INTERIM FEDERAL ACTION PLAN STATUS UPDATE FOR THE CALIFORNIA BAY-DELTA: 2011 AND BEYOND

Introduction and Executive Summary

In December 2009, six Federal agencies issued an Interim Federal Action Plan for the San Francisco Bay/Sacramento-San Joaquin Delta (Bay-Delta), describing a variety of Federal actions and investments the Administration has been undertaking or will take to help address California's water supply and ecological crises. Important strides have been made on the activities described in the Interim Federal Action Plan to address several of the causes of ecosystem decline and to bring greater reliability to management of water supplies. Nearly all of these actions have been undertaken in close cooperation with the State of California.

Now, the State is at an important transition point as Governor-elect Brown prepares to assume office and assume leadership over a process to achieve the goals set forth by the legislature and Governor Schwarzenegger in landmark legislation in 2009. This Status Update will help inform the incoming administration – and other key leaders in California, including the legislature and the Delta Stewardship Council, in their respective roles - of Federal efforts in the Bay-Delta and underscore the Obama Administration's commitment to continue its strong and productive partnership with the State. This document includes a review and update of the six Federal agencies' progress to date in carrying out the Interim Federal Action Plan and presents the agencies' immediate priorities for addressing the critical issues of ecosystem decline and water supply uncertainty. The Update also reports on near term accomplishments to address water conservation and efficiencies, water quality and other stressors, assistance to farmers, and other actions going forward.

While addressing the challenges in the Bay-Delta requires action on multiple fronts, the centerpiece of any such strategy is a long-term plan for ecosystem restoration and water management in the Bay-Delta. Accordingly, this Update also focuses on the Federal government's engagement in and perspectives on development of the Bay Delta Conservation Plan (BDCP), a proposed long-term plan to address critical ecosystem and water supply issues.

This Update is intended to complement the California Natural Resources Agency's newly released report entitled "Highlights of the BDCP" (Dec. 2010) (BDCP Highlights) that describes the background and status of the BDCP and outlines the major components of the State's anticipated 2011 proposal for it. This document confirms the Federal government's commitment to advance the BDCP process to a successful conclusion. The Federal government will do its part to ensure that work on the BDCP and other efforts to address the State's water problems continue unabated as the State of California transitions to a new Governor and State administration.

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This document addresses the following topics:

- The Need for a New Long-Term Approach to Water Management in the Bay-Delta
- Bay-Delta Conservation Plan: A Comprehensive Habitat Conservation Plan for the Bay-Delta:
    - Principles for Federal Bay-Delta Action
    - Fundamentals and Specific Elements of the BDCP
    - Next Steps in the BDCP Process
- Other Federal Bay-Delta initiatives, including actions focused on near-term actions to address water supply and ecosystem needs
    - Water Supply and Conservation Actions
    - Actions to Protect Ecosystems and Water Quality
    - Drought Relief Services and Integrated Flood Management

Figure 1 - CVP and SWP Project Facilities in California. Source: Bureau of Reclamation

As discussed in more detail below, the Federal government agrees with the State of California that the current infrastructure and operational approach for managing water resources in the Bay-Delta is unsustainable. The continuing conflict between ecosystem health and water deliveries through and from the Bay-Delta has reached a dangerous tipping point. Environmental indicators of many types -- ranging from species nearing extinction to increased contaminants and continued degradation of habitat -- are at their lowest points in decades. Moreover, reliable water deliveries through the Bay-Delta are imperiled by the very same environmental degradation, by inevitable drought cycles such as the one that ended only earlier this year.[1] Further, predicted sea level rise and changes in precipitation patterns due to climate change, and the growing realization that a seismic event and levee failure is likely at some point

[1] Droughts are frequently followed by floods in California (frequently called the drought-fire-flood cycle).

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over the next several decades, could bring severe and long-term disruption of the delivery system for bringing freshwater to farms in the Central Valley and to southern California's cities.

Fortunately, many years of intensive study of the Bay-Delta's continuing decline and a related search for a long-term response to the unsustainable status quo have resulted in great strides to identify a science-based solution that calls for the separation of water needed to sustain the Bay-Delta itself from water conveyed to south-of-Delta farms and cities. Many independent scientists and policymakers agree that new infrastructure operated in a manner that reduces the conflict between water exports and Bay-Delta fisheries and can survive catastrophic levee failures and sea level rise, together with investments in restoring Delta habitat and water quality, are the keys to building a sustainable future for the Delta and for all of those who rely on it.

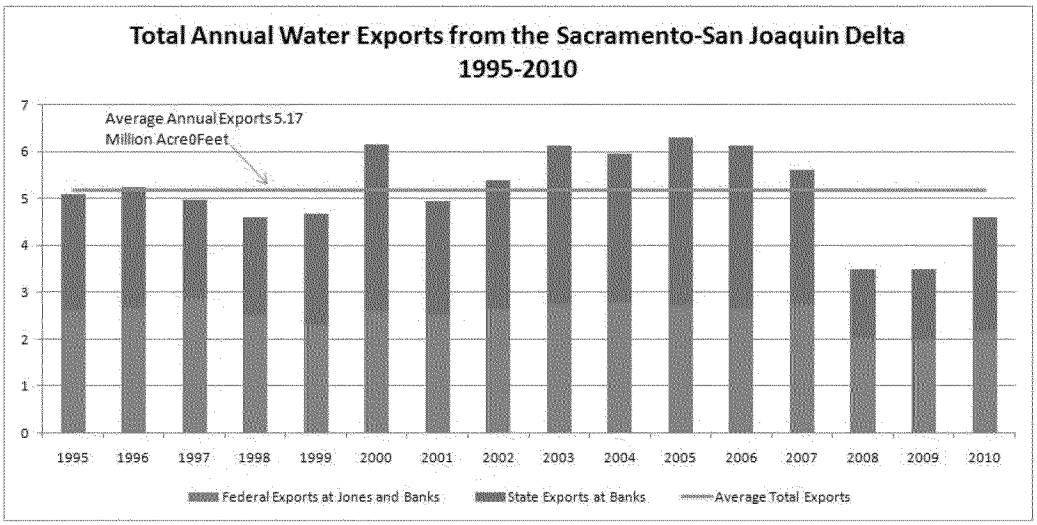

Figure 2 – Source: Bureau of Reclamation

The BDCP, which has been taking shape over the past four years, is an initiative for carrying out this much-needed and fundamental change in the infrastructure and management of the Bay-Delta system. Through an intense stakeholder-based effort, planning for the BDCP has focused on analyzing whether the State of California's legally-mandated twin goals of improving the Bay-Delta ecosystem and providing a more reliable water supply can be achieved through infrastructure that separates some water exports from the natural tidal and tributary-fed flows of the Bay-Delta (e.g., a tunnel or similar water conveyance facility) (See Figure 3). The good news is that preliminary modeling results summarized in the State's BDCP Highlights suggest that a new facility can be operated in a manner that would generate average annual water exports over the long term that are more reliable and greater, than the average annual exports that would be achievable under current constraints. For context, this modeling also suggests that these quantities may be comparable to the average annual Delta exports that have occurred since the Bay-Delta Accord, 15 years ago (Figure 2). Further, such an approach, coupled with both science-based operating criteria and other measures to address species and habit needs and a sufficient level of assurance that ecological goals will be met, provides strong cause for optimism that a successful BDCP that achieves the dual ecosystem and water delivery goals can be designed and implemented.

