

Excerpt from Staff Draft #1 -- Delta Vision Strategic Plan (June 18, 2008)

Governance and Finance

Goals

- * Create clear lines of governmental responsibility for protecting the co-equal values and other state interests in the Delta.
- * Ensure consistency of action and clarity of roles among existing agencies across all levels of government.
- * Ensure adaptability of governance to changed circumstances over time.
- * Create effective finance mechanisms.

Performance Measures

- * Length of time before negative trends in other performance measures are reversed.
- * Number of federal and state court actions addressing the co-equal values and the Delta as a place.
- * Percentage of water diverters in the Delta watershed who report surface and groundwater diversions.

Strategies

1. Create a multi-part governance structure, with a California Delta Ecosystem and Water Council, a strengthened Delta Protection Commission, a Delta Conservancy, and a Delta Science and Engineering Board. The Council develops and adopts the California Delta Ecosystem and Water Plan (CDEW Plan) and has ongoing responsibility for its implementation (see Figure 1). The CDEW Plan incorporates all plans developed under species protection laws.
2. Ensure consistency of action among existing state, federal and local entities by creating the CDEW Plan, clarifying the roles of existing agencies in the Delta, and making full use of existing laws and constitutional principles governing water.
3. Finance the activities called for in the CDEW Plan by creating effective and transparent revenue-generation mechanisms that reflect the true value of resources, and are linked to value-creation for beneficiaries and future generations of Californians.

Actions:

Action 1.1: Create a California Delta Ecosystem and Water Council to govern the co-equal values of healthy estuarine ecosystem function and a reliable water supply, and to approve policies for enhancing the Delta as a place.

Action 1.2: Enhance the capacity of the Delta Protection Commission to govern land use and promote economic development in the Delta region.

Action 1.3: Create a California Delta Conservancy to undertake ecosystem enhancement projects and conduct other activities in support of the California Delta Ecosystem and Water Plan, and to coordinate effectively with non-governmental organizations, businesses, property owners, and all units of government.

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Action 1.4: Create a Delta Operations Team and a California Water Utility to manage Delta water flows and the State Water Project, in concert with Central Valley Project operating guidelines and measures.

Action 1.5: Create a Delta Science Program and a Delta Science and Engineering Board to support the Council in pursuit of the co-equal goals, and to design and oversee an adaptive management plan.

Action 1.6: Develop a robust, science-based adaptive management program that enables frequent management adjustments in response to changing Delta conditions.

Action 2.1: Develop a legally binding California Delta Ecosystem and Water Plan to establish a detailed management structure for attainment of the co-equal goals as well as identified land use issues in the Delta region.

Action 2.2: Ensure that environmental justice is adequately addressed in Delta decision-making processes by requiring review of proposed actions against environmental justice criteria defined in the CDEW Plan.

Action 2.3: Improve the compliance of the diversion and use of water with all applicable laws and regulations.

Performance target schedule (initial unvetted proposals for discussion purposes only)

	2020	2040	2060
Length of time before negative trends in other performance measures are reversed	Years	1 year	Months
Number of federal and state court actions addressing the co-equal values and the Delta as a place	<10	0	0
Percentage of water diverters in the Delta watershed who report surface and ground water diversions	80%	100%	100%

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Ecosystem

Goals

- * Support viable populations of native resident and migratory species.
- * Create functional corridors for migratory species.
- * Create a diverse mosaic of habitats and ecosystem processes.
- * Reduce stressors to below adverse effects levels.
- * Provide important human services.

Performance Measures

- * Acreage of tidal marsh, active floodplains, seasonal wetlands, and upland grasslands.
- * Area of open water and channel habitat with hospitable flow, quality and stressor conditions for native and desirable non-native fish (including migrants), in each season of the year.
- * Degree of connectivity between major terrestrial and aquatic habitat types, including the extent of land-water interface areas.
- * Number of new invasive species introduced into the Delta and Suisun Marsh ecosystems, and abundance of current invasive species.
- * Number of fish lost to entrainment at in-Delta diversion points.
- * Delta smelt and longfin smelt abundance (% of 1967 – 1983 Mid-Winter Trawl).
- * Delta smelt distribution (% of pre-1983 range occupied).
- * Splittail abundance (% of 1987-1991 drought).
- * Ducks sustained at peak wintering abundance.
- * Shorebirds sustained at peak wintering abundance.

Strategies

4. Restore physical habitats in multiple large, connected complexes of tidal marshes, floodplains, shallow open water, seasonal wetlands, grasslands and riparian edges that support native and desirable non-native species, and that increase the land-water interfaces characteristic of the historic Delta and other effective estuaries.
5. Restore appropriate water flows and other ecosystem processes throughout all Delta habitat types.
6. Reduce or remove stressors to the Delta ecosystem, including invasive species, contaminants, and entrainment.

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Action 4.1: Restore as much tidal marsh acreage as physically feasible, and conserve adjacent uplands in geographically linked complexes.

