

Draft List of Projects that Implement the Near-Term Strategies

At its November meeting, the Council directed staff to develop more detailed descriptions of priority actions that implement the near-term strategies. To this end, staff has held discussions with executives and other staff at the Department of Water Resources, the Department of Fish and Game, the State Water Resources Control Board, the Delta Conservancy, and the Delta Protection Commission, to request more specific information.

Attachment 3 provides a preliminary list of ongoing and planned projects and programs, including an estimated budget, permit status (if known), and timeline. This list will evolve over the coming months, so that it will be ready for discussion and review at a Delta Plan Implementation Committee meeting this spring. The intent of this attachment is to provide the Council with this preliminary information to use as the basis for discussion about next steps in identifying priority near term actions.

Draft List of Projects and Program
Implement the Near-Term Strate

Category	Strategy	Project or Program Description	Lead Agency	Cost	Funding Source	Additional Funds Needed	Permits	Status (describe)	Schedule	Adaptive management monitoring	Delta Plan
Water Supply Reliability	Improve critical levees that protect existing freshwater conveyance system	Delta Levees Special Projects Program	DWR	\$180 M	Prop 1E/84 funds	?	CEQA	DWR has not specifically initiated any projects primarily related to upgrading the levees that protect the existing freshwater conveyance system pathways. The protection of such pathways has been identified by DWR as a top priority for levee investments within their draft document "A Framework for DWR Investments in Delta Integrated Flood Management" (Feb. 2011). This document is not expected to be finalized until June 2013, and it is subsequently expected that DWR will then set forth their workplan to implement the priorities developed. At this point, no specific actions have been identified by DWR as immediately forthcoming to address freshwater pathway levee upgrades.	?	N/A	RR P1
		Example Project to achieve this strategy: Improve segments of levees along the Middle River corridor which protect the freshwater pathway to the export facilities. These levees are located on Bacon Island, Woodward Island, Upper and Lower Jones Tract, McDonald Tract, and Victoria Island. The project would include stockpiling materials for repairs after a major emergency.	MWD	\$100 M	Prop 1E/84 funds	?	CEQA	PLANNED: Total cost is estimated at \$100 M, of which \$60 M is for levee repair work and \$40 M is for stockpiling materials. To date, \$80 M has been appropriated or authorized. Project is mostly in the feasibility planning stage, with some work underway at Bacon Island.	?	N/A	RR P1
		Example project to achieve this strategy: Improve levees which protect the Mokelumne Aqueduct and serves EBMUD. These levees are located on Lower Roberts Island, Lower Jones Tract, Upper Jones Tract, Woodward Island and Palm-Orwood Tract	EBUMD	\$80 M	Prop 1E/84 funds	?	CEQA	IN PROGRESS: To date, DWR has awarded nearly \$35 M for the improvement of Delta levees that protect EBMUD's Mokelumne Aqueduct.	?	N/A	RR P1
	Improve SWP reliability	The mechanical equipment needs more frequent and more substantive maintenance in order to operate in a safe, efficient, and reliable manner. Operational Availability metrics that define maintenance efficiencies have been on a decline since 2005 and need to be improved.	DWR	?	State Water Project Contractors	Potential Cost Savings to rate payers	N/A	The primary deficiency identified by DWR in performing adequate maintenance is a lack of qualified staff (i.e., number of positions and level of experience) to repair aging, custom-built equipment. Legislation and/or an Executive Order may be necessary to address these staffing issues. Deferred maintenance has translated into higher operational costs.	2013	N/A	Chapter 3 narrative