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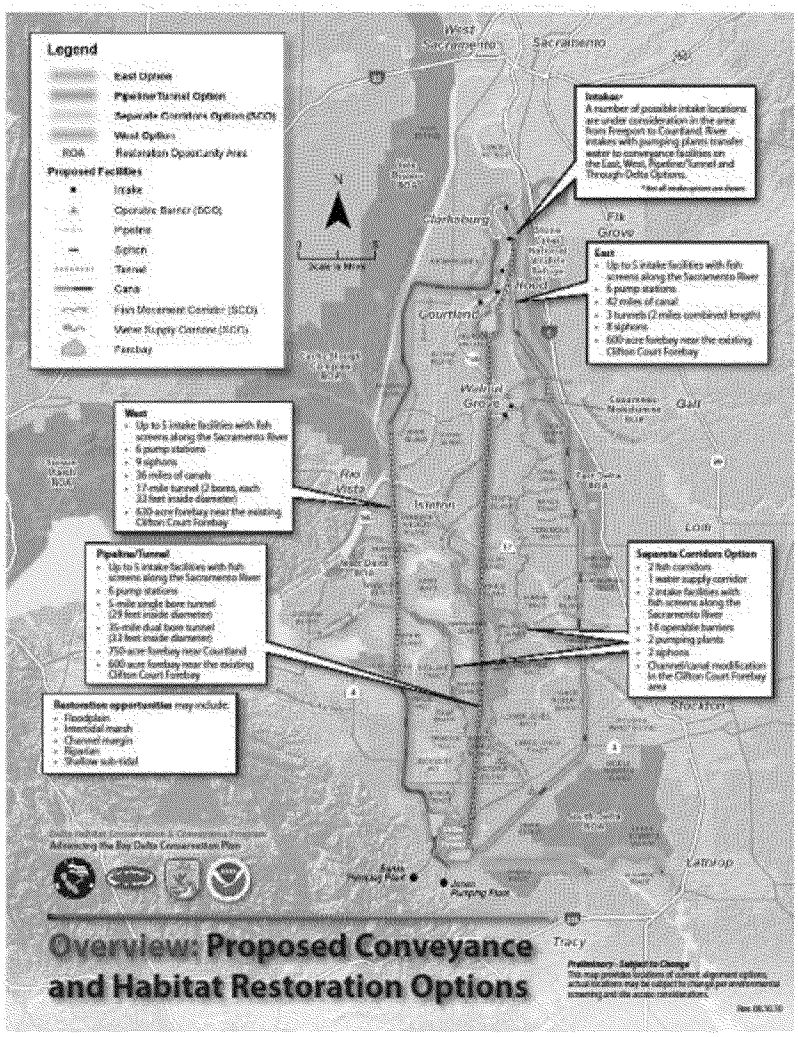

Figure 3 –This preliminary map provides locations of current alignment options; actual locations may be subject to change per environmental screening and site access considerations. Source: Bureau of Reclamation

Based on the risks described earlier, it is imperative that the BDCP process move forward expeditiously to acquire, analyze, and incorporate additional scientific data into the decision-making process and complete a science-based draft plan. This concept is fundamental to the Federal government's strategy to bring the BDCP process to a successful conclusion, consistent with both state and Federal law.

Much work needs to be done, including further analytical work, preparation of environmental review documents and due consideration of public input pursuant to the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA), and soliciting the advice of the panel of independent scientists assembled by the National Academy of Sciences. Nevertheless, the BDCP work completed to date provides a strong basis for constructive collaboration that has been missing from California's water picture for years.

Even as work continues on the BDCP, however, it is important to emphasize that the Federal government joins with the State of California in recognizing that additional steps are needed to secure California's water future. That is why the Federal government is continuing to pursue the Interim Federal Action Plan that was developed last year and goes beyond the BDCP's primary focus on the Bay-Delta's water management system, including broader-based initiatives to conserve water, to improve water quality, to address invasive species issues (including predators), and to improve levee integrity. Updates on these activities are set forth below.

Likewise, the Federal government remains focused on short-term measures to improve water supplies and ecosystem health. Over the past two years, the Department of the Interior, for example, has invested over $500 million dollars in major projects to improve California's

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water infrastructure, including the construction of the Delta-Mendota Canal/California Aqueduct Intertie, the Red Bluff Diversion Facility, Contra Costa fish screen, a large number of water reuse and water conservation projects, and the safety of improvements at Folsom Dam. The Administration also plans to continue, as needed, certain water augmentation activities it developed in the 2010 water year as an additional assurance that adequate supplies will be available from the Central Valley Project (CVP) in the 2011 water year These activities include continued improvements to and coordination of integrated operations with the State Water Project (SWP), source shifting by SWP contractors, diversification of refuge water supplies, and additional opportunities to employ water transfers within the CVP and SWP service areas. (Figure 1)

The Need for a New Long-Term Approach to Water Management in the Bay-Delta

The environmental and water reliability crisis facing the Bay-Delta is severe, well-documented, and immediate.[2] It has become increasingly clear in recent decades that this highly-engineered system, built generations ago and designed to serve a state population less than half of what it is today, cannot sustainably meet either the ecological needs of the Bay-Delta or the human needs for reliable water deliveries. California's rapid development during the twentieth century led to the creation of a water conveyance and delivery system that today withdraws large quantities of freshwater from the Delta. In addition, most wetland, marsh, and riparian areas in the Delta have been eliminated and transformed into farmland or urban developments. Discharges of contaminants from human activities, both urban and agricultural, have dramatically increased as the area's population has grown.

As a result of these factors, the Bay-Delta's biologically diverse ecosystem is in serious decline. Several fish populations are trending downward to dangerously low levels. The commercial and recreational salmon fishing season in California has been closed for almost all of the past three years, and the Delta smelt population has declined so severely that extinction is a distinct possibility. As a result, water exports through the Delta have been restricted to protect critically at risk fish species, causing both uncertainty and reductions in water supply to urban and agricultural water users who rely on the Delta for their water deliveries.

[2] See, e.g., "Comparing Futures for the Sacramento-San Joaquin Delta," Lund et al., 2008, at pp. 8-14 (prepared by economists, engineers, biologists, and a geologist from the Public Policy Institute of California and the University of California at Davis). See also "A Scientific Assessment of Alternatives for Reducing Water Management Effects of Threatened and Endangered Fishes in California's Bay-Delta," National Research Council, 2010, at pp. 11-14. See also Cal. Water Code Section 85001 (2009).

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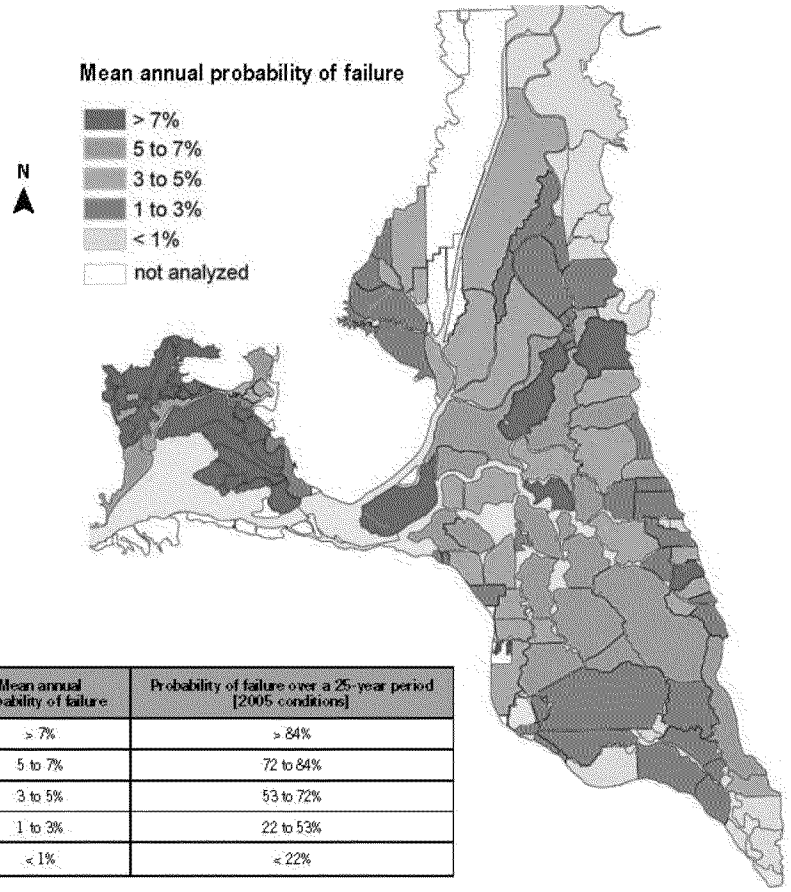
Beyond the ecological and water system reliability problems already plainly apparent, the present water delivery system is at significant risk of catastrophic failure as a result of earthquakes, levee breaches, or other natural disasters, (See Figure 4) [3] and it faces substantial additional risk as a result of climate change. It is more likely than not that either an earthquake or a flood will occur at some point in the next few decades that will cause widespread levee failure and loss of Delta islands, which will, among other things, lead to salt water intrusion of the CVP and SWP facilities.[4] (See Figure 5)



