STATE OF CALIFORNIA
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

STAFF SUMMARY REPORT (CS)
MEETING DATE: January 30, 2008

ITEM: 8

SUBJECT: **City of Richmond, Contra Costa County** - Hearing to Consider Mandatory Minimum Penalty for Discharge in Violation of Effluent Limitations

CHRONOLOGY: Mandatory Minimum Penalty Complaint issued September 2004

DISCUSSION: The City violated its NPDES permit's effluent limits sixteen times from December 2005, to August 2007. Fourteen of these violations are subject to an MMP. In November 2007, we issued a complaint to the City assessing $42,000 in mandatory minimum penalties.

The majority of the violations covered by this complaint happened before or during plant upgrades, while others were isolated events.

The minimum penalty is appropriate for these violations, because in each event, the City investigated the causes, made needed plant improvements and modified procedures.

The City signed a waiver to a hearing (see Appendix B), and it has submitted a concept proposal (see Appendix C) for a Supplemental Environmental Project. The project would contribute towards two existing programs (Watershed Project and Kids for the Bay) that educate elementary school students about nonpoint source pollution through workshops, hands-on projects and fieldtrips.

RECOMMEND-ATION: No action is necessary

File Number: 2119.1037 (CS)

Appendices: A. Complaint No. R2-2007-0071
B. Signed Waiver
C. SEP Concept Proposal

APPENDIX A

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

Complaint No. R2-2007-0071

Mandatory Minimum Penalty
In the Matter of
City of Richmond
Richmond, Contra Costa County

Overview

This complaint assesses $42,000 in Mandatory Minimum Penalties (MMPs) to the City of Richmond (hereafter Discharger). The complaint is based on a finding of the Discharger's violations of Waste Discharge Requirements Order No. 01-144 (NPDES No. CA 0038539) from January 2005 to August 2007.

This MMP complaint is issued pursuant to Water Code Sections 13385(h)(1-2), 13385(i) and 13385(l). For a general overview of how MMPs are calculated, please see Attachment 4.

A. Permit at the time of violations

On November 28, 2001, the California Regional Water Quality Control Board (Water Board) adopted Order No. 01-144 for the Discharger, to regulate discharges of waste from its waste water treatment plant.

B. Effluent Limitations

Order No. 01-144 specified the following effluent limitations:

Parameter	Effluent Limit
5-day biochemical oxygen demand (weekly avg)	45 mg/L
Total suspended solids (weekly avg)	45 mg/L
Total suspended solids (monthly avg)	30 mg/L
Oil and grease (daily max)	20 mg/L
Oil and grease (monthly avg)	10 mg/L
Settleable matter (daily max)	0.2 ml/l-hr
Settleable matter (monthly avg)	0.1 ml/l-hr
Total chlorine residual (instantaneous max)	0.0 mg/L
Acute toxicity (11-sample 90th percentile value of not less than 70 percent survival)	$\geq$70

C. Summary of Effluent Limit Violations

During the period between December 3, 2005, and August 27, 2007, the Discharger had sixteen violations of its effluent discharge limits, as detailed in Table 1. These violations were

- One 5-day biochemical oxygen demand weekly average violation
- Three total suspended solids weekly average violations
- Three total suspended solids monthly average violations
- One oil and grease daily maximum violation

- One oil and grease monthly average violation
- Three settleable matter daily maximum violations
- Two settleable matter monthly average violations
- One total chlorine residual instantaneous maximum violation
- One whole effluent acute toxicity violation

D. Water Board Staff's Consideration of Violations

Since June 17, 2002, under contract with the Discharger, Veolia Water Systems has operated the Discharger's wastewater treatment plant. When Veolia took charge of the wastewater treatment plant, most treatment units were in disrepair, ineffective, and in poor operating condition. This caused repeated violations of technology-based effluent limits. Starting in 2002, the Discharger has steadily improved the staffing, supervision, financing, operation, and maintenance of its wastewater treatment plant, investing over $7 million in the purchase and rehabilitation of plant equipment. This is confirmed by USEPA contractor inspections of the treatment plant over the years, with the most recent one in October 15, 2007, during which Water Board Staff was present.

During this inspection, we found the Discharger's wastewater treatment plant to be in good condition. Compared to the findings of the 2001 inspection report, it is clear that the Discharger is steadily improving its plant and operations, and returning to compliance. The Discharger's records and computer program for scheduling repairs were also up to date. The Water Board will continue to keep track of the Discharger's compliance with technology-based limits to determine whether plant capacity issues need to be addressed in the future.

This Complaint covers the sixteen violations from December 2005 to August 2007. Many of the violations happened before or during plant upgrades, while others were isolated events, or events caused by operator errors. Additional details on Water Board Staff's consideration of these violations are in the section that follow. In all, the Discharger took reasonable steps in reaction to each violation and is moving towards compliance. For those reasons, and because of the satisfactory inspection, the minimum penalty is adequate at this time.

