
The Control of Algae in Lined Channels

California Environmental Quality Act Initial Study And Mitigated Negative Declaration

August 24, 2004

Prepared for
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CEQA Initial Study & Mitigated Negative Declaration

Table of Contents

	<u>Page</u>
PROJECT DESCRIPTION	1
I. REGULATORY SETTING	1
II. REQUIRED APPROVALS.....	4
V. DOCUMENT DESCRIPTION	5
VI. ENVIRONMENTAL CHECKLIST FORM.....	6
VII. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED	7
VIII. DETERMINATION.....	8
IX. SOURCES	8
X. EVALUATION OF ENVIRONMENTAL IMPACTS	9
AESTHETICS.....	9
AGRICULTURAL RESOURCES.....	9
AIR QUALITY.....	10
BIOLOGICAL RESOURCES.....	10
CULTURAL RESOURCES.....	21
GEOLOGY AND SOILS.....	21
HAZARDS AND HAZARDOUS MATERIALS.....	22
HYDROLOGY AND WATER QUALITY.....	23
LAND USE AND PLANNING.....	26
MINERAL RESOURCES.....	27
NOISE.....	27
POPULATION AND HOUSING.....	27
PUBLIC SERVICES.....	28
RECREATION.....	28
TRANSPORTATION/TRAFFIC.....	28
UTILITIES AND SERVICE SYSTEMS.....	29
MANDATORY FINDINGS OF SIGNIFICANCE.....	30
XI. PERSONS AND AGENCIES CONTACTED	30
XII. LIST OF PREPARERS.....	30

FIGURES

- Figure 1. Project Location Map
- Figure 2. Project Detail Map
- Figure 3. Copper Criteria vs. Hardness Graph

TABLES

- Table 1. List of Species from CNDDDB and U.S. Fish and Wildlife Databases
- Table 2. Summary of Water Quality Parameters in Contra Costa County Lined Channels

APPENDICES

Standard Operating Procedures for Aquatic Weed Control

I. PROJECT DESCRIPTION

The Contra Costa County Flood Control and Water Conservation District, (herein referred to as the "District") operates and maintains facilities designed to provide urban flood protection and floodwater conveyance throughout Contra Costa County. The flood control facilities are a diverse system made up of approximately 80 miles of engineered ditches, concrete-lined and unlined channels designed to reduce or eliminate flooding hazards. Channels range in size from approximately 10 to 100 feet across. Flows are variable and range seasonally from 0 cfs (no flow) to approximately 30,000 cfs in Walnut Creek.

Contra Costa County is located in Northern California and is bordered by Solano, Alameda, San Joaquin, and Sacramento Counties. The County occupies nearly 720 square miles and has a population estimated at 992,000 people (US Census 2002). Several large cities exist in the central and western areas of the County including Walnut Creek, Concord, Martinez, Lafayette, Richmond and San Pablo. Although the cities of Pittsburg, Oakley, Antioch, and Brentwood are located in the eastern part of the County, large portions of eastern Contra Costa County are rural. Refer to **Figure 1 and 2**.

Efficient conveyance of stormwater is critical to the District. The District's concrete-lined channels are prone to infestation mainly by submersed aquatic weed species, including filamentous algae. During the summer, algae adversely affect water flow and create a significant odor objectionable to occupants of adjacent homes and businesses.

Using standard operating procedures as described in **Appendix A**, the project consists of the implementation of Integrated Pest Management (IPM) to control algae in approximately 11 miles of concrete-lined channels. IPM is management tool that uses site scouting, weed thresholds and implementation of a variety of control measures to maintain weed populations at levels that do not disrupt the flow of water.

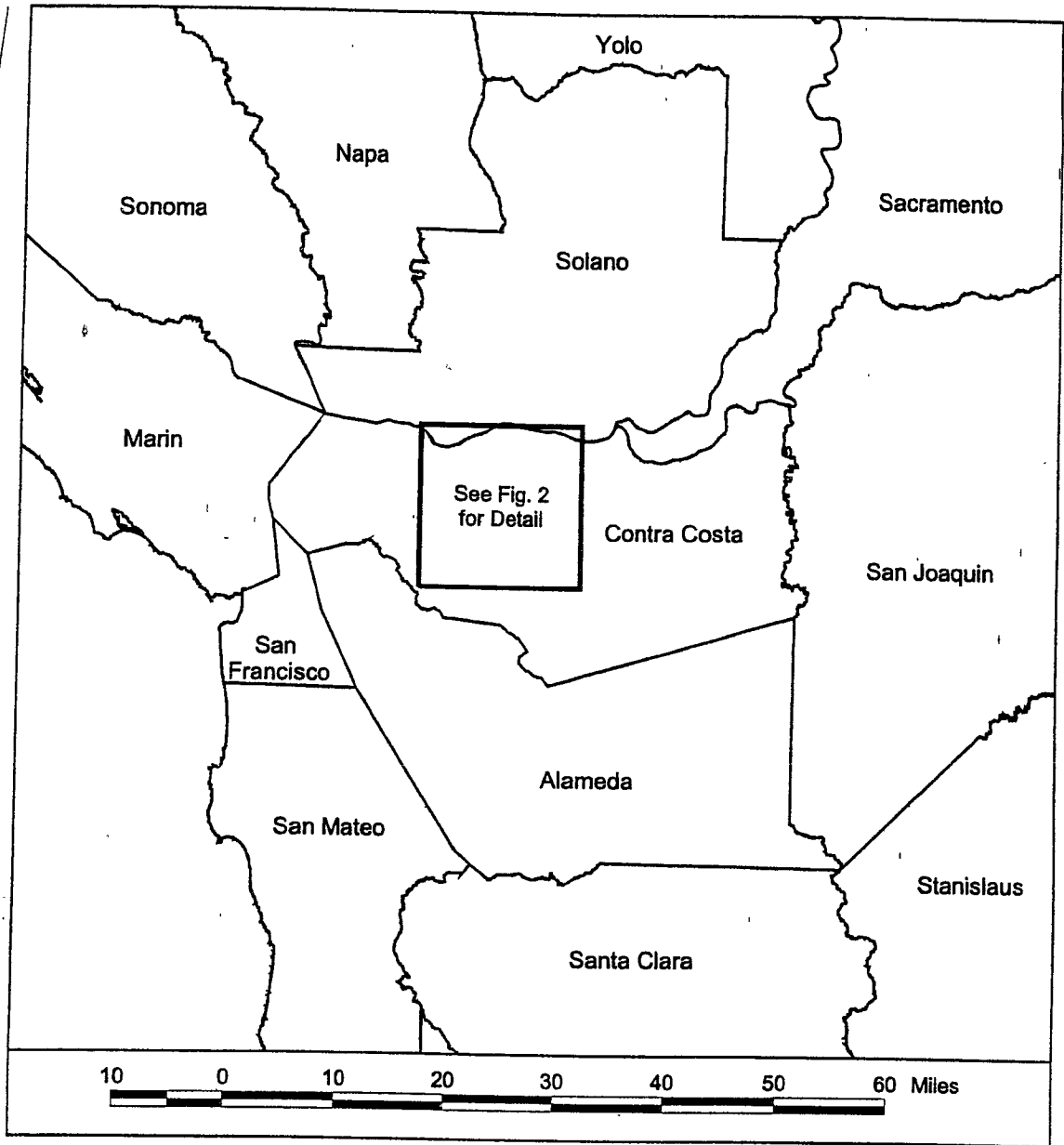
Regular scouting of the channels is done to evaluate algae presence and whether or not thresholds for treatment have been met. Once thresholds have been met, mechanical and/or chemical controls are implemented. Mechanical controls include scraping algae with skip loader buckets and physically removing the debris. Chemical controls involve the application of copper-based aquatic pesticides.

The District makes applications of copper-based aquatic pesticides from June through August at the upstream end of the concrete-lined channels. Refer to **Figure 2**. This point application results in treatment of the entire length of the concrete-lined channel. Typically two to six applications are made per year at each location. Water quality monitoring is performed yearly in conjunction with these applications as part of the District's National Pollutant Discharge Elimination System (NPDES) aquatic pesticide permit.

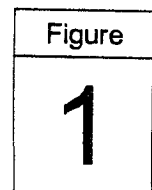
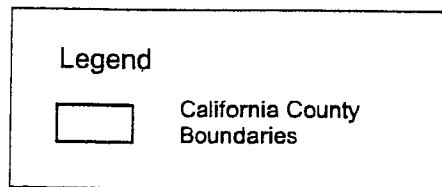
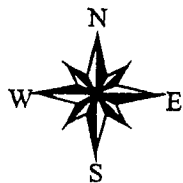
II. REGULATORY SETTING

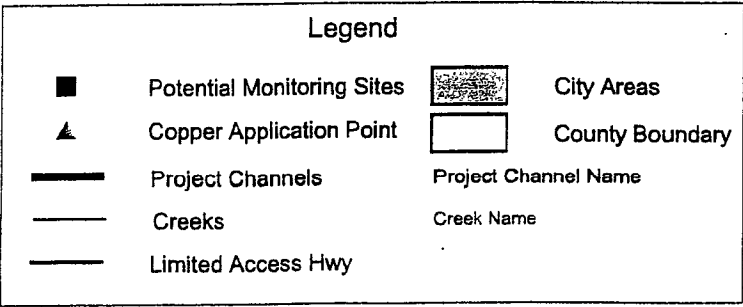
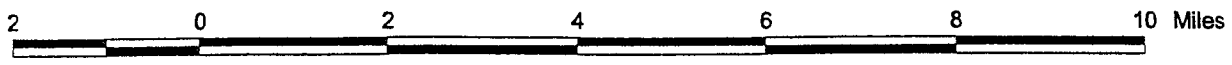
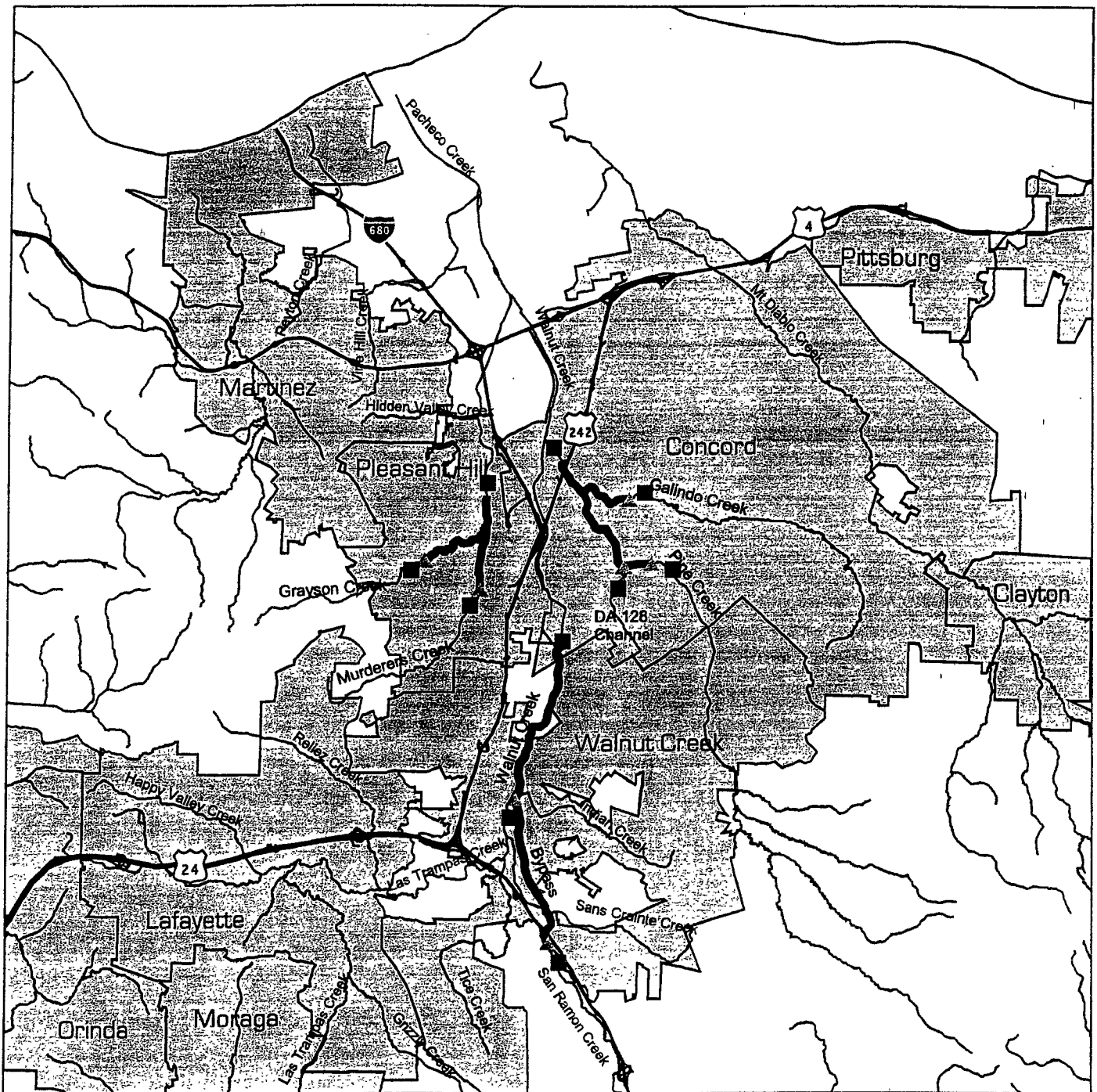
The District previously applied aquatic pesticides under the State Water Resource Control Board (SWRCB) interim Emergency General Statewide National Pollution Discharge Elimination System (NPDES) Permit for Discharges of Aquatic Pesticides to Surface Waters of the United States (#CAG990003, Water Quality Order #2001-12-DWQ). This interim emergency general NPDES permit expired on January 31, 2004. For purposes of complying with this permit, the District has an Individual Pesticide Monitoring Program (IPMP) approved by the San Francisco Bay Regional Water Quality Control Boards (RWQCB).

