

## MURRAY, BURNS AND KIENLEN

A CORPORATION  
CONSULTING CIVIL ENGINEERS  
1616 29th STREET, SUITE 300  
SACRAMENTO, CALIFORNIA 95816  
TELEPHONE (916) 456-4400  
FAX (916) 456-0253

ANGUS NORMAN MURRAY  
1913 - 1985

JOSEPH D. COUNTRYMAN, P.E.  
GILBERT COSIO, JR., P.E.  
MARC E. VAN CAMP, P.E.

JOHN F. WRIGHT, P.E.  
MICHAEL C. ARCHER, P.E.  
SCOTT A. MORRIS, P.E.  
MARK E. FORTNER, P.E.  
JANELLE L. HEINZLER

September 3, 1993

CONSULTANTS:  
JOSEPH I. BURNS, P.E.  
DONALD E. KIENLEN, P.E.

Mr. David Forkel  
Delta Wetlands  
3697 Mt. Diablo Boulevard, Suite 120  
Lafayette, California 94549

**Subject:** *Bouldin Island and Webb Tract  
Routine Maintenance Agreements*

Dear Mr. Forkel:

Enclosed are the fully executed routine maintenance streambed alteration agreements for Bouldin Island and Webb Tract. The conditions in the agreement apply to waterside levee maintenance.

Please call if you have any questions.

Sincerely,

MURRAY, BURNS and KIENLEN

By:

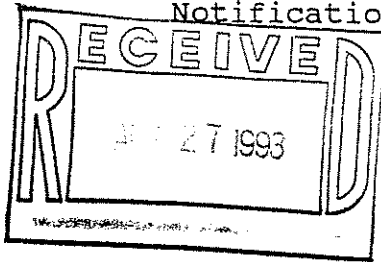
  
Gilbert Cosio, Jr.

GC:bl  
Encl.

FILE

Notification No. II-065-91

Page 1 of 6



**AGREEMENT FOR  
ANNUAL ROUTINE LEVEE MAINTENANCE  
Notification No. II-065-91**

This Agreement, entered into between the State of California Department of Fish and Game, hereinafter called the Department and Reclamation District No. 756 (Bouldin Island) hereinafter called the District is as follows:

WHEREAS, the Department is charged with the protection and enhancement of fish and wildlife resources of the State of California.

WHEREAS, the District is the governmental agency created for the purpose of maintenance, protection, or repair of its reclamation works which include without limitation levees, dredger cuts, borrow pits, canals, ditches, pumping plants, gates, fences and other works.

WHEREAS, pursuant to Section 50652 of the Water Code, the Board of Trustees of the District is to exercise general supervision and complete control over the construction, maintenance and operation of the District reclamation works.

WHEREAS, the Department contends pursuant to Section 1600 et seq. of the California Fish and Game Code, the District must first notify the Department of its intentions to divert or obstruct the natural flow of; or change the bed, channel, or bank; or use material from streambeds designated by the Department.

WHEREAS, the Department contends that Section 1600 et seq. of the Fish and Game Code applies to the levees, dredger cuts, and other waterways of the District from the waterward side of the levee from the crown to the water and all areas in the wetted channel.

WHEREAS, the District contends that Section 1600 et seq. of the Fish and Game Code does not apply to the levees, dredger cuts, and other works of the District.

WHEREAS, both the Department and the District desire to have the subject activity move forward without any prejudice to their respective contentions as to the application of Fish and Game Code Section 1600 et seq.

THEREFORE, it is agreed as follows:

Notification No. II-065-91

Page 2 of 6

This agreement shall not constitute a waiver of the contentions of either party as to the application of Fish and Game Code Section 1600 et seq. and shall be without prejudice to such contentions.

Activities other than those outlined in this agreement or which do not meet the criteria for routine maintenance shall require a site specific Streambed Alteration Agreement pursuant to Section 1600 of the Fish and Game Code.