2005 Violations

On December 3, 2005, unusual circumstances caused the weekly total suspended solids violation. During that week, the Discharger blended due to high flows, and at the same time, a repaired secondary clarifier was placed on line on its scheduled day—December 1, 2005. This combination hydraulically overloaded the secondary process. The problem was compounded by the receipt of landfill leachate, which at that time, traveled through the same line used for return digester sludge. Because the line was temporarily being used for the leachate, it could not transport the sludge to alleviate the problem until the following day. However, the delay caused a significant amount of total suspended solids in the secondary effluent, causing the violation. After discovering this shortcoming, to prevent reoccurrence, the Discharger installed a new return activated sludge line, and automated the landfill leachate transport system.

On December 24, 2005, and December 31, 2005, two solids violations were caused by a single operator error. Though the sludge level in one clarifier was reaching critical levels, the operator on shift failed to route waste water flows to another clarifier in time to avoid a

slug of solids overflowing from the first clarifier with the treated wastewater. The resulting total suspended solids levels discharged that day were high enough to cause both a weekly average violation and a monthly average violation. To prevent this problem from reoccurring, the Discharger re-trained its operators on wet weather clarifier sludge balance requirements.

2006 Violations

In February 2006, during a heavy rain event, the Discharger discharged oil and grease at a high enough level to violate both the daily maximum and monthly average limits. The heavy rains had likely dislodged a slug of oil and grease, previously stuck in the collection system, and flushed it into the wastewater treatment plant. In response, the Discharger instituted a Fats, Oils, and Grease (FOG) Ordinance to educate its customers on proper FOG disposal practices. The Discharger has not repeated this violation since.

In March 2006, the Discharger collected a grab sample, and discovered that the total settleable solids limit violated its technology-based effluent limits—daily, and monthly. In response, the Discharger ran daily samples of settleable solids throughout the rest of the month. However, no detectable settleable solids were detected in the rest of the samples, and the Discharger could not find an explanation for the two settleable solids violations. This appears to be an isolated event, and for this reason the minimum penalty is appropriate.

Also in March 2006, the Discharger violated the chlorine residual limit. The tank holding the de-chlorinating agent ran dry because the operator failed to check the volume in the tank. The Discharger's Operations and Maintenance Manual requires operators to check the tank at the beginning of each shift. In response, the Discharger re-trained its operators on chemical tank check procedures and has not had another chlorine residual violation since.

In July 2006, the Discharger surmised that a toxic load entered the plant, which slightly impaired the beneficial microorganisms in the secondary aeration basins. This likely caused the low magnitude total suspended solids and 5-day biochemical oxygen demand violations on July 1, 2006.

Then later in August and September 2006, unbeknownst to the Discharger at the time, the microorganism population in the activated sludge still had not returned to normal. In that time period, the Discharger had two settleable solids limit violations, and two total suspended solids limit violations. In addition, one of the secondary clarifiers was out for service throughout the summer, not alleviating the total suspended solids issue. However, as soon as feasibly possible, the Discharger returned the secondary clarifier back into service in October 2006, and since then, the Discharger has not violated the total suspended solids limit.

2007 Violations

The Discharger was violation-free from September 30, 2006, until July 24, 2007, when it violated the total settleable solids limit again. The Plant Operator could not find a plausible cause for the total settleable solids violation. The only unusual event at the time was the cleaning of a chlorine contact basin. As required by its permit, the Discharger immediately increased its monitoring. Although this episode remains unexplained, the plant returned to compliance.

In August 2007, the Discharger violated the acute toxicity limit, most likely because of elevated nitrite levels. The Discharger's plant is not set up to nitrify, but nitrification is a temperature-dependent reaction. In the warm months of June and July, the aeration basins were partially nitrifying, which caused the build-up of nitrite. Suspecting this to be the problem, the Discharger tested for nitrites and found it present within the toxic range for fathead minnow.

To avoid nitrite toxicity in the future, the Discharger developed and is implementing fixed schedules for increased internal monitoring to detect and deter nitrification before it causes toxicity.

E. Assessment of penalties

- **Serious Violations**
  Oil and grease, total settleable solids, and total suspended solids are Group I pollutants. Serious violations for Group I pollutants are those that exceed the limitation by more than 40%. Eight of these violations are serious, and therefore those eight are each subject to a $3,000 MMP.

  Chlorine is a Group II pollutant. Serious violations for Group II pollutants are those that exceed the limitations by more than 20%. The one chlorine violation is serious, and therefore it is subject to a $3,000 MMP.

- **Fourth or greater within running 180-day period**
  MMPs also apply to violations that are the fourth or greater consecutive violation within a running 180-day period. Eleven of the violations fit into this category, and therefore each of the eleven is subject to a $3,000 MMP.

- **Total assessment**
  Violations that meet both the conditions listed above are only subject to one $3,000 penalty, under MMP regulations. Therefore, the total MMP assessment for these violations is $42,000.

- **Suspended MMP Amount**
  Instead of paying the full penalty amount to the State Water Pollution Cleanup and Abatement Account, the Discharger may spend an amount of up to $28,500 on an SEP acceptable to the Executive Officer. Any such amount expended to satisfactorily complete an SEP will be permanently suspended.

