violations.

D. Defining a "Discharge Monitoring Report" in Special Circumstances Under California Water Code 13385.1

Section 13385.1(a)(1) states "for the purposes of subdivision (h) of section 13385, a 'serious violation' also means a failure to file a discharge monitoring report required pursuant to section 13383 for each complete period of 30 days following the deadline for submitting the report, if the report is designed to ensure compliance with limitations contained in waste discharge requirements that contain effluent limitations."

The legislative history of section 13385.1 indicates that the Legislature enacted the statute primarily to ensure better reporting by dischargers who might otherwise avoid penalties for violations of their NPDES permits by failing to submit monitoring reports that could disclose permit violations.

Because penalties under section 13385.1 are assessed for each complete period of thirty days following the deadline for submitting a report, penalties may potentially accrue for an indefinite time period. Dischargers who fail to conduct their required monitoring cannot go back and recreate and submit the data for a prior monitoring period. In such a case, an MMP for a missing report will continue to be assessed and reassessed for each 30 day period following the deadline for submission until an Administrative Civil Liability Complaint for MMPs is issued. This Policy is designed to assist dischargers by stopping the accrual of penalties for late or missing reports under the special circumstances described below. Nevertheless, under these circumstances, the discharger has the burden of submitting the required documentation pursuant to this Policy.

The following subsections provide additional guidance on the definition of a "discharge monitoring report," for the purposes of subdivision (a) of section 13385.1 only, in situations where: (1) there was a discharge to waters of the United States, but the discharger failed to conduct any monitoring during that monitoring period, or (2) there was no discharge to waters of the United States during the relevant monitoring period.

1. Defining a "Discharge Monitoring Report" Where There Is a Discharge to Waters of the United States and the Discharger Fails to Conduct Any Monitoring During the Monitoring Period

For purposes of section 13385.1, in circumstances where a discharge to waters of the United States did occur, but where the discharger failed to conduct any monitoring during the relevant monitoring period, a "discharge monitoring report" shall include a written statement to the Regional Water Board, signed under penalty of perjury in accordance with 40 CFR 122.41(k) and 40 CFR 122.22(a)(1), stating:

a. That no monitoring was conducted during the relevant monitoring period;

b. The reason(s) the required monitoring was not conducted; and

c. If the written statement is submitted after the deadline for submitting the discharge monitoring report, the reason(s) the required discharge monitoring report was not submitted to the Regional Water Board by the requisite deadline.

Upon the request of the Regional Water Board, the discharger may be required to support the written statement with additional explanation or evidence. Requiring a discharger to state under penalty of perjury that it did not conduct monitoring for the required period ensures that the discharger is not conducting monitoring and withholding data indicating there are effluent

limitation violations. This approach may not be used if the discharger did conduct monitoring during the monitoring period that it is required to report to the Regional Water Board because the results of that monitoring, even if incomplete, must be submitted to the Regional Water Board. This approach is consistent with the original legislative purpose of section 13385.1.

The written statement shall be treated as a "discharge monitoring report" for purposes of section 13385.1(a). MMPs for late or missing discharge monitoring reports assessed for each 30 day period will cease accruing upon the date the written statement is received by the Regional Water Board. While the submission of the written statement provides a cut-off date for MMPs assessed under 13385.1, the Regional Water Board may impose additional discretionary administrative civil liabilities pursuant to section 13385(a)(3).

2. Defining a "Discharge Monitoring Report" Where There Is No Discharge to Waters of the United States

Some waste discharge requirements or associated monitoring and reporting programs for episodic or periodic discharges require the submission of either a discharge monitoring report, if there were discharges during the relevant monitoring period, or a report documenting that no discharge occurred, if there were no discharges.

A report whose submittal is required to document that no discharge to waters of the United States occurred during the relevant monitoring period is not a "discharge monitoring report" for purposes of section 13385.1(a). Under these circumstances, that report would not ensure compliance with limitations contained in waste discharge requirements that contain effluent limitations, and therefore, the late submittal of such a report would be subject to discretionary civil liabilities, but would not be subject to MMPs.

As a matter of practice, however, if such a report has not been received, the Regional Water Board may presume that there were discharges during the relevant monitoring period and should consider imposing MMPs for the failure to timely submit a discharge monitoring report. The Regional Water Board shall not take final action to impose the MMP if the discharger submits a written statement to the Regional Water Board, signed under penalty of perjury in accordance with 40 CFR 122.41(k) and 40 CFR 122.22(a)(1), stating:

a. That there were no discharges to waters of the United States during the relevant monitoring period; and

b. The reason(s) the required report was not submitted to the Regional Water Board by the deadline.

Upon the request of the Regional Water Board, the discharger may be required to support the written statement with additional explanation or evidence. Requiring a discharger to state under penalty of perjury that it did not discharge during the relevant monitoring period ensures that a discharger is not discharging and conducting monitoring and then withholding data indicating there are effluent limitation violations.

If such a statement is submitted, discretionary administrative civil liabilities, which the Regional Water Boards may assess under section 13385(a)(3), will cease upon the date the written statement is received by the Regional Water Board.

E. Defining a "Serious Violation" in Situations Where the Effluent Limitation Is Less Than or Equal to the Quantitation Limit

1. For discharges of pollutants subject to the State Water Board's "Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California," or the "California Ocean Plan", where the effluent limitation for a pollutant is lower than the applicable Minimum Level, any discharge that: (1) equals or exceeds the Minimum Level; and (2) exceeds the effluent limitation by 40 percent or more for a Group 1 pollutant or by 20 percent or more for a Group 2 pollutant, is a serious violation for the purposes of California Water Code section 13385(h)(2).

2. For discharges of pollutants that are not subject to the State Water Board's "Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California," or the California Ocean Plan (e.g., pollutants that are not addressed by the applicable plan) where the effluent limitation for a pollutant is lower than the quantitation limit specified or authorized in the applicable waste discharge requirements or monitoring requirements, any discharge that: (1) equals or exceeds the quantitation limit; and (2) exceeds the effluent limitation by 40 percent or more for a Group 1 pollutant or by 20 percent or more for a Group 2 pollutant, is a serious violation for the purposes of California Water Code section 13385(h)(2).

VIII.
COMPLIANCE PROJECTS (CPs)

A Compliance Project (CP) is a project designed to address problems related to the violation and bring the discharger back into compliance in a timely manner. CPs shall only be considered where they are expressly authorized by statute. At the time of the development of this Policy, CPs are expressly authorized by statute only in connection with MMPs for small communities with a financial hardship. (Wat. Code, § 13385, subd. (k).) Unless expressly authorized by future legislation, CPs may not be considered in connection with other ACLs. Absent such statutory authorization, if the underlying problem that caused the violations addressed in the ACL has not been corrected, the appropriate manner for compelling compliance is through an enforcement order with injunctive terms such as a Cleanup and Abatement Order (CAO), Cease and Desist Order (CDO), or Time Schedule Order (TSO).

It is the policy of the State Water Board that the following conditions shall apply to CPs authorized under California Water Code section 13385, subdivision (k):

1. The amount of the penalty that is suspended shall not exceed the cost necessary to complete the CP;

2. The discharger must spend an amount of money on the CP that is equal to or greater than the amount of the penalty that is suspended. Grant funds may be used only for the portion of the cost of the CP that exceeds the amount of the penalty to be suspended;

3. Where implementation of the CP began prior to the assessment of an MMP, all or a portion of the penalty may be suspended under these conditions:

    a. The cost of the CP yet to be expended is equal to or greater than the penalty that is suspended;

    b. The problem causing the underlying violations will be corrected by the project;

c. The underlying violations occurred during, or prior to the initiation of, project implementation;

d. The completion date of the project is specified by an enforcement order (a CDO, CAO, TSO, or ACL Order) adopted at or before the time the penalty is assessed; and

e. The deadline for completion of the project is within 5 years of the date of the assessment of the MMP.

4. CPs may include, but are not limited to:

   a. Constructing new facilities;

   b. Upgrading or repairing existing facilities;

   c. Conducting water quality investigations or monitoring;

   d. Operating a cleanup system;

   e. Adding staff;

   f. Providing training;

   g. Conducting studies; and

   h. Developing operation, maintenance, or monitoring procedures.

5. CPs shall be designed to bring the discharger back into compliance in a five-year period and to prevent future noncompliance.

6. A CP is a project that the discharger is otherwise obligated to perform, independent of the ACL.

7. CPs must have clearly identified project goals, costs, milestones, and completion dates and these must be specified in an enforceable order (ACL Order, CDO, CAO, or TSO).

8. CPs that will last longer than one year must have quarterly reporting requirements.

9. Upon completion of a CP, the discharger must submit a final report declaring such completion and detailing fund expenditures and goals achieved.

10. If the discharger completes the CP to the satisfaction of the Water Board by the specified date, the suspended penalty amount is dismissed.

11. If the CP is not completed to the satisfaction of the Water Board on the specified date the amount suspended becomes due and payable to the State Water Pollution Cleanup and Abatement Account (CAA) or other fund or account as authorized by statute.

12. The ACL complaint or order must clearly state that payment of the previously suspended amount does not relieve the discharger of its independent obligation to take necessary actions to achieve compliance.

IX.
ENHANCED COMPLIANCE ACTIONS (ECAs)

Enhanced Compliance Actions (ECAs) are projects that enable a discharger to make capital or operational improvements beyond those required by law, and are separate from projects designed to merely bring a discharger into compliance. The Water Boards may approve a settlement with a discharger that includes suspension of a portion of the monetary liability of a discretionary ACL for completion of an ECA. Except as specifically provided below, any such settlement is subject to the rules that apply to Supplemental Environmental Projects.

For these ECAs the Water Boards shall require the following:

1. ECAs must have clearly identified project goals, costs, milestones, and completion dates and these must be specified in the ACL order.

2. ECAs that will last longer than one year must have at least quarterly reporting requirements.

3. Upon completion of an ECA, the discharger must submit a final report declaring such completion and detailing fund expenditures and goals achieved.

4. If the discharger completes the ECA to the satisfaction of the Water Board by the specified date, the suspended amount is dismissed.

5. If the ECA is not completed to the satisfaction of the Water Board on the specified date the amount suspended becomes due and payable to the CAA or other fund or account as authorized by statute.

6. The ACL complaint or order must clearly state that payment of the previously suspended amount does not relieve the discharger of its independent obligation to take necessary actions to achieve compliance.

If an ECA is utilized as part of a settlement of an enforcement action against a discharger, the monetary liability that is not suspended shall be no less than the amount of the economic benefit that the discharger received from its unauthorized activity, plus an additional amount that is generally consistent with the factors for monetary liability assessment to deter future violations.

X.
DISCHARGER VIOLATION REPORTING

For permitted discharges, all violations must be reported in self-monitoring reports in a form acceptable to the Regional Water Board. Voluntary disclosure of violations that are not otherwise required to be reported to the Water Boards shall be considered by the Water Boards when determining the appropriate enforcement response.

Falsification or misrepresentation of such voluntary disclosures shall be brought to the attention of the appropriate Regional Water Board for possible enforcement action.

XI.
VIOLATION AND ENFORCEMENT DATA

The Water Boards will ensure that all violations and enforcement actions are documented in the appropriate Water Board data management system. Sufficient information will be collected and maintained regarding regulated facilities and sites to allow preparation of internal and external reporting of violation and enforcement information, and development and reporting of performance measures regarding the Water Boards' enforcement activities. To ensure timely collection of this information, all violations will be entered within 10 days of discovery of the violation, and all enforcement actions will be entered within 20 days of the date of the enforcement action.

XII.
ENFORCEMENT REPORTING

In order to inform the public of State and Regional Water Boards' performance with regard to enforcement activities, there are a number of legislatively mandated and elective reports the Water Boards are committed to producing on a regular basis.
See Appendix B for additional information on these reports.

XIII.
POLICY REVIEW AND REVISION

It is the intent of the State Water Board that this Policy be reviewed and revised, as appropriate, at least every five years. Nothing in this Policy is intended to preclude revisions, as appropriate, on an earlier basis.

CMC 000107

APPENDIX A: ENFORCEMENT ACTIONS

A. Standard Language

In order to provide a consistent approach to enforcement throughout the State, enforcement orders shall be standardized to the extent appropriate. The State Water Board will create model enforcement orders containing standardized provisions for use by the Regional Water Boards. Regional Water Boards shall use the models, modifying terms and conditions only as appropriate to fit the specific circumstances related to a discharge and to be consistent with Regional Water Board plans and policies.

B. Informal Enforcement Actions

An informal enforcement action is any enforcement action taken by Water Board staff that is not defined in statute or regulation. Informal enforcement action can include any form of communication (oral, written, or electronic) between Water Board staff and a discharger concerning an actual, threatened, or potential violation. Informal enforcement actions cannot be petitioned to the State Water Board.