If Special Status species exist, the locations of these species shall be clearly marked to help equipment operators avoid adverse impacts to these species. Flagging or other suitable material shall be placed within 50 feet from such locations and shall be sufficient to delineate area boundaries and help equipment operators avoid adverse impacts to these species. Appendix A, which is a list of Special Status species, is provided as information. These provisions shall also apply to the elderberry (*Sambucus* spp.); host plant for the Valley elderberry longhorn beetle.

If adverse impacts to Special Status species are unavoidable due to levee maintenance requirements, prior to commencing work operations it will be necessary to consult with appropriate agencies and develop a plan to mitigate or avoid adverse impacts as required.

All projects which will occur within 50 feet of the locations of any State or Federally listed Rare, Candidate, Threatened, or Endangered (Special Status) species shall require fourteen (14) days prior written notification to Department of Fish and Game (Region II, Attention: Delta Levee Project) of the work to be performed in the flagged area. If the work requires further permitting under California Endangered Species Act, then such permit will be required prior to commencement of the work. Prior to 60 days after commencement of this agreement District shall file with the Department an initial Habitat Assessment or equivalent document meeting requirements set forth in Appendix 1. For Applicants who have not submitted such documents prior to July 1, 1992, work under this agreement shall not commence until the Department has received and approved the initial Habitat Assessment or equivalent document described above; provided however, if the Department does not notify the applicant of the shortcomings of such Habitat Assessment or equivalent document within twenty (20) days of receipt, then such assessment or equivalent document shall be deemed approved.

Routine annual maintenance is defined as "repetitious activities carried out on an annual basis as part of an ongoing levee maintenance program."

Notification No. II-065-91

Page 3 of 6

It is agreed that the District may conduct the routine maintenance activities which are specified in and under the terms and conditions in this agreement as follows:

1. Removal of vegetation and debris, including sediment and rocks, to ensure proper functioning of existing water and flood control devices including, but not limited to, culverts, bridges, and streamflow measuring stations.
2. Cleaning, repairing, raising, modifying and replacing flap gates, discharge pipes, siphons, weirs, drop structures, or other existing water control devices.
3. Removal of flood deposited woody or herbaceous vegetation, and associated debris, which significantly reduce channel capacity.
4. Repair or replacement of existing bank protection materials with clean quarry rock, broken concrete free of exposed rebar, gabions, and replacement of concrete slope paving and channel lining, pipe and weir revetments, articulated concrete mats, and other similar materials. Asphalt shall not be considered an acceptable material. Such repair work shall minimize excavation and placement of earth fill.
5. Removal of soil, debris, rubbish and other material from channels whose sides and bottom are lined with concrete.
6. All cleared material shall be disposed of above the high water level and outside the riparian zone on the land side of the levee.
7. Minor sandblasting and painting may be performed as necessary, provided paint, rebound and related materials do not enter waters of the State. Chipped paint and rebound materials shall be contained, removed, and disposed of at an appropriate disposal site.
8. Extermination of burrowing rodents and filling their burrows with compacted material. Except as to the filling of beaver and muskrat dens near the waterline no filling of burrows in burrowing owl areas as designated by the Department, shall take place during the period of March 15 through August 15.
9. Shaping the levee crown to drain freely.

10. Repairing and shaping patrol or access road and controlling the weight and speed of all vehicles using patrol roads on the levee crown.
11. Repairing minor slipouts, erosion, or subsidence of the levee section up to 100 linear feet (and 1,200 linear feet per year)\*; provided however, that vegetation will be permitted to reestablish itself on these repaired sections. Thereafter, control will be in conformance with paragraph 13 below. Dredging to accomplish these minor repairs shall comply with the following rules:

RULE A. Time of Year

All dredging activities will be confined to the period from July 1 to September 1. Beginning September 1 through July 1, all dredging is prohibited. Dredging during the period September 1 through March 15 is a matter of dispute between the parties and such dispute may proceed to resolution as per Fish and Game Code 1600 et seq.