Mean annual probability of failure	Probability of failure over a 25-year period [2005 conditions]
> 7%	> 84%
5 to 7%	72 to 84%
3 to 5%	53 to 72%
1 to 3%	22 to 53%
< 1%	< 22%

Figure 4 - Mean Annual Probability of Levee Failure in the Delta Region from the Combined Risk of Earthquakes, High Water, and Dry Weather Failures (2005 Conditions) Source: Delta Risk Management Strategy (2008)

Climate change poses what are likely to be even more daunting challenges for the future. As the National Research Council Committee on Sustainable Water and Environmental Management in the California Bay-Delta stated in a recent report:

> In the longer term, climate change presents uncertainties and challenges with its anticipated impact on precipitation, snowpack, stream flow, and rising sea level, which will affect not only salinity and riparian habitats in the Delta but likely also will threaten the integrity of the extensive system of levees (1,100 miles in length).[5]

[3] According to a recent scientific report, "there is a two-in-three chance that 100-year recurrence interval floods or earthquakes will cause catastrophic flooding and significant change in the Delta by 2050." Mount, J., and R. Twiss, "Subsidence, sea level rise, seismicity in the Sacramento-San Joaquin Delta," *San Francisco Estuary and Watershed Science* 3 (1), March 2005, Article 5, at pp. 1.

[4] Mount, J., and R. Twiss, 2005, pp. 15.

[5] "A Scientific Assessment of Alternatives for Reducing Water Management Effects of Threatened and Endangered Fishes in California's Bay-Delta," National Research Council, 2010, at pp. 13. In addition, preliminary modeling done in connection with the BDCP anticipates that climate change will reduce the amounts of water available for deliveries.

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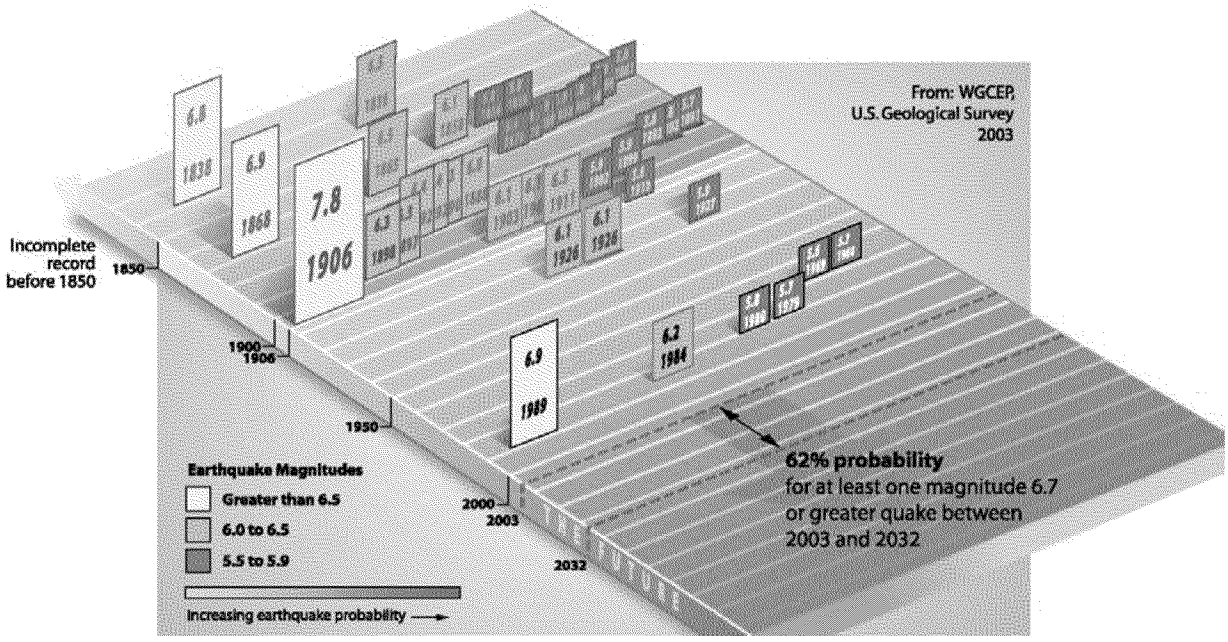

Figure 5 - Past and Future Earthquakes in the San Francisco Bay Area and the Delta Region. Source: Delta Risk Management Strategy (2008)

Experts predict global sea-level rise that may substantially exceed the estimates by the Intergovernmental Panel on Climate Change of sea level rise between 7 inches and 2 feet by 2100, suggesting the rise could be between 3 and 4 feet. [6] In addition, scientists anticipate substantial reductions in water supplies due to altered precipitation and runoff and reduced snowpack due to climate change. Such forecasted events, which would have large effects on both the ecosystem and the water supply system of the Bay-Delta, are being incorporated into the modeling being done for the BDCP.[7]

A broad consensus has emerged among scientists that the status quo of the Delta and the water delivery system through the Delta is no longer viable. The Public Policy Institute of California and a group of academic scientists, engineers, and economists (PPIC-UC Davis Group) after years of study recently came to the conclusion that "continued use of through-Delta pumping is risky and unlikely to be the best alternative from either a statewide economic perspective [or] an environmental perspective."[8] As they explained,

> The Delta faces inevitable changes that make present water policies unsustainable. Rising sea level, continued land subsidence, earthquakes, invasive species, and a worsening climate for floods are among the changes that will overwhelm current Delta

[6] Karl, T., J. Melillo, et al. (eds.) "Global Climate Change Impacts in the United States," Cambridge University Press, 2009, at pp. 25-26.
[7] BDCP Steering Committee Meeting Minutes, April 22, 2010, http://baydeltaconservationplan.com/Libraries/SC_Agendas_and_Handouts/10_07_10_SC_HO_draft_mtg_notes_4_22_10.sflb.ashx.
[8] Lund, et al., 2008 at pp. 166.

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management for local agriculture and statewide water supply. With major undesirable consequences foreseen for almost all stakeholder interests, current Delta management implies its own demise. [9]

The Delta Vision Blue Ribbon Task Force (Task Force) created by Governor Arnold Schwarzenegger with a mandate to "develop a durable vision for sustainable management" of the Delta, reached a similar conclusion in 2008, noting that the Delta is "critically important" to California, and it "cannot be sustained as we know and use it today."[10]

Notably, the Task Force went beyond identifying the problem facing the Bay-Delta. It articulated the "co-equal goals" of a healthy Delta ecosystem and a reliable water supply for California that have since become the cornerstone of both the State's recently-enacted water legislation, and, as discussed below, the BDCP. It also pointed toward a solution, supporting the construction of a new north Delta diversion and an associated water conveyance facility as the most economical way to achieve both environmental sustainability and water supply reliability in the Bay-Delta.[11] The Task Force urged prompt action, warning that "[p]rocrastination will result in irretrievable losses: severe reductions in water uses and severe damage to the estuarine ecosystem."[12]

Having determined that the status quo of the Bay-Delta is unsustainable, the PPIC-UC Davis Group then asked the question: what should be done in the face of this unsustainable status quo?[13] They compared the economics of the various possible courses of action for addressing the through-Delta water delivery system while protecting the ecosystem issue. [14] What they found was that the most expensive course of action was to simply continue using the current water delivery system.[15] While the initial costs of this "no action" option are lower, when a disaster strikes, as it certainly will at some point, massive disruptions to both the ecosystem and the water delivery system will result, and the costs of addressing them will be extremely high.[16] They found that the construction and proper operation of a new north Delta

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[9] Lund, et al., 2008, at pp. xii.

