

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 93-083

CITY OF PALO ALTO
PALO ALTO REGIONAL WATER QUALITY CONTROL PLANT
PALO ALTO
SANTA CLARA COUNTY

REQUIRING THE CITY OF PALO ALTO TO CEASE AND DESIST DISCHARGING WASTE CONTRARY TO DISCHARGE PROHIBITIONS IN ORDER NO. 93-085 (NPDES PERMIT)

The California Regional Water Quality Control Board, San Francisco Bay Region (hereinafter called the Board) finds that:

1. On July 21, 1993, the Board adopted Order No. 93-085 (NPDES Permit CA0037834) prescribing waste discharge requirements for the City of Palo Alto (hereinafter the discharger).
2. The discharger operates a water pollution control plant located at 2501 Embarcadero Way, Palo Alto. In 1991, the plant discharged 20.1 mgd (daily average) of treated wastewater effluent into an unnamed channel tributary to South San Francisco Bay.
3. Prior to adoption of Order No. 93-085, the discharger was subject to NPDES Permit CA0037834 (Order No. 88-175, adopted December 21, 1988, which was amended by the following orders: Order 90-034, adopted February 21, 1990; Order 90-069 adopted May 16, 1990; and, Order 91-068, adopted April 17, 1991).
4. Order 91-068, adopted on April 17, 1991, revised the discharger's NPDES permit to include water quality based effluent limits. Between May 1991 and August 1992, the discharger had significant violations of their NPDES permit for exceeding the 1-day average effluent limits for the following constituents:

<u>Constituent</u>	<u>Order 91-068 Effluent Limits.ug/l</u>	<u># Violations</u>
Copper	2.9	70 (100%)
Nickel	8.3	5 (7%)

5. Between May 1991 and August 1992, the discharger had minor violations of the effluent limitations for: silver (1 violation), arsenic (3 violations), cyanide (1 violation) selenium (2 violations), and zinc (19 violations). The discharger had two zinc violations between January 1992 and May 1993. The remaining 17 zinc violations occurred between May and December 1991.
6. Results of ambient monitoring conducted by the South Bay dischargers between 1989 and 1991 showed that both total and dissolved concentrations of mercury frequently exceeded the water quality objective of 0.025 ug/l. The exceedances occurred at all stations. The Santa Clara Valley Nonpoint Source Program has begun investigating

potential sources of mercury in runoff. The measurement of mercury concentrations in effluent at the levels of the effluent limitations and receiving water objectives requires advanced methods which are not routinely used making compliance determination difficult. However, the multiple potential sources of mercury in POTW waste streams, the low level of the effluent limitations, and the high rate of discharge by the dischargers into the South Bay, and the fact that the present water quality objective is frequently exceeded causes concern about the relationship between POTW discharges and potential water quality impacts. This concern necessitates the need to adequately define the levels of mercury discharged to San Francisco Bay.

7. Order No. 93-085, revised the discharger's existing effluent limits for copper and cyanide. On October 21, 1992, the Regional Board adopted a site-specific objective in San Francisco Bay and a shallow water marine effluent limit for copper of 4.9 ug/l. On September 16, 1992, the Regional Board adopted an effluent limit for cyanide of 5 ug/l.
8. If the 4.9 ug/l effluent limitation for copper had been in effect between May 1991 and August 1992, the discharger would still have been in violation 100% of the time. Between May 1991 and August 1992, the discharger's detection limit for cyanide, 10 ug/l, was greater than the new effluent limit of 5 ug/l. The discharger recorded 7 values greater than 10 ug/l and therefore at a minimum would have violated the new effluent limit 7 times.
9. Based on the past data from May 1991 through August 1992, it is anticipated that the discharger will immediately be out of compliance with Provision B.4.1 (Limits for Toxic Pollutants) of Order 93-085 for copper, nickel, and cyanide. It is also anticipated that the discharger threatens to violate the effluent limitation for mercury.
10. On June 16, 1993, the Board adopted Resolution 93-61 specifying a waste load allocation for sources of copper which enter San Francisco Bay. Based on the waste load allocation, Provision B.5 of Order 93-085 requires the discharger to discharge no more than 720 lbs/year of copper. In addition, the discharger along with the two other South Bay POTWs and the Santa Clara Valley Nonpoint Source Pollution Control Program are required to reduce their combined discharge of copper into South Bay by an additional 950 pounds per year, to be accomplished by 1998. In 1992, the discharger discharged 755 lbs of copper. Therefore, it is anticipated that the discharger threatens to violate Provision B.5 (mass limitation for copper) of Order 93-085.
11. In June 1989, EPA designated San Francisco Bay below the Dumbarton Bridge as an impaired water body under Section 304(l) of the Clean Water Act. There was evidence of water quality impacts in the South Bay associated with seven metals: cadmium, copper, lead, mercury, nickel, selenium, and silver. The three municipal plants and storm water discharges in the South Bay were designated as point sources contributing to this impairment. Section 304(l) requires States to adopt Individual Control Strategies for designated point source discharges that will result in attainment of objectives for toxic pollutants within three years. Exceedances of water quality objectives for copper, mercury, and nickel still occur.
12. Order No. 88-175, adopted December 21, 1988, required the discharger to identify all significant controllable sources of metals and to determine feasible measures to reduce the metals loadings to the treatment plant. On October 1, 1989, the discharger