On May 20, 2004, the SWRCB adopted the statewide general NPDES Permit for Discharge of Aquatic Pesticides For Aquatic Weed Control In Waters of the United States (herein referred to as the "2004 General Permit"). The District is applying for the 2004 General Permit to continue application of aquatic pesticides.



Project Location Map





Project Detail Map

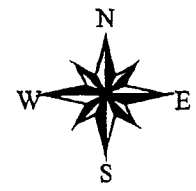


Figure
2

The 2004 General Permit requires compliance with:

- The California Toxics Rule (CTR)
- The Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries in California (aka the State Implementation Plan, or SIP; SWRCB, 2000)
- Applicable Regional Water Quality Control Board (RWQCB) Basin Plan Water Quality Objectives (WQOs)

The CTR established priority pollutant criteria for a number of chemicals, including copper-containing pesticides. Any aquatic pesticide containing copper would be prohibited from being applied in concentrations that would exceed applicable water quality criteria outside of an established mixing zone¹.

The presence of a mixing zone, if any, within the District's jurisdiction is not defined at this time. Nonetheless, the District has elected to proceed with obtaining a SIP exception in the event that a mixing zone is determined to exist within the project area.

Section 5.3 of the SIP stipulates that San Francisco Bay Regional Water Quality Control Board (RWQCB) may allow for short-term or seasonal categorical exceptions from CTR priority pollutant criteria if determined necessary to complement control measures either:

- 1.) For resource or pest management (i.e., vector or weed control, pest eradication, or fishery management) conducted by public entities to fulfill statutory requirements, including, but not limited to, those in the California Fish and Game, Food and Agriculture, Health and Safety, and Harbors and Navigation codes; or
- 2.) Regarding drinking water conducted to fulfill statutory requirements under the federal Safe Drinking Water Act or the California Health and Safety Code.

Such categorical exceptions may also be granted for draining water supply reservoirs, canals, and pipelines for maintenance, for draining municipal storm water conveyances for cleaning or maintenance, or for draining water treatment facilities for cleaning or maintenance. Because the District conveys stormwater, the District is eligible for categorical exception(s) related to "draining water supply reservoirs, canals, and pipelines for maintenance", and "for draining municipal storm water conveyances for cleaning or maintenance".

Requirements for a SIP categorical exception include preparation of California Environmental Quality Act (CEQA) documentation. This Mitigated Negative Declaration (MND) and Initial Study (IS) is prepared to meet the specific SIP requirement for CEQA documentation. The District and the SWRCB are the lead and responsible agencies, respectively, for this CEQA MND and IS.

REQUIRED APPROVALS

Continued application of copper-based aquatic pesticides by the District will require:

- 1.) Obtaining confirmation of inclusion in Attachment E of the 2004 General permit; and
- 2.) Consistent with the criteria identified in the SIP, gaining acceptance by the Executive Officer at the San Francisco RWQCB of the following District documents:
 - a. A detailed description of the proposed action, including the proposed method of completing the action;
 - b. A time schedule;
 - c. A discharge and receiving water quality monitoring plan (before project initiation, during the project, and after project completion, with the appropriate quality assurance and quality control procedures);
 - d. CEQA documentation;
 - e. Contingency plans (to the extent applicable);

Mixing Zone is defined in the SIP as "a limited volume of receiving water that is allocated for mixing with a wastewater discharge where water quality criteria can be exceeded without causing adverse effects to the overall waterbody."

-
- f. Identification of alternate water supply (if needed and to the extent applicable);
 - g. Residual waste disposal plans (to the extent applicable); and
 - h. Upon completion of the project, the discharger shall provide certification by a qualified biologist that the receiving water beneficial uses have been restored.

IV. DOCUMENT DESCRIPTION

This document was prepared in a manner consistent with Section 21064.5 of the California Public Resources Code (California Environmental Quality Act [CEQA]) and Article 6 of the State CEQA Guidelines (14 California Code of Regulations).

This Initial Study, Environmental Checklist, and evaluation of potential environmental effects were completed in accordance with Section 15063(d) of the *State CEQA Guidelines* to determine if the proposed Project could have any potentially significant effect on the physical environment, and if so, what mitigation measures would be imposed to reduce such impacts to less-than-significant levels.

An explanation is provided for all determinations. A "No Impact" or a "Less-than-Significant Impact" determination indicates that the proposed Project would not have a significant effect on the physical environment for that specific environmental category.

Mitigation measures will be implemented to reduce the potentially significant impacts to "less-than-significant levels". No other environmental categories for this evaluation were found to be potentially affected in a significant manner by the proposed project.

V. ENVIRONMENTAL CHECKLIST FORM

1. Project Title: The Control of Algae in Lined Channels
2. Lead Agency Name and Address: Contra Costa County
Flood Control and
Water Conservation District (FC&WCD)
255 Glacier Drive
Martinez, CA 94553-4825
3. Contact Person and Phone Number: Carrie Dovzak
(925) 313-2190
Contra Costa County FC&WCD
255 Glacier Drive
Martinez, CA 94553-4825
4. Project Location:

The project is located on the concrete-lined sections of Walnut Creek and its main tributaries, including Grayson Creek, Murderer's Creek, Pine Creek, Galindo Creek, DA 128 Channel, and the San Ramon Bypass. The project is within the city limits of Concord, Pleasant Hill and Walnut Creek.

5. Project Sponsor's Name and Address: Contra Costa County FC&WCD
255 Glacier Drive
Martinez, CA 94553-4825
6. General Plan Designation: Multiple: (Open Space, Multiple Family Residential -
Medium Density, Single Family Residential - High
Density)
7. Zoning: Public/Semi-public

8. Project Description:

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9. Surrounding Land Uses and Setting:

The project is contained entirely in the Walnut Creek watershed within the Cities of Concord, Pleasant Hill and Walnut Creek. This area is a valley floor between the East Bay Hills to the west and the Mt. Diablo foothills to the east. Elevations range from 160 ft at the upstream end of the San Ramon Bypass to 30 ft at the downstream end of Pine Creek. Average annual precipitation is approximately 20 inches.

Immediately surrounding the District's concrete-lined channels is medium- to high-density commercial and residential development. Most of the channels flow perennially with water from unlined upstream portions of creeks or from urban runoff entering from multiple points along the channel's length. Water from the District's channels flows into Walnut Creek, which then flows into Carquinez Straight via Pacheco Slough. All channels treated during the project are tributary to Walnut Creek.

10. Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement):
 San Francisco Bay Regional Water Quality Control Board, State Water Resources Control Board

VI. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

<input type="checkbox"/>	Land Use & Planning	<input type="checkbox"/>	Transportation/Circulation	<input type="checkbox"/>	Public Services Utilities & Service Systems
<input type="checkbox"/>	Population & Housing	<input checked="" type="checkbox"/>	Biological Resources	<input type="checkbox"/>	Aesthetics
<input type="checkbox"/>	Geological Problems	<input type="checkbox"/>	Energy & Mineral Resources	<input type="checkbox"/>	Cultural Resources
<input checked="" type="checkbox"/>	Hydrology	<input checked="" type="checkbox"/>	Hazards	<input type="checkbox"/>	Recreation
<input type="checkbox"/>	Air Quality	<input type="checkbox"/>	Noise	<input type="checkbox"/>	No Significant Impacts Identified
<input checked="" type="checkbox"/>	Mandatory Findings of Significance	<input type="checkbox"/>		<input type="checkbox"/>	

VII. DETERMINATION

On the basis of this initial evaluation:

I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

✓ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because the mitigation measures described on an attached sheet have been added to the project. A MITIGATED NEGATIVE DECLARATION will be prepared.

I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

I find that the proposed project MAY have a significant effect(s) on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets, if the effect is a "potentially significant impact" or "potentially significant unless mitigated." An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

I find that although the proposed project could have a significant effect on the environment, there WILL NOT be a significant effect in this case because all potentially significant effects (a) have been analyzed adequately in an earlier EIR pursuant to applicable standards and (b) have been avoided or mitigated pursuant to that earlier EIR, including revisions or mitigation measures that are imposed upon the proposed project.

Cece Selgren

Signature - Prepared by

8/24/04

Date

CECE SELGREN

Print Name

Contra Costa County Flood Control and Water Conservation District

Aruna Bhat

Signature - Reviewed by

9/20/04

Date

ARUNA BHAT

Print Name

Contra Costa County Community Development Department

VIII. SOURCES

In the process of preparing the Checklist and conducting the evaluation, the following references were consulted:

1. Blankinship & Associates, Inc. 2003. Alameda & Contra Costa Regional Pesticide Monitoring Program (RPMP) 2003 Annual Report submitted to the San Francisco RWQCB and Central Valley RWQCB.
2. California Department of Fish & Game Natural Diversity Database. <http://www.dfg.ca.gov/whdab/html/cnnddb.html>
3. California Toxics Rule (CTR), May 18, 2000. 65 Federal Register 31682-31719 (Adds Section 131.38 to 40 CFR).
4. City of Palo Alto 2003. Copper Action Plan Report.
5. Contra Costa County Important Farmland Map 1999, California Department of Conservation Division of Land Resources Protection
6. Contra Costa County Public Works GIS.
7. Ging, G. 1983. Walnut Creek Steelhead Trout study Contra Costa County, California. CDFG.
8. Jones & Stokes 2004. Draft Data Summary Report for Baseline Surveys of Anadromous Fish Habitat in Lower Walnut Creek Contra Costa County, California. Sacramento, CA.
9. Leidy, R.A., G.S. Becker and B.N. Harvey. 2003. Historical Distribution and Current Status of Steelhead (*Oncorhynchus mykiss*), Coho Salmon (*O. kisutch*), and Chinook Salmon (*O. tshawytscha*) in Streams of the San Francisco Estuary, California. US EPA.
10. Moyle, P.B. 2002. Inland fishes of California revised and expanded. University of California Press, Berkeley. 502 pp.
11. Moyle, Peter. UC Davis Professor of Fish Biology, Personal Communication with Sara Castellanos, July 1, 2004.
12. Regional Water Quality Control Board, San Francisco Bay Region, 1995. Basin Plan.
13. Sullivan, J.P. and S.K. Castellanos. 2004. Technical Memo #1, List of Species, Contra Costa County Flood Control and Water Conservation District Copper Pesticide Application CEQA IS/MSD. 9 pp.
14. Sullivan, J.P. and S.K. Castellanos. 2004. Technical Memo #2, Copper Ecotoxicity, Contra Costa County Flood Control and Water Conservation District Copper Pesticide Application CEQA IS/MSD. 11 pp.

