

**STATE WATER RESOURCES CONTROL BOARD**

**WATER QUALITY  
ENFORCEMENT POLICY**

November 17, 2009

**CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY**

**Water Quality Enforcement Policy - November 17, 2009**

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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.

## **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 do not 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

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;<sup>1</sup>
- 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.

Step 1. *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.

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<sup>1</sup> 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.

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.

**TABLE 1 - Per Gallon Factor for Discharges**

Deviation from Requirement	Potential for Harm									
	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**

Deviation from Requirement	Potential for Harm									
	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**

Deviation from Requirement	Potential for Harm		
	Minor	Moderate	Major
Minor	0.1 (0.15)	0.2 (0.25)	0.3 (0.35)
	0.2	0.3	0.4
Moderate	0.2 (0.25)	0.3 (0.35)	0.4 (0.55)
	0.3	0.4	0.7
Major	0.3 (0.35)	0.4 (0.55)	0.7 (0.85)
	0.4	0.7	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.

<b>TABLE 4 – Violator’s Conduct Factors</b>	
<b>Factor</b>	<b>Adjustment</b>
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 <b>0.5 to 1.5</b> , 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 <b>0.75 to 1.5</b> , 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 <b>1.1</b> 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 30<sup>th</sup> 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 violator's 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 findings 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<sup>2</sup> computer program (the most recent

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<sup>2</sup> 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.<sup>3</sup>

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<sup>4</sup> for the community is less than 80 percent of the California median household income;
- The community has an unemployment rate<sup>5</sup> of 10 percent or greater; or
- Twenty percent of the population is below the poverty level.<sup>6</sup>

“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<sup>7</sup> 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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<sup>3</sup> 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.

<sup>4</sup> **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.

<sup>5</sup> **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.

<sup>6</sup> **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."

<sup>7</sup> **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.

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
<i>Based on 2003 USDA Rural-Urban Continuum Codes for California</i>		

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.

## **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.

## **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 NOV's 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](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.