RULE B. Depth of Dredging

To help protect valuable fish habitat, no dredging shall occur in water areas where the bottom elevation is less than -6.5 feet USGS Datum or where the water is less than six feet deep measured at mean low low water (m.l.l.w.), except that dredging in shallower waters may occur where the primary purpose of dredging is to obtain fill material and no suitable dredge areas deeper than elevation -6.5 feet USGS Datum or six feet below m.l.l.w. are within 200 feet of the dredge material deposition site and no feasible alternative source of materials is available.

12. Removing deposits, debris, and litter from the levee and the berm.
13. Controlling vegetation on the waterside levee slope which shall include applying permitted herbicides, and cutting or trimming vegetative growth such as weeds, brush, berry vines, and trees to the extent necessary to inspect and maintain the levee, subject to the following additional conditions:

---

\* For Districts with more than 8.8 miles of levees, the total linear feet allowed shall be 136.36 lineal feet times the number of miles of levee.

- A. Herbicides shall not be applied between March 15 and July 1 of each year, to protect ground-nesting birds and other breeding species of wildlife.
  - B. No soil sterilants shall be applied, except to control *Arundo donax* (Giant reed).
  - C. Except during the period of March 15 through June 30, removal of branches, stems, and shoots of weeds, brush, berry vines, and shrubs is allowed.
  - D. Except during the period of March 15 through June 30, trees under 2 inches and over 18 inches diameter at 48 inches above the ground may be removed. Removal of trees over 18 inches in diameter shall be restricted to those trees determined by a California Registered Civil Engineer to constitute a threat to the levee. Pruning of branches up to 48 inches above the ground is allowed. When trees under 2 inches are removed the root system shall be left undisturbed. When trees over 18 inches are removed the root system can also be removed if necessary for Levee purposes. Removal of trees over 2 inches in diameter but less than 4 inches in diameter 48 inches above the ground is a matter of dispute between the parties and such dispute may proceed to resolution as per Fish and Game Code 1600 et seq.
- 14. Removing or modifying encroachments which endanger the levee or interfere with maintenance of the levee.
  - 15. A fee of \$111.00 shall be required for this agreement and the agreement is not in effect until receipt of this fee by the Department.
  - 16. This agreement shall not be amended or modified in any way except by a written agreement duly executed by the Department and the District.
  - 17. This Agreement may be terminated by either party. Said termination shall become effective six (6) months after the party not initiating the termination has been duly notified in writing.

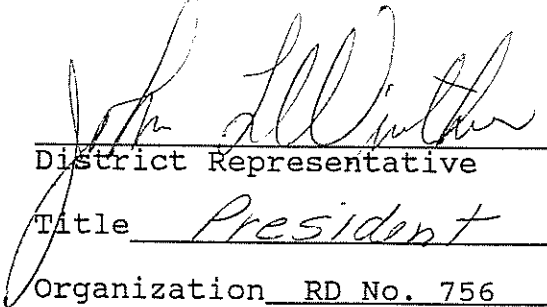
Prior to sending the notice of termination, the parties agree to meet and confer in an effort to resolve their differences. If this effort is not successful, the parties agree to engage in a minimum of four (4) hours of mediation. A mediator will be agreed to by the

Notification No. II-065-91

Page 6 of 6

parties or chosen by alternate striking from a list provided by the California Mediation Conciliation Service or the American Arbitration Association in San Francisco. The order of striking shall be determined by coin toss.

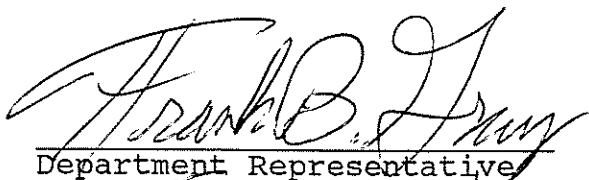
18. This Agreement shall extend indefinitely until terminated by either party.
19. Department representatives, besides law enforcement personnel, shall be allowed access to existing and potential work locations during the term of this agreement.
20. If a net long term loss of habitat results from the work allowed hereby, then mitigation will be covered through mitigation banking programs including SB 34 or by adding additional mitigation to mitigation required under site specific agreements between District and Department.