THE DISCHARGER IS HEREBY GIVEN NOTICE THAT:

1. The Executive Officer proposes that the Discharger be assessed MMPs in the total amount of $42,000.

2. The Water Board will hold a hearing on this Complaint on January 30, 2008, unless the Discharger waives the right to a hearing by signing the included waiver and checks the appropriate box. By doing so, the Discharger agrees to:

   a) Pay the full penalty as stated above within 30 days after the signed waiver becomes effective, or

   b) Propose an SEP in an amount up to $28,500. Pay the balance of the penalty within 30 days after the signed waiver becomes effective. The sum of the SEP amount and the amount of the fine to be paid to the State Water Pollution Cleanup and Abatement Account shall equal the full penalty as stated above.

3. If the Discharger chooses to propose an SEP, it must submit a preliminary proposal by the close of the public comment period, as stated in the attached public notice, to the Executive Officer for conceptual approval. Any SEP proposal shall also conform to the requirements specified in Section IX of the Water Quality Enforcement Policy, which was adopted by the State Water Resources Control Board on February 19, 2002, and the attached Standard Criteria and Reporting Requirement for Supplemental Environmental Project. If the proposed SEP is not acceptable to the Executive Officer, the Discharger has 30 days from receipt of notice of an unacceptable SEP to either submit a new or revised proposal, or make a payment for the suspended portion of the penalty. All payments, including any money not used for the SEP, must be payable to the State Water Pollution Cleanup and Abatement Account. Regular reports on the SEP implementation shall be provided to the Executive Officer according to a schedule to be determined. The completion report for the SEP shall be submitted to the Executive Officer within 60 days of project completion.

4. The signed waiver will become effective on the day after the public comment period for this Complaint is closed, provided that there are no significant public comments on this Complaint during the public comment period. If there are significant public comments, the Executive Officer may withdraw the Complaint and reissue it as appropriate.

5. If a hearing is held, the Water Board may impose an administrative civil liability in the amount proposed or for a different amount; decline to seek civil liability; or refer the matter to the Attorney General to have a Superior Court consider imposition of a penalty.

Digitally signed by Bruce Wolfe
Date: 2007.11.28 14:37:37 -08'00'

November 28, 2007

Bruce H. Wolfe
Executive Officer

Attachments: 1 – Waiver
2 – Table 1: Violations
3 – Standard Criteria and Reporting Requirements for Supplemental Environmental Project
4 – General Overview of MMP Calculations

Item Number	Date of Violation	Effluent Limitation Described - E001	Permit Limit	Reported Value	Type of Violation[1]	Penalty	Start of 180 days[2]
1	3-Dec-05	E-001 D-2 (Richmond) Total suspended solids eff weekly mg/l	Max 45	58.91	C1		6-Jun-05
2	24-Dec-05	E-001 D-2 (Richmond) Total suspended solids eff weekly mg/l	Max 45	71.06	C2 (also S)	$3,000	27-Jun-05
3	31-Dec-05	E-001 D-2 (Richmond) Total suspended solids eff monthly mg/l	Max 30	45.14	C3 (also S)	$3,000	4-Jul-05
4	27-Feb-06	E-001 D-2 (Richmond) Oil and grease eff daily mg/l	Max 20	23.00	C4	$3,000	31-Aug-05
5	28-Feb-06	E-001 D-2 (Richmond) Oil and grease eff monthly mg/l	Max 10	14.00	C5 (also S)	$3,000	1-Sep-05
6	14-Mar-06	E-001 D-2 (Richmond) Total settleable solids eff daily ml/l-hr	Max .2	1.50	C6 (also S)	$3,000	15-Sep-05
7	15-Mar-06	E-001 DC (Combined) Chlorine residual eff instantaneous max mg/l	Max 0	2.25	C7 (also S)	$3,000	16-Sep-05
8	31-Mar-06	E-001 D-2 (Richmond) Total Settleable Solids Eff Monthly ml/l-hr	Max. 0.1	0.20	C8 (also S)	$3,000	2-Oct-05
9	1-Jul-06	E-001 D-2 (Richmond) Biochemical Oxygen Demand 5 Day Eff Weekly mg/l	Max 45	54.33	C6	$3,000	2-Jan-06
10	1-Jul-06	E-001 D-2 (Richmond) Total suspended solids eff weekly mg/l	Max 45	47.37	C7	$3,000	2-Jan-06
11	29-Aug-06	E-001 D-2 (Richmond) Total Settleable Solids Eff Daily ml/l-hr	Max 0.2	1.20	C6 (also S)	$3,000	2-Mar-06
12	31-Aug-06	E-001 D-2 (Richmond) Total Suspended Solids Eff Monthly mg/l	Max 30	30.78	C7	$3,000	4-Mar-06
13	31-Aug-06	E-001 D-2 (Richmond)Total Settleable Solids Eff Monthly ml/l-hr	Max 0.1	1.20	C8 (also S)	$3,000	4-Mar-06
14	30-Sep-06	E-001 D-2 (Richmond)Total Suspended Solids Eff Monthly mg/l	Max 30	32.32	C6	$3,000	3-Apr-06
15	24-Jul-07	E-001 D-2 (Richmond) Total Settleable Solids Eff Daily ml/l-hr	Max 0.2	0.3	C1 (also S)	$3,000	25-Jan-07
16	27-Aug-07	E-001 DC (combined) Test1 specie eff 11samp 90th percentile, %survival	Min 70	40	C2		28-Feb-07
		Total Penalty Amount				$42,000	

[1] C = Chronic – The number that follows represents the number of chronic violations in the past 180 days; S = Serious.

