CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 01-024
NPDES PERMIT NO. CAS029718

REISSUING WASTE DISCHARGE REQUIREMENTS FOR:

SANTA CLARA VALLEY WATER DISTRICT, COUNTY OF SANTA CLARA, CITY OF CAMPBELL, CITY OF CUPERTINO, CITY OF LOS ALTOS, TOWN OF LOS ALTOS HILLS, TOWN OF LOS GATOS, CITY OF MILPITAS, CITY OF MONTE SERENO, CITY OF MOUNTAIN VIEW, CITY OF PALO ALTO, CITY OF SAN JOSE, CITY OF SANTA CLARA, CITY OF SARATOGA, AND CITY OF SUNNYVALE, which have joined together to form the SANTA CLARA VALLEY URBAN RUNOFF POLLUTION PREVENTION PROGRAM

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

1. The Santa Clara Valley Water District (hereinafter District), County of Santa Clara, City of Campbell, City of Cupertino, City of Los Altos, Town of Los Altos Hills, Town of Los Gatos, City of Milpitas, City of Monte Sereno, City of Mountain View, City of Palo Alto, City of San Jose, City of Santa Clara, City of Saratoga, and City of Sunnyvale (hereinafter referred to as the Dischargers) have joined together to form the Santa Clara Valley Urban Runoff Pollution Prevention Program (hereinafter referred to as the Program) and have submitted a permit application (Report of Waste Discharge), dated December 21, 1999, for re-issuance of waste discharge requirements under the National Pollutant Discharge Elimination System (NPDES) to discharge stormwater run off from storm drains and watercourses within the Dischargers' jurisdictions.

2. The Dischargers are currently subject to NPDES Permit No.CAS029718 issued by Order No. 95-180 on August 23, 1995, and modified by Order No. 99-050 on July 21, 1999.

3. The Dischargers each have jurisdiction over and/or maintenance responsibility for their respective municipal separate storm drain systems and/or watercourses in the Santa Clara basin. (See attached location and political jurisdiction map.) The basin can be divided into eleven sub basins or watersheds including the Coyote Creek watershed on the east side of the valley, the Guadalupe River watershed which drains the south-central portion of the valley, the San Francisquito Creek watershed which drains the northwest portion of the valley (and part of San Mateo County), and a series of small, relatively urbanized watersheds that drain the west side of the valley. (See attached basin watersheds map.) Discharge consists of the surface runoff generated from various land uses in all the hydrologic sub basins in the basin which discharge into watercourses, which in turn flow into South San Francisco Bay.

   The quality and quantity of these discharges varies considerably and is affected by hydrology, geology, land use, season, and sequence and duration of hydrologic event. Pollutants of concern in these discharges are certain heavy metals, excessive sediment production from erosion due to anthropogenic activities, petroleum hydrocarbons from sources such as used motor oil, microbial

pathogens of domestic sewage origin from illicit discharges, certain pesticides associated with the risk of acute aquatic toxicity, excessive nutrient loads which may cause or contribute to the depletion of dissolved oxygen and/or toxic concentrations and dissolved ammonia, and other pollutants which may cause aquatic toxicity in the receiving waters.

4. Section 402(p) of the federal Clean Water Act (CWA), as amended by the Water Quality Act of 1987, requires NPDES permits for stormwater discharges from separate municipal storm drain systems, stormwater discharges associated with industrial activity (including construction activities), and designated stormwater discharges which are considered significant contributors of pollutants to waters of the United States. On November 16, 1990, the United States Environmental Protection Agency (hereinafter US EPA) published regulations (40 CFR Part 122) which prescribe permit application requirements for municipal separate storm drain systems pursuant to Section 402(p) of the CWA. On May 17, 1996, USEPA published an Interpretive Policy Memorandum on Reapplication Requirements for Municipal Separate Storm Sewer Systems (MS4s), which provided guidance on permit application requirements for regulated MS4s.

5. This Order was developed in cooperation with the Santa Clara Basin Watershed Management Initiative (SCBWMI). The SCBWMI, in which the Program and several of the Dischargers are active participants, is a stakeholder driven process that commenced in June 1996 as a pilot effort by the Regional Board. The SCBWMI seeks to integrate regulatory and watershed programs in the South San Francisco Bay Region. As part of this process, Regional Board staff conducted a series of 10 meetings with the Regulatory Subgroup of the SCBWMI (which included RWQCB staff, representatives of the Dischargers, and representatives of local environmental groups and other interested parties), and solicited the Regulatory Subgroup's input and comments concerning the Dischargers' permit and permit application. Through this process, the Regulatory Subgroup attempted to identify, prioritize, and resolve issues related to the Dischargers' and Program's performance, the Management Plan, and this permit, and attempted to develop a consensus concerning the requirements reflected herein. This Permit also reflects the SCBWMI's recommendations concerning the role of the Program and Dischargers in watershed management activities in the Santa Clara Valley Basin and lower South San Francisco Bay.

6. On December 21, 1999, the Dischargers and the Program submitted a Permit Re-Application Package that included the Program's 1997 Urban Runoff Management Plan, the Dischargers' updated Urban Runoff Management Plans, the Program's Watershed 2000 Vision statement,[1] the Dischargers' updated Memorandum of Agreement and Bylaws for Program Funding and Management, and the Program's and Dischargers' Annual Reports for FY 1999/00 and Workplans for FY 2000/01, which will hereinafter collectively be known as the Management Plan. The intent of the Management Plan is to reduce the discharge of pollutants in stormwater to the maximum extent practicable, and in a manner designed to achieve compliance with water

[1] The Program's Watershed 2000 Vision, submitted as part of its December 21, 1999 Permit Re-Application Package, contains a five-year watershed education and outreach strategy that outlines the outreach efforts of the Santa Clara Basin Watershed Management Initiative. The strategy includes development, implementation, and evaluation of a county-wide Watershed Education and Outreach Campaign, beginning in FY 00-01. The goals of the Campaign are to 1) educate residents on the Santa Clara Basin watershed and how to protect it; 2) promote public involvement in watershed stewardship; and 3) change behaviors that negatively impact the watershed.

quality standards and objectives, and effectively prohibit non-stormwater discharges into municipal storm drain systems and watercourses within the Dischargers' jurisdictions. The Management Plan fulfills the Regional Board's permit application requirements subject to the condition that it will be improved and revised in accordance with the provisions of this Order.

7. The Management Plan describes a framework for management of stormwater discharges during the term of this permit. The title page and table of contents of the Program's 1997 Urban Runoff Management Plan (Management Plan) are attached to this Order. The 1997 Management Plan describes the Program's goals and objectives, and the annual reporting and program evaluation process. Performance Standards, which represent the baseline level of effort required of each of the Dischargers, are contained in Appendix A of the 1997 Management Plan. The baseline performance standards serve as a reference point upon which to base effectiveness evaluations and consideration of opportunities for improving them.

   Program activities are focused on the following elements:

   - Program Management
   - Annual Reporting and Evaluation
   - Monitoring
   - Public Agency Activities
   - Public Information and Participation
   - Metals Control Measures
   - Watershed Management Measures
   - Illicit Connection / Illegal Dumping Elimination
   - Industrial and Commercial Discharges
   - New Development and Construction
   - Continuous Improvement

   Each Discharger has developed an Urban Runoff Management Plan to reduce, control and/or otherwise address sources of discharge. The Dischargers' Management Plans incorporate Performance Standards that, where necessary, refine the model Performance Standards to suit local conditions. The Dischargers' Management Plans contain local strategies for urban runoff control, including tailored Performance Standards, workplans to implement Performance Standards, and Best Management Practices and Standard Operating Procedures that detail how control measures will be carried out day-to-day.

   The Program participates, in and contributes to, joint efforts with other entities, including regulatory agencies, public benefit corporations, universities, and citizens' groups. These entities take the lead on addressing particular sources because they are regional, statewide or national in scope, because they have different skills or expertise, or because they have appropriate regulatory authority.

   The Program will continue to build and actively participate in the SCBWMI. The Program and several of the Dischargers are stakeholders (signatories) in the SCBWMI and provide staff support and funding to the SCBWMI. The SCBWMI, as a stakeholder process, provides the tools to identify community goals and issues, and facilitates the development of common ground between stakeholders to recommend to policy-makers the actions needed to better manage watershed resources.

8. The Program and the Dischargers are dedicated to a process of continuous review and improvement, which includes seeking new opportunities to control stormwater pollution and to protect beneficial uses. Accordingly, the Program and the Dischargers will on a continuous basis conduct and document peer review and evaluation of each relevant element of each Dischargers program and revise activities, control measures, Best Management Practices (BMPs) and Performance Standards. These changes will be documented in the Annual Report and will be considered an enforceable component of this Order. These reviews provide an opportunity for local staff to experience peer review, and to explore Bay Area, statewide and national stormwater program models and to identify additional ways that the Program could assist local pollution-prevention efforts.

9. It is the intent of Regional Board staff to perform, in coordination with the Dischargers and interested persons, an annual performance review and evaluation of the Program and its activities. The reviews are a useful means of evaluating overall Program effectiveness, implementation of Performance Standards, and continuous improvement opportunities. The following areas will be evaluated:

   a. Overall Program effectiveness;

   b. Performance Standard improvements;

   c. Dischargers' coordination and implementation of watershed based management actions (e.g., flood management, new development and construction, industrial source controls, public information/participation, monitoring);

   d. Partnership opportunities with other Bay Area stormwater programs; and

   e. Consistency in meeting maximum extent practicable measures within the Program and with other Regional, Statewide, and National municipal stormwater management programs.

10. The Program is organized, coordinated, and implemented based upon a Memorandum of Agreement (MOA) and set of Bylaws signed by the Dischargers, which define roles and responsibilities of the Dischargers. The roles and responsibilities of the Dischargers are, in part, as follows:

    a. The Management Committee, which includes representatives from all of the Dischargers, is the decision making body of the Program. It operates within the budget and policies established by the Dischargers' governing boards and councils to decide matters of budget and policy necessary to implement the Management Plan, and provides direction to the Program Manager and staff. The Management Committee has established ad hoc task groups to assist in planning and implementation of the Management Plan, and may add, modify, or delete such groups as deemed necessary.

    b. Any party as defined within the Program MOA may act as the contracting/fiscal agent for the Program. A contracted Program Manager is responsible for implementation of the Program's self-monitoring activities and preparation and submittal of Program components of the Annual Report and Workplans. In acting as the Program's contracting/fiscal agent, a Discharger does not assume responsibility for the obligations assigned to other Dischargers

by this Order. Regardless of the presence of a Program Manager, Dischargers remain fully responsible for complying with all requirements of this permit.

c. Each of the Dischargers is individually responsible for adoption and enforcement of ordinances and policies, implementation of assigned control measures/best management practices (BMPs) needed to prevent or reduce pollutants in stormwater, and for providing funds for the capital, operation, and maintenance expenditures necessary to implement such control measures/BMPs within their jurisdiction. Each Discharger is also responsible for its share of the costs of the area-wide component of the Program as specified in the MOA and Bylaws. Except for the area-wide component of the Program, enforcement actions concerning this Order will be pursued only against the individual Discharger(s) responsible for specific violations of this Order.

11. The Regional Board adopted a revised Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan) on June 21, 1995, which was approved by the State Water Resources Control Board and the Office of Administrative Law on July 21 and November 13 of 1995, respectively. This updated and consolidated plan represents the Regional Board's master water quality control planning document. A summary of the regulatory provisions is contained in Title 23 of the California Code of Regulations at Section 3912. The Basin Plan identifies beneficial uses and water quality objectives for surface waters in the Region, as well as effluent limitations and discharge prohibitions intended to protect those uses. This Order implements the plans, policies, and provisions of the Board's Basin Plan.

12. The beneficial uses of South San Francisco Bay, its tributary streams and contiguous water bodies, and other water bodies within the drainage basin are listed in the Basin Plan.

