Placeholder for colored cover; next page should be printed on back of cover

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Volume II

LIST OF ACRONYMS

AETA	apparent effects threshold approach
ASIP	Action-Specific Implementation Plan
AVS	acid volatile sulfides
Basin Plan	Regional Water Quality Control Plan
BCF	bioconcentration factor
BEDS	biological effects database for sediments
BOD	biological oxygen demand
BPO	Basin Plan objective
CAD	confined aquatic disposal
CALFED	CALFED Bay-Delta Program
Caltrans	California Department of Transportation
CCC	criteria continuous concentration
CCME	Canadian Council of Ministers of the Environment
CCR	California Code of Regulations
CDF	confined disposal facility
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Information System
CMC	criteria maximum concentration
COC	constituent/contaminant of concern
COPC	constituent/contaminant of potential concern
COD	chemical oxygen demand
COLD	cold freshwater habitat
Corps	U.S. Army Corps of Engineers
CTR	California Toxics Rule
CVRWQCB	Regional Water Quality Control Board, Central Valley Region
CWA	Clean Water Act
cy	cubic yards
Delta	Sacramento-San Joaquin River Delta
DFG	California Department of Fish and Game

DHS	California Department of Health Services
DL	detection limit
DIWET	deionized water waste extraction test
DMMO	Dredge Material Management Organization
DO	dissolved oxygen
DPC	Delta Protection Commission
DPR	California Department of Pesticide Regulations
DWR	California Department of Water Resources
DWSC	Deep Water Ship Channel
EC	electrical conductivity
EDQL	ecological data quality levels (EPA, Region 5)
EIR	environmental impact report
EIS	environmental impact statement
EPA	U.S. Environmental Protection Agency
EqPA	equilibrium partitioning approach
ERL	effects range low
ESA	Endangered Species Act
FDEP	Department of Environmental Protection for the State of Florida
FERC	Federal Energy Regulatory Commission
f_{OC}	amount of organic carbon in sediment
FONSI	Finding of No Significant Impact
GO	General Order
gpd	gallons per day
I-5	Interstate-5
IRIS	Integrated Risk Information System
K_{oc}	adsorption coefficient value, a measure of the tendency to adsorb to sediment
LOEL	lowest observable effect level
LTMS	Long-Term Management Strategy
MARAD	Maritime Administration
MCL	maximum contaminant level
MET	modified elutriate test
mg/kg	milligrams per kilogram

mg/l	milligrams per liter
mgd	million gallons per day
MLML	Moss Landing Marine Laboratory
MUN	municipal supply
N	number of samples
NAS	National Academy of Sciences
NAWQC	national ambient water quality criteria
NEPA	National Environmental Policy Act
NMFS	National Marine Fisheries Service
NOAA	National Oceanographic and Atmospheric Administration
NOEL	no observable effect level
NPDES	National Pollutant Discharge Elimination System
NSTPA	national status and trends program approach
NTR	National Toxics Rule
NTU	nephelometric turbidity unit
NWP	nationwide permit
OC	organochlorine
OHWM	ordinary high-water mark
OP	organophosphate
OPR	Governor's Office of Planning and Research
ORNL	Oak Ridge National Laboratories
PAHs	polycyclic aromatic hydrocarbons
PCBs	polychlorinated biphenyls
PCDD	polychlorinated dibenzodioxins
PCDF	polychlorinated dibenzofurans
PCE	tetrachloroethylene
PEL	probable effect level
PG&E	Pacific Gas and Electric Company.
ppb	parts per billion
ppm	parts per million
PQL	practical quantitation limit
PRG	preliminary remediation goal

QA / QC	quality assurance and quality control
RD	Reclamation District
Regional Board	Regional Water Quality Control Board, Central Valley Region
RMP	Regional Monitoring Program
Sac.	Sacramento
SBA	sediment background approach
SEM	simultaneously extracted metals
SET	standard elutriate test
SFBETCP	San Francisco Bay Estuary Toxic Contaminants Programs
SFBRWQCB	Regional Water Quality Control Board, San Francisco Bay Region
SFERMP	San Francisco Estuary Institute Regional Monitoring Program
SLCA	screening level concentration approach
SMARA	Surface Mining and Recovery Act
SMP	Sacramento Storm Water Monitoring Program
SMS	settleable matter solids
SQAGs	sediment quality assessment guidelines
SQTA	sediment quality triad approach
SS	suspended solids
SSBA	spiked sediment bioassay approach
SSL	soil screening level
State Board	State Water Resources Control Board
STLC	soluble threshold limit concentrations
SVOCs	semivolatile organic compounds
TAP	Technical Advisory Panel
TCE	trichloroethylene
TDS	total dissolved solids
TEL	threshold effect level
TGU	turbidity generation unit
TOC	total organic carbon
TMP	Traffic Management Plan
TRA	tissue residue approach
TRM	total recoverable metals

TSM	total settleable matter
TSMP	Toxic Substances Monitoring Program
TSS	total suspended solids
TTLC	total threshold limit concentration
ug/l	micrograms per liter
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
VOCs	volatile organic compounds
WARM	warm freshwater habitat
WDRs	waste discharge requirements
WET	waste extraction test
WQC	water quality criteria
WMU	waste management unit

Appendix A

Notice of Preparation: Environmental Impact Report for General Order Waste Discharge Requirements for Small-Scale Dredging Projects in the Sacramento-San Joaquin Delta

TO: Interested Persons

FROM: Donna Podger, Regional Water Quality Control Board, Central Valley Region

SUBJECT: **NOTICE OF PREPARATION: ENVIRONMENTAL IMPACT REPORT FOR GENERAL ORDER WASTE DISCHARGE REQUIREMENTS FOR SMALL-SCALE DREDGING PROJECTS IN THE SACRAMENTO-SAN JOAQUIN DELTA.**

PUBLIC REVIEW PERIOD: June 1, 2001, through July 2, 2001

Introduction:

The Regional Water Quality Control Board, Central Valley Region (Regional Board), acting as the Lead Agency under the California Environmental Quality Act (CEQA) (Pub. Resources Code, § 21000 et seq.), is initiating the preparation of an Environmental Impact Report (EIR) on Tentative General Order Waste Discharge Requirements (WDRs) for small-scale dredging in the Sacramento-San Joaquin Delta (Delta). WDRs are required for all activities that may result in discharges of waste to the waters of the state. (Wat. Code, § 13260, 13263.) The Regional Board has the discretion to regulate categories of related discharges using General Order WDRs. (Wat. Code, § 13263(i).)

The Regional Board proposes to adopt two separate Tentative General Order WDRs to regulate small-scale dredging projects in the Delta. One of the Tentative WDRs covers hydraulic dredging projects that remove less than 100,000 cubic yards of material. The dredge material slurry from hydraulic dredging will be placed in a diked disposal facility on land. The material may be removed after drying for reuse at other sites. The other Tentative WDRs covers clamshell dredging projects removing less than 100,000 cubic yards of material with direct placement on land for beneficial reuse (such as for levee work). The EIR will provide a program-level discussion of dredging projects in the Delta and will provide an analysis from which the environmental review of future projects can be "tiered". The tiering process will enable the Regional Board to streamline the environmental analysis of subsequent projects, focusing on site- or project-specific environmental concerns.

Purpose and Need for the Project:

The purpose of the General Order WDRs is to streamline the permitting process for small dredging projects in the Delta. The General Order WDRs will also provide a defined set of "project requirements" and allow for greater consistency in project permitting. Small dredging projects are needed to maintain channel capacity or to maintain navigation for recreational boaters. Dredge projects also provide an economical source of material for levee maintenance and habitat restoration.

Project location:

Individual dredging projects authorized under the General Order WDRs will occur within the area that coincides with the legal boundaries of the Delta and the area under the jurisdiction of the Central Valley Regional Water Quality Control Board. Generally, dredging projects will occur in the rivers and sloughs of the Delta and in adjacent marina basins.

Description of project:

The General Order WDRs will ensure greater consistency and streamline the permitting process for individual dredging projects with minimal impacts to water quality.

For each individual project, the General Order WDRs would require the applicant to submit a Notice of Intent, processing fee, and results of sediment analyses that are representative of the area to be dredged. If the sediment results meet the requirements of the WDRs, including the applicability table, then Regional Board staff would issue a "Notice of Applicability" allowing the project to proceed according to the water quality requirements of the General Order WDRs. In addition to the applicability table, the General Order WDRs would contain prohibitions, receiving water limits, and monitoring and reporting requirements. The General Order WDRs would also provide guidance on appropriate reuse of dredge material. Unless a particular dredging project would have site-specific environmental effects not covered in the EIR, no additional environmental review would be required before the project could proceed under the General Order WDRs. If sediment results indicate levels of constituents that exceed values in the applicability table, the individual dredging project in question could not proceed under the General Order WDRs. Individual WDRs would be required, which would require preparation of an accompanying site-specific CEQA environmental document.

Clamshell dredging:

A clamshell dredge consists of a mechanically operated "bucket" that is raised and lowered by cables from a boom. The dredge may be mounted on a barge or operate from the bank of the river. The dredge material is removed bucket-by-bucket and placed on the bank (such as the backside of the levee) or may be placed in a barge or truck for transport to another location. Clamshell dredging is often preferred for levee maintenance, since the material may be directly placed and not require rehandling. Clamshell dredging may also be preferred in areas where a settling pond is not feasible. The dredge material has a minor amount of water associated with it, but much less than in hydraulic dredging. If needed, berms or dikes are constructed around the area where the dredge material will be placed to prevent direct runoff in adjacent surface waters.

Hydraulic dredging:

Hydraulic dredging typically uses a cutter-head suction dredge that cuts into the sediment with a rotary cutting tool and suctions the dredge material out through a pipe. The dredge material is pumped as a slurry that is only 10 to 20% solids and is usually delivered to a confined disposal facility (CDF) via a pipeline. The pump and pipeline delivery method is usually limited to less than 3 miles distance from the CDF. If longer distances are required, the slurry can be pumped into a barge, which may be offloaded hydraulically at the CDF. The barge method is

much more expensive due to transportation and handling costs. In areas where the pipeline may create a hazard for boats, precautions are taken to reroute boat traffic, clearly mark the pipeline in the water, or submerge the pipeline.

The CDF is designed not only to provide storage for the dredge material, but also to provide settling of the slurry. CDFs typically have dikes on all sides, and several internal dikes to route the water. The size and depth of a CDF is designed to hold the required amount of dredge material and provide enough retention time to allow fine particles to settle and reduce the amount of suspended solids. At the final settling pond, water may be pumped (or be gravity fed using weirs) back into the receiving water body. This water is typically referred to as "decant", "spillback", "return water" or "effluent". Depending on the weather and how much of the water is decanted, it typically takes several months for the dredge material to dry enough to be removed for beneficial reuse.