[2] This column documents the start date for assessing chronic violations. As indicated in Finding No. 4, Water Code Section 13385(i) requires the Water Board to assess a mandatory penalty of three thousand dollars ($3,000) for each violation, not counting the first three violations if the Discharger violates an effluent limit four or more times in any six consecutive months.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION
JANUARY 2004, updated AUGUST 2007

STANDARD CRITERIA AND REPORTING REQUIREMENT FOR SUPPLEMENTAL ENVIRONMENTAL PROJECT

A. BASIS AND PURPOSE

The San Francisco Bay Regional Water Quality Control Board (Water Board) accepts and encourages Supplemental Environmental Projects (SEP) in lieu of a portion of the ACL imposed on Dischargers in the Bay Area.

The Water Board does not select projects for SEP; rather, the Discharger identifies a project it would like to fund and then obtains approval from the Water Board's Executive Officer. The Water Board facilitates the process by maintaining a list of possible projects, which is made available to Dischargers interested in pursuing the SEP option. This list is available on the Water Board web site:

http://www.waterboards.ca.gov/sanfranciscobay/

Dischargers are not required to select a project from this list. Dischargers may contact local governments or public interest groups for potential projects in their area, or develop projects of their own.

B. GENERAL SEP QUALIFICATION CRITERIA

All SEPs approved by the Water Board must satisfy the following general criteria:

(a) An SEP shall only consist of measures that go above and beyond all legal obligations of the Discharger (including those from other agencies). For example, sewage pump stations should have appropriate reliability features to minimize the occurrence of sewage spills in that particular collection system. The installation of these reliability features following a pump station spill would not qualify as an SEP.

(b) The SEP should benefit or study groundwater or surface water quality or quantity, and the beneficial uses of waters of the State. SEPs in the following categories have received approval from the Water Board's Executive Officer:

- Pollution prevention. These are projects designed to reduce the amount of pollutants being discharged to either sewer systems or to storm drains. Examples include improved industrial processes that reduce production of pollutants or improved spill prevention programs.
- Pollution reduction. These are projects that reduce the amounts of pollution being discharged to the environment from treatment facilities. An example is a program to recycle treated wastewaters.
- Environmental restoration. These projects either restore or create natural environments. Typical examples are wetland restoration or planting of stream bank vegetation.
- Environmental education. These projects involve funding environmental education programs in schools (or for teachers) or for the general public.

Further, an SEP should be located near the Discharger, in the same local watershed, unless the project is of region-wide importance.

C. APPROVAL PROCESS

The following information shall be submitted to the Executive Officer for approval of an SEP:

1. Name of the organization and contact person, with phone number.
2. Name and location of the project, including watershed (creek, river, bay) where it is located.
3. A detailed description of the proposed project, including proposed activities, time schedules, success criteria, other parties involved, monitoring program where applicable, and any other pertinent information.
4. General cost of the project.
5. Outline milestones and expected completion date.

Generally SEP proposals are submitted along with waivers of hearings. In such a case the approval of a proposal will not become effective until the waiver goes into effect, i.e. at the close of the public comment period. There will not be a public hearing on the SEP proposal unless new and significant information becomes available after the close of the public comment period that could not have been presented during the comment period.

If the Discharger needs additional time to prepare an SEP it may waive its right to a hearing within 30 days of the issuance of a Complaint (and retain its right to a hearing to contest the Complaint at a later date), and request additional time to prepare an SEP proposal. Any such time extension needs to be approved by Water Board staff.

D. REPORTING REQUIREMENT

On January 15 and July 15 of each year, progress reports shall be filed for the SEPs with expected completion date beyond 240 days after the issuance of the corresponding complaint.

E. FINAL NOTIFICATION

No later than 60 days after completion of the approved SEP, a final notification shall be filed. The final notification shall include the following information:

- Outline completed tasks and goals;
- Summary of all expenses with proof of payment; and
- Overall evaluation of the SEP.

F. THIRD PARTY PROJECT OVERSIGHT

For SEPs of more than $9,000 the Water Board requires there to be third party oversight of the project. The Water Board has made arrangements with the San Francisco Estuary Project to provide this oversight, or a Discharger may choose an alternative third party acceptable to the Executive Officer. If the San Francisco Estuary Project is chosen, six per cent of the SEP funds shall be directed to the San Francisco Estuary Project for oversight services (the remaining 94% of funds go directly to the SEP). If an alternative third party is chosen, the amount of funds directed to the SEP, as opposed to oversight, shall not be less than 94% of the total SEP funding. For projects greater than $9,000 the Discharger shall indicate when submitting the information required under C. above whether the San Francisco Estuary Project or an alternative third party oversight entity will be used.

General Overview of Mandatory Minimum Penalty (MMP) Calculations

The Water Board is required by State law to assess MMPs for certain types of permit violations from point-source facilities. These complaints are issued by the Water Board Executive Officer, and the MMPs are finalized in a public hearing before the Water Board, unless the Discharger decides to waive their right to the hearing. This is an overview of the general process for determining which violations are subject to MMPs, the amount of penalty the complaint will assess, and the portion of the penalty the Discharger may apply towards an environmental project. This procedure is the same for all facilities to which the MMP laws apply.