13. The Regional Board considers stormwater discharges from the urban and developing areas in the San Francisco Bay Region, such as the Santa Clara Valley basin, to be significant sources of certain pollutants in waters of the Region that may be causing or threatening to cause or contribute to water quality impairment. Furthermore, as delineated on the CWA Section 303(d) list, the Regional Board finds that there is a reasonable potential that municipal stormwater discharges may cause or contribute to an excursion above water quality standards for: mercury, PCBs, dioxins, furans, diazinon, dieldrin, chlordane, and DDT in South San Francisco Bay; diazinon in Calabazas Creek, Coyote Creek, Guadalupe Creek, the Guadalupe River, Los Gatos Creek, Matadero Creek, San Francisquito Creek, Saratoga Creek, and Stevens Creek, mercury in the Guadalupe River, Alamitos Creek, Guadalupe Creek, Calero Reservoir, and Guadalupe Reservoir;[2] and sediment in San Francisquito Creek and possibly other creeks in the Santa Clara Basin. In accordance with CWA Section 303(d), the Regional Board is required to establish the Total Maximum Daily Loads (TMDLs) of these pollutants to these waters sufficient to eliminate impairment and attain water quality standards. Therefore, certain early actions and/or further assessments by the Dischargers are warranted and required pursuant to this Order.

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[2] In addition, in May 2000, the Regional Board transmitted a Report to US EPA entitled, "Watershed Management of Mercury in the San Francisco Bay Estuary: Draft Total Maximum Daily Load." The Regional Board has listed all segments of San Francisco Bay as impaired due to mercury pollution. The Report indicates that urban runoff serves as a conveyance for mercury, and recommends certain actions by urban runoff programs when a mercury TMDL has been adopted.

In addition, pursuant to Provision C.1 of Order No. 95-180 as modified by Order No. 99-050, the Program's and Dischargers' Annual Reports dated September 1, 1999 and September 1, 2000 included delineations of control measures designed to address specific pollutants of concern in the near term and a program of continuous improvement to further address these pollutants and their adverse water quality impacts over time. The Regional Board has reviewed these prior Provision C.1 submissions and, in response, is including additional requirements in Provision C.9 of this Order to continue implementation of previously delineated pollutant specific control measures and identification and implementation of additional control measures necessary to prevent or reduce discharges of pollutants that are causing or contributing to the exceedance of water quality standards.

14. The Regional Board had made previous findings that municipal stormwater discharges from the urban and developing areas in the San Francisco Bay Region, such as the Santa Clara Basin, cause or contribute to excursions above water quality standards for copper and nickel in South San Francisco Bay, south of the Dumbarton Bridge (Lower South San Francisco Bay). However, recent studies and related actions as described below provide cause for the Regional Board to revise the finding.

    a. A cooperative effort was initiated in 1998 to establish TMDLs for copper and nickel in Lower South San Francisco Bay. The SCBWMI established the TMDL Workgroup (TWG) as a stakeholder group to oversee and provide input and advice on development of the TMDLs. The TWG included representatives from the Dischargers, Regional and State Board staff, US EPA, San Francisco Estuary Institute, California Department of Fish and Game, environmental groups (CLEAN South Bay and Silicon Valley Toxics Coalition), business groups (Chamber of Commerce, Silicon Valley Manufacturing Group, and the Copper Development Association), Silicon Valley Pollution Prevention Center, and others.

    b. At its April 14, 2000 meeting the TWG approved the following reports and forwarded them to the SCBWMI: Impairment Assessment Report and Copper Action Plan. The TWG also approved an outline of a Nickel Action Plan.

    c. The Impairment Assessment Report (dated June 2000) recommends the establishment of site-specific objectives for Lower South San Francisco Bay in the range of 5.5 to 11.6 µg/l for dissolved copper and in the range of 11.9 to 24.4 µg/l for dissolved nickel and concludes that impairment of Lower South San Francisco Bay due to copper or nickel is unlikely. Accordingly, the report recommends that copper and nickel be removed from the CWA Section 303(d) list. The report also identifies specific areas of uncertainty associated with the finding that impairment is unlikely. Action Plan implementation items should address these uncertainties.

    d. The Copper Action Plan (dated June 2000) contains specific actions to be implemented by various entities. Actions applicable to the Dischargers are described in Appendix B of this Order. These include immediate pollution prevention Baseline actions and additional actions that would be triggered by specific increases in ambient concentrations. The plan calls for monitoring of municipal wastewater and urban runoff copper loading and dissolved copper in Lower South San Francisco Bay during the dry season. If the mean dissolved copper

concentrations measured at certain specified stations[3] increases from its current level of 3.2 µg/l to 4.0 µg/l or higher, Phase 1 actions would be triggered to further control copper discharges. If the mean dissolved copper concentration increases to 4.4 µg/l, Phase 2 actions would be triggered. Such incremental increases in mean dissolved copper concentrations shall be used solely for triggering the aforementioned actions. If dischargers into the Lower South San Francisco Bay demonstrate that the increases in copper concentrations are due to factors beyond their control, the Regional Board will consider eliminating or postponing actions required under Phase 1 or Phase 2 of the Copper Action Plan.

e. The Nickel Action Plan (dated August 23, 2000) contains specific actions to be implemented by various entities. Actions applicable to the Dischargers are described in Appendix C of this Order. These include immediate pollution prevention Baseline actions and additional actions that would be triggered by specific increases in ambient concentrations. The plan calls for monitoring of municipal wastewater and urban runoff copper loading and dissolved copper in Lower South San Francisco Bay during the dry season. If the mean dissolved nickel concentrations measured at certain specified stations[3] increases from its current level of 3.8 µg/l to 6.0 µg/l or higher, Phase 1 actions would be triggered to further control nickel discharges. If the mean dissolved nickel concentration increases to 8.0 µg/l, Phase 2 actions would be triggered. Such incremental increases in mean dissolved nickel concentrations shall be used solely for triggering the aforementioned actions. If dischargers into the Lower South San Francisco Bay demonstrate that the increases in nickel concentrations are due to factors beyond their control, the Board will consider eliminating or postponing actions required under Phase 1 or Phase 2 of the Nickel Action Plan.

f. Some Baseline, Phase 1, and Phase 2 actions in the Copper Action Plan and Nickel Action Plan may require the assistance of the Regional Board to co-ordinate and assist in the efforts of dischargers into the Lower South San Francisco Bay and other entities to limit or reduce copper and nickel levels in the Lower South San Francisco Bay. It is the intent of the Regional Board that its staff will to the extent practicable coordinate and assist Baseline, Phase 1, and Phase 2 actions as identified in the Copper Action Plan and Nickel Action Plan.

g. Based upon the information contained in the Impairment Assessment Report, the Regional Board hereby concludes that Lower South San Francisco Bay is not impaired by copper or nickel. Therefore, it is the intent of the Regional Board to remove Lower South San Francisco Bay from the CWA Section 303(d) list of impaired water bodies for copper and nickel the next time the list is updated. This conclusion is based on data collected in Lower South San Francisco Bay from 1997 to 1999 which show that the mean dissolved copper concentration was 2.7 µg/l (range 0.8 to 4.9 µg/l) and that the mean dissolved nickel concentration was 3.8 µg/l (range 1.5 to 10.1 µg/l) and these data are below the lowest end of the suggested ranges for site specific objectives in the Impairment Assessment Report of 5.5 to 11.6 µg/l for dissolved copper and 11.9 to 24.4 µg/l for dissolved nickel.

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[3] Ten stations described in the Copper Action Plan are being monitored monthly during the dry season (May through October) for dissolved copper and nickel by the Publicly Owned Treatment Works (POTWs) that discharge to Lower South San Francisco Bay. The results of this monitoring will be reported by the POTWs in their monthly and annual Self Monitoring Reports submitted to the Regional Board and to the SCBWMI Regulatory Subgroup.

h. It is the intent of the Regional Board to amend the Basin Plan to establish site-specific objectives for copper and nickel for Lower South San Francisco Bay. Information contained in the Impairment Assessment Report, along with other information, including information to be developed by the Dischargers for review and consideration by the Regional Board, will be used to establish the objectives. It is the intent of the Regional Board to establish appropriate site-specific objectives using available state and/or federal water quality guidance and procedures.

i. The Regional Board has adopted similar findings as those noted above in the October 2000 amendments to the NPDES permits for the POTWs that discharge to Lower South San Francisco Bay, relative to the results and conclusion of the copper and nickel TMDL studies.

15. In Order No. 99-059 regarding the NPDES stormwater permit for the San Mateo Countywide Stormwater Pollution Prevention Program (STOPPP), the Regional Board required STOPPP to develop and implement an erosion control and prevention plan for the San Francisquito Creek watershed that drains approximately 45 square miles – 80% of which lies within the boundaries of San Mateo County. The Santa Clara Valley Water District, in partnership with the United States Geological Survey, adjacent municipal governments, and regional and state regulatory boards, has assumed a proactive role toward development of a sediment analysis within the San Francisquito Creek watershed. This ongoing effort included the development of a decision support system with community stakeholders, assisting continued development of STOPPP's erosion control plan, and characterization of management practices. It is the Regional Board's intent to continue to direct STOPPP to make progress on this issue, and to have the Dischargers work cooperatively with STOPPP to build upon the efforts already initiated without assuming a disproportionate share of the burden to resolve sediment issues is this watershed.

16. This Order contains in Provision C.5 the requirement to create an effective BMP approach for the following rural public works maintenance and support activities: a) management and/or removal of large woody debris and live vegetation from stream channels; b) streambank stabilization projects; c) road construction, maintenance, and repairs in rural areas to prevent and control road-related erosion; and d) environmental permitting for rural public works activities.

17. The Management Plan contains performance standards and supporting documents to address the post-construction and construction phase impacts of new and redevelopment projects on stormwater quality (Planning Procedures and Construction Inspection Performance Standards). The Dischargers will continue to implement these performance standards and continuously improve them to the maximum extent practicable for new development as described in Provision C.3.a. Provision C.3.b. which was in the October, 2000 Tentative Order has been removed in this draft, and only the current performance standard for New Development Planning Procedures from the existing permit, included in Provision C.3.a, has been retained. Provision C.3.b. will be extensively revised and the Order will be amended to address significant changes to Provision C.3 in the near future. The Dischargers consent to reopening the permit to address revisions to Provision C.3. The Order will be proposed for amendment in response to comments received and the need to address the "Cities of Bellflower, et. al." decision by the State Board (State Board Order No. 2000-11). When the Order is re-noticed for amendment of Provision C.3, supplemental comments will be taken, and all comments relating to Provision C.3 will receive appropriate response at that time.

18. On April 15, 1992, the Board adopted Resolution No. 92-043 directing the Executive Officer to implement the Regional Monitoring Program for San Francisco Bay. Subsequent to a public hearing and various meetings, Board staff requested major permit holders in this region, under authority of Section 13267 of California Water Code, to report on the water quality of the estuary. These permit holders, including the Dischargers, responded to this request by participating in a collaborative effort, through the San Francisco Estuary Institute. This effort has come to be known as the San Francisco Estuary Regional Monitoring Program for Trace Substances (RMP). The RMP involves collection and analysis of data on pollutants and toxicity in water, sediment and biota of the estuary. This Order specifies that the Dischargers shall continue to participate in the RMP or shall submit and implement an acceptable alternative monitoring plan. Annual reports from the RMP are referenced elsewhere in this Order.

19. The San Francisco Estuary Project, established pursuant to CWA Section 320, culminated in June of 1993 with completion of its Comprehensive Conservation and Management Plan (CCMP) for the preservation, restoration, and enhancement of the San Francisco Bay-Delta Estuary. The CCMP includes recommended actions in the areas of aquatic resources, wildlife, wetlands, water use, pollution prevention and reduction, dredging and waterway modification, land use, public involvement and education, and research and monitoring. Recommended actions which may, in part, be addressed through implementation of the Dischargers' Management Plan include, but are not limited to, the following:

    a. Action PO-2.1: Pursue a mass emissions strategy to reduce pollutant discharges into the Estuary from point and nonpoint sources and to address the accumulation of pollutants in estuarine organisms and sediments.

    b. Action PO-2.4: Improve the management and control of urban runoff from public and private sources.

    c. Action PO-2.5: Develop control measures to reduce pollutant loadings from energy and transportation systems.

    d. Action LU-1.1: Local General Plans should incorporate watershed protection plans to protect wetlands and stream environments and reduce pollutants in runoff.

    e. Action LU-3.1: Prepare and implement Watershed Management Plans that include the following complementary elements: 1) wetlands protection; 2) stream environment protection; and, 3) reduction of pollutants in runoff.

    f. Action LU-3.2: Develop and implement guidelines for site planning and Best Management Practices.

    g. Action PI-2.3: Work with educational groups, interpretive centers, decision-makers, and the general public to build awareness, appreciation, knowledge, and understanding of the Estuary's natural resources and the need to protect them. This would include how these natural resources contribute to and interact with social and economic values.

