

1 *[Note to reviewers: This bullet list provides a summary of the BDCP covered activities under the*  
2 *eventual permits and authorizations for DWR/SWP Contractors, USBR/CVP Contractors, Mirant*  
3 *Delta, LLC and the BDCP Management Entity.]*

## 4 5 **Covered Activities**

### 6 **Existing SWP Facilities Operations and Maintenance**

- 7     ▪ Clifton Court Forebay (CCF)
  - 8         ○ Near- and long-term operations criteria and adaptive range
- 9     ▪ Harvey O. Banks Pumping Plant
  - 10         ○ Near- and long-term operations criteria and adaptive range
- 11    ▪ Barker Slough Pumping Plant and North Bay Aqueduct
  - 12         ○ Up to 175 cfs, as authorized
- 13    ▪ State Water Project Diversions
  - 14         ○ DWR is currently (2010) obligated to make 4.167 MAF/year of water available to its
  - 15             contractors, except under certain conditions specified in the contract (obligation
  - 16             incrementally increases to reach the maximum amount of 4.173 MAF/year in 2021
  - 17             [quantity may be exceeded if DWR determines surplus water is available above and
  - 18             beyond that needed to satisfy all regulations, permits, and operational requirements])
  - 19         ○ Non-Project water for Drought Water Banks, the Environmental Water Account, Dry
  - 20             Water Purchase Programs, and individual transfers have been conveyed through SWP
  - 21             facilities in the past and are expected in the future
  - 22         ○ SWP facilities support groundwater banking programs, such as the Semitropic Water
  - 23             Banking and Exchange Program
  - 24         ○ Near- and long-term operations criteria and adaptive range
- 25    ▪ John E. Skinner Delta Fish Protective Facility
  - 26         ○ Large fish and debris directed away from the pumps by a 388-foot-long trash boom;
  - 27             smaller fish are diverted from the intake channel into bypasses by a series of metal
  - 28             louvers, while the main flow of water continues through the louvers and toward the
  - 29             pumps
  - 30         ○ Salvaged fish returned to the Delta in oxygenated tank trucks

- 1       ▪ Temporary Barriers In The South Delta
- 2           ○ Continued implementation of South Delta Temporary Barrier Project (annual
- 3           installation and removal of temporary barriers at Middle River, Old River, Grant Line
- 4           Canal, and at the Head of Old River)
- 5           ○ Rock barrier may be installed during the Fall at the Head of Old River to improve flow
- 6           quality for salmon migration in the San Joaquin River; a non-physical or physical
- 7           (rock) barrier may also be installed at the Head of Old River in the Spring
- 8       ▪ Maintenance and Monitoring Activities
- 9           ○ Routine activities that maintain the capacity and operational features of the existing
- 10          water diversion and conveyance facilities described above
- 11          ○ Monitoring activities include water quality and other SWP monitoring activities
- 12          including monitoring of chemical, physical and biological parameters to evaluate
- 13          conditions of concern for drinking water, recreation, and fish and wildlife

## 14 CVP Existing Facilities Operations and Maintenance

- 15       ▪ Delta Cross Channel
- 16           ○ Near- and long-term operations criteria and adaptive range
- 17       ▪ C.W. Jones Pumping Plant
- 18           ○ Near- and long-term operations criteria and adaptive range
- 19       ▪ Tracy Fish Collection Facility
- 20           ○ Uses behavioral barriers to guide entrained fish into holding tanks before transport
- 21           by truck to release sites within the Delta
- 22       ▪ Contra Costa Water District Diversion Facilities
- 23           ○ CCWD diverts water from the Delta for irrigation and M&I uses under CVP
- 24           contract; under its own permit and license at Mallard Slough; and under its own
- 25           Los Vaqueros water right permit at Old River near State Route 4
- 26           ○ CCWD's system includes intake facilities at Mallard Slough, Rock Slough, and
- 27           Old River near State Route 4; the Contra Costa Canal and shortcut pipeline; and the
- 28           Los Vaqueros Reservoir
- 29           ○ CCWD will be adding a fourth diversion point on Victoria Canal, the Alternative
- 30           Intake Project [AIP], scheduled to begin operations by the spring of 2010