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### 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  
Nitrilotriacetic 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	ALUMINUM, IONIC
5-DAY SUM OF BOD5 DISCHARGED	
7-DAY SUM OF WLA VALUES	ALUMINUM, POTENTIALLY DISSOLVD
7-DAY SUM OF BOD5 DISCHARGED	ALUMINUM SULFATE
ACIDITY	ALUMINUM, TOTAL RECOVERABLE
ACIDITY, CO2 PHENOL (AS CaCO3)	ALUMINUM, TOTAL
ACIDITY-MINRL METHYL ORANGE (AS CaCO3)	ALUMINUM, TOTAL (AS AL)
ACIDITY, TOTAL (AS CaCO3)	AMMONIA & AMMONIUM-TOTAL
ALGICIDES, GENERAL	AMMONIA (AS N) + UNIONIZED AMMONIA
ALKALINITY, BICARBO-NATE (AS CaCO3)	AMMONIA, UNIONIZED
ALKALINITY, CARBO-NATE (AS CaCO3)	AVG. OF 7-DAY SUM OF BOD5 VALUES
ALKALINITY, PHENOL-PHTHALINE METHOD	BARIUM, SLUDGE, TOT, DRY WEIGHT (AS BA)
ALKALINITY, TOTAL (AS CaCO3)	BICARBONATE ION-(AS HCO3)
ALUMINUM	BIOCHEMICAL OXYGEN DEMAND-5
ALUMINUM, ACID SOLUABLE	BIOCIDES
ALUMINUM CHLORIDE, DISSOLVED, WATER	BOD % OVER INFLUENT
ALUMINUM, DISSOLVED (AS AL)	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  
 STREAMFLOW  
 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)  
 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)	SOLIDS, FIXED DISSOLVED
PHOSPHORUS, DISSOLVED	SOLIDS, FIXED SUSPENDED
PHOSPHORUS, DISSOLVED REATIVE (DRP AS P)	SOLIDS, SETTLEABLE
PHOSPHOROUS, IN TOTAL	SOLIDS, SETTLEABLE, NET VALUE
ORTHOPHOSPHATE	SOLIDS, SLUDGE, TOT, DRY WEIGHT
PHOSPHORUS (REACTIVE AS P)	SOLIDS, SUSPENDED PERCENT REMOVAL
PHOSPHOROUS 32, TOTAL	SOLIDS, TOTAL
PHOSPHOROUS, TOTAL ELEMENTAL	SOLIDS, TOTAL DISSOLVED
PHOSPHOROUS, TOTAL, IN BOTTOM DEPOSITS	SOLIDS, TOTAL DISSOLVED (TDS)
PHOSPHOROUS, TOTAL ORGANIC (AS P)	SOLIDS, TOTAL DISSOLVED-180 DEG.C
PHOSPHORUS, TOTAL (AS P)	SOLIDS, TOTAL DISSOLVED PERCENT BY WEIGHT
PHOSPHORUS, TOTAL PERCENT REMOVAL	SOLIDS, TOTAL DISSOLVED (INORGANIC)
PHOSPHORUS, TOTAL SOLUBLE (AS PO4)	SOLIDS, TOTAL FIXED
POTASSIUM, DISSOLVED (AS K)	SOLIDS, TOTAL SUSPD. NON-VOLATILE
POTASSIUM, IN BOTTOM DEPOSITS	SOLIDS, TOTAL SUSPENDED
POTASSIUM, PCT EXCHANGE	SOLIDS, TOTAL VOLATILE
POTASSIUM, TOTAL PCTIN WATER, (PCT)	SOLIDS, TOTAL DISSOLVED, TOTAL TONS
POTASSIUM, TOTAL RECOVERABLE	SOLIDS, TOTAL NON-VOLATILE, NON-FIXED
PROPARGITE	SOLIDS, TOTAL SUSP PER PRODUCTION
RADIATION, GROSS BETA PARTICLE ACTIVITY	SOLIDS, TOTAL SUSP. PER 1000 GALLONS
RATIO FECAL COLIFORM & STREPTOCOCCI RESIDUE, SETTLEABLE	SOLIDS, TOTAL SUSP. PER BATCH
RESIDUE, TOTAL FILTERABLE	SOLIDS, TOTAL SUSP. PER CFS OF STREAMFLW
RESIDUE, TOTAL NON-SETTLEABLE	SOLIDS, TOTAL SUSPENDED, LOADING RATE
RESIDUE, TOTAL VOLATILE	SOLIDS, TOTAL SUSPENDED, NET VALUE
RESIDUE, VOLATILE NONFILTERABLE	SOLIDS, VOLATILE DISSOLVED
SEAWATER GEL MUD	SOLIDS, VOLATILE SUSPENDED
SETTLEABLE SOLIDS PERCENT REMOVAL	SOLIDS, VOLATILE SUSPENDED, % REMOVAL
SILICA, DISSOLVED (AS SIO2)	SOLIDS, VOLATILE SUSP., IN MIXED LIQUOR
SILICON, TOTAL	SOLIDS, DRY, DISCHARGE TO SOL. HANDLING SYS.
SILICA, TOTAL (AS SIO2)	SOLIDS, DRY, INCIN. AS% OF DRY SOL. FROM TRMTPLT
SLUDGE BUILD-UP IN WATER	SOLIDS, DRY, REMOVED FROM SOL. HANDLING SYS.
SLUDGE, RATE OF WASTING	SOLIDS, TOT. VOLATILE PERCENT REMOVAL
SLUDGE SETTLEABILITY 30 MINUTE	SOLIDS, VOLATILE % OF TOTAL SOLIDS
SLUDGE VOLUME DAILY INTO A WELL	SOLIDS-FLOTNG-VISUAL DETRMNTN-#
SODIUM ADSORPTION RATIO	DAYS OBS
SODIUM ARSENITE	SULFATE
SODIUM CHLORIDE (SALT)	SULFATE (AS S)
SODIUM, DISSOLVED (AS NA)	SULFATE, DISSOLVED (AS SO4)
SODIUM HEXAMETA-PHOSPHATE	SULFATE IN SEDIMENT
SODIUM IN BOTTOM DEP (AS NA) (DRY WGT)	SULFATE, TOTAL (AS SO4)
SODIUM NITRITE	SULFIDE, DISSOLVED, (AS S)
SODIUM, %	SULFIDE, TOTAL
SODIUM, % EXCHANGE- ABLE SOIL, TOTAL	SULFIDE, TOTAL (AS S)
SODIUM, SLUDGE, TOT, DRY WEIGHT (AS NA)	SULFITE (AS S)
SODIUM SULFATE, TOTAL	SULFITE (AS SO3)
SODIUM, TOTAL (AS NA)	SULFITE WASTE LIQUOR PEARL BENSON
SODIUM, TOTAL RECOVERABLE	INDEX
SOLIDS ACCUMULATION RATE TOT DRY WEIGHT	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  
TURBIDITY, HCH TURBIDIMETER  
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.