20. On February 1, 1989, pursuant to Section 304(l) of the Clean Water Act, as amended by the Water Quality Act of 1987, the State Water Resources Control Board included South San Francisco Bay, below the Dumbarton Bridge (South Bay), on the 304(l)(1)(B) list of impaired waters for the pollutants cadmium, chromium, copper, lead, mercury, nickel, silver, selenium,

and zinc (304(l) metals) and included the Dischargers on the 304(l)(1)(C) list of point sources discharging the listed pollutants. Order No. 90-094 served as an Individual Control Strategy required by Section 304(l) for point sources on the 304(l)(1)(C) list. The Individual Control Strategy was designed to produce a reduction in the discharge of toxic pollutants from stormwater discharges sufficient, in combination with controls on point and nonpoint sources of pollutants, to achieve applicable water quality standards no later than three years after the date of the establishment of the Individual Control Strategy.

The Regional Board reviewed reports submitted by the Dischargers between June of 1990 and September of 1993 and San Francisco Regional Monitoring Program for Trace Substances data and found that the Dischargers made considerable progress in reducing the discharge of pollutants, including 304(l) metals, but that the South Bay remained impaired and applicable water quality objectives had not been achieved. Consequently, on December 15, 1993, the Regional Board adopted Cease and Desist Order No. 93-164 which required the Dischargers to submit a plan identifying measures for further control of the 304(l) metals and assigning responsibilities and time schedules for implementation of such control measures. The Dischargers' Management Plan includes an implementation plan for Metals Control Measures. This Order requires implementation of the Management Plan and the Metals Control Measures and their annual evaluation and update and serves as a continuation of the Individual Control Strategy.

21. It is the Regional Board's intent that this Order shall ensure attainment of applicable water quality objectives and protection of the beneficial uses of receiving waters and associated habitat. This Order therefore includes standard requirements to the effect that discharges shall not cause violations of water quality objectives nor shall they cause certain conditions to occur which create a condition of nuisance or water quality impairment in receiving waters. Accordingly, the Regional Board is requiring that these standard requirements be addressed through the implementation of technically and economically feasible control measures to reduce pollutants in stormwater discharges to the maximum extent practicable as provided in Provisions C.1 through C.10 of this Order. Compliance with Provisions C.1 through C.10 is deemed compliance with the requirements of this Order. If these measures, in combination with controls on other point and nonpoint sources of pollutants, do not result in attainment of applicable water quality objectives, the Regional Board will reopen this permit pursuant to Provisions C.1 and C.12 of this Order to impose additional conditions which require implementation of additional control measures.

22. It is generally not considered feasible at this time to establish numeric effluent limitations for pollutants in municipal stormwater discharges. Instead, the provisions of this permit require implementation of Best Management Practices to control and abate the discharge of pollutants in stormwater discharges.

23. The Regional Board considers the Management Plan an essential component of an urban watershed management plan for the Santa Clara Basin and its eleven sub basins or watersheds. The Management Plan is intended to provide a framework for protection and restoration of the Santa Clara Basin watersheds and the Lower South San Francisco Bay in part through effective

and efficient implementation of appropriate control measures for the most important sources of pollutants within the watersheds.

24. The State Board has issued NPDES general permits for the regulation of stormwater discharges associated with industrial activities and construction activities. To effectively implement the Industrial and Commercial Dischargers and New Development and Construction elements of the Management Plan, the Dischargers will conduct investigations and local regulatory activities at industries and construction sites covered by these general permits. However, under the Clean Water Act, the Regional Board cannot delegate to the Dischargers its own authority to enforce these general permits. Therefore, Regional Board staff intend to work cooperatively with the Dischargers to ensure that industries and construction sites within the Dischargers' jurisdictions are in compliance with applicable general permit requirements and are not subject to uncoordinated stormwater regulatory activities.

25. Federal, state, or regional entities within the Dischargers' boundaries, not currently named in this Order, operate storm drain facilities and/or discharge stormwater to the storm drains and watercourses covered by this Order. The Dischargers may lack legal jurisdiction over these entities under the state and federal constitutions. Consequently, the Regional Board recognizes that the Dischargers should not be held responsible for such facilities and/or discharges. The definition of discharges of stormwater in the federal NPDES regulations may result in federal, state, or regional entities within the Santa Clara Basin, not currently named in this Order, being subject to NPDES permitting regulations. The Regional Board will consider issuing separate NPDES permits for such stormwater discharges to other federal, state, or regional entities within the Dischargers' boundaries or amending this permit to include such dischargers.

26. The action to adopt a NPDES permit is exempt from the provisions of the California Environmental Quality Act (Division 13 of the Public Resources Code, Chapter 3, Section 21100, et. seq.) in accordance with Section 13389 of the California Water Code.

27. The Regional Board will notify interested agencies and interested persons of the availability of reports, plans, and schedules, including Annual Reports, Work Plans, Performance Standards, and the Management Plan, and will provide interested persons with an opportunity for a public hearing and/or an opportunity to submit their written views and recommendations. The Regional Board will consider all comments and may modify the reports, plans, or schedules or may modify this Order in accordance with the NPDES permit regulations. All submittals required by this Order conditioned with acceptance by the Executive Officer will be subject to these notification, comment, and public hearing procedures.

28. The Regional Board has notified the Dischargers and interested agencies and interested persons of its intent to prescribe reissued waste discharge requirements and a reissued NPDES permit for this discharge and has provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.

29. The Regional Board, at a properly noticed public meeting, heard and considered all comments pertaining to the discharge.

30. It is the intention of the Regional Board that this Order supersedes Order Nos. 90-094, 92-021, 93-164, 95-180, and 99-050.

31. This Order serves as a NPDES permit, pursuant to CWA Section 402, or amendments thereto, and shall become effective ten days after the date of its adoption provided the Regional Administrator, US EPA, Region IX, has no objections.

IT IS HEREBY ORDERED that the Dischargers, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted hereunder and the provisions of the Clean Water Act as amended and regulations and guidelines adopted hereunder, shall comply with the following:

A. DISCHARGE PROHIBITION

The Dischargers shall, within their respective jurisdictions, effectively prohibit the discharge of non-stormwater (materials other than stormwater) into the storm drain systems and watercourses. NPDES permitted discharges are exempt from this prohibition. Compliance with this prohibition shall be demonstrated in accordance with Provision C.1 and C.8 of this Order. Provision C.8 describes a tiered categorization of non-stormwater discharges based on potential for pollutant content.

B. RECEIVING WATER LIMITATIONS

1. The discharge shall not cause the following conditions to create a condition of nuisance or to adversely affect beneficial uses of waters of the State:

   a. Floating, suspended, or deposited macroscopic particulate matter, or foam;

   b. Bottom deposits or aquatic growths;

   c. Alteration of temperature, turbidity, or apparent color beyond present natural background levels;

   d. Visible, floating, suspended, or deposited oil or other products of petroleum origin; and/or

   e. Substances present in concentrations or quantities which will cause deleterious effects on aquatic biota, wildlife, or waterfowl, or which render any of these unfit for human consumption.

2. The discharge shall not cause or contribute to a violation of any applicable water quality standard for receiving waters contained in the Regional Board Basin Plan. If applicable water quality objectives are adopted and approved by the State Board after the date of the adoption of this Order, the Regional Board may revise and modify this Order as appropriate.

C. PROVISIONS

1. The Dischargers shall comply with Discharge Prohibition A and Receiving Water Limitations B.1 and B.2 through the timely implementation of control measures and other actions to reduce pollutants in the discharge in accordance with the Management Plan and other requirements of

this permit, including any modifications. The Management Plan shall be designed to achieve compliance with Receiving Water Limitations B.1 and B.2. If exceedance(s) of water quality standards or water quality objectives (collectively WQSs) persist notwithstanding implementation of the Management Plan, a Discharger shall assure compliance with Discharge Prohibition A.1 and Receiving Water Limitations B.1 and B.2 by complying with the following procedure:

a. Upon a determination by either the Discharger(s) or the Regional Board that discharges are causing or contributing to an exceedance of an applicable WQS, the Discharger(s) shall promptly notify and thereafter submit a report to the Regional Board that describes BMPs that are currently being implemented and additional BMPs that will be implemented to prevent or reduce any pollutants that are causing or contributing to the exceedance of WQSs. The report may be incorporated in the annual update to the Management Plan unless the Regional Board directs an earlier submittal. The report shall include an implementation schedule. The Regional Board may require modifications to the report;

b. Submit any modifications to the report required by the Regional Board within 30 days of notification;

c. Within 30 days following approval of the report described above by the Regional Board, the Dischargers shall revise the Management Plan and monitoring program to incorporate the approved modified control measures that have been and will be implemented, the implementation schedule, and any additional monitoring required;

d. Implement the revised Management Plan and monitoring program in accordance with the approved schedule.

As long as Dischargers have complied with the procedures set forth above and are implementing the revised Management Plan, they do not have to repeat the same procedure for continuing or recurring exceedances of the same receiving water limitations unless directed by the Regional Board to develop additional control measures and BMPs.

2. Urban Runoff Management Plan and Performance Standards

a. The Dischargers shall implement control measures and best management practices to reduce pollutants in stormwater discharges to the maximum extent practicable. The Management Plan shall serve as the framework for identification, assignment, and implementation of such control measures/BMPs. The Management Plan contains Performance Standards that address the following Program elements: Illicit Connection/Illegal Discharge Control; Industrial/Commercial Discharger Control; Public Streets, Roads, and Highways Operation and Maintenance; Storm Drain Operation and Maintenance; Water Utility Operation and Maintenance; and New Development Planning Procedures and Construction Inspection. Performance Standards are defined as the level of implementation necessary to demonstrate the control of pollutants in stormwater to the maximum extent practicable. The Dischargers shall implement the Management Plan, and shall, through its continuous improvement process[4], subsequently demonstrate its effectiveness and provide for necessary and

[4] Continuous Improvement shall be defined as seeking new opportunities for improving Program effectiveness, controlling stormwater pollution, and, protecting beneficial uses. The Program's approach to implementing Performance Standards explicitly

appropriate revisions, modifications, and improvements to reduce pollutants in stormwater discharges to the maximum extent practicable and as required by Provisions C.1 through C.10 of this Order.

b. The Management Plan shall be revised to adopt and incorporate any new Performance Standards developed by the Dischargers or any revised Performance Standard identified by the Dischargers through the Program's continuous improvement process. Performance Standards shall be developed or revised through a process which includes 1) opportunities for public participation, 2) appropriate external technical input and criteria for the applicability, economic feasibility, cost effectiveness, design, operation, and maintenance, and 3) measures for evaluation of effectiveness so as to achieve pollutant reduction or pollution prevention benefits to the maximum extent practicable. New or revised Performance Standards may be based upon special studies or other activities conducted by the Dischargers, literature review, or special studies conducted by other programs or dischargers. New or revised Performance Standards shall include the baseline components to be accomplished and the method to be used to verify that the Performance Standard has been achieved. The Dischargers shall incorporate newly developed or updated Performance Standards, acceptable to the Executive Officer, into applicable annual revisions to the Management Plan and adhere to implementation of the new/revised Performance Standard(s). In addition to the annual Management Plan revisions, the Dischargers shall submit a compilation of all annual Management Plan revisions by September 1, 2004, which shall serve in part as the re-application for the next permit. The draft Annual Workplan required in Provision C.6 shall identify any Performance Standards that will be developed or revised for the upcoming fiscal year. Following the addition/revision of a Performance Standard, acceptable to the Executive Officer, the Dischargers for which the Performance Standard is applicable shall adhere to its implementation.

3. **New and Redevelopment Performance Standards**

The Management Plan contains performance standards and supporting documents to address the post-construction and construction phase impacts of new and redevelopment projects on stormwater quality (Planning Procedures and Construction Inspection Performance Standards). The Dischargers will continue to implement these performance standards and continuously improve them to the maximum extent practicable in accordance with the following sections.

a. Planning Procedures

i) The Dischargers will continue to implement and continually improve the following performance standards for planning procedures:

1. Each Discharger shall have adequate legal authority to implement new development control measures as part of its development plan review and approval procedures.

