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The Success and Continued Challenges of the Yolo Bypass Wildlife Area: A Grassroots Restoration

*Rachael E. Salcido**

The California Bay-Delta is in need of extensive ecological restoration. This article highlights the accomplishments of the Yolo Bypass Wildlife Area—a unique, grassroots project that reconciled potentially competing land uses to restore an important segment of the Pacific Flyway in northern California. The Bay Delta Conservation Plan proposes more expansive ecological restoration, calling into question the continued viability of the multi-use balance struck at the nearly 17,000 acre Wildlife Area. This article distills lessons from the conflict and argues that input from local governments is indispensable for future restoration success.

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INTRODUCTION

Ecological restoration represents a new chapter in the history of the environmental movement.[1] To accomplish restoration——described as "an attempt to guide damaged ecosystems back to a previous, usually healthier or more natural condition"[2]—and improve the resilience and productivity of many natural features of the environment, environmental engineering know-how as well as a variety of legal tools are necessary.[3] Ecological restoration has also

1. *See* WILLIAM R. JORDAN III, THE SUNFLOWER FOREST: ECOLOGICAL RESTORATION AND THE NEW COMMUNION WITH NATURE (2003). Professor Jordan notes that although restoration has been engaged in since at least the 1920s, it had a minimal role in conservation efforts until about the mid or late 1980s. *Id*. at 13. Today, restoration is actively pursued in all parts of the country, and in many parts of the world. *See* CAROLINE FRASIER, REWILDING THE WORLD: DISPATCHES FROM THE CONSERVATION REVOLUTION (2009). All types of ecosystems, from terrestrial to marine are included, from the well-publicized efforts in the Florida everglades to coral reef and oyster restoration.

2. JORDAN III, *supra* note 1, jacket cover. There are a variety of definitions of ecological restoration. The definition used by the California Department of Fish and Game (DFG)—which will be a permitting agency of the Bay Delta Conservation Plan (BDCP) and is responsible for the Natural Community Conservation Planning program—in its draft conservation strategy is "the process of facilitating the recovery of ecosystems that have been degraded, damaged, or destroyed. CAL. DEP'T OF FISH AND GAME, CONSERVATION STRATEGY FOR RESTORATION OF THE SACRAMENTO-SAN JOAQUIN DELTA ECOLOGICAL MANAGEMENT ZONE AND THE SACRAMENTO AND SAN JOAQUIN VALLEY REGIONS 5 (drft. 2011). It is the actions taken in fragmented or degraded terrestrial and aquatic ecosystems that result in the reestablishment of natural ecological processes, functions, and biotic/abiotic linkages and lead to a sustainable, resilient, and healthy system that is integrated within its landscape under current and future conditions." *Id.* The DFG, together with the U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS) are implementing agencies of the CALFED Ecological Restoration Program (ERP), discussed *infra* notes 33–34 and accompanying text.

3. A number of legal, social and political questions associated with restoration still must be addressed. But fundamentally, it should be understood that ambition has outpaced "know-how" and a great acceleration in restoration research is necessary. *See, e.g.*, Margaret A. Palmer, *Reforming Watershed Restoration: Science in Need of Application and Applications in Need of Science*, 32 ESTUARIES AND COASTS 1 (2009) (calling for increase in ecology to respond to "major gaps in scientific

engaged philosophers in the web of moral and ethical questions related to re-making the environment, including the question of what is natural and fundamentally what relationship humans have with the natural world.[4] Underlying these issues is a growing recognition that there is no place on Earth that is entirely free of human influences.[5] Even in places we perceive to be wild, humans have made their mark. And while many people believe pollution to be the greatest threat to a healthy environment, the conversion of habitat to other uses is the primary driver of species extinction[6] and the faltering health of many environmental systems.[7] Restoration is now increasingly used as a strategy to address those losses.[8]

The Yolo Bypass Wildlife Area (YBWA) is a unique ecological restoration project that, among other noteworthy triumphs, brought back a key piece of the Pacific Flyway in northern California. It is a model of success, integrating productive waterfowl and shorebird habitat—together with an array of related recreational and educational programs—into an area with important flood protection and agricultural uses.[9] Despite this, however, the Wildlife Area is now an important piece of a vast seasonal floodplain restoration proposal included in the developing Bay Delta Conservation Plan (BDCP). This plan, as well as similar efforts,[10] responds to the crisis in the California

knowledge"). Further, despite the high interest in full scale creation of ecosystems, compelled in large part by environmental law and compensatory mitigation regimes, "the science of ecosystem creation is in its infancy." *Id*. at 12.

4. *See* ROBERT ELLIOT, FAKING NATURE: THE ETHICS OF ENVIRONMENTAL RESTORATION (1997); ERIC HIGGS, NATURE BY DESIGN: PEOPLE, NATURAL PROCESS AND ECOLOGICAL RESTORATION (2003); David Graber, *Ecological Restoration in Wilderness, Natural vs. Wild in National Park Service Wilderness*, 20 GEORGE WRIGHT FORUM 34 (2003).

5. BILL MCKIBBEN, THE END OF NATURE (1989).

6. NAT'L RESEARCH COUNCIL, SCIENCE AND THE ENDANGERED SPECIES ACT 35 (1995) ("For most species in decline and for most of those on the edge of extinction in the U.S. today, . . . the most serious threat appears to be habitat degradation or loss . . . ."). There is a well-documented relationship between habitat loss and species loss. *Id*. at 72.

7. *See* ROBERT W. ALDER, RESTORING COLORADO RIVER ECOSYSTEMS, A TROUBLED SENSE OF IMMENSITY 7 (2007) ("Experts are virtually unanimous that the biggest problem facing aquatic ecosystems is not pollution, but the destruction and alteration of aquatic habitats.").

8. The somewhat contested term restoration can be applied to a great many different activities. *See* Peter Lavigne, *Humpty Dumpty and Restoration Policy*, 45 NAT. RESOURCES J. 495, 496 (2005) (suggesting that multiple definitions follow from the equally numerous range of actions used to complete projects). Other terms, such as revival, are also used. For a discussion, see A. Dan Tarlock, *Slouching Toward Eden: The Eco-pragmatic Challenges of Ecosystem Revival*, 97 MINN. L. REV. 1173 (2003) (discussing different definitions).

9. Primarily, as this Article discusses, the YBWA demonstrates the ability for one place to serve multiple functions effectively. The larger Yolo Bypass, of which the Wildlife Area is but one part, has been evaluated for its effectiveness as an engineered floodplain in contrast with other flood protection measures that do not present opportunities for wildlife conservation. *See* Ted Sommer et al., *California's Yolo Bypass: Evidence that Flood Control can be Compatible with Fisheries, Wetlands, Wildlife, and Agriculture*, 26 FISHERIES 6 (2001); *see also* ELLEN HANAK ET AL., MANAGING CALIFORNIA'S WATERS: FROM CONFLICT TO RECONCILIATION 209 (2011) [hereinafter MANAGING CALIFORNIA'S WATERS] (identifying the Yolo Bypass multiple uses).

10. For example, the Delta Plan is a state effort led by the Delta Stewardship Council to identify state and local actions which could improve the health of the Delta. The Delta Plan is a long-term

Bay-Delta highlighted by litigation over the near extinction of multiple fish species formerly present in the Delta.[11] It is far from clear whether the BDCP, intended primarily to benefit salmon and other fish species, can proceed in a manner that preserves the biological value of the nearly 17,000 acres included within the YBWA.

In this article I use this grassroots restoration project as a jumping off point to examine a few new challenges facing the restoration movement. How the next wave of restoration in the Yolo Bypass is achieved will shape perceptions of restoration. With some places undergoing multiple transformations, it becomes more difficult to distinguish environmental restoration from other types of land use development——driven by an array of legal and policy influences that shift with time and the perceived needs of society.[12] Multiple iterations of restoration threaten the capacity of the restoration process to bring about harmonious relationships between people and the natural environment. How project proponents navigate the space between biocentric and anthropocentric orientations to restoration has an impact on individual project support, as does the process used to facilitate transition. Ultimately, in the Yolo Bypass and elsewhere, large-scale ecosystem restoration must find a way to avoid turning local conservation initiatives into pyrrhic victories.

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management plan meant to achieve the coequal goals of water reliability and "protecting, restoring, and enhancing the Delta ecosystem." CAL. WATER CODE § 85066 (West 2012); *id.* § 85054. *See* Melissa Murphy, *Delta Plan*, The Vacaville Reporter, May 16, 2012 (on file with author); *infra* notes 114–117 and accompanying text.

11. Pursuant to the Federal Endangered Species Act (ESA), the NMFS transmitted a June 4, 2009 Final Biological Opinion and Conference Opinion on the Long-Term Operations of the Central Valley Project and State Water Project. NMFS, BIOLOGICAL OPINION AND CONFERENCE OPINION ON THE LONG-TERM OPERATIONS OF THE CENTRAL VALLEY PROJECT AND STATE WATER PROJECT (2009). If during consultation pursuant to section 7 of the ESA NMFS reaches the conclusion that a proposed action is likely to jeopardize a listed species or adversely modify its critical habitat, the ESA requires the NMFS to develop "reasonable and prudent alternatives." 50 C.F.R. § 402.02 (2012). The goal is to define alternative actions that an agency can undertake to both comply with the ESA and move forward with the intended purpose of the proposed action. Having found that the proposed action was likely to jeopardize continued existence of federally listed species, and was likely to destroy or adversely modify designated critical habitat of some species, NMFS prepared reasonable and prudent alternatives. *See* NMFS, *supra* at 607. Among the reasonable and prudent alternatives NMFS specifically identified the restoration of floodplain rearing habitat for juvenile winter-run and spring-run salmon and CV steelhead, and——specifically relevant to the YBWA——identified that this objective could be achieved at the Yolo Bypass. *Id.* ("Action Suite I.6"). NMFS took pains to note that the reasonable and prudent alternatives proposed were not a recovery plan and did not include all steps necessary for recovery of the affected species. *Id.* Moreover, NMFS recognized that the work being done in preparing the BDCP "may ultimately satisfy the requirements in Actions I.6." *Id.* at 608. Further, Action I.6 was "not intended to conflict with or replace habitat restoration planning in the BDCP process." *Id.* at 609. See *infra* section III.C for a brief discussion of some of the litigation.

12. Restoration might be less about improving conditions in the natural environment and more about satisfying well-financed interests that claim higher economic returns than the status-quo land use.

I. THE RISE OF ECOLOGICAL RESTORATION

One shorthand description of ecological restoration is a process where humans seek to "make nature whole."[13] In his seminal work on ecological restoration, William Jordan explains how the modern practice of restoration began in the 1980s, although as a concept humans have been rehabilitating altered or damaged ecosystems for much longer, engaging in fallowing of land or planting trees for example.[14] Efforts to restore natural landscapes and habitat on grand scales, including the Colorado River and Florida Everglades, have increased the public visibility of ecological restoration. Rehabilitating wetlands has been one area of noteworthy ecological restoration work,[15] the importance of which was recently brought to national view following the devastating impacts of Hurricane Katrina.[16]

Like prior strategies of environmental protection, restoration is facing a host of challenges.[17] Certainly, shortcomings in the application of restoration strategies abound.[18] But more fundamentally, public resistance to restoration

13. *See* JORDAN, *supra* note 1, at 11. ("Ecological restoration is the attempt, sometimes breathtakingly successful, sometimes less so, to make nature whole."). Environmental philosopher Eric Katz decries the claim that ecological restoration can "make nature whole." *See* Eric Katz, *Another Look at Restoration: Technology and Artificial Nature*, *in* RESTORING NATURE: PERSPECTIVES FROM THE SOCIAL SCIENCES AND HUMANITIES 37, 38 ("In a policy framework that justifies and advocates the restoration of nature, humanity will face no moral limits to its attempts to modify, manage, manipulate, and dominate the natural world, for humanity will believe that it has the power to make nature whole.").

14. JORDAN, *supra* note 1, at 12–13.

15. The Clean Water Act and administrative commitment to a "no net loss" policy has been driving wetlands mitigation, banking, and restoration programs with mixed results. *See* NAT'L RESEARCH COUNCIL, COMPENSATING FOR WETLAND LOSSES UNDER THE CLEAN WATER ACT (2001); BONNIE NEVEL, JOAN MILAM, GWEN ARNOLD & RACHEL HARRIS, MEASURING MITIGATION: A REVIEW OF THE SCIENCE FOR COMPENSATORY MITIGATION PERFORMANCE STANDARDS (2004).

16. *See e.g.*, NAT'L WETLANDS NEWSLETTER, AFTER THE STORM, RESTORING AMERICA'S GULF COAST WETLANDS (Gwen Arnold ed., 2006). It may be that Hurricane Rita had more impact on the coastal wetlands than Hurricane Katrina. Donald F. Boesch, *Restoring Coastal Louisiana: Dispelling Myths and Seeking Opportunities*, *in* AFTER THE STORM, RESTORING AMERICA'S GULF COAST WETLANDS, *supra* at 9, 10. In California, Hurricane Katrina refocused attention on the precarious condition of flood protection in the Bay-Delta. *See* LITTLE HOOVER COMM'N, STILL IMPERILED, STILL IMPORTANT: THE LITTLE HOOVER COMMISSION'S REVIEW OF THE CALFED BAY-DELTA PROGRAM (2005) [hereinafter LITTLE HOOVER REPORT 2005]; *see also* MANAGING CALIFORNIA'S WATERS, *supra* note 9.

17. One foundational challenge is the possibility that restoration furthers a false sense of optimism. Professor William Rodgers identified self-deception about the effectiveness of restoration or technological fixes as facilitating continued destruction of the environment. Focusing on the Columbia River and impacts to fish from damming, Professor Rogers argued that a great deal of harm to nature has occurred under the mistaken belief of a "win-win" solution constructed by human ingenuity. *See* William H. Rodgers, Jr., *The Myth of the Win-Win, Misdiagnosis in the Business of Reassembling Nature*, 42 ARIZ. L. REV. 297 (2000). Others assert that a departure from mitigation and the use of restoration to avoid application of environmental laws will be necessary in the formulation of a coherent restoration policy. *See* Lavigne, *supra* note 8, at 497, 500–01.

18. Restoration science is still developing. *See* Palmer, *supra* note 3; *see also* R. Eugene Turner, *On the Cusp of Restoration: Science and Society*, 13 RESTORATION ECOLOGY 165, 166–67 (2005) (evaluating indices of involvement by scientists in ecological restoration including contributions to literature in recent decades and identifying upward trend over time). Moreover, the same processes that

actions is now common.[19] For example, efforts to translocate and reintroduce animals to landscapes, particularly predators, are one strategy to make ecosystems whole to support their health and resilience.[20] But it has also been controversial, evidenced perhaps most notably by the continuing debate over the management of wolves in national parks like Yellowstone. In response, private citizens and government entities are now frequently negotiating the challenge of managing conflicts between existing land uses and the desire to rehabilitate altered landscapes.[21] Building public support for restoration is widely acknowledged as a best practice to ensure project success.