  
District Representative

Title President

Organization RD No. 756

Date 7-30-93

  
Department Representative

Title Environmental Specialist

Department of Fish and Game,  
State of California

Date August 25, 1993

**Special Status Species Known or Potentially Known  
to Occur in the Sacramento-San Joaquin Delta**

|          | COMMON<br>NAME               | SCIENTIFIC<br>NAME                                      | STATUS |     |
|----------|------------------------------|---|--------|-----|
|          |                              |   | CA     | FED |
| MAMMALS  | Salt-marsh Harvest Mouse     | <i>Reithrodontomys raviventris</i><br><i>halicoetes</i> | E      | E   |
|          | San Joaquin Kit Fox          | <i>Vulpes macrotis</i><br><i>musica</i>                 | T      | E   |
|          | San Joaquin Pocket Mouse     | <i>Perognathus inornatus</i><br><i>inornatus</i>        | SC     | C2  |
|          | Riparian Brush Rabbit        | <i>Sylvilagus bachmani</i><br><i>riparius</i>           | SC     | C1  |
|          | Riparian Wood Rat            | <i>Neotoma fuscipes</i><br><i>riparia</i>               | SC     | C2  |
| BIRDS    | Swainson's Hawk              | <i>Buteo swainsoni</i>                                  | T      | C3c |
|          | California Black Rail        | <i>Laterallus jamaicensis</i><br><i>corruccius</i>      | T      | C1  |
|          | Bald Eagle                   | <i>Haliaeetus leucocephalus</i>                         | E      | E   |
|          | Peregrine Falcon             | <i>Falco peregrinus</i><br><i>anatum</i>                | E      | E   |
|          | Aleutian Canada Goose        | <i>Branta canadensis</i><br><i>leucopectus</i>          | -      | E   |
|          | Western yellow-billed Cuckoo | <i>Coccyzus americanus</i><br><i>occidentalis</i>       | E      | C3b |
|          | Tricolored Blackbird         | <i>Aegialius tricolor</i>                               | SC     | C2  |
|          | California Least Tern        | <i>Sterna anallatum</i><br><i>browni</i>                | E      | E   |
|          | Burrowing Owl                | <i>Athene cunicularia</i>                               | SC     | -   |
|          | Greater Sandhill Crane       | <i>Grus canadensis</i><br><i>tabida</i>                 | -      | T   |
|          | Suisun Song Sparrow          | <i>Melospiza melodia</i><br><i>macularis</i>            | SC     | C2  |
|          | Bank Swallow                 | <i>Riparia riparia</i>                                  | T      | -   |
| REPTILES | Giant Garter Snake           | <i>Thamnophis couchi</i><br><i>gigas</i>                | T      | C2  |
|          | California Tiger Salamander  | <i>Ambystoma tigrinum</i><br><i>californiense</i>       | SC     | C2  |
|          | Western Pond Turtle          | <i>Emmys marmorata</i>                                  | SC     | C2  |
| FISH     | Winter-run Chinook Salmon    | <i>Oncorhynchus tshawytscha</i>                         | E      | T   |
|          | Delta Smelt                  | <i>Hypomesus transpacificus</i>                         | SC     | C1  |
|          | Sacramento Splittail         | <i>Pogonichthys macrolepidotus</i>                      | SC     | C2  |

|         |                                 |   |
|---------|---------------------------------|---|
| LEGEND: | E - Endangered                  | C1 - Category 1 Candidate for Listing   |
|         | T - Threatened                  | C2 - Category 2 Candidate for Listing   |
|         | R - Rare                        | C3b - Category 3b Candidate for Listing |
|         | SC - Species of Special Concern | C3c - Category 3c Candidate for Listing |
|         |                                 |   |