- submitted the Metals Source Identification Study for the Palo Alto Regional Water Quality Control Plant. On December 1, 1989, the discharger submitted the Waste Minimization Study.
13. Order No. 90-069, adopted May 16, 1990, required the discharger to make pre-treatment program improvements, to implement a pilot waste minimization program, and to require targeted industries to submit waste minimization plans. The discharger submitted a progress report for the source reduction program on December 1, 1990 and a Status report for the Source Reduction Program on August 1, 1991.
 14. The pre-treatment program improvements included expanding flow monitoring for targeted industries, regulating auto-repair and photoprocessing firms, and implementing more aggressive enforcement actions against violators. The discharger successfully initiated and continues to implement these pre-treatment program improvements.
 15. The discharger's pilot waste minimization and public education program was targeted at reducing silver discharges to the treatment plant. The pilot program was directed towards commercial and industrial photo-processors, x-ray labs, and other potential silver dischargers. The discharger implemented a very successful program. The average silver influent concentration decreased 63% during the period prior to implementation of the pilot program in 1990 until 1992. Average effluent concentrations of silver have also been reduced by approximately 75% since the initiation of the pilot program. Prior to 1990, the discharger routinely exceeded 2.3 ug/l, the current effluent limitation. In 1992, the discharger has not had any violations of the silver effluent limit.
 16. The discharger initiated the "Clean Bay Business" program in which vehicle service facilities receive an award for successful implementation of Best Management Practices (BMPs) which result in zero discharge to the sanitary sewer. As of November 1992, facilities had been designated as a "Clean Bay Business."
 17. The discharger has required waste minimization plans from 28 industries who have high metal concentrations in their discharge. The plans address product substitution, process changes, water use reduction, in-plant reuse, recycling and enhanced wastewater treatment. Implementation of the plans are voluntary.
 18. By August 31, 1992, all the communities served by the discharger had adopted ordinances banning the use of copper-based root control agents which are typically percent pure copper, by weight. The discharger estimates that copper-based root control agents could contribute approximately 20 pounds of copper to their effluent each year.
 19. Most of the discharger's service area receives their water supply from sources owned by the San Francisco Water Department. The San Francisco Water Department estimates that approximately 62,000 pounds of copper sulfate pentahydrate to the water supply reservoirs for algae control in 1991.
 20. On August 28, 1992, the Board issued a "Request for Information and a Policy Strategy to Reduce Copper and Selenium in South Bay Drinking Water."



dischargers, water distributors and retailers in the South Bay. A steering committee representing the affected parties was formed and a joint monitoring proposal was submitted on November 2, 1992.

21. The discharger operates an approved pretreatment program with local discharge limits for non-domestic users of the collection system. The discharger adopted local limits for its users in the late 1970s. In 1991, the discharger adopted stricter local limits for silver and zinc.
22. On January 19, 1993, the discharger signed an agreement with Clean South Bay, a coalition of environmental groups, concerning the source control program for the RWQCP. The discharger has submitted this agreement to the Board to achieve compliance with their NPDES permit requirements. The agreement includes source control measures to reduce the concentration and mass of metals in their influent. The proposal addresses contributions from the industrial, residential, commercial and water supply sources. The compliance proposal has been incorporated into this Order as Attachment 1. Attachment 2 of this Order specifies additional source control requirements.
23. Section 13301 of the California Water Code authorizes the Regional Board to issue a Cease and Desist Order when it finds that a waste discharge is taking place or threatening to take place in violation of the Board's prescribed requirements.
24. This action is an order to enforce waste discharge requirements adopted by the Board and is categorically exempt from CEQA pursuant to Section 15321 of the Resources Agency Guidelines.
25. The discharger and interested persons have been notified of the Board's intent to adopt the enforcement order, and have been provided with the opportunity for a public hearing and the opportunity to submit their written views and recommendations. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED THAT, the Discharger shall cease and desist from violating waste discharge requirements contained in Order No. 93-085 as follows:

1. Compliance with concentration effluent limitation B.4.1 of Order 93-085 for copper shall be achieved in accordance with the time schedules and interim measures described in Attachment I which is incorporated herein and made a part of this Order. Full Compliance with the copper concentration effluent limit shall be achieved by July 21, 1998. (1)(3)(4)

The discharger shall comply immediately with the following interim limit. The interim limit is derived from the 95th percentile plant performance concentrations during the period between January 1992 and May 1993. (5)

<u>Constituent</u>	<u>Interim Limit (ug/l)</u>
Copper	17.0, 1-day average

2. Compliance with mass limit B.5.2 of Order 93-085 for copper shall be achieved in accordance with the time schedule below and implementation of interim measures described in Attachment 1. Full compliance with the copper mass effluent limit shall be achieved by July 21, 1996.(2)(3)(4)

Note:

- (1) According to the Basin Plan, after a wasteload allocation (for copper) is implemented in permits and load reductions consistent with that allocation are occurring, the Board will reevaluate the effluent concentration limitation for copper.
 - (2) Mass loadings are to be calculated weekly using average weekly flow data. The discharger shall submit a cumulative total of mass loadings for the previous twelve months with each Self Monitoring Report. Compliance shall be determined based on the previous twelve months of monitoring and shall be calculated weekly.
 - (3) If in the process of attaining these limits, the discharger determines that measures required to attain these limits would result in substantial and widespread economic and social impact, the discharger may petition the Board to reevaluate these limits.
 - (4) If in the process of attaining these limits, additional information justifying a later compliance date becomes available, the discharger may petition the Board to reevaluate the compliance schedules.
 - (5) The discharger shall evaluate compliance with the 95th percentile limit monthly. The 95th percentile value is the highest concentration measured during a time period (two years maximum) after removing the top 5% of the results for that time period. After 5% of the measures for any parameter have exceeded the effluent limit, each additional exceedance shall constitute a violation for the measurement period of that parameter (e.g., for metals measurements that are measured weekly, each exceedance after the 5% allowed shall be counted as one week of violation).
3. Compliance with effluent limitation B.4.1 of Order 93-085 for nickel shall be achieved in accordance with the time schedules and interim measures described in Attachment 1. Full Compliance with the nickel effluent limit shall be achieved by April 11, 1996.

The discharger shall comply immediately with the following interim limit. The interim limit is derived from the 95th percentile plant performance concentrations during the period between January 1992 and May 1993.(5)

<u>Constituent</u>	<u>Interim Limit(ug/l)</u>
Nickel	8.9, 4-day average

I, Steven R. Ritchie, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on July 21, 1993.

A handwritten signature in black ink, appearing to read 'S. Ritchie', with a long horizontal line extending to the right.

STEVEN R. RITCHIE
Executive Officer

EXHIBIT B
 SOURCE CONTROL PROGRAM
 OF THE
 PALO ALTO REGIONAL WATER QUALITY CONTROL PLANT
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Source Control Program
of the
Palo Alto Regional Water Quality Control Plant

I. Introduction

The activities outlined in this document are being conducted by the City of Palo Alto and its partner communities within the service area of the Regional Water Quality Control Plant (RWQCP) to reduce pollutant discharges to the sanitary sewer. Palo Alto has studied or will study facilities accounting for 85% of the discharges of copper and nickel and will be able to identify appropriate cost-effective measures for reducing those discharges.

II. General (Non-Source Specific) Activities

A. Source Identification

1. Refine general facility data concerning photo shops, printers, x-ray facilities, vehicle service facilities, machine shops and laboratories in the Source Control Management data base.
2. Annually check City and other data bases and utilize mail

surveys to locate new industrial and commercial sources.

3. In each calendar year, issue permits to those facilities found to have a manufacturing process producing a wastestream containing copper or nickel during the preceding calendar year.
4. Annually, recalculate copper and nickel pollutant contributions by Sector (residential, commercial and industrial). This will be based, in part, on continuing residential and industrial sampling and will be submitted at the same time as the February Annual Pretreatment Report. The first such report shall be due February 1994.
5. Continue to search for previously unidentified chemical products, practices and activities which contribute copper, nickel, zinc, lead, cadmium, selenium, silver, cyanide or mercury to the Bay.