IX. EVALUATION OF ENVIRONMENTAL IMPACTS

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less than Significant Impact	No Impact
I. AESTHETICS.				
Would the proposal: ⁶				
a. Have a substantial adverse effect on a scenic vista?	_____	_____	_____	_____ ✓
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	_____	_____	_____	_____ ✓
c. Substantially degrade the existing visual character or quality of the site and its surroundings?	_____	_____	_____	_____ ✓
d. Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?	_____	_____	_____	_____ ✓

SUMMARY: The control of aquatic weeds will not degrade the visual character of the project site.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less than Significant Impact	No Impact
II. AGRICULTURAL RESOURCES.				
In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agricultural and farmland.				
Would the project:				
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	_____	_____	_____	_____ ✓
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?	_____	_____	_____	_____ ✓
c. Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?	_____	_____	_____	_____ ✓

SUMMARY: No impact.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less than Significant Impact	No Impact
II. AIR QUALITY.				
Where available, the significance criteria established by the applicable air quality management or air pollution control department may be relied upon to make the following determinations. Would the project:				
a. Conflict with or obstruct implementation of the applicable air quality plan?	_____	_____	_____	_____ ✓
b. Violate any air quality standard or contribute to an existing or projected air quality violation?	_____	_____	_____	_____ ✓
c. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	_____	_____	_____	_____ ✓
d. Expose sensitive receptors to substantial pollutant concentrations?	_____	_____	_____	_____ ✓
e. Create objectionable odors affecting a substantial number of people?	_____	_____	_____	_____ ✓

SUMMARY: The project will result in de minimus vehicle emissions from the use of a pick-up truck going to and from the aquatic pesticide application site.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less than Significant Impact	No Impact
BIOLOGICAL RESOURCES.				
Would the project:				
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	_____	_____ ✓	_____	_____
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	_____	_____ ✓	_____	_____
c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	_____	_____	_____	_____ ✓
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	_____	_____	_____	_____ ✓

-
- e. Conflict with any local policies or ordinances protecting biological resources, such as tree preservation policy or ordinance? _____
 - f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan? _____

✓

✓

SUMMARY: Field reconnaissance of habitat in or near areas likely to require treatment with copper-based aquatic pesticides was conducted to characterize the habitats present and to evaluate the likelihood of special status species occurrence. The assessment focused on plant and animal species listed in the California Natural Diversity Database (CNDDDB) and on lists provided by the U.S. Fish and Wildlife Service (USFWS). Refer to Technical Memo 1 for species-specific details.

Recognizing details of the species habitat, breeding or/and feeding as described in Technical Memo 1, a determination was made as to the potential risk that maybe posed by the use of copper-based aquatic pesticides. A summary of copper ecotoxicity is presented in Technical Memo 2.

All species considered appear in Table 1. Based on field reconnaissance, the presence of habitat for each species was assessed. If habitat did not exist for a particular species, then that species was eliminated from further consideration. If species were eliminated from further consideration for other reasons, an explanation is given at the end of Table 1.

Several special status salt marsh or brackish marsh species are present in the District facilities such as the California black rail, California clapper rail, and the salt marsh harvest mouse. Suitable habitat for these species is not present in upper Walnut Creek, but may exist near the confluence of lower Walnut Creek and Pacheco Slough where there is an interface of freshwater and saltwater. When stormwater channels are treated with herbicides, the treated water must flow at least 6-7 miles before reaching potentially suitable habitat for these species. Because of year-round flow in the channels, dilution of any copper-based aquatic pesticide applied to the channel takes place immediately and continues indefinitely as water exits the channel. Past data indicate that copper water concentrations did not exceed 50 ppb (parts per billion, ug/L) in any downstream location immediately after and within 48 hours of application. Accordingly, copper concentrations downstream of copper-treated line channels are lower than 50 ppb, which is below the TRV (Toxic Reference Value) for birds and mammals. Therefore, no risk due to copper exposure is anticipated.

Steelhead and Salmon species have historically been present in the tributaries of the Walnut Creek watershed, however the habitat that was once present has all but been eliminated. A field survey performed of Lower Walnut Creek by Jones & Stokes for the U.S. Army Corps of Engineers identified low habitat diversity, lack of riparian vegetation, and low occurrence of riffle habitats as factors limiting the available spawning habitat in lower Walnut Creek (2004). Although steelhead and coho salmon continue to migrate into lower Walnut Creek to spawn, it is highly unlikely these fish are successfully producing new progeny. A report in 2003 on the current status of Steelhead and Salmon Species in the San Francisco area by Robert A. Leidy with the U.S. EPA concluded "Development in the Walnut Creek watershed, in particular related to flood control, has resulted in the extirpation of self-sustaining anadromous salmonid populations in Walnut Creek and its tributaries." Grayson Creek runs through the highly urbanized city of Pleasant Hill and a large percentage of the creek is channelized (Leidy 2003). Leidy found no salmonids in Grayson Creek during surveys taken during Fall and Summer months, in 1980 and 1997/1998, respectively (Leidy 2003). Water temperature measurements taken by Blankinship & Associates staff on July 8, 2004 downstream of Pine Creek near the confluences of Grayson Creek and Walnut Creek average approximately 27.5 °C. The lethal temperature range for adult steelhead is 23-24°C, while juvenile Chinook salmon cannot survive temperatures in excess of 24°C (Moyle 2002). The U.S. Fish and Wildlife Service concluded that Grayson Creek provides no spawning or rearing habitat for steelhead (Ging 1983 in Leidy 2003)

sightings of Steelhead and Chinook salmon attempting to spawn have been made during winter months in lower Walnut Creek, lower Grayson Creek, and in lower Pine Creek. There have been sightings of both of these species in the Walnut Creek watershed during the winter months, but a 10-foot drop structure at State Route 242 prevents further migration upstream to all creeks in the watershed except Pacheco, Grayson and Pine Creeks (Leidy 2003). Pine and Grayson Creeks are the only creeks with treated sections that have confluences with Walnut Creek below the drop structure at 242. A survey conducted on April 8, 2004 by Jones & Stokes biologists identified two fish passage barriers downstream of the confluence of Pine and Walnut Creeks near Highway 4. Given that unfavorable conditions were found at these locations in April, lower flows in summer would make fish passage up Walnut Creek and Pine Creek highly improbable. Given the physical passage barriers and high water temperatures during the time period that pesticide applications are made (June – August), salmonid migration through this area is highly unlikely.

Due to the passage barriers and the inadequate habitat conditions of the lower watershed including high water temperatures, channelization, sedimentation, poor spawning habitat, and low summer flows, anadromous salmonid species have not been able to maintain or re-establish successful populations in the Walnut Creek watershed (Leidy 2003, Jones & Stokes 2004). In addition, applications of copper-containing pesticides for the purpose of algae control are only made during summer months when insufficient flows exist for salmon or steelhead migration. Therefore the application of copper-based pesticides is not expected to have any adverse effects on these species.

Table 1. List of Species from CNDDDB and U.S. Fish and Wildlife Databases

Common Name	Scientific Name	Status	Habitat	Habitat is not Present in Project Area; Species Eliminated from Further Consideration	Habitat is Present in Project Area; Species Eliminated from Further Consideration for Reasons Given (see numbered notes)	Potential Risk is Present from Project Activities
AMPHIBIAN						
California red-legged frog	<i>Rana aurora draytonii</i>	FT	Vernal Pool and other Seasonal Pools	X		
California tiger salamander	<i>Ambystoma californiense</i>	FPT	Deep Permanent Water with Densely Vegetated Banks	X		
Coastal yellow-legged frog	<i>Rana boylei</i>	FSC	Partly Shaded Stream with Rocky Riffles	X		
Western spadefoot toad	<i>Spea hammondi</i>	FSC	grasslands, open chaparral, pine-oak woodlands	X		
AQUATIC PLANT						
Slender-leaved pondweed	<i>Potamogeton filiformis</i>	CNPS-1	Freshwater marsh, Shallow Water		X(1)	
BIRD						
Allen's hummingbird	<i>Selasphorus sasin</i>	FSC	Chaparral, thickets, brushy hillsides, open coniferous woodlands	X		
American peregrine falcon	<i>Falco peregrinus anatum</i>	FD	herbaceous wetland, lagoon, river mouth/tidal river, tidal flat/shore, bare rock/talus/scree, cliff, shrubland/chaparral, urban/edificarian, woodland		X(2)	
Golden eagle	<i>Haliaeetus leucocephalus</i>	FT	coastal areas, bays, rivers, lakes, or other bodies of water	X		
Bank swallow	<i>Riparia riparia</i>	FSC, ST	riparian and other lowland habitats, requires vertical banks/cliffs with fine soils	X		

Common Name	Scientific Name	Status	Habitat	Habitat is not Present in Project Area; Species Eliminated from Further Consideration	Habitat is Present in Project Area; Species Eliminated from Further Consideration for Reasons Given (see numbered notes)	Potential Risk is Present from Project Activities
black skimmer	<i>Rynchops niger</i>	FSC	Primarily coastal waters, including bays, estuaries, also quiet waters of rivers and lakes	X		
black swift	<i>Cypseloides niger</i>	FSC	forages over forests and in open areas. Nests behind or next to waterfalls and wet cliffs	X		
Bell's sage sparrow	<i>Amphispiza belli belli</i>	FSC	Chaparral dominated by chamise and/or California sagebrush	X		
burrowing owl	<i>Athene cunicularia</i>	FSC	Grassland, Rangeland	X		
California black rail	<i>Laterallus jamaicensis coturniculus</i>	FSC, ST	Saltwater Marsh, Freshwater Marsh		X(4)	
California clapper rail	<i>Rallus longirostris obsoletus</i>	FE, SE	Salt Marsh		X(4)	
California horned lark	<i>Eremophila alpestris acta</i>	SCSC	Grassland, Rangeland	X		
California least tern	<i>Sterna antillarum browni</i>	FE, SE	Sparse Vegetation Near Open Water	X		
Cooper's hawk	<i>Accipiter cooperii</i>	SCSC	Deciduous Woodland		X(2)	
Costa's hummingbird	<i>Calypte costae</i>	FSC	Desert and semi-desert, arid brushy foothills, chaparral	X		
ferruginous hawk	<i>Buteo regalis</i>	FSC	Open country, primarily prairies, plains and badlands; sagebrush, saltbush-greasewood shrubland, periphery of pinyon-juniper and other woodland, desert	X		
golden eagle	<i>Aquila chrysaetos</i>	SCSC, SFP	Rolling Foothills, Sage-Juniper Flats, Desert	X		
great blue heron	<i>Ardea herodias</i>		Estuarine, Freshwater Marsh, Riverine		X(3)	
Lawrence's goldfinch	<i>Carduelis lawrencei</i>	FSC	Oak woodland, chaparral, riparian woodland, pinyon-juniper association, and weedy areas in arid regions but usually near water	X		
Lewis' woodpecker	<i>Melanerpes lewis</i>	FSC	Open forest and woodland, often logged or burned, including oak, coniferous forest, riparian woodland and orchards	X		
little willow flycatcher	<i>Empidonax traillii brewsteri</i>	SE	Strongly tied to brushy areas of willow, thickets, open second growth with brush, swamps, wetlands, streamsides, and open woodland	X		

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loggerhead shrike	<i>Lanius ludovicianus</i>	FSC	Open country with scattered trees and shrubs, savanna, desert scrub, and, occasionally, open woodland	X		
long-billed curlew	<i>Numenius americanus</i>	FSC	Prairies and grassy meadows, generally near water	X		
marbled godwit	<i>Limosa fedoa</i>	FSC	Marshes and flooded plains	X		
oak titmouse	<i>Baeolophus inornatus</i>	FSC	Forest - Hardwood, Forest - Mixed, Shrubland/chaparral, Suburban/orchard, Woodland - Hardwood, Woodland - Mixed	X		
red knot	<i>Calidris canutus</i>	FSC	Primarily seacoasts on tidal flats and beaches, less frequently in marshes and flooded fields	X		
rufous hummingbird	<i>Selasphorus rufus</i>	FSC	Coniferous forest, second growth, thickets and brushy hillsides, foraging in adjacent scrubby areas and meadows	X		
saltmarsh common yellowthroat	<i>Geothlypis trichas sinuosa</i>	FSC	Marsh with Dense Cover and Shrubs	X		
short-eared owl	<i>Asio flammeus</i>	SCSC	Agricultural Land, Rangeland, Marsh, Meadow	X		
Suisun song sparrow	<i>Melospiza melodia maxillaris</i>	FSC	Marshes Surrounding Suisun Bay	X		
tricolored blackbird	<i>Agelaius tricolor</i>	FSC	Irrigated Cropland, Forage Crops, Pasture, Seasonal Pools	X		
Vaux's swift	<i>Chaetura vauxi</i>	FSC	Found in mature forests but also forages and migrates over open country	X		
white-tailed (black-shouldered) kite	<i>Elanus leucurus</i>	FSC	Savanna, open woodland, marshes, partially cleared lands and cultivated fields, mostly in lowland situations	X		
FISH						
Chinook salmon - Central Valley fall/late fall-run	<i>Oncorhynchus tshawytscha</i>	FC, NMFS	Most spawning occurs in gravel riffles in main streams		X(5)	
Chinook Salmon- Winter and Spring Runs	<i>Oncorhynchus tshawytscha</i>	FE, NMFS	Sacramento River and Tributaries		X(5)	
Delta smelt	<i>Hypomesus transpacificus</i>	FT	open waters of bays, tidal rivers, channels, and sloughs; breeds in medium to large rivers	X		