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acknowledges that "Maximum Extent Practicable" (MEP) is an ever evolving, flexible and advancing concept. As knowledge about controlling urban runoff continues to evolve so does the definition of MEP.

2. Each Discharger shall provide developers with information and guidance materials on site design guidelines, building permit requirements, and BMPs for stormwater pollution prevention early in the application process, as appropriate for the type of project.

3. Environmental documents required for those projects that fall under CEQA or NEPA review, such as EIRs, negative declarations, and initial study checklists, shall address stormwater quality impacts during the life of the project (both significant and cumulative), required permits, and specific mitigation measures related to stormwater quality.

4. Each Discharger, to the maximum extent practicable, shall require developers of projects with significant stormwater pollution potential[5] to mitigate stormwater quality impacts, through proper site planning and design techniques and/or/or addition of permanent post-construction stormwater treatment control measures ("treatment controls").

5. Each Discharger shall require developers of projects that disturb a land area of five acres or more to demonstrate coverage under the State General Construction Activity StormWater Permit.

6. Each Discharger shall require developers of projects with potential for significant erosion and planned construction activity during the wet season (as defined by local ordinance) to prepare and implement an effective erosion and/or sediment control plan or similar document prior to the start of the wet season.

7. Each Discharger shall require developers of projects that include installation of permanent structural stormwater controls to establish and provide a method for operation and maintenance of such structural controls.

8. Each Discharger shall ensure that municipal capital improvement projects include stormwater quality control measures during and after construction, as appropriate for each project, and that contractors comply with stormwater quality control requirements during construction and maintenance activities.

9. Each Discharger shall provide training at least annually to its planning, building, and public works staffs on planning procedures, policies, design guidelines, and BMPs for stormwater pollution prevention.

4. Public Information / Public Participation Basic Performance Standards

The goals of public information and participation (PI/P) are to identify and change behaviors that adversely affect water quality and to increase the understanding and appreciation of streams and the San Francisco Bay. To meet these goals the Dischargers shall implement the January 3, 2001 Watershed Education & Outreach Campaign Conceptual Plan. PI/P activities shall be conducted locally, county-wide and in collaboration with other regional agencies. At a minimum, annual PI/P efforts must include general outreach, targeted outreach (including outreach to municipal

[5] A project with significant stormwater pollution potential is defined as one that causes substantial or potentially substantial adverse change in the quantity and/or quality of stormwater runoff generated from the site. (This is consistent with the CEQA definition of significance and currently requires professional judgment.)

staff within each Dischargers' jurisdictions), educational programs, and citizen participation activities designed to further the objectives and meet the requirements of this permit. Annual Draft Workplans shall state the PI/P activities each Discharger will conduct or participate in to meet the requirements of this provision. Both the level of implementation and the effectiveness of PI/P activities shall be reported annually. Effectiveness may be measured through direct or indirect means, such as observation of business/citizen behavior; surveys; and/or analysis of available data on public involvement in or response to PI/P activities. The implementation and effectiveness of each PI/P activity shall be reported in the Annual Report.

5. Performance Standard for Rural Public Works Maintenance and Support

The Program shall develop by June 30, 2002, Performance Standards, annual training and technical assistance needs, and annual reporting requirements for the following rural public works maintenance and support activities: a) management and/or removal of large woody debris and live vegetation from stream channels; b) streambank stabilization projects; c) road construction, maintenance, and repairs in rural areas to prevent and control road-related erosion; and d) environmental permitting for rural public works activities.

6. Annual Reports and Workplans

a. The Dischargers shall submit an Annual Report by September 15 of each year, documenting the status of the Program's and the Dischargers' activities during the previous fiscal year, including the results of a qualitative field level assessment of activities implemented by the Dischargers, and the performance of tasks contained in the Management Plan.

The Annual Report shall include a compilation of deliverables and milestones completed during the previous 12-month period, as described in the Management Plan and Annual Workplan. In each Annual Report, the Dischargers may propose pertinent updates, improvements, or revisions to the Management Plan, which shall be complied with under this Order unless disapproved by the Executive Officer or acted upon in accordance with Provision C.12. As part of the Annual Report process, each Discharger shall evaluate the effectiveness of the activities completed during the reporting period. Direct and indirect measures of effectiveness may include, but are not limited to, conformance with established Performance Standards, quantitative monitoring to assess the effectiveness of control measures, measurements or estimates of pollutant load reductions, detailed accounting of Program accomplishments, funds expended, or staff hours utilized. Methods to improve effectiveness in the implementation of tasks and activities including development of new, or modification of existing, Performance Standards, shall be identified through the Program's continuous improvement process, where appropriate.

In each Annual Report, the Dischargers shall propose pertinent updates, improvements, or revisions to the Management Plan, which shall be deemed to be incorporated into this Order unless disapproved of by the Executive Officer or acted on in accordance with Provision C.11.

i. Enhanced Annual Reporting Requirements for Industrial/Commercial Discharger Control Program

The goal of industrial and commercial discharger control measures is to reduce or eliminate adverse water quality impacts from activities conducted at any industrial and commercial site within the Dischargers' jurisdictions which has a potential for significant urban runoff pollution. Performance measures for this program area are in the various program management plans, which are included in this permit by reference. Enhanced annual reporting shall, at a minimum, include the number of inspections conducted grouped into reasonably descriptive industry and commercial business categories. If any actual non-compliance or threatened non-compliance is noted during the inspection, the nature of follow-up will be reported, through resolution of the noted issue, up to and including enforcement action. Dischargers shall describe the procedures for this program component in the September 2001 Annual Report and begin implementing these procedures immediately thereafter.

The range of industrial and commercial businesses that will require regular inspection is not limited to those industrial sites that are required to obtain coverage under the State's Industrial Stormwater NPDES General Permit. The Program shall propose the categories of industrial and commercial businesses that the Dischargers shall commit to inspecting, along with proposed inspection frequencies, in the September 2001 Annual Report. The Dischargers shall begin implementing these procedures immediately thereafter.

Frequency of inspection of a given site or category of industry or commercial business may vary depending upon known or anticipated threat to water quality, but should not be less frequent than once in five years. Inspection frequency can be reduced for sites that demonstrate a history of compliance or exhibit little threat to water quality, and inspection frequency should be increased for sites that demonstrate non-compliance, or exhibit significant threat to water quality.

ii. Enhanced Annual Reporting Requirements for Illicit Connection and Illegal Dumping Elimination Activities

The goal of illicit connection and illegal dumping control measures is to identify and eliminate non-permissible non-stormwater discharges associated with illegal dumping or illicit connections to the storm drain system. Performance measures for this program area are in the various program management plans, which are included in this permit by reference. Enhanced annual reporting for this program area shall, at a minimum, include number of responses to reports of potential impacts to water quality, complaints, spills, and other similar reports. These should be, at a minimum, characterized as to report source, nature of the report, location of the event, reported source of pollutants, and follow-up and investigation, if any. In addition, for any actual non-compliance or threatened non-compliance noted during the investigation of the report, the nature of follow-up will be reported, through resolution of the noted issue, up to and including enforcement action. Dischargers shall describe the procedures for this program

component in the September 2001 Annual Report and begin implementing these procedures immediately thereafter.

b. By March 1 of the year following the submission of each Annual Report, the Dischargers shall submit draft Workplans that describe the proposed implementation of the Management Plan and the Watersheds 2000 Vision Statement (from the NPDES Permit Re-application, 12/21/99) for the next fiscal year.

The Workplans shall consider the status of implementation of current year activities and actions of the Dischargers, problems encountered, and proposed solutions, and shall address any comments received from the Executive Officer on the previous year Annual Report. The Workplans shall include clearly defined tasks, responsibilities, and schedules for implementation of Program and Discharger actions for the next fiscal year. The Workplans shall also include a proposal for development of new, or modification of existing, Performance Standards in accordance with Provision C.2.b and alternative monitoring activities as required in Provision C.7.

The Workplans shall be deemed to be final and incorporated into the Management Plan and this Order as of July 1 unless previously determined to be unacceptable by the Executive Officer. The Dischargers shall address any comments or conditions of acceptability received from the Executive Officer on their draft Workplans prior to the submission of their Annual Report on September 15, at which time the modified Workplans shall be deemed to be incorporated into the Management Plan and this Order unless disapproved of by the Executive Officer.

7. Monitoring Program

a. The Dischargers shall implement a Monitoring Program that supports the development and implementation and demonstrates the effectiveness of the Management Plan and related work conducted through the Santa Clara Basin Watershed Management Initiative. The Monitoring Program shall be designed to achieve the following objectives:

- Characterization of representative drainage areas and stormwater discharges, including land-use characteristics, pollutant concentrations, and mass loading;
- Assessment of existing or potential adverse impacts on beneficial uses caused by pollutants of concern in stormwater discharges, including an evaluation of representative receiving waters;
- Identification of potential sources of pollutants of concern found in stormwater discharges; and
- Evaluation of effectiveness of representative stormwater pollution prevention or control measures.

The Monitoring Program shall include the following:

i. Provision for conducting and reporting the results of special studies conducted by the Dischargers which are designed to determine effectiveness of BMPs or control measures,

define a Performance Standard or assess the adverse impacts of a pollutant or pollutants on beneficial uses.

ii. Provisions for conducting watershed monitoring activities including: identification of major sources of pollutants of concern; evaluation of the effectiveness of control measures and BMPs; and use of physical, chemical and biological parameters and indicators as appropriate.

iii. Identification and justification of representative sampling locations, frequencies and methods, suite of pollutants to be analyzed, analytical methods, and quality assurance procedures. Alternative monitoring methods in place of these (special projects, financial participation in regional, state, or national special projects or research, literature review, visual observations, use of indicator parameters, recognition and reliance on special studies conducted by other programs, etc.) may be proposed with justification. Alternative monitoring methods may include participation in the Bay Area Stormwater Management Agencies Association's Regional Monitoring Strategy and related projects.

b. Multi-Year Receiving Waters Monitoring Plan In conjunction with the submissions required by Provision C.9, the Dischargers shall submit by July 1, 2001, an interim draft of a Five-Year Receiving Waters Monitoring Plan, and, by March 1, 2002, a final Five-Year Receiving Waters Monitoring Plan acceptable to the Executive Officer, designed to comply with these Monitoring Program requirements. The Receiving Waters Monitoring Plan shall include provisions for monitoring South San Francisco Bay by participating in the San Francisco Estuary Regional Monitoring Program for Trace Substances or an acceptable alternative monitoring program. The Receiving Waters Monitoring Plan activities shall also be coordinated with SCBWMI assessment activities.

c. Annual Monitoring Program Plan The Dischargers shall submit by March 1 of each year an Annual Monitoring Program Plan, acceptable to the Executive Officer, that includes clearly defined tasks, responsibilities, and schedules for implementation of monitoring activities for the next fiscal year designed to comply with these Monitoring Program requirements.

8. Non-Stormwater Discharges

a. **Exempted Discharges** In carrying out Discharge Prohibition A of this Order, the following non-stormwater discharges are not prohibited unless they are identified by the Dischargers or the Executive Officer as sources of pollutants to receiving waters:

i. Flows from riparian habitats or wetlands;
ii. Diverted stream flows;
iii. Springs;
iv. Rising ground waters; and
v. Uncontaminated groundwater infiltration.