One reason for the rise in ecological restoration relates to a proactive approach to complying with environmental laws when land development is contemplated. Habitat Conservation Plans (HCPs), which address the federal Endangered Species Act, and California's Natural Communities Conservation Plans (NCCPs), which address similar California species protections, have gained in popularity with landowners and government agencies alike.[22] Generally, these plans make habitat conservation commitments in one location in return for government permission to alter natural habitat in the same location, or elsewhere.[23] Despite a host of criticisms[24] to this approach, ranging

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have led to environmental degradation are potentially left unaltered by restoration projects. *See* Alison C. Flournoy, *Restoration Rx*, 42 ARIZ. L. REV. 187 (2000). Professor Flournoy writes of ecological restoration: "An essential but often overlooked initial step in restoration is to 'identify processes leading to degradation.'" *Id*. at 192.

19. Initiatives in cities like Chicago and Denver to introduce native species have met with public opposition to changes from a preconceived notion of what a natural environment entails. For a discussion of the Chicago wilderness restoration controversy, see Paul H. Gobster, *Restoring Nature: Human Actions, Interactions, and Reactions*, *in* RESTORING NATURE, *supra* note 13, at 1, and Reid M. Helford, *Constructing Nature as Constructing Science: Expertise, Activist Science, and Public Conflict in the Chicago Wilderness*, *in* RESTORING NATURE, *supra*, at 119.

20. *See, e.g.*, MICHAEL L. MORRISON, WILDLIFE RESTORATION 29–30 (2002).

21. *See* Martin A. Nie, *The Sociopolitical Dimensions of Wolf Management and Restoration in the United States*, 8 HUM. ECOLOGY REV. 1–12 (2001).

22. DeAnne Parker, *Natural Community Conservation Planning: California's Emerging Ecosystem Management Alternative*, U. BALT. J. ENVTL. L. 107, 117–118 (1997) (noting that after announcement of no surprises policy in 1994 the rate of habitat conservation plan (HCP) use increased significantly).

23. Section 10(a) of the ESA authorizes the Secretary of the Interior to permit an otherwise unlawful "taking" of an endangered species "if such taking is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity." 16 U.S.C. § 1539(a) (1)(B) (2006). Prior to issuing an incidental take permit, the Secretary must approve an HCP. *Id.* § 1539(a)(2)(A). *See infra* notes 135–157 and accompanying text.

24. Fundamentally, some people criticize the ability of HCPs to achieve species conservation, particularly with the addition of "safe harbor" and "no surprises" rules. *See* Steve Vanderheiden, *Habitat Conservation Plans and the Promise of Deliberative Democracy*, PUBLIC INTEGRITY 205, 214–215 (2001) ("Environmental policy that fails to protect the environment cannot, regardless of the procedures that produce it, be good policy."). Scholars have commented on how many HCPs/NCCPs are developed only where conflict between endangered species and development are otherwise unavoidable. HCPs, a specific means for private citizens to comply with the ESA on private land, lends easily to this context, as otherwise there is little incentive to undertake the involved and potentially costly process leading to an approved HCP. *See* Alejandro E. Camacho, *Can Regulation Evolve? Lessons From a Study in Maladaptive Management*, 55 UCLA L. REV. 293 (2007).

from high cost to the crisis management context under which many plans are developed, habitat conservation planning continues as a primary means of addressing competing interests.[25] Given the continued decline in species diversity and unrelenting development pressure, reliance on HCPs will likely continue. Increasingly, such plans include ecological restoration, some as a very major component.[26]

Ecological restoration is not a simple matter of returning to natural conditions. In some cases it reflects a host of trade-offs among different users, land uses, and natural resource demands. For example, given the significant alteration of the environment of the Mississippi River delta, any return to natural conditions is impractical for political and practical reasons. As one scientist working on wetlands summarized, "[a] pragmatic approach to restoration would consider the Gulf's coastal marshes as managed ecosystems, their functionality dependent upon human modification and maintenance. With appropriate management, these wetlands can be restored to provide functions such as flood attenuation, water quality improvement, habitat creation, and nursery habitat provision."[27] In fact, this description fits a great many restoration projects. This scaled-back strategy focused on ecosystem functions is particularly relevant in urbanized, heavily populated areas, or those that have been farmed intensively such as the California Bay-Delta.[28] As one National Academies of Science report analyzing restoration prospects noted, "the Delta ecosystem will never return to its pre-disturbance state."[29]

Nonetheless, the rise of ecological restoration is evident in California and is projected to be a part of the legal landscape of the Bay-Delta for the next fifty years. As further discussed in Section III, the natural environment in the California Bay-Delta was dramatically changed by filling in wetlands, diking and construction of levees, conversion to agriculture, and several massive water supply projects that divert flow and even change the direction of the natural water flow at times. These changes destroyed 95 percent of historic wetlands in

25. *See* Camacho, *supra* note 24; Parker, *supra* note 21.

26. One example is the Cedar River Watershed Habitat Conservation Plan. RESTORATION PHILOSOPHY ID TEAM, CITY OF SEATTLE, ECOSYSTEM RESTORATION AND MANAGEMENT PHILOSOPHY FOR THE CEDAR RIVER WATERSHED HABITAT CONSERVATION PLAN (2004). "Habitat restoration is a major element of the HCP, which must be implemented for the City to be in compliance with the federal Incidental Take Permit related to continued diversion of water and other City activities." *Id*. at 6.

27. Jim Bays, *Ecological Engineering and the Restoration of Louisiana's Marshes*, *in* NAT'L WETLANDS NEWSLETTER, *supra* note 16, at 3.

28. MANAGING CALIFORNIA'S WATERS, *supra* note 9, at 218–19. The BDCP's conservation strategy "responds to the challenge of restoring key ecosystem functions in the highly altered environment of the Delta." BAY DELTA CONSERVATION PLAN STEERING COMMITTEE, BAY DELTA CONSERVATION PLAN WORKING DRAFT 3-2 (2010), *available at* http://baydeltaconservationplan.com/Libraries/Whats_in_Plan/draft_BDCPreport_11292010_ClickableLinks7.pdf. The definition of restoration in the Delta Reform Act contemplates achievement of "a close approximation of its natural potential." CAL. WATER CODE § 85066 (West 2012).

29. NAT'L ACADS. OF SCI., SUSTAINABLE WATER AND ENVIRONMENTAL MANAGEMENT IN THE CALIFORNIA BAY-DELTA 134 (2012). As the report further noted, it remains to be determined what degree of "restoration" can occur through "intervention and adaptation." *Id*. at 156.

the state.[30] Faced with an abundance of evidence of the decline in environmental health, lawmakers addressed the need for environmental restoration in the California Bay-Delta in the 1990s.[31] Restoration work has been funded by the state and federal government frequently and through multiple channels.[32] In fact, the YBWA restoration was funded in part by and designed to be consistent with ecological restoration programs developed by the state and federal government.[33] However, given the more expansive restoration efforts afoot in the Bay Delta Conservation Plan (BDCP)—a draft HCP/NCCP—the continuing existence of the YBWA has been called into question.[34]

The restoration impulse has gained prominence as an environmental protection strategy at the same time as interest has increased in advancing

30. *See* David S. Gilmer, Michael R. Miller, Richard D. Bauer & John R. LeDonne, *California's Central Valley Wintering Waterfowl: Concerns and Challenges*, *in* TRANSACTIONS OF THE FORTY-SEVENTH NORTH AMERICAN WILDLIFE AND NATURAL RESOURCES CONFERENCE 441, 443–45 (1982).

31. The Delta is an ecosystem in collapse, although numerous restoration projects have progressed in the Bay-Delta. *See* CALIFORNIA BAY DELTA AUTHORITY, ECOSYSTEM RESTORATION MULTI-YEAR PROGRAM PLAN (2003). For example, a recent conservation victory, punctuated by litigation, includes restoring interim flows below the Friant Dam to restore the San Joaquin River and a salmon run there. However, not everyone considers this a victory. *See e.g.*, Tim Sheehan, *Friant Dam Releases Water to Begin River Rebirth*, The Fresno Bee, Oct. 2, 2009, http://www.fresnobee.com/2009/10/02/1658780/friant-dam-releases-water-to-begin.html; *see also* H.R. 1837, 112th Cong. (2011) (proposing to repeal the San Joaquin River Settlement).

32. One source of funding is the Central Valley Project Improvement Act (CVPIA), which created the Central Valley Project Restoration Fund in 1992. Pub. L. No. 102-575, § 3407, 106 Stat. 4600, 4726 (1992). The Bureau of Reclamation has made significant strides in ecological restoration through single purpose authorizations, despite lacking broader statutory support for that part of its mission. *See* Reed D. Benson, *New Adventures of the Old Bureau: Modern-Day Reclamation Statutes and Congress' Unfinished Environmental Business*, 48 HARVARD J. ON LEGIS. 137 (2011) (arguing that Bureau of Reclamation be given general authority for ecosystem restoration and predicting multiple benefits of such new authorization). CALFED is a state-federal collaboration initiated in the 1990s after years of drought in California impacted water exports and drove native fish species to precariously low numbers. In 1994, the "Principles for Agreement on Bay-Delta Standards between the State of California and the Federal Government" (known as the Bay Delta Accords) were signed, creating CALFED. *See History of CALFED Bay-Delta Program*, CALFED BAY-DELTA PROGRAM (2007), http://calwater.ca.gov/calfed/about/History/Detailed.html. The acronym stands for California (Cal) and federal (Fed) agencies participating in the Bay-Delta accords. *See Acronyms*, CALFED BAY-DELTA PROGRAM (2007), http://calwater.ca.gov/calfed/newsroom/Acronyms.html. The CALFED ERP identified restoration goals across the Bay-Delta for a time frame lasting until 2030. *See* CALFED BAY-DELTA PROGRAM, FINAL PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT AND ENVIRONMENTAL IMPACT REPORT RECORD OF DECISION 36 (2000) (identifying the goal of restoring habitat in Yolo Bypass). The environmental impact statement/environmental impact report (EIS/EIR) covers projected impacts from implementation of CALFED. The ERP is "the principal CALFED element to restore the ecological health of the Bay-Delta ecosystem." *See* CAL. DEP'T OF FISH AND GAME, *supra* note 2, at 9.

33. The Yolo Bypass Wildlife Area received a CALFED ERP grant and was designed to be consistent with CALFED ERP objectives. *See infra* footnotes 60–67 and accompanying text.

34. As discussed in Section IV., *infra*, a key BDCP conservation measure designed to increase tidal habitat would inundate the Yolo Bypass more frequently. This has the potential to disrupt habitat of terrestrial species and agriculture, which is a key component of the multi-use strategy employed at the Wildlife Area.

innovative, cross agency, and public-private collaborations. New structures of governance hold the potential for improvement of resource management, particularly across political rather than natural boundaries. As these theories of collaboration are under construction and scrutiny, proper norms do not yet exist.[35] Ad hoc assemblages of agencies and stakeholders may appear to be the best approach for tailoring a framework to the particular resource management challenge or planning process in question. Yet, these case-by-case approaches call into question equity and accountability. Eventually, a battle of the norms should ensue, and collaborations will likely take on predictable forms driven by experience. Shutting out local governments, particularly where public input processes are weak should immediately be recognized as counter-productive to the necessary work of building a constituency supporting restoration.

In the instant conflict between the YBWA and larger BDCP, despite contrary legal,[36] political, and theoretical mandates, engagement of local stakeholders in the BDCP process has been minimal, exacerbating long-standing resentment.[37] The BDCP was until very recently (and some would contend, remains as of the date of this publication) woefully lacking in input from the Delta counties where the plan elements will be implemented. A shift

35. Relevant statutes rarely address the structure of a collaborative governance framework, although it is commonplace to see legal mandates for "public participation." *See* Lisa Blomgren Bingham, *Collaborative Governance: Emerging Practices and the Incomplete Legal Framework for Public and Stakeholder Voice*, J. DISP. RES. 269, 276 (2009).

36. *See e.g.*, CAL. FISH & GAME CODE § 2815 (West 2012) (describing requirement of public process); *id.* § 2815(d) (calling for "[a]n outreach program to provide access to information for persons interested in the plan, including landowners, with an emphasis on obtaining input from a balanced variety of affected public and private interests, including state and local governments, county agricultural commissioners, agricultural organizations, landowners, conservation organizations, and the general public."). When projects contemplated will require a local agency permit, cooperation with that local agency is required. *Id.* § 2810(a) ("The department may enter into an agreement with any person or public entity for the purpose of preparing a natural community conservation plan, in cooperation with a local agency that has land use permit authority over the activities proposed to be addressed in the plan . . . ."). In Riverside and Orange counties, local governments were participants in the HCP/NCCP process. *See* Parker, *supra* note 22, at 137; Jon Welner, Note, *Natural Communities Conservation Planning: An Ecosystem Approach to Protecting Endangered Species*, 47 STAN. L. REV. 319, 345 (1995); DANIEL POLLAK, CAL. RESEARCH BUREAU, THE FUTURE OF HABITAT CONSERVATION? THE NCCP EXPERIENCE IN SOUTHERN CALIFORNIA (2001) (noting that the County of Orange Environmental Management Agency was the lead agency of the Orange County Central-Coastal subregional plan); U.S. Fish and Wildlife Serv., Western Riverside County MSHCP (April 2001), *available at* http://www.fws.gov/carlsbad/HCPs/FAQ%20Western%20Riverside%20County%20MSHCPsjw.pdf (noting that sixteen cities and Riverside County were involved in the process).

37. JEREMY ANDERSON & STEVEN YAFFEE, BALANCING PUBLIC TRUST AND PRIVATE INTEREST: PUBLIC PARTICIPATION IN HABITAT CONSERVATION PLANNING: A SUMMARY REPORT (1998) (examining benefits of public participation in HCP development); *see also* Camacho, *supra* note 24, at 313–23 (examining pros and cons of stakeholder participation in HCP development). Research indicates strong stakeholder involvement in planning increases the likelihood of public acceptance and can increase the knowledge base. Other research indicates a trade-off in biological goals may be sacrificed by extensive negotiation to achieve stakeholder support. *See e.g.*, Laura D. Guerico & Timothy P. Duane, *Grizzly Bears, Gray Wolves, and Federalism, Oh My! The Role of the Endangered Species Act in De Facto Ecosystem-Based Management in The Greater Glacier Region of Northwest Montana*, 24 J. ENVTL. L. & LITG. 285 (2009).

from the prior framework for developing the HCP/NCCP took place subsequent to a change in the gubernatorial administration and amidst concern for continuing progress toward the BDCP goals.[38] But the form of this "collaborative approach" is still inadequate in the opinion of the local government agencies and stakeholders bearing the burden of transition if BDCP is implemented.[39]

In sum, restoration of the California Bay Delta is one of many projects occurring during this era of rehabilitation and evolving governance frameworks. The actions taken to restore aquatic habitat in the Yolo Bypass could have significant impact on future projects, particularly in the California Bay-Delta, where restoration is anticipated for the next four decades. It will be one of the first projects focused on improving the ecological health of the Bay-Delta under the BDCP. The current challenge is to ensure ecological restoration moves us towards achieving environmental goals—however we define them. Restoration in the Delta and particularly in the Yolo Bypass is not occurring in isolation but is part of a greater trend toward reliance on restoration to achieve environmental goals. As it occupies a very unique place amidst this greater scheme, the stakes for the Yolo Bypass and the Delta are high.