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	Fund projects that reduce reliance on the Delta through the Integrated Regional Water Management Program (IRWMP)	IRWMP is a collaborative effort to manage all aspects of water resources in a region. IRWMP crosses jurisdictional, watershed, and political boundaries; involves multiple agencies, stakeholders, individuals, and groups; and attempts to address the issues and differing perspectives of all the entities involved through mutually beneficial solutions.	DWR	\$1.5 B	Prop 50 (\$500M) Prop 84 (\$1B) (Planning and Implementation only)	Additional funds would result in more projects	Project specific	COMPLETE: Prop 50 funds were expended in three rounds of project solicitations and awards 1 round of planning projects and 2 rounds of implementation projects IN PROGRESS: Prop 84 funds are being expended 1 st Round Planning - \$21M 1 st Round Implementation - \$205M 2nd Round Planning - \$9M (draft award) 2nd Round Implementation - Proposal Solicitation Stage	Continuing	N/A	WR P1, WR R4, WR R5
		Example IRWMP project: The <u>Penmar Water Quality Improvement and Runoff Reuse Project</u> will treat stormwater diverted from the 16th Street subwatershed. The disinfected effluent will be pumped through a smart irrigation system to decrease the current landscaping irrigation demand	LA County Flood Control District	\$2.9 M	IRWMP Grant	?	?	?	Grant awarded 2011	?	WR P1, WR R4, WR R5
		Example IRWMP project: The <u>Water and Energy efficiency in the Schools and Hotel/Motel Sectors program</u> will directly install both water and energy efficiency devices in schools and hotels/motels within the beachside communities of Malibu and Topanga. The program will also disseminate conservation education literature, thus providing a "full service" water and energy efficiency program.	LA County Flood Control District	\$452,880	IRWMP Grant	?	?	?	Grant awarded 2011	?	WR P1, WR R4, WR R5
		Example IRWMP project: <u>C12 The Integrated Water Shortage Response Feasibility Study and Action Plan</u> components include: 1) preparation of water shortage action plans with prioritized actions and clear implementation strategies, 2) integrating water shortage preparedness with capital improvement planning, and, 3) enhancing customer conservation options and behavior	Nevada City	\$186,595	IRWMP Grant	?	?	?	Grant awarded 2011	?	WR P1, WR R4, WR R5

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		Example IRWMP project: The <u>North San Diego County Regional Recycled Water Project</u> is a plan by North San Diego County water and wastewater agencies to regionalize recycled water systems by identifying new agency interconnections, seasonal storage opportunities and indirect potable water uses that will maximize supplies, reduce wastewater discharges to ocean, potentially reduce energy consumption due to diminished delivery of imported water, and allow recycled water to play an even more significant role in meeting future water needs.	San Diego County Water Authority	\$1.5M	IRWMP Grant	?	?	?	Grant awarded 2011	?	WR P1, WR R4, WR R5
		Example IRWMP project: The <u>Bay Area Regional Water Conservation Program</u> includes a suite of program elements that promote high-efficiency technologies and best water conservation practices to improve indoor and outdoor water use efficiency throughout the San Francisco Bay Area.	Bay Area Clean Water Agencies	\$8.9M	IRWMP Grant	?	?	?	Grant awarded 2011	?	WR P1, WR R4, WR R5
	Restart progress on North Bay Aqueduct	North Bay Aqueduct Alternate Intake Project	DWR	?	SWP funding (NBA users)	Yes	CEQA, others	PLANNED: Draft EIR was originally expected December 2012. DWR now estimates this will be March 2013. No current estimate for project completion. May be limited by available funding.		Yes	WQ R5
Ecosystem Restoration	Accelerate progress toward tidal marsh and floodplain habitat restoration acreage targets	Fish Restoration Program Agreement(FRPA): Restore 8,000 acres of intertidal and associated subtidal habitat to benefit delta smelt and longfin smelt, and related actions for salmonids	DWR-DFG	\$205M	DWR through State Water Project funding	No	At least 12 permits likely to be required for each project	IN PROGRESS: Projects scheduled for near term action include Prospect Island, W. Cache Slough Complex	2010-2020	Yes	G P1, ER P2, ER R1
		Example FRPA project: Prospect Island (~1600 acres)	DWR	~\$32 M	DWR/FRPA	No	Will apply for permits in 2013	PLANNED: Environmental documents expected to be released in March 2013; Construction in 2015?	2010-2018?	Yes	G P1, ER P2, ER R1
		Potential FRPA project: McCormack-Williamson Tract (~1200 acres)	DWR	~\$24 M	DFG/ERP for planning; possibly DWR/FRPA for construction	Not if it is approved as a FRPA project.	?	PLANNED: Owned by The Nature Conservancy. DWR certified the Final EIR in 2010. Immediate funding need: \$3.7M.	2011-2017 (Construction: 2013-2015)	Yes	G P1, ER P2, ER R1