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- 1       ▪ Central Valley Project Diversions
- 2           ○ Reclamation delivers water transported through facilities in the Delta to senior
- 3           water rights contractors, long-term CVP water service contractors, refuges and
- 4           waterfowl areas, and temporary water service contractors south of the Delta (total
- 5           volume under contract, including Level 2 refuge supplies, is approximately 3.3
- 6           MAF per year)
- 7           ○ Additionally, the CVP provides Level 4 refuge water totaling approximately
- 8           100,000 AF
- 9           ○ In addition, as part of the San Joaquin River Restoration Program implementation,
- 10           Reclamation anticipates submitting a petition of permits to allow re-diversion of
- 11           the restoration flows either upstream of or in the Delta as Friant CVP water
- 12           ○ In wet hydrologic conditions when CVP storage is not available, water is made
- 13           available under temporary contracts - the volume of water available for conveyance
- 14           through the Delta is a result of hydrologic conditions, upstream reservoir
- 15           operations, upstream demands, regulatory constraints on CVP operations, and from
- 16           transfers of water from upstream water users to south of Delta water users
- 17           ○ Near- and long-term operations criteria and adaptive range
- 18           ○ Non-Project water for Drought Water Banks, the Environmental Water Account,
- 19           Dry Water Purchase Programs, and individual transfers have been conveyed
- 20           through CVP facilities in the past and are expected in the future
- 21           ○ Water passing through the Delta associated with water transfers
- 22       ▪ Associated Maintenance and Monitoring Activities
- 23           ○ Routine activities that maintain the capacity and operational features of the existing
- 24           water diversion and conveyance facilities
- 25           ○ Include canal maintenance, placement of riprap for bankline protection and erosion
- 26           control; vegetation management and weed control; O&M of electrical power
- 27           supply facilities; and routine maintenance as needed to ensure continued operations
- 28           and replacement of facility or system components when necessary to maintain
- 29           system capacity and operational capabilities
- 30           ○ Monitoring activities refers to those actions necessary for monitoring water quality
- 31           and fisheries as conditioned by water rights permits and biological opinions, and
- 32           those actions undertaken as a result of the CVPIA and agreements and includes
- 33           routine daily, annual or other periodic sampling of water quality constituents as
- 34           well as trawls for various fish species in the Delta
- 35           ○ Reclamation supports and participates in the Interagency Ecological Program
- 36           through which significant monitoring efforts are implemented

## 1 Coordinated Operations

### 2       ▪ Joint Point Of Diversion Operations

- 3           ○ Stage 1 – for water service to Cross Valley Canal contractors, Tracy Veterans
- 4           ○ Cemetery and Musco Olive, and to recover export reductions taken to benefit fish
- 5           ○ Stage 2 – for any purpose authorized under the current Project water right permits
- 6           ○ Stage 3 – for any purpose authorized up to the physical capacity of the diversion
- 7           ○ facilities

### 8       ▪ Transfers

- 9           ○ Water passing through the Delta associated with water transfers

### 10      ▪ Suisun Marsh Facilities Operations<sup>1</sup>

- 11           ○ Existing facilities include: Suisun Marsh Salinity Control Gates; Morrow Island
- 12           ○ Distribution System; Roaring River Distribution System; Goodyear Slough Outfall;
- 13           ○ and various salinity monitoring and compliance stations throughout the Marsh
- 14           ○ Maintenance activities for existing facilities include: levee repairs, vegetation
- 15           ○ removal, fish screen cleaning or installation of new screens, mechanical repairs,
- 16           ○ structural repairs, removal or replacement of monitoring and compliance stations
- 17           ○ (can involve in-water work) and instrumentation installation on or near existing
- 18           ○ facilities