[10] "Delta Vision: Our Vision for the California Delta," Governor of California's Blue Ribbon Task Force, http://deltavision.ca.gov/BlueRibbonTaskForce/FinalVision/Delta_Vision_Final.pdf, at pp 7.

[11] Lund, et al., 2008, at xv-vi ("A peripheral canal is a necessary component of a long-term solution that serves economic and ecosystem objectives co-equally: Sea level rise will make Delta export pumping increasingly unattractive and eventually infeasible. The long-term water export choice is between building a peripheral canal (which is best for the economy) and ending Delta exports (which is best for fish). A potential compromise is to allocate some of the savings generated by a peripheral canal to enhanced ecosystem investments."), http://www.ppic.org/content/pubs/report/R_708EHR.pdf.

[12] "Delta Vision: Our Vision for the California Delta," Governor of California's Blue Ribbon Task Force, http://deltavision.ca.gov/BlueRibbonTaskForce/FinalVision/Delta_Vision_Final.pdf, at pp. 4.

[13] Lund, et al., 2008, at pp. iii.

[14] Lund, et al., 2008, at pp. iii.

[15] Lund, et al., 2008, at pp. xiii ("Sea level rise, earthquakes, continued land subsidence, and higher winter flood flows will increase the frequency and costs of Delta island failures. Maintaining all Delta islands is not cost-effective.").

[16] Lund, et al., 2008, at pp. xiii.

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diversion, operated either alone or in tandem with the existing south Delta diversions, constitutes a promising long-term approach, ecologically and economically.[17]

The stark facts set out above are a call for action to push to fruition the very substantial work already done by the Federal and State governments and many others in recent decades to restore the Bay-Delta ecosystem, improve water quality, and enhance water supply reliability, while at the same time preserving the values of the Delta and its communities. The principal mechanism to accomplish this is the BDCP, which seeks to achieve the goals of ecosystem restoration and improved water supply reliability through the construction and appropriately calibrated operation of a new north Delta diversion and conveyance, extensive habitat restoration, and other science based actions.

The Bay-Delta Conservation Plan: A Comprehensive Conservation Plan for the Bay-Delta

The BDCP is a collaborative effort that has been under way since 2006 to develop a long-term plan to achieve the twin objectives of a healthy Bay-Delta and a reliable water supply for water users who depend on through-Delta conveyance. It is the keystone for restoring and protecting the Bay-Delta ecosystem and California's water supply system for the long-term. The Department of the Interior, through the Bureau of Reclamation (Reclamation) and the Fish and Wildlife Service (FWS), and the Department of Commerce, through the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NMFS), together with the U.S. Army Corps of Engineers (USACE) are spearheading the significantly enhanced Federal engagement on the BDCP.[18]

The Federal agencies believe that in light of the unsustainable and unacceptable status quo of the Bay-Delta and of the potential for disaster to strike in the form of an earthquake or other event that causes widespread levee failures, inaction is not a viable option. Action must be taken to achieve the dual goals of ecosystem protection and water supply reliability, and must be tailored to assure that the interests of the residents and communities of the Delta are considered and protected.

Based on substantial analysis to date, the Federal agencies strongly support a plan that includes a new conveyance facility that would include new north Delta diversion facilities and a new system to convey water from north of the Delta to the south. The operation of such a facility, together with limited export operations from existing facilities in the south Delta, referred to as "dual conveyance," with both operations subject to new science based operating criteria, are intended to provide significantly increased flexibility and optimize both species protection and water supply reliability. This conveyance approach, together with substantial amounts of Delta habitat restoration and a robust monitoring and adaptive management plan,

[17] Lund, et al., 2008, at pp. viii, xiv.

[18] Of the six Federal agencies that comprise the Federal Bay-Delta Leadership Committee, the Departments of Interior and Commerce have been most deeply involved in the planning and development process for the BDCP. Reclamation, NMFS, and FWS, as well as the USACE, are members of the BDCP Steering Committee. The other agencies have not reviewed BDCP documents and materials to any substantial degree and therefore do not have a basis for reaching any specific conclusions regarding the proposed BDCP as it stands at this time.

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offers great promise to be the most cost-effective and scientifically sound framework to achieve the co-equal goals for the Bay-Delta.

The current working draft of the BDCP released by the BDCP Steering Committee on November 18, 2010 demonstrates significant progress towards this type of comprehensive plan. While substantial work remains on a number of key elements of the plan, as discussed below, the Federal agencies believe the progress to date provides a strong foundation for completing the BDCP.

Principles for Federal Bay-Delta Action

In addition to support for the new north Delta diversion based on its environmental and water supply benefits, the Federal agencies are guided by the following principles:

1. **Support for Co-Equal Goals:** The Federal agencies support the dual objectives of the BDCP of restoring both the ecological health of the Delta, restoring water supply reliability for the agricultural and municipal communities that depend upon it, while at the same time protecting and enhancing the unique cultural, recreational and agricultural values of the Delta. These goals are synonymous with the principles and policies in the landmark package of water related legislation approved during special session of the California legislature in 2009 (Cal. Water Code Section 85054).
2. **Intensive Federal Engagement and Commitment to Success:** Federal agencies are committed to advancing a successful plan that includes the following components: a new north Delta diversion and conveyance facilities governed by operational criteria in both the North and South Delta that provide a predictable water supply and help conserve covered species; a major habitat restoration program covering a range of habitat types and locations throughout the Delta; measures to address other stressors, including predation, pollutant loadings, and invasive species; a robust monitoring and adaptive management plan with measurable biological objectives and metrics by which to track progress and make adjustments; and provisions intended to reasonably assure that water supply and ecosystem goals are achieved. The Federal agencies are committed to continuing their close partnership with the State in both its applicant (Division of Water Resources (DWR)) and reviewer (Delta Stewardship Council and Department of Fish and Game (DFG)) capacities. Federal agencies are also committed to continuing the ongoing collaborative planning effort for the BDCP and to working closely with other stakeholders to achieve a successful plan that provides for a sustainable Bay-Delta.
3. **Use of Best Available Science and Independent Scientific Reviews:** The Federal agencies are committed to using best available science in the development of a scientifically sound BDCP, during their regulatory reviews of the BDCP, and in the implementation of the BDCP. The agencies support timely independent scientific reviews (by, for example, the National Research Council, the Delta Science Program, and the Delta Independent Science Board) to assist in developing and carrying out the plan. Such reviews are particularly important, given the large areas of scientific uncertainty

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and the extraordinary importance, complexity, and cost of the BDCP. Toward that end, the Departments of the Interior and Commerce have requested that the National Research Committee prepare a report assessing the adequacy of the use of science and adaptive management in the BDCP. In addition, consistent with the March 2010 Bay-Delta report by the National Research Council,[19] the two Federal departments have developed and are implementing both a short-term and a long-term integrated science program for the Bay-Delta to support improved decision-making in the short-term, as well as development and implementation of the BDCP.

4. **Transparency and Public Input:** The Federal agencies support open public processes and reviews throughout the course of the BDCP planning process to continually improve the plan and promote broad public understanding of the plan and its effects. The Federal agencies believe that broad public involvement and support is necessary for effective implementation of the proposed plan and for achieving the co-equal goals for the Bay-Delta.
5. **Consider a Full Range of Alternatives:** The Federal lead agencies responsible for NEPA compliance (FWS, NMFS, Reclamation) are committed to ensuring that a reasonable range of alternatives for achieving the purpose and need for the BDCP is presented in the Environmental Impact Statement/Environmental Impact Report (EIS/EIR) and that the environmental effects of the proposed plan upon its completion and of the proposed alternatives are properly analyzed. Providing a thorough analysis of a range of alternatives for public review makes for a well-informed public debate and good decision-making.