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green sturgeon	<i>Acipenser medirostris</i> ♀	FC	Most often in marine waters; estuaries, lower reaches of large rivers, salt or brackish water off river mouths	X		
longfin smelt	<i>Spirinchus thaleichthys</i>	FSC	Coastal waters near shore, bays, estuaries, and rivers, and landlocked in some lakes	X		
Sacramento perch	<i>Archoplites interruptus</i>	FSC	Slow-moving Rivers, Sloughs, Lakes with Aquatic Vegetation	X		
Sacramento splittail	<i>Pogonichthys macrolepidotus</i>	FSC	Lakes, Slow-moving Rivers with Vegetated Floodplain, Tidal Estuarine Marsh	X		
Steelhead-Central Ca Coast and Central Valley ESUs	<i>Oncorhynchus mykiss</i>	FT, NMFS	Sacramento and San Joaquin Rivers and Tributaries		X(5)	
tidewater goby	<i>Eucyclogobius newberryi</i>	FE	Found in shallow lagoons and lower stream reaches, they need fairly still but not stagnant water & high oxygen levels	X(6)		
INVERTEBRATE						
Bay checkerspot butterfly	<i>Euphydryas editha bayensis</i>	FT	Grassland	X		
Bridges' coast range shoulderband (snail)	<i>Helminthoglypta nickliniana bridgesi</i>	FSC	Open Hillsides	X		
callippe silverspot butterfly	<i>Speyeria callippe callippe</i>	FE	Vernal Pools, Other Seasonal Still Water Sources In Close Proximity to Grassland	X		
curved-foot hygrotus diving beetle	<i>Hygrotus curvipes</i>	FSC	Fresh to brackish waters of small, shallow mineralized ponds, alkali vernal pools	X		
California lindenella fairy shnmp	<i>Lindenella occidentalis</i>	FSC	vernal pools, swales, ephemeral drainages, stock ponds, reservoirs, ditches, backhoe pits, and ruts caused by vehicular activities	X		
mimic tryonia (=California brackishwater snail)	<i>Tryonia imitator</i>		Coastal Lagoons, Estuaries, Permanent Salt Marshes	X		
monarch butterfly	<i>Danaus plexippus</i>		Roosts located in wind-protected tree groves (Eucalyptus, Monterey Pine, Cypress), with nectar and water sources nearby.	X		
Ricksecker's water scavenger beetle	<i>Hydrochara rickseckeri</i>	FSC	Freshwater habitats restricted to San Francisco Bay Area		X(1)	
vernal pool fairy shnmp	<i>Branchinecta lynchi</i>	FT	ephemeral water of swales and vernal pools	X		

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vernal pool tadpole shrimp	<i>Lepidurus packardii</i>	FE	Vernal Pool	X		
MAMMAL						
Berkeley kangaroo rat	<i>Dipodomys heermanni berkeleyensis</i>	FSC	Well-Drained Soil in Chaparral, Grassland, Oak/Pine Woodland	X		
fringed myotis bat	<i>Myotis thysanodes</i>	FSC	Primarily at middle elevations of 1,200-2,150 m in desert, grassland, and woodland habitats	X		
greater western mastiff-bat	<i>Eumops perotis californicus</i>	FSC	Bare rock/talus/scree, Cliff, Desert, Grassland/herbaceous, Savanna, Shrubland/chaparral, Suburban/orchard, Woodland		X(2)	
long-eared myotis bat	<i>Myotis evotis</i>	FSC	Mostly forested areas, especially those with broken rock outcrops; also shrubland, over meadows near tall timber, along wooded streams, over reservoirs	X		
long-legged myotis bat	<i>Myotis volans</i>	FSC	Primarily in montane coniferous forests; also riparian habitats; roosts in abandoned buildings, rock crevices, under bark, etc. in some areas hollow trees are the most common nursery sites, but buildings and rock crevices are also used	X		
Pacific western big-eared bat	<i>Corynorhinus (Plecotus) townsendii townsendii</i>	FSC	In California, solitary males and small groups of females are known to hibernate in buildings in the central part of the state; known from limestone caves, lava tubes, and human-made structures in coastal lowlands, cultivated valleys, and nearby hills covered with mixed vegetation		X(2)	
San Joaquin (alley) woodrat	<i>Neotoma fuscipes riparia</i>	FE	Wooded riparian areas	X		
alt-marsh harvest mouse	<i>Reithrodontomys raviventris</i>	FE, SE	Salt Marsh		X(4)	
San Francisco dusky-footed woodrat	<i>Neotoma fuscipes annectens</i>	FSC	Heavy chaparral; hardwood, conifer, and mixed forests, typically in densely wooded areas with heavy undergrowth; riparian woodlands	X		

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San Joaquin kit fox	<i>Vulpes macrotis mutica</i>	FE, ST	Grassland, Rangeland with Scattered Shrubby Vegetation	X		
San Joaquin pocket mouse	<i>Perognathus inornatus inornatus</i>	FSC	Friable Soils in Grasslands, Oak Savanna	X		
small-footed myotis bat	<i>Myotis ciliolabrum</i>	FSC	Generally inhabits desert, badland, and semiarid habitats	X		
Suisun shrew	<i>Sorex ornatus sinuosus</i>	FSC	Salt Marsh	X		
Yuma myotis bat	<i>Myotis yumanensis</i>	FSC	found in a wide variety of upland and lowland habitats, including riparian, desert scrub, moist woodlands and forests, but usually found near open water; flies low; nursery colonies usually are in buildings, caves and mines, and under bridges		X(7)	
REPTILE						
Alameda whipsnake	<i>Masticophis lateralis euryxanthus</i>	FT, ST	Chaparral, Northern Coast Sage Scrub, Grassland, Open Woodland	X		
Coast (California) horned lizard	<i>Phrynosoma coronatum (frontale)</i>	FSC	Sandy Washes with Scattered Low Bushes, Chamise Chaparral	X		
giant garter snake	<i>Thamnophis gigas</i>	FT	prefers freshwater marsh and low gradient streams, has adapted to drainage canals and irrigation ditches		X(3)	
northwestern pond turtle	<i>Clemmys marmorata marmorata</i>	FSC	Permanent and intermittent waters of rivers, creeks, small lakes and ponds, marshes, irrigation ditches, and reservoirs		X(3)	
southwestern pond turtle	<i>Clemmys marmorata pallida</i>	FSC	Permanent and intermittent waters of rivers, creeks, small lakes and ponds, marshes, irrigation ditches, and reservoirs		X(3)	
western pond turtle	<i>Emys (=Clemmys) marmorata</i>	SCSC	Marsh, Rivers, Irrigation Ditches with Aquatic Vegetation		X(3)	
TERRESTRIAL PLANT						
alkali milk-vetch	<i>Astragalus tener var. tener</i>	FSC, CNPS-2	Grassland, Alkali Playa, Vernal Pools	X		
Antioch Dunes evening-primrose	<i>Oenothera deltoides ssp. howellii</i>	FE, SE, CNPS-2	Dunes	X		
bearded popcorn-flower	<i>Plagiobothrys hystriculus</i>	FSC, CNPS-3	Vernal Pool, Grassland (Wet Sites)	X		

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bent-flowered fiddleneck	<i>Amsinckia lunaris</i>	FSC, CNPS-2	Grassland, Cismontane Woodland	X		
big tarplant	<i>Blepharizonia plumosa</i> ssp. <i>plumosa</i>	FSC, CNPS-2	Dry Grassland	X		
Brewer's western flax	<i>Hesperolinon breweri</i>	FSC, CNPS-2	Grassland, Chaparral, Cismontane Woodland	X		
Butte County morning-glory	<i>Calystegia atriplicifolia</i> ssp. <i>buttensis</i>	FSC, CNPS-2	Grassland, Rangeland	X		
California linderella	<i>Linderella occidentalis</i>	FSC	Vernal Pools	X		
caper-fruited tropidocarpum	<i>Tropidocarpum capparideum</i>	FSC, CNPS-3	Coastal Scrub	X		
Carquinez goldenbush	<i>Isocoma arguta</i>	FSC, CNPS-2	Grassland	X		
coastal triquetrella	<i>Triquetrella californica</i>	CNPS-2	Coastal Scrub	X		
Congdon's tarplant	<i>Centromadia parryi</i> ssp. <i>congdonii</i>	FSC, CNPS-2	Grassland	X		
Contra Costa goldfields	<i>Lasthenia conjugens</i>	FE, CNPS-2	Alkali Grassland	X		
Contra Costa manzanita	<i>Arctostaphylos manzanita</i> ssp. <i>laevigata</i>	CNPS-2	Grassland, Vernal Pools, Cismontane Woodland	X		
Contra Costa wallflower	<i>Erysimum capitatum</i> var. <i>angustatum</i>	FE	Dunes	X		
Diablo helianthella	<i>Helianthella castanea</i>	FSC, CNPS-2	Chaparral/Oak Woodland, Cismontane Woodland, Grassland	X		
ragrant fritillary	<i>Fritillaria liliacea</i>	FSC, CNPS-2	Coastal Prairie, Coastal Scrub, Grassland	X		
hall's bush mallow	<i>Malacothamnus hallii</i>	FSC, CNPS-2	Chaparral	X		
hospital Canyon arkspur	<i>Delphinium californicum</i> ssp. <i>intense</i>	FSC, CNPS-2	Cismontane Woodland, Chaparral	X		
kellogg's horkelia	<i>Horkelia cuneata</i> ssp. <i>sericea</i>	FSC, CNPS-2	Chaparral, Coastal Scrub Coniferous Forest	X		
large-flowered fiddleneck	<i>Amsinckia grandiflora</i>	FE, SE, CNPS-2	Grassland, Cismontane Woodland	X		
loma Prieta hoita	<i>Hoita strobilina</i>	FSC, CNPS-2	Chaparral, Cismontane Woodland, Riparian Woodland	X		
most beautiful jewel-flower	<i>Streptanthus albidus</i> ssp. <i>peramoenus</i>	CNPS-1B	Grassland, Chaparral, Cismontane Woodland	X		
ft. Diablo bird's-beak	<i>Cordyanthus nidularius</i>	FSC, CNPS-2	Chaparral	X		
ft. Diablo buckwheat	<i>Eriogonum truncatum</i>	FSC, SR, CNPS-2	Chaparral, Cismontane Woodland, Coastal Scrub, Grassland	X		
ft. Diablo fairy-lantern	<i>Calochortus pulchellus</i>	CNPS-3, SLC	Grassland, Chaparral, Cismontane Woodland, Riparian Woodland	X		
ft. Diablo jewel-flower	<i>Streptanthus hispidus</i>	CNPS-2	Grassland, Chaparral	X		