I. **State law requires a $3,000 minimum penalty for all serious violations, and requires a $3,000 penalty for any sort of violation, if it is the 4th or greater violation within a running 6-month period.**
Even though a specific violation may fit into both of the above categories, under the MMP laws, any one violation may only be assessed $3,000.

A. **State law requires a penalty for serious violations.**
The Water Board must assess an MMP of $3,000 for each serious violation, per Water Code Section 13385(h)(1). A "serious violation" is defined as any waste discharge of a Group I pollutant that exceeds the effluent limitation contained in the applicable waste discharge requirements by 40 percent or more, or any waste discharge of a Group II pollutant that exceeds the effluent limitation by 20 percent or more, per Water Code Section 13385(h)(2). Pollutants are assigned to Group I or Group II by federal regulations, and the MMP complaint specifies to which group each violation belongs. The full lists of Group I and Group II violations are defined in Section 123.45 of Title 40 of the Code of Federal Regulations. Additionally, the late submittal (by 30 days or more) of monitoring reports is also considered a serious violation, per Water Code Section 13385.1. Each full 30-day increment a report is late counts as a violation.

B. **State law requires a penalty for 4th or higher violation within last six months.**
The Water Board must assess an MMP of $3,000 for each violation, in a running six-month period, per Water Code Section 13385(i), if the Discharger does any of the following **four or more times**:
   1. Violates a waste discharge requirement effluent limitation.
   2. Fails to file a report pursuant to Section 13260.
   3. Files an incomplete report pursuant to Section 13260.
   4. Violates a toxicity discharge limitation contained in the applicable waste discharge requirements where the waste discharge requirements do not contain pollutant-specific effluent limitations for toxic pollutants.

The first three violations (meeting any of 1-4 above) occurring within a six month period do not trigger the $3,000 penalty. Also, the running six-month period is counted backwards from each individual violation considered. For example, to determine whether a violation that occurred

on August 1st was subject to a penalty, you would count how many other violations had occurred since February 1st of the same year. If there had been at least three other violations in that period, the August 1st violation would be subject to a $3,000 penalty.

C. State law limits the amount of the penalty that may be applied toward an environmental project (or to multiple projects).

If the Water Board agrees, the Discharger may choose to direct a portion of the penalty amount to fund a supplemental environmental project (SEP) in accordance with the enforcement policy of the State Water Resources Control Board, per Water Code Section 13385(l). The Discharger may undertake an SEP up to the full amount of the penalty for liabilities less than or equal to $15,000. If the penalty amount exceeds $15,000, the maximum penalty amount that may be expended on an SEP may not exceed $15,000 plus 50 percent of the penalty amount that exceeds $15,000.

D. A supplemental environmental project (SEP) must be within certain categories.

If the Discharger chooses to propose an SEP, the proposed SEP shall be in the following categories:

1. Pollution prevention
2. Pollution reduction
3. Environmental clean-up or restoration
4. Environmental education

APPENDIX B

WAIVER

If you waive your right to a hearing, the matter will be included on the agenda of a Water Board meeting but there will be no hearing on the matter, unless a) the Water Board staff receives significant public comment during the comment period, or b) the Water Board determines it will hold a hearing because it finds that new and significant information has been presented at the meeting that could not have been submitted during the public comment period. If you waive your right to a hearing but the Water Board holds a hearing under either of the above circumstances, you will have a right to testify at the hearing notwithstanding your waiver. Your waiver is due no later than December 30, 2007.

☐ Waiver of the right to a hearing and agreement to make payment in full.
By checking the box, I agree to waive my right to a hearing before the Water Board with regard to the violations alleged in Complaint No. R2-2007-0071 and to remit the full penalty payment to the State Water Pollution Cleanup and Abatement Account, c/o Regional Water Quality Control Board at 1515 Clay Street, Oakland, CA 94612, within 30 days after the Water Board meeting for which this matter is placed on the agenda. I understand that I am giving up my right to be heard, and to argue against the allegations made by the Executive Officer in this Complaint, and against the imposition of, or the amount of, the civil liability proposed unless the Water Board holds a hearing under either of the circumstances described above. If the Water Board holds such a hearing and imposes a civil liability, such amount shall be due 30 days from the date the Water Board adopts the order imposing the liability.