II. THE YOLO BYPASS WILDLIFE AREA RESTORATION

The YBWA is a small but important piece of the California Bay-Delta ecosystem. It occupies nearly 17,000 acres in the historic Yolo Basin, between the cities of Davis and West Sacramento.[40] Nearly the entire wildlife area is within the Yolo Bypass, an engineered floodplain of about 59,000 acres that includes a mosaic of cultivated farmland, pasture, wetlands, and uplands.[41]

The forty-one-mile long Yolo Bypass was constructed to provide flood control and management in response to frequent flooding of the Sacramento Valley.[42] Beginning in 1917, the Sacramento Flood Control Project embarked

38. Progress in this regard is related to the environmental assessment required under the National Environmental Policy Act and California Environmental Quality Act. A combined EIR/EIS schedule has been adopted by the BDCP. Press Release, Governor Brown and Obama Administration Outline Path Forward for Bay Delta Conservation Plan (July 25, 2012) *available at* http://baydeltaconservationplan.com/Libraries/Dynamic_Document_Library/Joint_Announcement_Press_Release-7-25-12.sflb.ashx. According to the press release, the parties expect to release a draft EIR/EIS for public review in fall 2012. *Id.*; *see also Plan Development Schedule*, BDCP, http://baydeltaconservationplan.com/Schedule/PlanDevelopmentSchedule.aspx (last visited Nov. 23, 2011).

39. *See e.g.*, Letters from Contra Costa, Sacramento, San Joaquin, and Solano Counties to Federal Representatives Cardoza, Lungren, Garamendi, Herger, Matsui, McClintock, McNerney, Miller, Thompson (Aug. 29, 2011) (on file with author) (requesting intervention to address process).

40. CAL. DEP'T OF FISH AND GAME & YOLO BASIN FOUND., YOLO BYPASS WILDLIFE AREA LAND MANAGEMENT PLAN 1-1, 2-1 (2008) [hereinafter LMP].

41. *See* Juliet Christian-Smith, *Managing for Multiple Benefits: Farming, Flood Protection, and Habitat Restoration in the Yolo Bypass Wildlife Area*, *in* CALIFORNIA FARM WATER SUCCESS STORIES 17 (Pacific Institute ed., 2010).

42. LMP, *supra* note 40, at 3.4-4.

on construction of levees by the United States Army Corps of Engineers, and construction of the Sacramento Weir and Fremont Weir.[43] The construction of levees on both sides of the Yolo Basin, as well as construction of the Sacramento and Fremont Weirs, transformed the naturally draining Yolo Basin into the managed Yolo Bypass.

The historic Yolo Basin supported many species of fish and wildlife. But human alterations took an exacting toll, particularly on floodplain marshlands.[44] Species that relied on the Pacific Flyway, a major North American corridor for migratory birds, were directly impacted. The Pacific Flyway reaches as far north as Alaska and extends south to Patagonia in South America. Along its path, it stretches across California from north to south. By the 1950s, wildlife researchers were drawing attention to the alarming loss of wetland, riparian, and grassland habitat in California, with attendant concern for the survival of wintering waterfowl in particular.[45]

Within Yolo County, a largely rural area located immediately west of Sacramento, members of the local community saw an opportunity to address this problem and successfully did so in a way that harmonized wildlife and agricultural interests. The Yolo Basin Foundation (YBF), established in 1990, began years of public meetings and engagement of federal, state, and local government officials with management responsibilities in the Bypass, and landowners to assess and ultimately achieve restoration. Land for the Wildlife Area was initially acquired by the California Department of Fish and Game (DFG) in 1997. The Wildlife Area was expanded again with land acquisitions in 2001, 2002, and 2004. It is now approximately 16,770 acres of actively managed land in the Yolo Bypass, providing both wildlife habitat and an agricultural base.[46]

The YBWA, the YBF, and the public-private collaboration of the YBF and California DFG have garnered a multitude of awards.[47] In fact, the YBWA has received national attention as a model for collaborative restoration. President William J. Clinton, who dedicated the Area in 1997, recognized its unique contributions to wildlife restoration consistent with multiple uses.[48] One of the unique features of the YBWA is the combination of commercial

43. *Id.* at 3.4-4.

44. As described in the LMP, although the historic Yolo Basin was inundated from time to time during large flood overflows from the nearby Sacramento River and the Putah and Cache Creeks, it "did not function as a true floodplain that directly interacted with the Sacramento River . . . ." *Id.* at 3.4-1.

45. *See* Gilmer et al., *supra* note 30, at 441.

46. LMP, *supra* note 40, at ES-1 ("Executive Summary"). A division into seventeen different units reflects in part the historic ownership of the lands prior to inclusion in the YBWA.

47. Among the awards were the 1995 "U.S. Department of Interior Wetlands Conservation Award" for the private sector, the 2002 "City of Davis Environmental Recognition Award," and the 2007 "Conservationist of the Year" award from the Wildlife Society, Western section. *About Yolo Basin Foundation*, YOLO BASIN FOUND. (2012), http://www.yolobasin.org/about.cfm. In 2011 executive director Robin Kulakow and the Yolo Basin Foundation were awarded the "Central Valley Joint Venture Conservation Award." *Id.*

48. LMP, *supra* note 40, at 1-8.

agriculture, wildlife protection, and public access for recreation and educational purposes. These activities are carried out in a compatible and complementary manner, while still providing the essential flood protection that was the original design of the Yolo Bypass.[49]

A. Multiple Uses in the Yolo Bypass Wildlife Area

First and foremost, the Yolo Bypass provides significant flood protection as a human-made floodplain.[50] Flowage easements allow water diverted from the Sacramento River to inundate the YBWA units (those within the Bypass).[51] As this is a primary function of the Bypass, under current law other land uses of the YBWA must be consistent with flood protection needs.[52]

The YBWA knits together seemingly divergent land uses by using farming practices timed strategically to support native species and flood capacity in the Yolo Bypass. Valuable agricultural lands, measured in terms of soil quality, growing season, and water supply, are situated in Yolo Bypass generally, and the YBWA specifically.[53] This includes land designated prime, unique, or of statewide importance by the California Department of Conservation.[54] There are both owner and tenant farms in the Yolo Bypass. Farmers have water rights, and are subject to flood easements (held by the state).[55] The area has been flooded to various extents in approximately 70 percent of water years.[56] Vegetation in the bypass that would otherwise impede water flow is taken out

49. Ted Sommer et al., *California's Yolo Bypass: Evidence that Flood Control can be Compatible with Fisheries, Wetlands, Wildlife, and Agriculture*, 26 FISHERIES 6–16 (2011).

50. The Yolo Bypass does not currently provide 100-year flood protection. California law requires that urban areas have a minimum of 200-year flood protection. As such, it is anticipated that future changes will be necessary. The Central Valley Flood Protection Plan, underway with anticipated passage in 2012, will address the issue and require re-examination every 5 years. CAL. DEP'T OF WATER RES., CENTRAL VALLEY FLOOD PROTECTION PLAN AND BAY DELTA CONSERVATION PLAN (March 2012); CAL. DEP'T OF WATER RES., URBAN LEVEL OF FLOOD PROTECTION CRITERIA (drft. 2012).

51. LMP, *supra* note 40, at 2-1.

52. The DFG is made responsible for management of the YBWA to maintain consistency with flood protection. The DFG, DWR, State Reclamation Board and Army Corps of Engineers agreed, pursuant to a management agreement, to allow for flood control compatible project modifications. *Id.* at 2-21. A management agreement, signed in 1994, makes DFG responsible for maintenance of the project modification. DFG is also under agreement with the State Reclamation Board pursuant to Section 8618 of the California Water Code to maintain the YBWA consistent with the Yolo Bypass flood control purpose. *Id.*; Memorandum of Understanding from the Reclamation Bd., Cal. Dep't of Water Res., Cal. Dep't of Fish and Game, and U.S. Fish and Wildlife Service Regarding Threatened and Endangered Species in the Yolo Basin Wetlands Project (Mar. 16, 1994), *available at* http://www.dfg.ca.gov/lands/mgmtplans/ybwa/ ("Appendix D—Existing Memorandums of Understanding").

53. LMP, *supra* note 40, at 3.2-2.

54. *Id.* at 3.2-2.

55. *Id.* at 2-12–2-13.

56. *Id.* at 2-1.

by farmers to support agriculture and by animals grazing.[57] Farmers grow rice and other crops in the YBWA that provide food for waterfowl, and farming is conducted consistent with the creation of seasonal wetlands, an important habitat for various wildlife.[58] Cattle are also grazed in the Yolo Bypass.[59] Grassland in the southern portion of the YBWA is managed in part through cattle grazing.[60] This occurs primarily on the Tule Ranch Unit of the YBWA.[61] Other units of the YBWA are also grazed, and the animals eat emergent vegetation that may pose an impediment to flood protection.

The management regime of the YBWA supports abundant wildlife. Specifically, there is a Memorandum of Understanding between DFG, the State Reclamation Board, the California Department of Water Resources (DWR), and the U.S. Fish and Wildlife Service (USFWS) that provides the management of the YBWA will take into account the particular habitat needs of the giant garter snake and Swainson's hawk.[62] The Land Management Plan asserts a goal to proactively pursue an ecosystem management approach and work in concert with other ecological restoration initiatives. Thus, the management regime at the YBWA in fact supports a diversity of wildlife, including fish, mammals, and waterfowl.

Duck hunting is another significant use of the YBWA; various duck hunting clubs operated in the Yolo Bypass prior to establishment of the YBWA. They still operate south and north of the YBWA. The beginning of the hunting season is typically September 1, and waterfowl season opens in mid-October lasting through January. During the season, hunters are drawn to the YBWA to hunt game species including waterfowl, coots, moorhens, snipe, pheasant, and dove.[63] Seasonal flooding at times may interrupt or cut short the hunting season.

A variety of other activities occur throughout the year. Nearly year-round, bird-watchers flock to the YBWA; over 200 species of birds have been spotted.[64] These include "ibis, pelicans, cormorants, great blue herons, orioles, blue grosbeaks, and western kingbirds."[65] Since the YBWA provides a mix of

57. Letter from F.I. "Butch" Hodgkins, Central Valley Prot. Bd., to Cal. Res. Agency (Aug. 2, 2011) (on file with author) (regarding agriculture and flood protection from member of Yolo Bypass Fisheries Enhancement Project Working Group).

58. LMP, *supra* note 40, at 3.2-2, 3.2-5 (identifying a variety of crops grown for benefit of various wildlife). Crops such as rice, tomatoes, corn, milo, and safflower provide forage for the wide variety of wildlife. *Id*. at 3.2-7 ("Rotation strategies are designed to provide a diversity of wildlife habitat elements and to facilitate sustainable agricultural practices . . . ."); *see also* Christian-Smith, *supra* note 41, at 21 (discussing agricultural leases and crops).

59. LMP, *supra* note 40, at 3.2-7.

60. *Id*. at 3.2-2, 3.2-7.

61. *Id.* at 3.2-7.

62. Memorandum of Understanding Regarding Threatened and Endangered Species, *supra* note 52, at ¶14.

63. LMP, *supra* note 40, at 3.7-7.

64. *Id.* at 3.7-8.

65. *Id*.

species habitat, including permanent wetlands, seasonal wetlands, riparian forests, upland habitat, and grasslands,[66] mammals such as "coyotes, raccoons, gray fox, mule deer, beaver, mink and river otters" can be seen.[67] This provides recreation for photographers as well. The YBF annual fundraising event includes a silent auction of donated photography in several categories including landscape and wildlife. Fishing is also a popular activity at certain times of the year.

The YBWA is also a significant educational amenity promoting environmental literacy. Education is a primary mission of the YBF, and they are specifically focused on wetlands. Among its other notable educational features is a sixty-nine-acre demonstration wetlands, illustrating native Central Valley wetlands. A variety of community programs are offered, and volunteers are trained to provide tours. The *Discover the Flyway* school program is illustrative. With sixty schools from fifteen different school districts and private schools in the area, this K-12 program has an extensive reach.[68] The YBF trains hundreds of teachers, who must participate in a training prior to hosting field trips to the YBWA.[69] Four thousand students and parents are hosted each year.[70]

B. Creation and Governance Structure

Nearly as impressive as the range of land uses is the process employed to bring the YBWA to existence. Many partnerships are responsible for the successful creation of the YBWA. "The Yolo Bypass Wildlife Area was founded by a community working together as it restored a critical link in the Pacific Flyway through cooperative, innovative partnerships."[71] The YBF was a key driver in the project. The YBF is a non-profit organization created in 1990 "as a community-based organization to facilitate the creation of the Yolo Bypass Wildlife Area."[72] Today, the YBWA is managed by the DFG, which is responsible for all aspects of land and resource management, and the YBF promotes educational awareness through its on-site programming.[73]

The ground-level work to forge consensus among federal, state, and local entities and individuals took years of meetings, discussions, negotiation, and trust-building. Restoration advocates had to analyze and coordinate existing

66. *Id.* at 3.5-2–3.5-24 (discussing vegetation resources and wildlife habitat values).
67. *Id.* at 3.7-8.
68. *Id.* at 3.7-10.
69. *Id*.
70. *Id*.
71. *Id.* at 1-7.
72. *Id*.
73. The partnership allows the YBF to promote public awareness and understanding of the YBWA through its programming. *See* Memorandum of Understanding from Cal. Dep't of Fish and Game and The Yolo Basin Found. Regarding the Yolo Bypass Wildlife Area (May 19, 1997), *available at* http://www.dfg.ca.gov/lands/mgmtplans/ybwa/ ("Appendix D—Existing Memorandums of Understanding").

legal obligations and policy objectives with wetlands restoration plans.[74] This presented an important role for the YBF, as a non-governmental organization outside of the formal structure of the legal management of the area.[75] The necessity for coordination was particularly true in terms of the Bypass flood control and management purpose.[76] With so many entities—federal, state and local—with responsibility in the area, years of planning and meetings were necessary to forge the required arrangements. Entities include DFG, California DWR, Army Corps of Engineers, and Yolo County. Multiple Memorandum of Understanding among state and federal agencies and the YBF provide a structure for management.[77]

Under a CALFED Ecosystem Restoration Program (ERP) grant, the YBF created the Yolo Bypass Working Group (YBWG) in 1998.[78] This is a diverse group of stakeholders with interests in the Yolo Bypass. It also serves to educate the public about the Yolo Bypass. A primary task of the YBWG is to identify "opportunities and constraints" for future restoration in the bypass.[79] In 2001, the YBWG completed *A Framework for the Future, Yolo Bypass*

74. Obligations of various entities included the Army Corp of Engineers' "responsibility for the federally authorized Sacramento River Flood Control Project, the federal Endangered Species Act, the California Endangered Species Act," while the California Water Code also imposed obligations of various state and federal agencies. *See* Memorandum of Understanding Regarding Threatened and Endangered Species, *supra* note 52. The Reclamation Board has the obligation to operate and maintain the Yolo Bypass, required by agreement and California Water Code Section 8710 to prohibit activities that would adversely affect "capacity, operation and maintenance of flood control works such as the Yolo Bypass." *Id.* ¶ 4. The Department of Water Resources is required pursuant to Section 8361 of the California Water Code to maintain the Yolo Bypass. *Id.* ¶3 The California DFG and USFWS are responsible for implementing the Acts. *Id.* ¶7.