If the any of the above categories of discharges, or sources of such discharges, are identified as sources of pollutants to receiving waters, then such categories or sources shall be addressed as conditionally exempted discharges in accordance with Provision C.8.b.

b. **Conditionally Exempted Discharges** The following non-stormwater discharges are not prohibited if they are identified by either the Dischargers (and incorporated into the Management Plan as an Appendix) or the Executive Officer as not being sources of pollutants to receiving waters or if appropriate control measures to prevent or eliminate adverse impacts of such sources are developed and implemented under the Management Plan in accordance with Provision C.8.c.:

i. Uncontaminated pumped groundwater;
ii. Foundation drains;
iii. Water from crawl space pumps;
iv. Footing drains;
v. Air conditioning condensate;
vi. Irrigation water;
vii. Landscape irrigation;
viii. Lawn or garden watering;
ix. Planned and unplanned discharges from potable water sources;
x. Water line and hydrant flushing;
xi. Individual residential car washing; and
xii. Discharges or flows from emergency fire fighting activities.

c. The Dischargers shall identify and describe the categories of discharges listed in C.8.b that they wish to exempt from Prohibition A in periodic submissions to the Executive Officer. For each such category, the Dischargers shall identify and describe as necessary and appropriate to the category either documentation that the discharges are not sources of pollutants to receiving waters or circumstances in which they are not found to be sources of pollutants to receiving waters. Otherwise, the Dischargers shall describe control measures to eliminate adverse impacts of such sources, procedures and Performance Standards for their implementation, procedures for notifying the Regional Board of these discharges, and procedures for monitoring and record management. Such submissions shall be deemed to be incorporated into the Management Plan unless disapproved by the Executive Officer or acted on in accordance with Provision C.11 and the NPDES permit regulations.

d. Permit Authorization for Exempted Discharges

i. Discharges of non-stormwater from sources owned or operated by the Dischargers are authorized and permitted by this Order, if they are in accordance with the conditions of this provision and the Dischargers' Management Plan.

ii. The Regional Board may require dischargers of non-stormwater other than the Dischargers to apply for and obtain coverage under a NPDES permit and comply with the control measures developed by the Dischargers pursuant to this Provision. Non-stormwater discharges that are in compliance with such control measures may be accepted by the Dischargers and are not subject to Prohibition A.

iii. The Dischargers may propose, as part of their annual updates to the Management Plan under Provision C.6 of this Order, additional categories of non-stormwater discharges to be included in the exemption to Discharge Prohibition A. Such proposals are subject to approval by the Regional Board in accordance with the NPDES permit regulations.

9. Water Quality-Based Requirements for Specific Pollutants of Concern

In accordance with Provision C.1 and Findings 12 and 13 of this Order, the Dischargers shall implement control programs for pollutants that have the reasonable potential to cause or contribute to exceedances of water quality standards. These control programs shall include the following.

a. Control Program for Copper. The Dischargers shall implement all applicable elements of the Copper Action Plan, as presented in Appendix B, including immediate implementation of the baseline actions of the Copper Action Plan. Detailed descriptions of activities in each fiscal year shall be included in Annual Workplans and associated evaluations and results shall be reported in the Annual Reports. If the results of the monitoring referenced in Finding 14 show that mean dissolved copper concentrations have risen to 4.0 µg/l, the Dischargers shall implement Phase 1 actions described in Appendix B and report on the Phase I actions in the Annual Report required by Provision C.6. If the results of the monitoring referenced in Finding 14 show that mean dissolved copper concentrations have risen to 4.4 µg/l, the Dischargers shall implement Phase 2 actions described in Appendix B and report on the Phase 2 actions in the Annual Report required by Provision C.6.

b. Control Program for Nickel. The Dischargers shall implement all applicable elements of the Nickel Action Plan, as presented in Appendix C, including immediate implementation of the baseline actions. Detailed descriptions of activities in each fiscal year shall be included in Annual Workplans and associated evaluations and results shall be reported in Annual Reports. If the results of the monitoring referenced in Finding 14 show that mean dissolved nickel concentrations have risen to 6.0 µg/l, the Dischargers shall implement Phase 1 actions described in Appendix C and report on the Phase I actions in the Annual Report required by Provision C.6. If the results of the monitoring referenced in Finding 14 show that mean dissolved nickel concentrations have risen to 8.0 µg/l, the Dischargers shall implement Phase 2 actions described in Appendix C and report on the Phase 2 actions in the Annual Report required by Provision C.6.

c. Control Program for Mercury. To address the impairment of the Guadalupe River Watershed and San Francisco Bay for mercury, the Dischargers shall implement a mercury pollution prevention plan (Mercury Plan) which includes:

i. Development and adoption of policies, procedures, and/or ordinances calling for:

- The virtual elimination of mercury from controllable sources in urban runoff, including the identification of mercury-containing products used by the Dischargers and a schedule for their timely phase out; and
- Coordination with solid waste management agencies to ensure maximum recycling of fluorescent lights and/or establishment of "take back" programs for the public collection of mercury-containing household products (potentially including thermometers and other gauges, batteries, fluorescent and other lamps, switches, relays, sensors and thermostats);

ii. A schedule for assisting the Regional Board staff in conducting an assessment of the contribution of air pollution sources to mercury in the Dischargers' urban runoff

(potentially including an identification of significant mercury air emission sources, an inventory of relevant mercury air emissions and a review of options for reducing or eliminating mercury air emissions);

iii. Assessment of the sediment mercury concentrations and percentage of fine material at the base of key watersheds, above the tide line;

iv. A public education, outreach and participation program designed to reach residential, commercial and industrial users or sources of mercury-containing products or emissions; and

v. Participation with other organizations to encourage the electric light bulb manufacturing industry to reduce mercury associated with the disposal of fluorescent lights through product reformulation.

The Mercury Plan shall be submitted to the Executive Officer by March 1, 2002. The Mercury Plan may be incorporated in the Program's submittal of the FY 2002/03 Workplan. The Plan shall include a schedule for implementation, although implementation of early action priorities should take place before the due date of the Mercury Plan, and shall include provisions addressing training and technical assistance needed to help municipalities implement the Mercury Plan. To facilitate the development of the actions specified above, the Dischargers may coordinate with publicly owned treatment works and other agencies to develop cooperative plans and programs.

d. Control Program for Pesticides. To address the impairment of urban streams by diazinon, the Dischargers shall implement a pesticide toxicity control plan (Pesticide Plan) that addresses their own use of pesticides, including diazinon and other lower priority pesticides no longer in use, such as chlordane, dieldrin and DDT, and the use of such pesticides by other sources within their jurisdictions. The Dischargers may address this requirement by building upon their prior submissions to the Regional Board. They may also coordinate with BASMAA, the Urban Pesticide Committee, and other agencies and organizations.

i. **Pesticide Use by Dischargers**

The Pesticide Plan shall include a program to quantitatively identify each Discharger's pesticide use by preparing a periodically updated inventory of pesticides used by all internal departments, divisions, and other operational units as applicable to each Discharger. The Pesticide Plan shall include goals and implementing actions to replace pesticide use (especially diazinon use) with least toxic alternatives. Schools and special district operations shall be included in the Pesticide Plan to the full extent of each Discharger's authority. The Dischargers shall adopt and verifiably implement policies, procedures, and/or ordinances requiring the minimization of pesticide use and the use of integrated pest management (IPM) techniques in the Dischargers' operations. The policies, procedures, and/or ordinances shall include 1) commitments to reduce use, phase-out, and ultimately eliminate use of pesticides that cause impairment of surface waters, and 2) commitments to not increase the Dischargers' use of organophosphate pesticides without justifying the necessity and minimizing adverse water quality impacts. The Dischargers shall implement training programs for all municipal employees who use or could use pesticides, including pesticides available over the counter. These programs

shall address pesticide-related surface water toxicity, proper use and disposal of such pesticides, and least toxic methods of pest prevention and control, including IPM. The Pesticide Plan shall be subject to updating via the Dischargers' continuous improvement process.

ii. **Other Pesticide Sources.** To address other pesticide users within the Dischargers' jurisdictions (including schools and special district operations that are not owned or operated by the Dischargers), the Pesticide Plan shall include the following elements:

- Public education and outreach programs. Such programs shall be designed for residential and commercial pesticide users and pest control operators. These programs shall provide targeted information concerning proper pesticide use and disposal, potential adverse impacts on water quality, and alternative, least toxic methods of pest prevention and control, including IPM. These programs shall also target pesticide retailers to encourage the sale of least toxic alternatives and to facilitate point-of-sale public outreach efforts. These programs may also recognize local least toxic pest management practitioners.
- Mechanisms to discourage pesticide use at new development sites. Such mechanisms shall encourage the consideration of pest-resistant landscaping and design features, minimization of impervious surfaces, and incorporation of stormwater detention and retention techniques in the design, landscaping, and/or environmental reviews of proposed development projects. Education programs shall target individuals responsible for these reviews and focus on factors affecting water quality impairment.
- Coordination with household hazardous waste collection agencies. The Dischargers shall support, enhance, and help publicize programs for proper pesticide disposal.

The Pesticide Plan shall include a schedule for implementation and a mechanism for reviewing and amending the plan, as necessary, in subsequent years. The Pesticide Plan shall be submitted to the Executive Officer by July 1, 2001.

iii. **Other Pesticide Activities**

The Dischargers shall work with the Urban Pesticide Committee and other municipal stormwater management agencies in the Bay Area to assess which diazinon products and uses and previous uses of dieldren, chlordane, and DDT pose the greatest risks to surface water quality. Along with incorporating this information into the programs described above, the Dischargers shall work with the Urban Pesticide Committee and other municipal stormwater management agencies to encourage US EPA, the California Department of Pesticide Regulation (DPR), and pesticide manufacturers to understand the adverse impacts of diazinon, dieldren, chlordane, and DDT on urban creeks, monitor US EPA and DPR activities related to the registration of diazinon products and uses, and actively encourage US EPA, DPR, and pesticide manufacturers to eliminate, reformulate, or otherwise curtail, to the extent possible, the sale and use of diazinon when it poses substantial risks to surface water quality (e.g., when there is a high potential for runoff).

The Dischargers shall also work with the Regional Board and other agencies in developing a TMDL for diazinon in impaired urban creeks. The Dischargers will

participate in stakeholder forums and collaborative technical studies necessary to assist the Regional Board in completing the TMDL. These studies may include, but shall not be limited to, additional diazinon monitoring and toxicity testing.

e. **Control Program for Polychlorinated Biphenyls (PCBs) and Dioxin Compounds**. To determine if urban runoff is a conveyance mechanism associated with the impairment of San Francisco Bay for PCBs and dioxin-like compounds (including, but not limited to furans) associated with other sources, the Dischargers shall work with the other municipal stormwater management agencies in the Bay Area to implement a plan to identify, assess, and manage controllable sources of PCBs and dioxin-like compound found in urban runoff, if any (PCBs/Dioxin Plans). The PCBs/Dioxin Plan shall include actions to:

i. Characterize the representative distribution of PCBs and dioxin-like compounds in the urban areas of the Santa Clara basin to determine if: a) PCBs and dioxin-like compounds are present in urban runoff, b) if any such PCBs or dioxin-like compounds are distributed relatively uniformly in urban areas, and c) whether storm drains or other surface drainage pathways are sources of PCBs or dioxin-like compounds in themselves, or whether there are specific locations within urban watersheds where prior or current uses result in land sources contributing to discharges of PCBs or dioxin-like compounds to San Francisco Bay via urban runoff conveyance systems;

- for PCBs: implement forthwith
- for Dioxin-like Compounds: submit workplan by March 1, 2002; implement by October 1, 2002

ii. Provide information to allow calculation of PCBs and dioxin-like compound loads to San Francisco Bay from urban runoff conveyance systems;

- for PCBs: implement forthwith
- for Dioxin-like Compounds: submit workplan by March 1, 2002; implement by October 1, 2002

iii. Identify control measures and/or management practices to eliminate or reduce discharges of PCBs or dioxin-like compounds conveyed by urban runoff conveyance systems;

- for PCBs: submit plan with implementation schedule by June 1, 2001; begin implementation by July 1, 2001
- for Dioxin-like Compounds: submit plan with implementation schedule by March 1, 2003; begin implementation by July 1, 2003

and

iv. Implement actions to eliminate or reduce discharges of PCBs or dioxin-like compounds from urban runoff conveyance systems from controllable sources (if any).