Action 4.2: Inundate floodplains in as many years as possible.

Action 4.3: Preserve and enhance seasonal wetland complexes and adjacent upland grasslands.

Action 4.4: Create new open water areas within the Delta and Suisun.

Action 4.5: Support and enhance established migratory corridors through temporary or permanent changes to channel geometry.

Action 5.1: Provide increased freshwater flows (and shift the timing, quantity, quality, and input locations of flows) through the Delta at critical times and locations in spring and fall that coincide with key life history stages of resident and migratory fishes.

Action 5.2: Resolve export effects on net Delta transport.

Action 5.3: Incorporate flood protection benefits into tidal marsh and floodplain restoration efforts to the maximum extent practical.

Action 5.4: Improve conjunctive use programs that shift highest exports to wettest periods and lowest exports to driest periods.

Action 6.1: Control harmful invasive species at existing locations and in restored areas.

Action 6.2: Minimize methyl mercury production.

Action 6.3: Reduce export effects on fish, including instituting pumping restrictions and diversion management and relocation.

Action 6.4: Monitor fish and wildlife health at suspected toxic sites.

Action 6.5: Construct water treatment wetlands wherever feasible at municipal, industrial, and agricultural returns.

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	2020	2040	2060
Acres of tidal marsh	30,000	60,000	100,000
Acres of active floodplain	30,000	50,000	50,000
Acres of seasonal wetlands and grasslands	30,000	60,000	100,000
Acres of Fall open water habitat	20,000	35,000	35,000
Amount of channel habitat	1 corridor	3 corridors	6 corridors
Degree of connectivity	Miles	Tens of miles	Tens of miles
Number of new invasive species	<5	<10	<15
Fish entrained at Delta diversions	Down 20%	Down 50%	Down 90%
Delta smelt and longfin smelt abundance (% of 1967-1983 Fall Mid-Winter Trawl)	>50	100	>100
Delta smelt distribution (% of pre-1983 range occupied)	>50	100	100
Splittail abundance (% of 1987-1991 drought)	>100	>100	>100
Ducks sustained at peak wintering abundance	1.4 million	>1.4 million	>1.4 million
Shorebirds sustained at peak wintering abundance	70,000	>70,000	>70,000

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Water Supply Reliability

Goals

- * Improve water supply reliability, provide adequate supplies, and enhance regional self-sufficiency.
- * Enhance the supply, quality, timing, and flexibility of water resources.
- * Manage the co-equal values and prepare for climate change.

Performance Measures

- * Water use per capita and per unit of economic output, by hydrologic region.
- * Length of time, at average rates of use over a three-year period, that a given district's alternative and stored supplies will last if there is a catastrophic outage of the Delta.
- * Amount of water in accessible surface and ground water storage.
- * Concentrations of contaminants in Delta water.
- * Percentage of precipitation in the Delta watershed that is infiltrated or directly used.
- * Amount of water exported from the Delta that is recycled or re-infiltrated.

Strategies

7. Maximize regional water self-sufficiency throughout California by a wide range of supply augmentation and demand management techniques.
8. Integrate and strengthen management of all aspects of the water cycle, including surface flows, groundwater, flood control, infiltration, and water quality.
9. Create a wet-period diversion, conveyance and storage system to the greatest feasible extent to minimize ecosystem stress and prepare for climate change.

Actions:

Action 7.1: Improve collection of baseline water diversion and use data.

Action 7.2: Develop mechanisms to increase the implementation of urban water use efficiency measures and link state funding to achievement of efficiency goals.

Action 7.3: Require developments to include best-available water savings devices and to provide mitigation for new water use.

Action 7.4: Increase the percentage of agricultural lands irrigated with highly efficient technology and management practices.

Action 7.5: Increase locally generated supplies through the use of recycled water, desalination, and captured stormwater.

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Action 7.6: Develop storage requirements and operational guidelines to address the use of recycled water for indirect reuse.

Action 7.7: Streamline the water transfer regulatory approval process.

Action 8.1: Increase investment in development of Delta hydrodynamic and water management modeling tools.

Action 8.2: Work with the federal government to modify flood management operations at existing major multi-purpose reservoirs to obtain additional water supply yield while maintaining flood control capacity.

Action 8.3: Coordinate with the Central Valley Flood Protection Plan to increase flood conveyance capacity along the lower San Joaquin River, including through the Delta, so that water supply yield from terminal multi-use reservoirs in the San Joaquin Valley can be increased.

Action 8.4: Ensure a clear decision process and public vetting of major modeling assumptions for the Bay Delta Conservation Plan Environmental Impact Statement/Report for a Delta Conveyance Alternative, and ensure consistency between these assumptions and those used in other major modeling efforts.

Action 8.5: Control anthropogenic (i.e. human-generated) contaminants at the source, before they enter the Delta.

Action 8.6: Improve the legal and regulatory framework associated with groundwater banking agreements and operations.