75. The history of the Yolo Basin Foundation is discussed in Appendix E to the LMP. LMP, *supra* note 40, app. E. Members of the Putah Creek Council and Yolo Audubon Society joined with federal, state, and local representatives to discuss the potential for wetlands restoration. "The planning and fact finding efforts of the initial group grew into the Yolo Basin Working Group, an ad hoc organization of people representing local, state, and federal government agencies and elected officials, local, statewide and national conservation groups, agricultural interests, land owners and the Central Valley Habitat Joint Venture." *Id.* at 9. The Yolo Basin Working Group determined that an entity needed to be created to focus specifically on the restoration and securing public engagement and support. Members created the Yolo Basin Foundation in response. Ultimately the multi-agency Memorandum of Understanding on Threatened and Endangered Species was facilitated by YBF and drafted by Foundation board members. It was signed in 1994. *See* Memorandum of Understanding Regarding Threatened and Endangered Species, *supra* note 52.

76. Restoration advocates prevailed upon the Army Corps of Engineers to use its authority to allow wetlands restoration within the flood protection purpose. The Army Corps of Engineers Yolo Basin Wetlands project was to be the "first of the Corps' Section 1135 habitat restoration projects nation-wide." *Id.* at 9.

77. *See e.g.*, Memorandum of Understanding Regarding Threatened and Endangered Species, *supra* note 52; Memorandum of Understanding Regarding The Yolo Bypass Wildlife Area, *supra* note 73.

78. *See* LMP, *supra* note 40, at 1-12. CALFED was a state and federal collaboration to address Bay-Delta issues including water supply and ecological restoration. *See infra* notes 105–110 and accompanying text

79. YOLO BASIN FOUND., FRAMEWORK FOR THE FUTURE: YOLO BYPASS MANAGEMENT STRATEGY 2-2 (2001).

Management Strategy ("2001 Framework"). The 2001 Framework detailed how enhanced habitat in the Bypass could be achieved consistent with broader restoration goals and the interests of landowners. The YBWG sought what is desirable in any sustainable development project. Acknowledging the many land uses in the Bypass, including flood management, farming, and wildlife habitat, the framework asserted that the Bypass "can be a place where landowners need not be threatened by the presence of additional wildlife habitat and special-status species. It can be a place where realistic goals and objectives can be achieved, resulting in benefits for all parties involved."[80] The creation of the YBWG and the 2001 Framework was a response to the concern that existing processes insufficiently engaged the local people who would be most impacted by proposed restoration projects, in particular those transforming the use of the Yolo Bypass.[81] Thus, the YBWG and 2001 Framework proactively engaged stakeholders and identified a vision for cooperative solutions. Notably, YBWG members have now been sought out as participants in the Yolo Bypass Fisheries Enhancement Working Group of the BDCP.

C. Connection with Larger Ecosystem Restoration Goals for the Delta

As with previous steps in the creation of the YBWA, preparation of the Wildlife Area Land Management Plan (LMP), completed in 2008, occurred with broad participation by multiple parties. Participation included state and local government entities, local citizen groups, non-profits, and academic institutions. As the Executive Summary of the LMP explains, its express purpose is to "direct an ecosystem approach to managing the Yolo Bypass Wildlife Area in coordination with the objectives of the CALFED Ecosystem Restoration Program (ERP)."[82] The CALFED ERP recognized that the Endangered Species Act's policy focus on single-species recovery would not be feasible for the many at-risk species in the Delta.[83] Therefore, the ERP was designed as an ecosystem approach to habitat restoration with a significant emphasis on adaptive management.[84] The YBWA LMP also identified coordination with CALFED ecosystem restoration efforts and other efforts throughout the region as a purpose.[85] Specific coordination opportunities identified by the LMP included coordination with the developing Yolo Habitat HCP/NCCP.[86]

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80. *Id*. at 5-1.
81. *Id*. at iii.
82. LMP, *supra* note 40, at ES-1 ("Executive Summary").
83. MICHAEL C. HEALY ET AL., CONCEPTUAL MODELS AND ADAPTIVE MANAGEMENT IN ECOLOGICAL RESTORATION: THE CALFED BAY-DELTA ENVIRONMENTAL RESTORATION PROGRAM 5 (2004).
84. *Id*.
85. LMP, *supra* note 40, at 4-14.
86. *Id.* at 5-58; *see infra* Section VI (discussion of Yolo County HCP/NCCP).

The YBWA stands out as an oasis in an increasingly urban setting and serves as a place of respite for those in the Sacramento region. YBWA multiple use management recognizes that resources are limited and subject to increasing demand. Land and water are sought for various uses. To the extent these limited resources can be joined harmoniously, the YBWA pursues that goal. It is in large part thanks to the work of a community-based organization, the YBF, that the many disparate policies affecting the Bypass were successfully navigated and meshed to produce effective habitat restoration, wildlife conservation, and the preservation of agriculture in the unique setting of the Yolo Bypass.[87]

D. Achievements in Reconciliation and Multiple Use Balance

The YBWA demonstrates the possibility for people to use land in a way that is still supportive of a diversity of wildlife.[88] Reconciliation ecology provides an approach to conservation beyond the dominant paradigms of dividing anthropogenic (human) spaces and natural ones.[89] "In essence, it seeks techniques to give many species back their geographical ranges without taking away ours."[90] Reconciliation in agricultural settings is identified as a significant potential area for gains, particularly given the vast amount of land dedicated to this use.[91]

While in the past restoration debates have centered on historical fidelity, reconciliation focuses more on particular natural benefits that could flow from semi-natural or human managed ecosystems. Today, many restoration projects are in fact seeking a form of reconciliation, with modest goals to restore some semblance of the natural environment. In pragmatic terms, this makes restoration objectives far more achievable. It limits debates over the particular time frame in history that is sought to be re-created from a restoration and focuses instead on the ecosystem functions that could be restored. Coming to terms with this approach requires explicit understanding that people, and their pursuit of particular ecosystem benefits, are at the center of restoration projects. It is perhaps then not too ironical that the human-made Yolo Bypass, a place already painstakingly restored for the benefit of various terrestrial and bird species, holds such promise for Delta habitat restoration.

87. LMP, *supra* note 40, at 3.1-1

88. *See* Christian-Smith, *supra* note 41, at 17.

89. *See* Michael L. Rosenzweig, *Reconciliation Ecology and the Future of Species Diversity*, 37 ORYX 194–205 (2003).

90. *Id*. at 201.

91. *Id*. For an extended look at the subject, see DANA L. JACKSON & LAURA L. JACKSON, THE FARM AS NATURAL HABITAT: RECONNECTING FOOD SYSTEMS WITH ECOSYSTEMS (2002).

III. BACKGROUND ON CALIFORNIA DELTA

Many volumes have been written on the conflicts over water and environmental quality in the California Delta. This section provides a very brief overview as necessary to understand the setting of the YBWA restoration, its coordination with Delta recovery efforts, and threats to its future.

A. Physical Background

The Bay Delta estuary is formed where the Sacramento and San Joaquin rivers flow through California's Central Valley and then discharge into the San Francisco Bay. As it provides a significant component of California's drinking water, it is undoubtedly a critical natural resource in the state.[92] It is also a key source of irrigation water for agriculture in California. But beyond the drinking and agricultural water supply, the estuary is an important cultural, recreational, and environmental asset providing critical habitat for a range of species, including our own.[93] The Delta was once a vast inland sea with tidal marshes, wetlands and riparian forests. Today it is a system of aqueducts and canals with the estuary itself used as a conduit to move water for human needs. It has been described by some as now a "freshwater lake" due to water projects severely impacting traditional tidal influences, in turn imperiling native fish species.[94]

Multiple water projects, state and federal, flood control projects, and development have fundamentally changed the Bay Delta. Making way for urbanization and distribution of freshwater has drastically reduced natural habitats, as has significant conversion of wetlands for agriculture.[95] The State Water Project (SWP), primarily managed by the California DWR, and the federal Central Valley Project (CVP), managed by the U.S. Bureau of Reclamation are primarily responsible for capturing water deposited in northern California and then conveying water from and through the Delta south to farms and urban users in southern California cities.[96] Project operations seriously impact water flows, generally reducing them in some portions of the Delta,

92. The Delta covers 738,000 acres, drains over 40 percent of the state's surface waters, and provides some of the drinking water to two-thirds of the state's population. *See* David A. Sandino, *Analysis of the State Water Resource Control Board Cases: The Intersection of Water Rights and Water Quality in the Delta*, ENVTL. L. REP. 204 (2006).

93. The Delta Reform Act of 2009 identifies that coequal goals of water reliability and ecosystem restoration shall be achieved in a manner that recognizes the multiple values of the Delta "as an evolving place." *See* CAL. WATER CODE § 85054 (West 2012); CAL. PUB. RES. CODE § 29702.

94. For a robust discussion of historic Delta conditions, see HEALY ET AL., *supra* note 83, at 4–5; CALFED BAY-DELTA PROGRAM, ECOSYSTEM RESTORATION PROGRAM PLAN: STRATEGIC PLAN FOR ECOSYSTEM RESTORATION app. A (2000).

95. *See* MANAGING CALIFORNIA'S WATERS, *supra* note 9, at 19–22 (discussing reclamation of land for agriculture).

96. Near the town of Walnut Grove, the CVP diverts water through the Delta Cross-Channel, and from there the water travels south to pumps. Through controlled releases from the Shasta Dam, the CVP pushes salt water from the Delta. The SWP sends water through the California Aqueduct, a 450-mile artificial, concrete-lined river. *See* LITTLE HOOVER REPORT 2005, *supra* note 16, at 10.

changing and even reversing the direction of natural flows, altering salinity, and impairing natural processes such as sedimentation. Although they are two distinct water projects, one managed by the state (SWP) and the other federal (CVP), the two projects must as a practical matter be operated together, as they share infrastructure for storage, pumping, and conveyancing.[97]

B. Range of Problems Facing the Bay Delta Estuary and Responses

The environmental crisis in the Bay Delta has been intensely studied.[98] According to some experts, the most important and pressing issue is that a disaster of epic proportion awaits, as California fails to make necessary changes to strengthen the levee system and adopt other flood avoidance measures.[99] Others have focused on the decline in wildlife species,[100] and the competing pressures on the availability of freshwater for a variety of human uses. As previously noted, human impacts abound: water diversions and exports, inadequate water quality control standards, pollution including agricultural pesticide runoff and mercury from historic mining sites, urban stormwater runoff, illegal fishing, introduction of invasive species from ballast water, and significant conversion of habitat to agriculture and urban uses. In short, multiple stressors have led to an unsustainable ecosystem and reliance by California on a fragile Delta.[101]

The pumps from the CVP and SWP kill an incredibly large number of fish each year.[102] Pumping kills Delta smelt "by sucking them into the pumps; by

97. *See e.g.*, Consolidated Salmonid Cases, 688 F. Supp. 2d 1013, 1021–22 (E.D. Cal. 2010).

98. Professor Dave Owen identifies it as one of the nation's highest-profile environmental controversies. *See* Dave Owen, *Law, Environmental Dynamism, Reliability: The Rise and Fall of CALFED*, 37 ENVTL. L. 1145, 1147–48 (2007) (illuminating flaws in the legal management of natural resources, particularly the Bay-Delta estuary, that have thwarted stability). Professor Owen looks beyond the frequently identified factors leading to failure and articulates a different framework for managing in lieu of the "consume-to-the-brink" conceptual framework currently in use. *Id.*

99. *See* Alex Prud'homme, *California's Next Nightmare*, N.Y. TIMES MAG., July 3, 2011, http://www.nytimes.com/2011/07/03/magazine/sacramento-levees-pose-risk-to-california-and-the-country.html (identifying potential pathways for flooding including the earthquake trigger and the superstorm trigger).

100. The National Research Council report on the Bay-Delta focuses on concern for the management for threatened and endangered species. NAT'L RESEARCH COUNCIL, A SCIENTIFIC ASSESSMENT OF ALTERNATIVES FOR REDUCING WATER MANAGEMENT EFFECTS ON THREATENED AND ENDANGERED SPECIES (2010).

101. *See* MANAGING CALIFORNIA'S WATERS, *supra* note 9, at iv (describing the status quo in the Delta as unsustainable for all stakeholders).

102. *See* Dan Yamanaka & Reza Shahcheraghi, *IEP Quarterly Highlights*, IEP NEWSLETTER, Spring 2012, at 3; Geir Aesen, *Fish Salvage at the State Water Project's and Central Valley Project's Fish Facilities During the 2011 Water Year*, IEP NEWSLETTER, Winter 2012, at 3. Looking at data from the two salvage facilities, the CVP's Tracy Fish Collection Facility and the SWP's Skinner Delta Fish Protective Facility yielded annual salve in 2011 of 8,724,498 at the Tracy Facility and 3,092,553 at the Skinner Facility. These numbers were higher than in 2012, but lower than the highest salvage rates in 2006. Aesen, *supra*, at 4. The California DFG maintains a database of salvage data on its website. *See Salvage Monitoring*, CAL. DEP'T OF FISH AND GAME, www.dfg.ca.gov/delta/apps/salvage/Default.aspx (last visited Nov. 13, 2011); *see also* Wim Kimmerer, *Losses of Sacramento River Chinook Salmon and*

drawing them into fish ''salvage'' facilities which collect fish diverted from entering the pumps, a process that kills the smelt; and drawing smelt into the SWP's Clifton Court Forebay from which the fish cannot escape and where they will die even if they are not drawn into the salvage facilities or the pumps."[103] The California DFG regularly monitors fish mortality and fish salvage operations continue twenty-four hours a day, seven days a week. For decades, fish have been captured, trucked, and released back to the Delta. Particular focus on the Delta smelt, a small fish facing extinction, is mandated by law. But it is also the canary in the coal mine, sounding the alarm of a seriously impaired tidal estuary.[104]

CALFED was initiated in 1994 to address environmental issues, including the decline of the Delta smelt, as well as water supply concerns. CALFED''s joint state-federal governance design sought to address multiple issues: water supply, ecosystem restoration, water quality, and levee improvements.[105] The benefit of a collaboration between the federal government, which could provide adequate financial assistance, and the state, which would more equitably represent the interests of the people involved, was heralded as an important milestone toward successful resolution of Delta conflicts on these four critical issues.[106] CALFED's process had to balance both the needs of the Delta at large as well as the needs of individual regions. Thus, one assessment of CALFED's approach commends the collaboration as a regional process that empowered local involvement.[107]

Although CALFED met with some success,[108] many viewed it as "dysfunctional."[109] Its funding was reduced, and its future is in question.[110]

Delta Smelt to Entrainment in Water Diversions in the Sacramento-San Joaquin Delta, SAN FRANCISCO ESTUARY AND WATERSHED SCIENCE, June 2008.