☒ Waiver of right to a hearing and agree to make payment and undertake an SEP.
By checking the box, I agree to waive my right to a hearing before the Water Board with regard to the violations alleged in Complaint No. R2-2007-0071, and to complete a supplemental environmental project (SEP) in lieu of the suspended liability up to $28,500 and paying the balance of the fine to the State Water Pollution Cleanup and Abatement Account (CAA) within 30 days after the Water Board meeting for which this matter is placed on the agenda. The SEP proposal shall be submitted no later than December 30, 2007. I understand that the SEP proposal shall conform to the requirements specified in Section IX of the Water Quality Enforcement Policy, which was adopted by the State Water Resources Control Board on February 19, 2002, and be subject to approval by the Executive Officer. If the SEP proposal, or its revised version, is not acceptable to the Executive Officer, I agree to pay the suspended penalty amount within 30 days of the date of the letter from the Executive Officer rejecting the proposed/revised SEP. I also understand that I am giving up my right to argue against the allegations made by the Executive Officer in the Complaint, and against the imposition of, or the amount of, the civil liability proposed unless the Water Board holds a hearing under either of the circumstances described above. If the Water Board holds such a hearing and imposes a civil liability, such amount shall be due 30 days from the date the Water Board adopts the order imposing the liability. I further agree to satisfactorily complete the approved SEP within a time schedule set by the Executive Officer. I understand failure to adequately complete the approved SEP will require immediate payment of the suspended liability to the CAA.

RICHARD DAVIDSON	Richard Davidson
Name (print)	Signature
12/27/2007	CITY OF RICHMOND
Date	Title/Organization

APPENDIX C

DEC 31 2007

City of Richmond

ENGINEERING DIVISION

December 28, 2007

Carolina Silva
California Regional Water Quality Control Board
1515 Clay Street, Suite 1400
Oakland, CA 94612

RE: MMP Complaint No.R2-2007-0071 NDPES Permit Number: CA0038539

Dear Ms. Silva:

Enclosed you will find the City of Richmond's request for "Waiver of right to a hearing and agree to make payment and undertake SEP".

Under the "Standard Criteria and Reporting Requirement for Supplemental Environmental Project", the City of Richmond respectfully requests the Board's approval under the Environmental Education category. There are two educational groups that the City of Richmond is working with regarding environmental projects. Enclosed are program highlights for both projects.

The first group is the Watershed Project, or "Kids Win Program". Their program cost is $5,000 per school. We are proposing to visit two schools for a total of $10,000.

The second program is "Kids for the Bay". They, too, visit classrooms, plan field trips, educate both students and staff through their "Watershed Action Program" (WAP). The cost for this program is $8,000 per school. The City of Richmond is proposing projects for 2 schools, for a total of $16,000.

This would bring the grand total of the SEP cost to $26,000. The remainder of the penalties ($16,000) would be paid directly to the Board.

If you should have any questions regarding this proposal or the contents of this letter, please contact me. I can be reached at (510) 621-1269.

Regards,

Mary Phelps

Mary L. Phelps
Senior Industrial Waste Inspector
City of Richmond

Copies: EJ Shalaby, West County Agency
Jon Whitfield, Veolia Water North America
Rich Davidson, City of Richmond

1401 MARINA WAY SOUTH, RICHMOND, CA 94804

Telephone: (510) 307-8091
Fax: (510) 307-8116

KIDS for the BAY
Environmental education through action

A Project of Earth Island Institute
1771 Alcatraz Avenue, Berkeley, CA 94703
Tel: (510) 985-1602 • Fax: (510) 547-4259
info@kidsforthebay.org • www.kidsforthebay.org
Mandi Billinge, Executive Director/Founder

July 12, 2007

Lynne Scarpa
Industrial Waste Inspector
City of Richmond
1401 Marina Way South
Richmond, CA 94804

Dear Lynne,

KIDS for the BAY (KftB) has finished another exciting year of delivering, hands-on, experiential learning through the Watershed Action Program (WAP) in schools throughout Contra Costa County. In the WAP, each class participated in five interactive classroom workshops; at least one action project; and a fieldtrip to a creek, bay or wetland habitat. Students learned their place in the watershed and chose how they would take action to help clean up and restore their local environment. This Final Report provides highlights of the fieldtrips and action projects completed in Antioch during the 2006-2007 school year.

Creek and Bay Fieldtrip Descriptions
The fieldtrips have given students and teachers a direct, hands-on experience in a natural watershed habitat. In addition to learning the science of the habitat, students made real connections with nature and developed further reasons to protect and care for their watershed. The Program Director met the class at the fieldtrip site and led activities with students and modeled them for the teacher. Students used scientific equipment and field guides to investigate the many organisms that inhabit the creek, bay or delta habitat they studied.

Local Watershed Action Project Description
Students had the opportunity to develop their leadership skills by completing an action project in their local watershed environment. Students selected their own project, as a class, and took action to bring the classroom workshops to the community. Action Projects empowered students to make immediate impacts on their environment.

Action Project & Fieldtrip Highlights:

School: Nystrom Elementary
Teachers: Benda-Pace and Alvin Kemmer
Action Project: Neighborhood Clean up

Students from Ms. Benda-Pace's class performed a two-hour clean up of their neighborhood. The class divided into four groups, picked up trash along the streets

around Nystrom Elementary and collected over fifteen large garbage bags of trash. The students were amazed at how much trash they found within about ten blocks. Along their clean up, many neighbors peered through their windows, asking the students what they were doing. "Thanks for cleaning up our neighborhood, we really need it!" exclaimed one lady. In addition to picking up trash along the sidewalks, the students also picked up trash in the neighboring park. Some students used reaching tools to pull out trash in the storm drains. As they cleaned the neighborhood, many of the students commented on the affects of the garbage on the environment. Even though it had been four months since the classroom workshops, the students were easily able to connect that the garbage in the streets would eventually get into the San Francisco Bay and Pacific Ocean. "Oh, I found two batteries! The battery acid could get into and make the fish and us sick!" stated Paola. "Look at all these cigarettes! They make people and all the birds around here sick. I wish people would put them in the trash," exclaimed Travon.