The purpose of an informal enforcement action is to quickly bring an actual, threatened, or potential violation to the discharger's attention and to give the discharger an opportunity to return to compliance as soon as possible. The Water Board may take formal enforcement action in place of, or in addition to, informal enforcement actions. Continued noncompliance, particularly after informal actions have been unsuccessful, will result in the classification of the next violation as either class I priority or a class II violation.

1. Oral and Written Contacts

For many violations, the first step is an oral contact. This involves contacting the discharger by phone or in person and informing the discharger of the specific violations, discussing how and why the violations have occurred or may occur, and discussing how and when the discharger will correct the violation and achieve compliance. Staff must document such conversations in the facility case file and in the enforcement database.

A letter or email is often appropriate as a follow-up to, or in lieu of, an oral contact. Letters or emails, signed by staff or by the appropriate senior staff, should inform the discharger of the specific violations and, if known to staff, discuss how and why the violations have occurred or may occur. This letter or email should ask how and when the discharger will correct the violation and achieve compliance. The letter or email should require a prompt response and a certification from the discharger that the violation(s) has been corrected. In many cases, an email response may not be sufficient and a formal written response will be required. Correction of the violation by the discharger shall be recorded in the enforcement database.

Oral enforcement actions and enforcement letters or emails shall not include language excusing the violation or modifying a compliance date in waste discharge requirements (WDRs) or other orders issued by the Water Boards.

CMC 000108

2. Notices of Violation (NOV)

The NOV letter is the most significant level of informal enforcement action and should be used only where a violation has actually occurred. An NOV must be signed by the appropriate staff and mailed to the discharger(s) by certified mail. In cases where the discharger has requested that its consultant be notified of Regional Water Board actions, the consultant should also receive a copy of the NOV. The NOV letter shall include a description of specific violation, a summary of potential enforcement options available to address noncompliance (including potential ACL assessments), and a request for a certified, written response by a specified date that either confirms the correction of the violation or identifies a date by which the violation will be corrected. The NOV can be combined with a request for technical information pursuant to California Water Code section 13267. The summary of potential enforcement options must include appropriate citations to the California Water Code and must specify that the Regional Water Board reserves the right to take any enforcement action authorized by law. When combining NOVs and CWC section 13267 requests, it should be noted that only requests made pursuant to section 13267 are petitionable to the State Water Board.

C. Formal Enforcement Actions

Formal enforcement actions are statutorily based actions to address a violation or threatened violation of water quality laws, regulations, policies, plans, or orders. The actions listed below present options available for enforcement.

1. Notices to Comply

Water Code section 13399 *et seq*. deals with statutorily defined “minor” violations. When dealing with such a “minor” violation, a Notice to Comply is generally the only means by which the State Water Board or Regional Water Board can commence an enforcement action. Because these “minor” violations are statutorily defined, they do not directly correlate with the classification system defined in Section II of this Policy. Typically, however, “minor” violations may be considered equivalent to Class III violations.

A violation is determined to be “minor” by the State Water Board or the Regional Water Board after considering factors defined in California Water Code section 13399, subdivisions (e) and (f), and the danger the violation poses to, or the potential that the violation presents for endangering human health, safety, welfare, or the environment.

a. Under most circumstances the violations listed below are considered to be “minor” violations:

    (1) Inadvertent omissions or deficiencies in recordkeeping that do not prevent a Water Board from determining whether compliance is taking place.

    (2) Records (including WDRs) not being physically available at the time of the inspection, provided the records do exist and can be produced in a reasonable time.

    (3) Inadvertent violations of insignificant administrative provisions that do not involve a discharge of waste or a threat thereof.

    (4) Violations that result in an insignificant discharge of waste or a threat thereof; provided, however, that there is no significant threat to human health, safety, welfare, or the environment.

b. A violation is not considered “minor” if it is a class I priority violation as described in Section II of this Policy or includes any of the following:

(1) Any knowing, willful, or intentional violation of Division 7 (commencing with Section 13000) of the California Water Code.

(2) Any violation that enables the violator to benefit economically from noncompliance, either by realizing reduced costs or by gaining an unfair competitive advantage.

(3) Chronic violations or violations committed by a recalcitrant violator.

(4) Violations that cannot be corrected within 30 days.

2. Notices of Stormwater Noncompliance

The Stormwater Enforcement Act of 1998 (Wat. Code, § 13399.25 et seq.) requires that each Regional Water Board provide a notice of noncompliance to any stormwater dischargers who have failed to file a notice of intent to obtain coverage, a notice of non-applicability, a construction certification, or annual reports. If, after two notices, the discharger fails to file the applicable document, the Regional Water Board shall issue a complaint for administrative civil liability against the discharger. Alternatively, the Water Boards may enforce most of these violations under Water Code section 13385.

3. Technical Reports and Investigations

California Water Code sections 13267, subdivision (b), and 13383 allow the Water Boards to conduct investigations and to require technical or monitoring reports from any person who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge waste in accordance with the conditions in the section. When requiring reports pursuant to Water Code section 13267, subdivision (b), the Water Board must ensure that the burden, including costs of the reports bears a reasonable relationship to the need for the reports and the benefits to be obtained from them. Further, the Water Board shall provide a written explanation with regard to the need for the reports and identify the evidence that supports requiring them.

Failure to comply with requirements made pursuant to California Water Code section 13267, subdivision (b), may result in administrative civil liability pursuant to California Water Code section 13268. Failure to comply with orders made pursuant to California Water Code section 13383 may result in administrative civil liability pursuant to California Water Code section 13385. Sections 13267, subdivision (b) and 13383 requirements are enforceable when signed by the Executive Officer or Executive Director of the Water Boards or their delegates.

4. Cleanup and Abatement Orders (CAOs)

Cleanup and Abatement Orders (CAOs) are adopted pursuant to California Water Code section 13304. CAOs may be issued to any person who has discharged or discharges waste into the waters of this state in violation of any waste discharge requirement or other order or prohibition issued by a Regional Water Board or the State Water Board, or who has caused or permitted, causes or permits, or threatens to cause or permit any waste to be discharged or deposited where it is, or probably will be, discharged into the waters of the State and creates, or threatens to create, a condition of pollution or nuisance (discharger). The CAO requires the discharger to clean up the waste or abate the effects of the waste, or both, or, in the case of threatened pollution or nuisance, take other necessary remedial action, including, but not limited to, overseeing cleanup and abatement efforts.

Regional Water Boards shall comply with State Water Board Resolution No. 92-49, "Policies and Procedures for Investigation and Cleanup and Abatement of Discharges under Water Code Section 13304," in issuing CAOs. CAOs shall require dischargers to clean up the pollution to background levels or the best water quality that is reasonable if background levels of water quality cannot be restored in accordance with Resolution No. 92-49. At a minimum, cleanup levels must be sufficiently stringent to fully support beneficial uses, unless the Regional Water Board allows a containment zone. In the interim, and if restoration of background water quality cannot be achieved, the CAO shall require the discharger(s) to abate the effects of the discharge.

Violations of CAOs should trigger further enforcement in the form of an ACL, a TSO under California Water Code section 13308, or a referral to the Attorney General for injunctive relief or monetary remedies.

5. Section 13300 Time Schedule Orders (TSOs)

Pursuant to California Water Code section 13300, a Regional Water Board can require the discharger to submit a time schedule that sets forth the actions the discharger will take to address actual or threatened discharges of waste in violation of requirements. Typically, those schedules, after any appropriate adjustments by the Regional Water Board, are then memorialized in an order. TSOs that require submission of technical and monitoring reports should state that the reports are required pursuant to California Water Code section 13267.

6. Section 13308 Time Schedule Orders (13308 TSOs)

California Water Code section 13308 authorizes the Regional Water Board to issue a Section 13308 Time Schedule Order (13308 TSO) that prescribes, in advance, a civil penalty if compliance is not achieved in accordance with the time schedule. The Regional Water Board may issue a 13308 TSO if there is a threatened or continuing violation of a cleanup and abatement order, cease and desist order, or any requirement issued under California Water Code sections 13267 or 13383. The penalty must be set based on an amount reasonably necessary to achieve compliance and may not contain any amount intended to punish or redress previous violations. The 13308 TSO provides the Regional Water Boards with their primary mechanism for motivating compliance, and if necessary, assessing monetary penalties against federal facilities. Orders under this section are an important tool for regulating federal facilities.

If the discharger fails to comply with the 13308 TSO, the discharger is subject to a complaint for Administrative Civil Liability. The State Water Board may issue a 13308 TSO if the violation or threatened violation involves requirements prescribed by a State Water Board Order.

7. Cease and Desist Orders (CDOs)

Cease and Desist Orders (CDOs) are adopted pursuant to California Water Code sections 13301 and 13303. CDOs may be issued to dischargers violating or threatening to violate WDRs or prohibitions prescribed by the Regional Water Board or the State Water Board.

Section 4477 of the California Government Code prohibits all state agencies from entering into contracts of $5,000 or more for the purchase of supplies, equipment, or services from any nongovernmental entity who is the subject of a CDO that is no longer under review and that was issued for violation of WDRs or which has been finally determined to be in violation of federal laws relating to air or water pollution. If the CDO contains a time schedule for compliance and

the entity is adhering to the time schedule, the entity is not subject to disqualification under this section. A list of such entities is maintained by the State Water Board.

CDOs shall contain language describing likely enforcement options available in the event of noncompliance and shall specify that the Regional Water Board reserves its right to take any further enforcement action authorized by law. Such language shall include appropriate California Water Code citations. Violations of CDOs should trigger further enforcement in the form of an ACL, 13308 TSO, or referral to the Attorney General for injunctive relief or monetary remedies.

8. Modification or Rescission of Waste Discharge Requirements (WDRs)

In accordance with the provisions of the California Water Code, a Regional Water Board may modify or rescind WDRs in response to violations. Depending on the circumstances of the case, rescission of WDRs may be appropriate for failure to pay fees, penalties, or liabilities; a discharge that adversely affects beneficial uses of the waters of the State; and violation of the State Water Board General WDRs for discharge of bio-solids due to violation of the Background Cumulative Adjusted Loading Rate. Rescission of WDRs generally is not an appropriate enforcement response where the discharger is unable to prevent the discharge, as in the case of a POTW.

9. Administrative Civil Liabilities (ACLs)

Administrative Civil Liabilities (ACLs) are liabilities imposed by a Regional Water Board or the State Water Board. The California Water Code authorizes the imposition of an ACL for certain violations of law. The factors used to assess the appropriate penalties are addressed in Section VI.

In addition to those specific factors that must be considered in any ACL action, there is another factor that ought to be considered. When the underlying problem that caused the violation(s) has not been corrected, the Water Board should evaluate whether the liability proposed in the ACL complaint is sufficient to encourage necessary work by the discharger to address problems related to the violation. If not, the Water Board should consider other options. An ACL action may be combined with another enforcement mechanism such as a CAO, a CDO, or other order with a time schedule for obtaining compliance. The appropriate orders to bring a discharger into compliance via an enforcement action will vary with the circumstances faced by the Water Boards.

It is the policy of the State Water Board that a 30 day public comment period shall be posted on the Board's website prior to the settlement or imposition of any ACL, including mandatory minimum penalties, and prior to settlement of any judicial civil liabilities. In addition, for civil liabilities that are expected to generate significant public interest, the Board may consider mailing or e-mailing the notice to known interested parties, or publishing the notice in a local newspaper. The notice should include a brief description of the alleged violations, the proposed civil liability, the deadline for comments, the date of any scheduled hearing, a process for obtaining additional information, and a statement that the amount of the civil liability may be revised. Only one notice need be posted for each civil liability.

Upon receipt of an ACL Complaint, the discharger(s) may waive its right to a public hearing and pay the liability; negotiate a settlement; or appear at a Board hearing to dispute the Complaint. If the discharger waives its right to a public hearing and pays the liability, a third party may still comment on the Complaint at any time during the public comment period. Following review of the comments, the Executive Officer or his or her delegate may withdraw the ACL Complaint. An ACL Complaint may be redrafted and reissued as appropriate.

