

List of Action Categories and Actions

Comments on Action Categories and Actions

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Name: Reclamation Staff

| | 1 - 5 Lowest Highest | Core Importance Action C |
|---|------------------------------|--------------------------------|
| Action Categories to Restore Bay-Delta System Habitats | | |
| Restoration of Bay-Delta System Shallow Water (Tidal) Habitat | <u>3</u> | _____ |
| Actions: | | |
| -Convert existing leveed lands to tidal action | <u>3</u> | _____ |
| -Protect existing shallow habitat from erosion | <u>2</u> | _____ |
| -Restore tidal action to existing diked wetlands | <u>2</u> | _____ |
| -Reconstruct levees to include shallow water habitat | <u>3</u> | _____ |
| -Fill deep water to produce shallow habitat | <u>1</u> | _____ |
| Restoration of Bay-Delta System Riverine Habitat | <u>2</u> | _____ |
| Actions: | | |
| -Reconstruct river banks and shallow areas | <u>2</u> | _____ |
| -Restore and preserve channel islands | <u>1</u> | _____ |
| -Restore natural channel configurations | <u>2</u> | _____ |
| -Modify channel/levee construction practices to include riverine elements | <u>4</u> | _____ |
| Restoration of Bay-Delta System Riparian Habitat | <u>3</u> | _____ |
| Actions: | | |
| -Improve and protect degraded riparian habitats | <u>3</u> | _____ |
| -Establish new areas of riparian habitat | <u>1</u> | _____ |
| -Reestablish historic riparian areas | <u>2</u> | _____ |
| -Modify levee maintenance practices | <u>2</u> | _____ |
| -Protect existing riparian habitat | <u>4</u> | _____ |

| | Importance 1 - 5 | Core Action C |
|--|---------------------|---------------------|
| Restoration of Bay-Delta System Wetland Habitat | <u>4</u> | _____ |
| Actions: | | |
| -Restore, enhance, and create wetlands | <u>3</u> | _____ |
| -Expand wetland acquisition programs | <u>1</u> | _____ |
| -Convert agricultural lands to wetlands | <u>2</u> | _____ |
| -Protect existing wetland habitat | <u>4</u> | _____ |
| Restoration of Bay-Delta System Terrestrial Habitat | <u>2</u> | _____ |
| Actions: | | |
| -Protect existing upland habitat | <u>4</u> | _____ |
| -Establish upland habitat on levees | <u>2</u> | _____ |
| -Establish upland habitat on fallowed croplands | <u>1</u> | _____ |
| -Establish oak woodlands on suitable soils | <u>2</u> | _____ |
| -Encourage wildlife-friendly agricultural practices | <u>4</u> | _____ |
| -Preserve agricultural land uses providing habitat | <u>4</u> | _____ |
| -Clean up sites contaminated with toxic substances | <u>4</u> | _____ |
| Implementation of Integrated Habitat Management Programs | <u>3</u> | _____ |
| Actions: | | |
| -Establish regional ecosystem restoration guidelines | <u>3</u> | _____ |
| -Implement integrated regional habitat management | <u>3</u> | _____ |
| -Develop cooperative management agreements | <u>3</u> | _____ |
| -Establish mitigation banking program | <u>3</u> | _____ |
| Establishment of Floodways and Meander Belts | <u>2</u> | _____ |
| Actions: | | |
| -Relocate levees to widen floodways | <u>4</u> | _____ |
| -Allow river channels to meander | <u>3</u> | _____ |
| -Acquire Delta islands as overflow areas | <u>4</u> | _____ |
| -Restore floodways as habitat corridors | <u>2</u> | _____ |
| Control of Introduced Species | <u>5</u> | <u>C</u> |
| Actions: | | |
| -Remove or reduce nuisance species in key habitats | <u>4</u> | _____ |
| -Improve regulation of ballast-water releases | <u>5</u> | <u>C</u> |
| -Improve border inspection practices | <u>5</u> | <u>C</u> |
| -Inspect for invasions of nuisance species | <u>5</u> | _____ |
| -Modify habitat to favor native species | <u>3</u> | _____ |

| | Importance 1 - 5 | Core Action C |
|--|---------------------|---------------------|
| Delta Waterfowl Habitat Management | <u>3</u> | ___ |
| Actions: | | |
| -Manage agricultural crops for waterfowl forage production | <u>4</u> | ___ |
| -Improve management of public waterfowl areas | <u>4</u> | ___ |
| -Implement terrestrial predator control programs | <u>1</u> | ___ |
| -Increase sources and availability of wildlife forage | <u>2</u> | ___ |