103. San Luis & Delta-Mendota Water Authority v. Salazar, 760 F. Supp. 2d 855, 864 n.3 (E.D. Cal. 2010).

104. Paul Rogers, *Delta Smelt: "Canary in the Coal Mine"?*, SAN JOSE MERCURY NEWS, Jun. 2, 2007, *available at* http://www.biologicaldiversity.org/news/media-archive/DeltaSmeltSanJose6-2-07.pdf.

105. There are mixed views of CALFED successes and failure. *See e.g.*, MARY DOYLE & CYNTHIA A. DREW, LARGE SCALE ECOSYSTEM RESTORATION: FIVE CASE STUDIES FROM THE UNITED STATES 110 (2008) ("[A] major lesson of CALFED is that collaboration in environmental decision making, once structured and practiced, will endure even under harsh political climates."); Owen, *supra* note 98.

106. For more on CALFED, see Patrick Wright, *Fixing the Delta: The CALFED Bay-Delta Program and Water Policy Under the Davis Administration*, 31 G.G.U. L. REV. 331 (2001).

107. DOYLE & DREW, *supra* note 105, at 140 (citing former Secretary of Resources Mary Nichols); *see also* Judith Innis et al., *Collaborative Governance in the CALFED Program: Adaptive Policy Making for California Water* 37–39 (Institute of Urban and Regional Development and Center for Collaborative Policy, Working Paper No. 2006-01, 2006) (discussing shift to increased regional and local government and public involvement).

108. *See* Andrea K. Gerlak & Tanya Heikkila, *Comparing Collaborative Mechanisms in Large Scale Ecosystem Governance*, 46 NAT. RESOURCES J. 657, 669 (2006) (noting CALFED as a roadmap to resolve conflicts). CALFED designed the governing body later adopted by the California legislature to oversee implementation of the CALFED program, the California Bay-Delta Authority. *Id*. at 675; *see also* MANAGING CALIFORNIA'S WATERS, *supra* note 9, at 41.

Together with pressure to address the endangered species mandates (discussed *infra*), the BDCP process was launched.[111] As further discussed in Section D below, the BDCP is now the primary ecological restoration planning process in the Bay-Delta involving state and federal collaboration.

State leaders also addressed the crisis. California Governor Arnold Schwarzenegger convened the Delta Vision Blue Ribbon Task Force, calling for its vision to address the crisis by January 1, 2008 and an implementation plan by November 2008.[112] The Task Force timely released its final report identifying its vision for the future of the Delta.[113] Then, in 2009, a package of bills moved through the California Legislature. The bills implemented many of the Delta Vision recommendations, including a new governance system. The Sacramento-San Joaquin Delta Reform Act of 2009[114] identified coequal goals of ecosystem restoration and water supply reliability.[115] It produced a restructured Delta Protection Commission. It also established a Delta Stewardship Council as an independent state agency.[116] The Delta Stewardship Council was charged with establishing and providing oversight to a committee of agencies implementing the Delta Plan.[117] The law created a Delta Conservancy, charged with primary responsibility for implementing ecological restoration.[118] The Delta Conservancy is also specifically empowered to assist local entities in implementing HCPs and NCCPs.[119]

Critiques of the legislation and the new governing structures abound.[120] Among concerns was the lack of representation of Delta counties in pursuing

109. DOYLE & DREW, *supra* note 105, at 142 (citing to Senator Lois Wolk's remarks in a congressional hearing). This opinion was widely shared. *See* LITTLE HOOVER REPORT 2005, *supra* note 16; Gerlak & Heikkila, *supra* note 108, at 676–79.

110. *See* DOYLE & DREW, *supra* note 105, at 142 (noting CALFED's future is in doubt).

111. *See infra* Section II.D.

112. Cal. Exec. Order No. S-17-06 (2006), *available at* http://deltavision.ca.gov/BlueRibbonTaskForce/March2007/Item_2_Attachment_1-EOS-17-06.pdf.

113. DELTA VISION BLUE RIBBON TASK FORCE, OUR VISION FOR THE CALIFORNIA DELTA (2007), *available at* http://deltavision.ca.gov/BlueRibbonTaskForce/FinalVision/Delta_Vision_Final.pdf.

114. CAL. WATER CODE § 85200 (West 2012).

115. *Id.* § 85300–85309. Section 85054 defines coequal goals: "Coequal goals means the two goals of providing a more reliable water supply for California and protecting, restoring, and enhancing the Delta ecosystem. The coequal goals shall be achieved in a manner that protects and enhances the unique cultural, recreational, natural resource, and agricultural values of the Delta as an evolving place." *Id.* § 85054. The goals are also identified in section 85302(a), *id.* § 85302(a) ("The implementation of the Delta Plan shall further the restoration of the Delta ecosystem and a reliable water supply."), and described as "coequal" in section 85300(a), *id.* § 85300(a).

116. *Id.* § 85200(a). The council is the successor to the California Bay-Delta Authority. *Id.* § 85034(b).

117. *Id.* § 85204.

118. CAL. PUB. RES. CODE § 32300–32391 (West 2012).

119. *Id.* § 32301(i)(10).

120. *See e.g.*, Peter Gleick, *California Water Bills. Is the New Water Legislation Better Than Nothing?*, S.F. GATE (Nov. 9, 2009 11:24 AM), http://blog.sfgate.com/gleick/2009/11/05/california-water-bills-is-the-new-water-legislation-better-than-nothing/; Christian L. Marsh & Peter S. Pros, *California's New Water Legislation: A Bucket of Reform or But a Drop?* 25 NAT. RESOURCES & ENV'T 37 (2010); Lois Wolk, *Time to Get Real About California's Water Supply*, S.F. GATE (Mar. 1, 2012 4:00

the coequal goals. California Senator Lois Wolk, one of the most vocal opponents of the bills (and whose district includes a large portion of the Delta), pointed out that "[t]his plan will by no means solve the problems in the Delta. First of all, the Delta counties are not involved to the extent they should be and the changes are going to be significant."[121] Environmental groups were divided, with some such as NRDC and Defenders of Wildlife in support, with others such as California Sierra Club and Center for Biological Diversity against.[122] The BDCP can become part of the Delta Plan if certain elements are met, in which case most state and local government actions within the Delta will have to be carried out in a manner consistent with the BDCP.

C. Endangered Species Act Cases Driving Management

Because of its binding effect on all actors involved, Endangered Species Act (ESA) litigation over the Delta smelt and salmonids effectively controls water exports and land use. The change in water flows due to the CVP and SWP diversions and exports is a central problem for fish species, as is entrainment in the pumps that transport water south and are thus responsible for massive fish kills each year. As native fish populations so declined that extinction became a possibility, the California and federal ESAs measures took center stage in management of Delta water. Various fish species were listed beginning in the early 1990's. Once abundant with native fish, the Delta is now home to five species of fish that are listed as endangered or threatened under the federal ESA,[123] including various salmonids and the Delta smelt.[124] The conflict over water and protection of the endangered salmon and Delta smelt is no less than a "war."[125]

Pursuant to section 7 of the ESA, federal agencies must consult with the USFWS or National Marine Fisheries Service (NMFS) (the expert agencies) to insure that any proposed action that will be authorized, funded, or carried out by that agency will not jeopardize the continued existence of an endangered or

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AM), http://www.sfgate.com/opinion/openforum/article/Time-to-get-real-about-California-s-water-supply-3372089.php.

121. David M. Greenwald, *Historic Water Deal Draws Both Praise and Criticism*, CAL. PROGRESS REPORT (Nov. 5, 2009), http://www.californiaprogressreport.com/site/node/7062. All Delta counties opposed the bill. *Id.*

122. *Id*. 121

123. *See* CAL. DEP'T OF FISH AND GAME, STATE AND FEDERALLY LISTED ENDANGERED & THREATENED ANIMALS OF CALIFORNIA (2011), *available at* http://www.dfg.ca.gov/biogeodata/cnddb/pdfs/TEAnimals.pdf. The list is updated quarterly. Sacramento splittail was removed from the federal ESA in 2003, and while advocates pushed for its listing again, the USFWS rejected its relisting. *See* Bill Lindelof, *Feds Reject Putting Delta Fish Back on Endangered List*, SACRAMENTO BEE, Oct. 6, 2011, at 2B.

124. *See* CAL. DEP'T OF FISH AND GAME, *supra* note 123.

125. San Luis & Delta-Mendota Water Authority v. Salazar, 760 F. Supp. 2d 855, 863 (E.D. Cal. 2010).

threatened species, or adversely modify or destroy critical habitat.[126] Fundamentally, the expert agencies must evaluate whether the proposed action will jeopardize——reduce appreciably the likelihood of both the survival and recovery of the species——and the Biological Opinion (BiOp) provides the expert agency's advice to the action agency in that regard. Formal consultation may result in the expert agency providing a BiOp that specifies Reasonable and Prudent Alternatives (RPAs) to the proposed action that the agency director believes will avoid the likelihood of jeopardy to the impacted species or adverse modification of designated and proposed critical habitat.[127] The action agency must abide the advice of the BiOp if it wishes to avoid liability under the ESA.[128]

Interest in project changes, and contract renewals led to an initial set of BiOps pursuant to the ESA, one developed by the USFWS on Delta smelt, and another by the NMFS on salmonid species. Litigation over the BiOps ensued, ultimately leading to a requirement that the agencies develop new BiOps.[129] The BiOp rewrite process has also involved litigation. This series of cases altered, and overall reduced, the pumping of water based on adverse impacts to

126. 16 U.S.C. § 1536(a)(2) (2006) ("Each Federal agency shall, in consultation with and with the assistance of [USFWS or NMFS], insure that any action authorized, funded or carried out by such agency . . . is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction of adverse modification of [critical] habitat . . . ."). The complex consultation process is explained by the expert agencies in a handbook outlining section 7 procedures. U.S. FISH & WILDLIFE SERV. & NATIONAL MARINE FISHERIES SERV., ENDANGERED SPECIES CONSULTATION HANDBOOK (1998). *See also* ROBIN KUNDIS CRAIG, ENVIRONMENTAL LAW IN CONTEXT 367–76 (2d ed. 2008). The development of endangered species caselaw relating to Bureau of Reclamation water projects is explored in Reed Benson, *Dams, Duties and Discretion: Bureau of Reclamation Water Project Operations and the Endangered Species Act*, 33 COLUM. J. ENVTL. L. 1 (2008).

127. By regulation, RPAs are defined pursuant to 50 C.F.R. § 402.02, which identifies four criteria. The RPA must be an alternative action that can be implemented "in a matter consistent with the intended purpose of the action" and "consistent with the scope of the Federal agency's legal authority and jurisdiction," as well as being "economically and technologically feasible, and that the Director believes would avoid the likelihood of jeopardizing the continued existence of listed species or resulting in the destruction or adverse modification of critical habitat." 50 C.F.R. § 402.02 (2012).

128. Pursuant to section 9 of the ESA, no "person" may "take" any endangered species of fish or wildlife. 16 U.S.C. § 1538(a)(1). "Any person" is defined as "an individual, corporation, partnership, trust, association, or any other private entity; or any officer, employee, agency, department, or instrumentality of the Federal Government, or any State, municipality, or political subdivision of a State, or of any foreign government; any State municipality or political subdivision of a State; or any other entity subject to the jurisdiction of the United States." *Id.* § 1532(13). "Take" is broadly defined to include "to harass, harm, pursue, hunt, shoot, wound, kill, capture, or collect, or to attempt to engage in any such conduct." *Id.* § 1538(19). By regulation the USFWS also defines the term "harm" to include "significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering." 50 C.F.R. § 17.3 (2012); *see also* Babbitt v. Sweet Home Chapter of Cmtys. for a Great Or., 515 U.S. 687 (1995). The action agency must implement the RPAs described by the BiOp to minimize the impacts of incidental take to be exempt from section 9 prohibitions.

129. *See* NRDC v. Kempthorne, 506 F. Supp. 2d 322 (E.D. Cal. 2007) (relating to the Delta Smelt BiOp); Pac. Coast Fed'n of Fisherman's Ass'ns v. Gutierrez, 606 F. Supp. 2d 1122 (E.D. Cal. 2008) (relating to the Salmonid BiOp).

fish species. USFWS issued a new BiOp for Delta smelt on December 15, 2008, and NMFS issued the salmonid BiOp on June 4, 2009. Again these BiOps were challenged in court. Specific to the issue of ecological restoration, however, the BiOps, in addressing combined CVP and SWP operations, mandate significant habitat restoration to support listed Delta smelt and salmonid species.[130] The 2009 salmonid BiOp specifically identified the Yolo Bypass as a potential location to create 17,000–21,000 acres of seasonal floodplain habitat.[131] The salmonid BiOp has been remanded to the agency.[132] Thus, because water operations must comply with the ESA, the BiOps are central to driving changes in the management of water exports and shaping habitat restoration efforts.

D. The Bay Delta Conservation Plan

As the discussion of physical background, range of challenges to the health of the Delta, and insights from the ESA BiOps illustrate, the current situation is precarious. Although there have been many attempts to reconcile competing interests in the Delta, the most recent is known as the Bay Delta Conservation Plan (BDCP). While it is premised on a strong state-federal partnership, this ongoing effort is still struggling to achieve the broader support of Californians that will be necessary if it is to succeed.