Beneficial reuse of dredge material:

Typical beneficial reuses of dredge material include: construction fill, levee maintenance, habitat rehabilitation or enhancement, and commercial reuse. The General Order WDRs provide screening values for appropriate beneficial reuse options, but will be limited to land-based applications and will not consider aquatic placement or wetland rehabilitation. The screening values will be based on different exposure pathways and scenarios that are appropriate to each reuse option. For example, material to be used for habitat enhancement would need to meet the screening values to prevent ecological impacts. The screening values for levee maintenance and commercial reuse would be based on potential human exposure routes. Construction fill with minimal human exposure would meet screening values for "industrial" human exposure scenarios.

Description of Alternatives:

Under CEQA Guidelines section 15126.6, subdivision (a):

"An EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives. An EIR need not consider every conceivable alternative to a project. Rather it must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation. . . ."

The California Supreme Court has restated these principles as follows:

"[A]n EIR for any project subject to CEQA review must consider a *reasonable range of alternatives* to the project, or to the location of the project, which (1) offer substantial environmental advantages over the project proposal . . . ; and (2) may be 'feasibly accomplished in a successful manner' considering the economic, environmental, social and technological factors involved."

(*Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553, 566 [emphasis added; emphasis deleted from original].)

The agency's objectives play a key role in determining whether the EIR has examined a reasonable range of alternatives. As noted above, the analysis should focus on alternatives that "would feasibly attain most of the basic objectives of the project." (CEQA Guidelines, § 15126.6(a).) Thus, the agency's objectives in large measure determine the range of alternatives to be considered. (See *Carmel-by-the-Sea v. U.S. Dept. of Transp.* (9th Cir. 1997) 123 F.3d 1142, 1164-1165 (concluding that alternatives analysis was reasonable in light of agency's goals); *Sequoyah Hills Homeowners Association v. City of Oakland* (1993) 23 Cal.App.4th 704, 715; *City of Del Mar v. City of San Diego* (1982) 133 Cal.App.3d 401, 416-417.)

The Regional Board's objectives for the proposed project are as follows:

- To streamline the permitting and CEQA process for small-scale dredging projects in the Delta
- To provide consistent implementation of the regulation of dredging projects
- To ensure that dredging projects are performed in a manner that avoids or minimizes impacts to the environment
- To promote beneficial reuse of dredge material

Based on those objectives and the above authorities, the list of alternatives to be analyzed in the EIR will include, but is not limited to, the following:

1. No Project

CEQA Guidelines Section 15126.6(e) requires that an EIR evaluate the No Project Alternative. The Guidelines require that:

> the "no project" analysis shall discuss the existing conditions at the time the notice of preparation is published, or if no notice of preparation is published, at the time environmental analysis is commenced, as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services.

The No Project Alternative assumes that there will be no General Order Waste Discharge Requirements for dredging projects. Each dredging project would require individual Waste Discharge Requirements or waivers.

2. Centralized dredge material rehandling sites

This alternative would allow several centralized dredge material rehandling sites that could be used by multiple dredging projects. The dredge material rehandling sites would be permanent facilities and material would be removed for reuse at other locations. This alternative was proposed to reduce the number of disposal site impacts and confine them to a few locations that would be managed and monitored.

3. Restrictions on disposal site locations

This alternative would restrict the placement of disposal sites or rehandling sites to areas that met certain characteristics. These characteristics might include: no loss of upland habitat, increased isolation from adjacent surface water, high attenuation characteristics for leachate moving to groundwater, no impacts to scenic resources, or no impacts to agricultural production. This alternative was proposed to reduce potential impacts to water quality, scenic resources, biological resources and agriculture by restricting placement of disposal sites to locations where impacts would be minimized or avoided.

4. Dredge material landfill

This alternative would require all dredge material to be placed into a managed landfill designed specifically to contain dredge material. The dredge material landfill would be lined and would be managed and have extensive monitoring. The dredge material would not be reused and exposure to humans or terrestrial wildlife would be avoided. This alternative was proposed to avoid and minimize impacts associated with disposal sites and reuse such as water quality, biological resources, cultural resources, land-use and planning.

5. In-water disposal of dredge material

This alternative would require all dredge material to be disposed of into waterways of the Delta. There would be specific aquatic dredge material disposal sites that would be used by multiple dredging projects. This alternative was proposed to avoid impacts to groundwater and to human exposure or terrestrial wildlife exposure to the dredge material. This alternative would also avoid impacts to land use, cultural resources and agriculture.

6. Restrict dredging to periods of time when there are higher flows in the rivers

This alternative would require dredging projects to occur during the winter and spring months when there are higher flows in the Delta. This alternative was proposed to minimize water quality impacts from the dredging and effluent discharge by providing more dilution in the receiving water.

7. Compare dredge material to background soils at the disposal or reuse site

This alternative would not propose values in an Applicability Table, but instead would require the project applicant to evaluate the soils at the disposal or reuse site and compare the concentrations to those of the material to be dredged. This alternative was proposed to minimize impacts at the site where the dredge material is placed. The dredge material would be required to have chemical concentrations at or below the concentrations found in the background soil. This approach would avoid any degradation of soils at the dredge material placement site.

8. Site specific evaluation of appropriate criteria for dredge material disposal or reuse

This alternative would not propose values in an Applicability Table, but instead would require the project applicant to provide a site-specific analysis that demonstrated that the dredge material would not have impacts at the site. Each dredge placement site would be individually evaluated for likely organisms to be exposed (including terrestrial wildlife and humans), exposure routes, and contaminant fate (leaching, runoff, etc.). The WDRs would not contain criteria, but would contain general guidelines on how to perform a site evaluation. This alternative was proposed to minimize impacts that may occur from under-protective criteria.

Required Discretionary Actions

The Regional Water Quality Control Board, Central Valley Region, is required to follow through with discretionary actions for project approval. The actions necessary for project approval include, but are not limited to, the following:

- **Certification of the EIR –** Certification that the EIR adequately identifies the significant environmental effects of the proposed project, pursuant to CEQA, and the State CEQA Guidelines.
- **Project Approval** – The General Order Waste Discharge Requirements must be approved by the Regional Water Quality Control Board.
- **Mitigation Monitoring** – A Mitigation Monitoring Plan will be developed to reflect the measures required to mitigate significant impacts of the project.

Other permits required for dredging projects:

Other Agencies with jurisdiction over dredging projects covered under the EIR and proposed General Order Waste Discharge Requirements:

- **California Department of Fish and Game:** Requires a 1601 Streambed Alteration Agreement for dredging projects.
- **U.S. Army Corps of Engineers:** Issues a permit for dredging and dredge material disposal (permits are under authority of Section 10 Rivers & Harbors Act and/or Clean Water Act Section 404).
- **National Marine Fisheries Service:** Although NMFS does not issue a permit, it requires consultation regarding threatened and endangered species in the Delta (steelhead and salmon). The U.S. Army Corps of Engineers initiates and coordinates the consultation for dredging projects.
- **U.S. Fish and Wildlife Service:** Although USFWS does not issue a permit, it requires consultation regarding threatened and endangered species in the Delta (Sacramento splittail and Delta smelt). The U.S. Army Corps of Engineers initiates and coordinates the consultation for dredging projects.
- **State Lands Commission:** The State Lands Commission owns the material removed from navigable waterways. The State Lands Commission may require a lease agreement if the dredge material is sold commercially.
- **NEPA Compliance:** Projects authorized under a federal permit require compliance with the National Environmental Protection Act (NEPA). The U.S. Army Corps of Engineers is typically the lead agency for NEPA compliance of dredging projects.

EIR Format and Tiering

The EIR will be prepared as a "Program EIR." In the regulatory context, the central function of a Program EIR is to enable the lead agency to "examine the overall effects of the proposed course of action and to take steps to avoid unnecessary adverse environmental effects." (Discussion following CEQA Guidelines, § 15168(d)(2).) In other words, a Program EIR focuses on "broad policy alternatives and programwide mitigation measures" as well as "regional influences, secondary effects, cumulative impacts, . . . and other factors that apply to the program as a whole." (CEQA Guidelines, § 15168(b)(4), (d)(2).) Program EIRs are also often used to streamline the process of environmental review of implementing later site-specific projects within the program. If these projects do not have effects that "were not examined in the program EIR" and "no new effects could occur or no new mitigation would be required," the activity can be approved as "within the scope of the [program] covered by the . . . EIR, and no new environmental document would be required." The Program EIR to be prepared in this case will serve both purposes, i.e., to analyze areawide effects of the program and to provide, to the extent feasible, an analysis of site-specific effects to reduce the need for later environmental review.

The EIR will also rely, to some degree, on the analysis in the EIR prepared for the CALFED Project. The CALFED project is implementation of a long-term comprehensive plan to restore the ecological health and improve water management for beneficial uses of the Bay-Delta system. The CALFED project addresses problems of the Bay-Delta with four resource categories: ecosystem quality, water quality, water supply reliability, and levee system integrity. There are nine programs or plans within the CALFED preferred project alternative: 1) Implementation Plan, 2) Ecosystem Restoration Plan, 3) Levee System Integrity Plan, 4) Water Quality Program Plan, 5) Water Use Efficiency Program Plan, 6) Water Transfer Program Plan, 7) Watershed Program Plan, 8) Multi-Species Conservation Strategy and 9) Comprehensive Monitoring, Assessment and Research Program.

Reuse of dredge material provides a critical resource for levee maintenance and habitat enhancement in the Delta. Therefore, dredging and dredge material reuse are an essential part of the Levee System Integrity Program, which is one aspect of the Preferred Project Alternative selected by CALFED. The objective of the Levee System Integrity Program element is to improve levee stability to benefit all users of Delta land and water and to protect water supply reliability. Dredging projects that increase channel capacity or provide beneficial reuse of dredge material further the objectives of CALFED's Preferred Program Alternative. The executive summary of the Levee System Integrity Program Plan states one of the long-term CALFED objectives: "Addressing permit and economic issues to enable expanded dredging and beneficial reuse of dredge material." (CALFED Final Programmatic EIS/EIR Technical Appendices, p. ES-2.)

The Regional Board proposes to tier the environmental document for General Order WDRs for clamshell dredging from the CALFED Programmatic EIS/EIR, certified August 2000. The Programmatic EIS/EIR can be reviewed at the CALFED Bay-Delta Program, 1416 Ninth Street, Room 1147, Sacramento, CA (or successor address). Reliance on the preexisting analysis in the CALFED EIR is permitted and encouraged by CEQA. (CEQA Guidelines, § 15152.)

Regional Board will tier from the Programmatic EIR to the maximum extent possible. Some topics that may be tiered from the CALFED EIR include, but are not limited to:

- Background information
- Cultural resources
- Biological resources (Action Specific Implementation Plan)

Initial Study and Environmental Effects

The Regional Water Quality Control Board staff has reviewed the proposal for development of General Order Waste Discharge Requirements for small dredging projects and conducted an Initial Study pursuant to the CEQA Guidelines Section 15063. The Initial Study has identified the following issues to be addressed in the EIR:

- Aesthetics
- Agricultural Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Geology and Soils
- Hydrology and Water Quality
- Land Use and Planning
- Noise
- Transportation and Traffic
- Utilities and Service Systems

The Initial Study concluded that all other issues, including recreation, public services, population and housing, hazards and hazardous materials, and mineral resources are dismissed from further consideration in the EIR. A detailed list of the scope of topics to be addressed in the EIR is included as "Attachment A". A copy of the Initial Study may be obtained at the address shown below.