## 19 Power Generation (Mirant)

### 20      ▪ Operation of Existing Mirant Plants

- 21           ○ Cooling water is drawn into the plants (Pittsburg and Contra Costa plants) through
- 22           ○ 9.5 mm (3/8 inch) screens, pumped to condensers, used to cool spent steam and
- 23           ○ then discharged immediately back into the San Joaquin-Sacramento Delta
- 24           ○
- 25           ○ The total current design flow for all Contra Costa Power Plant operations is
- 26           ○ approximately 1,418 AF/day and 1,686.2 AF/day for all Pittsburg Power Plant
- 27           ○ operations
- 28           ○
- 29           ○ In addition to once-through cooling flows, Mirant discharges process wastewater
- 30           ○ and stormwater (quantity and quality of discharges are subject to permits issued by

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<sup>1</sup> *[Note to reviewers: This section on Suisun Marsh facilities may be subject to change since BDCP includes water operations conservation measures that address the salinity control facility. Additionally, BDCP habitat restoration measures would alter the environment in Suisun Marsh and Bay. Such changes will need the attention of the SWRCB for resolution.]*

1 the State Water Resources Control Board and San Francisco and Central Valley  
2 Regional Water Quality Control Boards)

3 ■ Recurrent Mirant Plant Maintenance and Modification Activities and Monitoring  
4 Activities

5 ○ Maintenance Dredging, Equipment Maintenance and Modifications, and Levee and  
6 Flood Control Maintenance

7 ○ Aquatic Studies & Covered Species Monitoring

8 **New Water Facilities Construction, Operations and Maintenance**

9 ■ Isolated Conveyance Facility Construction and Operations<sup>2</sup>

10 ○ Conveyance facility - 49 miles; potential export capacity of 15,000 cfs; eight  
11 inverted culvert siphons to convey flow under existing sloughs and a railroad; four  
12 tunnels to convey flow under rivers and floodways; an intermediate pumping plant

13 ○ A new geographic location for the CVP and SWP intake facilities on the  
14 Sacramento River

15 ○ Intake facilities equipped with fish screens, pumping plants, and pipelines

16 ○ A new regulating forebay adjacent to the existing Clifton Court Forebay

17 ○ Other facilities such as bridges, drainage system improvements, utility  
18 improvements, powerlines

19 ○ Near- and long-term operations criteria and adaptive range

20 ■ In-Delta Conveyance Improvements

21 *[Note to reviewers: The Two-Gates Demonstration Project is under consideration by Reclamation and*  
22 *will be addressed under a separate regulatory process from BDCP. If this project is carried forward,*  
23 *it will be included in BDCP and a description will be provided by Reclamation.]*

24 ■ Fremont Weir Gates Construction and Operations

25 ○ Construction and operations of the Fremont Weir Operable Gates

26 ○ Any powerlines needed to operate facilities

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<sup>2</sup> *[Note to reviewers: While this write-up describes an eastside canal conveyance, alternatives including an all tunnel option are being evaluated. A change in the conveyance approach may result in a major change to this section.]*

## 1 Habitat Restoration, Enhancement, and Management Activities

- 2     ▪ Restore 80,000 acres of tidal habitat, riparian habitat, and new floodplain (65,000 acres of tidal  
3     habitat, 5,000<sup>3</sup> acres of riparian habitat, and 10,000 acres of new floodplain)<sup>4</sup> including the  
4     following actions:
  - 5         ○ Grading, excavation, and placement of fill material
  - 6         ○ Breaching, modification, or removal of existing levees and dikes and construction of  
7             new levees and dikes
  - 8         ○ Modification, demolition, and removal of existing infrastructure (e.g., buildings, roads,  
9             fences, electric transmission and gas lines, irrigation infrastructure)
  - 10        ○ Construction of new infrastructure (e.g., buildings, roads, fences, electric transmission  
11           and gas lines, irrigation infrastructure)
  - 12        ○ Removal of existing vegetation and planting/seeding of vegetation
  - 13        ○ Controlling the establishment of non-native vegetation to encourage the establishment  
14           of target native plant species
  - 15        ○ Control of non-native predator and competitor species (e.g., feral cats, rats, and non-  
16           native foxes)
  - 17        ○ Minor grading, excavation, and filling to maintain infrastructure and habitat functions  
18           (e.g., levee and dike maintenance; grading or placement of fill to eliminate fish  
19           stranding locations)
  - 20        ○ Maintenance of infrastructure (e.g., buildings, roads, fences, electric transmission and  
21           gas lines, irrigation infrastructure, fences)
  - 22        ○ Maintaining vegetation and vegetation structure (e.g., grazing, mowing, burning,  
23           trimming)
  - 24        ○ Ongoing control of terrestrial and aquatic non-native plant and wildlife species