Information Current as of October 1, 1992



## Continued (Appendix A)

|         | COMMON<br>NAME                    | SCIENTIFIC<br>NAME                            | STATUS |     |
|---------|-----------------------------------|---|--------|-----|
|         |                                   |   | CA     | FED |
| INSECTS | Sacramento Anthicid Beetle        | <i>Anthicus sacramento</i>                    | -      | C2  |
|         | Antioch Anthicid Beetle           | <i>Anthicus antiochenis</i>                   | -      | C2  |
|         | Valley Elderberry Longhorn Beetle | <i>Desmocerus californicus<br/>dimorphus</i>  | -      | T   |
|         | Lange's Metalmark Butterfly       | <i>Apodemia mormo<br/>langei</i>              | -      | E   |
|         | Delta Green Ground Beetle         | <i>Elaeaphus viridis</i>                      | -      | T   |
|         | San Joaquin Dune Beetle           | <i>Coeleus gracilis</i>                       | -      | C2  |
|         | Molestan Blister Beetle           | <i>Lyta molesta</i>                           | -      | C2  |
| PLANTS  | Palmate-bracted Bird's Beak       | <i>Cordylanthus palmatus</i>                  | E      | E   |
|         | Delta Button Calery               | <i>Eryngium racemosum</i>                     | E      | C2  |
|         | Contra Costa Wallflower           | <i>Erysimum capitatum<br/>var. angustatum</i> | E      | E   |
|         | Mason's Lilaeopsis                | <i>Lilaeopsis masonii</i>                     | R      | C2  |
|         | Antioch Dunes Evening Primrose    | <i>Oenothera deltoides<br/>var. howellii</i>  | E      | E   |
|         | California Hibiscus               | <i>Hibiscus californicus</i>                  | -      | C2  |
|         | Susun Marsh Aster                 | <i>Aster chilensis<br/>var. lentus</i>        | -      | C2  |
|         | Delta Tule Pea                    | <i>Lathyrus jepsonii<br/>var. jepsonii</i>    | -      | C2  |
|         | Sanford's Sagittaria              | <i>Sagittaria sanfordii</i>                   | -      | C2  |
|         | Recurved Larkspur                 | <i>Delphinium recurvatum</i>                  | -      | C2  |
|         | Caper-fruited Tropidocarpum       | <i>Tropidocarpum capparideum</i>              | -      | C2  |
|         | Soft Bird's Beak                  | <i>Cordylanthus mollis<br/>var. mollis</i>    | R      | C1  |
|         | Solano Grass                      | <i>Tussockia mucronata</i>                    | E      | E   |
|         | Colusa Grass                      | <i>Neostachya colusana</i>                    | E      | C1  |
|         | Contra Costa Goldfields           | <i>Lasthenia conjugens</i>                    | -      | C2  |
|         | Slough Thistle                    | <i>Cirsium crassicaule</i>                    | -      | C2  |

|         |                                 |   |
|---------|---------------------------------|---|
| LEGEND: | E - Endangered                  | C1 - Category 1 Candidate for Listing   |
|         | T - Threatened                  | C2 - Category 2 Candidate for Listing   |
|         | R - Rare                        | C3b - Category 3b Candidate for Listing |
|         | SC - Species of Special Concern | C3c - Category 3c Candidate for Listing |

Information Current as of October 1, 1992

## Appendix B

### General Habitat Assessment Guidelines

The following are guidelines intended for the development of fish and wildlife habitat assessments in the Sacramento-San Joaquin Delta. The assessments are to be completed on a District by District basis for all areas where work is proposed for Delta Flood Protection Act of 1988 (SB 34) funding. SB 34 authorizes funding for the protection of Delta levees, provided there are no associated net long-term losses of riparian, wildlife, or fisheries habitat. The assessments will also be required prior to the Department issuing routine maintenance agreements in the Delta pursuant to Fish and Game Code Section 1601, irrespective of whether this maintenance is funded by SB 34.

The main function of the assessments is to serve as a guide for avoidance of adverse impacts to fish and wildlife habitat. When impacts are unavoidable, the assessments will be used, along with the project work plans, for the development of mitigation plans and subsequent program environmental documents such as Environmental Impact Reports. Information on work activities to be funded under SB 34 must be contained in the annual workplan prepared by each levee district. Determinations of expected habitat loss and proposals for mitigation to help ensure no net long term losses of habitat must be included in the mitigation plan.