Comments Requested

To ensure that the full range of issues related to this proposed action are addressed and that all significant issues are identified, written comments and suggestions are invited from all interested parties. The Regional Board is particularly interested in your comments regarding impacts to be analyzed and alternatives to the proposed project. A copy of the Initial Study can be requested at the address provided below. Comments or questions concerning the proposed EIR should be directed to the name and address below by 5:00 P.M. on July 2, 2001.

Lead Agency Name and Address:

Regional Water Quality Control Board, Central Valley Region
3443 Routier Road, Suite A
Sacramento, CA 95827-3003
Contact Person and Phone Number
Donna Podger
(916) 255-1872

ATTACHMENT "A": SCOPE OF TOPICS TO BE ADDRESSED IN EIR:

1. Aesthetics

a. Regional Board staff will develop a checklist of site characteristics to be filled out by project applicants. The checklist will be used to determine whether the site could be considered a "scenic resource".

b. The General Order WDRs will cover only projects that have no impact to scenic resources unless a supplemental site-specific environmental document is done for the project.

2. Agricultural Resources

a. Regional Board staff will provide maps of defined areas of Prime Farmland, Unique Farmland, and Farmland of Statewide Importance in the Delta.

b. Regional Board staff will develop screening values in the General Order WDRs that ensure that the dredge material covered under this order will not contain levels of heavy metals that may be toxic to plants or bioaccumulate in plant tissues.

c. Regional Board staff will develop a checklist for temporary and permanent impacts to agricultural land use to be filled out by each project applicant.

d. The General Order WDRs will cover only projects that have no permanent impacts to Prime Farmland, Unique Farmland and Farmland of Statewide Importance unless a supplemental site-specific environmental document is done for the project.

3. Air Quality

a. Regional Board staff will quantify potential impacts to air quality from the dredge equipment and for barge transportation of the dredge material to the disposal site.

4. Biological Resources

a. Regional Board staff will consult with California Department of Fish and Game, U.S. Fish and Wildlife Service, and National Marine Fisheries Service to attempt to develop a set of project conditions that would be suitable for a programmatic biological opinion for small dredging projects in the Delta.

b. If a programmatic biological opinion is feasible, the General Order WDRs will incorporate the project conditions required to protect sensitive, threatened and endangered species and critical habitat.

c. If a programmatic biological opinion is not feasible for any of the resource agencies, each project will be required to provide an individual project Letter of Permission from the agencies (CDFG, USFWS, NMFS) before a Notice of Applicability will be issued.

5. Cultural Resources

a. Regional Board staff will identify areas in the Delta with known historical resources, archeological resources, paleontological resources or human remains.

b. Using the GIS analysis provided by the US Bureau of Reclamation, Regional Board staff will identify areas in the Delta with a high probability of unknown archeological sites.

c. The EIR will cover projects that do not have a high probability of archeological sites or known cultural resources.

6. Geology and Soils

a. Regional Board staff will identify areas of the Delta with the potential for subsidence and instability if used as a site for dredge material placement.

b. Regional Board staff will develop specifications for dredge material placement in areas where subsidence and instability may cause problems.

7. Hazards and Hazardous Materials

Based on the initial study, the project will not result in these environmental impacts..

8. Hydrology and Water Quality

1. Impacts to water quality:

a. Regional Board staff will develop a list of constituents of concern that are specific to the Delta. The list will include constituents that are likely to be found associated with sediments or pore water, have sources in the Delta, and are likely to be found in levels of concern (based on previous data collected). Sediment testing may also be required for constituents that have a source in the Delta, but do not have widespread historical data collected.

b. Regional Board staff will develop an "applicability table" for predredge sediment analysis that determines whether a project is likely to impact water quality. Values in "applicability table" will be protective of both surface water and ground water and be based on published numerical and narrative water quality objectives from the Sacramento-San Joaquin Basin Plan and California Toxics Rule.

c. Regional Board staff will develop an "applicability table" for predredge sediment analysis that will determine which reuse options are appropriate based on human or ecological exposure routes to the dredge material. Values in the "applicability table" will be protective of human, plant and animal exposure routes (based on type of reuse) and be based on published scientific literature.

d) Regional Board staff will develop a list of appropriate pre-dredge sediment and water quality analyses that will be required to meet the screening values in the "applicability table". The list will also address appropriate field sampling and laboratory methods and general guidelines on the number of representative samples needed.

e) Regional Board staff will develop an appropriate monitoring and reporting program to be incorporated into the General Order WDRs.

2. Short-term impacts in drainage patterns, discharges to surface waters and agricultural drains, and impacts due to holding water in the confined disposal facility:

The project conditions and restrictions mentioned below will be incorporated into the permit. With these avoidance and mitigation measures, the project should not have significant impacts.

- The dikes of the confined disposal facility shall be designed and inspected by a registered engineer or registered engineering geologist.
- Ponding depths over 3 feet shall require a more in-depth analysis of potential hazards.

- If the island agricultural drainage system and pump are to be used for effluent discharges, the project applicant shall provide information that deems the system adequate to handle the discharge.
- The project applicant shall provide a safety and emergency response plan that addresses potential flooding from levee breaks or improper operation of the agricultural drainage pumps.
- If the confined disposal facility is located such that it exposes people or structures to a significant risk of loss, injury, or death involving flooding from levee failure, a supplemental environmental document would need to be developed.

3. Long-term impacts to drainage patterns

The project conditions and restrictions mentioned below will be incorporated into the permit. With these avoidance and mitigation measures, the project should not have significant impacts to drainage patterns.

- Placement of the dredge material must avoid impacts to natural streams and drainage channels (ephemeral or permanent).
- Placement of dredge material should avoid delineated wetlands if possible. If avoidance of impacts to wetlands is not possible, mitigation of wetland habitat will be required. Impacts to wetlands will also require additional permits (404 permit from the US Army Corps of Engineers and a 401 Water Quality Certification). Site-specific environmental assessment will be required for projects that have impacts to natural streams or wetlands.

9. Land Use and Planning

a. Regional Board staff will review Contra Costa, Solano, Yolo, Sacramento, and San Joaquin County General Plans to identify possible sources of conflict with land use plans, policies or regulations. Regional Board staff will consult with the agency with jurisdiction to develop conditions or alternatives that would avoid or mitigate the potential impacts.

b. As part of the biological assessment, Regional Board staff will consult with NMFS, USFWS and DFG to determine whether an Action Specific Implementation Plan (ASIP) can be prepared that covers projects that would fall under the General Order WDRs. If a program level ASIP is not possible, ASIPs will need to be prepared for each individual dredging project.

10. Mineral Resources

Based on the initial study, the project will not result in these environmental impacts.

11. Noise

a. Projects in some areas may be restricted to seasonal windows that avoid disturbance of animals during critical periods. Regional Board staff will consult with DFG, USFWS and NMFS to determine potential noise impacts and avoidance measures to be incorporated as conditions of the General Order WDRs.

b. Dredging projects with potential noise impacts to residences will have restricted hours of operation.

12. Population and Housing

Based on the initial study, the project will not result in these environmental impacts.

13. Public Services

Based on the initial study, the project will not result in these environmental impacts.

14. Recreation

Based on the initial study, the project will not result in these environmental impacts.

15. Transportation and Traffic

The following mitigation measures will be incorporated into the General Order WDR:

a. If a clamshell dredge is transporting the material across a road, the road shall be well marked with warning signs to alert motorists. Regular street sweeping will be required to keep the road clear from debris and safe for passage.

b. The dredge in the waterways will be well marked with lights and buoys to increase visibility to boaters. Warning signs and reduced speed limits will also be implemented to increase boater safety near the dredging operation.

16. Utilities and Service Systems

a. Prior to dredging, the dredge material will be tested to verify that it meets the federal, state and local standards of inert waste appropriate for unclassified disposal to land. The screening values in the applicability table for the General Order will ensure that only "inert" dredge material will be eligible under the General Order WDRs.

Initial Study:
Environmental Check List

1. Project Title:
General Order Waste Discharge Requirements for small-scale dredging projects in the Sacramento-San Joaquin Delta.

2. Lead Agency Name and Address:
Regional Water Quality Control Board, Central Valley Region
3443 Routier Road, Suite A
Sacramento, CA 95827-3003

3. Contact Person and Phone Number
Donna Podger
(916) 255-1872

4. Project location:
Projects authorized under the General Order permits will occur within the area that coincides with the legal boundaries of the Delta and the area under the jurisdiction of the Central Valley Regional Water Quality Control Board. Generally, dredging projects will occur in the rivers and sloughs of the Delta and in adjacent marina basins.

5. Description of project:
The purpose of the CEQA analysis is to disclose potential environmental impacts from small dredging projects in the Delta that may be authorized under two General Order Waste Discharge Requirements (WDR). The General Order WDRs would be authorized by the Central Valley Regional Water Quality Control Board and would streamline the permitting process for individual dredging projects with minimal impacts to water quality. One of the General Order WDRs will cover hydraulic dredging projects that remove less than 100,00 cubic yards of material. The dredge material slurry from hydraulic dredging will be placed in a diked disposal facility on land. The material may be removed after drying for reuse at other sites. The second General Order WDR will cover clamshell dredging projects removing lass than 100,000 cubic yards of material with direct placement for beneficial reuse (such as levees). The EIR will provide a program level discussion of dredging projects in the Delta and will provide an analysis from which the environmental review of future projects can be "tiered". The tiering process will enable the Regional board to streamline the environmental analysis of subsequent projects, focusing on those environmental concerns that are site- or project-specific.

For each project, the applicant would submit a Notice of Intent, fee, and results of sediment analyses that are representative of the area to be dredged. If the sediment results meet the requirements of the WDR, including an applicability table, Regional Board Staff would issue a "Notice of Applicability" allowing the project to proceed under the General Order WDR. In addition to the applicability table, the General Order WDR will contain prohibitions, effluent limits, receiving water limits, and monitoring and reporting requirements. The General Order WDR will also provide guidance on appropriate reuse of dredge sediments. This CEQA

document will cover general environmental impacts from dredging projects in the Delta. If a project has other site-specific environmental impacts, they should be addressed in a project specific CEQA analysis.

Hydraulic dredging:

Hydraulic dredging typically uses a cutter-head suction dredge that cuts into the sediment with a rotary cutting tool and suctions the dredge material out through a pipe. The dredge material is pumped as a slurry that is only 10 to 20% solids and is usually delivered to the dredge material disposal site via a pipeline. The pump and pipeline delivery method are usually limited to less than 3 miles distance from the dredge to the disposal site. If longer distances are required, the slurry can be pumped into a barge, which may be offloaded hydraulically at the disposal site. The barge method is much more expensive due to transportation and handling costs. In areas where the pipeline may create a hazard for boats, precautions are taken to reroute boat traffic, clearly mark the pipeline in the water, or submerge the pipeline.