BDCP is self-described as a collaborative resolution of the conflicts in the Sacramento-San Joaquin Delta. It is the most concentrated effort to date to address the large scale restoration necessary in the Bay-Delta. The process to develop the BDCP was initiated in 2006, in response to the litigation over fish species, and prior to the adoption of the 2009 Delta reform laws.[133] According to the draft plan, BDCP was coordinated closely with the Delta Vision Blue Ribbon Task Force (which ultimately gave its own recommendations in 2008). BDCP is being developed by federal and state agencies and water contractors, though previously non-governmental organizations, including those representing environmental interests, also served on the steering committee.[134]

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130. The Delta Smelt BiOp required habitat restoration, obliging DWR to create 8000 acres of intertidal and subtidal habitat in the Delta and Suisun Marsh within ten years. *See* U.S. DEP'T OF THE INTERIOR, FISH AND WILDLIFE SERV., DELTA SMELT BIOLOGICAL OPINION 283–84, 379 (2008).

131. NATIONAL MARINE FISHERIES SERV., SW. REGION, BIOLOGICAL OPINION AND CONFERENCE OPINION ON THE LONG-TERM OPERATIONS OF THE CENTRAL VALLEY PROJECT AND STATE WATER PROJECT 607–09 (2009) (noting that Sacramento River basin salmonid rearing habitat improvements could be achieved "at the Yolo Bypass, and/or through actions in other suitable areas of the lower Sacramento River").

132. Consolidated Salmonid Cases v. Locke, 791 F. Supp. 2d 802, 859 (E.D. Cal. 2011).

133. *See* CAL. DEP'T OF FISH AND GAME, BAY DELTA CONSERVATION PLAN 1-3, 1-6-7 (drft. 2012), *available at* http://baydeltaconservationplan.com/Library/DocumentsLandingPage/BDCPPlanDocuments.aspx (discussing initiation of process in 2006, regulatory issues, and frequent litigation).

134. First Amendment To The Memorandum of Agreement Regarding Collaboration On The Planning, Preliminary Design and Environmental Compliance For The Delta Habitat Conservation And

More specifically, the BDCP is being developed to serve as the federal HCP[135] and conservation plan pursuant to the state Natural Community Conservation Planning Act[136] to comply with endangered species laws.

Despite the apparent goal of achieving ESA compliance, the BDCP has been unclear regarding its purpose. It purports to address the co-equal goals of water supply reliability and ecological restoration articulated by the Delta 2009 reform laws, while it also specifically seeks to serve as an HCP/NCCP that would enable federal fisheries agencies to issue a fifty-year permit for SWP and CVP operations. A National Research Council report evaluated the use of science and adaptive management in the draft BDCP[137] and emphasized the lack of clarity as to the goal of the BDCP as a significant weakness in its preparation.[138] Is the BDCP an overarching conservation plan, or is it primarily aimed at obtaining the necessary permits to satisfy the legal requirements of federal and state endangered species laws?[139] By 2012, it was clear that the outlined strategy to address the multiple stressors on the Delta ecosystem would be inadequate to achieve ESA compliance, and renewed efforts ensued.

Habitat conservation planning is an alternative method of achieving regulatory compliance with the federal ESA. Similarly, the NCCP is an ecosystem approach to multi-species conservation providing regulatory flexibility to achieve compliance with the California ESA.[140] In contrast to the HCP approach of focusing on listed species, an NCCP establishes multi-species conservation as the goal. The HCP/NCCP approach fits the Delta well, given the large number of at-risk species. It allows a trade-off for regulatory certainty in the long term in return for undertaking more onerous conservation measures than would otherwise be required. As an HCP/NCCP, the BDCP will be a prerequisite for an application for a permit to incidentally take listed species through CVP and SWP project operations.[141]

Conveyance Program In Connection With The Development Of The Bay Delta Conservation Plan (Dec. 15, 2011) (on file with author).

135. Under federal law, an HCP is required to authorize incidental take of listed species. *See* 16 U.S.C. § 1539 (2006); *id.* § 1539(a)(2)(A). The BDCP aims to satisfy both section 7 of the ESA and section 10 of the ESA. *See* CAL. DEP'T OF FISH AND GAME, *supra* note 133, at 1-1.

136. CAL. FISH & GAME CODE §§ 2801–2835 (West 2012). The Natural Community Conservation Planning Act (NCCPA) program of the California Fish and Game Code is a collaborative, ecosystem-based approach to habitat and species conservation. *Id.* § 2801.

137. NAT'L RESEARCH COUNCIL, A REVIEW OF THE USE OF SCIENCE AND ADAPTIVE MANAGEMENT IN CALIFORNIA'S DRAFT BAY DELTA RESTORATION PLAN 1 (2011).

138. *Id.* at 3.

139. *Id.* at 1. Quite scathingly, the report concludes the BDCP "creates the impression that the entire effort is little more than a post-hoc rationalization of a previously selected group of facilities, including an isolated conveyance facility, and other measures for achieving goals and objectives that are not clearly specified." *Id*. at 43.

140. *See, e.g.*, Welner, *supra* note 36, at 320–21; Parker, *supra* note 22, at 107.

141. The BDCP identifies its goal to address section 7 and 10 of the ESA. *See* CAL. DEP'T OF FISH AND GAME, *supra* note 133, at 1-1. Because the purpose of project operations is not to take or harm species, the take of individuals is "incidental." The HCP approach was meant to target private land development, identified by some as the "Achilles heel" of the ESA. *See* Karen P. Sheldon, *Habitat*

Under its November 18, 2010 draft, the BDCP sought coverage of sixty-three species of fish, wildlife and plants under the HCP/NCCPA, addressing fourteen natural communities in the plan area.[142] Procedurally, because the BDCP involves both federal and state actors and addresses both the CVP and SWP, the plan must also comply with the federal National Environmental Policy Act (NEPA) with an environmental impact statement (EIS)[143] and the California Environmental Quality Act (CEQA) with an environmental impact report (EIR).[144] The agencies involved announced a timeline for completing the combined EIS/EIR for the BDCP, projected for June 2012[145]; however, frequent delays have impacted project deadlines.[146] Links with ongoing restoration planning activities such as CALFED have been maintained. [147]

The issue of whether alternatives to reduced exports, and whether and to what extent non-water measures (such as addressing invasive species and habitat creation) should be used to address the health of the Delta have been continually contested by water users and environmentalists.[148] Achieving resolution of the precise trade-offs remains the crux of the controversy.[149] The BDCP addresses the large number of fish killed each year ("taken" in the legal parlance of the federal ESA) by attacking a broad range of stressors. The goal is to enhance the Delta environment so that native fish species, as well as a

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Conservation Planning: Addressing the Achilles Heel of the Endangered Species Act, 6 N.Y.U ENVTL. L.J. 279, 295–96, 323 (1998) (citing to Michael Bean describing the ESA's "Achilles heel"). Further, under the "no surprises" policy adopted in 1994, absent extraordinary circumstances, if species covered under the HCP further decline, a non-federal permit holder does not need bear all of the burden of additional necessary conservation measures. "No Surprises" Policy, 62 Fed. Reg. 29,091 (May 29, 1997). This is a significant shortcoming in respect to protection of species, but the regulatory certainty provided has been promoted as necessary to induce participation. *See* Sheldon, *supra*, at 279, 315–20.

142. CAL. NATURAL RES. AGENCY, ISSUES FOR DISCUSSION FOR THE BAY DELTA CONSERVATION PLAN 5 (2010).

143. 42 U.S.C. § 4332(2)(C) (2006) (requiring an EIS).

144. CAL. PUB. RES. CODE §§ 21000–21177 (West 2012).

145. Press Release, U.S. Dep't of the Interior, Schedule for Bay Delta Conservation Plan Environmental Review, Effects Analysis Announced (Aug. 11, 2011).

146. Critics have called the timeline rushed, and efforts to address perceived shortcomings may lead to further delays. *See* News Release, Honorable Representative George Miller, Interior Department's Window for Public Comment Does Not Satisfy California Members of Congress (Oct. 31, 2011) (including letter from Representative Miller to Secretary of the Interior dated October 24, 2011); Michael Doyle, *Plan to Protect California Delta Inadequate, Scientists Say*, MCCLATCHY, May 5, 2011, http://www.mcclatchydc.com/2011/05/05/113753/plan-to-protect-californias-delta.html. As of the date of this publication, the BDCP website indicated a projected draft EIR/EIS would be released by the end of 2012. *See Plan Development Schedule*, BDCP, http://baydeltaconservationplan.com/Schedule/PlanDevelopmentSchedule.aspx (last visited Nov. 23, 2012).

147. The CALFED ERP program provided technical staff to the BDCP to "ensure consistency between BDCP and ERP planning activities." CALFED BAY-DELTA PROGRAM, ECOSYSTEM RESTORATION PROGRAM PLAN YEAR 9 AND YEAR 9 ANNOTATED BUDGET 3 (2008).

148. *See* David Fullerton, *Summary and Analysis: Principles for Agreement on Bay/Delta Standards Between the State of California and the Federal Government, as Signed on December 15, 1994*, 14 HASTINGS W.-N.W. J. ENVTL. L. & POL'Y 179, 196 (2008) (noting that an agreement provided funding for a range of other non-water measures to improve environmental conditions).

149. *See, e.g.*, NAT'L RESEARCH COUNCIL, *supra* note 29, at 107–08.

range of other wildlife will increase, while also allowing the continued diversion of a large volume of water for agricultural and municipal use. The HCP/NCCP approach is one way of achieving compliance with applicable federal and state endangered species laws. It is seen as a proactive approach to reconciling species needs while at the same time avoiding constraints on development. Those leading the BDCP process have tried to emphasize that it is a holistic approach seeking more than compliance with the federal and state ESAs. The former Secretary of the California Natural Resources Agency, Lester A. Snow, stated that "the BDCP is designed as a Habitat Conservation Plan and a Natural Community Conservation Plan which are voluntary approaches to regulatory compliance."[150] As the perspective is further explained, commitments to contribute to the recovery of species and their ecosystems (through an HCP/NCCP) goes "well beyond the mitigation of impacts."[151]

The draft BDCP is very complex.[152] But as an op-ed by Secretary of the Interior Ken Salazar and Deputy Secretary of Interior David Hayes explains, its three primary components can be set forth simply.[153] First, a peripheral canal would divert water upstream of the Delta to be pumped south, instead of allowing it to flow through the Delta.[154] The second element is "restoration of tens of thousands of acres of marshes, floodplains and riparian habitats" to improve ecosystem health.[155] Third, monitoring and adaptive management would be necessary to ensure ecosystem improvements are achieved by the changes in water diversions and habitat restoration and related conservation measures.[156] Due to the significant scientific uncertainty regarding changes to water diversions and the conservation measures proposed to meet biological objectives, the plan proponents will have to closely evaluate progress. If the conservation measures do not meet biological objectives, new measures will need to be developed and implemented based on what is learned by the research program. The uncertainty of climate change impacts is also a compounding factor in predicting the steps necessary to achieve biological

150. Letter from Lester A. Snow, Sec'y, Cal. Natural Res. Agency, to the Honorable Senator Lois Wolk (Sept. 23, 2010), *available at* http://www.resources.ca.gov/docs/Secretary_Snow_Responds_to_Senator_Wolk_Criticisms_9-23-10.pdf.

151. *Id.*

152. *See, e.g.*, BAY DELTA CONSERVATION PLAN STEERING COMMITTEE, *supra* note 28. The state agencies have also prepared a *Highlights of the BDCP*. *See* CAL. NATURAL RES. AGENCY, HIGHLIGHTS OF THE BDCP (2010) [hereinafter HIGHLIGHTS], *available at* http://resources.ca.gov/docs/Highlights_of_the_BDCP_FINAL_12-14-10_2361.pdf.

153. *See* Ken Salazar & David J. Hayes, Op-Ed., *State Faces Pivotal Point in Water Future*, SACRAMENTO BEE (Dec. 16, 2010), http://www.protectthevalley.org/topstory.php?ax=v&n=99&id=99&nid=549.

154. *Id.*

155. *Id.*

156. *Id.*

objectives. As the BDCP public outreach officer recently acknowledged, the plan must "embrace scientific uncertainty."[157]

Obtaining public input on such a large, multi-pronged project poses some obvious challenges for the "collaborative" BDCP process. The BDCP created an initial public perception hurdle by largely excluding relevant local government and Delta interests. Initially, the BDCP developed a Steering Committee. The Steering Committee included the state and federal agencies responsible for fisheries, the water contractors, and some environmental organizations. Apart from Contra Costa Water District, which has water export contracts, Delta local governments were not represented. Some have suggested that the Steering Committee generally was not going to be welcoming unless there was support for the peripheral canal.[158] Thus, the collaboration was limited (or perceived as limited) to those entities that would accept a particular approach, the controversial isolated conveyance or peripheral canal. Including the 122 Steering Committee meetings, which the public could attend, there were 300 public meetings, workshops, or briefings held over a period of three years that were open to the public.[159] The numbers may be misleading, however, since tight agendas and a tendency to rush through public comment left many who tried to participate at this stage unsatisfied.[160]

Despite its ostensibly "collaborative" approach, the BDCP model provided no role whatsoever for the Delta's county and municipal governments. The Delta is situated within five different counties.[161] These Delta counties have different economies, interests, and cultural attributes. Although the Yolo Bypass is not entirely within the legal Delta,[162] it is included in the BDCP project area because the Yolo Bypass is an area of opportunity for habitat

157. Gosia Wozniacka, *Calif., Federal Officials to Reveal Water Plans*, ASSOCIATED PRESS, Jul. 21, 2012, http://bigstory.ap.org/article/calif-federal-officials-reveal-water-plans. The article quoted Karla Nemeth, program manager at the California Natural Resources Agency, as saying, "We decided to embrace scientific uncertainty regarding the facility's operation, water flows, habitat restoration and the response of fish." *Id.*

158. *See Restore the Delta*, DELTA FLOWS (NEWSLETTER) (Sept. 14, 2009), *available at* http://archive.constantcontact.com/fs062/1102037578231/archive/1102711714671.html (discussing the "BDCP makeover" meaning the response to frequent criticisms of lack of Delta representation spurring a new community outreach effort by the Resources Agency).

159. HIGHLIGHTS, *supra* note 152, at 4.

160. *See* Barbara Barrigan-Parrilla, *We Must Band Together to Stop the Delta Water Raid*, RECORDNET.COM (June 4, 2011), http://www.recordnet.com/apps/pbcs.dll/article?AID=%2F20110604%2FA_OPINION03%2F106040317%2F-1%2FA_OPINION. Restore the Delta is a non-profit agency based in Stockton, California. *Id.*

161. The five counties are Contra Costa County, Sacramento County, San Joaquin County, Solano County, and Yolo County. *See Delta Counties Coalition*, SACRAMENTO RIVER DELTA (last visited Nov. 13, 2012), http://www.sacramentoriverdelta.net/delta-counties-coalition/.