B. Local Limits

1. Palo Alto agrees to acquire sufficient information, to enable it to adopt lawfully by September 30, 1994, Local Limits which will at a minimum achieve maximum feasible

reductions for copper and nickel on an expeditious time schedule, so as to achieve compliance with Discharger's Permit, and such Local Limits shall take effect no later than October 31, 1994 and shall be incorporated into individual control mechanisms by January 30, 1995. Palo Alto will comply with all state, local and federal requirements including but not limited to notice and hearing procedures for the adoption and implementation of pretreatment requirements. The Local Limits may be in the form of an amendment in the Palo Alto Municipal Code (and corresponding Codes of other jurisdictions in the service area) and shall be composed of at least three parts:

- (1) Concentration limits
 - (2) Mass Limits
 - (3) Mandatory Pollution Prevention Measures which at a minimum shall cover Metal Finishing and Printed Circuit Board facilities.
2. For purposes of the establishment of the Local Limits referred to in the preceding paragraph:

believes that a different payback period should be used, based on information generated in the process of developing the Local Limits, the parties agree to negotiate in good faith to determine whether they can agree on a different payback period, as an amendment to this requirement.

- c. Palo Alto recognizes that the formulation and adoption of Local Limits will depend, in part, upon the results of studies not yet completed, as well as other evidence which may be presented during the process of formulating local limits. Accordingly, Palo Alto retains the right and obligation to exercise its discretion and judgment on the basis of such information, including specifically the right to modify the Local Limits to meet legal prerequisites for the lawful adoption of such Local Limits. By this provision, Palo Alto specifically intends to retain sufficient flexibility in the exercise of its judgment and discretion to meet the requirements for adoption of

lawful Local Limits. This provision does not alter in any manner Palo Alto's obligation to acquire sufficient information to enable it to lawfully adopt Local Limits which will at a minimum achieve maximum feasible reductions for copper and nickel. However, this provision is intended to allow Palo Alto to avoid prejudgment of any decision for which notice and an opportunity to be heard is required by law.

3. Palo Alto further agrees that by September 30, 1994, it will consider and, as appropriate in its discretion, develop the following:
 - a. Other methods for achieving reductions that represent substantial opportunities for source reductions, including financial incentives or changes in rate structures.

C. Removal Efficiency

Continue evaluation of Regional Water Quality Control Plant processes, identify and implement operational and minor capital changes which can improve the copper removal efficiency without

adversely impacting other aspects of plant performance. The focus for FY 1992-93 shall be the dual media filter operation.

III. Industrial Sector

A. Waste Minimization

1. Utilize the annual inspection process at the 28 facilities which completed Waste Minimization Studies to review progress and negotiate further commitments.

B. Discharge Information

Continue to require upgraded flow monitoring and increased frequency of metals monitoring and complete current permit reissuance cycle in FY 1992-93.

C. Incentives for Pollutant Reduction

1. In FY 92-93 begin to assess sewer fees based upon the mass of at least copper and nickel discharged to the sanitary sewer from industrial facilities.
2. Continue aggressive enforcement.
3. Assist industry in recognizing cost savings of waste and water use reductions.

IV. Residential Sector

A. General Public Education

Use the following mechanisms to encourage residents to reduce the discharge of toxics to the sanitary sewer:

1. Fact sheets, brochures
2. Utility bill inserts
3. Newspaper adds/press releases
4. RWQCP tours
5. Visits to schools
6. Doorknob hangers

B. "Point-of-Sale" (Retail) Program

1. Redistribute photo processing literature to chemical supply stores and photo shops.
2. Distribute copper-based root control literature to hardware and similar stores.
3. Develop delivery systems to retailers jointly with the County and consider recognition program for cooperating retailers.

C. Search for Residential Sources

1. Track EPA-funded Central Contra Costa Sanitary District

(CCCCSD) study of residential sources and similar efforts elsewhere. Advise, assist and look for opportunities to augment.

V. Commercial Sector

Permits and Best Management Practices issued in the commercial sector shall assure at a minimum the maximum extent practicable reduction of pollutant discharges, including where practical requiring zero discharge for these pollutants, to the City's Regional Water Quality Control Plant, based on the information available.