The confined disposal facility (CDF) is designed not only to provide storage for the dredge material, but also to provide settling of the slurry. Confined disposal facilities typically have dikes on all sides, and several internal dikes to route the water. The size and depth of the CDF is designed to hold the required amount of dredge material and provide enough retention time that the fine particles will settle and suspended solids will be reduced. At the final settling pond, water may be pumped (or be gravity fed using weirs) back into the receiving water body. This is typically referred to as "decant", "spillback", "return water" or "effluent". Depending on how much of the water is decanted and the amount of precipitation, it typically takes several months for the dredge material to dry enough to be removed for beneficial reuse.

Clamshell dredging:

A clamshell dredge consists of a mechanically operated "bucket" that is raised and lowered by cables from a boom. The dredge may be mounted on a barge or operate from the bank of the river. The dredge material is removed bucket-by-bucket and placed on the bank (such as the backside of the levee) or may be placed in a barge or truck for transport to another location. Clamshell dredging is often preferred for levee maintenance, since the material may be directly placed and not require rehandling. Clamshell dredging may also be preferred in areas where a settling pond is not feasible. The dredge material has a minor amount of water associated with it, but much less than in hydraulic dredging. If needed, berms or dikes are constructed around the area where the dredge material will be placed to prevent direct runoff in adjacent surface waters.

Beneficial reuse of dredge material:

Typical beneficial reuses of dredge material include: construction fill, levee maintenance, habitat rehabilitation or enhancement, and commercial reuse. The General Order WDR will provide screening values for appropriate beneficial reuse options, but will be limited to land based applications and will not consider aquatic placement or wetland rehabilitation. The

screening values will be based on different exposure pathways and scenarios that are appropriate to each reuse option. For example, material to be used for habitat enhancement would need to meet the screening values to prevent ecological impacts. The screening values for levee maintenance and commercial reuse would be based on potential human exposure routes. Construction fill with minimal human exposure would meet screening values for "industrial" human exposure scenarios.

Tiering from CALFED Programmatic EIR

Reuse of dredge material provides a critical resource for levee maintenance and habitat enhancement in the Delta. Therefore, dredging and dredge material reuse are an essential part of the Levee System Integrity Program that is the Preferred Project Alternative selected by CALFED. The objective of the Levee System Integrity Program element is to improve levee stability to benefit all users of Delta land and to protect water quality and water supply reliability. Dredging projects that increase channel capacity or provide beneficial reuse of dredge material further the objectives of CALFED's Preferred Program Alternative. In the executive summary of the Levee System Integrity Program Plan, one of the long-term CALFED objectives is stated as "Addressing permit and economic issues to enable expanded dredging and beneficial reuse of dredge material." (pg ES-2 of CALFED Final Programmatic EIS/EIR Technical Appendices). The Regional Water Quality Control Board proposes to tier the environmental document for General Order Waste Discharge Requirements for hydraulic dredging from the CALFED Programmatic EIS/EIR, certified/Record of Decision issued August, 2000. The Programmatic EIS/EIR can be reviewed at the CALFED Bay-Delta Program, 1416 Ninth Street, Room 1147, Sacramento, CA (or successor address) and is also available on the CALFED website at <www.calfed>. Authorization and guidance for tiering CEQA and NEPA documents is found in NEPA (CEQ) Regulations Section 1503.20 and CEQA Guidelines Section 15152.

6. Surrounding land uses and setting:

(Information from California Department of Water Resources (1995) *Delta Atlas*)

The Delta encompasses 738,000 acres interlaced with hundreds of miles of waterways. Much of the land is below sea level and relies on 1,100 miles of levees for protection against flooding. Major cities within this region include Sacramento, Stockton, Rio Vista, Tracy, Antioch, Brentwood and Isleton. The Delta includes 5 counties: Contra Costa, Sacramento, San Joaquin, Solano, and Yolo counties. The 1990 population of the Delta was 410,000 with approximately 64,000 acres (8.7% of the surface area) in cities and towns. There are significant populations on six islands – Andrus-Brannan, Bethel, Byron, Grand, Hotchkiss, and New Hope. Other islands are almost entirely agricultural including cattle grazing and crops.

Five major rivers, the Sacramento, San Joaquin, Mokelumne, Calaveras and Cosumnes, flow into the Delta, comprising 47 % of the state's runoff. The State Water Project, Central Valley Project and other water purveyors withdraw water from Delta surface waters to provide drinking water for 22 million people and irrigation for millions of acres of agriculture. Major

water development facilities in the Delta include state facilities such as the California aqueduct, the Harvey O. Banks Delta Pumping Plant, the North and South Bay Aqueducts, and federal facilities such as the Tracy Pumping Plant, Delta-Mendota Canal, and Contra Costa Canal.

Water flows in the Delta are highly seasonal. Winter storms and spring snowmelt can produce high flows and occasional floods. Summer flows are largely controlled by water releases from upstream impoundments such as Shasta, Folsom and Oroville reservoirs. Tidal fluctuations occur throughout most of the Delta, and salinity intrusion can cause water quality problems when low flows occur in the late summer and early fall.

Historically, the Delta was a floodplain for the large Central Valley rivers and consisted of meandering channels and wetlands. Beginning in 1850, levees were built so that the rich organic soils could be used for agriculture. Once the highly organic soil was exposed to air, it began to "oxidize" or decompose at a much higher rate. This resulted in the conversion of organic carbon in the soil to carbon dioxide, and a general subsidence of the land. Over the past 150 years, the islands of the Delta have subsided 10 to 20 feet, with increasing reliance on the levees to control flooding. Levee breaches on many of the islands have resulted in flooding in the last 50 years. Approximately 385 miles of levees are maintained by the U.S. Army Corps of Engineers as part of the Sacramento Flood Control Project. The remaining 715 miles of levees are maintained by approximately 75 different Reclamation Districts. Dredge material is an important source of material for levee maintenance.

The Delta is quite popular for boating recreation, as well as fishing and camping. The recreation use is estimated at 12,000,000 user days per year. The 61,000 acres of water surface (8.2 % of the surface area) support 82,000 registered pleasure boats, 8,500 berths in nearly 100 marinas and 30 launch facilities. Maintenance dredging is often required to remove silt deposits and maintain hazard-free navigation.

The Delta supports two port facilities: The Port of Sacramento and the Port of Stockton, which together transport 5 million tons of cargo annually. The Stockton Deep Water Ship Channel follows the San Joaquin River and is maintained by dredging to a 35-foot depth by the U.S. Army Corps of Engineers. The U.S. Army Corps of Engineers also maintains the Sacramento Deep Water Ship Channel to a depth of 30-feet along the Sacramento River and a man-made section of channel that runs parallel to the Sacramento River from Brannan Island to the Port of Sacramento.

Approximately 73% of the surface area of the Delta (538,000 acres) is used for agriculture. The rich organic soil produces crops such as corn, grain and hay, sugar beets, alfalfa, tomatoes, asparagus, fruit, safflowers, and pasture for grazing. Due to the low elevation of the islands, most islands have a network of agricultural drainage ditches that are pumped to maintain a water level below the ground surface. This generally results in a high water table that is within a few feet of the surface.

Approximately 75,000 acres (10%) of the surface area of the Delta is undeveloped land that provides habitat for 230 species of birds, 45 species of mammals, and 25 species of reptiles

and amphibians. The undeveloped land can be wetlands, riparian vegetation, or upland grasses, shrubs and trees. Some endangered or threatened species listed by the U.S. Fish and Wildlife Service or the California Department of Fish and Game include: Swainson's Hawk, Giant Garter Snake, Bank Swallow, California Black Rail, California Clapper Rail, Riparian Brush Rabbit and the California Red Legged Frog. Two native fish species, the Sacramento Splittail and the Delta Smelt have been listed as threatened by the U.S. Fish and Wildlife Service. Three anadromous species that migrate through the Delta have been listed as threatened or endangered by the National Marine Fisheries Service. The anadromous species include Winter-Run Chinook Salmon, Spring-Run Chinook Salmon and Steelhead. Fifty-two species of fish use the Delta waterways as habitat. Major anadromous fish found in the Delta include Salmon, Striped Bass, Steelhead Trout, American Shad and Sturgeon.

Dredging has played an important role in the history of the Delta. Since the mid-1800s, both clamshell and hydraulic dredging equipment have been widely used to form defined channels and to provide material for levees and berms. As the land surfaces have subsided, maintenance of the levees has become critical for protecting the current land uses in the Delta. Dredging of accumulated sediment in channels is necessary to maintain channel capacity, safe navigation for recreational boaters, and safe passage of ship traffic to Delta ports. Small dredging projects are also needed to remove accumulated sediment near pumping stations and agricultural diversion points. In recent years, dredging projects have dwindled due to the complexity of the permitting process and the constraints of environmental windows to protect endangered species. Although Regional Board staff have been able to write waivers of Waste Discharge Requirements for small dredging projects in the past, it is likely that this will not be an option after 2003. Without waivers, every dredging project would be required to have Waste Discharge Requirements(WDRs), which take a minimum of 4 months to write and have reviewed. Every WDR must be approved by the Regional Water Quality Control Board at a scheduled board meeting. By having General Order Waste Discharge Requirements, the permitting process is streamlined so that project approval can occur within a few weeks. In addition, General Order WDRs provide project applicants with a set of "known" requirements that are consistently and fairly applied to all projects. Larger projects or projects with special circumstances could still be covered under individual Waste Discharge Requirements.

Other Agencies whose approval is required:
U.S Army Corps of Engineers
U.S. Fish and Wildlife Service
National Marine Fisheries Service
California Department of Fish and Game
State Lands Commission

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.