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		Ecosystem Restoration Program (ERP): The program funds restoration projects and research aimed at restoring ecological health in the Bay-Delta ecosystem.	DFG	\$2M	Prop 84 and Prop 13 (State Bond Funds)	?	Depends on the project	IN PROGRESS: Recent grants include matching funds for McCornack-Williamson Tract restoration work, funding for studies of habitat and fish behavior	2000-?	Yes, e.g., use of DRERIP models.	G P1, ER P2, ER R1
		Example ERP project: Dutch Slough (Delta Reform Act Early Implementation Project) (~1200 acres)	DWR	?	CALFED, SCC for purchase; DWR, DFG for construction?	Yes. Current funding is for 2 of 3 parcels.	All permits have been applied for but, not yet received.	PLANNED: Construction planned for for 2013-2017. Concerns related to Contra Costa Canal need to be resolved.	Purchased in 2003, EIR certified in 2010; construction planned for 2013-2017.	Yes	G P1, ER P2, ER R1
		Example ERP project: Liberty Island (~5200 acres, including >100 acres of tidal marsh)	DFG	?	ERP	?	Not needed because the island flooded naturally.	COMPLETE (?) Monitoring shows that fish species assemblages at this restored area increasingly resemble assemblages at reference marsh sites.	Flooded in late 1990s. Possible project expansion.	Yes	ER R1
		Example ERP project: Lower Putah Creek Restoration- enhance and restore 300-700 acres of tidal freshwater wetlands and create 5 miles of new creek channel, entirely within the Yolo Bypass Wildlife Area.	?	\$1M	ERP	?	CEQA, others	PLANNED: ERP grant agreement was signed in May 2012 and will fund environmental compliance documents, project design, and construction bid packages over the next 3 years.	?	?	ER R1
		Suisun Marsh Habitat Management, Preservation, and Restoration Plan (Suisun Marsh Plan): Restore 5,000 to 7,000 acres of tidal marsh and protect and enhance 40,000 to 50,000 acres of managed wetlands.	FWS-BoR-DFG	?	Projects and activities covered by the plan will have various funding sources	Yes	USACE Regional General Permit, resource agency biological opinions, and others	PLANNED: The final environmental documents have been approved, the permits have been requested, and the record of decision is expected in 2013.	Planning: 2001-2013; Implementation: 2013-2043	Yes	ER R1
		Example Suisun Marsh Plan project: Blacklock Tidal Restoration Project (70 acres), early implementation project	DWR	?	Bureau of Reclamation	No	Obtained	COMPLETE: Diked managed wetland was breached in 2006. Monitoring indicates successful sediment accretion, colonization by brackish marsh plants, and reduced mercury methylation.	2005-2012	Yes	ER R1
		Example project to achieve strategy: Ecosystem Restoration Network - The Conservancy will convene agencies expected to conduct restoration in the Delta and Delta community members to develop a restoration framework or implementation plan.	Delta Conservancy	\$1M	?	?	N/A	PLANNED: The Conservancy has met with interested parties and has developed a draft MOU. Convening a steering committee and workgroups can convene upon receipt of funding.	2012-?	?	Partner in Delta PlanImplementation Committee effort