A. Photo/X-ray

1. Continue to enforce the Palo Alto Municipal Code Sewer Use Ordinance, which prohibits the discharge of spent photographic solutions to the sewer if the limitations in the ordinance are exceeded.
2. Provide assistance and information to small businesses through brochures, workshops, mailings and newsletters.

B. Vehicle Service

1. Administer a program (the "Clean Bay Business" Program) which recognizes vehicle service facilities which comply with

the Palo Alto Municipal Code provisions affecting Vehicle Service Facilities.

2. By July 1, 1993, issue permits to those Vehicle Service Facilities electing to maintain a discharge to the sanitary sewer.
3. Enforce ordinance requirements.

C. Laboratories

Develop a wall poster, a training brochure and a checklist containing Best Management Practices for laboratory facilities. Distribute these materials by March 1, 1993, to laboratories within the service area of the Regional Water Quality Control Plant, and consider other measures besides education.

D. Machine Shops

1. Develop Best Management Practices for Machine Shops by July 1, 1993.
2. Form a new subcommittee of the Palo Alto Metals Advisory Group and seek input from industry and environmental groups during the formulation of Best Management Practices.

3. By October 1, 1993, issue permits to those machine shops not previously permitted which elect to discharge a wastestream containing pollutants of concern to the sanitary sewer.

E. Hospitals

1. Develop Best Management Practices for hospitals by September 1, 1993, based in part on a waste minimization review of a hospital, designed to quantify all sources of copper and nickel and based also on information obtained in ongoing inspections by the Plant of other hospitals.
2. Form a new subcommittee of the Palo Alto Metals Advisory Group and seek input from hospitals and environmental groups during the formulation of Best Management practices.

F. Cooling Towers

1. Develop Best Management Practices for cooling towers by April 1, 1993, and distribute to businesses and institutions.

VI. Water Supply

- A. Palo Alto shall implement source reduction measures compatible

with the "Request for Information and a Proposed Strategy to Reduce Copper and Selenium in South Bay Drinking Water Sources" issued on August 28, 1992, by the Regional Water Quality Control Board (Attachment 1), or with such further directives as may be issued by the Board.

The following measures along with Attachment 1 are designed to achieve compliance with the discharger's NPDES permit (Effluent concentration and mass limits B.4.1 and B.5). All measures are required to be continued until the discharger fully complies with those provisions. The Board will decide which measures should be continued beyond that date.

I. LOCAL LIMITS

A. Local Limits Development

1. The discharger shall submit a report, acceptable to the Executive Officer, of the analysis of the pollutants which are of concern to treatment plant operations. The determination of pollutants of concern shall include screening of influent, effluent, and sludge data to determine pollutant levels which have the potential to cause problems based on worker health and safety requirements, sludge requirements, inhibition and pass-through. The pollutants determined to be of concern must be compared to those pollutants which the discharger currently regulates. The report shall also include a plan for addressing the factors involved in the development of the local limits and shall provide details of additional sampling which will need to be performed. Instances where data may be needed in order to provide the technical basis for justifying local limits include: total vs. total recoverable effluent concentration limits; treatment plant efficiencies; data on commercial, industrial, residential, and water supply contribution.

Report Due: July 30, 1993

2. The discharger shall submit a report, acceptable to the Executive Officer, of the maximum pollutant loadings to the treatment plant which will enable the treatment plant to meet NPDES effluent limitations. This analysis will consist of a calculation of treatment plant removal efficiencies. The report will provide sufficient documentation of the residential contribution to justify the amount of loading which is available to the industrial and commercial users. The report shall also describe any actions which will be taken to lower contributions from domestic or water supply sources. The calculation of the loading which remains for allocation to the non-domestic sources shall also be included in the report.

Report Due: October 1, 1993

3. The discharger shall submit a report, acceptable to the Executive Officer, describing the method for determining loading allocation for each non-domestic user. The allocation shall include an analysis of methods such as industrial contributory limits, mass-based limits, concentration limits, and a required percentage reduction of pollutants. Data shall be provided on the industrial and commercial users to justify the

methodology of required reductions.

Report Due: January 1, 1994

4. The discharger shall submit a report, acceptable to the Executive Officer, proposing the final local limits for industrial and commercial users which will enable the discharger to meet the NPDES effluent limits. The report shall also contain the results of the pilot pollution prevention studies (audits).