Action Categories to Restore Upstream Habitat

| | | |
|---|----------|----------|
| Restoration of Upstream Anadromous Fish Habitat | <u>4</u> | <u>C</u> |
| Actions: | | |
| -Manage flows and temperatures in upstream habitats | <u>5</u> | <u>C</u> |
| -Restore and replenish spawning gravels | <u>5</u> | ___ |
| -Restore channel configurations | <u>3</u> | ___ |
| -Restore shoreline habitat conditions | <u>3</u> | ___ |
| -Modify gravel mining practices | <u>2</u> | ___ |
| -Improve floodway drainage to reduce fish stranding | <u>3</u> | ___ |
| Improvements for Upstream Fish Passage | <u>3</u> | <u>C</u> |
| Actions: | | |
| -Modify passage at upstream dams and other barriers | <u>3</u> | ___ |
| -Modify natural barriers to improve passage | <u>3</u> | ___ |
| Restoration of Upstream Riparian Habitat | <u>3</u> | ___ |
| Actions: | | |
| -Restrict livestock grazing in riparian corridors | <u>2</u> | ___ |
| -Revegetate degraded riparian habitats | <u>3</u> | ___ |
| -Protect riparian lands through purchase/easements | <u>4</u> | ___ |
| -Restore flows to dewatered riparian habitats | <u>2</u> | ___ |
| Restoration of Upstream Wetland Habitat | <u>2</u> | ___ |
| Actions: | | |
| -Modify floodways to support wetland habitats | <u>3</u> | ___ |
| -Reuse agricultural drainage to create wetlands | <u>1</u> | ___ |
| -Reuse urban wastewater effluent to create wetlands | <u>2</u> | ___ |
| -Manage groundwater recharge for wetland habitat | <u>4</u> | ___ |

Core
Importance Action
1 - 5 C

Action Categories to Reduce Effects of Diversions

| | | |
|--|----------|----------|
| Delta Inflow/Outflow/Export Management | <u>4</u> | <u>C</u> |
| Actions regarding Delta Inflows: | | |
| -Modify upstream consumptive use | <u>3</u> | ___ |
| -Modify upstream reservoir operations criteria | <u>5</u> | ___ |
| -Modify Delta inflow timing pattern | <u>5</u> | ___ |
| -Provide instream pulse flows for fish passage | <u>3</u> | ___ |
| -Provide instream flows for fish attraction | <u>3</u> | ___ |
| Actions regarding Delta Diversions and Outflows: | | |
| -Modify volumes and timing of exports | <u>3</u> | ___ |
| -Modify in-Delta consumptive use | <u>3</u> | ___ |
| -Modify central Delta channel operations | <u>3</u> | ___ |
| -Modify export operations criteria | <u>4</u> | ___ |
| -Establish a Delta watermaster to manage flows | <u>2</u> | ___ |
| -Use real-time monitoring and adaptive management | <u>5</u> | ___ |
| Modification of Diversion Timing Patterns | <u>5</u> | ___ |
| Actions: | | |
| -Modify diversion timing of in-Delta diversions | <u>6</u> | ___ |
| -Modify diversion timing of export diversions | <u>4</u> | ___ |
| -Coordinate SWP/CVP diversion timing | <u>5</u> | ___ |
| -Modify diversion timing through Montezuma Salinity Control Gate | <u>4</u> | ___ |
| -Use real-time monitoring and adaptive management | <u>4</u> | ___ |
| Increased Rates of Diversion Capacity | <u>4</u> | ___ |
| Actions: | | |
| -Obtain approvals for expanded export capacities | <u>6</u> | ___ |
| -Enlarge export pumping capacities | <u>4</u> | ___ |
| -Increase diversion capability at Red Bluff Diversion Dam | <u>3</u> | ___ |
| Acquisition of Long-Term Water Supplies for Fish and Wildlife | <u>4</u> | <u>C</u> |
| Actions: | | |
| -Acquire water to augment instream flows | <u>3</u> | ___ |
| -Obtain shifts in timing of instream flows | <u>3</u> | ___ |
| -Obtain shifts in diversion timing patterns | <u>3</u> | ___ |