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Mt. Diablo manzanita	<i>Arctostaphylos auriculata</i>	FSC, CNPS-2	Chaparral	X		
Mt. Diablo phacelia	<i>Phacelia phacelioides</i>	CNPS-2	Chaparral, Cismontane Woodland	X		
Northern California black walnut	<i>Juglans hindsii</i>	FSC, CNPS-2	Riparian Forest	X		
Oregon meconella	<i>Meconella oregana</i>	FSC, CNPS-2	Coastal Prairie, Coastal Scrub	X		
oval-leaved viburnum	<i>Viburnum ellipticum</i>	CNPS-1	Chaparral, Cismontane Woodland, Coniferous Forest (Lower Montane)	X		
pallid manzanita	<i>Arctostaphylos pallida</i>	FT, SE, CNPS-2	Chaparral, Upland Forest, Cismontane Woodland, Coastal Scrub	X		
Point Reyes rein orchid	<i>Piperia elegans ssp. decurtata</i>	FSC, CNPS-2	Coastal Bluff Scrub	X		
Presidio clarkia	<i>Clarkia franciscana</i>	FE, SE, CNPS-2	Grassland, Coastal Scrub	X		
rayless ragwort	<i>Senecio aphanactis</i>	CNPS-1	Cismontane Woodland, Coastal Scrub	X		
robust monardella	<i>Monardella villosa ssp. globosa</i>	FSC, CNPS-2	Broadleaved Upland Forest, Chaparral, Cismontane Woodland, Grassland	X		
robust spineflower	<i>Chorizanthe robusta var. robusta</i>	FE, CNPS-2	Cismontane Woodland, Coastal Scrub, Coastal Dunes	X		
rock sanicle	<i>Sanicula saxatilis</i>	FSC, SR, CNPS-2	Broadleaved Upland Forest, Chaparral, Oak Woodland, Grassland	X		
round-leaved filaree	<i>Erodium macrophyllum</i>	CNPS-1	Cismontane Woodland, Grassland	X		
San Francisco popcorn-flower	<i>Plagiobothrys diffusus</i>	SE, CNPS-2	Coastal Prairie, Grassland	X		
San Joaquin saltbush	<i>Atriplex joaquiniana</i>	FSC, CNPS-2	Alkali Meadow, Alkali Scrub, Grassland	X		
Santa Cruz tarplant	<i>Holocarpha macradenia</i>	FT, SE, CNPS-2	Coastal Prairie, Grassland	X		
western leatherwood	<i>Dirca occidentalis</i>	CNPS-1B	Cismontane Woodland, Chaparral, Upland Forest, Riparian	X		
WETLAND PLANT						
Delta tule pea	<i>Lathyrus jepsonii var jepsonii</i>	FSC, CNPS-2	Estuarine saltmarsh, tidal river banks		X(1)	
Delta mudwort	<i>Limosella subulata</i>	CNPS-1	Freshwater/Brackish Marsh, Riparian Scrub		X(1)	
Mason's lilaeopsis	<i>Lilaeopsis masonii</i>	FSC, SR, CNPS-2	Freshwater/Brackish Marsh, Riparian Scrub		X(1)	
Point Reyes bird's-beak	<i>Cordylanthus maritimus ssp. palustris</i>	FSC, CNPS-2	Salt Marsh	X		
soft bird's-beak	<i>Cordylanthus mollis ssp. mollis</i>	FE, SR, CNPS-2	Salt Marsh	X		
Suisun Marsh aster	<i>Aster lentus</i>	FSC, CNPS-2	Brackish Marsh, Freshwater Marsh		X(1)	

Numbered Notes:

- (1) The Toxic Reference Value (TRV) for aquatic plants and invertebrates is greater than the estimated concentration following treatment of 50 ppb in the streams below the concrete-lined channels.
- (2) These species are not likely to have any exposure to aquatic pesticides given that their target prey base consists of terrestrial species.
- (3) The dissipation of copper-based aquatic pesticide, and limited uptake in aquatic prey species will limit dietary exposure to an insignificant level. Past data indicate that copper water concentrations did not exceed 50 ppb (parts per billion, $\mu\text{g/L}$) in any downstream location immediately after and within 48 hours of application. Because of year-round flow in the channels, dilution of any copper-based aquatic pesticide applied to the channel immediately takes place and continues indefinitely as water exits the channel. Accordingly, copper concentrations downstream of copper-treated line channels are lower than 50 ppb, and therefore no risk due to copper exposure is anticipated.
- (4) The habitat for these species consists of brackish marsh and salt marsh and does not include freshwater habitat such as that present in the upper Walnut Creek watershed. Water treated in stormwater canals must travel at least 6-7 miles before it reaches potential habitat for these species, at which time the copper has sufficiently dissipated to minute concentrations and are not expected to pose any risk.
- (5) These anadromous species may be present in lower Walnut Creek during late Fall and Winter months below the fish passage barriers. However, during summer months, when copper-containing pesticide is applied, there is insufficient water flow for migration upstream. Given that these species are not likely present during times of pesticide application, no risk due to copper exposure is anticipated.
- (6) Populations of Tidewater goby no longer exist in the San Francisco Bay region, including Suisun Bay and Suisun Marsh (Moyle, pers. comm.).
- (7) These species forage for emergent aquatic insects over water. These insects may bioaccumulate copper. But, given the large amount of potential foraging area, the emergent aquatic insects from treated canals would likely only contribute an insignificant percentage of the total diet. Therefore, no risk due to copper exposure is anticipated.

tatus Codes:

E = Federally Listed as Endangered
T = Federally Listed as Threatened
PE = Federally Proposed Endangered
PT = Federally Proposed Threatened
PD = Federally Proposed Delisted
SC = Federally Listed Species of Concern
C = Federally Listed Candidate Species
D = Federally Delisted
CSC = State Listed Species of Concern
E = State Listed as Endangered
FP = State Listed as Fully Protected
T = State Listed as Threatened
R = State Listed as Rare
CE = State Candidate Endangered
CT = State Candidate Threatened
NPS-1 = California Native Plant Society Listed, Rare, Threatened, or Endangered in CA only
NPS-2 = California Native Plant Society Listed Rare, Threatened, or Endangered
NPS-3 = California Native Plant Society Listed Presumed Extinct in CA

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less than Significant Impact	No Impact
V. CULTURAL RESOURCES.				
Would the project:				
a. Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	_____	_____	_____	✓
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	_____	_____	_____	✓
c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	_____	_____	_____	✓
Disturb any human remains, including those interred outside of formal cemeteries?	_____	_____	_____	✓

SUMMARY: No impact.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less than Significant Impact	No Impact
VI. GEOLOGY AND SOILS.				
Would the project:				
a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				✓
1. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	_____	_____	_____	✓
2. Strong seismic ground shaking?	_____	_____	_____	✓
3. Seismic-related ground failure, including liquefaction?	_____	_____	_____	✓
4. Landslides?	_____	_____	_____	✓
b. Result in substantial soil erosion or the loss of topsoil?	_____	_____	_____	✓
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	_____	_____	_____	✓
d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	_____	_____	_____	✓
e. Have soils incapable of adequately supporting the use of septic tanks or alternative waste disposal systems where sewers are not available for the disposal of wastewater?	_____	_____	_____	✓

SUMMARY: No impact.

Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less than Significant Impact	No Impact
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I. HAZARDS AND HAZARDOUS MATERIALS.

Would the project:

a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	_____	_____	_____ ✓ _____	_____
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	_____	_____	_____	_____ ✓ _____
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	_____	_____	_____	_____ ✓ _____
d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65862.5 and, as a result, would it create a significant hazard to the public or the environment?	_____	_____	_____	_____ ✓ _____
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area.	_____	_____	_____	_____ ✓ _____
f. For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	_____	_____	_____	_____ ✓ _____
g. Impair implementation of or physically interferes with an adopted emergency response plan or emergency evacuation plan?	_____	_____	_____	_____ ✓ _____
h. Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	_____	_____	_____	_____ ✓ _____

SUMMARY: The project would involve handling copper-based aquatic pesticides, which are regulated hazardous material. Acute exposure to humans can cause eye, skin, respiratory irritation, and can be harmful if swallowed. Use of this material would create a potential for spills that could affect worker safety and the environment. The spills could potentially occur at the District maintenance facility, at the point of application, or during transport. Transportation is done using a 2.5 to 5 gallon carboy container secured in a pick-up truck bed. The District handles, stores, transports and disposes of copper-based aquatic pesticide in accordance with federal, state, and county requirements and the product manufacturer's recommendations. Use of the standard operating procedures described in Appendix A creates less than a significant impact.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less than Significant Impact	No Impact
VIII. HYDROLOGY AND WATER QUALITY.				
Would the project:				
a. Violate any water quality standards or waste discharge requirements?	_____	_____ ✓ _____	_____	_____
b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	_____	_____	_____	_____ ✓ _____
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner, which would result in substantial erosion or siltation on or off-site?	_____	_____	_____	_____ ✓ _____
d. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner, which would result in flooding on- or off-site?	_____	_____	_____	_____ ✓ _____
e. Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?	_____	_____	_____	_____ ✓ _____
f. Otherwise substantially degrade water quality?	_____	_____	_____	_____ ✓ _____
g. Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	_____	_____	_____	_____ ✓ _____
h. Place within a 100-year flood hazard area structures, which would impede or redirect flood flows?	_____	_____	_____	_____ ✓ _____
i. Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	_____	_____	_____	_____ ✓ _____
j. Inundation by seiche, tsunami, or mudflow?	_____	_____	_____	_____ ✓ _____

SUMMARY: As presented in Section II, the existing interim emergency NPDES permit used by the District has expired. The District intends to obtain coverage under the new 2004 general permit that requires compliance with the SIP and the CTR.

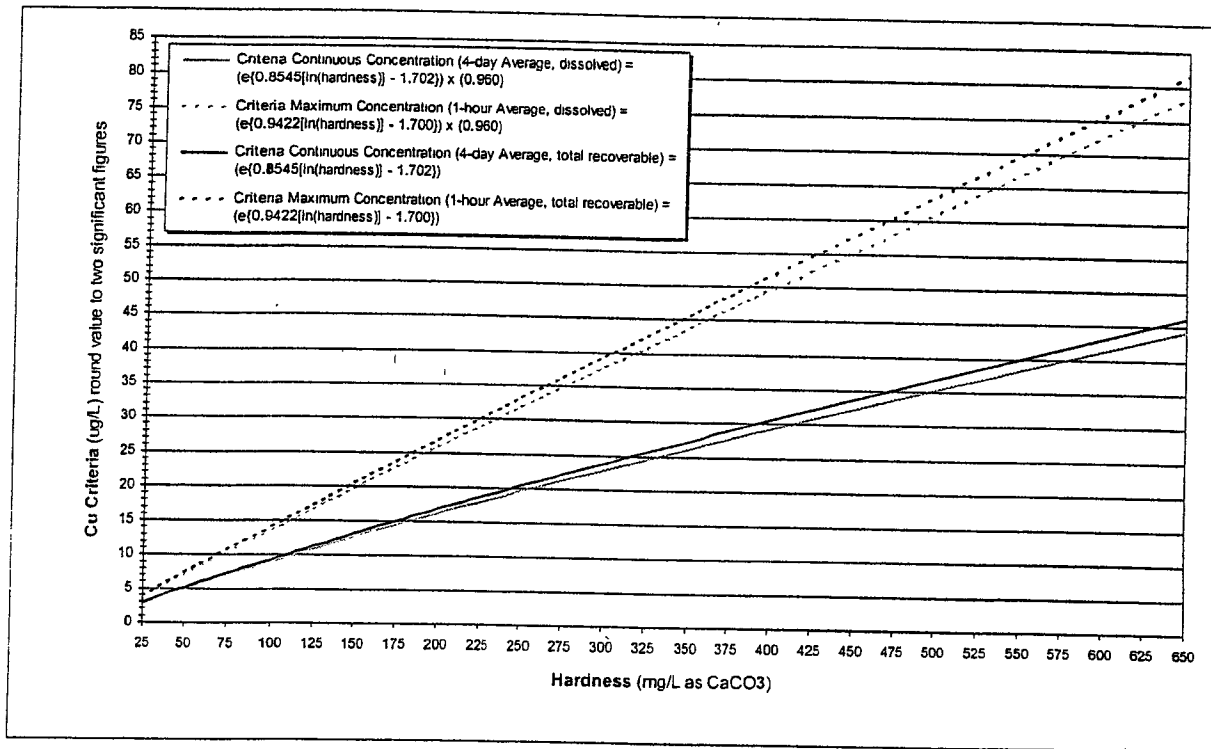
Application of copper-based aquatic pesticides according to product label directions typically require concentrations of copper between 500 and 1,000 µg/L. Water quality criteria for copper as described in the CTR are hardness-dependent. Refer to Figure 3. Based on sampling done in February 2004, water within the channels varies in hardness from 320 mg/L to 630 mg/L, averaging approximately 490 mg/L as calcium carbonate. This sampling also showed that background levels of copper exist in these channels. Total copper ranged from 4.7 µg/L to 11.0 µg/L with an average of 6.4 µg/L. Dissolved copper ranged from 3.3 µg/L to 9.8 µg/L with an average of 5.4 µg/L. Refer to Table 2.