Action 8.7: Institute comprehensive basin management planning to address the availability, quality, and managed use of regional groundwater resources.

Action 8.8: Encourage infiltration or direct use of precipitation throughout the Delta watershed and export areas.

Action 9.1: In the near-term, experimentally implement a Middle River conveyance, as recommended by the Delta Vision Stakeholder Coordination Group.

Action 9.2: Over time, shift export diversion timing to wetter periods (both within and between years) while providing sufficient reliability for regions reliant on water exported from the Delta watershed.

Action 9.3: Shift major in-Delta diversions away from sensitive habitats (high priority restoration areas, low-flow channels and terminal sloughs) to channels where drinking water quality is higher.

Action 9.4: Create a dual conveyance system for the Delta designed to optimize capture of wet-period flows.

Action 9.5: Identify mechanisms to connect legal in-Delta water users to improved Delta conveyance facilities.

Action 9.6: Support expedited completion of the CALFED surface storage investigations and implement the storage options that optimize the capture of wet-period flows.

Performance target schedule (initial unvetted proposals for discussion purposes only)

	2020	2040	2060
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Water use per capita	Down 20%	Down 30%	Down 50%
Water use per unit economic output	Down 20%	Down 40%	Down 60%
Length of time, at average rates of use over a three-year period, that a given district's alternative and stored supplies will last if there is a catastrophic outage of the Delta	Up 25% (on average)	Up 50% (on average)	Up 100% (on average)
Amount of water in accessible surface and ground water storage	Up 20%	Up 40%	Up 60%
Concentrations of contaminants in Delta water	Down 20%	Down 40%	Down 60%
Percentage of precipitation in the Delta watershed that is infiltrated or directly used	Up 10%	Up 15%	Up 20%
Amount of water exported from the Delta that is recycled or re-infiltrated	50%	75%	100%

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Delta as Place

Goals

- * Increase recognition of the Delta as a place.
- * Enhance tourism and recreation, and the local economy.
- * Decrease flood risks to people and property, and match levee types to land uses.
- * Improve governance of state interests and local priorities.

Performance Measures

- * Flood risk, measured as probability of an event multiplied by its consequences.
- * Acres of land in desirable land uses, including agriculture, recreation, habitat, subsidence reversal, carbon sequestration, and flood bypass or easement (multi-functional lands count for each category used).
- * Index measuring congruence of land use with levee type.

Strategies

10. Increase recognition of the Delta as a place, and enhance tourism and recreation, by creating a National Heritage Area and a multi-unit State Recreation Area, and by facilitating new investments in “gateway” locations near major cities and highways.

11. Enhance the Delta as a place by creating multi-purpose river corridors on each major river system entering the Delta, and by creating Special Area Management Plans for selected areas.

12. Improve the Delta’s flood protection and levee system by improving upstream flood management, designing and financing levee types to protect specific land uses and services, and conducting comprehensive emergency management planning and preparation.

Actions:

Action 10.1: Fulfill the requirements necessary to achieve a National Heritage Area designation for the Delta from the federal government.

Action 10.2: Issue a model ordinance to local governments for the creation of special enterprise zones at the major “gateways” to the Delta.

Action 10.3: Create a multi-unit California Delta State Recreation Area.

Action 10.4: On the publicly-owned western Delta islands, manage a land-use transition to recreation, terrestrial habitat, subsidence reversal, carbon sequestration, dredged material handling and appropriate agriculture.

Action 10.5: Create market structures or incentives for Delta agriculture to produce public benefits in addition to food and fiber.

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Action 11.1: Establish water quality, ecosystem management, and flood control priorities for key river corridors in the Delta.

Action 11.2: Draft Special Area Management Plans for specific areas outside of the existing primary zone where state interests in land use can be protected with either greater or lesser oversight than currently exists.

Action 11.3: Have the Delta Protection Commission lead a process to draft Specific Plans for the Delta's legacy towns.

Action 12.1: Reduce flood threats to the Delta, and increase the flexibility and reliability of water management in the Delta watershed, by improving upstream flood management.

Action 12.2: Enhance the Delta levee system by linking levee designs and financing to the land uses protected, and the services provided, by the levees.

Action 12.3: Create a Delta-specific emergency response strategy cooperatively among emergency response agencies to clearly define individual roles and responsibilities and identify gaps in existing response efforts.

Action 12.4: Reduce risks to the critical infrastructure passing through the region by conducting a comparative analysis of the long-term costs and benefits of levee reinforcement, system co-location, relocation, or tunneling.

Action 12.5: Embark upon a comprehensive series of emergency management and preparation actions, beginning immediately.

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	2020	2040	2060
Flood risk (probability times consequences)	Down 10%	Down 50%	Down 50%
Acres of land in desirable land uses	Up 20%	Up 50%	Up 100%
Index measuring congruence of land use and levee types	[TBD]	[TBD]	[TBD]