| | Importance 1 - 5 | Core Action C |
|--|---------------------|---------------------|
| -Acquire water for refuge habitat use | <u>3</u> | ___ |
| -Modify water law to establish instream rights | <u>2</u> | ___ |
| Installation and Improvement of Fish Screens | <u>5</u> | ___ |
| Actions: -Improve screens at Delta export pumps | <u>5</u> | ___ |
| -Improve other existing fish screen systems | <u>4</u> | ___ |
| -Install screens on other in-Delta diversions | <u>5</u> | ___ |
| -Install screens on upstream diversions | <u>5</u> | ___ |
| -Consolidate and screen existing small diversions | <u>5</u> | ___ |
| -Enforce screening requirements | <u>4</u> | ___ |
| Improvement of Bay-Delta System Fish Migration | <u>5</u> | <u>C</u> |
| Actions: -Install barriers to block fish movement into Old River | <u>5</u> | <u>C</u> |
| -Install barriers to keep fish in Sacramento River | <u>3</u> | ___ |
| -Install barriers to divert fish from Sacramento River to western distributaries | <u>2</u> | ___ |
| -Operate fish barrier on San Joaquin River at Merced River confluence in fall | <u>2</u> | ___ |
| -Provide instream pulse flows for fish passage | <u>4</u> | ___ |
| -Provide instream flows for fish attraction | <u>4</u> | ___ |
| Improvement of Fish Salvage Operations | <u>4</u> | ___ |
| Actions: -Improve design of salvage facilities | <u>4</u> | ___ |
| -Improve operation of salvage facilities | <u>5</u> | ___ |
| -Improve fish hauling and release procedures | <u>4</u> | ___ |
| Removal and Control of Aquatic Predators | <u>3</u> | ___ |
| Actions: -Harvest predators at Delta export pumps | <u>3</u> | ___ |
| -Harvest predators in upstream habitats | <u>3</u> | ___ |

Action Categories to Manage the Enhancement of Anadromous Fish Populations

| | | |
|--|----------|----------|
| Fish Hatchery Operations | <u>3</u> | <u>C</u> |
| Actions: -Expand hatchery capacities | <u>3</u> | ___ |
| -Construct new hatcheries on the San Joaquin River | <u>3</u> | ___ |
| -Improve hatchery operations | <u>3</u> | ___ |

| | Importance 1 - 5 | Core Action C |
|---|---------------------|---------------------|
| -Reduce hatchery effects on wild fish populations | <u>4</u> | ___ |
| -Implement tagging of hatchery-bred fish | <u>3</u> | ___ |
| -Establish new captive breeding programs | <u>2</u> | ___ |
| Fish Harvest Management | <u>5</u> | ___ |
| Actions: -Improve regulation of commercial take | <u>5</u> | <u>C</u> |
| -Improve regulation of recreational take | <u>4</u> | ___ |
| -Improve enforcement of harvest regulations | <u>5</u> | ___ |

Action Categories for Reducing Reliance on Delta Exports

| | | |
|--|----------|----------|
| Desalination | <u>1</u> | ___ |
| Actions: -Expand desalination of Southern California supplies | <u>1</u> | ___ |
| -Expand desalination of San Joaquin Valley supplies | <u>1</u> | ___ |
| -Improve desalination technologies and cost | <u>1</u> | ___ |
| -Educate users about desalination feasibility | <u>5</u> | <u>C</u> |
| Water Conservation | <u>3</u> | ___ |
| Actions: -Increase use of district-wide conservation practices | <u>3</u> | ___ |
| -Increase use of on-farm conservation practices | <u>2</u> | ___ |
| -Increase use of municipal conservation practices | <u>3</u> | ___ |
| -Increase use of industrial conservation practices | <u>4</u> | ___ |
| -Implement financial incentive policies | <u>4</u> | ___ |
| -Implement conservation-oriented rate structures | <u>4</u> | ___ |
| -Educate users about conservation technologies | <u>3</u> | ___ |
| Water Reclamation | <u>4</u> | ___ |
| Actions: -Recharge groundwater with reclaimed water | <u>4</u> | ___ |
| -Use reclaimed water for agricultural irrigation | <u>5</u> | ___ |
| -Reclaim saline agricultural drainage water | <u>1</u> | ___ |
| -Recycle and treat water for potable reuse | <u>2</u> | ___ |
| -Use reclaimed water for nonpotable urban uses | <u>3</u> | ___ |
| -Use reclaimed water for landscape irrigation | <u>3</u> | ___ |
| -Use reclaimed water for power plant cooling | <u>4</u> | ___ |
| -Use reclaimed water for industrial processes | <u>4</u> | ___ |
| -Use reclaimed water to repel salinity intrusion | <u>3</u> | ___ |
| -Improve reclamation technologies and cost | <u>5</u> | <u>C</u> |
| -Educate public about water reclamation | <u>5</u> | <u>C</u> |