- ☐ Aesthetics
- ☒ Agriculture Resources
- ☒ Air Quality
- ☒ Biological Resources
- ☒ Cultural Resources
- ☒ Geology / Soils
- ☐ Hazards and Hazardous Materials
- ☒ Hydrology / Water Quality
- ☒ Land Use and Planning
- ☐ Mineral Resources
- ☒ Noise
- ☐ Population and Housing
- ☐ Public Services
- ☐ Recreation
- ☐ Transportation / Traffic
- ☐ Utilities / Service Systems
- ☒ Mandatory Findings of Significance

DETERMINATION

On the basis of this initial evaluation:

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

_____ _____

Signature Date

_____ _____

Printed name For

ISSUES:

	Potentially significant impact	**Less Than Significant with mitigation incorporation**	**Less than significant impact**	**No Impact**
1. AESTHETICS Would the project:				
a) Have a substantial adverse effect on a scenic vista?		X		
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				X
c) Substantially degrade the existing visual character or quality of the site and its surroundings?		X		
d) Create a new source of substantial light or glare which would adversely affect day or nighttime view in the area?			X	
2. AGRICULTURE RESOURCES Would the project:	**Potentially significant impact**	**Less Than Significant with mitigation incorporation**	**Less than significant impact**	**No Impact**
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	X			
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	X			
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?				X
3. AIR QUALITY Would the project:	**Potentially significant impact**	**Less Than Significant with mitigation incorporation**	**Less than significant impact**	**No Impact**
a) Conflict with or obstruct implementation of the applicable air quality plan?			X	

b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?			X	
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)?				X
d) Expose sensitive receptors to substantial pollutant concentrations?				X
e) Create objectionable odors affecting a substantial number of people?				X
4. BIOLOGICAL RESOURCES Would the project:	**Potentially significant impact**	**Less Than Significant with mitigation incorporation**	**Less than significant impact**	**No Impact**
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 the U.S. Fish and Wildlife Service?	X			
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or California Department of Fish and Game or the U.S. Fish and Wildlife Service?	X			
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, hydrologic interruption, or other means?	X			

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?	X			
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				X
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?	X			
5. CULTURAL RESOURCES Would the project:	**Potentially significant impact**	**Less Than Significant with mitigation incorporation**	**Less than significant impact**	**No Impact**
a) Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?		X		
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?		X		
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?		X		
d) Disturb any human remains, including those interred outside of formal cemeteries?		X		
6. GEOLOGY AND SOILS Would the project:	**Potentially significant impact**	**Less Than Significant with mitigation incorporation**	**Less than significant impact**	**No Impact**
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: i) Rupture of a known earthquake fault? ii) Strong seismic ground shaking? iii) Seismic-related ground failure, including liquefaction? iv) Landslides?				 X X X X

b) Result in substantial soil erosion or loss of topsoil?				X
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?	X			
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code, creating substantial risks to life or property?				X
7. HAZARDS AND HAZARDOUS MATERIALS Would the project:	**Potentially significant impact**	**Less Than Significant with mitigation incorporation**	**Less than significant impact**	**No Impact**
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?				X
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?				X
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				X
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?				X
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 the people?				X

f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working the project area?				X
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				X
h) Expose people or structure 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?				X
8. HYDROLOGY AND WATER QUALITY Would the project impact:	**Potentially significant impact**	**Less Than Significant with mitigation incorporation**	**Less than significant impact**	**No Impact**
a) Violate any water quality standards or waste discharge requirements?		X		
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 ?				X
c) Substantially alter the existing drainage pattern of the site or area, including the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation?		X		
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 that would result in flooding on- or off-site?		X		
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?				X
f) Otherwise substantially degrade water supply?		X		

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?				X
h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?		X		
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?		X		
j) Inundation by seiche, tsunami, or mudflow?				X
9. LAND USE AND PLANNING Would the project:	**Potentially significant impact**	**Less Than Significant with mitigation incorporation**	**Less than significant impact**	**No Impact**
a) Physically divide an established community?				X
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?		X		
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?		X		
10. MINERAL RESOURCES Would the project:	**Potentially significant impact**	**Less Than Significant with mitigation incorporation**	**Less than significant impact**	**No Impact**
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?				X
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?				X

11. NOISE Would the project result in:	**Potentially significant impact**	**Less Than Significant with mitigation incorporation**	**Less than significant impact**	**No Impact**
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?				X
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?				X
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?				X
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	X			
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?				X
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?				X
12. POPULATION AND HOUSING Would the project:	**Potentially significant impact**	**Less Than Significant with mitigation incorporation**	**Less than significant impact**	**No Impact**
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)?				X
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				X

c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?				X
13. PUBLIC SERVICES Would the project result in substantial adverse physical impacts associated with the provision of new governmental facilities, the construction of which could cause significant impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:	**Potentially significant impact**	**Less Than Significant with mitigation incorporation**	**Less than significant impact**	**No Impact**
a) Fire protection?				X
b) Police protection?				X
c) Schools?				X
d) Parks?				X
e) Other public facilities?				X
14. RECREATION Would the project:	**Potentially significant impact**	**Less Than Significant with mitigation incorporation**	**Less than significant impact**	**No Impact**
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?				X
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?				X
15. TRANSPORTATION & TRAFFIC Would the project:	**Potentially significant impact**	**Less Than Significant with mitigation incorporation**	**Less than significant impact**	**No Impact**
a) Cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system?				X
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?				X

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?				X
d) Substantially increase hazards due to a design feature (e.g. sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment)?		X		
e) Result in inadequate emergency access?				X
f) Result in inadequate parking capacity?				X
g) Conflict with adopted polices, plans, or programs supporting alternative transportation (e.g. bus turnouts, bicycle racks)?				X
16. UTILITIES AND SERVICE SYSTEMS Would the project:	**Potentially significant impact**	**Less Than Significant with mitigation incorporation**	**Less than significant impact**	**No Impact**
a) Exceed wastewater treatment requirements of the Regional Water Quality Control Board?				X
b) Require or result in the construction of new water or wastewater facilities, or expansion of existing facilities, the construction of which could cause significant environmental effects?				X
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?				X
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new and expanded entitlements needed?				X
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?				X
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?				X

g) Comply with federal, state, and local statutes and regulations related to solid waste?		X		

1. AESTHETICS

Highways 160 and 84 in Sacramento and Contra Costa Counties have been designated as Official State Scenic Highways. Highway 160 runs along the Sacramento River levees through Walnut Grove and Isleton and across Brannan Island and Sherman Island to the Antioch Bridge. In addition, Sacramento County has identified the following scenic corridors:

Isleton Road
River Road
Sacramento River
Streams, sloughs and channels of the Delta (in Sacramento County)

Projects with disposal sites that would impact the views of the scenic highways or scenic corridors would be required to have mitigation measures so that the visual character of the area is not significantly impacted.

The confined disposal facility (CDF) may degrade the visual character or quality of the site, depending on its initial condition. If the site has mature trees, rock outcroppings, wetlands or other scenic features, the visual character or quality of the site would be degraded by inundation with dredge material (for hydraulic dredging only). If the site is an agricultural field, pasture or fallow field, the project would not impact the visual character or quality of the site, other than a temporary suspension of activity while inundated (for hydraulic dredging only). The EIR will analyze what features constitute "scenic resources" and the EIR will cover projects that avoid impacts to scenic resources. If a project may impact scenic resources, a supplemental environmental document will need to be developed for the specific project.

2. AGRICULTURAL RESOURCES

Confined disposal facilities for dredge material in the Delta are often located on agricultural land. The impacts to farmland may be temporary due to inundation by the dredge material slurry (hydraulic dredging), resulting in a loss of one or two seasons of crop production until the material dries. The material may be removed after drying and reused at another location, resulting in only temporary impacts. The impacts may be more permanent if the dredge material changes the composition or structure of the soil such that it affects agricultural production. Accumulation of heavy metals may impact agricultural crops that are grown on dredge material. The screening criteria in the General Order WDRs will address potential phytotoxicity in dredge material. Permanent impacts may result if the land is converted to long-term use as a dredge material disposal facility.

The EIR will analyze the conditions that may cause temporary and permanent impacts to farmland. Maps from the Department of Conservation Farmland Mapping and Monitoring Program will be included to define areas of the Delta that are classified as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. Confined Disposal Facilities that may result in permanent impacts to Prime Farmland, Unique Farmland or Farmland of Statewide Importance will not be covered under the EIR for the General Order WDR. If the proposed

project results in permanent significant impacts to Prime Farmland, Unique Farmland or Farmland of Statewide Importance, a supplemental environmental document will be required.

3. AIR QUALITY

Dredging projects are not expected to significantly impact air quality. Dredging projects are not likely to cause the release of any criteria pollutant nor generate any objectionable odors that would affect a substantial number or people. The dredging would have less than significant impacts to air quality due to the diesel-operated pump on the dredge. Later removal of dredge material from the disposal site would also have less than significant impacts to air quality due to emissions from earth moving and hauling equipment. The emissions are not likely to exceed emissions from normal farming operations.

There may be some instances where a dredging project could potentially cause temporary local impacts from the dredging equipment and the transportation of the dredge material. The EIR will discuss and estimate the magnitude of air quality impacts from the dredging equipment and from transportation of the dredge material by barge.

4. BIOLOGICAL RESOURCES

Dredging and dredge material disposal has the potential to significantly impact riparian habitat, wetland habitat, and the habitat of candidate, sensitive or special status species listed by the California Department of Fish and Game, U.S. Fish and Wildlife Service, and National Marine Fisheries Service. Consultation with National Marine Fisheries Service and the U.S. Fish and Wildlife Service is coordinated by the U.S. Army Corps of Engineers before issuing authorization under a Nationwide or General Permit. The U.S. Army Corps of Engineer's permits that would be applicable for hydraulic dredging with disposal to land are: Nationwide 35 and Nationwide 16. Programmatic biological opinions from USFWS, NMFS or CDFG are currently not available for these Nationwide permits.

CALFED has prepared a Multi Species Conservation Strategy (MSCS) as a program level biological assessment for initiating consultation with the U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS) under Section 7 of the Federal Endangered Species Act (FESA). USFWS and NMFS will prepare a programmatic biological opinion for CALFED actions evaluated in the MSCS based on the information presented in the MSCS and other relevant sources. The MSCS will also be submitted to California Department of Fish and Game (DFG) as a Natural Community Conservation Plan (NCCP). If DFG determines that the MSCS complies as a NCCP it will issue an NCCP approval and support findings. As CALFED actions (such as this dredging General Order WDR) are identified and defined, Action Specific Implementation Plans (ASIPs) can be prepared that use information and analyses in the MSCS, the programmatic biological opinions issued under FESA, and the programmatic NCCP approval. USFWS and NMFS would then use the ASIPs to prepare action-specific biological approval. DFG would use the ASIPs as project-specific NCCPs for evaluation and approval.

As part of the biological assessment, Regional Board staff will consult with NMFS, USFWS and DFG to determine whether a ASIP can be prepared that covers projects that would fall under the General Order WDR. If a program level ASIP is not possible, ASIPs will need to be prepared for each individual dredging project.

The General Order WDR will contain criteria that are protective of wildlife, vegetation and aquatic life. The criteria for aquatic life protection will be chronic aquatic toxicity standards that are protective of freshwater aquatic life. The source of these standards will be the Sacramento and San Joaquin Water Quality Control Plan, the California Toxics Rule, and the National Toxics Rule.

If the dredge material will be placed or reused in an environment were vegetation or wildlife may be exposed, the dredge material will need to meet the screening values published by the EPA as Ecological Preliminary Remediation Goals (if available) or EPA's Preliminary Remediation Goals or Soil Screening Levels for human exposure. Before the dredging project is approved to use the General Order WDR, the applicant must submit sediment chemistry results that meet the applicability "criteria" listed in the General Order WDR.

The General Order WDR will also contain water quality restrictions for turbidity and suspended sediments that are protective of aquatic life. In some cases, silt curtains will be required to confine the area that may have water quality impacts.