Fundamentals of the Bay-Delta Conservation Plan

The BDCP, as envisioned, would be a long-term plan of up to 50 years for the conservation and management of aquatic and terrestrial species within the Bay-Delta and the natural communities upon which they depend. On completion, it could be one of the largest and most complex species protection plans in the nation. The BDCP is intended to satisfy the requirements for both a habitat conservation plan (HCP) under the Federal Endangered Species Act (ESA) and a Natural Community Conservation Plan (NCCP) under the California Natural Community Conservation Planning Act.

Although Federal agencies work closely with the State and other stakeholders to advance a successful BDCP proposal, State and Federal agencies play very different roles in support of the BDCP. The BDCP is a State-proposed plan; the State's Department of Water Resources (DWR), owner and operator of the SWP, is currently anticipated to be the primary permit applicant for the BDCP under Section 10 of the Endangered Species Act. Reclamation, as operator of the CVP, works closely with the State's DWR and would conduct CVP operations in accordance with the plan, but is not a permit applicant. Instead Reclamation is subject to Endangered Species Act Section 7 requirements. Reclamation expects to pursue Section 7

[19] "A Scientific Assessment of Alternatives for Reducing Water Management Effects on Threatened and Endangered Fishes in California's Bay Delta," National Research Council, 2010.

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consultation with NMFS and FWS for CVP operations with the BDCP as part of the project description. The Federal regulatory agencies also have multiple roles in this process. Most notably, FWS and NMFS will be called on to determine whether the BDCP meets the requirements for a Habitat Conservation Plan under the Federal ESA. Furthermore, FWS, NMFS, and Reclamation are also co-leads of the environmental review of the BDCP, which will give rise to an EIS/EIR under the NEPA and CEQA. For a map of CVP and SWP facilities and service areas, please see figure 5.

Once the BDCP is approved, other Federal regulatory agencies may also be called upon to evaluate and, if appropriate, issue permits for implementation of various elements of the BDCP. For example, the USACE will most likely need to issue permits under the Rivers and Harbors Act for activities that may affect the course, condition, or capacity of navigable waters ("Section 10" permits) and/or permits allowing modification of existing USACE projects ("Section 408" permits). Similarly, USACE and U.S. Environmental Protection Agency (EPA) have regulatory obligations in the issuance of Clean Water Act Section 404 permits for discharge of dredge or fill material into the waters of the United States.

All Federal regulatory agencies that will make or participate in determinations on any aspects of the BDCP or its subsequent implementation must necessarily have some separation from the BDCP planning process so that they can approach their regulatory obligations in an independent and science-based manner.[20] Therefore, while the Federal agencies take this opportunity to underscore their commitment to a successful and legally sufficient BDCP, and to set forth the principles that guide this commitment, they also will remain steadfast in meeting their obligation to ensure that the BDCP will meet the requirements of all Federal laws.

The BDCP Steering Committee has recently consolidated the results of its efforts to date in a single lengthy document posted in late November on its website. As stated by the Steering Committee, considerable work remains to be done to create a complete draft of the plan. In addition to the Steering Committee document, the California Natural Resource Agency's recently issued report, "Highlights of the BDCP," presents in summary fashion the background of the BDCP, its current status, and suggestions for addressing relevant issues.

The core elements of the BDCP described in the Steering Committee draft and the BDCP Highlights document include the following:

1) a new water conveyance facility to move water from north of the Delta to south of the Delta, together with science-based operating criteria to manage the operation of the diversion, conveyance and any in-Delta facilities that may continue to operate;
2) substantial measures to restore and protect tidal marsh, floodplain, and riparian habitats well distributed across the Delta;

[20] Accordingly, the views of Federal agencies expressed in this report are preliminary and subject to change as new information becomes available. They are not "decisions" or "final decisions" of the agencies and should not be so construed. Furthermore, a number of federal agencies have formal regulatory review and permitting authorities associated with numerous actions encompassed by the BDCP and specific criteria by which to exercise those authorities. At this juncture in the planning process, no decisions have or can be made on the outcome of those regulatory reviews. All of the representations in this report must be understood are very preliminary and are not intended to prejudice the outcome of those reviews.

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3) measures to address actions other than the water diversions by the state and Federal water projects (known as "other stressors") that adversely affect the ecosystem; and

4) a detailed monitoring and adaptive management plan that measures the biological effects of management measures under the BDCP and provides a mechanism to adjust the implementation of the plan to ensure its effectiveness in meeting its goals and objectives.

Current estimates place the costs of the new north Delta diversion and conveyance facility in the neighborhood of $13 billion. The proposed plan would call for State and Federal water contractors to pay those costs. The State currently anticipates that the State and Federal governments would pay for certain elements of the habitat restoration program, for which the costs are currently estimated to be about $3.3 billion. The Federal government must review the components of any proposed plan and understand the costs and benefits such a plan would have on Federal water resources in California and on Federal taxpayers.

DWR, as the owner and operator of the SWP, will be an applicant and, once the plan is approved, the permittee under the ESA and NCCP Act. In addition, state and Federal contractors who will make substantial financial commitments to the project as part of the overall habitat conservation planning (HCP) effort have indicated their strong desire to be permittees, and the California Natural Resources Agency has stated its support for this result. The Federal agencies recognize that a formal relationship typically is established between private parties that are making investments in an HCP and governmental entities whose regulatory strategies are shaped by the HCP. The HCP permit and accompanying Implementing Agreement can provide the vehicle for defining this relationship and, as a result, the federal agencies believe that contractors making significant investments in the HCP can be permittees. The Federal agencies anticipate that additional discussions with contractors will occur on these issues as the process moves forward, and that permit conditions will be limited by applicable legal requirements and that permittees will not acquire any new authority over water project operational decisions or delegated authority from governmental agencies.

Core Elements of the Proposed Bay-Delta Conservation Plan

Below, we provide a Federal assessment of several key issues related to the core elements of the plan that is under development. Included in the discussion is an assessment of the status of these matters and a current Federal perspective on the path forward in light of these issues.

1. **Biological Goals and Objectives:** FWS and NMFS will apply their "5-Point Policy" for habitat conservation plans (65 Fed. Reg. 35242 (June 1, 2000)) to the BDCP. Consistent with that policy, they believe that the BDCP should include clearly defined and scientifically supported biological goals and objectives, with meaningful and measurable metrics for determining whether they are achieved. While good foundational work has been achieved on the core goals and objectives for the plan, considerable work remains on developing more refined, measurable, quantitative objectives and the metrics by

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which to track progress towards those objectives over the course of implementing the plan. This work is ongoing.

2. **Adaptive Management:** The Federal agencies support the approach of the proposed BDCP Adaptive Management Plan developed by the BDCP Steering Committee and believe it provides the framework for continued development of a robust adaptive management plan tiered to the biological goals and objectives. The essential next steps in framing the program, as recognized by the stakeholders, are the refinement of defined goals and objectives, establishment of well-defined metrics and monitoring components linked to those goals and objectives, structuring the incorporation of independent science reviews into plan implementation, and linking these metrics closely to plan implementation, decision-making with appropriate triggering mechanisms for adjustments as implementation proceeds.

3. **New North Delta Diversions and Conveyance:** The BDCP Steering Committee draft and the state's BDCP Highlights report identify a specific size, configuration (dual bore tunnel), and routing of a new conveyance facility that would move water from the north of Delta to south of Delta. The most significant effects of the facility, other than construction, will be determined by the operations criteria described below. The Federal agencies support the continued study and development of the design and configuration of a new conveyance facility, as well as diversion structures, to be governed by applicable operating criteria to inform decisions on their size, design and location. Additional analysis of the effects of the facilities on the environment, on covered species, and on humans, as well as cost considerations, may result in changes to the specifics described in the Steering Committee draft, the BDCP Highlights document, or identify additional areas for refinement. The modeling and analysis in support of the BDCP to date have included conveyance facilities of varying sizes, ranging from 3,000 to 15,000 cfs. The selection of the size conveyance to include in the plan will depend on the outcome of ongoing analysis. A conveyance facility of any size in the range under evaluation could be permitted, provided the BDCP and accompanying NEPA documentation meet all legal requirements.