D. Petitions of Enforcement Actions

Persons affected by most formal enforcement actions or failures to act by Regional Water Boards may file petitions with the State Water Board for review of such actions or failures to act. The petition must be received by the State Water Board within 30 days of the Regional Water Board action. A petition on the Regional Water Board's failure to act must be filed within 30 days of either the date the Regional Water Board refuses to act or a date that is 60 days after a request to take action has been made to the Regional Water Board. Actions taken by the Executive Officer of the Regional Water Board, if pursuant to authority delegated by the Regional Water Board (e.g., CAOs, ACL orders), are considered final actions by the Regional Water Board and are also subject to the 30-day time limit. In addition, significant enforcement actions by a Regional Water Board Executive Officer may, in some circumstances, be reviewed by the Regional Water Board at the request of the discharger, though such review does not extend the time to petition the State Water Board. The State Water Board may, at any time and on its own motion, review most actions or failures to act by a Regional Water Board. When a petition is filed with the State Water Board challenging an ACL assessment, the assessment is not due or owing during the State Water Board review of the petition. In all other cases, the filing of a petition does not stay the obligation to comply with the Regional Water Board order.

APPENDIX B: ENFORCEMENT REPORTING

In order to inform the public of State and Regional Water Boards performance with regard to enforcement activities, there are a number of legislatively mandated and elective reports the Water Boards are committed to producing on a regular basis.

A. Legislatively Mandated Enforcement Reporting

The following list summarizes legislatively mandated enforcement reporting requirements and State Water Board interpretations thereof:

- Section 13225, subdivision (e) - requires each Regional Water Board to report rates of compliance for regulated facilities. In accordance with the "Implementation Plan Regarding Information Reporting Requirements for Regional Board Enforcement Outputs" (January, 2008) compliance rates will be reported in the Annual Enforcement Report.

- Section 13225, subdivision (k) - requires each Regional Water Board, in consultation with the State Water Board, to identify and post on the Internet a summary list of all enforcement actions undertaken in that regional and the disposition of each action, including any civil penalty assessed. This list must be updated at least quarterly.

- Section 13225, subdivision (k) and Section 13225, subdivision (e) – In accordance with the "Implementation Plan Regarding Information Reporting Requirements for Regional Board Enforcement Outputs" (January, 2008) each Regional Water Board must post the information required by these sections on its website as a single table and update it quarterly.

- Section 13323, subdivision (e) requires information related to hearing waivers and the imposition of administrative civil liability, as proposed and as finally imposed, to be posted on the Internet.

- Section 13385, subdivision (o) – requires the State Water Board to continuously report and update information on its website, but at a minimum, annually on or before January 1, regarding its enforcement activities. The required information includes all of the following:

    - A compilation of the number of violations of waste discharge requirements in the previous calendar year, including stormwater enforcement violations;

    - A record of the formal and informal compliance and enforcement actions taken for each violation, including stormwater enforcement actions; and

    - An analysis of the effectiveness of current enforcement policies, including mandatory minimum penalties.

- Government Code Section 65962.5, subdivision (c) – requires that the State Water Board annually compile and submit to Cal/EPA a list of:

    - All underground storage tanks for which an unauthorized release report is filed pursuant to Health and Safety Code Section 25295.

    - All solid waste disposal facilities from which there is a migration of hazardous waste and for which a Regional Water Board has notified the Department of

Toxic Substances Control pursuant to subdivision (e) of California Water Code section 13273.

- All CDOs issued after January 1, 1986, pursuant to California Water Code Section 13301, and all CAOs issued after January 1, 1986, pursuant to California Water Code section 13304, which concern the discharge of wastes that are hazardous materials.

B. Elective Enforcement Reporting

To present a more comprehensive view of the Water Boards' enforcement activities and to identify enforcement goals and priorities, the Water Boards will prepare an annual integrated water quality enforcement report that will, at a minimum, address the following subjects:

- Budgetary and staff resources available for water quality enforcement at the Water Boards, as compared with the total resources for the regulatory programs and activities that they support, and the types of enforcement actions taken with those enforcement resources during the reporting period.

- All enforcement information required by statute to be reported to the public every year.

- The effectiveness of the Water Boards' compliance and enforcement functions using metrics such as those identified in the Annual Enforcement Report (to the extent that the information is available in the Water Boards' data base system), below.

Recommended Performance Measures For Water Boards' Enforcement Programs	
Measure Name	Measure Description
Self-Monitoring Report Evaluation	Number of self-monitoring reports due, received, and reviewed and percentage of reports reviewed
Inspection Monitoring	Number of inspections and the percentage of facilities inspected
Compliance Rates	Percentage of facilities in compliance, based upon the number of facilities evaluated
Enforcement Response	Percentage of facilities in violation that received an enforcement action requiring compliance
Enforcement Activities	Number and type of enforcement actions
Penalties Assessed and Collected	The amount of penalties assessed and collected, SEPs approved, and injunctive relief
MMP Violations Addressed	Number of facilities with MMP violations receiving a penalty at or above the minimum penalty assessed
Recidivism	Number and percentage of facilities returning to non-compliance for the same violation(s) addressed through an enforcement action
Environmental Benefits *(as a result of an enforcement action)*	Estimated pounds of pollutants reduced/removed through cleanup (soil or water), and wetlands/stream/beach/creek/river miles protected/restored (acres, miles, etc.)

From FY 2007-2008 Annual Enforcement Report
http://www.waterboards.ca.gov/water_issues/programs/enforcement/docs/annual_enf_rpt_032609.pdf

- Proposed enforcement priorities for the State Water Boards for the next reporting period and staff's basis for these proposals.
- The extent of progress on enforcement priorities identified in prior Annual Enforcement Reports.
- Recommendations for improvements to the Water Boards' enforcement capabilities, including additional performance metrics, and an evaluation of efforts to address prior staff recommendations for enforcement improvements.

APPENDIX C: GROUP 1 POLLUTANTS

This list of pollutants is based on Appendix A to Section 123.45 of Title 40 of the Code of Federal Regulations.

Oxygen Demand
Biochemical Oxygen Demand (BOD)
Chemical Oxygen Demand (COD)
Total Oxygen Demands
Total Organic Carbon
Other*

Solids
Total Dissolved Solids (TDS)
Total Suspended Solids (TSS)
Other*

Nutrients
Inorganic Phosphorous Compounds
Inorganic Nitrogen Compounds
Other*

Detergents and Oils
Methylene Blue Active Substances
Nitrillotriacetic Acid
Oil and Grease
Other Detergents or Algicides*

Minerals
Calcium
Chloride
Fluoride
Magnesium
Sodium
Potassium
Sulfur
Sulfate
Total Alkalinity
Total Hardness
Other Minerals*

Metals
Aluminum
Cobalt
Iron
Vanadium

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* The following list of pollutants is hereby included as Group 1 pollutants (pursuant to Appendix A to Section 123.45 of Title 40 of the Code of Federal Regulations) under the classifications of "other."

5-DAY SUM OF WLA VALUES
5-DAY SUM OF BOD5 DISCHARGED
7-DAY SUM OF WLA VALUES
7-DAY SUM OF BOD5 DISCHARGED
ACIDITY
ACIDITY, CO2 PHENOL (AS CACO3)
ACIDITY-MINRL METHYL ORANGE (AS CACO3)
ACIDITY, TOTAL (AS CACO3)
ALGICIDES, GENERAL
ALKALINITY, BICARBONATE (AS CACO3)
ALKALINITY, CARBONATE (AS CACO3)
ALKALINITY, PHENOL-PHTHALINE METHOD
ALKALINITY, TOTAL (AS CACO3)
ALUMINUM
ALUMINUM, ACID SOLUABLE
ALUMINUM CHLORIDE, DISSOLVED, WATER
ALUMINUM, DISSOLVED (AS AL)
ALUMINUM, IONIC
ALUMINUM, POTENTIALLY DISSOLVD
ALUMINUM SULFATE
ALUMINUM, TOTAL RECOVERABLE
ALUMINUM, TOTAL
ALUMINUM, TOTAL (AS AL)
AMMONIA & AMMONIUM-TOTAL
AMMONIA (AS N) + UNIONIZED AMMONIA
AMMONIA, UNIONIZED
AVG. OF 7-DAY SUM OF BOD5 VALUES
BARIUM, SLUDGE, TOT, DRY WEIGHT (AS BA)
BICARBONATE ION-(AS HCO3)
BIOCHEMICAL OXYGEN DEMAND-5
BIOCIDES
BOD % OVER INFLUENT
BOD (ULT. 1ST STAGE)
BOD (ULT. 2ND STAGE)

BOD (ULT. ALL STAGES)
BOD, 5-DAY (20 DEG. C)
BOD, 5-DAY 20 DEG C PER CFS OF STREAMFLW
BOD, 5-DAY DISSOLVED
BOD, 5-DAY PERCENT REMOVAL
BOD, 5-DAY (20 DEG. C) PER PRODUCTION
BOD, 11-DAY (20 DEG. C)
BOD, 20-DAY (20 DEG. C)
BOD, 20-DAY, PERCENT REMOVAL
BOD 35-DAY (20 DEG. C)
BOD, CARB-5 DAY, 20 DEG C, PERCENT REMVL
BOD, CARBONACEOUS 5 DAY, 5C
BOD, CARBONACEOUS (5-DAY, 20 DEG C)
BOD, CARBONACEOUS 05 DAY, 20C
BOD, CARBONACEOUS 20 DAY, 20C
BOD CARBONACEOUS, 25-DAY (20 DEG. C)
BOD, CARBONACEOUS, 28-DAY (20 DEG. C)
BOD, CARBONACEOUS, PERCENT REMOVAL
BOD, FILTERED, 5 DAY, 20 DEG C
BOD, MASS, TIMES FLOW PROP. MULTIPLIER
BOD, NITROG INHIB 5-DAY (20 DEG. C)
BOD, PERCENT REMOVAL (TOTAL)
BOD-5 LB/CU FT PROCESS
BORIC ACID
BORON, DISSOLVED (AS B)
BORON, SLUDGE, TOTAL DRY WEIGHT (AS B)
BORON, TOTAL
BORON, TOTAL (AS B)
BORON, TOTAL RECOVERABLE
BROMIDE (AS BR)
BROMINE REPORTED AS THE ELEMENT
CALCIUM IN BOTTOM DEPOSITS
CALCIUM, DISSOLVED (AS CA)
CALCIUM, PCT EXCHANGE
CALCIUM, PCT IN WATER, (PCT)
CALCIUM, TOTAL RECOVERABLE
CARBON DIOXIDE (AS CO2)
CARBON, TOTAL (AS C)
CARBON, TOTAL INORGANIC (AS C)
CARBON, TOT ORGANIC (TOC)
CARBON, TOT ORGANIC (TOC) PER 1000 GALS.
CARBONACEOUS BOD, 5 DAY, 20 DEG C FILTRD
CARBONACEOUS OXYGEN DEMAND, % REMOVAL
CARBONATE ION- (AS CO3)
CBOD5 / NH3-N
CHEM. OXYGEN DEMAND (COD) % REMOVAL
CHEM. OXYGEN DEMAND PER PRODUCTION
CHEMICAL OXYGEN DEMAND (COD)
CHEMICAL OXYGEN DEMAND, SOLUBLE
CHLORIDE
CHLORIDE (AS CL)
CHLORIDE, DISSOLVED (AS CL)
CHLORIDE, DISSOLVED IN WATER
CHLORIDE, PERCENT REMOVAL
CHLORIDE, PER CFS OF STREAMFLOW
CHLORIDE, SLUDGE, TOTAL DRY WEIGHT
CHLORIDES & SULFATES
CHLORINE DEMAND, 1 HR
CHLORITE
COBALT, DISSOLVED (AS CO)
COBALT, TOTAL (AS CO)
COBALT, TOTAL RECOVERABLE (AS CO)
COPPER, SLUDGE, TOT, DRY WEIGHT (AS CU)
DIGESTER SOLIDS CONTENT, PERCENT
DITHIOCARBAMATE, RPTD AS DITHIOCARBONATE
DRILLED SOLIDS IN DRILLING FLUIDS
ENDRIN KETONE, IN WATER
FERROCHROME LIGNO-SULFONATED
FRWTR MUD
FERROCYANIDE
FERROUS SULFATE
FIRST STAGE OXYGEN DEMAND, % REMOVAL
FLUORIDE-FREE
FLUORIDE, DISSOLVED (AS F)
FLUORIDE, TOTAL (AS F)
FLUOROBORATES
FREE ACID, TOTAL
HARDNESS, TOTAL (AS CACO3)
HYDROCHLORIC ACID
HYDROGEN PEROXIDE
HYDROGEN PEROXIDE (T) DILUTION RATIO
HYDROGEN SULFIDE
HYDROGEN SULFIDE UNIONIZED
IODIDE (AS I)
IRON
IRON AND MANGANESE-SOLUBLE
IRON AND MANGANESE-TOTAL
IRON, DISSOLVED (AS FE)
IRON, DISSOLVED FROM DRY DEPOSITION
IRON, FERROUS
IRON, POTENTIALLY DISSOLVED
IRON, SLUDGE, TOTAL, DRY WEIGHT (AS FE)
IRON, SUSPENDED
IRON, TOTAL (AS FE)
IRON, TOTAL PER BATCH
IRON, TOTAL PERCENT REMOVAL
IRON, TOTAL PER PRODUCTION