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	Manage non-native invasive species	Aquatic Weed Control Program: control water hyacinth, Brazilian waterweed and, beginning 2013, South American spongeplant in the Delta, its tributaries, and Suisun Marsh	DBW	\$6.5 M/yr	Harbors and Watercraft Revolving Fund through vessel registration fees and motor vehicle fuel taxes		NPDES	IN PROGRESS: Herbicide treatment operations are conducted annually. Annual hydroacoustic monitoring is also performed in the treatment areas to monitor changes in water hyacinth and Brazilian waterweed infestations.	Ongoing	Yes, particular if expanded to use in restoration sites.	ER P5, ER R6
		Weed Eradication Program: current detection and eradication efforts in the Delta are focused on South American spongeplant and hydrilla (<i>Hydrilla verticillata</i>)	CDFA	?	General Fund (recently cut to minimum level)	Yes	NPDES	IN PROGRESS	Ongoing	?	ER P5, ER R6
		Dreissenid Mussel Prevention Program: A state and federal interagency coordination team; with DFG coordinating with water managers/agencies and other stakeholders to implement dreissenid mussel prevention, control, monitoring, education and outreach, research and eradication activities. One program element is watercraft inspections	DFG-FWS	?	Harbors and Watercraft Revolving Fund through surcharge of vessel registration fees	?	?	IN PROGRESS: There are currently no known watercraft inspection programs within the Delta, but alaw passed in 2012 (AB 2443) authorizes an additional vessel registration fee to provide funds that may be provides as grants to local governments to conduct inspections.117	Ongoing	Probably not (?)	ER P5, ER R6
	Test process for adaptive management	FRPA (see program description above): An adaptive management plan will be developed for each restoration action. Periodic evaluations of overall program effectiveness are also required by biological opinions.	DWR-DFG	?	Included in project funding, e.g., DWR through SWP funding	Possibly. The program relies on expansion of existing regional monitoring programs under the IEP.	N/A	PLANNED: Depends on project. The FRPA Implementation Strategy document describes how adaptive management will be implemented in accordance with the Draft Delta Plan.	2010-2020 (and beyond?)	Yes	G P1, ER P2, ER R1
		Suisun Marsh Plan (see program description above):: The Suisun Marsh Plan includes an overall adaptive management plan, and adaptive management plans will be developed for each restoration project.	FWS-BoR-DFG	?	?	?	N/A	PLANNED: The Principal Agencies overseeing the Suisun Marsh Plan are working with DSC staff to develop an Adaptive Management Advisory Team charter.	2012-2043 (and beyond?)	Yes	G P1, ER P2, ER R1
Delta as a Place	Encourage wildlife-friendly farming practices and subsidence reversal	Ecological Restoration on Agricultural Lands (ERAL) Program: The program assists landowners in developing wildlife friendly practices on their properties that can be sustained and co-exist with agricultural operations.	WCB	?	Primarily state bond funds	Yes	Depends on the project	IN PROGRESS: ERAL is a statewide program with only a few projects in the Delta and Suisun Marsh, but there is potential for expansion if more Delta landowners are interested in participating.	Ongoing	?	DP R10

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		Subsidence Reversal Carbon Farming: Projects involve restoration of wetland and upland transitional habitat and rice cultivation combined with measurement of subsidence reversal and carbon sequestration.	FESSRO (DWR)	?	?	\$2.5 M	Permits obtained for projects that are in progress and completed. Permits pending for Twitchell Island East End Project.	COMPLETE: Four pilot projects on Twitchell and Sherman Island showed positive results. IN PROGRESS: By 2017, ~3100 acres on Sherman Island and 1000 acres on Twitchell Island will be restored to wetland habitat through six planned projects.	1997-2017	Yes	DP R7
		Watershed Program: The program advances sustainable watershed-based management of California's natural resources through community-based strategies and includes grants for watershed coordinators.	DOC	\$9.15 M	Prop 84 (State Bond Funds)	?	N/A	IN PROGRESS: The 2010 Statewide Watershed Coordinator Grants are now underway. The 41 projects were funded for a three year period.	2010-2012	?	DP R10
		Example project to achieve strategy: Working Landscapes: The projects enable farmland throughout the Delta to be utilized as valuable wildlife habitat by providing opportunities for private landowners to combine environmental stewardship with current agricultural practices.	DPC	\$1 M	Prop 50 bond funds	\$1 M	Permits have not yet been requested.	PLANNED: Months 1-6: Planning, designing, permitting, and other necessary pre-implementation requirements. Months 7-42: Overseeing the management of the fields, as well observing and monitoring agricultural and wildlife benefits. Months 43-48: Synthesizing data and identifying the results of the projects. Publishing the results through statewide media.	6 years	No	DP R10
		Example project to achieve strategy: Locally Supported Habitat Enhancement and Invasive Species Control: This program would focus on working with agriculture to enhance the habitat value of working landscapes and implementing an invasive species control program (Arundo donax.)	Delta Conservancy	\$2.6 M	Currently unfunded.	Yes	Will be requested as needed.	PLANNED: The Conservancy has been working with NRCS, DWR, Ducks Unlimited, PRBO and DPC to define a locally supported habitat enhancement program in the Delta.	?	?	DP R10
	Implement Delta emergency preparedness, response, and recovery	Per Water Code 85305(b), the DSC shall consider for adoption into the Delta Plan the emergency preparedness and response strategies developed by CalEMA and its SB 27 Task Force.	CalEMA	?	?	?	N/A	IN PROGRESS: The Task Force report and recommendations have been developed and approved by CalEMA. CalEMA and DWR are now beginning to implement the recommendations developed. The DSC has facilitated recent meetings with the DPC, CalEMA, and DWR to further progress on this program.	Ongoing	N/A	RR R1
	Accelerate progress on the Lower San Joaquin River Flood Bypass	The Delta Plan (RR R4) recommends that DWR and the CVFPB evaluate and implement a flood bypass on the Lower San Joaquin River in the Paradise Cut vicinity.	DWR	?	?	?	?	PLANNED: Such a bypass is called for in the Central Valley Flood Protection Plan (2012). DWR has staff that has begun addressing this potential project concept, and DSC staff will follow developments and provide assistance where appropriate.	?	N/A	RR R4