5. CULTURAL RESOURCES

Cultural resources have been discussed and evaluated for program level impacts in the CALFED Programmatic EIS/EIR and Appendices. The EIR for General Order WDRs for dredging will incorporate the CALFED EIR/EIS by reference. A brief summary of the information from the CALFED Programmatic EIR/EIS is provided here. Cultural resources consist of traditional cultural properties associated with Native Americans and other cultural groups, historical sites and archeological sites. In the Delta, 171 sites have been listed in the National Register of Historic Places (NRHP), 6 sites as California Historical Landmarks, and 4 as California Points of Historical Interest. The U.S. Bureau of Reclamation has performed an analysis of the distribution of the prehistoric archeological sites and their associated landforms. The analysis was performed using Geographic Information System (GIS) to determine themes between types of landforms and archeological site occurrences (Hansen, West et al). In David T. Hansen's paper, he describes the main units associated with archeological sites as:

- Alluvium of super tidal floodplains
- Eolian deposits
- Alluvial fan deposits from glaciated basins (Riverbank formation)

Based on the relationships between known archeological sites and site characteristics, Hansen has used "weight of evidence" statistical analysis to calculate the probability of unknown site occurrences at other locations. This information is available in GIS format for the Delta, and may be used to differentiate between sites with a low probability of cultural resources and known sites or a high probability of cultural resources. Projects with disposal or placement areas that have a low probability of containing cultural resources would need no further CEQA evaluation. Projects with known sites or a high probability of cultural resources would need additional environmental assessment to assess impacts.

Impacts may result from any actions that physically disturb a site, alter its setting, introduces elements out of character with the site, or physically damages the site resulting in a permanent loss of information contributing to our understanding of the past. Potentially significant impacts from dredge material disposal and reuse include:

- Impacts on cultural resources from ground-disturbing activities
- Impacts on cultural resources from excavation or fill.

If impacts to cultural resources cannot be avoided, the CALFED Programmatic EIR/EIS suggests several mitigation strategies, including:

1. Conducting cultural resource inventories
2. Mapping sites
3. Conducting surface collections
4. Performing test excavations
5. Probing for potentially buried sites
6. Conducting full-scale excavations of sites slated for destruction as a result of projects.
7. Preparing public interpretive documents.
8. Conducting ethnographic studies for traditional cultural properties.

Projects that have known sites or a high probability of unknown sites will need to have project-specific environmental analysis and mitigation requirements.

6. GEOLOGY AND SOILS

Dredging projects are not expected to expose people to increased seismic hazards or landslides. Dredging projects are not likely to cause increased soil erosion or loss of topsoil, in fact they result in an increase of sediment deposition.

Many areas of the Delta consist largely of peat soil formations that may become unstable when loads are placed on them. There is a potential for subsidence and levee instability due to dredge material placement. In the EIR, the areas where subsidence and instability are likely to occur will be identified. Dredging projects that occur in the identified area will be subject to design and safety specifications for the confined disposal facility. The specifications may include design or review by a registered engineer, geotechnical engineer or engineering geologist, monitoring with inclinometers and piezometers, maximum allowable ponding depth, hazard assessment study and an emergency plan.

7. HAZARDS AND HAZARDOUS MATERIALS

The pre-sediment analysis will test for the presence of contaminants in the dredge material that would qualify as hazardous waste. Dredge material meeting hazardous waste classification would not apply to this General Order WDR. Dredging projects are not expected to create hazards such as wildland fires. Dredging projects are not expected to impact public safety, emergency plans or evacuation plans.

8. Hydrology and Water Quality

There three main areas where hydrology and water quality may be impacted by dredging and dredge material disposal projects:

1. Impacts to surface water quality and ground water quality
2. Short-term impacts in drainage patterns, discharges to surface waters and agricultural drains, and impacts due to holding water in a diked facility.
3. Long-term impacts to drainage patterns.

1. Impacts to surface water quality and ground water quality:

Projects seeking to be covered under the General Order WDR will be required to undergo pre-dredge testing of the sediments to determine whether they are likely to impact water quality. The General Order will contain an "applicability table" of values that are protective of water

quality. The justification for values included in the "applicability table" will be included as part of the environmental assessment.

Values in the applicability table for water quality will be based on numeric and narrative criteria such as drinking water standards that are protective of human health and chronic aquatic toxicity standards that are protective of freshwater aquatic life. The source of these standards will be the Sacramento and San Joaquin Water Quality Control Plan, the California Toxics Rule, and the National Toxics Rule. To interpret the narrative water quality objectives of the Water Quality Control Plan, numerical objectives may be implemented from other published standards that have been developed by the following agencies:

California Department of Health Services
U.S. Environmental Protection Agency
California Environmental Protection Agency
Office of Environmental Health Hazard Assessment
Food and Agriculture Organization of the United Nations (agricultural water quality objectives)

The values in the "applicability table" for the solids analysis will be based on the type of beneficial reuse. There may be several categories of screening values based on different exposure pathways in different reuse scenarios. For example, dredge material that will be reused for habitat enhancement will need to meet the screening values that are protective of ecological concerns. Dredge material that will be reused for levee maintenance or fill in residential areas will need to meet the screening values that are protective of human health. The screening values used in the "applicability table" for solids will be chosen from: hazardous waste criteria (Title 22), EPA's Preliminary Remediation Goals and Soil Screening Levels for human exposure, EPA's Preliminary Remediation Goals for Ecological Exposure, Oak Ridge National Laboratory's Ecological Preliminary Remediation Goals and Ecological Benchmarks, and other scientific literature review. Reuse options covered under this General Order will be limited to upland (non-aquatic) environments. Based on the sediment results and the solids "applicability values", the Notice of Applicability will list the appropriate reuse options for the dredge material (levee maintenance, habitat enhancement, residential fill, or industrial fill).

The predredge testing will require analysis of a list of constituents of concern for the Delta. The list of constituents of concern will be based on potential sources of contaminants in the Delta, the environmental fate of the constituent (those likely to be found associated with sediment or pore water), lists of known problems in the Delta (fish advisories and the EPA 303(d) list of impaired water bodies), levels found previously in Delta water and sediment testing (from a database developed by Department of Fish and Game), and other monitoring programs for the Delta and its watershed.

Predredge testing will include tests that are predictive of impacts to:

1. Ground water quality (Acid Generating Potential, Deionized Water Waste Extraction Test, Citrate Buffer Waste Extraction Test)
2. Surface water quality (Modified elutriate test simulates effluent from confined disposal facility and resuspension during dredging)
3. Human, plant, and animal exposure to the bulk material (solids analysis, Acid Generating Potential)

Water quality monitoring will be required for all projects authorized under the General Order WDR. During project operations, monitoring will be required at the dredge site (upstream and downstream), the effluent discharge from the confined disposal facility, and the receiving water (upstream and downstream from the discharge point).

2. Short-term impacts in drainage patterns, discharges to surface waters and agricultural drains, and impacts due to holding water in the confined disposal facility.

Dredge projects have the potential to impact drainage patterns and flows because the confined disposal facility holds ponded water for settling and is circumvented by dikes. The effluent is sometimes discharged into adjacent agricultural drainage ditches. The water rises in the ditches until it turns on the automated pumping stations on the island, where the water is pumped out of the ditch back into the receiving water. Due to the fact that ponded water is being held behind dikes, there is increased risk from flooding if a dike in a confined disposal facility should fail.

To avoid and/or mitigate the impacts listed above, the placement and design of the confined disposal facility will take into account the following factors:

- The dikes of the confined disposal facility shall be designed and inspected by a registered engineer or registered engineering geologist.
- Ponding depths over 3 feet shall require a more in-depth analysis of potential hazards.
- If the island agricultural drainage system and pump are to be used for effluent discharges, the project applicant shall provide information that deems the system adequate to handle the discharge.
- The project applicant shall provide a safety and emergency response plan that addresses potential flooding from levee breaks or improper operation of the agricultural drain pumps.
- If the confined disposal facility is located such that it exposes people or structures to a significant risk of loss, injury, or death involving flooding from a levee failure, a supplemental environmental document would need to be developed.

3. Long-term impacts to drainage patterns.

Clamshell dredging projects may have temporary or permanent placement of large quantities of sediments. The placement of dikes or berm may result in the changes in the surface drainage patterns of the land. To be eligible under this General Order WDR, the design of the project will have to avoid or mitigate impacts to surface water drainage so that they are less than significant, or will have to develop a supplemental environmental document.

Confined disposal facilities may have temporary or permanent placement of large quantities of sediments. The placement of perimeter dikes for the CDF may result in the changes in the surface drainage patterns of the land. This environmental assessment covers CDFs that avoid or mitigate impacts to surface water drainage so that they are less than significant. If a project has impacts to surface water drainage that are significant, a supplemental environmental document would need to be developed.

The following considerations will be incorporated into the design and placement of the confined disposal facility:

- Placement of the dredge material and the confined disposal facility will avoid impacts to natural streams and drainage channels (ephemeral or permanent).
- Placement of the dredge material and the confined disposal facility will avoid delineated wetlands if possible. If avoidance of impacts to wetlands is not possible, mitigation of wetland habitat will be required. Impacts to wetlands will also require additional permits (404 permit from the US Army Corps of Engineers and a 401 Water Quality Certification). Projects that impact wetlands or natural streams shall perform a site-specific environmental analysis.

Dredging projects are not expected to deplete groundwater supplies but are more likely to increase the amount of groundwater recharge due to the ponding of water in the confined disposal facility. Dredging projects are not expected to be located where they will impact stormwater drainage systems or housing within a 100-year flood plain.

9. LAND USE AND PLANNING

The five land use general plans covering the Delta include:

1. San Joaquin County General Plan
2. Sacramento County General Plan
3. Yolo County General Plan
4. Contra Costa County General Plan
5. Solano County General Plan

As part of the environmental review, each of these county plans will be reviewed to identify possible sources of conflict with the land use plan, policy or regulations. Once possible sources of conflict are identified, Regional Board staff will consult with the agency with jurisdiction to develop conditions or alternatives to avoid or mitigate the environmental impact. Delta Protection Commission will also be consulted to identify possible conflicts with land use plans or policies that may result from this project.

CALFED has prepared a Multi Species Conservation Strategy (MSCS) as a program level biological assessment for initiating consultation with the U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS) under Section 7 of the Federal Endangered Species Act (FESA). USFWS and NMFS will prepare a programmatic biological opinion for CALFED actions evaluated in the MSCS based on the information presented in the MSCS and other relevant sources. The MSCS will also be submitted to California Department of Fish and Game (DFG) as a Natural Community Conservation Plan (NCCP). If DFG determines that the MSCS complies as a NCCP it will issue an NCCP approval and support findings. As CALFED actions (such as this dredging General Order WDR) are identified and defined, Action Specific Implementation Plans (ASIPs) can be prepared that use information and analyses in the MSCS, the programmatic biological opinions issued under FESA, and the programmatic NCCP approval. USFWS and NMFS would then use the ASIPs to prepare action-specific biological approval. DFG would use the ASIPs as project-specific NCCPs for evaluation and approval.

As part of the biological assessment, Regional Board staff will consult with NMFS, USFWS and DFG to determine whether a ASIP can be prepared that covers projects that would fall under the General Order WDR. If a program level ASIP is not possible, ASIPs will need to be prepared for each individual dredging project.

10. MINERAL RESOURCES

Dredging projects are not likely to have any impacts on availability of mineral resources.