During the activity, students were shocked and concerned to see a large amount of soap in the street. "Someone must have been washing their car! This is going to hurt the animals in the Bay!" exclaimed the students. Some of the students were so upset that they stood watching the soap for a few minutes, trying to figure out what they could do to stop it from getting into the Bay. Program Director Kristina Cervantes consoled the students and told them that they could remind their family and friends to wash their cars at the car wash instead of the street.

Before the activity, Ms. Cervantes met with Nystrom Elementary Principal Wendy Holmes. Principal Holmes was very excited to hear that her students were "taking charge to clean up the neighborhood."

School: Washington Elementary
Teacher: Dionne Libran
Action Project: School Presentations

Ms. Libran's students decided to do presentations about their watershed to their first grade buddy class. The students were divided into five groups with each responsible for teaching one lesson of the WAP program. The presentation lasted for thirty minutes and between each segment students' questions were taken. Students also provided the class with alternatives to urban runoff pollution and harmful pesticides.

Ms. Libran shared that many of her students and the first graders were inspired to clean up their school environment as a result of the project. They picked up trash after lunch and said, "Look Ms. Libran, we are getting rid of this garbage!" and "Ms. Libran, this stuff should go in the recycling bin or else a sea animal could get hurt!" "The cooperation between both classes has been great," stated Ms. Libran.

School: Nystrom Elementary
Teachers: Benda-Pace and Alvin Kemmer
Fieldtrip: Vincent Park at the Richmond Regional Shoreline

On May 23rd, Ms. Benda-Pace's class went to Vincent Park located along the Richmond Regional Shoreline. During their fieldtrip, the students investigated the shoreline habitats and organisms. In the first part of the fieldtrip, the students rotated between three science stations. In the first station, the students gathered plankton from the harbor using a plankton net. Next the students used microscopes to observe and identify the plankton. Many of the students were amazed at the abundant life they discovered in their own bay waters. "I never knew that there were so many plants and animals in one drop of water!" exclaimed Marisa. "Now I know that doing our clean up and bringing good to the environment will also help all of the plankton too!" stated another student.

In the second science station, the students used binoculars to complete the Richmond Binocular Bingo worksheet. For the activity, the students had to locate various geographic locations, landmarks and wildlife. Many of the locations and organisms on the list allowed students to use the knowledge they had gained from the Watershed Action Program classroom workshops. For example, the students used their binoculars to locate the various bridges and islands in the central San Francisco Bay.

In the third science station, the students created pastel drawings of the landscape. Students were able to create personal, visual interpretations of the habitat and reflect on their experiences at the Shoreline. This activity allowed students to take a memory of the fieldtrip home with them.

Students also investigated the rocky shoreline habitat. They learned that the organisms in this habitat have adapted to survive in and out of water. The students were excited to learn that Purple Shore Crabs and beach hoppers could survive by hiding under rocks! In addition to finding crabs, barnacles, pile worms and mussels, the students found two dead bat rays along the shore. Many of the students were distraught by their discovery; however it lead to an important discussion about how the animals could have died. Some of the students stated that they could have been killed by garbage that made its way down the storm drains; others speculated that chemicals from the nearby factories and refineries could have killed them.

During the closing discussion, many of the students expressed that they were excited to return to the shoreline with their families. Vincent Park is located within walking distance of many of the students' homes. "I will show my dad how to hold a crab so that you don't hurt it. I will remember to put the rocks back where I found them and be a good visitor to the environment" shared Victor.

Unfortunately, Alvin Kemmer's class was not able to complete an action project or attend a fieldtrip with the KIDS for the BAY due to unforeseen circumstances beyond the control of KftB.

School: Washington Elementary
Teacher: Dionne Libran
Fieldtrip: Alvarado Park

The opportunity to observe creek life under a microscope enabled the students to learn about creek organisms and how they are affected by pollution in more detail. For example, after Program Coordinator Leslie Parra described the two life stages of several organisms, many made the connection of how larvae would be primarily affected by pollution in the creek. One student, Ricky shared with the class, "Larvae are baby insects, and so if they don't get a healthy environment to grow up in, they could die from pollution or grow with mutations."

Ms. Libran commented that her students truly enjoyed the opportunity to do a creek investigation. Many had never been in such an environment. "As a result, more than half have developed a new appreciation for a healthy environment," she said.

Included in this packet, you will also find photographs from the fieldtrips and action projects and sample teacher evaluations. If you have any questions or concerns, please do not hesitate to contact me.

Sincerely,

Mandi J. Billinge

Mandi Billinge
Executive Director

Final Report for the City of Richmond
Richmond Kids Watershed Institute
Fiscal Year 2006-07

PROJECT DESCRIPTION

In Fiscal Year 2006-2007, the Watershed Project received funding from the City of Richmond to develop and administer the *Richmond Kids Watershed Institute (Richmond WIn)* program at Washington Elementary School. The emphasis or the Richmond Kids WIn program is educating students in Richmond about their watersheds and encouraging them to be stewards of their local resources.