162. The legal Delta is defined by the Delta Protection Act of 1992, which identifies a Primary Zone and Secondary Zone of the Delta, and created the Delta Protection Commission. CAL. PUB. RES. CODE §§ 29722, 29728, 29731, 29735 (West 2012). The Delta is also defined by the Water Code, and the Delta Protection Act relies on that definition to some extent. *See* CAL. WATER CODE § 12220 (West 2012).

restoration.[163] In fact, restoration in the Bypass is key to the BDCP and there is little realistic chance of the BDCP supporting incidental take authorizations absent the Bypass restoration (described in detail in the following section). Many academics as well as political leaders have emphasized how important the buy-in from local counties is when designing a lasting plan for sustainable Delta use. A draft overview of the BDCP conservation strategy also acknowledged that "restoring large areas of floodplain and inter-tidal marsh will require the cooperation and commitment of landowners and communities who occupy the Delta."[164] Yet, from the outset of their engagement in BDCP, local governments were vocal in criticisms of the Steering Committee model chosen for stakeholder input.[165] Local governments were placed in the same position as all other interested public onlookers whose input into the developing plan would be heard, and only possibly considered. Although this may be logical—for the applicants for incidental take authorizations to lead the process—it belies a collaborative approach to large scale ecosystem restoration by ignoring the realities of the distributional impacts of conservation decisions. If it moves forward, tens of thousands of acres of land in different Delta counties will be used to accomplish the conservation measures of the BDCP without input from the very communities that reside upon that land.

Although the role for Delta counties in the BDCP has evolved over time, they continue to be treated more as private stakeholders rather than as equal collaborators with state and federal government agencies and water contractors. In 2011, the new leadership of the Resources Agency switched to a stakeholder representation model whereby certain members of the public were chosen to represent particular viewpoints in small working groups on key issues such as biological goals and objectives, governance and financing.[166] Local government agencies were among those chosen to participate in working group, together with others such as nonprofit organizations and individual landowners. Until these modest changes were made, five years into the planning process, there was no formal role for local governments in the BDCP. In July 2012 the

163. HIGHLIGHTS, *supra* note 152, at iii ("Location Map").

164. CAL. NATURAL RES. AGENCY, AN OVERVIEW OF THE DRAFT CONSERVATION STRATEGY FOR THE BAY DELTA CONSERVATION PLAN 4 (2009).

165. *See e.g.*, CNTY. OF YOLO, COMMENTS ON THE EIR/EIS FOR THE BAY DELTA CONSERVATION PLAN RESPONSE TO MARCH 17, 2008 NOTICE OF PREPARATION 1 (2008) (noting process had to date "confused and alienated many County residents"); Alex Breitler, *How Many Activists Does It Take To Close a Meeting?*, THE STOCKTON RECORD, Oct. 1, 2010, http://m.recordnet.com/apps/pbcs.dll/article?AID=/20101001/A_NEWS/10010320/-1/WAP&template=wapart&m_section=WAP; Letter from Delta Cnty. Coalition, to Comm'r Conner, Deputy Sec'y Meral, and Reg'l Admin'r Stelle, Delta County Coalition Reply to Request for Meeting (Nov. 7, 2011) (on file with author).

166. *See BDCP Public Involvement*, BDCP, http://baydeltaconservationplan.com/BDCPPlanningProcess/HowToParticipate.aspx (last visited Nov. 13, 2012). "An invitation to the public to participate in the working groups was made in May 2011. Release, BDCP, Invitation to Participate in Development of the Bay Delta Conservation Plan (BDCP) (May 23, 2011), *available at* http://baydeltaconservationplan.com/Libraries/Dynamic_Document_Library/5-23-11_Invitation_to_Participate.sflb.ashx.

BDCP agencies announced an outline for the governance structure that would be used to implement the BDCP. Delta counties would be invited members, together with a broad range of representatives from a multitude of other organizations, of a forty-person "Stakeholder Council" that would give input into implementation decisions.[167] Although their role has been slightly enhanced throughout the years, the Delta counties have not been perceived as potential problem-solving collaborators within the BDCP plan-creation framework.

Local governments should be engaged not only for the contributions they could make in their own right from experience in planning and land management within the relevant plan areas, but as another means of conveying local input and vision from the communities that will be impacted by the BDCP.[168] It is easy to understand how, in their capacity as HCP/NCCP applicants, the BDCP agencies would be loathe to share decision making power over the trade-offs necessary to concurrently meet conservation and development goals. Perhaps concern with managing potentially obstructionist or dissenting views has held sway. Perhaps it is assumed that the obvious dangers of the status quo will help mobilize support regardless of the efforts made to build a coalition for the broad changes necessary. However, because state and federal law provide few constraints regarding the planning structure and process,[169] a variety of options could have been used to engage local governments without ceding ultimate decision making authority.[170] Nor did a shortage of examples from prior HCP, NCCP, or restoration projects prevent broader consideration of appropriate methods for obtaining public input.[171]

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167. STATE AND FEDERAL PRINCIPALS, BAY DELTA CONSERVATION PLAN, JOINT RECOMMENDATIONS REGARDING KEY ELEMENTS OF THE BAY DELTA CONSERVATION PLAN 6 (2012).

168. In the instant case of the Yolo Bypass Wildlife Area, Yolo County has continually emphasized its importance to the community. *See, e.g.*, Letter from Helen M. Thomson, Chairwoman, Yolo Cnty. Bd. of Supervisors, to Lester Snow, Sec'y, Cal. Natural Res. Agency (Apr. 5, 2010), *available at* http://yolo.granicus.com/MetaViewer.php?meta_id=87417&view=&showpdf=1

169. The ESA does not require that applicants employ steering committees, although they are recommended by the Services in some instances, particularly in regional HCP development by public entities. *See* U.S. FISH AND WILDLIFE SERV. & NATIONAL MARINE FISHERIES SERV., HABITAT CONSERVATION PLANNING AND INCIDENTAL TAKE PERMIT PROCESSING HANDBOOK 3-3 (1996) [hereinafter HCP HANDBOOK]. There are, under the California Natural Community Conservation Planning Act, specific requirements for public participation. *See* CAL. FISH & GAME CODE § 2815 (West 2012). The Act also identifies an important role for agencies with land use planning authority in the planning area, identifying that the DFG "may enter into agreement with any person or public entity for the purpose of preparing a natural community conservation plan in cooperation with a local agency that has land use permit authority over the activities proposed to be addressed in the plan . . . ." *Id.* § 2810. This in turn indicates the legislative goal of "obtaining input from a balanced variety of affected public and private interests, including state and local governments, county agricultural commissioners, agricultural organizations, landowners, conservation organizations, and the general public." *Id.* § 2815(d).

170. Even with the updated issue group structure, BDCP makes clear that the permittees will have decision making authority. *See BDCP Public Involvement*, *supra* note 166.

171. For example, the CALFED process used public advisory and working groups. *See* Innis et al., *supra* note 107, at 39. Perhaps this is the direction BDCP is taking, though it is too soon to evaluate.

Whatever the rationale, it is sufficient to note that BDCP agencies did not hold the view that Delta counties and the constituents they represent held influence or local knowledge that would be indispensible for success.

IV. FISH RESTORATION GOALS AND POTENTIAL THREATS TO YOLO BASIN WILDLIFE AREA MULTI-USE BALANCE

"Water Management in the Bypass is the key to supporting multiple land uses without compromising the flood control function."[172]

The changes to Delta water management proposed by the BDCP in the name of fish restoration threaten to destabilize the multi-use balance achieved by the YBWA.[173] The conservation measure proposing additional seasonal floodplain habitat in the bypass is identified in the BDCP as the Yolo Bypass Fisheries Enhancement.[174] This measure is similar in nature to the BiOp requirement to create up to 20,000 acres of additional salmonid floodplain habitat.[175] Beyond the technical challenge of determining how to design the restoration project to affect intended results, a variety of concerns related to existing land uses must still be addressed. To that end, the BDCP requires preparation of a Yolo Bypass Fishery Enhancement Plan. Increased flooding of the bypass potentially reduces flood protection and could put more pressure on levees.[176] Increased flows could impact existing land uses and landowners as

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Nonetheless, members of Congress from California wrote a letter to Secretary of the Interior Salazar insisting on engagement of local officials in the planning process well after this change in direction. Letter from Honorable Congressmen Jerry McNerney, George Miller, Mike Thompson, Doris Matsui and John Garamendi to Honorable Ken Salazar, Sec'y, Dep't of the Interior (May 16, 2012), *available at* http://garamendi.house.gov/press-release/garamendi-and-northern-california-congressional-leaders-send-letter-urging-more ("We would like to reemphasize our conviction that, before making a determination of a preferred project, state and federal agencies have an obligation to ensure that the BDCP will: Vigorously and meaningfully engage local officials from the Bay-Delta region and Northern California in the BDCP process . . . .").

172. Presentation of Cal. Dep't of Fish and Game to Yolo Bypass Fisheries Enhancement Working Group (June 28, 2011), *available at* http://baydeltaconservationplan.com/Libraries/Dynamic_Document_Library/6-28-11_Yolo_Bypass_Wildlife_Area_Presentation.sflb.ashx. The presentation explained in detail why ability to control water was essential. According to the presentation, "[t]he ability to control water is the key to: [m]aximizing habitat benefits; [p]reventing proliferation of emergent vegetation that slows down flood water; [m]inimizing mosquito production; [r]educing methylation of Mercury." *Id*.

173. The BDCP's November 18, 2010 working draft recognizes multiple uses of the YBWA, identifying it as an "area that utilizes agriculture to manage wildlife habitats while providing income from agriculture." BAY DELTA CONSERVATION PLAN STEERING COMMITTEE, *supra* note 28, at 2-129.

174. *Id.* at 3-333.

175. NATIONAL MARINE FISHERIES SERV., *supra* note 131, at 608. The opinion states that the objective of restoring floodplain rearing habitat for juvenile winter-run, spring-run, and CV steelhead "may be achieved at the Yolo Bypass, and/or through actions in other suitable areas of the lower Sacramento River." *Id.* at 607. The opinion also identifies a performance measure of 17,000 to 20,000 acres. *Id.* at 608. Finally, the opinion notes that the BiOp for Delta smelt includes an action for 8000 acres of tidal habitat, which, if found suitable for rearing habitat for salmonids, may act as partial satisfaction of this objective. *Id.* at 609.

176. CAL. NATURAL RES. AGENCY, *supra* note 164, at 21.

well as terrestrial species, and wintering waterfowl.[177] Beyond these potential environmental, economic, and social impacts, the direct capital cost of project implementation has been estimated at between $500–800 million.

The unique structure of the multi-use YBWA puts wildlife management funding at risk if changes caused by the BDCP impact agriculture in the Yolo Bypass. Agricultural revenues are the principal source of funding for wildlife management and many other activities associated with the YBWA. The DFG and YBF estimate that approximately $500,000 per year directly for wildlife area operations comes from agriculture.[178] Farmers must have sufficiently dry soil prior to planting and increased inundation could impact planting, thus reducing or eliminating agricultural production.

Since the release of the Fisheries Enhancement proposal, BDCP officials have engaged in discussion with stakeholders regarding how best to incorporate the YBWA into BDCP habitat restoration efforts. BDCP created a Yolo Bypass Fishery Enhancement Plan working group to address many of the contested issues. The group is substantially similar to the membership of the Yolo Bypass Working Group previously established by the YBF. For its part, the YBF has proposed an alternative "Westside Option" to address the need for water control predictability. The goal of this alternative is to continue the existing multiple-uses and enhance habitat for aquatic species such as salmon and Delta smelt.[179] The analysis will include evaluation of providing flows along the west side of the Yolo Bypass.[180]

Because more frequent inundation of the Yolo Bypass will be one of the first major habitat restoration initiatives carried out to implement the larger BDCP, local constituencies may experience the negative effects without the concurrent benefits of a healthier Delta ecosystem.[181] Being among the first

177. *Id.*

178. Presentation of Cal. Dep't of Fish and Game, *supra* note 172.

179. A description of the west side option is available on the Yolo Basin Foundation website. *See* YOLO BASIN FOUND., PRELIMINARY DESCRIPTION OF A WESTSIDE YOLO BYPASS MANAGEMENT OPTION FOR REARING JUVENILE SALMON (2010), *available at* http://www.yolobasin.org/documents/Preliminary%20Description%20of%20a%20Westside%20Option%208-25-10.pdf.

180. *See* BAY DELTA CONSERVATION PLAN STEERING COMMITTEE, *supra* note 28, at 3-336. An initial review of the Westside Option by the DFG water branch did not appear optimistic that the two alternatives suggested could meet the objectives of the conservation measure. WATER BRANCH, CAL. DEP'T OF FISH AND GAME, REVIEW OF THE WESTSIDE OPTION (drft. 2011), *available at* http://baydeltaconservationplan.com/Libraries/Dynamic_Document_Library/Draft_Review_of_the_Westside_Option_by_the_Department_of_Fish_and_Game_Water_Branch.sflb.ashx.

181. *See, e.g.*, NAT'L RESEARCH COUNCIL, *supra* note 29, at 107–08 (pointing out that addressing stressors individually may not lead to linear improvements). The February 2012 BDCP draft indicates that multiple Yolo Bypass Fishery Enhancement projects will be initiated in the near-term. *See* CAL. DEP'T OF FISH AND GAME, BAY DELTA CONSERVATION PLAN 3-24 to 3-27 (drft. 2012), *available at* http://baydeltaconservationplan.com/Libraries/Dynamic_Document_Library/BDCP_Chapter_3_4_and_3_5_-_Conservation_Strategy_-_Conservation_Measures_and_Important_Regional_Actions_2-29-12.sflb.ashx

Although only a preliminary estimate, work on the Yolo Bypass Fishery Enhancement Plan has begun, and is slated to be completed six months after the BDCP is approved. *See* YOLO BYPASS

restoration projects, the Bypass restoration will undoubtedly receive attention from individuals, organizations, and governmental entities with a stake in the viability of ecological restoration as a tool to address environmental issues. The project has the potential to disrupt economic activity, particularly agriculture.[182] It may reverse the gains made through the course of more than two decades to ensure the compatibility between agriculture, flood protection, and habitat conservation in the Yolo Bypass.

The project (as with most restoration) is experimental. The DFG identified several pertinent research questions.[183] It may take many years before the desired results are achieved, after initiation of demonstration projects developed by the Yolo Bypass Fishery Enhancement Plan. Furthermore, since the BDCP is meant to work synergistically, even if the Yolo Bypass inundation does achieve its stated biological goals to provide much needed floodplain aquatic habitat, other parts of the conservation strategy will not be in place.[184] The overall picture of the Delta ecosystem recovery may be unchanged.[185] The costs of the projects in terms of displacement of economic activity, terrestrial species, and public access are immediately experienced, but there will likely be a delay in the anticipated benefits, such as a healthier Delta environment, or increased recreation and tourism. Thus, beyond ensuring that the project is technically and scientifically sound, BDCP must confront the trade-offs and communicate its rationale for the chosen path. Because of the heightened

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FISHERY ENHANCEMENT WORKING GRP., CM 2 YOLO BYPASS FISHERY ENHANCEMENT 9 (drft. 2011), *available at* http://baydeltaconservationplan.com/Libraries/Dynamic_Document_Library/6-10-11_Conservation_Measure_2.sflb.ashx.