- for PCBs: submit plan with implementation schedule by March 1, 2002; begin implementation by July 1, 2002

- for Dioxin-like Compounds: submit plan with implementation schedule by March 1, 2004; begin implementation by July 1, 2004 although implementation of early action priorities should take place before that date

The Dischargers may coordinate with other stormwater programs and/or other organizations to implement cooperative plans and programs to facilitate implementation of the specified actions.

f. **Control Program for Sediment.** The Dischargers shall conduct analyses of excess sediment impairment in urban streams and assess management practices that are currently being implemented and additional management practices that will be implemented to prevent or reduce excess sediment impairment in urban creeks, and implement any additional management practices necessary to prevent or reduce excess sediment impairment in urban creeks in accordance with the following:

i. **San Francisquito Creek.** Submit a plan and time schedule for implementation acceptable to the Executive Officer by September 1, 2001 to conduct a watershed analysis of San Francisquito Creek in cooperation with the San Mateo Countywide Stormwater Pollution Prevention Program (STOPPP). The plan will provide for: (1) quantitative characterization of sediment and water inputs to the creek; (2) relative roles of sediment associated with natural and anthropogenic land use discharges; (3) sediment conveyance from headwaters to the Bay, and (4) development of a rapid sediment budget.

ii. **San Francisquito Creek.** Submit a plan and time schedule for implementation acceptable to the Executive Officer by March 1, 2002 to conduct, in cooperation with STOPPP, an assessment of management practices that are currently being implemented and additional management practices that will be implemented to prevent or reduce excess sediment impairment in urban creeks, and implement any additional management practices necessary to prevent or reduce excess sediment impairment in San Francisquito Creeks. Such management practices may include but are not limited to: management and/or removal of large woody debris and live vegetation from channels; streambank stabilization projects; road construction, operation, maintenance, and repairs to prevent and control road-related erosion; management of construction related sediment; and management of post-construction sediment from areas of new development or redevelopment.

iii. **Other Creeks.** Submit a report acceptable to the Executive Officer by March 1, 2002 that identifies the other creeks that may be impaired by excessive sediment production from erosion due to anthropogenic activities.

Other Creeks. Submit a plan and time schedule for implementation acceptable to the Executive Officer by September 1, 2002 to conduct a watershed analysis and management practice assessment in the other creeks which may be impaired by excessive sediment production from erosion due to anthropogenic activities.

10. Watershed Management

The Dischargers shall implement watershed management measures based on identification of appropriate watershed characteristics and identification of control measures and other actions in the Management Plan that are appropriately implemented on a watershed basis with the recognition that there may be unique values, problems, goals, and strategies specific to individual watersheds. Watershed management measures also seek to develop and implement the most cost effective approaches to solving identified problems and to coordinate these activities with other related programs.

a. The Dischargers shall submit to the Regional Board by July 1, 2001 a report concerning the integration of watershed management activities into the Management Plan. The report shall, at a minimum:

   i. Identify the watersheds that are relevant to each Discharger;

   ii. Identify key characteristics related to urban runoff in each watershed and program elements related to such characteristics; and

   iii. Provide a priority listing of watersheds to be assessed and a schedule for conducting such assessments in conjunction with the SCBWMI.

b. Consistent with the schedule submitted pursuant to Provision 10.a.iii, the Dischargers shall submit to the Regional Board, summary assessment reports for each of the subject watersheds, that at a minimum, include the following:

   i. The Dischargers' support for the SCBWMI by, among other things: (1) investigating beneficial uses and causes of impairment, (2) reviewing, compiling, and disseminating environmental data, (3) developing and implementing strategies for controlling adverse impacts of land use on beneficial uses, and (4) facilitating, implementing, and supporting relevant SCBWMI subgroups;

   ii. An assessment of each Discharger's implementation of watershed management activities; and,

   iii. A consideration of steps needed for continuous improvement in addressing priorities within each watershed.

c. As the SCBWMI moves toward implementation, the Program and the Dischargers shall, as appropriate, develop examples, model language and planning tools to implement programmatic and watershed specific actions as well as facilitate the assessment of additional watersheds. The Program should also work with Regional Board staff to apply a regulatory strategy that allows the Dischargers to find ways to coordinate with other agencies within a specific watershed to protect beneficial uses.

11. It is anticipated that the Management Plan may need to be modified, revised, or amended from time to time to respond to changed conditions and to incorporate more effective approaches to pollutant control. Requests for changes may be initiated by the Executive Officer or by the Dischargers. Minor changes may be made with the Executive Officer's approval and will be brought to the Regional Board as information items and the Dischargers and interested parties will be notified accordingly. If proposed changes imply a major revision of the Program, the

Executive Officer shall bring such changes before the Regional Board as permit amendments and notify the Dischargers and interested parties accordingly.

12. This Order may be modified, or alternatively, revoked or reissued, prior to the expiration date as follows:

    a. To address significant changed conditions identified in the technical reports required by the Regional Board that were unknown at the time of the issuance of this Order;

    b. To incorporate applicable requirements of statewide water quality control plans adopted by the State Board or amendments to the Basin Plan approved by the State Board; or

    c. To comply with any applicable requirements, guidelines, or regulations issued or approved under Section 402(p) of the CWA, if the requirement, guideline, or regulation so issued or approved contains different conditions or additional requirements not provided for in this Order. The Order as modified or reissued under this paragraph shall also contain any other requirements of the CWA then applicable.

13. Each of the Dischargers shall comply with all parts of the Standard Provisions contained in Appendix A of this Order.

14. This Order expires on February 21, 2006. The Dischargers must file a Report of Waste Discharge in accordance with Title 23, California Code of Regulations, not later than 360 days in advance of such date as application for reissuance of waste discharge requirements.

15. Order Nos. 93-164, 95-180 and 99-050 are hereby rescinded.

I, Loretta K. Barsamian, 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 February 21, 2001.

Loretta K. Barsamian
Executive Officer

APPENDIX A - STANDARD PROVISIONS

APPENDIX B - COPPER CONTROL ACTIONS

APPENDIX C - NICKEL CONTROL ACTIONS

ATTACHMENTS - Location and Political Jurisdiction Map
Basin Watersheds Map

Appendix B
Summary of Urban Runoff and Watershed Management Baseline Copper Control Actions[1]
(Based on Table 4-1 of the Copper Action Plan)

Baseline Number (Dialogue[2])	Description (Continuous Improvement[3]/Metals Control Plan[4])	Lead Party	Implementation Time-Frame	Implementation Mechanism
CB-1 (2 & 4)	*Measures to reduce copper discharges from vehicle washing operations.* These shall include outreach and education activities targeted towards residential car washing, washing of vehicles at commercial and industrial facilities; and vehicle washing by mobile cleaners; implementation of BMPs by mobile cleaners; and inspections or other mechanisms to evaluate effectiveness of these measures.	SCVURPPP & Co-permittees	Ongoing / Action implemented every year	Urban Runoff and Industrial Stormwater Permits Reporting conducted as part of SCVURPPP and Co-permittees Annual Reports
CB-2 (6)	*Measures to track copper sulphate use by water suppliers.* The District shall continue to track and report use of copper sulphate by water suppliers in the Santa Clara Valley (includes State & Federal Water Project).	SCVWD	Ongoing / Action implemented every year	Urban Runoff Permit Report tracking results as part of SCVWD Co-permittee Annual Report
CB-3 (11 & 35)	*Measures to control copper in discharges of stormwater from targeted industrial sources.* These shall include identification and implementation of appropriate and cost-effective controls. The targeted industries include older printed circuit board manufacturers and metal plating facilities using copper. Clarify linkage with POTW Pretreatment Programs (C-13 & C-35/ IND-1 & IND-2)	SCVURPPP & Co-permittees & industry Possibly POTW permits (clarify need by March 2001 as part of SCVURPPP Work Plan)	Begin implementation of control measures in FY 01-02	Urban Runoff and Industrial Storm water Permits Reporting conducted as part of SCVURPPP and Co-permittees Annual Report. Future Work Plans will contain description of additional tasks. Develop approach to implement Area-Wide as part of March 2001 Work Plan.
CB-4 (16.1 & 34)	*Measures to quantify copper control/pollution prevention measures and source loadings.* These shall include investigating and/or tracking agreed upon quantification studies concerning copper in vehicle brake pads and field investigations to monitor long-term trends to determine the possible linkage between copper from brake pads and copper	SCBWMI/SCVURPPP (lead party may change depending on quantification study identified)	Ongoing / Action implemented every year	SCVURPPP Continuous Improvement Process and Annual Work Plans and/or SCBWMI Core Group / Subgroup work plan task SCVURPPP Work Plan (include as part of Multi-Year Receiving Waters Monitoring Plan)

Appendix B
Summary of Urban Runoff and Watershed Management Baseline Copper Control Actions[1]
(Based on Table 4-1 of the Copper Action Plan)

Baseline Number (Dialogue[2])	Description (Continuous Improvement[3]/Metals Control Plan[4])	Lead Party	Implementation Time-Frame	Implementation Mechanism
	concentrations in water. 1-Provide appropriate level of local support for agreed upon quantification studies 2 Investigate and/or track quantification studies for a wide range of existing copper control/pollution prevention measures and sources loadings 3-Collect data and prepare annual reports on the following potential indicators • Copper content in new auto brake pads • Total population in basin • Auto/truck vehicle traveled in basin • Copper sulfate (e.g. algaecide, pesticide, industrial; chemicals) sales in basin (aggregate basis-scaled to basin level estimate) • Copper content in macoma tissue at San Point (Palo Alto) • Reproductivity index for macoma at Sand Point • Benthic community assemblage at Sand Point 4-Prepare issue paper on feasibility of potential field investigation to monitor long-term trends between copper from brakepads and concentration in water. (------/AUTO-1, 2 & 3)	City of Palo Alto RWQCB/SCVURPPP	February POTW Annual SMR (start with February 2001 report) FY 01-02	POTW permit amendment
CB-5 (15)	*Measures to support Brake Pad Partnership activities.* These shall include providing appropriate level of local support for agreed upon Brake Pad Partnership (BPP) activities.		Ongoing / Action implemented every year SCVURPPP participation in	

Appendix B
Summary of Urban Runoff and Watershed Management Baseline Copper Control Actions[1]
(Based on Table 4-1 of the Copper Action Plan)

Baseline Number (Dialogue[2])	Description (Continuous Improvement[3]/Metals Control Plan[4])	Lead Party	Implementation Time-Frame	Implementation Mechanism
	1-Review/assess/provide input on Brake Manufacturing Council (BMC)/BPP brakepad wear debris research & brakepad content data.	1-SCVURPPP currently tracking with funds designated in FY 00-01 Work Plans	BPP funded for FY 00-01	1-SCVURPPP Continuous Improvement Process and Annual Work Plans (will utilize conference results to lay out potential future direction/needs) BASMAA Task of Regional Benefit (TRB) (SCVURPPP recommend BASMAA consider funding TRB to support Regional involvement with BPP including investigation of fate and transport)
	2-Ensure that other local state and federal players are involved appropriate on brakepads issue as it is a widespread urban concern.	2-BASMAA & SWQTF involvement on BPP may be needed as a Task of Regional Benefit	SCVURPPP request BASMAA and SWQTF participation FY 00-01	2- BASMAA Task of Regional Benefit (SCVURPPP recommend BASMAA & SWQTF consider funding to support State and Regional involvement with BPP including investigation of fate and transport)
	3-Assist in making research data that are in the public domain accessible (------/AUTO-1, 2 & 3)	3- WMI data management system	SCVURPPP incorporate initial efforts into FY 00-01 Work Plan	3-SCVURPPP via data management efforts and in conjunction with WMI efforts incorporate BPP and other related and readiably available into metadata database
CB-6 (17)	*Measures to reduce traffic congestion* Review appropriateness of transportation control measures, prioritize reasonable measures and identify potential efforts for further development as part of Phase I and implementation as part of Phase II (C-31/AIR-1 and AIR-2)	SCBWMI (SCVURPPP take lead on preparing short-term issue paper as part of LUS that begins to investigate the role of storm water management agencies in regional congestion management planning and implementation)	Draft Issue paper by March 1, 2001	CORE GROUP short-term issues (SCVURPPP to consider possible early measures as part of developing FY 01-02 Work Plan)
CB-7 (17.27)	*Measures to reduce traffic congestion* Establish transportation/impervious surface "forum" • Consider results of VMT and imperviousness load estimates and control effectiveness evaluation;	SCBWMI (incorporate as part of short-term issue paper on B-6)	See CB-6 above	CORE GROUP short-term issue

Appendix B
Summary of Urban Runoff and Watershed Management Baseline Copper Control Actions[1]
(Based on Table 4-1 of the Copper Action Plan)