Creek	Location	Note	DO	DO mg/L	EC1	EC2	Salinity	Temp	EC	TDS	TSS	NPOC	Total Copper	Dissolved Copper	Hardness
			%	mg/L	uS/cm	uS/cm @ 25 C	ppt	C	uS/cm @ 25 C	mg/L	mg/L	mg/L	ug/L	ug/L	mg/L
DA128	DS		101.1	11.28	992	1380	0.7	10.3		830	10	2.2	4.9	3.6	630
Galindo	US		91.1	10.68	1213	1787	0.9	8.2		1300	ND	4.8	7.8	7.2	590
Galindo	DS		124.3	14.61	1182	1746	0.9	8.1		1200	ND	4.2	7.7	6.9	590
Grayson	US		112.6	13.01	1237	1794	0.9	8.8		900	5	3.6	5.5	4.8	390
Grayson	DS		211.4	over	1212	1713	0.9	9.7	2000	1200	5	4	8	7.3	530
Grayson (2)	US		161.3	17.51	1686	2280	1.2	11.3		1600	ND	4.1	11	9.8	660
Grayson (2)	DS		169.6	19.62	1231	1786	0.9	8.7		1200	5	3.5	8.1	7.7	510
Pine	US		92.8	9.04	1163	1392	0.7	16.4		820	5	1.2	5.3	3.3	600
Pine	INT	FG								610	14	3	5.5	4.5	380
Pine	US		115.1	12.98	979	1377	0.7	9.9		850	6	2.3	7.3	4.3	620
San Ramon	US		118.9	12.8	722	963	0.5		1000	620	ND	4	4.9	4.3	350
San Ramon	DS		173.6	17.79	721	910	0.5	14.1		590	ND	4.1	4.9	4.3	320
Walnut	US		96.1	11.32	651	960	0.5	8.1		610	ND	4.2	4.7	4	400
Walnut	DS		147.1	16.02	709	958	0.5	11.4	1000	610	ND	4	5	4.1	390
Walnut	DS	FD	146	15.89	704	951	0.5	11.4		620	ND	4	4.9	4.2	380

Notes:

- INT: Intermediate
- DS: Downstream
- US: Upstream
- FG: Flap Gate
- FD: Field Duplicate

Figure 3. Cu Criteria Dependence on Hardness



Based on the relation of copper criteria to hardness, the applicable water quality criteria for copper in District channels is approximately as follows:

Hardness (as mg/L CaCO ₃)	320	490	630
Continuous Dissolved Concentration (4 day Average)	24 µg/L	35 µg/L	43 µg/L
Continuous Total Concentration (4 day Average)	25 µg/L	36 µg/L	45 µg/L
Maximum Dissolved Concentration (1 Hour Average)	40 µg/L	60 µg/L	76 µg/L
Maximum Total Concentration (1 Hour Average)	42 µg/L	63 µg/L	79 µg/L

These water quality criteria are between approximately 1/6th to 1/20th of the lowest product concentration (500 µg/L) that is typical at the point of delivery when copper-based aquatic pesticides are applied according to label directions. This concentration exceeds the CTR water quality criteria and may result in a potentially significant impact unless mitigation is incorporated.

Title 22 of the California Code of Regulations (CCR) establishes a primary drinking water standard for copper of 1300 µg/L. When applied according to label directions, the concentration of copper in the District's ditches and channels will not exceed the copper Maximum Contaminant Level (MCL), therefore there is no impact.

The project area is within the jurisdiction of the San Francisco Bay RWQCB. The San Francisco Bay RWQCB Basin Plan (RWQCB 1995) has copper water quality objectives calculated for an assumed hardness of 50 mg/L CaCO₃. This corresponds to a 4-day average concentration of 6.5 µg/L, and to a 1-hour average concentration of 9.2 µg/L. Note that the equations used to establish these objectives as stated in the Basin Plan are different than those used in the CTR. The Basin Plan uses the following equations: 4-day average concentration = $e^{(0.8545H - 1.465)}$; 1-hour average concentration = $e^{(0.9422H - 1.464)}$, where H is Hardness as mg/L CaCO₃. See Figure 3 for equations used in CTR.

To address the concentration of copper-based aquatic pesticide prior to discharge to natural watercourses, District staff implement HWQ-1 as discussed in this section. The District does not manage aquatic weeds within any natural watercourse in the project area, therefore no application of any aquatic pesticide occurs in these natural waters.

During 2003 monitoring was performed for a copper application to the concrete-lined portion of Pine Creek as described in the Alameda and Contra Costa RPMP 2003 Annual Report. Within 4 hours after application, a sample of water collected downstream of the application reported less than detection limit. Within 72 hours after application, the same downstream location was sampled and also reported less than detection limit. The detection limit was 50 µg/L. Because the copper CTR water quality criteria may or may not be greater than 50 µg/L, based on the range of measured hardness, it is inconclusive if there will be a prolonged or temporary exceedence of the CTR water quality criteria resulting from these applications. Since copper is applied at 500 to 1000 µg/L, as directed by label, there was at least a ten-fold decrease in concentration within 4 hours after application. These values substantiate the concept that copper-based aquatic pesticides applied to District channels rapidly dissipate and/or become permanently insoluble shortly after application. This strongly suggests that only a temporary CTR water quality criteria exceedence occurs and the result is less than significant impact.

District personnel have not reported adverse impacts to aquatic, avian, terrestrial or benthic organisms as a result of using copper-based aquatic pesticides, further suggesting that a less than significant impact has occurred.

In spite of substantial evidence that suggests that when used according to label directions by qualified personnel, impacts of copper-based aquatic pesticides less than a significant impact, the District will implement mitigation measure HWQ-1 to reduce any future potentially significant impacts to less than a significant level.

HWQ-1 As required by the SIP and the SWRCB general permit for the application of aquatic pesticides, the District will prepare and execute a sampling and analysis plan. The plan will call for surfacewater sampling and analysis before, during, and after project completion to assess the impact, if any, that the project may have on beneficial uses of water. Additionally, consistent with SIP exception requirements, the District will arrange for a qualified biologist to assess receiving water beneficial uses.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less than Significant Impact	No Impact
_____	_____	_____	_____	_____ ✓
_____	_____	_____	_____	_____ ✓
_____	_____	_____	_____	_____ ✓

LAND USE AND PLANNING..

Would the project:

- a. Physically divide an established community?
- b. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?
- c. Conflict with any applicable habitat conservation plan or natural community conservation plan?

SUMMARY: No Impact.

X. MINERAL RESOURCES.

Would the project:

- a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?
- b. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

_____	_____	_____	✓
_____	_____	_____	✓

SUMMARY: No Impact.

Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less than Significant Impact	No Impact
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XI. NOISE.

Would the project result in:

- a. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?
- b. Exposure of persons to or generation of excessive ground borne vibration or ground borne noise levels?
- c. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?
- d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?
- e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?
- f. For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

_____	_____	_____	✓
_____	_____	_____	✓
_____	_____	_____	✓
_____	_____	_____	✓
_____	_____	_____	✓
_____	_____	_____	✓

SUMMARY: No Impact.

Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less than Significant Impact	No Impact
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XII. POPULATION AND HOUSING.

Would the project:

- a. Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?
- b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?
- c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

_____	_____	_____	✓
_____	_____	_____	✓
_____	_____	_____	✓

SUMMARY: No Impact.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less than Significant Impact	No Impact
XIII. PUBLIC SERVICES.				
a. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services				
1. Fire Protection?				✓
2. Police Protection?				✓
3. Schools?				✓
4. Parks?				✓
5. Other Public facilities?				✓

SUMMARY: No Impact.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less than Significant Impact	No Impact
III. RECREATION.				
a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?				✓
b. Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?				✓

SUMMARY: No Impact.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less than Significant Impact	No Impact
TRANSPORTATION/TRAFFIC.				
Would the project:				
a. Cause an increase in traffic, which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?				✓
b. Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?				✓

- c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?
- d. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?
- e. Result in inadequate emergency access?
- f. Result in inadequate parking capacity?
- g. Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?

			✓
			✓
			✓
			✓
			✓

SUMMARY: No Impact.

Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less than Significant Impact	No Impact
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XVI. UTILITIES AND SERVICE SYSTEMS.

Would the project:

- a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?
- b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?
- c. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?
- d. Have sufficient water supplies available to serve the project from existing entitlement and resources, or are new or expanded entitlement needed?
- e. Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?
- f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?
- g. Comply with federal, state and local statutes and regulations related to solid waste?

			✓
			✓
			✓
			✓
			✓
			✓
			✓

SUMMARY: No Impact.

Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less than Significant Impact	No Impact
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VII. MANDATORY FINDINGS OF SIGNIFICANCE

- a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish and wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?
- b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?
- c. Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?

	✓		
		✓	
		✓	

SUMMARY: The project involves the use of copper-based aquatic pesticides, which are considered hazardous materials. District personnel use standard operating procedures as described in **Appendix A** to reduce the impact to a less than significant level.

The project involves the application of copper-based aquatic pesticides to the District's channels at concentrations that temporarily exceed CTR water quality objectives. Substantial evidence from prior applications at these locations suggests that when used according to label directions by qualified personnel, impacts of copper-based aquatic pesticides have no significant impact. However, the District will implement the **HWQ-1** to reduce any future potential impacts to less than a significant level.

The cumulative impacts of continued application of copper-based aquatic pesticides is not known. Specifically, the extent to which copper accumulates and is bioavailable, if at all, is not clear at this time. The District knows of no other intentional applications of copper-based materials within or adjacent to the project that will impact the project. However, the District is aware of contributions of copper to surfacewater from non-point sources (City of Palo Alto 2003).

X. PERSONS AND AGENCIES CONTACTED

- Phillip Isorena, SWRCB
- Carrie Dovzak, Contra Costa County Public Works Department
- Chuck Jefferies, Contra Costa County Public Works District
- Nancy Stein, Contra Costa County Public Works Department

XI. LIST OF PREPARERS

- 1.) Michael S. Blankinship, P.E., PCA, Project Manager, Blankinship & Associates
- 2.) Joseph P. Sullivan, Ph.D., Certified Wildlife Biologist, Ardea Consulting
- 3.) Joshua M. Owens, Staff Scientist, Blankinship & Associates
- 4.) Sara Castellanos, Staff Scientist, Blankinship & Associates

Appendix A

**Contra Costa County Flood Control and Water Conservation District
Standard Operating Procedures for the Application of Aquatic Pesticides**

1. The District will continue to implement its IPM program for aquatic weed control. This program involves scouting of aquatic weed locations and densities, and making applications of copper-based aquatic pesticides on an "as-needed" basis to achieve the aquatic weed control necessary convey stormwater.
2. District personnel that make aquatic pesticide applications have had specialized training and are under a Qualified Applicator Certificate Holders (QAC) direct supervision. QACs are licensed by the Department of Pesticide Regulation (DPR) and receive no less than 20 hours of continuing education and training every two years on issues including health and safety and prevention of exposure to sensitive receptors. Expertise and training used by these District personnel result in eliminating exposure to sensitive receptors and creates no impact.
3. Prior to application, a written recommendation is prepared by a DPR-licensed Pest Control Advisor (PCA). A PCA undergoes 40 hours of training every 2 years on issues including health and safety and prevention of exposure to sensitive receptors. The written recommendation prepared by the PCA must evaluate proximity of occupied buildings and people, health and environmental hazards and restrictions, and a certification that alternatives and mitigation measures that substantially lessen any significant adverse impact on the environment have been considered and if feasible, adopted. Expertise and training used by the PCA results in eliminating exposure to sensitive receptors and creates no impact.
4. During the preparation of the written recommendation and prior to and during the application, all District personnel strictly adhere to instructions provided on the aquatic pesticide product label. The label has clear and specific warnings that alert users to hazards that may exist from use of the aquatic pesticide. Compliance with the aquatic pesticide product label instructions results in eliminating exposure to sensitive receptors.
5. In addition to the product label District personnel consult the aquatic pesticide Material Safety Data Sheet (MSDS). The MSDS has specific information that describes precautions to be taken during the use of the aquatic pesticide. District personnel's familiarity with the MSDS sheets of aquatic pesticides results in eliminating exposure to sensitive receptors.
6. District personnel use the DPR Worker Health and Safety Branch Pesticide Safety Information Series (PSIS). For example, the PSIS series describes the personal protective equipment (PPE) needed for the safe handling of aquatic pesticides, including goggles, disposable coveralls, gloves and respirators. District personnel's familiarity with the DPR PSIS series further results in eliminating exposure to sensitive receptors and as a result, no impact occurs. The following documents are used:
 - N-1, Working Safely with Pesticides
 - N-2, Storing, Moving and Disposing of Pesticides
 - N-3, Closed Systems, Enclosed Cabs, Water-Soluble Packaging
 - N-4, First Aid
 - N-5, Protecting Yourself from Breathing Pesticides
 - N-7, Washing Pesticide Work Clothing
 - N-8, Safety Rules for Pesticide Handlers
 - N-10, Safety Rules for Minimal Exposure Pesticides
7. The District handles, stores, transports and disposes of hazardous materials in accordance with federal, state, and county requirements and manufacturer's recommendations.
8. The District will obtain coverage under the 2004 general permit and comply with all aspects of it, including monitoring and reporting. By regularly monitoring and reporting surface water quality in its concrete-lined channels, the District will be able to identify problems with water quality and take corrective action if necessary. For monitoring sampling locations refer to Figure 2. Corrective action includes modification to application techniques and timing, and use of adjuvants to improve efficacy.