   One major interest relates to the size and performance of the diversions and screening structures themselves. The configuration described in the state's BDCP Highlights document calls for five 3,000 cfs intake structures along the banks of the Sacramento River, each up to 1700 feet long, i.e., more than one and one-half miles of fish screens and water intakes. The large scale of the proposed diversion and intake structures is unprecedented and poses significant engineering and biological challenges.

   In light of the above factors, FWS and NMFS anticipate that they will recommend a performance-standards approach to the diversion and intake structures, whereby the plan would establish early on the operational performance standards for the diversions (expressed in terms of screening performance criteria, bypass flows, juvenile salmon survival rates, predation rates, and other relevant metrics that will account for the effects of the diversion facilities). These standards would be used in evaluating the structure design, construction, testing, and adjustment activities. Build-out of the full

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diversion capacity of the system would likely be conditioned on the demonstrated ability of the diversion structures to meet these performance standards. The agencies may recommend a phased approach to the design and construction of these facilities in order to test facility operations and avoid unacceptable species impacts and stranded investments if the performance of the initial units proves insufficient.

4. **Effects Analysis:** Many stakeholders recognize the essential role of a scientifically robust analysis of the effects of the proposed plan and alternatives in order both to inform good decisions and to ensure that they are scientifically sound and legally defensible. Work on the effects analysis is continuing. Not surprisingly, modeling the biological and water supply effects in a very complex system over up to a 50-year time period is extremely challenging and difficult. Given these complexities, Federal agencies have long anticipated that development of operational criteria and completion of the effects analysis would occur in an iterative manner, with successive revisions and refinements shaped by each round of modeling results. The iterative state of the effects analysis is now underway and good progress is being made.

   The effects analysis has recently broadened to include evaluation of additional parameters that are increasing the range of potential options, and the early modeling results appear promising that a new conveyance facility with water deliveries above the status quo could be possible while achieving the required species protection goals. The Federal agencies will continue to work with the State and other parties to ensure that a sufficiently broad range of potential water operations scenarios are analyzed and provide a robust evaluation of the habitat restoration and other stressors measures that are being proposed for inclusion in the BDCP. The Federal agencies intend to bring about the timely completion of an effect analysis that can provide a reliable basis for moving the process forward.

5. **Operational Criteria:** A central feature governing the acceptability of a final BDCP is the operational criteria that will govern how the CVP and SWP are operated, both before and after construction of a new conveyance facility and through the permit term. These operational criteria are expected to directly affect the ability of the plan to achieve its dual goals. The Federal agencies support the concept of establishing a broad adaptive management range (sideboards) with initial operational criteria within the sideboards.

   The topic of the operating criteria may be divided into the near-term and the long-term. Operating criteria for existing facilities during the period prior to construction of a new conveyance facility, also called "near-term water operations," are in the early stages of development. The Federal agencies support modeling a range of criteria to help define the initial near-term operating criteria and adaptive ranges for inclusion in the BDCP.

   Operating criteria for the period following construction of a new conveyance facility, the "long-term operating criteria," have been subject to an initial round of biological and water supply effects modeling. The first full iterative stage of the effects analysis for these long-term criteria is underway at this time and good progress is being made. Modeling of refinements to the operational scenarios intended to address

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identified biological issues is occurring at this time. While additional refinements are necessary, preliminary results appear to show the potential for a level of water exports greater than current conditions and compatible with the dual goals of the BDCP, due in part to the increased flexibility provided by a new north Delta diversion coupled with existing south Delta facilities.

6. **Habitat Restoration:** The Federal agencies strongly support efforts to restore a range of habitat types and functions across the Delta, and generally support the multiple components of the BDCP habitat restoration program as currently conceived. Included among the several factors the agencies will emphasize are: (1) certain habitat restoration should be expedited such that substantial restoration occurs before operations of a new conveyance facility commence in order to begin to realize and evaluate the effects of the restoration earlier rather than later; (2) adequate funding for habitat restoration should be assured; (3) habitat restoration should be closely integrated with water quality and flood risk reduction activities and programs within the Delta; and (4) robust monitoring and adaptive management programs should allow for significant revisions to habitat restoration activities based on new data and circumstances. The agencies acknowledge that current capacity to quantify the ecological benefits anticipated from these program elements varies across different habitat types and across species, as recognized by independent science authorities, including the National Research Council. The monitoring plan will therefore be critical to assess the response of species to the habitat restoration actions.

7. **Water Quality:** There are numerous significant challenges associated with protecting and restoring water quality within the Bay-Delta which the state and Federal water quality authorities and many other parties are addressing. These challenges may be substantially affected by various elements of the BDCP. Some elements of the Steering Committee draft could potentially entail trade-offs between various water quality parameters and other ecological parameters in different locations both within and outside of the Delta. Further work is needed to understand and address these challenges. The agencies stand ready to work closely with the state authorities and others to understand and address water quality concerns as the BDCP planning processes mature.

8. **Other Stressors:** As underscored in the Interim Federal Action Plan, the Federal agencies believe that actions to address the most significant other stressors adversely affecting the Bay-Delta are imperative for the long-term sustainability of the ecosystem. While the BDCP currently proposes to address certain other stressors, there is limited ability within the four corners of the BDCP to effect measures that are not within the direct control of the parties to BDCP. The agencies note the considerable uncertainties associated with the other stressor measures currently under consideration, and encourage continued refinement of them over the course of the planning process to enhance their specificity and their ultimate ability to provide discernible benefits to the ecosystem. Further development of measures to address other stressors remains an important work in progress.

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Beyond the scope of the BDCP, the Federal agencies are pursuing actions within their authorities to mitigate the impacts of other stressors, including their near-term and long-term integrated science plans, and other actions described further below. The agencies look forward to working with other entities such as the Delta Stewardship Council to ensure that the impacts of other stressors are addressed.

9. **Regulatory Certainty and "Assurances":** Recognizing the significant investment that would be made by the State and certain water contractors in association with the BDCP, the Federal agencies are committed to providing the maximum level of ESA regulatory assurances consistent with Federal law. Consistent with the dual goals of the BDCP, commensurate assurances of ecosystem restoration goals will also be developed. Such assurances, of course, will need to take into account the many uncertainties associated with the BDCP relating to ecological changes in the Bay-Delta over the anticipated long term of the permit period and the benefits that will result from the BDCP. Given these broad uncertainties, it is likely that the assurances will be closely tied to a comprehensive adaptive range of operational criteria with a specific process for adjusting those criteria in response to changes in species/ecosystem conditions and our overall knowledge of the system over time (adaptive management). Ultimately, the character of the water supply and ecological outcomes projected for the BDCP and the assurances associated with them will serve as a vital component of any final BDCP.

   Federal agencies believe that due to the coordinated Federal-State operations of CVP/SWP, it would be beneficial if Federal and state water contractors could be treated equivalently, assuming such equivalence can be provided consistent with all applicable laws. Where appropriate, Federal agencies believe that there should be an agreed upon robust contingency plan outlining steps that either on their own, or in combination with others, can be taken to avoid jeopardy to listed species and potential ESA permit revocation in the event that listed species experience unexpected declines.

Next Steps on the Bay-Delta Conservation Plan

1. **Continue the Ongoing Collaborative Process:** The Federal agencies believe that a collaborative and inclusive approach to planning, one that includes Delta interests as well as the interests of other stakeholders, represents the best approach to success. The initial round of effects analysis should be completed soon to allow the State and any other permittees to finish formulating their plan as soon as possible. The EIS/EIR process should then analyze a reasonable range of alternatives. As stated earlier, the agencies recognize the State's strong leadership of the current BDCP process, and are hopeful that the incoming State administration will continue promptly and energetically with the effort.

   In addition to working with the incoming State administration, Federal agencies anticipate working closely with California's Delta Stewardship Council to advance a BDCP that fully addresses the issues identified by the Council. The Delta Stewardship Council must adopt and implement a comprehensive management plan for the

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Sacramento-San Joaquin Delta by January 1, 2012. The Delta Stewardship Council will review the BDCP to ensure it is consistent with statutory criteria in the Delta Reform Act for inclusion in the Delta Plan.