## 25 Activities to Reduce Contaminants

- 26     ▪ **Coordinating to Reduce Levels of Ammonia/um:** Coordinating with sanitation districts that  
27     discharge wastewater into waterways within or just upstream of the Delta and Suisun Bay and  
28     the Central Valley and San Francisco Regional Water Quality Control Boards (RWQCBs), to  
29     evaluate the need and, if demonstrated to be necessary to protect covered fish species, reduce  
30     the levels of effluent-derived ammonia/um entering the Delta and Suisun Bay
- 31     ▪ **Coordinating to Reduce Levels of EDCs:** Coordinating with sanitation districts that  
32     discharge wastewater into or just upstream of waterways within the Delta and Suisun Bay and  
33     the Central Valley Regional Water Quality Control Board (CVRWQCB), to evaluate the need  
34     and, if demonstrated to be necessary to protect covered fish species, improve treatment

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<sup>3</sup> Portions of the 5,000 acres of riparian would be included within the 10,000 acres of floodplain and 65,000 acres of tidal habitat.

<sup>4</sup> The 10,000 acre target for new floodplain restoration does not include floodplain habitat enhanced in the Yolo Bypass under WOCML2.

1 processes at wastewater treatment facilities to reduce loads of endocrine disrupting  
2 compounds (EDCs) into the Delta and Suisun Bay

- 3     ▪ **Funding to Reduce Methylmercury Load:** Providing funding over the term of the BDCP to  
4 DWR and the CVRWQCB to reduce the load of methylmercury entering the Delta and in-  
5 Delta sources in conformance with CVRWQCB’s Draft Total Maximum Daily Load
- 6     ▪ **Support Efforts to Reduce Pesticide and Herbicide Load:** Reducing the load of pesticides  
7 and herbicides entering Delta waterways from in-Delta sources by implementing two related  
8 actions: (1) support efforts by the CVRWQCB under its Irrigated Lands Regulatory Program  
9 to reduce inputs of toxics from agricultural return flows into the Delta, and (2) fund  
10 conservation easements, cost-sharing programs, and provide other positive incentives to  
11 groups of farmers, large individual farmers, reclamation districts, and irrigation/drainage  
12 districts to develop targeted voluntary agricultural chemical management plans or other  
13 actions to reduce the amounts of pesticides and herbicides reaching Delta waterways
- 14     ▪ **Funding to Reduce Pollutants in Stormwater Runoff:** Providing funding to the Sacramento  
15 Stormwater Quality Partnership, and/or counties and cities whose stormwater contributes to  
16 Delta waterways under National Pollutant Discharge Elimination System (NPDES) MS4  
17 stormwater permits to implement actions from and in addition to their respective stormwater  
18 management plans
- 19     ▪ **Coordination to Improve Water Quality Released from Wetlands:** Coordinating with  
20 willing owners/managers of seasonal managed wetlands in the Delta and Suisun Marsh to  
21 improve quality of water released from these wetlands by implementing best management  
22 practices