Environmental Unit

Mission, Values, and Vision

What we do (our mission): Working as a team with project stakeholders:

- We provide positive continuous feedback into the planning and design of Public Works projects.
- We ensure that all Public Works projects comply with all of the environmental laws and regulations.
- We provide clear and concise information to staff on environmental laws and regulations.

What we believe in (our values)

- The incorporation of environmental considerations into Public Works projects enhances quality of life and benefits the public.
- Open and honest communication facilitates project development and favorable regulatory outcomes.
- By taking a leadership role the Department can positively influence changes in the regulatory climate.

What we will be (our vision)

- We will continue to represent the Department's interests in negotiations with other agencies.
- We will strengthen our relationship with regulatory agencies based on our demonstrated knowledge and commitment to incorporating environmental issues.
- We will examine opportunities to improve the environmental process and implement changes where appropriate.
- We will incorporate new technologies to facilitate environmental analysis and effective communication.

Mitigation Monitoring Program
The Control of Algae in Lined Channels
Hydrology and Water Quality Impacts

Mitigation Requirement	Mitigation Obligation	Department Responsible for Monitoring Implementation
<p>As required by the SIP and the SWRCB general permit for the application of aquatic pesticides, the District will prepare and execute a sampling and analysis plan. The plan will call for surface water sampling and analysis before, during, and after project completion to assess the impact, if any, that the project may have on beneficial uses of water. Additionally, consistent with SIP exception requirements, the District will arrange for a qualified biologist to assess receiving water beneficial uses.</p>	<p>Contra Costa County Flood Control and Water Conservation District</p>	<p>Contra Costa County Flood Control and Water Conservation District</p>

State Implementation Plan (SIP) Section 5.3 Exception Information Sheet

The Control of Algae in Lined Channels

Contra Costa County Flood Control and

Water Conservation District

December 8, 2004

1. **Notification.** Contra Costa County Flood Control and Water Conservation District (District) will notify potentially effected public and governmental agencies of the project. The project is described in the District's Initial Study/Mitigated Negative Declaration (IS/MND) dated August 24, 2004.
2. **Description of the Proposed Action.** The proposed action is the application of copper aquatic pesticides to County conveyances for the purposes of controlling weeds and algae. For a more detailed description, see the District's aforementioned IS/MND.
3. **Method of Completing the Action.** The action (the application of copper aquatic pesticides) will be completed according to the copper product's label directions. Refer to the aforementioned IS/MND.
4. **Schedule.** The schedule for the action will be according to Integrated Pest Management (IPM) principles. For example, the application of aquatic pesticides will be done at times and frequencies when the concentration of algae and/or weeds equals or exceeds thresholds established by the District.
5. **Discharge and Receiving Water Quality Monitoring Plan.** The District has prepared and will use an Aquatic Pesticide Application Plan (APAP) as required in the Statewide General NPDES Permit for the Discharge of Aquatic Pesticides for Aquatic Weed Control In Waters of the United States (No. CAG 99005). The APAP describes in detail the requirements for sampling, analysis, and reporting before, during, and after the project. Further, the APAP contains a Quality Assurance Project Plan (QAPP) that describes in detail the quality assurance and quality control procedures used for the project.
6. **Contingency Plans.** In the event that the District cannot use the SIP exception regarding the use of copper to control aquatic weeds, manual control and/or aeration may be an option in some areas.
7. **Identification of Alternate Water Supply.** Not applicable. The SIP exception is being sought for the control of algae and/or weeds in flood control facilities.
8. **Residual Waste Disposal Plans.** The District's use of copper to control aquatic weeds does not create residual waste.
9. **Certification by a Qualified Biologist.** At the completion of the project, the District will provide certification by a qualified biologist that the receiving water beneficial uses have been maintained. Post-project certification will take into account natural variations in project site conditions and the influence these conditions have on beneficial uses.

CALIFORNIA ENVIRONMENTAL QUALITY ACT NOTICE OF DETERMINATION

CONTRA COSTA COUNTY COMMUNITY DEVELOPMENT DEPARTMENT
 651 PINE STREET 4TH FLOOR NORTH WING MARTINEZ, CALIFORNIA 94553-0095

Telephone: (925) 313-2296 Contact Person: Cece Sellgren, Environmental Planner

Project Description, Common Name (If any): The Control of Algae in Lined Channels. *CP#03-09*
 The project consists of the implementation of Integrated Pest Management (IPM) to control algae in approximately 11 miles of concrete-lined channels. IPM is management tool that uses site scouting, weed thresholds and implementation of a variety of control measures to maintain weed populations at levels that do not disrupt the flow of water.

Regular scouting of the channels is done to evaluate algae presence and whether or not thresholds for treatment have been met. Once thresholds have been met, mechanical and/or chemical controls are implemented. Mechanical controls include scraping algae with skip loader buckets and physically removing the debris. Chemical controls involve the application of copper-based aquatic pesticides.

The District makes applications of copper-based aquatic pesticides from June through August at the upstream end of the concrete-lined channels. Refer to Figure 2. This point application results in treatment of the entire length of the concrete-lined channel. Typically two to six applications are made per year at each location. Water quality monitoring is performed yearly in conjunction with these applications as part of the District's National Pollutant Discharge Elimination System (NPDES) aquatic pesticide permit.

Location: The project is located on the concrete-lined sections of Walnut Creek and its main tributaries, including Grayson Creek, Murderer's Creek, Pine Creek, Galindo Creek, DA 128 Channel, and the San Ramon Bypass. The project is within the city limits of Concord, Pleasant Hill and Walnut Creek.

The project was approved on November 18, 2004
 Pursuant to the provisions of the California Environmental Quality Act:

- () An Environmental Impact Report was prepared and certified (SCH #)
- () The Project was encompassed by an Environmental Impact Report previously prepared for _____ (SCH #).
- (X) A Mitigated Negative Declaration was prepared

Copies of the record of project approval and the Negative Declaration or the final EIR may be examined at the office of the Contra Costa County Public Works Department.

- (X) The Project will not have a significant environmental effect with incorporated mitigation measures.
- () The Project will have a significant environmental effect.
- () Mitigation measures were made a condition of approval of the project.
- () A statement of overriding considerations was adopted.
- () Findings were adopted pursuant to Section 15091 of the State CEQA Guidelines.

Date: 11/18/04

By: Anna Bhat

Community Development Department Representative

FILED

NOV 22 2004

S.L. WEIR, COUNTY CLERK
 CONTRA COSTA COUNTY
 DEPUTY

AFFIDAVIT OF FILING AND POSTING

I declare that on NOV 22 2004 I received and posted this notice as required by California Public Resources Code Section 21152(c). Said notice will remain posted for 30 days from the filing date.

Beth Menafra _____
 Signature

 DEPUTY COUNTY CLERK
 Title

Receipt #

Applicant:
 Contra Costa County
 Flood Control and Water Conservation District
 255 Glacier Drive
 Martinez, CA 94553
 Attn: Cece Sellgren

Department of Fish and Game Fees Due
 _____ EIR - \$650
 _____ X Neg. Dec. - \$1,250
 _____ DeMinimis Findings - \$0
 _____ X County Clerk - \$50

Total Due: \$ \$1,300
 Total Paid \$ _____
 Receipt #: _____



Contra Costa County
FLOOD CONTROL
& Water Conservation District

FILED
SEP 22 2004
S.L. WEIR, COUNTY CLERK CONTRA COSTA COUNTY J. MCKILLOP DEPUTY

Maurice M. Shiu
ex officio Chief Engineer
Glacier Drive, Martinez, CA 94553-4825
Telephone: (925) 313-2000
FAX (925) 313-2333

BY
September 21, 2004

NAV 604

NOTICE OF PUBLIC REVIEW AND INTENT TO ADOPT A PROPOSED MITIGATED NEGATIVE DECLARATION

County File # CP03-69

Pursuant to the State of California Public Resources Code and the "Guidelines for Implementation of the California Environmental Quality Act of 1970" as amended to date, this is to advise you that the Community Development Department of Contra Costa County has prepared an initial study on the following project:

The Control of Algae in Lined Channels, County File # CP03-69:

The project consists of the implementation of Integrated Pest Management (IPM) to control algae in approximately 11 miles of concrete-lined channels. IPM is a management tool that uses site scouting, weed thresholds and implementation of a variety of control measures to maintain weed populations at levels that do not disrupt the flow of water.

Regular scouting of the channels is done to evaluate algae presence and whether or not thresholds for treatment have been met. Once thresholds have been met, mechanical and/or chemical controls are implemented. Mechanical controls include scraping algae with skip loader buckets and physically removing the debris. Chemical controls involve the application of copper-based aquatic pesticides.

The District makes applications of copper-based aquatic pesticides from June through August at the upstream end of the concrete-lined channels. Refer to Figure 2. This point application results in treatment of the entire length of the concrete-lined channel. Typically two to six applications are made per year at each location. Water quality monitoring is performed yearly in conjunction with these applications as part of the District's National Pollutant Discharge Elimination System (NPDES) aquatic pesticide permit.

Project Location: The project is located on the concrete-lined sections of Walnut Creek and its main tributaries, including Grayson Creek, Murderer's Creek, Pine Creek, Galindo Creek, DA 128 Channel, and the San Ramon Bypass. The project is within the city limits of Concord, Pleasant Hill and Walnut Creek.

The proposed project will not result in any significant impacts. A copy of the negative declaration and all documents referenced in the negative declaration may be reviewed in the offices of the Public Works Department at 255 Glacier Dr., Martinez, CA 94553 (925) 313-2000 during normal business hours.

PUBLIC WORKS DEPARTMENT
INITIAL STUDY
OF ENVIRONMENTAL SIGNIFICANCE

PROJECT # 7517-6W-7241
CP#: 03 - 69 (REVISED)

PROJECT NAME: The Control of Algae in Lined Channels

PREPARED BY: Mike Blankinship *MB* DATE: August 24, 2004

APPROVED BY: *Alma Bhat* DATE: 9/20/04

RECOMMENDATIONS:

- Categorical Exemption Negative Declaration
 Environmental Impact Report Required Mitigated Negative Declaration

The project will not have a significant effect on the environment with mitigation measures included. The recommendation is based on the following: Revisions to the project plans would avoid the effects or mitigate the effects to the point where clearly no significant effects would occur (Sec 15070(b)(1)).

What changes to the project would mitigate the identified impacts N/A

USGS Quad Sheet Various Base Map Sheet # Various Parcel # N/A

GENERAL CONSIDERATIONS:

1. **Location:** The project is located on the concrete-lined sections of Walnut Creek and its main tributaries, including Grayson Creek, Murderer's Creek, Pine Creek, Galindo Creek, DA 128 Channel, and the San Ramon Bypass. The project is within the city limits of Concord, Pleasant Hill and Walnut Creek. (Fig 1 & 2)