The assessments must include surveys of all areas where work may be completed, including that to be funded through the SB 34 program. This includes work on the crown of the levee, waterside or landside slope of the levee, and the landside toe collection (seep) ditch. Close coordination will be necessary between the levee engineers and those performing the habitat surveys to help ensure that the surveys are completed at all locations where work is planned.

Habitat surveys do not necessarily have to be completed at a designated time of year, nor is more than one survey necessarily required. However, the surveys must be completed when plant species, such as the Delta tule pea and the California hibiscus, are identifiable by species, and during the season of the year when Special Status animal species (State or Federally classified Rare, Candidate, Threatened, or Endangered) such as Swainson's hawks may be present.

The assessments are to be completed prior to approval of levee maintenance activities. Additional habitat assessments of areas where work may occur may be necessary in future years to reflect changes in habitat conditions.

Necessary elements of habitat assessments include the following:

1. Survey Dates, Times, etc. - Date(s) and locations of the survey, and who completed the survey.
2. Habitat Mapping - The assessment must contain a habitat base map of the entire tract/island with the following elements:
  - a. a scale where one inch is not greater than 1,000 feet
  - b. levee stations locations
  - c. locations of special status species (as in the case of plants) or their habitats, as in the case of elderberry bushes that are a host for the valley elderberry longhorn beetle).
  - d. linear distances of each habitat type in the text. On the map itself, delineation of all areas where the following habitat types occur and linear distances of each habitat area:
    1. Shaded Riverine Aquatic (SRA) - This habitat type includes all vegetation which overhangs the water, regardless of the tide stage. Although assessing this habitat would best be completed by boat, surveys may be accomplished from the land if there is a problem with gaining access to the water's edge.
    2. Scrub shrub - This includes trees and woody shrubs and vines (alder, willow, wild rose, box elder, wild blackberries) less than twenty feet in height.
    3. Freshwater marsh - This includes vernal pools and tule marsh found along the drainage ditch or other areas on the interior of the levee.
    4. Riparian forest - This includes trees greater than twenty feet in height with a shrub understory layer.
    5. Riverine - This is within the channel or waterway, and includes vegetated shallow mudflats, shoals, submerged logs, and in-water vegetation such as pondweed along the waterside of the levee.
- \* As an alternative, the Cowardin classification system (using the nomenclature of the U.S. Army, Corps of Engineers, Sacramento - San Joaquin Atlas) may be used. For example, this system uses the classification of palustrine emergent, palustrine forested, etc. Vegetation types, as shown with the Cowardin system, are acceptable, but shall also include specific reference to SRA habitat.
3. Habitat Acreage - This must be indicated within any area which may be adversely impacted (directly or indirectly) by levee repair work. Acreage of all of the aforementioned habitat types must be indicated.

If maintenance work has the potential to adversely impact riverine habitat, then the surface area of this habitat must also be indicated.

4. Description of Habitat Types - There must be a description of each habitat type in terms of the quality and quantity of vegetation. In the case of SRA vegetation, there must be a description of the amount and quality of the habitat. Information about the composition, size and relative abundance of trees or other major vegetation types must be included.
5. Threatened and Endangered Species - The habitat assessment shall include field surveys for These surveys must be completed by boat, when necessary, so that plants along the perimeter of the island are visible to the observer.

A list of the Special Status Species are known or likely to occur at the project site must be included, as well as the known or suspected locations for these species. The presence of habitat for Special Status species, such as the host plant for the valley elderberry longhorn beetle, must be indicated. Other species which are sensitive or unusual, but not listed, must also be described and mapped.

The assessment must also include all special status species records from the Department of Fish and Game's Natural Diversity Data Base and the Department of Water Resources Special Status species maps.

6. Species Lists - There must be a list of all vertebrate fish and wildlife and dominant plant species which are from, or are most likely to occur, at the worksite. Extensive lists of plant species which might be found in the work areas are unnecessary.
7. Photos - Photos of representative fish and wildlife habitat areas and Special Status species found in the survey areas are recommended.

It will be the Department's policy to review all habitat assessments and where applicable determine their adequacy in helping meet the SB 34 mandate of no net long-term loss of habitat.