The following report summarizes the content and results of this program, as well as provides detailed descriptions of project components.

PROGRAM SUMMARY

The Watershed Project provided a four-part series of classroom visits to all second-graders at Washington Elementary in the winter and spring of 2006 - 2007. A total of 70 2nd grade students from Washington participated in the program.

The goals of the program were to teach students:

- the importance of creeks and watersheds
- about the issue of urban runoff pollution
- that specific actions that they and their families take, such as litter abatement and recycling, are positive for their community and reduce pollution of our creeks and the environment.

The Kids WIn program was a series of four classes with each of the 2nd grade classrooms at Washington. The program covered the causes and effects of stormwater pollution and the differences between sanitary sewer and storm drain system. Students learned simple things that they and their communities can do to protect their creeks and watershed, and developed outreach materials to use to educate others in their community.

During the program, students participated in the following activities:

1. Watershed in Your Hand
   Using recycled materials, students created a miniature landscape. They drew water in the areas, hillsides in high areas and human development throughout the landscape. Students then rained on their landscapes, observing how rain water carries urban run-off, as well as eroded natural materials down hillsides and into waterways.

2. Pollution Soup
   This activity enabled students to visualize the common ways that pollution enters our waterways. Students added colored water and other common materials to a jar of water that represented the creek. The students were required to create a story as to how these pollutants ended up in the creek. At the end of the activity, students discussed the impact of urban runoff and non-point source

pollution on the watershed, and talked about simple things they could do to prevent storm water pollution.

3. **Watershed Model**
   Interacting with a realistic watershed model, students were able to see how a variety of pollutants flow into storm drains and out to the bay. They were also able to see how water flows from within the sanitary sewer system to the Waste Water Treatment Plant.

4. **Storm Drain Mapping**
   Students used maps to locate and count the storm drains around their school, as well as other significant local landmarks. Then they counted the number of blocks between their school and the bay in preparation for the walking trip to the stormdrain outflow.

5. **Walking Trip to Storm Drain Outflow**
   Students walked to the bay while locating the stormdrains they identified on the map during the previous in-class visit. At the bay, students learned to use binoculars to observe wildlife. Students also observed the stormdrain discharge and the immediate effects of pollutants on the area around the stormdrain outflow pipe.

6. **Getting the Word Out**
   Based on what they learned, students created posters that helped to educate others in their school about the importance of reducing pollution and keeping our stormdrains clean.

The following chart outlines the dates, classrooms and activities for each program day.

Richmond Kids Watershed Institute
Spring 2006 Schedule of Programs

	Visit 1 Watershed in Your Hand and Pollution Soup		Visit 2 Storm Drain Mapping and WS Model		Visit 3 Storm Drain Walking Trip		Visit 4 Outreach Project	
Teacher	Date	Time	Date	Time	Date	Time	Date	Time
Ms. Clark	1/12/07	1:00	2/09/07	1:00	3/09/07	1:00	4/20/07	1:00
Ms. Feldman	1/12/07	1:50	2/09/07	1:50	3/09/07	1:50	4/20/07	1:50
Ms Darson	1/19/07	1:00	2/16/07	1:00	3/16/07	1:00	4/27/07	1:00
Ms Saxton	1/19/07	1:50	2/16/07	1:50	3/16/07	1:50	4/27/07	1:50

The classroom program supported California State Standards wherever possible. Grade 2 Standards in Science, Language Arts and History-Social Science that were supported by the Richmond Kids Win - curriculum presented by the Watershed Project included:

SCIENCE

1a. Students know the position of an object can be described by locating it in relation to another object or to the background.
3b. Students know smaller rocks come from the breakage and weathering of larger rocks.
4f. Use magnifiers or microscopes to observe and draw descriptions of small objects or small features of objects.
4g. Follow oral instructions for a scientific investigation.

LANGUAGE ARTS

1.4 Give and follow three- and four-step oral directions.
2.1 Recount experiences or present stories.

HISTORY-SOCIAL SCIENCE

2.2.1. Locate on a simple letter-number grid system the specific locations and geographic features in their neighborhood or community (e.g., map of the classroom, the school).
2.2.4. Compare and contrast basic land use in urban, suburban, and rural environments in California.
2.5 Students understand the importance of individual action and character.

Students took a pre-survey to evaluate their prior knowledge about watersheds and stormdrains, and took a post-survey after completion of the program. Prior to the Richmond WIn program, only 59% of students knew that the stormdrain went to the Bay, and after the program 82% knew the correct answer. Only 1% knew what a watershed was before the program and at the end 81% knew that a watershed included where they live, streets, and the bay. A copy of the survey and summary of the results can be found in Appendix B.

During the final classroom visit, teachers in each classroom were asked to evaluate the program. The evaluations were very positive; teachers commented that they liked the hands-on, well prepared, energetic approach to teaching about watersheds and pollution prevention offered by the staff of the Watershed Project. When asked what she liked most about the classroom visits, a teacher from Washington Elementary replied, "The visits were organized, on time and engaging for students." Copies of the evaluations received from teachers are in Appendix A.