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### 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	1,2,3,4,6,7,8,9-
1, 3, 5-TRIMETHYL-BENZENE	OCTACHLORODIBENZOFURAN
1,1 DICHLORO 1,2,2,2	1,2,3,4,6,7,8,9-OCTACHLORODIBENZO-P-
TETRAFLUOROETHANE	DIOX
1,1 DICHLORO 2,2,2-TRIFLUOROETHANE	1,2,3,4,6,7,8-HEPTA
1,1,1 TRICHLORO-2,2,2-TRIFLUOROETHANE	CHLORODIBENZOFURAN
1,1,1,2,2-PENTA-FLUOROETHANE	1,2,3,4,6,7,8-HEPTACHLORODIBENZO-P-
1,1,1,3,3-PENTA-FLUOROBUTANE	DIOXN
1,1,1-TRICHLORO-ETHANE	1,2,3,4,7,8,9-HEPTA
1,1,1-TRICHLOROETHANE, DRY WEIGHT	CHLORODIBENZOFURAN
1,1,1-TRIFLUORO- ETHANE	1,2,3,4,7,8-HEXACHLORODIBENZOFURAN
1,1,2,2-TETRACHLORO-ETHANE	1,2,3,4,7,8-HEXACHLORODIBENZO-P-DIOXIN
1,1,2,2-TETRACHLOROETHANE, DRY	1,2,3,6,7,8-HEXACHLORODIBENZOFURAN
WEIGHT	1,2,3,6,7,8-HEXACHLORODIBENZO-P-DIOXIN
1,1,2,2-TETRACHLOROETHYLENE	1,2,3,7,8,9-HEXACHLORODIBENZOFURAN
1,1,2-TRICHLORO-ETHANE	1,2,3,7,8,9-HEXACHLORODIBENZO-P-DIOXIN
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	1,2,3,7,8-PENTACHLORODIBENZOFURAN
1,1,2-TRICHLOROETHANE, DRY WEIGHT	1,2,3,7,8-PENTACHLORODIBENZO-P-DIOXIN
1,1-DICHLORO-1-FLUOROETHANE	1,2,3-TRICHLOROPROPANE
1,1-DICHLOROETHANE	1,2,4,5-TETRACHLORO-BENZENE
1,1-DICHLOROETHANE, DRY WEIGHT	1,2,4,5-TETRAMETHYL-BENZENE
1,1-DICHLOROETHENE	1,2,4-TRICHLORO-BENZENE
1,1-DICHLOROETHYLENE	1,2,4-TRICHLOROBENZENE, DRY WEIGHT
1,1-DICHLOROETHYLENE, DRY WEIGHT	1,2-BIS(2-CHLOROETH-ONY) ETHANE
1,1-DIMETHYL-HYDRAZINE	1,2-CIS-DICHLORO-ETHYLENE
1,2,3 TRICHLORO-BENZENE	1,2-DICHLORO-1,1,2-T
1,2,3 TRICHLORO-ETHANE	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-NITRILOPPROPIONAMIDE  
 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  
 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-BUTYLDENE BIS-(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 (CYANO BENZENE)  
 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  
 BUTHDIE NE 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-RAC TS, ETHER INSOLUBL  
 CARBOFURAN  
 CARBON DISULFIDE (CS2)  
 CARBON TETRACHLORIDE  
 CARBON TETRACHLORIDE, DRY WEIGHT  
 CARBON, CHLOROFORM EXTRACTABLES  
 CARBON, DISSOLVED ORGANIC (AS C)  
 CARBONATE ION (AS CACO3)  
 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  
 CHLORIDE, ORGANIC, TOTAL