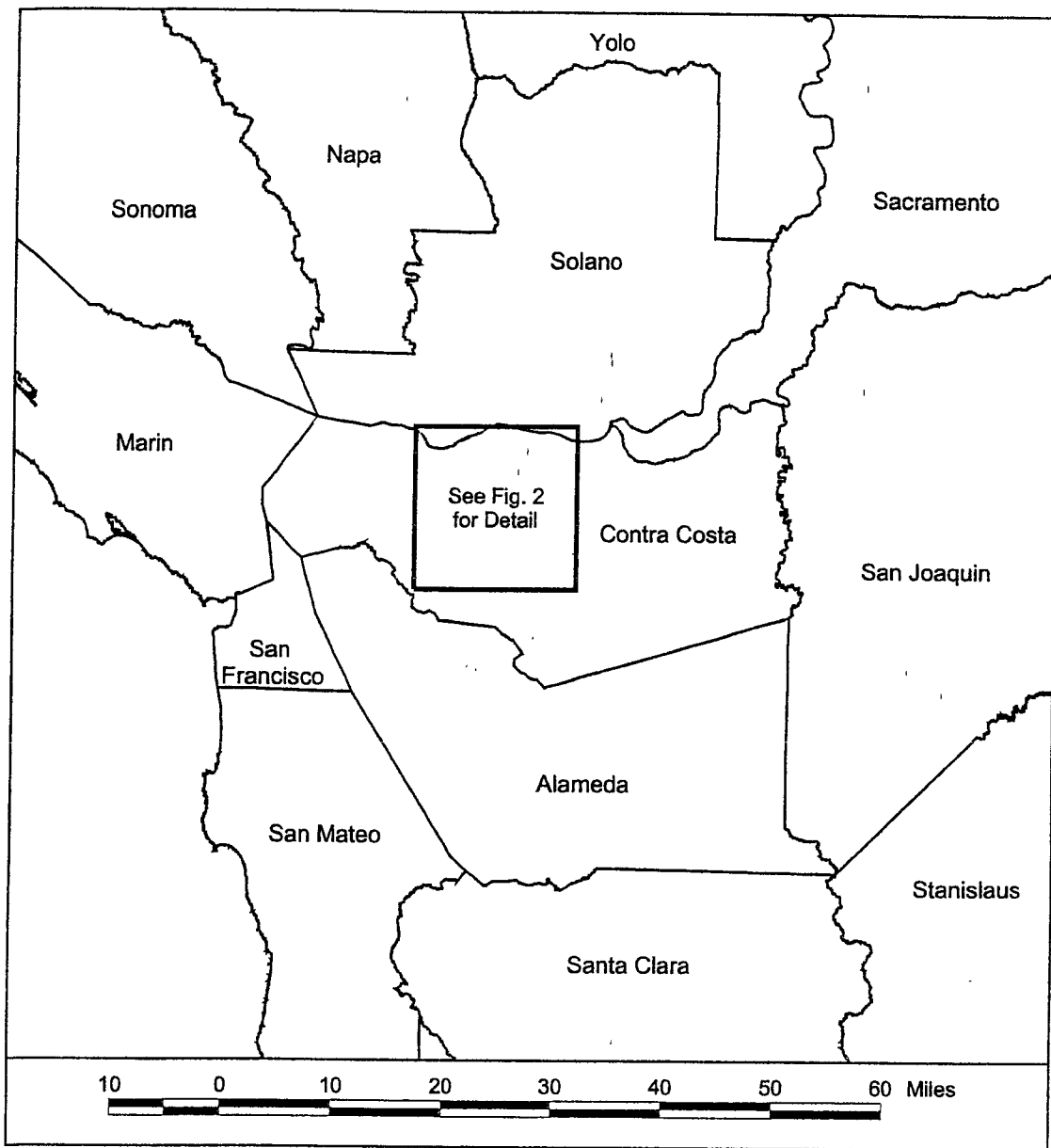
2. **Project Description:**

The project consists of the implementation of Integrated Pest Management (IPM) to control algae in approximately 11 miles of concrete-lined channels. IPM is a management tool that uses site scouting, weed thresholds and implementation of a variety of control measures to maintain weed populations at levels that do not disrupt the flow of water.

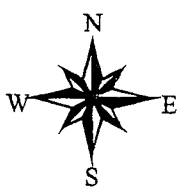
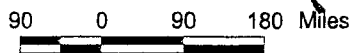
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2. Does it appear that any feature of the project will generate significant public concern?
 yes no maybe (Nature of concern):
4. Will the project require approval or permits by other than a County agency? yes no Agency Name(s) State Regional Water Resources Control Board, California Department of Fish and Game.
5. Is the project within the Sphere of Influence of any city? Yes, Cities of Concord, Pleasant Hill, and Walnut Creek.

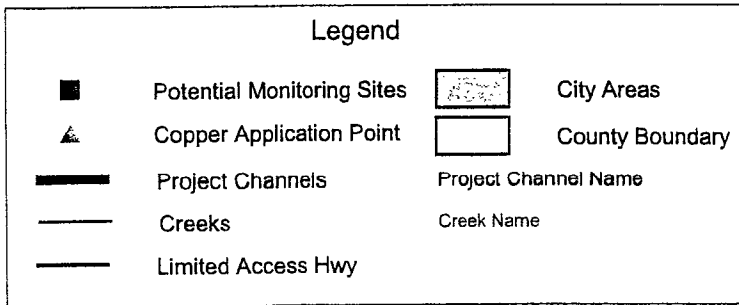
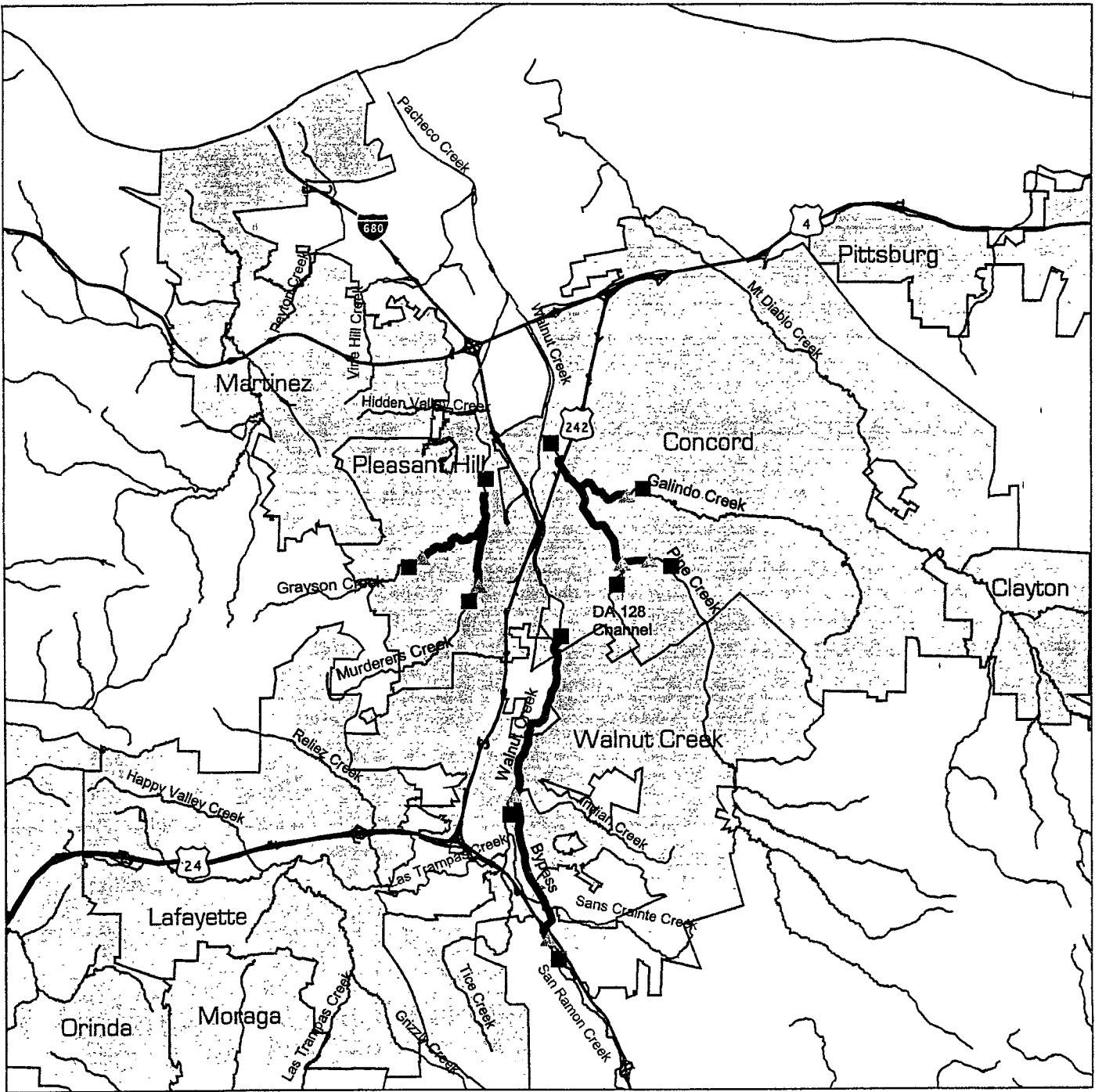


Project Location Map



Legend	
	California County Boundaries

Figure
1



Project Detail Map

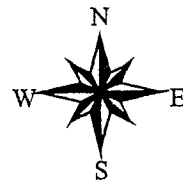


Figure
2



Arnold
Schwarzenegger
Governor

STATE OF CALIFORNIA
Governor's Office of Planning and Research
State Clearinghouse and Planning Unit



Jan Boel
Acting Director

October 28, 2004

Carrie Dovzak
Contra Costa County Flood Control District
255 Glacier Drive
Martinez, CA 94553-4825

Subject: Control of Algae in Lined Channels
SCH#: 2004092126

Dear Carrie Dovzak:

The State Clearinghouse submitted the above named Negative Declaration to selected state agencies for review. On the enclosed Document Details Report please note that the Clearinghouse has listed the state agencies that reviewed your document. The review period closed on October 27, 2004, and the comments from the responding agency (ies) is (are) enclosed. If this comment package is not in order, please notify the State Clearinghouse immediately. Please refer to the project's ten-digit State Clearinghouse number in future correspondence so that we may respond promptly.

Please note that Section 21104(c) of the California Public Resources Code states that:

"A responsible or other public agency shall only make substantive comments regarding those activities involved in a project which are within an area of expertise of the agency or which are required to be carried out or approved by the agency. Those comments shall be supported by specific documentation."

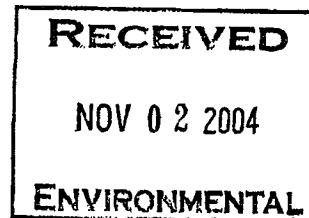
These comments are forwarded for use in preparing your final environmental document. Should you need more information or clarification of the enclosed comments, we recommend that you contact the commenting agency directly.

This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act. Please contact the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process.

Sincerely,

Terry Roberts
Director, State Clearinghouse

Enclosures
cc: Resources Agency



Document Details Report State Clearinghouse Data Base

SCH# 2004092126
Project Title Control of Algae in Lined Channels
Lead Agency Contra Costa County Flood Control District

Type Neg Negative Declaration
Description The project consists of the implementation of Integrated Pest Management (IPM) to control algae in approximately 11 miles of concrete-lined channels. IPM is a management tool that uses site scouting, weed thresholds and implementation of a variety of control measures to maintain weed populations at levels that do not disrupt the flow of water.

Lead Agency Contact

Name Carrie Dovzak
Agency Contra Costa County Flood Control District
Phone (925) 313-2190 **Fax**
email
Address 255 Glacier Drive
City Martinez **State** CA **Zip** 94553-4825

Project Location

County Contra Costa
City Walnut Creek, Pleasant Hill, Concord
Region
Cross Streets N/A
Parcel No.
Township **Range** **Section** N/A **Base**

Proximity to:

Highways I-680, I-242
Airports Buchanan Field
Railways
Waterways Walnut Creek, Pine Creek, Grayson Creek
Schools Mt. Diablo Unified
Land Use Public / Semi-Public

Project Issues Aesthetic/Visual; Agricultural Land; Air Quality; Archaeologic-Historic; Cumulative Effects; Geologic/Seismic; Landuse; Population/Housing Balance; Public Services; Recreation/Parks; Schools/Universities; Toxic/Hazardous; Traffic/Circulation; Vegetation; Water Quality; Wetland/Riparian; Wildlife

Reviewing Agencies Resources Agency; Regional Water Quality Control Board, Region 2; Department of Parks and Recreation; Native American Heritage Commission; Office of Emergency Services; Department of Fish and Game, Region 3; Department of Water Resources; California Highway Patrol; Caltrans, District 4; Department of Toxic Substances Control; State Water Resources Control Board, Division of Water Quality; Department of Pesticide Regulation

Date Received 09/28/2004 **Start of Review** 09/28/2004 **End of Review** 10/27/2004



STATE OF CALIFORNIA - THE RESOURCES AGENCY
DEPARTMENT OF FISH AND GAME
ENVIRONMENTAL FILING FEE CASH RECEIPT
DFG 753.5a (6-01)

224921

Lead Agency: CCC Community Dev. Dept. Date: 11/22/04

County / State Agency of Filing: CCC Clerk Document No.: _____

Project Title: Control of Algae in Lined Channels

Project Applicant Name: CCC Community Dev. Dept. Phone Number: 313-2296

Project Applicant Address: 651 Pine St, 4th Floor North Wing, Martinez 94553

Project Applicant (check appropriate box). Local Public Agency School District Other Special District
State Agency Private Entity

CHECK APPLICABLE FEES:

- () Environmental Impact Report \$850.00 \$ _____
- () Negative Declaration \$1,250.00 \$ 1250.00
- () Application Fee Water Diversion (State Water Resources Control Board Only) \$850.00 \$ _____
- () Projects Subject to Certified Regulatory Programs \$850.00 \$ _____
- () County Administrative Fee \$25.00 \$ 25.00
- () Project that is exempt from fees

JV# 2327 & 2328
Rec# 2441721

TOTAL RECEIVED \$ 1275.00

Signature and title of person receiving payment: [Signature] DEPUTY COUNTY CLERK

WHITE-PROJECT APPLICANT

YELLOW-DFG/FASB

PINK-LEAD AGENCY

GOLDENROD-STATE AGENCY OF FILING