11. NOISE

Hydraulic dredges operate large pumps that can impact noise levels in the immediate area of the dredge. There are no permanent noise level impacts from dredging projects. As part of the environmental review, approximate noise levels will be quantified and the approximate area of impact will be identified. The noise levels are unavoidable, but the dredging project may be designed to identify and avoid areas and times that are particularly sensitive to noise. For example, if the dredging operation will occur near waterside residences, dredging may be restricted to certain hours. If the dredging operation will occur near nesting and rearing habitat of sensitive species of terrestrial animals, the project may be restricted to seasonal windows that avoid disturbance of the animals during critical periods. Regional Board staff will consult with Department of Fish and Game, Fish and Wildlife Service, and National Marine Fisheries Service to determine potential noise impacts and avoidance measures to be incorporated as conditions of the General Order WDR.

12. POPULATION AND HOUSING

Dredging projects are not likely to have any impacts on population and housing.

13. PUBLIC SERVICES

Dredging projects are not likely to have any impacts on public services.

14. RECREATION

Dredging projects may have less than significant impacts to recreational boating by temporarily blocking navigation routes or creating navigation hazards that must be avoided. However, the net result of dredging is improved navigation in the waterways.

15. TRANSPORTATION AND TRAFFIC

Since dredging operations occur mainly in the water, they are not likely to cause any significant impacts to vehicle traffic or road congestion. If a pipeline crosses a public road, it will not be permitted to block traffic. Mitigation such as ramps, regarding or burial of the pipe will be required so that traffic flow will not be impeded.

Dredging operations can potentially cause navigation hazards in waterways. The dredge itself may temporarily block narrow channels or present an obstacle in larger channels. To mitigate any safety hazards, warning signs should be posted in the area of the dredge and speed limits should be reduced. In addition, the pipeline can be semi-submerged and often excess pipe meanders in the channel before reaching the disposal site. To mitigate for this potential safety hazard to boaters, the pipeline should be well marked with buoys. In addition, warning signs should be posted alerting boaters of the potential hazard.

16. UTILITIES AND SERVICE SYSTEMS

Dredging operations are not likely to impact wastewater, storm water or water delivery facilities. Dredge material disposal results in large quantities of dredge material being placed on land. In order to comply with federal, state and local statutes and regulations, the dredge

material must be classified as "inert" waste suitable for unclassified disposal. The dredge material must be tested and found to be below federal criteria for hazardous waste (Title 22) and must also be shown that it is not "designated waste" as defined in Title 27 CCR (it does not have the potential to contaminate any waters of the state). The screening criteria used in the applicability table for the General Order will address appropriate test methods and screening levels to determine whether the dredge material can be considered "inert". Only dredge material that is classified as inert will be covered under the General Order WDR.
navigational hazards.

SCOPE OF TOPICS TO BE ADDRESSED IN EIR:

1. Aesthetics

a. Regional Board staff will develop a checklist of site characteristics that constitutes "scenic resources" to be filled out by each project applicant.

b. The General Order WDR will cover only projects that have no impact to scenic resources unless a supplemental site-specific environmental document is done for the project.

2. Agricultural Resources

a. Regional Board staff will provide maps of defined areas of Prime Farmland, Unique Farmland, and Farmland of Statewide Importance in the Delta.

b. Regional Board staff will develop screening values in the General Order WDR that ensure that the dredge material covered under this order will not contain levels of heavy metals that may be toxic to plants or bioaccumulate in plant tissues.

c. Regional Board staff will develop a checklist for temporary and permanent impacts to agricultural land use to be filled out by each project applicant.

d. The General Order WDR will cover only projects that have no permanent impacts to Prime Farmland, Unique Farmland and Farmland of Statewide Importance unless a supplemental environmental document is done for the specific project.

3. Air Quality

a. Regional Board staff will quantify potential impacts to air quality from the dredge equipment and for barge transportation of the dredge material to the disposal site.

4. Biological Resources

a. Regional Board staff will consult with California Department of Fish and Game, U.S. Fish and Wildlife Service, and National Marine Fisheries Service to attempt to develop a set of project conditions that would constitute a programmatic biological opinion for small dredging projects in the Delta. Regional Board staff will prepare an Action Specific Implementation Plan to submit to the resource agencies listed above.

b. If a programmatic biological opinion is feasible, the General Order WDR will incorporate the project conditions required to protect sensitive, threatened and endangered species and critical habitat.

c. If a programmatic biological opinion is not feasible for any of the resource agencies, each project will be required to provide an individual project Letter of Permission from the agencies (CDFG, USFWS, NMFS) before a Notice of Applicability will be issued.

5. Cultural Resources

Regional Board staff will identify areas in the Delta with known historical resources, archeological resources, paleontological resources or human remains. Using the GIS analysis provided by the US Bureau of Reclamation, the Regional Board staff will identify areas in the Delta with a high probability of unknown archeological sites. The EIR will cover projects that do not have a high probability of archeological sites nor known cultural resources.

6. Geology and Soils

a. Identification of areas of the Delta with the potential for subsidence and instability if used as a confined disposal facility.

b. Development of specifications for confined disposal facilities located in areas where subsidence and instability may cause problems.

7. Hazards and Hazardous Materials

No further analysis.

8. Hydrology and Water Quality

1. Impacts to water quality:

a) Regional Board staff will develop a list of constituents of concern that are specific to the Delta. The list will include constituents that are likely to be found associated with sediments or pore water, have sources in the Delta and its watershed, and are likely to be found in levels of concern (based on historical data). Sediment testing may also be required for constituents that have a source in the Delta, but do not have widespread historical data available.

b) Regional Board staff will develop an "applicability table" for predredge sediment analysis to determine whether a project is likely to impact water quality. Values in "applicability table" will be protective of both surface water and ground water and be based on published numerical and narrative water quality objectives.

c) Regional Board staff will develop an "applicability table" for predredge sediment analysis to determine which reuse options are appropriate based on human or ecological exposure routes to the dredge material. Values in the "applicability table" will be protective of human, plant and animal exposure routes (based on type of reuse) and be based on published scientific literature.

d) Regional Board staff will develop a list of appropriate pre-dredge sediment and water quality analyses that will be required to meet the "applicability table" screening values. The list will also address appropriate field sampling and laboratory methods including general guidelines on the number of representative samples needed.

e) Regional Board staff will develop an appropriate monitoring and reporting program to be incorporated into the General Order WDR.

2. Short-term impacts in drainage patterns, discharges to surface waters and agricultural drains, and impacts due to holding water in the confined disposal facility.

a) The project conditions and restrictions mentioned above (pages 20-21) will be incorporated into the permit. With these avoidance and mitigation measures, the project will not

have significant short-term impacts to drainage patterns, discharges to surface waters or increased risk due to levee failures.

3. Long-term impacts to drainage patterns

a) The project conditions and restrictions mentioned above (page 21) will be incorporated into the permit. With these avoidance and mitigation measures, the project will not have significant long-term impacts to drainage patterns.

9. Land Use and Planning

a) Regional Board staff will review Contra Costa, Solano, Yolo, Sacramento, and San Joaquin County General Plans to identify possible sources of conflict with land use plans, policies or regulations. Staff will consult the agency with jurisdiction to develop conditions or alternatives that would avoid or mitigate the potential impacts.

b) As part of the biological assessment, Regional Board staff will consult with NMFS, USFWS and DFG to determine whether a ASIP can be prepared that covers projects that would fall under the General Order WDR. If a program level ASIP is not possible, ASIPs will need to be prepared for each individual dredging project.

10. Mineral Resources

No further action.

11. Noise

a) Projects in some areas may be restricted to seasonal windows to avoid disturbance of animals during critical periods. Regional Board staff will consult with Department of Fish and Game, Fish and Wildlife Service, and National Marine Fisheries Service to determine potential noise impacts and avoidance measures to be incorporated as conditions of the General Order WDR.

b) Dredging projects that may have noise impacts to residences will have restricted hours of operation.

12. Population and Housing

No further action.

13. Public Services

No further action.

14. Recreation

No further action.

15. Transportation and Traffic

The following mitigation measures will be incorporated into the General Order WDRs:

a) If a pipeline will cross a public road, it will provide ramps or burial of the pipeline so that it will not impede vehicle traffic on the road.

b) The dredge and pipeline in the waterways will be well marked with lights and buoys to increase visibility to boaters. Warning signs and reduced speed limits will also be implemented to increase boater safety near the dredging operation.

16. Utilities and Service Systems

a) Prior to dredging, the dredge material will be tested to verify that it meets the federal, state and local standards of inert waste appropriate for unclassified disposal to land. The screening values in the applicability table for the General Order will ensure that only "inert" dredge material will be eligible under the General Order WDR.

Comments on the Notice of Preparation: Environmental Impact Report for General Order Waste Discharge Requirements for Small-Scale Dredging Projects in the Sacramento-San Joaquin Delta

DMP

STATE OF CALIFORNIA - BUSINESS, TRANSPORTATION & HOUSING AGENCY — GRAY DAVIS, *Governor*

DEPARTMENT OF TRANSPORTATION
P O BOX 23660
OAKLAND, CA 94623-0660
(510) 286-4444
TDD (510) 286-4454

June 13, 2001

SOL-GEN-0.0
SCH# 2001062020
SOL000028

Ms. Donna Podger
Regional Water Quality Control Board,
Region 5 (Central Valley)
3443 Routier Road, Suite A
Sacramento, CA 95827-3003

Dear Ms. Podger:

GENERAL ORDER WASTE DISCHARGE REQUIREMENTS FOR SMALL SCALE DREDGING – Notice of Preparation

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the above-referenced project. Traffic impacts to State highway facilities are germane to our agency. We have reviewed the Notice of Preparation and we have no comments to make at this time. Comments may be made upon review of the Draft Environmental Impact Report (DEIR) when more details are provided.

If you have any questions regarding these comments, please call Alice Jackson of my staff at (510) 622-1644.

Sincerely,

HARRY Y. YAHATA
District Director

By Jean C R Finney

JEAN C. R. FINNEY
District Branch Chief
IGR/CEQA

RECEIVED
SACRAMENTO
CVRWQCB
01 JUN 19 PM 12:37

DMP

State of California

Memorandum

RECEIVED
SACRAMENTO
CVRWQCB
01 JUL -2 AM 9:40

To : Donna Podger
Central Valley Regional Water Quality Control Board

Date : June 28, 2001

From : **Department of Fish and Game**

Subject : Comments on the Proposed General Order Waste Discharge Requirements for Small-Scale Dredging Projects in the Sacramento-San Joaquin Delta

The Department of Fish and Game has reviewed your Initial Study for the Proposed General Order Waste Discharge Requirements for Small-Scale Dredging Projects in the Sacramento-San Joaquin Delta (dated 06/01/01), and we have the following comment.

Notice of Preparation, Introduction, second paragraph, first sentence: *Reword as follows:*

> "The Regional Board proposes to adopt two separate ~~Tentative~~ General Order WDRs to regulate small-scale dredging projects in the Delta."

Or please clarify why these General Orders are tentative and under what circumstances the General Orders will be removed or changed.