| | Importance 1 - 5 | Core Action C |
|---|---------------------|---------------------|
| Land Retirement and Fallowing | <u>5</u> | — |
| Actions: | | |
| -Encourage land fallowing during drought periods | <u>5</u> | <u>C</u> |
| -Develop incentive programs for land retirement | <u>5</u> | <u>C</u> |
| -Purchase lands or easements | <u>4</u> | — |
| -Retire lands with drainage problems | <u>5</u> | — |
| Water Pricing | <u>4</u> | — |
| Actions: | | |
| -Establish incentives for pricing to reduce demand | <u>4</u> | — |
| -Educate users about pricing feasibility | <u>3</u> | — |
| -Remove legal obstacles to pricing incentive programs | <u>4</u> | — |
| Action Categories to Enhance Water Supplies | | |
| Watershed Management | <u>2</u> | — |
| Actions: | | |
| -Manage vegetation cover to increase yield | <u>2</u> | — |
| -Manage riparian zones to protect water quality | <u>2</u> | — |
| -Manage land uses to reduce sedimentation | <u>3</u> | — |
| -Modify weather to increase precipitation | <u>1</u> | — |
| New or Expanded Onstream Storage | <u>5</u> | <u>C</u> |
| Actions: | | |
| -Construct new storage facilities south of the Delta | <u>4</u> | — |
| -Construct new storage facilities north of the Delta | <u>3</u> | — |
| -Enlarge existing onstream storage reservoirs | <u>4</u> | — |
| -Modify operations of existing onstream reservoirs | <u>5</u> | — |
| New or Expanded Offstream Storage | <u>5</u> | <u>C</u> |
| Actions: | | |
| -Construct new storage facilities south of the Delta | <u>5</u> | — |
| -Construct new storage facilities north of the Delta | <u>3</u> | — |
| -Construct new storage facilities in Delta | <u>4</u> | — |
| -Enlarge existing offstream storage reservoirs | <u>3</u> | — |
| -Modify operations of existing offstream reservoirs | <u>5</u> | — |
| Groundwater Banking and Conjunctive Use | <u>4</u> | — |
| Actions: | | |
| -Establish incentives for conjunctive use | <u>4</u> | — |
| -Modify Water Code to encourage conjunctive use | <u>5</u> | <u>✓</u> |
| -Establish conjunctive use programs | <u>4</u> | — |