LIGHTLY TREATED LIG-NOSULFONATED MUD
LITHIUM, DISSOLVED (AS LI)
LITHIUM, TOTAL (AS LI)
MACROINVERTEBRATE ASSESSMENT
MAGNESIUM, DISSOLVED (AS MG)
MAGNESIUM, IN BOTTOM DEPOSITS
MAGNESIUM, PCT EXCHANGE
MAGNESIUM, TOTAL RECOVERABLE
MANGANESE IN BOTTOM DEPOSITS (DRY WGT)
MANGANESE, POTENTIALLY DISSOLVED
MANGANESE, DISSOLVED (AS MN)
MANGANESE, SUSPENDED
MANGANESE, TOTAL
MANGANESE, TOTAL (AS MN)
MANGANESE, TOTAL RECOVERABLE
METHYLENE BLUE ACTIVE SUBSTANCES
MICROSCOPIC ANALYSIS
MOLYBDENUM, DRY WEIGHT
MONOBORO CHLORATE
NICKEL, DRY WEIGHT
NITRILOTRIACETIC ACID (NTA)
NITRITE NITROGEN, DISSOLVED (AS N)
NITRITE PLUS NITRATE DISSOLVED 1 DET.
NITRITE PLUS NITRATE IN BOTTOM DEPOSITS
NITRITE PLUS NITRATE TOTAL 1 DET. (AS N)
NITROGEN (AS NO3) SLUDGE SOLID
NITROGEN OXIDES (AS N)
NITROGEN SLUDGE SOLID
NITROGEN SLUDGE TOTAL
NITROGEN, AMMONIA DISSOLVED
NITROGEN, AMMONIA IN BOTTOM DEPOSITS
NITROGEN, AMMONIA, PERCENT REMOVAL
NITROGEN, AMMONIA PER CFS OF STREAMFLW
NITROGEN, AMMONIA TOTAL (AS N)
NITROGEN, AMMONIA TOTAL (AS NH4)
NITROGEN, AMMONIA, SLUDGE, TOT DRY WGT
NITROGEN, AMMONIA, TOT UNIONIZED (AS N)
NITROGEN, DISSOLVED
NITROGEN, KJELDAHL DISSOLVED (AS N)
NITROGEN, KJELDAHL TOTAL
NITROGEN, KJELDAHL TOTAL (AS N)
NITROGEN, NITRATE DISSOLVED
NITROGEN, NITRATE TOTAL
NITROGEN, NITRATE TOTAL (AS N)
NITROGEN, NITRATE TOTAL (AS NO3)
NITROGEN, NITRITE TOTAL (AS N)
NITROGEN, NITRITE TOTAL (AS NO2)
NITROGEN, ORGANIC TOTAL (AS N)
NITROGEN, SLUDGE, TOT, DRY WT. (AS N)
NITROGEN, TOTAL AS NO3 + NH3
NITROGEN, TOTAL KJELDAHL, % REMOVAL
NITROGEN, INORGANIC TOTAL
NITROGEN, OXIDIZED
NITROGEN-NITRATE IN WATER, (PCT)
NITROGEN-NITRITE IN WATER, (PCT)
NITROGENOUS OXYGEN DEMAND, % REMOVAL
NITROGENOUS OXYGEN DEMAND (20-DAY, 20C)
NON-IONIC DISPERSANT (NALSPERSE 7348)
NON-NITROGENOUS BOD
OIL & GREASE
OIL & GREASE AROMATIC
OIL & GREASE, HEXANE EXTR METHOD
OIL & GREASE (FREON EXTR.-IR METH) TOT, RC
OIL & GREASE, NON POLAR MATERIAL
OIL & GREASE % REMOVAL
OIL & GREASE PER CFS OF STREAMFLW
OIL & GREASE, PER 1000 GALLONS
OIL & GREASE PER PRODUCTION
OIL & GREASE (POLAR)
OIL & GREASE (SOXHLET EXTR.) TOT.
OIL & GREASE VISUAL
OXYGEN DEMAND, CHEM. (COD), DISSOLVED
OXYGEN DEMAND, CHEM. (HIGH LEVEL) (COD)
OXYGEN DEMAND, CHEM. (LOW LEVEL) (COD)
OXYGEN DEMAND, DISSOLVED
OXYGEN DEMAND FIRST STAGE
OXYGEN DEMAND, NITROGENOUS, ULTIMAT
OXYGEN DEMAND, SUM PRODUCT
OXYGEN DEMAND, TOTAL
OXYGEN DEMAND, TOTAL (TOD)
OXYGEN DEMAND, ULT. CARBONACEOUS (UCOD)
OXYGEN DEMAND, ULT., PERCENT REMOVAL
OXYGEN DEMAND, ULTIMATE
OZONE
OZONE-RESIDUAL
PENTACHLOROPHENOL, REMOVAL EFFICIENCY
PHOSPHATE TOTAL SOLUBLE
PHOSPHATE, DISSOLVED COLOR METHOD (AS P)
PHOSPHATE, DISSOLVED/ORTHOPHOSPHATE(AS P)
PHOSPHATE, ORTHO (AS P)
PHOSPHATE, ORTHO (AS PO4)
PHOSPHATE, POLY (AS PO4)
PHOSPHATE, TOTAL (AS PO4)

PHOSPHATE, TOTAL COLOR. METHOD (AS P)
PHOSPHORUS, DISSOLVED
PHOSPHORUS, DISSOLVED REATIVE (DRP AS P)
PHOSPHOROUS, IN TOTAL ORTHOPHOSPHATE
PHOSPHORUS (REACTIVE AS P)
PHOSPHOROUS 32, TOTAL
PHOSPHOROUS, TOTAL ELEMENTAL
PHOSPHOROUS, TOTAL, IN BOTTOM DEPOSITS
PHOSPHOROUS, TOTAL ORGANIC (AS P)
PHOSPHORUS, TOTAL (AS P)
PHOSPHORUS, TOTAL PERCENT REMOVAL
PHOSPHORUS, TOTAL SOLUBLE (AS PO4)
POTASSIUM, DISSOLVED (AS K)
POTASSIUM, IN BOTTOM DEPOSITS
POTASSIUM, PCT EXCHANGE
POTASSIUM, TOTAL PCTIN WATER, (PCT)
POTASSIUM, TOTAL RECOVERABLE
PROPARGITE
RATIO FECAL COLIFORM & STREPTOCOCCI
RESIDUE, SETTLEABLE
RESIDUE, TOTAL FILTERABLE
RESIDUE, TOTAL NON-SETTLEABLE
RESIDUE, TOTAL VOLATILE
RESIDUE, VOLATILE NONFILTERABLE
SEAWATER GEL MUD
SETTLEABLE SOLIDS PERCENT REMOVAL
SILICA, DISSOLVED (AS SIO2)
SILICON, TOTAL
SILICA, TOTAL (AS SIO2)
SLUDGE BUILD-UP IN WATER
SLUDGE, RATE OF WASTING
SLUDGE SETTLEABILITY 30 MINUTE
SLUDGE VOLUME DAILY INTO A WELL
SODIUM ADSORPTION RATIO
SODIUM ARSENITE
SODIUM CHLORIDE (SALT)
SODIUM, DISSOLVED (AS NA)
SODIUM HEXAMETA-PHOSPHATE
SODIUM IN BOTTOM DEP (AS NA) (DRY WGT)
SODIUM NITRITE
SODIUM, %
SODIUM, % EXCHANGE- ABLE SOIL, TOTAL
SODIUM, SLUDGE, TOT, DRY WEIGHT (AS NA)
SODIUM SULFATE, TOTAL
SODIUM, TOTAL (AS NA)
SODIUM, TOTAL RECOVERABLE
SOLIDS ACCUMULATION RATE TOT DRY WEIGHT
SOLIDS, FIXED DISSOLVED
SOLIDS, FIXED SUSPENDED
SOLIDS, SETTLEABLE
SOLIDS, SETTLEABLE, NET VALUE
SOLIDS, SLUDGE, TOT, DRY WEIGHT
SOLIDS, SUSPENDED PERCENT REMOVAL
SOLIDS, TOTAL
SOLIDS, TOTAL DISSOLVED
SOLIDS, TOTAL DISSOLVED (TDS)
SOLIDS, TOTAL DISSOLVED-180 DEG.C
SOLIDS, TOTAL DISSOLVED PERCENT BY WEIGHT
SOLIDS, TOTAL DISSOLVED (INORGANIC)
SOLIDS, TOTAL FIXED
SOLIDS, TOTAL SUSPD. NON-VOLATILE
SOLIDS, TOTAL SUSPENDED
SOLIDS, TOTAL VOLATILE
SOLIDS, TOTAL DISSOLVED, TOTAL TONS
SOLIDS, TOTAL NON-VOLATILE, NON-FIXED
SOLIDS, TOTAL SUSP PER PRODUCTION
SOLIDS, TOTAL SUSP. PER 1000 GALLONS
SOLIDS, TOTAL SUSP. PER BATCH
SOLIDS, TOTAL SUSP. PER CFS OF STREAMFLW
SOLIDS, TOTAL SUSPENDED, LOADING RATE
SOLIDS, TOTAL SUSPENDED, NET VALUE
SOLIDS, VOLATILE DISSOLVED
SOLIDS, VOLATILE SUSPENDED
SOLIDS, VOLATILE SUSPENDED, % REMOVAL
SOLIDS, VOLATILE SUSP., IN MIXED LIQUOR
SOLIDS, DRY, DISCHARGE TO SOL. HANDLING SYS.
SOLIDS, DRY, INCIN. AS% OF DRY SOL. FROM TRMTPLT
SOLIDS, DRY, REMOVED FROM SOL. HANDLING SYS.
SOLIDS, TOT. VOLATILE PERCENT REMOVAL
SOLIDS, VOLATILE % OF TOTAL SOLIDS
SOLIDS-FLOTNG-VISUAL DETRMNTN-# DAYS OBS
SULFATE
SULFATE (AS S)
SULFATE, DISSOLVED (AS SO4)
SULFATE IN SEDIMENT
SULFATE, TOTAL (AS SO4)
SULFIDE, DISSOLVED, (AS S)
SULFIDE, TOTAL
SULFIDE, TOTAL (AS S)
SULFITE (AS S)
SULFITE (AS SO3)
SULFITE WASTE LIQUOR PEARL BENSON INDEX
SULFUR DIOXIDE TOTAL
SULFUR, TOTAL
SULPHUR, TOTAL ELEMENTAL

SUM BOD AND AMMONIA, WATER
SURFACTANTS, AS CTAS
SURFACTANTS (LINEAR ALKYLATE SULFONATE)
SURFACTANTS (MBAS)
SUSPENDED SOLIDS
SUSPENDED SOLIDS, TOTAL ANNUAL
SUSPENDED SOLIDS, TOTAL DISCHARGE
TOTAL CHLORIDE RESIDUAL, BROMINE
TOTAL SUSP. SOLIDS-LB/CU FT PROCESS
TRIARYL PHOSPHATE
ULTRAVIOLET LIGHT TRANSMITTANCE
VANADIUM, DISSOLVED (AS V)
VANADIUM, SUSPENDED (AS V)
VANADIUM, TOTAL
VANADIUM, TOTAL (AS V)
VANADIUM, TOTAL DRY WEIGHT (AS V)
VANADIUM, TOTAL RECOVERABLE
VEGETATIVE COVER
WLA BOD-5 DAY VALUE

APPENDIX D: GROUP 2 POLLUTANTS

Group 2 Pollutants. This list of pollutants is based on Appendix A to Section 123.45 of Title 40 of the Code of Federal Regulations.

Metals
All metals not specifically listed under Group 1.

Inorganics
Cyanide
Total Residual Chlorine

Organics
All organics not specifically listed under Group 1.

Other*

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* The following list of pollutants are hereby included as Group 2 pollutants (pursuant to Appendix A to Section 123.45 of Title 40 of the Code of Federal Regulations) under the classifications of "other."