This concludes our comments. We look forward to working with you on the development of your CEQA documents for this project. If you have any questions, please feel free to contact Kerry Wicker at (209) 932-2394, or email her at kwicker@delta.dfg.ca.gov.

Jim Starr
Senior Biologist

GOWDR COMMENTS.wpd

JUL-03-2001 12:40 DEPT. OF TRANS. 916 653 1447 P.01/03
STATE OF CALIFORNIA - BUSINESS, TRANSPORTATION AND HOUSING AGENCY
GRAY DAVIS, Governor

DEPARTMENT OF TRANSPORTATION
TRANSPORTATION PLANNING – MS 32
1120 N STREET
P.O. BOX 942874
SACRAMENTO, CA 94274-0001
Telephone (916) 653-9689
Fax (916) 653-1447

July 3, 2001

Donna Podger, Project Manager
Regional Water Quality Control Board
Region 5 - Central Valley
3443 Routier Road, Suite A
Sacramento, CA 95827-3003

Subject: California Department of Transportation Review of the Notice of Preparation (NOP) for the General Order Waste Discharge Requirements for Small-Scale Dredging in the Sacramento-San Joaquin Delta Draft Environmental Impact Report (EIR), SCH#2001062020

Dear Ms. Podger:

Thank you for the opportunity to review this Notice of Preparation for the draft EIR on the Small-Scale Dredging in the Sacramento-San Joaquin Delta, State Clearinghouse #2001062020. The California Department of Transportation (Caltrans) has reviewed this proposal with the Caltrans headquarters Structures Hydraulics Division, and the Caltrans Intergovernmental Review branches in District 3 - Sacramento, District 4 - Oakland, and District 10 - Stockton. Caltrans has the following comments:

- Until the information provided is specific on project location, hauling activity, and depth and extent of dredging, Caltrans cannot determine the potential for project impacts to its facilities or structures. Maps depicting the exact location of the dredging, a specific description of the depth and area of dredging need to be provided whenever a dredging activity is within 1-mile (or a reasonable distance agreed to between the Regional Water Quality Control Board and the Caltrans Headquarters Structures Hydraulics or the effected Caltrans district) of a State facility (i.e. highway) or structure (i.e. bridge).

- A Caltrans Traffic Management Plan (TMP) may be needed for the dredging projects located where use of a State highway is required to haul dredged material or when a significant number of hauling vehicles might be involved. The objective of the TMP would be to minimize potential traffic disruptions and reduce real impacts to the State highways during hauling operations. The following information would need to be provided to the appropriate Caltrans district to determine the need for a TMP: (1) the location and extent of project activity (i.e. number of trucks per day, truck size, time of hauling, etc.); (2) the dates and duration of project activity; and (3) any proposed traffic mitigation measures required (i.e. flag persons, signing, etc.).

- The transport of dredged material may require a weight-load-limit permit. The district Transportation Permit Office will determine the type of load permit required.

- Any work planned or performed within State right of way, or work that could potentially impact State right of way, will require a Caltrans Encroachment Permit. These permits can be obtained from the appropriate district Encroachment Permit office.

If you have questions for a specific district, the following people will be the primary contacts for each district and headquarters Structures Hydraulics: (1) District 3 - Ken Champion at (916) 324-6642; (2) District 4 - Alice Jackson at (510) 622-1644; (3) District 10 - David Cooper at (209) 948-7190; or Headquarters Structures Hydraulics - Nick Burmas at (916) 227-9478. If you have general questions about this letter or its content, please call me at (916) 653-9689. A map of the district boundaries is attached.

Sincerely,

William J. Costa

William J. Costa, Manager
Caltrans Intergovernmental
Review Program

Attachment

cc: Katie Shulte Juong, SCH#2001062020
Jeff Pulverman, D-3, MS 41
Jean Finney, D-4, MS 8E
Tom Dumas, D-10, Intermodal Planning
Nick Burmas, HQ Structures Hyd., MS 9

JUL-03-2001 12:40 DEPT. OF TRANS. 916 653 1447 P.03/03

STATE OF CALIFORNIA
Business, Transportation and Housing Agency
Department of Transportation

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Calnet: 8-538-6600

N District 2
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Redding, CA 96049-6073
Phone: (530) 225-3426
Calnet: 8-442-3426

N District 3*
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Marysville, CA 95901
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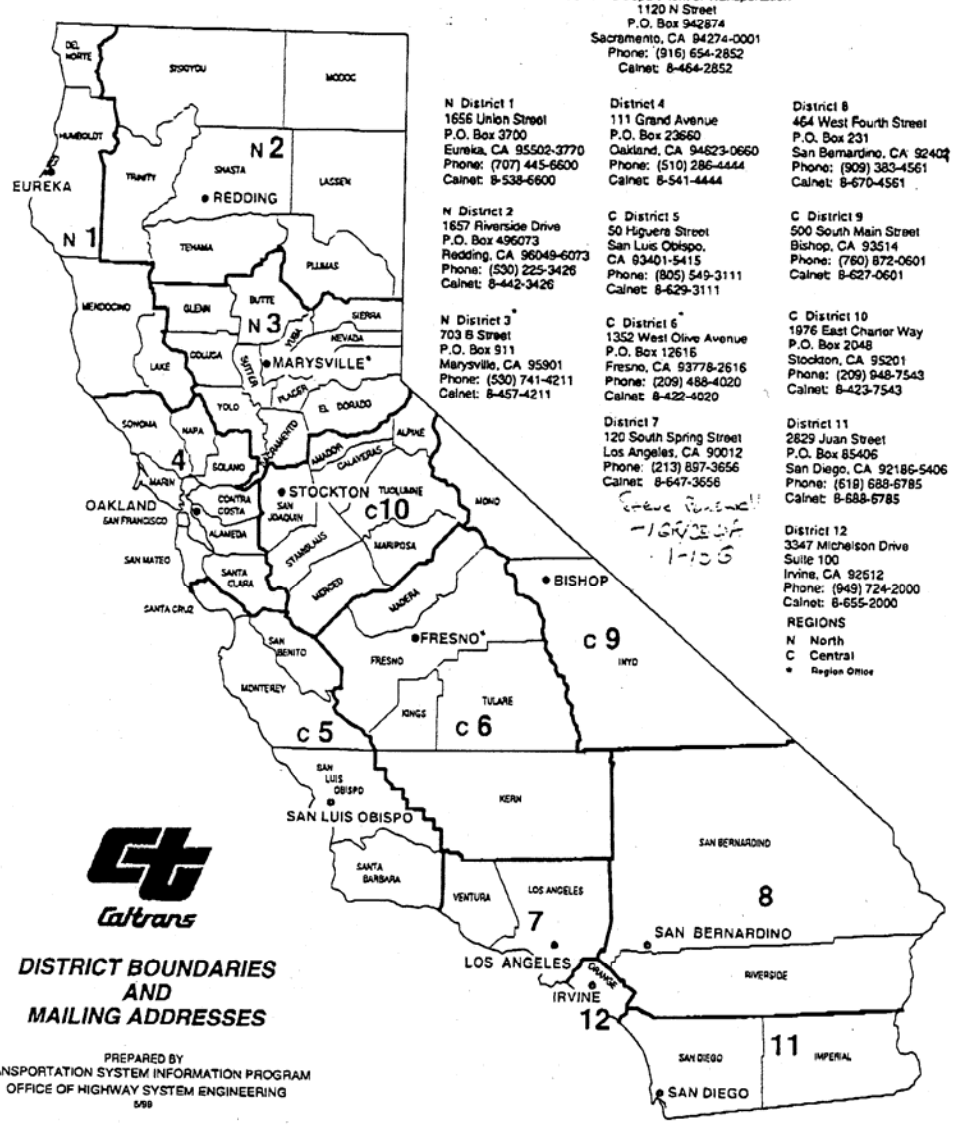

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GRAY DAVIS
GOVERNOR

VIA FACSIMILE

July 3, 2001

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Ms. Donna Podger
Regional Water Quality Control Board
Region 5 - Central Valley Region
3443 Routier Road, Suite A
Sacramento, CA 95827-3003

Dear Ms. Podger:

Subject: Notice of Preparation (NOP) of a Draft Environmental Impact Report (DEIR) for the General Order Waste Discharge Requirements (WDRs) for Small-Scale Dredging in the Sacramento-San Joaquin Delta – **SCH #2001062020**

The Department of Conservation's Office of Mine Reclamation (Office) has reviewed the NOP for the referenced General Order WDRs. The Office provides statewide administration of the 1975 Surface Mining and Reclamation Act (SMARA). We offer the following comments on the NOP with respect to the disposal of dredge material.

The purpose of the WDRs is to streamline the permitting process for small dredging projects in the Sacramento-San Joaquin Delta. Small dredging projects are needed to maintain channel capacity and navigation. The resultant dredge material is used for levee maintenance, construction fill, habitat restoration and commercial purposes.

Two separate WDRs are proposed. The first is for hydraulic dredging projects that remove less than 100,000 cubic yards of material and place the dredge material slurry on land within a diked disposal facility. The second will cover clamshell-dredging projects that remove less than 100,000 cubic yards of material and place the material on land for beneficial reuse (such as levee work). The WDRs provide screening values for appropriate beneficial reuse options of dredge material, all limited to land-based applications.

SMARA (Public Resources Code Section 2710 et seq.) requires that reclamation plans be prepared for certain surface mining operations, including those involving dredging activities. There is a reasonable

likelihood that reclamation plans will be required for some of the projects subject to streamlining under the proposed WDRs.

Further, reclamation plans are considered projects under the California Environmental Quality Act (CEQA). CEQA does not permit project segmenting, or piecemealing, by a lead agency; CEQA requires that full disclosure of the environmental impacts of the "whole of the action" be presented in an environmental impact analysis. Therefore, we recommend that the program EIR include reclamation plans for the small dredging projects as part of the proposed project. Reclamation plans must be developed pursuant to SMARA and the State Mining and Geology Board regulations for surface mining and reclamation practice (California Code of Regulations (CCR) Title 14, Chapter 8, Article 1, Section 3500 et seq., and Article 9, Section 3700 et seq.).

Dredging has the potential to impact the environment by physically disturbing the channel or river substrate, creating turbidity, and stirring up pollutants that are settled in the substrate. Terrestrial land surface disturbance from placement of dredging equipment, processing facilities, and dredge materials also has the potential to adversely affect environmental resources. Therefore, we recommend that potential project impacts on the following environmental resources be examined in the programmatic EIR:

1. Sensitive biological communities, including specific plant and wildlife species;
2. Fish migration and related spawning activities;
3. Sport fisheries;
4. Benthic organisms;
5. Water quality; and,
6. Erosion and sedimentation.

Thank you for the opportunity to comment on the NOP. If you have questions on our comments, or require technical assistance or information on mine reclamation issues, please contact the Office's Reclamation Unit Manager, James Pompy, at (916) 323-8565. You may also call me at (916) 445-8733.

Sincerely,

Kenneth E. Trott
Environmental Coordinator

cc: James Pompy