Baseline Number (Dialogue[2])	Description (Continuous Improvement[3]/Metals Control Plan[4])	Lead Party	Implementation Time-Frame	Implementation Mechanism
	identify potential control efforts for further development as part of Phase I and implementation as part of Phase II			
CB-8 (18 and 25[5])	*Measures to classify and assess watersheds.* These shall include assisting the SCBWMI in its continuing efforts to implement watershed classification and assessment efforts and to improve institutional arrangements for watershed protection. These efforts shall include: • Ensuring that watershed protection is considered in all applicable elements of Dischargers' General Plans land use, circulation, open space, transportation, and conservation, and consistency requirements; and seek appropriate changes in state General Plan Guidelines; and • Ensuring that watershed protection is considered in the California Environmental Quality Act process. • Continue to implement watershed classification and assessment efforts of SCBWMI. (C-16, C-19 & C-31)	SCBWMI (with assistance from the SCVURPPP and Co-permittees)	Ongoing / Action implemented every year	SCVURPPP Continuous Improvement Process and Annual Work Plans and/or SCBWMI Core Group / Subgroup work plan task
CB-10 (22)	*Measures associated with utilizing the Sediment Characteristics and Contamination Environmental Indicator.* These shall include utilizing results of SEIDP[6] Indicator #5 (Sediment Characteristics and Contamination) to investigate development of an environmental indicator and investigate the linkage with SFEI sources and loading work effort. (C-6 & C-21)	SCVURPPP & Co-permittees	SCVURPPP FY 01-02 Work Plan and Multi-Year Receiving Water Monitoring Plan	SCVURPPP & Co-permittees as part of Permit Annual Work Plan and Annual Report

Appendix B
Summary of Urban Runoff and Watershed Management Baseline Copper Control Actions[1]
(Based on Table 4-1 of the Copper Action Plan)

Baseline Number (Dialogue[2])	Description (Continuous Improvement[3]/Metals Control Plan[4])	Lead Party	Implementation Time-Frame	Implementation Mechanism
CB-11	*Measures to improve street sweeping controls and storm water system operation and maintenance controls to reduce copper in stormwater discharges.* These shall include consideration of need for improvements to existing street sweeping controls and storm water system operation and maintenance controls and standard operating procedures for disposal of collected materials. (C-29)	SCVURPPP	Ongoing / Action implemented every year	Consider need for improvements as part of SCVURPPP Continuous Improvement Process
CB-12	*Measures to control copper discharges from pools and spas.* These shall include maintaining existing education and outreach programs for pools and spas.	SCVURPPP & Co-permittees	Ongoing / Action implemented every year	SCVURPPP & Co-permittees implementation via URMP Performance Standards and modification via Continuous Improvement Process
CB-15	*Measures to evaluate effectiveness of Performance Standards and identify cost-effective modifications to reduce discharges of copper.* These shall include utilizing results of SEIDP to evaluate effectiveness of related SCVURPPP Performance Standards and identify cost-effective modifications (C-6 & C-21)	SCVURPPP & Co-permittees	Ongoing / Action implemented every year SCVURPPP FY 01-02 Work Plan and Multi-Year Receiving Water Monitoring Plan	SCVURPPP & Co-permittees Continuous Improvement Process
CB-16	*Measures to establish an environmental clearinghouse.* These shall include assisting the SCBWMI in establishing an information clearinghouse and tracking and disseminating new scientific research on copper toxicity, loadings, fate and transport, and impairment of aquatic ecosystems	SCBWMI – CORE Group (assistance via SCVURPPP)	Ongoing / Action implemented every year	Implement through watershed measures element of SCVURPPP Permit and SCBWMI Long-term Data Management Plan (connected with resources for CB-5.3) Begin reporting as part of SCVURPPP Annual Report for FY 00-01
CB-17	*Measures to reduce uncertainty associated with the Lower South San Francisco Bay Impairment Decision.* These shall include assisting the SCBWMI in tracking and encouraging the investigation of several important topics that influence uncertainty with	SCBWMI – Core Group (assistance via POTW and SCVURPPP and Co-permittees)	Ongoing / Action implemented every year	Track and encourage RMP, NOAA, USGS, etc.

Appendix B
Summary of Urban Runoff and Watershed Management Baseline Copper Control Actions[1]
(Based on Table 4-1 of the Copper Action Plan)

Baseline Number (Dialogue[2])	Description (Continuous Improvement[3]/Metals Control Plan[4])	Lead Party	Implementation Time-Frame	Implementation Mechanism
	Lower South San Francisco Bay Impairment Decision[7] • Phytoplankton toxicity and movement (Impairment Assessment Report Section 5.3.1) • Sediment cycling • Loading uncertainty Encourage incorporation of appropriate bioassessment tools into ongoing monitoring programs to track presence of copper-sensitive taxa in LSB. Prepare issue paper on feasibility and cost of addressing phytoplankton toxicity questions	RWQCB		
CB-18	*Measures to investigate important factors that influence copper fate and transport.* These shall include assisting the SCBWMI in tracking and encouraging the investigation of important factors that influence copper and fate and transport. • Investigate flushing time estimates for different wet weather conditions • Investigate location of northern boundary condition • Determine Cu-L1 and L2 complex concentrations • Investigate algal uptake/toxicity with competing metals	SCBWMI – Core Group (assistance via POTW and SCVURPPP and Co-permittees)	Ongoing / Action implemented every year	Track and encourage RMP, NOAA, USGS, etc.
CB-20	*Measures to revise the Copper Conceptual Model Report findings.* These shall include assisting the SCBWMI and the POTWs that discharge to Lower South SF Bay in revising the Copper Conceptual Model Report uncertainty table based on newly-available information and producing a status report. In particular, these activities will include revising	SCBWMI (with assistance from POTWs and SCVURPPP & Co-permittees)	Permit Application	CORE GROUP short-term issue Update as part of NPDES Permit application process Possible linkage and assistance from North Bay effort as well as RMP and RWQCB TMDL efforts

Appendix B
Summary of Urban Runoff and Watershed Management Baseline Copper Control Actions[1]
(Based on Table 4-1 of the Copper Action Plan)

Baseline Number (Dialogue[2])	Description (Continuous Improvement[3]/Metals Control Plan[4])	Lead Party	Implementation Time-Frame	Implementation Mechanism
	the conceptual model uncertainty table based on newly-available information as part of the Dischargers' and POTWs' next NPDES permit applications.			
CB-21 (26 & 31)	*Measures to discourage architectural use of copper.* These shall include assistance to the SCBWMI in the following areas: 1-SCVURPPP & Co-permittees evaluate feasibility of discouraging architectural use of copper & explore feasibility of related policy 2-Promote Green Building principles and identify measures to investigate as part of Phase I (C-32)	Palo Alto (Lead) SCBWMI (with assistance from the SCVURPPP and Co-permittees)	FY 00-01 Work Plan City of San Jose – Explore feasibility of policy as part of FY 02-03 Work Plan	CORE GROUP short-term issues (use SCVURPPP Continuous Improvement Process for agreed upon assistance) SCVURPPP & Co-permittees Continuous Improvement Process

1 Annual Reports of NPDES permitted agencies (POTWs and SCVURPPP) will contain a summary of the status of all Copper Action Plan items.

2 Copper Dialogue control measures numbered 1, 2, 3, 4, 5, 7, 8, 9, 10, 11, 14, 15, 21, 23, 24, 26, 28, 29, 31, 32, and 33 are currently being conducted by the SCVURPPP & Co-permittees as defined within the URMP. The SCVURPPP & Co-permittees will continue to implement the controls as defined within the URMP and modify, as appropriate, through the SCVURPPP & Co-permittees Continuous Improvement process. (See Appendix 2 of the CAP for a summary of the current Program activities relative to dialogue measures.

3 Continuous Improvement activities identified by the Urban Runoff Permit Re-issuance Work Group as part of the SCVURPPP permit re-issuance are contained in Table 3 "Urban Runoff Permit Re-issuance Work Group --Box 3: Summary of Continuous Improvement Items" (dated June 23, 2000).

4 References refer to measures identified as part of the SCVURPPP Metals Control Measures Plan (MCMP, prepared by WWC/EOA, 1997). MCMP measures are part of the 1997 SCVURPPP Urban Runoff Management Plan (URMP).

5 These measures have largely been replaced by SCBWMI activities. Specific implementation actions are planned for inclusion in the Watershed Alternatives report & Watershed Action Plan. The Watershed Assessment Subgroup of the SCBWMI considered the CONCUR paper as input in drafting the Watershed Alternatives paper.

6 The Stormwater Environmental Indicators Demonstration Project (SEIDP) is part of USEPA's Environmental Indicators/Measures of success project. The SEIDP is the third phase of EPA's program that focuses on local demonstration projects and the testing of indicators in the Walsh Ave. catchment, water quality indicators, programmatic indicators, social indicators, and site indicators are being evaluated to gauge Program implementation. Twenty different indicators are under review.

7 See Table D "Task 1: Conceptual Model Report for Copper and Nickel in Lower South San Francisco Bay" final report, December 1999 (Contained in Appendix 4-2).

Appendix B Summary of Urban Runoff and Watershed Management Phase I Copper Control Actions (Based on Table 4-2 of the Copper Action Plan)			
Phase I Number (Dialogue)	**Description**	**Lead Party**	**Implementation Mechanism**
CI-5 (23 & 24)	Evaluate street sweeping and other design, operation and maintenance practices to identify potential improvements. Prepare an implementation plan reflecting the priorities and implement agreed upon Phase I control actions.	SCVURPPP & Co-permittees	SCVURPPP & Co-permittee Continuous Improvement Process
CI-6 (27)	Follow-up on relevance of copper in diesel exhaust	SCVURPPP & Co-permittees	SCVURPPP & Co-permittee Continuous Improvement Process
CI-8	Evaluate and investigate important topics that influence uncertainty with Lower South SF Bay Impairment Decision • Phytoplankton toxicity and movement (IAR Section 5.3.1) • Sediment cycling • Loading uncertainty	SCBWMI – Core Group (Assistance via POTW and / SCVURPPP and Co-permittees)	Encourage and identify resources (coordinate with other efforts/investigations such as those of RMP, NOAA, USGS, etc)

Appendix B Summary of Urban Runoff and Watershed Management Phase I Copper Control Actions (Based on Table 4-2 of the Copper Action Plan)			
Phase I Number (Dialogue)	**Description**	**Lead Party**	**Implementation Mechanism**
CI-9	Evaluate and investigate important Factors that Influence Copper Fate (Potential Reduction in Uncertainty is Moderate to High)[1] • Investigate flushing time estimates for different wet weather conditions • Investigate location of northern boundary condition • Determine Cu-L1 and L2 complex concentrations Investigate algal uptake/toxicity with competing metals	SCBWMI – Core Group (Assistance via POTW and / SCVURPPP and Co-permittees)	Encourage and identify resources (coordinate with other efforts/investigations such as those of SF Estuary Regional Monitoring Program, NOAA, USGS, etc)
CI-12	Develop a Phase II Plan including a re-evaluation of Phase I actions	RWQCB – convene powers to be (see Finding 12 of the POTW permit amendment)	California water Code regulatory mechanisms

1 See Table D "Task 1: Conceptual Model Report for Copper and Nickel in Lower South San Francisco Bay" final report, December 1999 (Appendix 4-2).