1, 2, 4-TRIMETHYL-BENZENE
1, 3, 5-TRIMETHYL-BENZENE
1,1 DICHLORO 1,2,2,2 TETRAFLUOROETHANE
1,1 DICHLORO 2,2,2-TRIFLUOROETHANE
1,1,1 TRICHLORO-2,2,2-TRIFLUOROETHANE
1,1,1,2,2-PENTA-FLUOROETHANE
1,1,1,3,3-PENTA-FLUOROBUTANE
1,1,1-TRICHLORO-ETHANE
1,1,1-TRICHLOROETHANE, DRY WEIGHT
1,1,1-TRIFLUORO- ETHANE
1,1,2,2-TETRACHLORO-ETHANE
1,1,2,2-TETRACHLOROETHANE, DRY WEIGHT
1,1,2,2-TETRACHLOROETHYLENE
1,1,2-TRICHLORO-ETHANE
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE
1,1,2-TRICHLOROETHANE, DRY WEIGHT
1,1-DICHLORO-1-FLUOROETHANE
1,1-DICHLOROETHANE
1,1-DICHLOROETHANE, DRY WEIGHT
1,1-DICHLOROETHENE
1,1-DICHLOROETHYLENE
1,1-DICHLOROETHYLENE, DRY WEIGHT
1,1-DIMETHYL-HYDRAZINE
1,2,3 TRICHLORO-BENZENE
1,2,3 TRICHLORO-ETHANE
1,2,3,4,6,7,8,9-OCTACHLORODIBENZOFURAN
1,2,3,4,6,7,8,9-OCTACHLORODIBENZO-P-DIOX
1,2,3,4,6,7,8-HEPTA CHLORODIBENZOFURAN
1,2,3,4,6,7,8-HEPTACHLORODIBENZO-P-DIOXN
1,2,3,4,7,8,9-HEPTA CHLORODIBENZOFURAN
1,2,3,4,7,8-HEXACHLORODIBENZOFURAN
1,2,3,4,7,8-HEXACHLORODIBENZO-P-DIOXIN
1,2,3,6,7,8-HEXACHLORODIBENZOFURAN
1,2,3,6,7,8-HEXACHLORODIBENZO-P-DIOXIN
1,2,3,7,8,9-HEXACHLORODIBENZOFURAN
1,2,3,7,8,9-HEXACHLORODIBENZO-P-DIOXIN
1,2,3,7,8-PENTACHLORODIBENZOFURAN
1,2,3,7,8-PENTACHLORODIBENZO-P-DIOXIN
1,2,3-TRICHLOROPROPANE
1,2,4,5-TETRACHLORO-BENZENE
1,2,4,5-TETRAMETHYL-BENZENE
1,2,4-TRICHLORO-BENZENE
1,2,4-TRICHLOROBENZENE, DRY WEIGHT
1,2-BIS(2-CHLOROETH-ONY) ETHANE
1,2-CIS-DICHLORO-ETHYLENE
1,2-DICHLORO-1,1,2-T
1,2-DICHLOROBENZENE
1,2-DICHLOROBENZENE, DRY WEIGHT

1,2-DICHLOROETHANE
1,2-DICHLOROETHANE, DRY WEIGHT
1,2-DICHLOROETHANE, TOTAL WEIGHT
1,2-DICHLOROPROPANE
1,2-DICHLOROPROPANE, DRY WEIGHT
1,2-DICHLOROPROPENE
1,2-DIPHENYL-HYDRAZINE
1,2-DIPHENYL-HYDRAZINE, DRY WEIGHT
1,2-PROPANEDIOL
1,2-TRANS-DICHLORO- ETHYLENE
1,2-TRANS-DICHLOROETHYLENE, DRY WEIGHT
1,3 DICHLOROPROPANE
1,3 DICHLOROPROPYLENE
1,3-DIAMINOUREA
1,3-DICHLOROBENZENE
1,3-DICHLOROBENZENE, DRY WEIGHT
1,3-DICHLOROPROPENE, TOTAL WEIGHT
1,4 DICHLOROBUTANE
1,4_____DIOXANE
1,4-DDT (O,P-DDT)
1,4-DICHLOROBENZENE
1,4-DICHLOROBENZENE, DRY WEIGHT
1,4-XYLENE
1-BROMO-2-CHLOROETHANE
1-CHLORO-1,1-DIFLUOROETHANE
1-ETHOXY-2-METHYLPROPANE
1-HYDROXY-ETHYLIDENE
1-METHYLNAPHTHALENE
1-NITROSOPIPERIDINE
2,2-DIBROMO-3-NITRILOPROPIONAMIDE
2,2-DICHLOROPROPANE
2,2-DICHLOROVINYL DIMETHYLPHOSPHATE
2,2-DIMETHYL-2,3-DI-HYDRO-7-BENZOFURANOL
2,3 DICHLOROPROPYLENE
2,3,4,6,7,8-HEXACHLORODIBENZOFURAN
2,3,4,6-TETRACHLORO-PHENOL
2,3,4,7,8-PENTACHLORODIBENZOFURAN
2,3,7,8 CHLORO-DIBENZOFURAN
2,3,7,8 TETRACHLORO-DIBENZO FURAN (TCDF)
2,3,7,8 TETRACHLORODIBENZO-P-DIOXIN
2,3,7,8 TETRACHLORODIBENZO-P-DIOXIN SED,
2,4,5 - T
2,4,5, TP(SILVEX)
2,4,5-TP(SILVEX) ACIDS/SALTS WHOLE WATER SAMPLE
2,4,5 - TRICHLORO- PHENOL
2,4,5-TRICHLOROPHENOXYPROPIONIC ACID
2,4,6 TRICHLOROPHENOL, DRY WEIGHT
2,4,6-TRICHLORO-PHENOL
2,4-D SALTS AND ESTERS
2,4-DB
2,4-DICHLOROPHENOL
2,4-DICHLOROPHENOXYACETIC ACID
2,4-DIMETHYLPHENOL
2,4-DINITROPHENOL
2,4-DINITROTOLUENE
2,4-DINITROTOLUENE, DRY WEIGHT
2,4-TOLUENEDIAMINE
2,5-TOLUENEDIAMINE
2,6-DINITROTOLUENE
2,6-DINITROTOLUENE, DRY WEIGHT
2-ACETYL AMINO- FLOURCENE
2-BUTANONE
2-BUTANONE PEROXIDE
2-CHLOROANILINE
2-CHLOROETHANOL
2-CHLOROETHYL VINYL ETHER, DRY WEIGHT
2-CHLOROETHYL VINYL ETHER (MIXED)
2-CHLORONAPHTHALENE
2-CHLOROPHENOL
2-ETHYL-1-HEXANOL
2-ETHYL-2-METHYL-DIOXOLANE
2-HEXANONE
2-METHYL-2-PROPANOL (TBA)
2-METHYL-4,6-DINITROPHENOL
2-METHYL-4-CHLOROPHENOL
2-METHYLNAPHTHALENE
2-METHYLPENTANE
2-METHYLPHENOL
2-METHYLPYRIDINE
2-NAPHTHYLAMINE
2-NITROANILINE
2-NITROPHENOL
2-PROPANONE
2-SECONDARY BUTYL-4,6-DINITROPHENOL
3,3-DICHLORO- BENZIDINE
3,3-DICHLOROBENZIDINE, DRY WEIGHT
3,4 BENZOFLUORAN-THENE
3,4,5 TRICHLORO- GUACACOL
3,4,6-TRICHLORO-CATECHOL
3,4,6-TRICHLORO-GUAIACOL
3-CHLOROPHENOL
3-METHYLHEXANE
3-METHYLPENTANE
3-METHYLPYRIDINE
3-NITROANILINE, TOTAL IN WATER
4,4-BUTYLDENEBIS-(6-T-BUTYL-M-CRESOL)
4,4-DDD (P,P-DDD)
4,4-DDE (P,P-DDE)
4,4-DDT (P,P-DDT)
4,6-DINITRO-O-CRESOL
4-BROMOPHENYL PHENYL ETHER
4-CHLORO-3, 5-DIMETHYLPHENOL
4-CHLORO-3-METHYL PHENOL
4-CHLOROPHENYL PHENYL ETHER
4-METHYLPHENOL

4-NITRO-M-CRESOL
4-NITRO-N-METHYLPHTHALIMIDE, TOTAL
4-NITROPHENOL
9,10 DICHLOROSTEARIC ACID
9,10 EPOXYSTEARIC ACID
A-BHC-ALPHA
ABIETIC ACID
ACENAPHTHENE
ACENAPHTHENE, SED (DRY WEIGHT)
ACENAPHTHYLENE
ACEPHATE (ORTHENE, ORTRAN)
ACETALDEHYDE
ACETAMINOPHEN
ACETIC ACID
ACETONE
ACETONE, DRY WEIGHT
ACETONE IN WASTE
ACETOPHENONE
ACID COMPOUNDS
ACIDS, TOTAL VOLATILE (AS ACETIC ACID)
ACROLEIN
ACROLEIN, DRY WEIGHT
ACRYLAMIDE MONOMER
ACRYLIC ACID
ACRYLONITRILE
ACRYLONITRILE, DRY WEIGHT
ACTINIUM 228
A-ENDOSULFAN-ALPHA
ALACHLOR (BRAND NAME-LASSO)
ALACHLOR, DISSOLVED
ALDICARB
ALDICARB SULFONE
ALDICARB SULFOXIDE
ALDRIN
ALDRIN + DIELDRIN
ALDRIN, DRY WEIGHT
ALKYL BENZENE SULFONATED (ABS)
ALKYLDIMETHYL ETHYL AMMONIUM BROMIDE
ALKYLDIMETHYLBENZYL AMMONIUM CHLORIDE
ALPHA ACTIVITY
ALPHA EMITTING RADI-UM ISOTOPES, DISSOL.
ALPHA GROSS RADIOACTIVITY
ALPHA, DISSOLVED
ALPHA, SUSPENDED
ALPHA, TOTAL
ALPHA, TOTAL, COUNTING ERROR
ALPHABHC DISSOLVED
ALPHA-ENDOSULFAN
AMETRYN ORGANIC PESTICIDE
AMIBEN (CHLORAMBEN)
AMINES, ORGANIC TOTAL
AMINOTROL - METHYLENE PHOSPHATE
AMYL ALCOHOL
ANILINE
ANTHRACENE
ANTIMONY IN BOTTOM DEPOSITS (DRY WGT)
ANTIMONY, DISSOLVED (AS SB)
ANTIMONY, TOTAL (AS SB)
ANTIMONY, TOTAL RECOVERABLE
AROMATICS, SUBSTITUTED
AROMATICS, TOTAL PURGEABLE
ARSENIC, POTENTIALLY DISSOLVED
ARSENIC, DISSOLVED (AS AS)
ARSENIC, DRY WEIGHT
ARSENIC, TOTAL (AS AS)
ARSENIC, TOTAL RECOVERABLE
ASANA
ASBESTOS
ASBESTOS (FIBROUS)
A-TERPINEOL
ATRAZINE
ATRAZINE, DISSOLVED
AZIDE
AZOBENZENE
BALAN (BENEFIN)
BARIUM IN BOTTOM DEPOSITS (DRY WGT)
BARIUM, POTENTIALLY DISSOLVED
BARIUM, DISSOLVED (AS BA)
BARIUM, TOTAL (AS BA)
BARIUM, TOTAL RECOVERABLE
BASE NEUTRALS & ACID (METHOD 625), TOTAL
BASE NEUTRALS & ACID (METHOD 625), EFFLNT
BASE/NEUTRAL COMPOUNDS
BAYER 73 LAMPREYCIDE IN WATER
B-BHC-BETA
B-BHC-BETA DISSOLVED
B-ENDOSULFAN-BETA
BENFLURALIN, (ORG. PESTICIDE ACT. INGD)
BENOMYL & CARBEND. ORGANIC PESTICIDE
BENTAZON, TOTAL
BENZENE
BENZENE (VOLATILE ANALYSIS)
BENZENE HEXACHLORIDE
BENZENE SULPHONIC ACID
BENZENE, DISSOLVED
BENZENE, DRY WEIGHT
BENZENE, HALOGENATED
BENZENE, TOLUENE, XYLENE IN COMBINATION
BENZENE, ETHYL BENZENE TOLUENE, XYLENE COMBINATION
BENZENE HEXACHLORIDE
BENZIDINE
BENZIDINE, DRY WEIGHT
BENZISOTHIAZOLE