| | Importance 1 - 5 | Core Action C |
|--|---------------------|---------------------|
| -Store groundwater south of the Delta | <u>5</u> | ___ |
| -Store groundwater north of the Delta | <u>2</u> | ___ |
| -Implement techniques to increase groundwater recharge | <u>3</u> | ___ |
| Improvement of Through-Delta Conveyance | <u>5</u> | <u>C</u> |
| Actions: | | |
| -Increase capacities of existing east-side channels | <u>4</u> | ___ |
| -Increase flows from the Sacramento River to the central Delta | <u>3</u> | ___ |
| -Modify Delta levees to increase flow cross sections | <u>5</u> | ___ |
| -Construct pump/siphon systems between Delta channels | <u>4</u> | ___ |
| -Expand existing intakes at the Delta export facilities | <u>3</u> | ___ |
| -Construct expanded export intake/forebay pumping system | <u>5</u> | ___ |
| Construction and Improvement of Conveyance Facilities | <u>5</u> | <u>C</u> |
| Actions: | | |
| -Construct east-side isolated transfer system | <u>5</u> | ___ |
| -Construct west-side isolated transfer system | <u>3</u> | ___ |
| -Construct small isolated transfer facility | <u>3</u> | ___ |
| -Convert Delta islands to storage/conveyance system | <u>5</u> | ___ |
| -Construct conveyance to offstream storage | <u>5</u> | ___ |
| -Construct conveyance to groundwater storage | <u>2</u> | ___ |
| Changes in Locations of Diversions | <u>5</u> | ___ |
| Actions: | | |
| -Relocate Delta export pumps from key habitats | <u>5</u> | ___ |
| -Relocate other in-Delta diversions for more reliable supplies | <u>5</u> | ___ |
| -Consolidate in-Delta agricultural diversions | <u>5</u> | ___ |
| -Relocate upstream diversions from key habitats | <u>5</u> | ___ |
| -Improve diversion designs when relocating | <u>4</u> | ___ |
| Action Categories to Increase Supply Predictability | | |
| Water Transfers | <u>4</u> | ___ |
| Actions: | | |
| -Modify Water Code to ease transfers | <u>4</u> | ___ |
| -Improve procedures for transfer permitting | <u>4</u> | ___ |
| -Coordinate diversion and conveyance of transfers | <u>5</u> | ___ |

| | Importance 1 - 5 | Core Action C |
|--|---------------------|---------------------|
| Long-Term Planning for Drought Contingencies | <u>3</u> | ___ |
| Actions: | | |
| -Increase water storage capacities at user locations | <u>5</u> | ___ |
| -Establish incentives for long-term planning | <u>3</u> | ___ |
| -Conduct Integrated Resources Planning | <u>3</u> | ___ |
| -Establish incentives for long-term conservation | <u>3</u> | ___ |
| -Develop alternate supplies for drought situations | <u>2</u> | ___ |
| Water Resources Data and Information Management | <u>1</u> | ___ |
| Actions: | | |
| -Establish a comprehensive water data system | <u>1</u> | ___ |
| -Implement real-time data management system | <u>1</u> | ___ |
| -Integrate data for adaptive management decisions | <u>1</u> | ___ |
| -Establish accessible data management system | <u>1</u> | ___ |
| Establishment of Institution for Integrated Long-Term Water Management | ___ | ___ |
| Actions: | | |
| -Establish long-term guarantees for management | <u>2</u> | ___ |
| -Establish institution to implement guarantees | <u>2</u> | ___ |
| -Coordinate multiagency roles in management | <u>5</u> | <u>C</u> |
| -Coordinate groundwater and surface water management | <u>4</u> | ___ |
| -Establish incentives for cooperation/coordination | <u>2</u> | ___ |
| -Establish a public awareness and education program | <u>2</u> | ___ |
| Establishment of Export Capacity Market | <u>3</u> | ___ |
| Actions: | | |
| -Establish procedures for allocation of export capacity | <u>3</u> | ___ |
| -Establish institution to allocate export capacity | <u>3</u> | ___ |
| -Coordinate water transfers and export capacity | <u>3</u> | ___ |
| -Market export capacity for environmental benefits | <u>3</u> | ___ |
| Integration of Land Use and Water Supply Planning | <u>3</u> | ___ |
| Actions: | | |
| -Coordinate land uses with water supplies | <u>3</u> | ___ |
| -Encourage local determination of supplies available | <u>2</u> | ___ |
| -Encourage local assessment of water supply reliability | <u>2</u> | ___ |