## 23 Activities to Reduce Predators and Other Sources of Direct Mortality

- 24     ▪ **Funding to Support Actions to Reduce Non-natives from Recreational Watercraft:**  
25 Providing funding over the term of the BDCP to support implementation of actions to reduce  
26 the risk of future introductions of non-native aquatic organisms from recreational watercraft
- 27     ▪ **Funding to Support Actions for Early Detection of Invasives and Rapid Response:**  
28 Funding the DFG Oil Spill Prevention and Response (OSPR) aquatic species monitoring  
29 program and a DFG volunteer invasive early detection network to increase non-native early  
30 detection capability in the Bay-Delta, and funding the DFG Invasive Species Program to  
31 support their rapid response program
- 32     ▪ **Funding to Support Removal of Non-native Aquatic Vegetation:** Funding the removal of  
33 Brazilian waterweed, water hyacinth, and other non-native submerged and floating aquatic  
34 vegetation from Delta waterways
- 35     ▪ **Funding to Reduce Size Limits/Increase Bag Limits of Recreational Harvest of Non-**  
36 **native Predators:** Funding development of a pilot program to reduce the size limits and  
37 increase the bag limits of recreational harvest of non-native predatory species in two specific  
38 locations in the Delta “hot spots”

- 1       ▪ **Funding to Increase Enforcement of Regulations and Reduce Illegal Harvest of Covered**  
2       **Species:** Providing funding to increase the enforcement of fishing regulations in the Delta and  
3       Bays to reduce illegal harvest of covered salmonids and sturgeon
- 4       ▪ **Funding to Reduce Non-project Diversions Entrapment:** Providing funding to reduce  
5       entrapment at non-project diversions
- 6       ▪ **Reduce Effects of Predators:** Reducing the effects of predators on covered fish species by  
7       conducting localized predator control using a variety of methods in locations in the Delta that  
8       are known to have high densities of predators (“predator hot spots”)
- 9       ▪ **Install Non-Physical Barriers:** Installing non-physical barriers at the junction of channels  
10       with low survival of outmigrating juvenile salmonids to deter fish from entering these  
11       channels

## 12   Monitoring and Research Programs

- 13       ▪ Activities such as preconstruction surveys, construction monitoring, compliance monitoring,  
14       effectiveness monitoring, and system monitoring
- 15       ▪ Focused research may be undertaken or contracted to develop information necessary to better  
16       inform BDCP implementation

## 17   Other Conservation Actions

- 18       ▪ **Operating and Maintaining Oxygen Diffuser (s):** Operating and maintaining an oxygen  
19       diffuser(s) in the Stockton Deep Water Ship Channel
- 20       ▪ **Support Efforts to Limit Recreational and Commercial Splittail Harvest:** Developing a  
21       study of, and draft regulations for limits on recreational and commercial splittail harvest
- 22       ▪ **Supporting Development/Implementation of HGMPs:** Minimizing potential adverse  
23       effects of hatchery reared salmonids on wild salmonid stocks by supporting the accelerated  
24       development and implementation of Hatchery and Genetic Management Plans (HGMPs) for  
25       all state Chinook salmon and steelhead hatcheries in the Central Valley of California
- 26       ▪ **Supporting Development of a Mark- select Fishery Program:** Reducing harvest of wild  
27       stocks of Chinook salmon by producing a proposal by July 2011 for a full-scale mark-select  
28       fishery program that may be implemented by the California Department of Fish and Game  
29       (DFG) and the Pacific Fishery Management Council (PFMC)
- 30       ▪ **Support Smelt Conservation Hatchery and Establishment/Expansion of Refugial**  
31       **Population:** Supporting: (1) the development of a delta and longfin smelt conservation  
32       hatchery by the USFWS to house a delta smelt refugial population and provide a source of  
33       delta and longfin smelt for supplementation or reintroduction, if deemed necessary by Fishery  
34       Agencies, and (2) the expansion of the refugial population of delta smelt and establishment of  
35       a refugial population of longfin smelt at the University of California, Davis Fish Conservation

1 and Culture Laboratory to serve as a population safeguard in case of a catastrophic event in the  
2 wild

### 3 Emergency Actions

- 4     ▪ Repairs of imperiled or broken utility lines, or utility failures; repairs of structures damaged by  
5 floods; repair, replacement, and/or removal of failed structures and associated facilities; repair  
6 of structures that are in imminent danger of serious damage or failure; protection of structures  
7 and property from flooding; fire suppression; response to accidents; cleanup of tree blow  
8 downs; repair of gates; repair of levees; cleanup of spilled hazardous materials and/or waste;  
9 emergency sedimentation and erosion control activities

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