BENZO(A) FLUORANTHENE
BENZO(A) ANTHRACENE
BENZO(A) PYRENE
BENZO(A) PYRENE, DRY WEIGHT
BENZO(B) FLUORANTHENE (3,4-BENZO)
BENZO(GHI) PERYLENE
BENZO(K) FLUORANTHENE
BENZOFURAN
BENZY CHLORIDE
BENZYL ALCOHOL
BENZYL CHLORIDE
BERYLLIUM IN BOTTOM DEPOSITS (DRY WGT)
BERYLLIUM, DISSOLVED (AS BE)
BERYLLIUM, POTENTIALLY DISSOLVED
BERYLLIUM, TOTAL (AS BE)
BERYLLIUM, TOTAL RECOVERABLE (AS BE)
BETA, DISSOLVED
BETA, SUSPENDED
BETA, TOTAL
BETA, TOTAL, COUNTING ERROR
BETASAN(N-2-MERCAPTO ETHYL BENZENE SULFAMID
BEZONITRILE (CYANOBENZENE)
BHC, TOTAL
BHC-ALPHA
BHC-BETA
BHC-DELTA
BHC-GAMMA
BIFENTHRIN
BIS -- PHENOL-A (ALPHA)
BIS (2-CHLORO- ISOPROPYL) ETHER
BIS (2-CHLOROETHOXY) METHANE
BIS (2-CHLOROETHOXY) METHANE, DRY WT.
BIS (2-CHLOROETHYL) ETHER
BIS (2-ETHYLHEXYL) PHTHALATE
BIS (2-ETHYLHEXYL) PHTHALATE, DRY WGT
BIS (CHLOROMETHYL) ETHER
BIS (TRICHLOROMETHYL) SULFONE
BIS ETHER
BISMUTH 214
BISMUTH, TOTAL (AS BI)
BISPHENOL-A
BROMACIL
BROMACIL (HYVAR)
BROMACIL, LITHIUM
BROMOCHLOROMETHANE
BROMODICHLOROETHANE
BROMOFORM
BROMOFORM, DRY WGT
BROMOMETHANE
BROMOXYNIL ORGANIC PESTICIDE
BROMOXYNIL OCTANOATE
BUSAN 40 ORGANIC PESTICIDE
BUSAN 85 ORGANIC PESTICIDE
BUTACHLOR
BUTANE
BUTANOIC ACID
BUTANOL
BUTANONE
BUTHDIENE TOTAL
BUTOXY ETHOXY ETHANOL TOTAL
BUTYL ACETATE
BUTYL BENZYL PHTHALATE
BUTYLATE (SUTAN)
CADMIUM
CADMIUM TOTAL RECOVERABLE
CADMIUM IN BOTTOM DEPOSITS (DRY WGT)
CADMIUM SLUDGE SOLID
CADMIUM SLUDGE TOTAL
CADMIUM, POTENTIALLY DISSOLVD
CADMIUM, DISSOLVED (AS CD)
CADMIUM, PERCENT REMOVAL
CADMIUM, SLUDGE, TOTAL DRY WGT (AS CD)
CADMIUM, TOTAL (AS CD)
CAFFEINE
CAPTAFOL
CAPTAN
CARBAMATES
CARBARYL TOTAL
CARBN CHLOROFRM EXT-RACTS, ETHER INSOLUBL
CARBOFURAN
CARBON DISULFIDE (CS2)
CARBON TETRACHLORIDE
CARBON TETRACHLORIDE, DRY WEIGHT
CARBON, CHLOROFORM EXTRACTABLES
CARBON, DISSOLVED ORGANIC (AS C)
CARBOSULFAN, TOTAL
CERIUM, TOTAL
CESIUM 137
CESIUM,TOTAL (AS CS)
CHIRAL
CHLOR, PHENOXY ACID GP, NONE FOUND
CHLORAL
CHLORAL HYDRATE
CHLORAMINE RESIDUAL
CHLORDANE (CA OCEAN PLAN DEFINITION)
CHLORDANE (TECH MIX & METABS), DRY WGT
CHLORDANE (TECH MIX. AND METABOLITES)
CHLORDANE, ALPHA, WHOLE WATER
CHLORDANE, GAMMA, WHOLE WATER
CHLORENDIC ACID
CHLORETHOXYFOS
CHLORINATED DIBENZO-FURANS, EFFLUENT
CHLORINATED DIBENZO-FURANS, SLUDGE

CHLORINATED DIBENZO-P-DIOXINS, EFFLUENT
CHLORINATED DIBENZO-P-DIOXINS, SLUDGE
CHLORINATED ETHANES
CHLORINATED HYDRO-CARBONS, GENERAL
CHLORINATED METHANES
CHLORINATED ORGANIC COMPOUNDS
CHLORINATED PESTI-CIDES, TOTAL
CHLORINATED PESTI-CIDES, TOTAL & PCBS
CHLORINATED PHENOLS
CHLORINATION
CHLORINE DIOXIDE
CHLORINE DOSE
CHLORINE RATE
CHLORINE USAGE
CHLORINE, COMBINED AVAILABLE
CHLORINE, FREE AVAILABLE
CHLORINE, FREE RESIDUAL, TOTAL EFFLUENT
CHLORINE, TOTAL RESIDUAL
CHLORINE, TOTAL RESIDUAL (DSG. TIME)
CHLORINE, TOTAL RES. DURATION OF VIOLATION
CHLOROBENZENE
CHLOROBENZENE, DRY WEIGHT
CHLOROBENZILATE
CHLOROBUTADIENE (CHLOROPRENE)
CHLORODIBROMOMETHANE
CHLORODIBROMOMETHANE, DRY WEIGHT
CHLORODIFLUORO-METHANE
CHLORODIMEFORM
CHLOROETHANE
CHLOROETHANE, TOTAL WEIGHT
CHLOROETHYLENE BISTHIOCYANATE
CHLOROFORM
CHLOROFORM EXTRACTABLES, TOTAL
CHLOROFORM, DISSOLVED
CHLOROFORM, DRY WEIGHT
CHLOROHEXANE, TOTAL
CHLOROMETHANE
CHLOROMETHYL BENZENE
CHLORONEB ORGANIC PESTICIDE
CHLORONITROBENZENE
CHLOROPHENOXY PROPANANOL
CHLOROSYRINGEALDEHYDE, EFFLUENT
CHLOROTHALONIL ORGANIC PESTICIDE
CHLOROTOLUENE
CHLOROXAZONE
CHLORPHENIRAMINE
CHLORPYRIFOS
CHROMIUM
CHROMIUM SLUDGE SOLID
CHROMIUM SLUDGE TOTAL
CHROMIUM TOTAL RECOVERABLE
CHROMIUM TRIVALENT IN BOTTOM DEPOSITS
CHROMIUM, DISSOLVED (AS CR)
CHROMIUM, DRY WEIGHT
CHROMIUM, HEXAVALENT
CHROMIUM, HEXAVALENT (AS CR)
CHROMIUM, HEXAVALENT DISSOLVED (AS CR)
CHROMIUM, HEXAVALENT IN BOT DEP (DRY WGT)
CHROMIUM, HEXAVALENT POTENTIALLY DISOLVED
CHROMIUM, HEXAVALENT TOT RECOVERABLE
CHROMIUM, SUSPENDED (AS CR)
CHROMIUM, TOTAL
CHROMIUM, TOTAL (AS CR)
CHROMIUM, TOTAL DRY WEIGHT (AS CR)
CHROMIUM, TOTAL IN BOT DEP (WET WGT)
CHROMIUM, TOTAL PERCENT REMOVAL
CHROMIUM, TRIVALENT (AS CR)
CHROMIUM, TRIVALENT, POTENTIALLY DISSOLVED
CHRYSENE
CIS-1,3-DICHLORO PROPENE
CITRIC ACID
CN, FREE (AMENABLE TO CHLORINE)
COLUMBIUM, TOTAL
COMBINED METALS SUM
COPPER
COPPER AS SUSPENDED BLACK OXIDE
COPPER IN BOTTOM DEPOSITS (DRY WGT)
COPPER SLUDGE SOLID
COPPER SLUDGE TOTAL
COPPER TOTAL RECOVERABLE
COPPER, DISSOLVED (AS CU)
COPPER, PERCENT REMOVAL
COPPER, POTENTIALLY DISSOLVED
COPPER, SUSPENDED (AS CU)
COPPER, TOTAL (AS CU)
COPPER, TOTAL PER BATCH
COUMAPHOS
CRESOL
CYANATE (AS OCN)
CYANAZINE
CYANIDE (A)
CYANIDE AND THIOCYANATE - TOTAL
CYANIDE COMPLEXED TO RANGE OF COMPOUND
CYANIDE FREE NOT AMENABLE TO CHLORIN.
CYANIDE IN BOTTOM DEPOSITS (DRY WGT)
CYANIDE SLUDGE SOLID
CYANIDE, FILTERABLE, TOTAL
CYANIDE, FREE AVAILABLE

CYANIDE, FREE-WATER PLUS
WASTEWATERS
CYANIDE, DISSOLVED STD METHOD
CYANIDE, FREE (AMEN. TO CHLORINATION)
CYANIDE, TOTAL (AS CN)
CYANIDE, TOTAL RECOVERABLE
CYANIDE, WEAK ACID, DISSOCIABLE
CYCLOATE (RONEET)
CYCLOHEXANE
CYCLOHEXANONE
CYCLOHEXYL AMINE (AMINO HEXAHYDRO)
CYCOHEXANONE
CYFLUTHRIN
DACONIL (C8CL4N2)
DACTHAL
DAZOMET
DCPA, ORGANIC PESTICIDE
DDD IN WHOLE WATER SAMPLE
DDE
DDT
DDT/DDD/DDE, SUM OF P, P & O,P ISOMERS
DECACHLOROBIPHENYL (DCBP) TOTAL
DECHLORANE PLUS
DEF, ORGANIC PESTICIDE
DEHYDROABIETIC ACID
DELNAV
DELTA BENZENE HEXACHLORIDE
DELTAMETHRIN
DEMETON
DIAZINON
DIBENZO (A,H) ANTHRACENE
DIBENZO (A,H) ANTHRACENE, DRY WEIGHT
DIBENZOFURAN
DIBROMOCHLORO-METHANE
DIBROMODICHLOROMETHANE
DIBROMOMETHANE
DICHLONE
DICHLORAN, TOTAL
DICHLOROBENZENE
DICHLOROBENZENE, ISOMER
DICHLOROBENZYLTRIFLUORIDE
DICHLOROBROMOMETHANE
DICHLOROBROMOMETHANE, DRY WEIGHT
DICHLOROBUTADIENE
DICHLOROBUTENE-(ISOMERS)
DICHLORODEHYDRO-ABEIETIC ACID
DICHLORODIBROMOMETHANE
DICHLORODIFLUORO-METHANE
DICHLOROETHENE, TOTAL
DICHLOROFLUORO METHANE
DICHLOROMETHANE
DICHLOROPROPYLENE, 1,2
DICHLOROTOLUENE
DICHLOROTRIFLUORO- ETHANE
DICHLORVOS, TOTAL
DICHLORVOS, TOTAL DISSOLVED
DICHLORVOS, TOTAL SED DRY WEIGHT
DICHLORVOS, TOTAL SUSPENDED
DICYCLOHEXYLAMINE, TOTAL
DICYCLOPENTADIENE
DIDECYLDIMETHYL AMMONIUM CHLORIDE
DIDROMOMETHANE, 1-2
DIELDRIN
DIELDRIN, DRY WEIGHT
DIETHL METHYL BENZENESULFONAMIDE
DIETHYL PHTHALATE
DIETHYL PHTHALATE, DRY WEIGHT
DIETHYLAMINE
DIETHYLAMINOETHANOL
DIETHYLBENZENE
DIETHYLENE GLYCOL DINITRATE, TOTAL
DIETHYLHEXYL PHTHALATE ISOMER
DIETHYLHEXYL- PHTHALATE
DIETHYLSTILBESTEROL
DIFOLATAN
DIISOPROPYL ETHER
DIMETHOXYBENZIDINE
DIMETHYL BENZIDINE
DIMETHYL DISULFIDE TOTAL
DIMETHYL NAPHTHALENE
DIMETHYL PHTHALATE
DIMETHYL PHTHALATE
DIMETHYL PHTHALATE, DRY WEIGHT
DIMETHYL SULFIDE TOTAL
DIMETHYLAMINE
DIMETHYLANILINE
DI-N-BUTYL PHTHALATE
DI-N-BUTYL PHTHALATE, DRY WEIGHT
DI-NITRO BUTYL PHENOL (DNBP)
DINITROTOLUENE
DI-N-OCTYL PHTHALATE
DI-N-OCTYL PHTHALATE, DRY WEIGHT
DINOSEB
DINOSEB (DNBP)
DIOXANE
DIOXATHION ORGANIC PESTICIDE
DIOXIN
DIOXIN (TCDD) SUSPENDED
DISSOLVED RADIOACTIVE GASSES
DISULFOTON
DIURON
DMDS
DOCOSANE
DODECYLGUANIDINE SALTS
DYPHYLLINE
EDTA
EDTA AMMONIATED
ENDOSULFAN SULFATE
ENDOSULFAN, ALPHA, IN WASTE
ENDOSULFAN, BETA, IN WASTE
ENDOSULFAN, TOTAL
ENDOTHALL SALTS & ESTERS, ORG. PEST.