2. **Include the Rio Vista Collaborative Science Center and Native Fish Restoration Facility in the BDCP:** The Federal agencies believe an important part of the BDCP should be the construction and operation the Rio Vista Collaborative Science Center and Native Fish Restoration Facility as a conservation measure to address other stressors. The Collaborative Science Center will house several of the agencies that are part of the Bay-Delta's Interagency Ecological Program (IEP), a long standing, collaborative effort by FWS, Reclamation, the United States Geological Survey, EPA , NMFS, USACE, DFG, DWR, and the State Water Resources Control Board (SWRCB) to study and monitor the Bay-Delta ecosystem. The IEP's current facilities are inadequate and spread across several sites. The Collaborative Science Center will consolidate IEP offices, laboratories, vessels, and equipment in a single location closer to their study area, promoting cross-agency cooperation and prioritization, and increasing operational efficiency.

   The Native Fish Restoration Facility will allow the Federal agencies to use conservation-oriented captive propagation techniques to help restore imperiled native fish populations. The Facility would house imperiled Bay-Delta species and conduct propagation, marking, and reintroduction research.

   The Collaborative Science Center and Native Fish Restoration Facility should be a critical component of the BDCP and of Federal agencies' integrated Bay-Delta science initiative. Federal agencies will continue efforts to develop these facilities at the earliest possible time.

3. **Pursue the Federal Near-term Science Initiative:** The Federal agencies will continue to pursue a suite of near-term science initiatives over the course of 2011. Turbidity and sediment studies are designed to improve the understanding of key triggers and decision criteria in the current biological opinions that affect water operations. This may improve our ability to manage turbidity to reduce delta smelt entrainment. A six-year acoustic tagging study is designed to generate significantly improved information on the migratory patterns and pathways of San Joaquin River salmon through the Bay-Delta. Further experimental work on "non-physical" bubble screens to guide migrating fish into safer migration routes and out of more lethal side channels continues. Further, the development of species life cycle models will lead to a better understanding of the management actions that influence different life stages of fish. Some of the permitted near-term studies are expected to produce results within a year of their approval and all are intended to support implementation of the current biological opinions, preparation of an integrated biological opinion, as discussed below, or subsequent adaptive management.

4. **Continue to Develop the EIS/EIR for the BDCP:** The Federal agencies are committed to the timely completion of a robust EIS/EIR for the BDCP. The Federal and State lead agencies have worked collaboratively to describe the alternatives currently under evaluation in the EIS/EIR and will ensure that a full range of alternatives is evaluated to

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meet the requirements of NEPA and CEQA. Once the draft BDCP is complete, the agencies anticipate the draft EIS/EIR will be completed in an expeditious fashion subject to available funding by all parties. Based on the current status of BDCP planning, Federal agencies anticipate optimistically that the environmental review process for BDCP could be complete in or around late 2012.

5. **Continue to Develop an Integrated Biological Opinion:** The FWS and NMFS, together, with Reclamation, are working to lay the technical, policy, and regulatory foundation necessary to develop an integrated biological opinion that could be issued jointly by both agencies for the BDCP and continued operation of the CVP. This approach is consistent with the March 2010 National Research Council assessment of the two biological opinions under the ESA which called for better integration across agencies. In addition to the near term science actions, described above, the agencies are also jointly developing analytical tools to help assess future management of the Bay-Delta ecosystem, reduce uncertainty, and foster improved integration. FWS and NMFS are also building regulatory, legal, and policy teams that will work with Reclamation in a multi-agency process to complete the integrated opinion. An integrated biological opinion will be a key component for the long-term management the Bay-Delta, by combining the BDCP and CVP actions into a single, comprehensive analysis that ensures coordination of water operations and restoration activities for all potentially impacted species.

Other Federal Bay-Delta Initiatives

The BDCP is but one part of a comprehensive commitment to addressing California water issues. The Administration is working with the State of California to develop both short-term actions and a long-term strategy for providing a more reliable water supply and ecosystem restoration. In addition to Federal efforts to support development of a science-based and legally defensible BDCP, the Federal Government has made significant investments in addressing California water needs. It is working closely with independent science panels to better understand and address issues associated with the continuing decline of Bay-Delta endangered and threatened species. It has promoted water conservation and efficiency improvements throughout California, expedited and expanded voluntary water transfers in the Central Valley, and dedicated more than $40 million in 2009 toward immediate drought relief projects. These and other efforts designed to result in improved water supply and restoration of the ecosystem were outlined in the Bay-Delta Interim Federal Action Plan, under the following objectives described below. Collectively, the Administration believes these efforts will help reduce long-term water demands, provide ongoing benefits to species of concern, and offer flexibility in long-term implementation of the BDCP.

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1. ***Encourage Improved Supply and Use of Bay-Delta Water by Strengthening Federal Water Conservation Efforts***

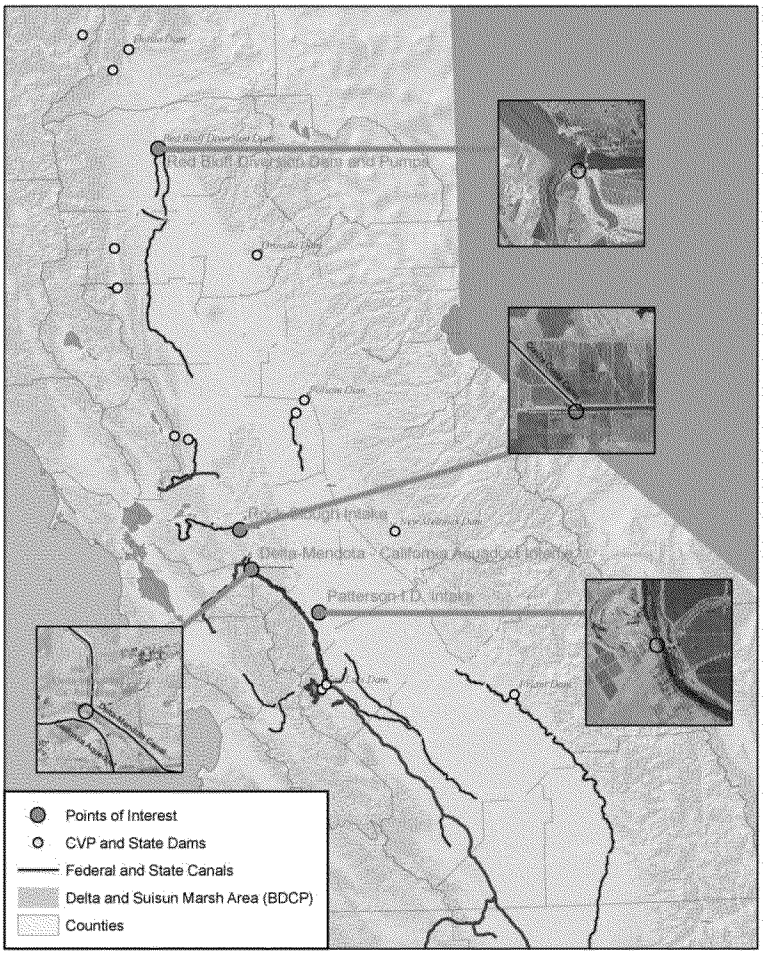

Figure 6 – CVP and BDCP Related Features. Source: Bureau of Reclamation

Federal agencies are working together to maximize conservation and infrastructure development to increase the flexibility and reliability of the Bay-Delta's water supply (Figure 6). Under the Interim Federal Action Plan, Federal agencies have committed to undertake a number of activities in cooperation with the State of California and local governments to increase efficiency and reliability of the Bay-Delta water supply. In addition to ARRA investments in projects such as the Red Bluff Diversion and Fish Passage Facility, Federal agencies have made progress on a number of important efforts to improve water supply and use. These include facilitating water transfers and increasing water conservation and water recycling. Significant progress has been made in the past year and major milestones achieved.