Report Due: April 1, 1994

5. The discharger shall adopt local limits, as approved by the Executive Officer, which will enable the discharge to meet the NPDES effluent limits. At a minimum, the limits will achieve maximum feasible reductions¹ for copper and nickel on an expeditious time schedule, so as to achieve compliance with the discharger's NPDES permit. The local limits shall be composed of at least three parts:

- (1) Concentration Limits
- (2) Mass Limits
- (3) Mandatory Pollution Prevention Measures which at a minimum shall cover Metal Finishing and Printed Circuit Board facilities.

If any other municipal discharger within the San Francisco Bay Region requires companies within its jurisdiction to implement a cost effective measure that is applicable to industries in the discharger's area, the discharger shall present the measure for consideration as a mandatory pollution prevention measure.

Adoption Date: September 30, 1994

Effective Date of Ordinance: October 31, 1994

¹

Maximum feasible reduction is one which would be cost-effective for the industrial discharger, calculated at the prevailing interest rate and with an assumed payback of 5 years, and would result in the smallest pollutant discharge. Use of a different payback period may be required, based on information generated in the process of developing the Local Limits if agreed upon by the Executive Officer.

6. The discharger shall incorporate local limits in the individual control mechanisms for each industrial or commercial user. These limits shall be based on the process approved by the Regional Board.

Incorporation Date: January 30, 1995

II. WATER SUPPLY

- A. Pursuant to the "Request for Information and a Proposed Strategy to Reduce Copper and Selenium in South Bay Drinking Water Sources" submit a joint report generated from the steering committee, which includes monitoring results of drinking water sources and a proposal for immediate actions that can be taken to reduce copper inputs to the water supply. The proposal shall include an evaluation of reducing and/or eliminating the addition of copper sulfate into drinking water sources as an immediate action.

Report Due: January 15, 1994

- B. Commence implementation of immediate actions, as approved by the Executive Officer.

Commencement Date: April 15, 1994

- C. Submit a proposal for approval by the Executive Officer for long term actions and a proposed implementation schedule that can be taken to reduce copper inputs to the water supply. The proposal shall include an evaluation of the results of the Santa Clara Valley Water District corrosion inhibitor study.

Report Due: July 1, 1994

- D. Submit a status report in Pretreatment Annual Report

Status Report Due: February 28, 1994

III. PILOT WASTE MINIMIZATION PROGRAM FOR MERCURY

1. If monitoring results submitted pursuant to Provision E.5.1 of Order 93-085, indicate that mercury effluent concentrations exceed the effluent limitation, the discharger shall develop a pilot waste minimization program for mercury for approval by the Executive Officer. The program should be done in coordination with San Jose, Sunnyvale, and the Bay Area Waste Minimization Group.

Submit Proposal: October 1, 1993

2. Begin implementation of the pilot waste minimization program for mercury, if required, according to the proposal approved by the Executive Officer.

Implementation Date: January 1, 1994

3. Complete pilot waste minimization program for mercury.

Completion Date: January 1, 1995

IV. COORDINATION WITH SANTA CLARA VALLEY NON-POINT SOURCE CONTROL PROGRAM

The discharger shall coordinate waste minimization/source control activities with the Santa Clara Valley Non Point Source Pollution Control Program in order to increase overall effectiveness of controlling heavy metal discharges to the South Bay. Coordination should include, but not be limited to the following areas: source identification, illicit connection elimination to stormwater drains, industrial discharge runoff identification and control programs, and public information and participation programs.

V. MONITORING AND EVALUATION

1. The discharger shall provide on-going tracking of influent, sludge, and effluent levels to determine the reduction of pollutants and show the effectiveness of the revised local limits and other waste minimization activities intended to reduce treatment plant loadings.

The discharger shall include this summary of reductions to influent, and effluent loadings, and sludge metal concentrations and status of compliance with the mass and concentration effluent limits contained in this Order as part of the Annual Pretreatment Report.

2. Annually, recalculate copper and nickel pollutant contributions by the following sectors: residential, commercial, industrial, water supply. Include an evaluation of the effectiveness of the waste minimization measures at achieving reductions.

VI. REPORTING REQUIREMENTS

1. The discharger shall include in the pretreatment annual report, required by Order No. 89-179 (Pretreatment Amendments):
 - o the status, progress, evaluation, results and any written products of all of the above program areas.
 - o reasons for any delays or potential delays in completion of any of the tasks, together with proposed remedies for the delays shall be included.
 - o a proposal for the following year's work program to achieve the mass and concentration limits including budget and staffing.
 - o the previous year's budget and staffing to accomplish the pretreatment/waste minimization program.