ENDRIN
ENDRIN + ENDRIN ALDEHYDE (SUM)
ENDRIN ALDEHYDE
EPHEDRINE SULFATE
EPICHLOROHYDRIN
EPTC (EPTAM)
ESTRADIOL
ETHALFLURALIN WATER, TOTAL
ETHANE, 1,2-BIS (2- CLRETHXY), HOMLG SUM
ETHION
ETHOXYQUIN
ETHYL ACETATE
ETHYL BENZENE
ETHYL ETHER BY GAS CHROMATOGRAPH
ETHYL METHANESULFONATE
ETHYL METHYL-DIOXOLANE
ETHYL PARATHION
ETHYLBENZENE
ETHYLBENZENE, DRY WEIGHT
ETHYLENE
ETHYLENE CHLOROHYDRIN
ETHYLENE DIBROMIDE (1,2 DIBROMOETHANE)
ETHYLENE GLYCOL
ETHYLENE GLYCOL DINITRATE
ETHYLENE OXIDE
ETHYLENE THIOUREA (ETU)
ETHYLENE, DISSOLVED (C2H4)
EXPLOSIVE LIMIT, LOWER
EXPLOSIVES, COMBINED TNT + RDX + TETRYL
FENARIMOL ORGANIC PESTICIDE
FENVALERATE ORGANIC PESTICIDE
FERRICYANIDE
FLUORANTHENE
FLUORANTHENE, DRY WEIGHT
FLUORENE
FLUORENE, DRY WEIGHT
FLUORIDE-COMPLEX
FLUSILAZOLE
FOAMING AGENTS
FOLPET WATER TOTAL
FORMALDEHYDE
FORMIC ACID
FREON 113 (1,1,1-TRIFLOURO-2,2-
FREON, TOTAL
FUEL, DIESEL, #1
FURANS
FURFURAL
GALLIUM, TOTAL (AS GA)
GAMMA-BHC
GAMMA, TOTAL
GAMMA, TOTAL COUNTING ERROR
GASOLINE, REGULAR
GERMANIUM, TOTAL (AS GE)
GLYPHOSATE, TOTAL
GOLD, TOTAL (AS AU)
GROSS BETA
GUAFENSIN
GUANIDINE NITRATE
GUTHION
HALOGEN, TOTAL ORGANIC
HALOGEN, TOTAL RESIDUAL
HALOGENATED HYDRO-CARBONS, TOTAL
HALOGENATED ORGANICS
HALOGENATED TOLUENE
HALOGENS, ADSORBABLEORGANIC
HALOGENS, TOTAL ORGAN-ICS BOTTOM SEDIMENT
HALOGENS, TOTAL COMBINED
HALOMETHANES, SUM
HEPTACHLOR
HEPTACHLOR + HEPTACHLOR EPOXIDE
HEPTACHLOR, DRY WEIGHT
HEPTANE
HERBICIDES, TOTAL
HEXACHLOROBENZENE
HEXACHLOROBENZENE, DRY WEIGHT
HEXACHLOROBIPHENYL
HEXACHLOROBUTADIENE
HEXACHLOROBUTADIENE, DRY WEIGHT
HEXACHLOROCYCLOHEXANE (BHC) TOTAL
HEXACHLOROCYCLO-PENTADIENE
HEXACHLOROCYCLOPENTADIENE, DRY WEIGHT
HEXACHLOROETHANE
HEXACHLOROETHANE, DRY WEIGHT
HEXACHLOROPENTADIENE
HEXACHLOROPHENE
HEXADECANE
HEXAHYDROAZEPINONE
HEXAMETHYL-PHOSPHORAMINE (HMPA)
HEXAMETHYLBENZENE
HEXANE
HEXAZIMONE
HMX-1,3,5,7-TETRA ZOCINE (OCTOGEN)
HYDRAZINE
HYDRAZINES, TOTAL
HYDROCARBON, TOTAL RECOVERABLE
HYDROCARBONS NITRATED
HYDROCARBONS NITRATED, TOTAL
HYDROCARBONS, AROMATIC
HYDROCARBONS, TOTAL GAS CHROMATOGRAPH
HYDROCARBONS, IN H2O,IR,CC14 EXT. CHROMAT
HYDROGEN CYANIDE
HYDROQUINONE
HYDROXYACETOPHENONE
HYDROXYQUINOLINE TOTAL
HYDROXYZINE

INDENE
INDENO (1,2,3-CD) PYRENE
INDENO (1,2,3-CD) PYRENE, DRY WEIGHT
INDIUM
IODINE 129
IODINE RESIDUAL
IODINE TOTAL
ISOBUTYL ACETATE
ISOBUTYL ALCOHOL
ISOBUTYRALDEHYDE
ISODECYLDIPHENYL-PHOSPHATE
ISODRIN
ISO-OCTANE
ISOOCTYL 2,4,5-T
ISOOCTYL SILVEX
ISOPHORONE
ISOPHORONE, DRY WEIGHT
ISOPIMARIC ACID
ISOPRENE
ISOPROPALIN WATER, TOTAL
ISOPROPANOL
ISOPROPYL ACETATE
ISOPROPYL ALCOHOL (C3H8O), SED.
ISOPROPYLBENZENE
ISOPROPYL ETHER
ISOPROPYLBIPHENYL, TOTAL
ISOPROPYLIDINE DIOXYPHENOL
ISOTHIAZOLONE
ISOTHIOZOLINE, TOTAL
ISOXSUPRINE
KELTHANE
KEPONE
KN METHYL ORGANIC PESTICIDE
LANTHANUM, TOTAL
LEAD
LEAD TOTAL RECOVERABLE
LEAD 210
LEAD 210, TOTAL
LEAD 212
LEAD 214
LEAD SLUDGE SOLID
LEAD SLUDGE TOTAL
LEAD, DISSOLVED (AS PB)
LEAD, DRY WEIGHT
LEAD, POTENTIALLY DISSOLVD
LEAD, TOTAL (AS PB)
LEAD, TOTAL DRY WEIGHT (AS PB)
LINDANE
LINOLEIC ACID
LINOLENIC ACID
LINURON ORGANIC PESTICIDE
M-ALKYLDIMETHLBENZYLAMCL
MALATHION
MB 121
MCPA 2-ETHYLHEXYL ESTER
MERCAPTANS, TOTAL
MERCAPTOBENZOTHIAZOLE
MERCURY
MERCURY TOTAL RECOVERABLE
MERCURY, DISSOLVED (AS HG)
MERCURY, DRY WEIGHT
MERCURY (HG), IN BARITE, DRY WEIGHT
MERCURY, POTENTIALLY DISSOLVD
MERCURY, TOT IN BOT DEPOSITS (DRY WGT)
MERCURY, TOTAL (AS HG)
MERCURY, TOTAL (LOW LEVEL)
METALS TOXICITY RATIO
METALS, TOTAL
METALS, TOX PRIORITY POLLUTANTS, TOTAL
METAM POTASSIUM
META-XYLENE
METHAMIDOPHOS ORGANIC PESTICIDE
METHAM SODIUM (VAPAM)
METHANE
METHANOL, TOTAL
METHOCARBAMOL
METHOMYL
METHOXYCHLOR
METHOXYPROPYLAMINE
METHYL ACETATE
METHYL BROMIDE
METHYL METHANESULFONATE
METHYL BROMIDE, DRY WEIGHT
METHYL CHLORIDE
METHYL CHLORIDE, DRY WEIGHT
METHYL CYANIDE (ACETONITRILE)
METHYL ETHYL BENZENE
METHYL ETHYL KETONE
METHYL ETHYL SULFIDE
METHYL FORMATE
METHYL ISOBUTYL KETONE (MIBK)
METHYL MERCAPTAN
METHYL METHACRYLATE
METHYL NAPHTHALENE
METHYL PARATHION
METHYL STYRENE
METHYLAMINE
METHYLCYCLOPENTANE
METHYLENE BIS-THIOCYANATE
METHYLENE CHLORIDE
METHYLENE CHLORIDE, DRY WEIGHT
METHYLENE CHLORIDE, SUSPENDED
METHYLHYDRAZINE
METRIBUZIN (SENCOR), WATER, DISSOLVED
METRIOL TRINITRATE, TOTAL
MIREX
MOLYBDENUM DISSOLVED (AS MO)
MOLYBDENUM, TOTAL (AS MO)
MONOCHLOROACETIC ACID

MONO-CHLORO-BENZENES
MONOCHLOROBENZYLTRIFLUORIDE
MONOCHLORODEHYDRO- ABIETIC ACID
MONOCHLOROTOLUENE
MP062 (STEWARD)
NABAM, ORGANIC PESTICIDE
NABONATE
N-AMYL ACETATE
NAPHTHALENE
NAPHTHALENE, DRY WEIGHT
NAPHTHENIC ACID
NAPROPAMIDE (DEVRINOL)
N-BUTYL ACETATE
N-BUTYL-BENZENE SULFONAMIDE (IN WAT)
N-BUTYL-BENZENE (WHOLE WATER, UG/L
NEPTUNE BLUE
N-HEPTADECANE
NIACINAMIDE
NICKEL
NICKEL SLUDGE SOLID
NICKEL SLUDGE TOTAL
NICKEL TOTAL RECOVERABLE
NICKEL, DISSOLVED (AS NI)
NICKEL, POTENTIALLY DISSOLVED
NICKEL, SUSPENDED (AS NI)
NICKEL, TOTAL (AS NI)
NICKEL, TOT IN BOTTOM DEPOSITS (DRY WGT)
NICKEL, TOTAL PER BATCH
NICOTINE SULFATE
NITROBENZENE
NITROBENZENE, DRY WEIGHT
NITROCELLULOSE
NITROFURANS
NITROGEN, ORGANIC, DISSOLVED (AS N)
NITROGLYCERIN BY GAS CHROMATOGRAPHY
NITROGUANIDINE
NITROSODIPHENYLAMINE
NITROSTYRENE
N-METHYL-2-PYRROLIDONE
N-NITROSO COMPOUNDS, VOLATILE
N-NITROSODIBUTYL-AMINE
N-NITROSODIETHYL-AMINE
N-NITROSODIMETHYL-AMINE
N-NITROSODIMETHYL-AMINE, DRY WEIGHT
N,N-DIETHYL CARBANILIDE
N,N-DIMETHYL FORMAMIDE
N-NITROSODI-N-BUTYLAMINE
N-NITROSODI-N-PROPYLAMINE
N-NITROSODI-N-PROPYLAMINE, DRY WEIGHT
N-NITROSODIPHENYL-AMINE
N-NITROSODIPHENYLAMINE, DRY WEIGHT
N-NITROSOPYRROLIDINE
NONHALOGENATED VOLATILE ORGANICS
NONPURGEABLE ORGANIC HALIDES
NORFLURAZON ORGANIC PESTICIDE
N PENTANE
N-PROPYLBENZENE
O-CHLOROBENZYL CHLORIDE
OCTACHLORO-CYCLOPENTENE
OCTACHLORODIBENZO P DIOXIN
OCTACHLORODIBENZOFURAN
OCTYLPHENOXY POLYETHOXYETHANOL
OIL/GREASE CALCULATED LIMIT
OIL, PETROLEUM ETHER EXTRACTABLES
OLEIC ACID
ORDRAM (HYDRAM)
ORGANIC ACTIVE IN-GREDIENTS (40 CFR 455)
ORGANIC COMPOUNDS, CHLOROFORM EXTRACT.
ORGANIC HALIDES, TOTAL
ORGANIC PESTICIDE CHEMICALS (40 CFR 455)
ORGANICS, GASOLINE RANGE
ORGANICS, TOTAL
ORGANICS, TOTAL HALOGENS (TOX)
ORGANICS, TOTAL PURGE-ABLES (METHOD 624)
ORGANICS, TOTAL TOXIC (TTO)
ORGANICS-TOTAL VOLATILE (NJAC REG.7:23-17E)
ORGANICS, VOLATILE (NJAC REG. 7:23-17E)
ORTHENE
ORTHOCHLOROTOLUENE
ORTHO-CRESOL
ORTHO-XYLENE
O-TOLUIDINE
OXALIC ACID
OXYTETRACYCLINE HYDROCHLORIDE
P,P-DDE-DISSOLVED
P,P-DDT-DISSOLVED
PALLADIUM, TOTAL (AS PD)
P-AMINOBIPHENYL
PANTHALIUM, TOTAL
PARABEN (METHYL AND PROPYL)
PARACHLOROMETA CRESOL
PARA-DICHLOROBENZENE
PARAQUAT
PARATHION
PCB-1016 (AROCHLOR 1016)
PCB-1221 (AROCHLOR 1221)
PCB-1232 (AROCHLOR 1232)
PCB-1242 (AROCHLOR 1242)
PCB-1248 (AROCHLOR 1248)
PCB-1254 (AROCHLOR 1254)
PCB-1260 (AROCHLOR 1260)
PCB-1262
PCB, TOTAL SLUDGE, SCAN CODE
PCBS IN BOTTOM DEPS. (DRY SOLIDS)