Appendix B Summary of Urban Runoff and Watershed Management Phase II Copper Control Actions (Based on Table 4-3 of the Copper Action Plan)			
Phase II Number (Dialogue)	**Description**	**Lead Party**	**Implementation Mechanism**
CII-1 (12)	Reconsider usefulness of managing storm water through POTWs	POTWs (with assistance from SCVURPPP and Co-permittees)	California Water Code regulatory mechanisms
CII-2 (15 & 17.27)	Implement agreed upon Phase II surface control measures (transportation/impervious/-brakepad)	RWQCB –convene powers to be (see Finding 12 of the POTW permit amendment)	CWC regulatory mechanisms and possibly other regulatory agency mechanisms
CII-4 (21)	Discourage use of copper-based pesticides	SCVURPPP & Co-permittees	SCVURPPP & Co-permittee Continuous Improvement Process
CII-5 (27)	Implement control actions identified for copper in diesel exhaust	RWQCB – convene powers to be	Possible Regulatory and Legislative mechanisms
CII-8	Re-evaluate Phase II Plan (developed as part of I-2) and finalize for implementation	RWQCB – convene powers to be	California Water Code regulatory mechanisms

Appendix C
Summary of Urban Runoff and Watershed Management Baseline Nickel Control Actions[1]
(Based on Table 4-1 of the Nickel Action Plan)

Baseline Number	Description (Continuous Improvement[2])	Lead Party	Implementation Time-Frame	Implementation Mechanism
NB-1	Co-permittees and SCVURPPP continue to implement Performance Standards Continue to implement URMP (Metals Control Measures Plan[3]): EROSION-1 *Implement performance standards for construction inspection.* EROSION-2 *Participate in development of region-wide training and certification program for construction site inspectors.* (C-9, C-10, C-25, C-30, andC-31)	SCVURPPP & Co-permittees	Ongoing/Action Implemented Every Year Workshop for municipal staff on post-construction controls for new development and re-development. Support RWQCB's Annual Workshops for contractors and municipal staff on construction site management and erosion/sediment controls.	Urban Runoff Permit Reporting conducted as part of SCVURPPP and Co-permittees Annual Reports Improve Performance Standards and reporting via SCVURPPP Continuous Improvement process
NB-2	Utilize results of SEIDP[4] Indicator #5 (Sediment Characteristics and Contamination) to investigate development of an environmental indicator and investigate the linkage with SFEI sources and loading work effort.	SCVURPPP & Co-permittees	SCVURPPP FY 01-02 Work Plan and multi-year receiving water monitoring plan	SCVURPPP & Co-permittees as part of Permit Annual Work Plan and Annual Report
NB-5	Utilize results of SEIDP to evaluate effectiveness of related SCVURPPP Performance Standards and identify cost-effective modifications	SCVURPPP & Co-permittees	SCVURPPP FY 01-02 Work Plan and multi-year receiving water monitoring plan	SCVURPPP & Co-permittees Continuous Improvement Process
NB-7	Track and encourage a watershed model linked to a process oriented Bay model	POTWs/SCVURPPP	Ongoing/Action Implemented Every Year	POTW & SCVURPPP Permits

1 Annual Reports of NPDES permitted agencies (POTWs and SCVURPPP) will contain a summary of the status of all NAP items.

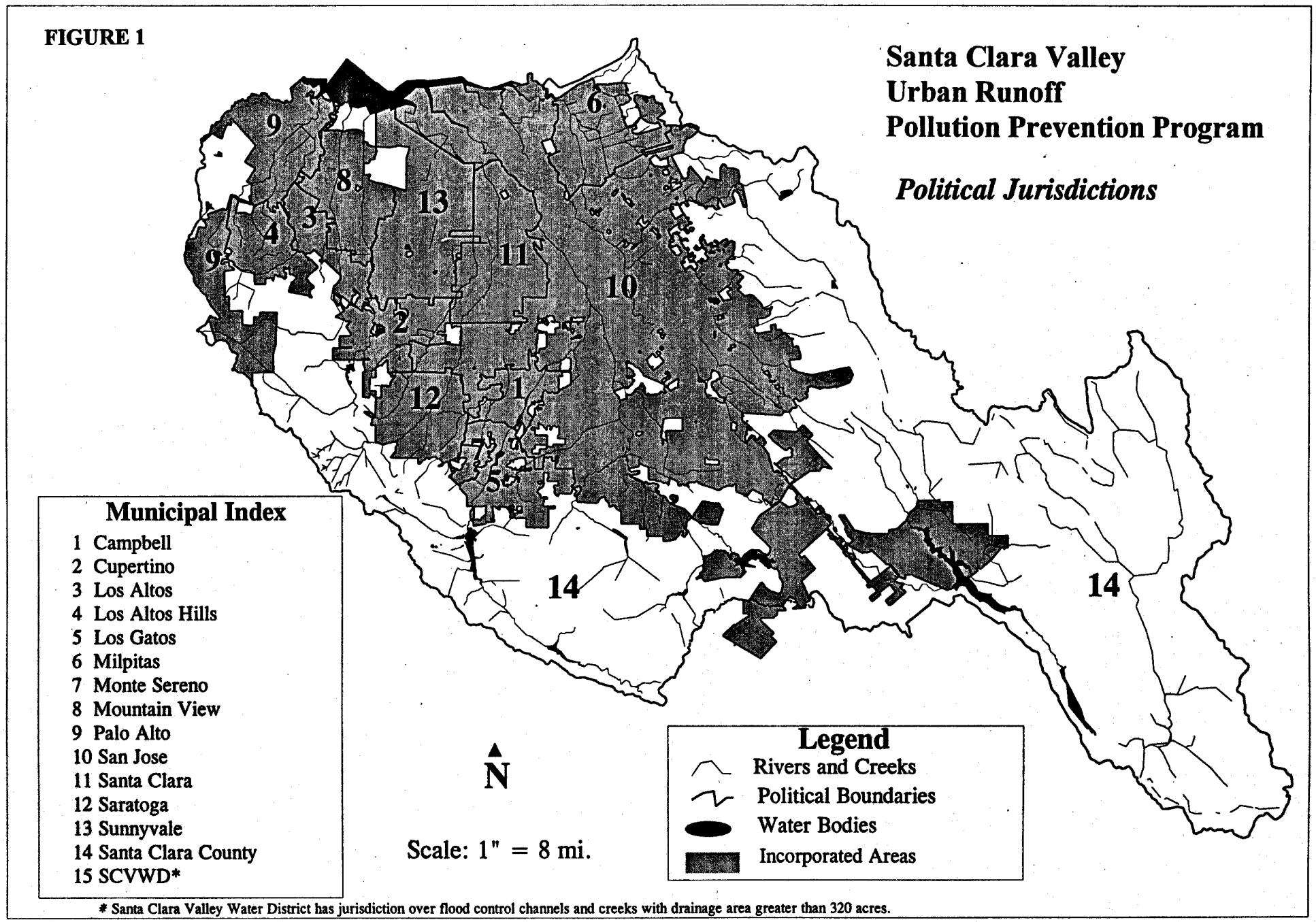
2 References refer to Continuous Improvement activities (C-9, C-10, C-25, C-30, andC-31) identified by the Urban Runoff Permit Re-issuance Work Group as part of the SCVURPPP permit re-issuance. "Urban Runoff Permit Re-issuance Work Group --Box 3: Summary of Continuous Improvement Items"(dated June 23, 2000).

3 References refer to measures identified as part of the SCVURPPP Metals Control Measures Plan (MCMP, prepared by WWC/EOA, 1997). MCMP measures are part of the 1997 SCVURPPP Urban Runoff Management Plan (URMP).

4 The Stormwater Environmental Indicators Demonstration Project (SEIDP) is part of USEPA's Environmental Indicators/Measures of success project. The SEIDP is the third phase of EPA's program that focuses on local demonstration projects and the testing of indicators in the Walsh Ave. catchment, water quality indicators, programmatic indicators, social indicators, and site indicators are being evaluated to gauge Program implementation. Twenty different indicators are under review.

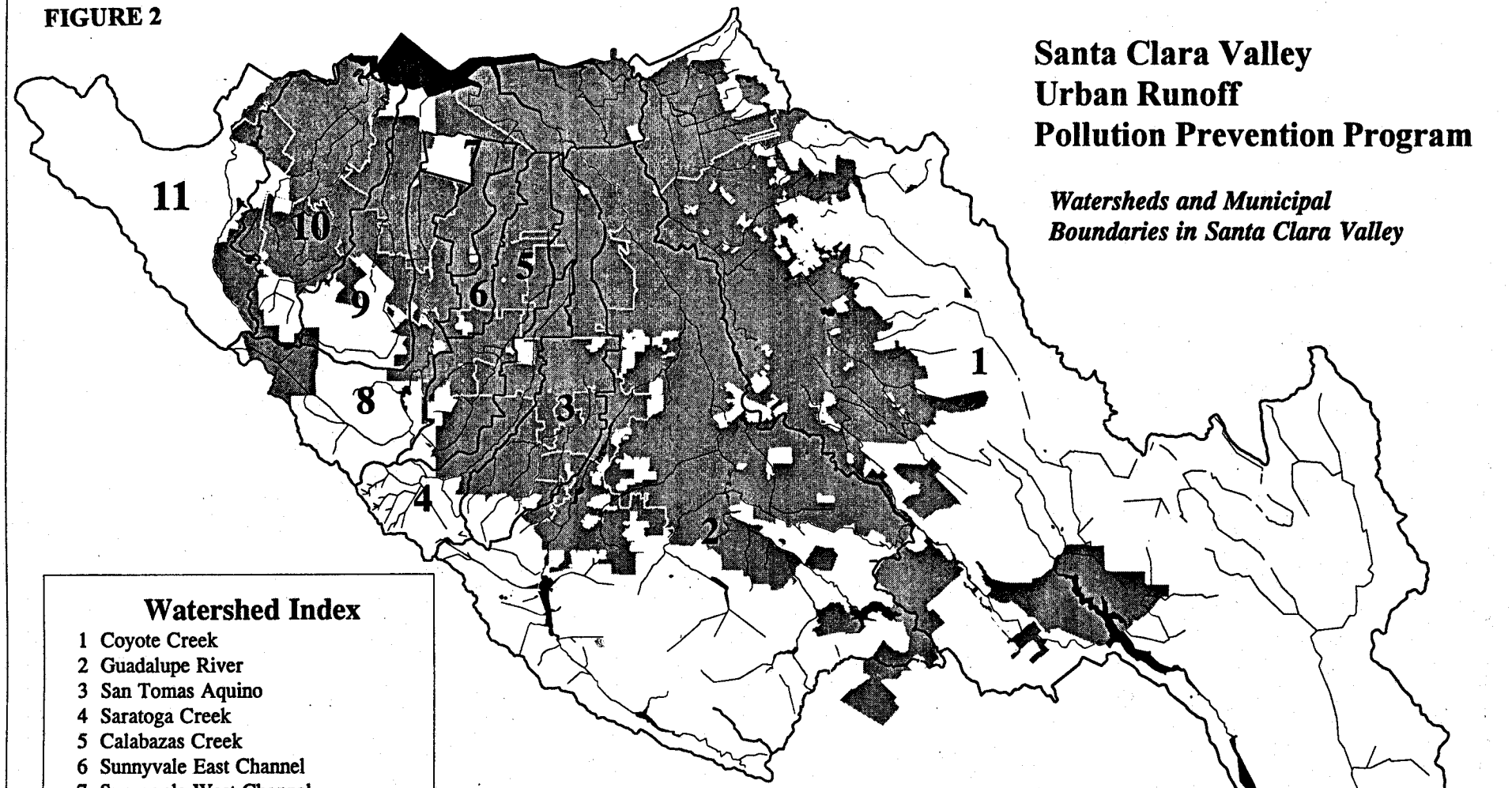
Appendix C Summary of Urban Runoff and Watershed Management Phase I Copper Control Actions (Based on Table 4-2 of the Copper Action Plan)			
Phase I Number (CAP reference)	**Description**	**Lead Party**	**Implementation Mechanism**
(Same as CI-3)	Update and re-evaluate source identification (Metals Control Measures Plan) for nickel and prioritize sources based on effectiveness evaluation of future potential control actions	RWQCB – convene powers to be	NPDES permits and other California Water Code regulatory mechanisms
(Same as CI-12)	Develop a Phase II Plan including a re-evaluation of Phase I actions and implement if Phase II triggers are exceeded	RWQCB – convene powers to be	California Water Code regulatory mechanisms
NI-1	Prepare issue paper on the feasibility and cost of alternative reservoir management options	SCVURPPP & Co-permittees	Urban Runoff Permit
NI-2	Prepare issue paper on the feasibility and cost of additional rural trail/road controls (follow-up to NB-1 (C-9) and alternative grazing management options)	SCVURPPP & Co-permittees	Urban Runoff Permit
NI-3	Develop a Phase I Plan including an evaluation of the results Baseline actions	RWQCB – convene powers to be	California Water Code regulatory mechanisms

FIGURE 1



Santa Clara Valley Water District has jurisdiction over flood control channels and creeks with drainage area greater than 320 acres.

FIGURE 2



* The major portion of this watershed is in San Mateo County. The entire watershed boundary is depicted for completeness.

The Santa Clara Valley Water District has jurisdiction over flood control channels and creeks with drainage area greater than 320 acres.