Highlights:

- A groundbreaking for the intertie between the Federal Delta-Mendota Canal and the State's California Aqueduct was held on October 14, 2010. This new pipeline and pumping plant will connect Federal and State water projects, address certain canal conveyance losses, enhance flexibility of water delivery, and allow maintenance and repair to take place on water supply infrastructure without disrupting water deliveries. The intertie is expected to be fully operational in 2012.
- In FY 2010, the United States Department of Agriculture's Natural Resources Conservation Service (NRCS) exceeded its goals for implementing agricultural programs such as the Wetlands Reserve Program and the Agricultural Water Enhancement Program. Through these programs, NRCS works with farmers to improve water supply reliability by supporting activities that provide flood protection, conserve surface and groundwater, and contribute to groundwater recharge.

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- Reclamation, NRCS, USACE, and the EPA, in collaboration with State officials and stakeholders, held workshops over the summer, in which they identified a number of priority projects that will increase water supply efficiency and reliability. The chosen priority projects will maximize the benefits of water conservation and infrastructure improvements in areas served by the CVP and SWP, working with the State and local partners to assist those areas most affected by the drought and by pumping restrictions. Projects include: new opportunities to combine Federal and state funding for water infrastructure projects, an energy and water audit program that helps participating water agencies increase energy and water efficiency, opportunities for State, local and tribal water supply reliability projects to receive supplementary funding from the Federal government, a water recycling project that will increase groundwater reliability for southern Los Angeles County, as well as projects that capture stormwater, develop backup water supplies, and other important activities. These projects will strengthen water supply reliability in the Bay-Delta, reducing vulnerability of water users who depend on this water for their lives and livelihoods, and will maximize efficient use of the water supply through conservation and recycling.
- The NRCS has been developing interagency and NGO partnerships to improve and protect the health of the Sacramento and San Joaquin River headwaters by restoring forest lands and wet meadows which provides enhanced groundwater storage, reduces peak flows, and captures more snow in the critical watersheds supplying both State and Federal water projects and the Delta.

2. ***Take a watershed approach to ensuring healthy Bay-Delta ecosystems and improving water quality***

Under the Interim Federal Action Plan, Federal agencies have agreed to address the ecological health of the Bay-Delta. Federal agencies are collaborating to address the range of stressors affecting aquatic species of concern by restoring habitat, constructing hatcheries, preventing fish from being entrained in water diversions by installing fish screens, reducing contaminant levels in Bay-Delta water, and other activities. Each of these activities complement efforts to increase the populations of species of concern by improving water diversions and infrastructure, recognizing that flows alone cannot restore the Delta's ecology.

Highlights:

- Federal agencies have committed to significant habitat restoration as part of the BDCP, and are also conducting major restoration projects outside of the BDCP process to restore the habitat of threatened and endangered aquatic species. The groundbreaking ceremony for the Battle Creek Salmon and Steelhead Restoration Project to restore threatened and endangered aquatic species took place in September 2010. The partnership on the Battle Creek project includes Reclamation, Pacific Gas and Electric, USFWS, NMFS, California's DFG and DWR. The project will provide fish passage for state and federally-listed spring-run Chinook salmon, winter-run Chinook salmon, and steelhead. This project will restore approximately 42 miles of habitat on Battle Creek and an additional 6 miles of habitat on tributaries to Battle Creek while maintaining the continued production of hydroelectric

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power. The project is in Shasta and Tehama counties near Manton, California. The construction phase of the project is anticipated to be completed in 2014.

- In an effort to assess the effectiveness of current water quality regulation in the Delta and its tributaries, EPA will soon issue an Advance Notice of Proposed Rulemaking (ANPR) to solicit scientific and policy input on the application of EPA programs to the Delta. The ANPR will focus on water quality impacts to Delta aquatic life from pollutants such as ammonia, selenium, pesticides, emerging contaminants and water quality factors that restrict estuarine habitat and migratory areas (e.g., salinity and temperature).
- FWS is working with DWR and DFG as well as Reclamation to upgrade the current backup refugium for delta smelt. Maintaining a refugial population will aid in the long-term restoration of this endangered fish by ensuring the genetic diversity of delta smelt is not lost should they become extinct in the wild. The current refugium facility is not large enough to maintain the numbers of fish necessary for a refugial population, while continuing its primary mission of producing fish for research. In addition, the current facility is not large enough to address future conservation needs of additional species, nor will it be capable of producing sufficient numbers of fish should supplementation of the wild population or reintroduction become necessary recovery actions. To address these shortcomings, FWS, Reclamation, and DFG are also working together to develop the Native Fish Restoration Facility to provide the capability to address future conservation needs of additional species, such as longfin smelt, splittail, and Sacramento perch, and produce large numbers of fish for supplementation or reintroduction. This facility would be co-located with the Rio Vista Collaborative Science Center as discussed in the second item under Next Steps on BDCP earlier in this document.
- Reclamation entered into cooperative agreements with Contra Costa Water District for the construction of a screened diversion at Rock Slough, and with Patterson Irrigation District for a new screened diversion to replace a previously unscreened diversion. These agreements provide for cost-shared Federal funding consistent with the terms of the Central Valley Project Improvement Act (CVPIA) to address fish entrainment issues at both locations. Construction at Rock Slough and Patterson are currently in progress with facilities projected to be operational before the end of calendar 2011.
- In partnership with the Tehama-Colusa Canal Authority, Reclamation is implementing the Red Bluff Fish Passage Improvement Project, which includes construction of a 2,000 cubic foot per second pumping plant and 1,200-foot flat-plate fish screen near Red Bluff, CA. The project is authorized by the 1992 Central Valley Project Improvement Act and required by the 2009 Biological Opinion for the Central Valley Project. The facility is expected to be completed by May of 2012, and will provide unimpeded fish passage past Red Bluff Diversion Dam while assuring continued water diversion to the Tehama-Colusa and Corning Canals. The Tehama-Colusa Canal Authority is comprised of 17 districts serving 150,000 acres of high value crops.
- ARRA funded projects to diversify wildlife refuge water supplies include a pilot project for the Volta Wildlife Area for approximately $2 million that is expected to yield up to 2,500 acre-feet of water per year, well enhancements in the Grasslands area that are expected to

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yield up to 4,000 acre-feet of water per year, and installation of new wells in the Grasslands area that are expected to yield up to 2,600 acre-feet of water per year. Construction on these projects is scheduled to be completed in summer 2011.

3. ***Deliver drought relief services and ensure integrated flood risk management***

Federal agencies are working together to help deliver drought relief services and ensure integrated flood risk management. Together with the State, these agencies will use disaster programs to provide drought relief to farmers and ranchers and to partner with State and local authorities to develop more holistic plans for stabilizing existing flood control infrastructure and manage flood risk.

Highlights:

- In 2010, the NRCS released $10 million for a special Environmental Quality Incentives Program Drought Initiative in the San Joaquin Valley. This funding allowed agricultural producers to provide temporary coverage to fallowed fields that were experiencing severe wind erosion, to rehabilitate springs for stock water, and to undertake other critically needed conservation measures. Resources for these special drought programs were also made available in 2009.
- USACE is continuing to work with non-Federal sponsors to identify opportunities to reduce flood risk by improving the flood capacity of the system while restoring and protecting floodplain and environmental features of the Central Valley and to identify levee stability needs for potential reconstruction efforts. In addition, the USACE is working with the DWR on the Delta Islands and Levees Feasibility Study to address ecosystem restoration needs, flood risk management problems, and related water resources in the Delta and Suisun Marsh area.

Conclusion

This Status Update is intended to help inform the incoming administration of Governor-elect Brown at this important transitional time of Federal efforts in the California Bay-Delta and to continue the strong and productive partnership the Federal agencies have with the State. This document includes a review and update of the six Federal agencies' progress to date in carrying out the Interim Federal Action Plan, and presents the agencies' top priorities for addressing the long-term needs of California, water conservation and efficiencies, water quality and other stressors, assistance to farmers and other actions going forward. This document is intended to provide an understanding of the Federal view on key issues related to the process of developing the BDCP and an overview of other priority actions in which the agencies are engaged. This Update confirms the Federal government's commitment to advancing the BDCP process to a successful conclusion.

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