Core
Importance Action
1 - 5 C

Action Categories for Managing Water Quality

| | | |
|--|----------|-------------|
| Installation and Operation of Flow Barriers | <u>1</u> | <u> </u> |
| Actions: -Install flow barriers to manage south Delta quality | <u>1</u> | <u> </u> |
| -Install weirs to control salinity intrusion | <u>1</u> | <u> </u> |
| Management of Agricultural Drainage | <u>2</u> | <u> </u> |
| Actions: -Implement source control regulations for pollutants | <u>2</u> | <u> </u> |
| -Implement pollutant-load limits in San Joaquin River | <u>1</u> | <u> </u> |
| -Reduce or control volume of agricultural discharges | <u>2</u> | <u> </u> |
| -Modify cropping and irrigation practices | <u>2</u> | <u> </u> |
| -Export agricultural drainage to other watersheds | <u>5</u> | <u> </u> |
| -Retire lands with drainage disposal problems | <u>5</u> | <u> </u> |
| -Improve pest-control practices | <u>2</u> | <u> </u> |
| -Avoid use of high-salinity irrigation water | <u>1</u> | <u> </u> |
| -Manage irrigation tailwater to reduce pesticides | <u>2</u> | <u> </u> |
| -Manage drainage timing to reduce instream impacts | <u>2</u> | <u> </u> |
| -Treat drainage to remove salt or other pollutants | <u>1</u> | <u> </u> |
| -Dilute pollutants in Delta inflows from SJR using stored water | <u>1</u> | <u> </u> |
| Management of Urban/Industrial Drainage and Wastewater Discharge | <u>2</u> | <u> </u> |
| Actions: -Retain and manage stormwater runoff | <u>1</u> | <u> </u> |
| -Implement urban awareness/education programs | <u>1</u> | <u> </u> |
| -Treat discharges to remove problem constituents | <u>1</u> | <u> </u> |
| -Construct wetlands to treat wastewater effluent | <u>2</u> | <u> </u> |
| -Increase key nutrient inputs to estuary | <u>2</u> | <u> </u> |
| -Enforce wastewater discharge requirements | <u>2</u> | <u> </u> |
| -Prevent toxic discharges from industrial plants | <u>5</u> | <u>C</u> |
| Dredged Material Management | <u>2</u> | <u> </u> |
| Actions: -Limit dredging to slack tides | <u>2</u> | <u> </u> |
| -Limit dredging to avoid fish migration periods | <u>4</u> | <u> </u> |
| -Use techniques to localize sediment movement | <u>2</u> | <u> </u> |
| -Dispose dredged materials at nonaquatic or other suitable sites | <u>1</u> | <u> </u> |
| -Remove contaminated sediments in critical habitat sites | <u>2</u> | <u> </u> |
| -Ensure material used for levee maintenance is noncontaminated | <u>4</u> | <u> </u> |

| | Importance 1 - 5 | Core Action C |
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| Management of Abandoned-Mine Drainage | <u>3</u> | ___ |
| Actions: | | |
| -Manage discharges from abandoned mines | <u>3</u> | ___ |
| -Remediate abandoned mining sites discharging pollutants | <u>4</u> | ___ |

Action Categories for Improving System Reliability

| | | |
|---|----------|-----|
| Levee Maintenance and Stabilization | <u>4</u> | ___ |
| Actions: | | |
| -Maintain and stabilize existing levees | <u>4</u> | ___ |
| -Modify agricultural practices to reduce subsidence | <u>3</u> | ___ |
| -Use infilling to correct past subsidence | <u>4</u> | ___ |
| -Implement uniform maintenance standards | <u>2</u> | ___ |
| -Provide funding for maintenance and stabilization | <u>3</u> | ___ |
| Improvement of Flood Protection Levels and Seismic Stabilities | <u>4</u> | ___ |
| Actions: | | |
| -Reconstruct levees to higher design standards | <u>3</u> | ___ |
| -Reconstruct levees to higher seismic standards | <u>3</u> | ___ |
| -Relocate levees to more stable sites | <u>3</u> | ___ |
| -Widen floodways to increase flood conveyance | <u>4</u> | ___ |
| -Establish and manage flood overflow areas | <u>4</u> | ___ |
| Rerouting and Protection of Infrastructure from Flooding and Seismic Risk | <u>3</u> | ___ |
| Actions: | | |
| -Maintain/reconstruct levees around infrastructure | <u>2</u> | ___ |
| -Reconstruct infrastructure to increase reliability | <u>3</u> | ___ |
| -Relocate/reroute infrastructure | <u>4</u> | ___ |
| Establishment of Long-Term Funding Mechanisms | <u>3</u> | ___ |
| Actions: | | |
| -Establish a disaster contingency funding program | <u>3</u> | ___ |
| -Establish a Bay-Delta financing authority | <u>4</u> | ___ |
| -Provide low-cost debt financing for local agencies | <u>3</u> | ___ |
| -Establish a bond financing mechanism | <u>3</u> | ___ |
| -Establish a statewide water utility surcharge | <u>2</u> | ___ |