PCNB, ORGANIC PEST.
P-CRESOL
P-DIMETHYLAMINO-AZOBENZENE
PEBULATE (TILLAM)
PENDIMETHALIN ORGANIC PESTICIDE
PENTACHLOROBENZENE
PENTACHLOROETHANE
PENTACHLOROPHENOL
PENTANE, TOTAL EFFLUENT
PERFLUOROBUTANE SULFONAMIDE
PERFLUOROBUTANOIC ACID
PERFLUOROBUTANOIC SULFONATE
PERFLUOROOCTANE SULFONAMIDE
PERFLUOROOCTANE SULFONATE
PERFLUOROOCTANOIC ACID
PERMETHRIN, TOTAL
PERTHANE
PESTICIDES, GENERAL
P-ETHYLTOLUENE
PETROL HYDROCARBONS, TOTAL RECOVERABLE
PHENACETIN
PHENANTHRENE
PHENANTHRENE, DRY WEIGHT
PHENOL, SINGLE COMPOUND
PHENOLIC COMPOUNDS, SLUDGE TOTAL, DRY WEIGHT
PHENOLIC COMPOUNDS, UNCHLORINATED
PHENOLICS IN BOTTOM DEPOSITS (DRY WGT)
PHENOLICS, TOTAL RECOVERABLE
PHENOLS
PHENOLS, CHLORINATED
PHENOXY ACETIC ACID
PHENYLPROPANOLAMINE
PHENYLTOLOXAMINE
PHORATE
PHOSMET, ORGANIC PESTICIDE
PHOSPHATED PESTICIDES
PHOSPHOROTHIOIC ACID 0,0,0-TRIETHYL ESTR
PHTHALATE ESTERS
PHTHALATES, TOTAL
PHTHALIC ACID
PHTHALIC ANHYDRIDE
PIRIMICARB
PLATINUM, TOTAL (AS PT)
POLONIUM 210
POLYACRILAMIDE CHLORIDE
POLYBROMINATED BIPHENYLS
POLYBROMINATED DIPHENYL OXIDES
POLYCHLORINATED BIPHENYLS (PCBS)
POLYMETHYLACRYLIC ACID
POLY-NUCLEAR AROMATICS (POLYRAM)
POTASSIUM 40
PRIORITY POLLUTANTS TOTAL EFFLUENT
PROFENOFOS
PROMETON, ORGANIC PESTICIDE
PROMETRYN, ORGANIC PESTICIDE
PRONAMIDE, ORGANIC PESTICIDE
PROPABHLOR (RAMROD) DISSOLVED
PROPACHLOR, ORGANIC PESTICIDE
PROPANE, 2-METHOXY-2-METHYL (MTBE)
PROPANIL
PROPAZINE, ORGANIC PESTICIDE
PROPRANE, TOTAL
PROPYL ACETATE
PROPYLENE OXIDE
PROPYLENGLYCOL, TOTAL
PROTACTINIUM 234, DRY WEIGHT
PURGEABLE AROMATICS METHOD 602
PURGEABLE HYDRO-CARBONS, METH. 601
PURGEABLE ORGANIC HALIDES
PYMETROZINE
PYRENE
PYRENE, DRY WEIGHT
PYRETHRINS
PYRIDINE
PYRIFENOX
QUARTERNARY AMMONIUM COMPOUNDS
QUINOLINE
RADIATION-GROSS ALPHA TOT DISSOLVED
RADIATION-GROSS ALPHA TOT SUSPENDED
RADIATION, GROSS BETA
RADIATION, GROSS ALPHA
RADIOACTIVITY
RADIOACTIVITY, GROSS
RADIUM 224
RADIUM 226 + RADIUM 228, TOTAL
RADIUM 226, DISSOLVED
RADIUM 228, TOTAL
RARE EARTH METALS, TOTAL
RATIO OF FECAL COLIFORM TO FECAL STREPOC
R-BHC (LINDANE) GAMMA
RDX, DISSOLVED
RDX, TOTAL
RESIN ACIDS, TOTAL
RESORCINOL
RHODIUM, TOTAL
ROTENONE
ROUNDUP
ROVRAL
RUBIDIUM, TOTAL (AS RB)
SAFROLE
SAMARIUM, TOTAL (AS SM IN WATER)
SELENIUM SLUDGE SOLID
SELENIUM, ACID SOLUBLE
SELENIUM, DISSOLVED (AS SE)
SELENIUM, DRY WEIGHT
SELENIUM, POTENTIALLY DISSOLVD

SELENIUM, SLUDGE, TOTAL DRY WEIGHT
SELENIUM, TOTAL (AS SE)
SELENIUM, TOTAL RECOVERABLE
SEVIN (CARBARYL) IN TISSUE
SEVIN (CARBRYL)
SILVER
SILVER TOTAL RECOVERABLE
SILVER IN BOTTOM DEPOSITS (DRY WGT)
SILVER, DISSOLVED (AS AG)
SILVER, IONIC
SILVER, POTENTIALLY DISSOLVED
SILVER, TOTAL (AS AG)
SILVER, TOTAL PER BATCH
SILVEX
SODIUM CHLORATE
SODIUM DICHROMATE
SODIUM DIMETHYL-DITHIOCARBAMATE, TOTAL
SODIUM-O-PPTH
SODIUM PENTACHLORO- PHENATE
SODIUM POLYACRYLATE, TOTAL
SOPP
SOPP, LOADING RATE
STIROFOS
STROBANE
STRONTIUM 90, TOTAL
STRONTIUM, DISSOLVED
STRONTIUM, TOTAL (AS SR)
STYRENE
STYRENE, TOTAL
SULFABENZAMIDE
SULFACETAMIDE
SULFATHIAZOLE
SULFOTEPP (BLADAFUME)
TANNIN AND LIGNIN
TCDD EQUIVALENTS
TCMTB
TEBUCONAZOLE
TEBUPIRIMFOS
TEBUTHIURON ORGANIC PESTICIDE
TECHNETIUM-99
TEFLUTHRIN
TELLURIUM, TOTAL
TEMEPHOS
TERBACIL
TERBUFOS
TERBUFOS (COUNTER) TOTAL
TERBUTHYLAZINE ORGANIC PESTICIDE
TERBUTRYN, ORGANIC PESTICIDE
TETRA SODIUM EDTA
TETRACHLORDIBENZOFURAN, 2378-(TCDF)
SED,
TETRACHLOROBENZENE
TETRACHLOROETHANE, TOTAL
TETRACHLOROETHENE
TETRACHLOROETHYLENE
TETRACHLOROETHYLENE, DRY WEIGHT
TETRACHLOROGUAIACOL (4CG) IN WHOLE WATER
TETRAHYDRO-3,5-DIMETHYL-2-HYDRO-1,3,5-TH
TETRAHYDROFURAN
TETRAMETHYL AMMONIUM HYDROXIDE
TETRAMETHYLBENZENE
THALLIUM 208
THALLIUM IN BOTTOM DEPOSITS (DRY WGT)
THALLIUM, ACID SOLUBLE
THALLIUM, DISSOLVED (AS TL)
THALLIUM, POTENTIALLY DISSOLVED
THALLIUM, TOTAL (AS TL)
THALLIUM, TOTAL RECOVERABLE
THC, DRY & 02
THEOPHYLLINE
THIABENDAZOLE
THIOBENDAZOLE
THIOCARBAMATES
THIOCYANATE (AS SCN)
THIOSULFATE ION(2-)
THORIUM 230
THORIUM 232
THORIUM 232 PCI/G OF DRY SOLIDS
THORIUM 234
TIN
TIN, DISSOLVED (AS SN)
TIN, TOTAL (AS SN)
TIN, TOTAL RECOVERABLE
TIN, TRI-ORGANO-
TITANIUM, DISSOLVED (AS TI)
TITANIUM, TOTAL (AS TI)
TITANIUM, TOTAL DRY WEIGHT (AS TI)
TOLUENE
TOLUENE, DISSOLVED
TOLUENE, DRY WEIGHT
TOLUENE-2,4 -DIISOCYANITE
TOLYTRIAZOLE
TOPSIN
TOTAL ACID PRIORITY POLLUTANTS
TOTAL BASE/NEUTRAL PRIORITY POLLUTANTS
TOTAL PESTICIDES
TOTAL PHENOLS
TOTAL POLONIUM
TOTAL PURGEABLE HALOCARBONS
TOTAL TOXIC ORGANICS (TTO) (40 CFR 413)
TOTAL TOXIC ORGANICS (TTO) (40 CFR 433)
TOTAL TOXIC ORGANICS (TTO) (40 CFR 464A)
TOTAL TOXIC ORGANICS (TTO) (40 CFR 464B)
TOTAL TOXIC ORGANICS (TTO) (40 CFR 464C)

TOTAL TOXIC ORGANICS (TTO) (40 CFR 464D)
TOTAL TOXIC ORGANICS(TTO) (40 CFR 465)
TOTAL TOXIC ORGANICS (TTO) (40 CFR 467)
TOTAL TOXIC ORGANICS (TTO) (40 CFR 468)
TOTAL TOXIC ORGANICS (TTO) (40 CFR 469)
TOTAL VOLATILE PRIORITY POLLUTANTS
TOXAPHENE
TOXAPHENE, DRY WEIGHT
TOXICS, PERCENT REMOVAL
TRANS-1,2-DICHLORO-ETHYLENE
TRANS-1,3-DICHLORO PROPENE
TREFLAN (TRIFLURALIN)
TRIADIMEFON ORGANIC PESTICIDE
TRIBUTHYLAMINE
TRIBUTYLTIN
TRICHLOROBENZENE
TRICHLOROBENZENE 1,2,4 TOTAL
TRICHLOROETHANE
TRICHLOROETHENE
TRICHLOROETHYLENE
TRICHLOROETHYLENE, DISSOLVED
TRICHLOROETHYLENE, DRY WEIGHT
TRICHLOROFLUORO-METHANE
TRICHLOROGUAIACOL
TRICHLOROMETHANE
TRICHLOROPHENATE-(ISOMERS)
TRICHLOROPHENOL
TRICHLOROTOLUENE
TRICHLOROTRIFLUORO-ETHANE
TRICHOROFON
TRIETHANOLAMINE
TRIETHYLAMINE
TRIFLURALIN (C13H16F3N3O4)
TRIHALOMETHANE, TOT.
TRIMETHYL BENZENE
TRINITROTOLUENE (TNT), DISSOLVED
TRINITROTOLUENE (TNT), TOTAL
TRIPHENYL PHOSPHATE
TRITHION
TRITIUM (1 H3), TOTAL
TRITIUM, TOTAL
TRITIUM, TOTAL COUNTING ERROR (PC/L)
TRITIUM, TOTAL NET INCREASE H-3 UNITS
TUNGSTEN, DISSOLVED
TUNGSTEN, TOTAL
U-236 TOTAL WTR
URANIUM 235, DRY WEIGHT
URANIUM 238
URANIUM, POTENTIALLY DISSOLVD
URANIUM, 235 TOTAL
URANIUM, 238 TOTALURANIUM, NATURAL, DISSOLVED
URANIUM, NATURAL, TOTAL
URANIUM, NATURAL, TOTAL (IN PCI/L)
URANIUM, TOTAL AS U308
URANYL-ION
UREA
VERNAM (S-PROPYLDI-PROPYLTHIOCARBAMATE)
VINYL ACETATE
VINYL CHLORIDE
VINYL CHLORIDE, DRY WEIGHT
VOLATILE COMPOUNDS (GC/MS)
VOLATILE FRACTION ORGANICS (EPA 624)
VOLATILE HALOGENATED HYDROCARBONS
VOLATILE HALOGENATED ORGANICS (VHO), TOT
VOLATILE HYDROCARBONS
VOLATILE ORGANIC COMPOUND (VOC)
VOLATILE ORGANICS DETECTED
XANTHATES
XC POLYMER IN DRILLING FLUIDS
XYLENE
XYLENE, PARA-TOTAL
ZINC
ZINC IN BOTTOM DEPOSITS (DRY WGT)
ZINC SLUDGE SOLID
ZINC SLUDGE TOTAL
ZINC TOTAL RECOVERABLE
ZINC, DISSOLVED (AS ZN)
ZINC, DRY WEIGHT
ZINC, PERCENT REMOVAL
ZINC, POTENTIALLY DISSOLVED
ZINC, TOTAL
ZINC, TOTAL (AS ZN)
ZIRAM, ORGANIC PESTICIDE
ZIRCONIUM, TOTAL