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

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

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 (DEVIRINOL)  
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-AMINOBIIPHENYL  
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	POLY-NUCLEAR AROMATICS (POLYRAM)
PCB, TOTAL SLUDGE, SCAN CODE	POTASSIUM 40
PCBS IN BOTTOM DEPS. (DRY SOLIDS)	PRIORITY POLLUTANTS TOTAL EFFLUENT
PCNB, ORGANIC PEST.	PROFENOFOS
P-CRESOL	PROMETON, ORGANIC PESTICIDE
P-DIMETHYLAMINO-AZOBENZENE	PROMETRYN, ORGANIC PESTICIDE
PEBULATE (TILLAM)	PRONAMIDE, ORGANIC PESTICIDE
PENDIMETHALIN ORGANIC PESTICIDE	PROPABHLOR (RAMROD) DISSOLVED
PENTACHLOROBENZENE	PROPACHLOR, ORGANIC PESTICIDE
PENTACHLOROETHANE	PROPANE, 2-METHOXY-2-METHYL
PENTACHLOROPHENOL	PROPANIL
PENTANE, TOTAL EFFLUENT	PROPAZINE, ORGANIC PESTICIDE
PERFLUOROBUTANE SULFONAMIDE	PROPRANE, TOTAL
PERFLUOROBUTANOIC ACID	PROPYL ACETATE
PERFLUOROBUTANOIC SULFONATE	PROPYLENE OXIDE
PERFLUOROOCTANE SULFONAMIDE	PROPYLENGLYCOL, TOTAL
PERFLUOROOCTANE SULFONATE	PROTACTINIUM 234, DRY WEIGHT
PERFLUOROOCTANOIC ACID	PURGEABLE AROMATICS METHOD 602
PERMETHRIN, TOTAL	PURGEABLE HYDRO-CARBONS, METH. 601
PERTHANE	PURGEABLE ORGANIC HALIDES
PESTICIDES, GENERAL	PYMETROZINE
P-ETHYLTOLUENE	PYRENE
PETROL HYDROCARBONS, TOTAL	PYRENE, DRY WEIGHT
RECOVERABLE	PYRETHRINS
PHENACETIN	PYRIDINE
PHENANTHRENE	PYRIFENOX
PHENANTHRENE, DRY WEIGHT	QUARTERNARY AMMONIUM COMPOUNDS
PHENOL, SINGLE COMPOUND	QUINOLINE
PHENOLIC COMPOUNDS, SLUDGE TOTAL,	RADIATION-GROSS ALPHA TOT DISSOLVED
DRY WEIGHT	RADIATION-GROSS ALPHA TOT
PHENOLIC COMPOUNDS, UNCHLORINATED	SUSPENDED
PHENOLICS IN BOTTOM DEPOSITS (DRY	RADIATION, GROSS BETA
WGT)	RADIATION, GROSS ALPHA
PHENOLICS, TOTAL RECOVERABLE	RADIOACTIVITY
PHENOLS	RADIOACTIVITY, GROSS
PHENOLS, CHLORINATED	RADIUM 224
PHENOXY ACETIC ACID	RADIUM 226 + RADIUM 228, TOTAL
PHENYLPROPANOLAMINE	RADIUM 226, DISSOLVED
PHENYLTOLOXAMINE	RADIUM 228, TOTAL
PHORATE	RARE EARTH METALS, TOTAL
PHOSMET, ORGANIC PESTICIDE	RATIO OF FECAL COLIFORM TO FECAL
PHOSPHATED PESTICIDES	STREPOC
PHOSPHOROTHIOIC ACID 0,0,0-TRIETHYL	R-BHC (LINDANE) GAMMA
ESTR	RDX, DISSOLVED
PHTHALATE ESTERS	RDX, TOTAL
PHTHALATES, TOTAL	RESIN ACIDS, TOTAL
PHTHALIC ACID	RESORCINOL
PHTHALIC ANHYDRIDE	RHODIUM, TOTAL
PIRIMICARB	ROTENONE
PLATINUM, TOTAL (AS PT)	ROUNDUP
POLONIUM 210	ROVRAL
POLYACRILAMIDE CHLORIDE	RUBIDIUM, TOTAL (AS RB)
POLYBROMINATED BIPHENYLS	SAFROLE
POLYBROMINATED DIPHENYL OXIDES	SAMARIUM, TOTAL (AS SM IN WATER)
POLYCHLORINATED BIPHENYLS (PCBS)	SELENIUM SLUDGE SOLID
POLYMETHYLACRYLIC ACID	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,  
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 & O2  
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