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	Designate the Delta as a National Heritage Area	National Heritage Area Management Plan development and initial projects: The Management Plan will be developed through a stakeholder process. Initial projects will include signage, outreach to promote the Delta's natural and cultural heritage, and activities which enhance the economy of the Delta.	DPC	\$150,000/year for 3 years, in addition to DPC staff time.	Grants and existing bonds for matching funds (potential), existing DPC funds for staff time (the California Environmental License Plate Fund and the California Harbors and Watercraft Revolving Fund).	A 1:1 match is required for the federal funding, which a minimum of \$150,000/year for 3 years can be anticipated. Therefore the additional matching funds to quality for federal funding would be \$150,000/year for 3 years.	Permits have not yet been requested.	PLANNED: The DPC has completed the NHA Feasibility Study, which was approved for consistency by the National Park Service, endorsed by numerous local governments and stakeholder groups, supported by Senator Feinstein and Congressman Garamendi, and submitted to Congress. It is intended to become part of an omnibus bill that is expected to be passed at the end of 2012.	3 years	N/A	DP R1
Delta as a Place (Additional)	ADDITIONAL STRATEGY TO CONSIDER: Encourage partnerships to support agritourism and recreation	Example project to achieve strategy: Delta Branding.	Delta Conservancy	\$400 K	Currently unfunded.	Yes	N/A	PLANNED: The Conservancy has reached out to Delta Chambers of Commerce, recreation and tourism groups, agricultural interests and professional consulting services to design a branding effort to improve economic sustainability in the Delta.	?	N/A	DP R9, DP R12
Ecosystem Restoration (Additional)	ADDITIONAL STRATEGY TO CONSIDER: Expand floodplains and riparian habitats in levee projects	Example project to achieve strategy: Elk Slough Flood Control and Habitat Improvement Project. The project proposes to reconstruct the headgate structure to allow fish passage, and construct an operable downstream flood control gate to establish a flood protection corridor by removing 18 miles of levees from primary flood control, and to relocate or flood proof existing structures. This project would also improve aquatic and riparian habitat along the corridor.	Local Agencies of the North Delta (LAND), Reclamation Districts 999 and 150, and the US Army Corps of Engineers	\$5.2 M	Potential sources: Prop 84, Prop 1E, Yolo County, RD 999, RD 150, the US Army Corps of Engineers, and other beneficiaries of habitat improvements	Yes	The project has permitting challenges with the potential for extending the timeline. To expedite that process, initial consultation with the resource agencies has already begun.	PLANNED: The project has significant local support because it was developed locally to meet local flood protection and habitat needs, without impacting existing residences and local agricultural uses. It also fits within several regional approaches to manage flood risk and improve and conserve habitat. The project is intended to be a showcase for community-based collaboration.	Expected to be complete within 3 to 4 years of receiving funding.		RR P4
Acronyms											
BoR	Federal Bureau of Reclamation										

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CDFA	CA Department of Food and Agriculture			FESSRO	Floodsafe Environmental Stewardship and Statewide Resources Office, DWR						
CVP	Central Valley Project (federal water project)			FWS	U.S. Fish and Wildlife Service						
DBW	Department of Boating and Waterways			IEP	Interagency Ecological Program						
DFG	Department of Fish and Game			MWD	Metropolitan Water District						
DOC	Department of Conservation			NBA	North Bay Aqueduct						
DPC	Delta Protection Commission			NPDES	National Pollution Discharge Elimination System						
DWR	Department of Water Resources			SCC	State Coastal Conservancy						
EBMUD	East Bay Municipal Utility District			SWP	State Water Project						
ERP	Ecosystem Restoration Program (DFG)			WCB	Wildlife Conservation Board						