182. Yolo County, with assistance from the State and Federal Contractors Water Agency, prepared a comprehensive study of potential impacts on Bypass agriculture and related direct and indirect economic effects. *See* RICHARD HOWITT ET AL., YOLO BYPASS FLOOD DATE AND FLOW VOLUME AGRICULTURAL IMPACT ANALYSIS (2012).

183. *See generally* CAL. DEP'T OF FISH AND GAME, *supra* note 2.

184. The Delta Regional Ecosystem Restoration Implementation Plan itself notes that "[t]he complexity of various trade-offs between expected positive and negative effects make it difficult to predict the biological responses to multiple measures in combination. The Synthesis Team recommended that refinements could be made to the proposed modification of the Fremont Weir and Yolo Bypass inundation . . . [as well as other measures]." THE ESSEX PARTNERSHIP, DRERIP EVALUATIONS OF BDCP DRAFT CONSERVATION MEASURES SUMMARY REPORT DRAFT 17 (2009). *See also* NAT'L RESEARCH COUNCIL, A REVIEW OF THE USE OF SCIENCE AND ADAPTIVE MANAGEMENT IN CALIFORNIA'S DRAFT BAY DELTA RESTORATION PLAN 29–30 (2011).

185. For example, a National Research Council report on Bay-Delta water and environmental management discussed the interaction among various stressors. NAT'L RESEARCH COUNCIL, *supra* note 29, at 47–108. The authors noted the "complex interplay between key water quality, habitat, and sustainability issues and the drivers affecting them." *Id.* at 48. Thus, it concluded that "eliminating any one [stressor] is unlikely to reverse declines in the listed species." *Id.* at 108. Nonetheless, it is counterproductive to use the existence of multiple stressors to delay addressing any particular one. The report did not provide a ranking of importance of particular stressors, but described the most prominent ones and overall concluded that "a synthetic, integrated approach to assessing environmental factors" would best yield insights for Delta ecosystem enhancements. *Id.* at 49. For an interesting discussion of National Research Council reports in disputes such as the Bay Delta, refer to Ian Fein, *Reassessing the Role of the National Research Council: Peer Review, Political Tool, or Science Court?*, 99 CALIF. L. REV. 465, 506–22 (2011).

attention the Bypass inundation is likely to receive, a negative perception of the initiative by local residents could harm broader perceptions of ecological restoration.

Despite years of work on the BDCP, many policymakers and members of the public are skeptical that the proposed approach will achieve ecosystem improvement.[186] Restoration projects play a significant role in the overall achievement of the BDCP conservation strategy. They are particularly relevant for achieving the "co-equal" goal of improved ecological health. The goal of water supply reliability is perceived by many to be the overriding motivation for the entire process.[187] This challenge will not escape attention or support, as well-financed economic interests are at stake. Listed species recovery, because driven by law, will also receive necessary attention.[188] The HCP/NCCP approach is voluntary, going beyond mitigation that might otherwise be required to comply with state and federal ESAs. As such, the trade-offs being employed represent value choices. Beyond the requirements of the federal and state ESAs, the BDCP proposes to approach the issue of supporting continued water conveyance from a holistic, comprehensive ecosystem approach through development of an HCP/NCCP. But achievement of a broader conservation objective for the Bay-Delta, "beyond mitigation," will need sustained energy and public support.[189]

Restoration requires continual funding, which again points to necessary public support over an extended period of time.[190] Funding for aspects directed to water supply reliability, currently estimated at $16.3 billion, must be

186. *See* Wozniacka, *supra* note 157 (noting that proposal is bearing significant criticism); *see also* Press Release, Nat'l Res. Def. Council, Jury Still Out on the Bay Delta Conservation Plan (Jul. 25, 2012), *available at* http://www.nrdc.org/media/2012/120725a.asp. As one local group has suggested, the plan's goal is "just enough habitat protections to justify a canal or tunnel." Barrigan-Parrilla, *supra* note 160. Others have offered a "slightly more optimistic" view of the potential for BDCP to address California's longstanding conflicts over water. *See* Media Advisory, Comments from Delta Stewardship Council Chair Phil Isenberg Regarding BDCP Announcement (Jul. 26, 2012), *available at* http://deltacouncil.ca.gov/docs/2012-07-26/july-26-2012-comments-dsc-chair-phil-isenberg-regarding-bdcp-announcement (noting positive developments including express declaration that BDCP will rely on science to guide how much water can be exported).

187. *See* Kate Poole, *And Now, Will the Real BDCP Project Purpose Please Stand Up*, SWITCHBOARD NRDC STAFF BLOG (Nov. 23, 2010), http://switchboard.nrdc.org/blogs/kpoole/and_now_will_the_real_bdcp_pro.html.

188. This is why, regardless of the progress on BDCP, the habitat restoration identified by the BiOp is moving forward with or without a broader HCP/NCCP.

189. The critical nature of public support is well accepted by supporters of restoration. *See* JOHN M. TEAL ET AL., ECOLOGICAL RESTORATION WORKSHOP PANEL REPORT 3 (2009) ("[S]takeholder engagement, early and often, is a key element of success in restoration efforts as complex as those required in the Delta."). The panel included experts from a variety of large scale ecosystem efforts including the Everglades. *See also* KAREN E. VIGMOSTAD ET AL., LARGE-SCALE ECOSYSTEM RESTORATION: LESSONS FOR EXISTING AND EMERGING INITIATIVES (2005).

190. *See* DOYLE & DREW, *supra* note 105, at 298; VIGMOSTAD ET AL., *supra* note 189, at 11 (noting that large-scale ecosystem restoration funding requires "rallying public support and political will" for the long term).

intertwined with overall achievement of the co-equal goal of restoration.[191] How costs will be covered is still a subject of concern for future resolution.[192] At least some costs are likely to be borne by water contractors and their customers, with other costs possibly borne by the federal and state governments.[193] Some portion of the habitat restoration may be addressed in a bond measure, voted on by the public.[194] Thus, public support for restoration must be pursued as a strategy to support passage of a bond and continued funding in the future.

V. SOME LESSONS FROM THE BYPASS RESTORATION CONFLICT

> *The future of a natural ecosystem depends not on protection from humans but on its relationship with the people who inhabit it or share the landscape with it.*[195]

The conflict between the Yolo Bypass Fishery Enhancement measure and the YBWA exemplifies the ongoing identity crisis plaguing ecosystem restoration. It is shackled to mismanagement and overconsumption of natural resources at its core in the Bay-Delta. The conflict indicates that at minimum, more attention must be directed at establishing norms for governance structures so that proponents achieve both the level of deliberative democracy stakeholders have come to demand, and build a constituency supporting restoration.[196] The extent to which governance structures impact mitigation for distributional impacts in ecological restoration efforts is under intense public scrutiny, as is the resolution of potential restoration goal conflicts.

Thus, the Bypass restoration conflict provides a variety of lessons for subsequent restoration efforts. A strong state-federal partnership for large-scale

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191. *See* HIGHLIGHTS, *supra* note 152, at 62. Costs include approximately $3.6 billion for restoration and addressing "other stressors" not related to water exports. *Id.* Annually, $46 million is estimated for implementation and management of the restoration and stressor reduction over the next fifty years. *Id.*

192. For example, the plan proponents expect that local Delta projects will likely be funded through future state bonds. *See* BAY DELTA CONSERVATION PLAN, JOINT ANNOUNCEMENT Q&AS at 6 (2012), *available at* http://baydeltaconservationplan.com/Libraries/Dynamic_Document_Library/Joint_Announcement_Q_A-7-25-12.sflb.ashx.

193. *See* HIGHLIGHTS, *supra* note 152, at 63.

194. *Id.* (noting that the bond would not authorize the alternate conveyance system proposed, but may include partial habitat restoration funding for Delta fish and wildlife).

195. JORDAN, *supra* note 1, at 16.

196. The role of public participation in HCP planning is examined in the context of the modern era of enhanced roles for citizens in environmental decision making in Holly Doremus, *Preserving Citizen Participation in the Era of Reinvention: The Endangered Species Act Example*, 25 ECOLOGY L.Q. 707 (1999) (arguing that development of opportunities for public participation must keep pace with innovative administrative process such as collaborative, consensus based agency decision-making). *See also* Camacho, *supra* note 24. Professor Camacho asserts that "the Services' delegation to the applicant of the primary role of determining who else can participate makes the applicant's disproportionate influence over conservation decisions foreseeable, if not inevitable." *Id.* at 323.

change must be augmented by local government input to facilitate the infusion of local concerns. Local governments are uniquely capable of facilitating the mediation of people and their environments through land use law and policy. The public will be better represented by elected officials, with the concomitant staff and resources to communicate local interests within a legally complex, high-stakes, ever-evolving, and intensely contentious controversy.

A. Examining the Profile of Local Government

In the instant conflict, the potential for local government to serve as a public voice has thus far been a missed opportunity. Though collaborative structure norms for ecosystem restoration are still unsettled, expectations have evolved toward robust public input opportunities in all manner of environmental decision making forums. Local community concerns are often represented best by formal local government institutions.[197] Moreover, local governments can be powerful agents of conservation progress, but face a range of problems achieving success due in part to resource limitations and, in this instance, few opportunities for meaningful engagement.[198] The BDCP overlooked the potential for local government input to add value to the planning process, educate the public, and legitimatize land use decisions.

1. Support and Promote the Role of Local Governments in Conservation Initiatives.

Local governments will be indispensible to achieving environmental progress,[199] particularly in terms of wildlife habitat conservation.[200] Local governments have an important role to play in the identification of conservation and restoration opportunities and constraints.[201] Local governments can also be

197. *See* Timothy P. Duane, *Community Participation in Ecosystem Management*, 24 ECOLOGY L.Q. 771 n.5 (1997) (citing panelist Daniel Rodriquez); *see also* HEIDI HALL, REGIONAL CONSERVATION PLANNING AND LOCAL GOVERNMENT LEADERSHIP: CHALLENGES, CHARACTERISTICS AND STRATEGIES IN CALIFORNIA (2005) (examining NCCP development in order to inform future conservation efforts and concluding that local government leadership is critical to achieving and implementing an NCCP); *id.* at 6 ("Local leaders are accountable to their constituents in a way that state and federal representatives are not.").

198. HALL, *supra* note 197, at 11 (identifying challenges to local governments including adequate funding to undertake long term planning such as NCCP process); *see also* Craig A. Arnold, *The Structure of the Land Use Regulatory System in the United States*, 22 J. LAND USE & ENVTL. L. 441, 449 (2007) ("The most significant limits to local land use regulation, though, are not legal at all, but instead are physical, political, socio-cultural, psychological, financial, and economic constraints.").

199. *See, e.g.*, John R. Nolon, *In Praise of Parochialism*, 26 HARV. ENVTL. L. REV. 412 (2002) (discussing the body of local environmental law).

200. *See, e.g.*, Jamison Colburn, *Localism's Ecology: Protecting and Restoring Habitat in the Suburban Nation*, 33 ECOLOGY L.Q. 945 (2006).

201. *See id.* at 966 (pointing out that local governments "are often ignored as agents of environmental progress")

key to producing achievable HCP and NCCP conservation goals.[202] In fact, recent legislation in California anticipates that local governments in the Delta will take a lead role, with state support, in implementing habitat conservation efforts.[203]

The impact of local government engagement in habitat conservation efforts can be broad and powerful when properly integrated and coordinated with other levels of government action. An example is Yolo County, where the YBWA is situated, which has undertaken its own HCP/NCCP process to protect threatened and endangered species.[204] Local landscape planning efforts ongoing between Lake Tahoe and San Francisco would make Yolo County's HCP/NCCP, as a midpoint between these areas, an important component of the habitat corridor. A Joint Powers Authority, including Yolo County and the four cities of Woodland, Davis, West Sacramento, and Winters, and the University of California, Davis as a non-voting member, have conducted extensive work for several years to develop the HCP/NCCP. Much of the work has been funded by the state and federal governments.[205]

Insufficient coordination between government entities in support of conservation efforts may limit opportunities for progress.[206] In the instant case, BDCP conservation measures intending to use land in Yolo County, such as the Yolo Bypass Fishery Enhancement Plan, could impact the successful

202. According to the DFG, NCCP planning activities are underway in Butte, Santa Clara, Yolo, Sutter, and Yuba Counties. *See* CAL. DEP'T OF FISH AND GAME, *Natural Community Conservation Planning*, http://www.dfg.ca.gov/habcon/nccp/ (last visited Dec. 14, 2009). The NCCP identifies an important role for local governments. *Id.*

203. The 2009 Delta bills identified that the newly created Delta Conservancy should assist local governments with implementation of HCP/NCCPs. *See* CAL. PUB. RES. CODE § 32322(b)(10) (West 2012).

204. *See* YOLO CNTY. HCP/NCCP JOINT POWERS AGENCY ET AL., NCCP PLANNING AGREEMENT NO. 2810-2003-003-02 (2004). The planning area consists of 653,629 acres, subdivided into different zones of evaluation and assessment. *Id.* at 10. These include 11,672 acres within the cities that may be impacted by urbanization, and 611,159 acres zoned for agriculture. The planning area includes all of Yolo County. *Id.*

205. For example, the Joint Powers Authority received grant funding from the state of California to prepare a Pollinator Conservation Strategy and Independent Science Advisor Study, and federal funding through section 6 of the ESA, the Cooperative Endangered Species Conservation Fund, for habitat conservation planning assistance. *See About the Yolo Natural Heritage Program*, YOLO NATURAL HERITAGE PROGRAM (Oct. 21, 2011), http://www.yoloconservationplan.org/.

206. Literature on environmental federalism explores this challenge. The interest in implementing ecosystem management and "collaborative ecosystem governance" seeks in part to move toward more holistic environmental management, addressing coordination as well as accountability. *See* Bradley C. Karkkainen, *Collaborative Ecosystem Governance: Scale, Complexity, and Dynamism*, 21 VA. ENVTL. L.J. 189, 190 (2002). The lack of permitting coordination among government entities, which limits environmental progress, has been long recognized, yet still persists. *See generally* Peter A. Buchsbaum, *Permit Coordination Study By The Lincoln Institute of Land Policy*, 36 URB. LAW. 191 (2004) (pointing to a general consensus, supported by a broad literature review, that coordination failures still plague environmental law use regulation). Notably, the author points to Habitat Conservation Planning as one model to explore for achieving coordinated permitting. *Id.* at 195.

implementation of the Yolo HCP/NCCP.[207] Protected species, such as the giant garter snake and Swainson's hawk, as well as many other species targeted for coverage are likely to be impacted by increased Bypass inundation.[208] It is even possible that the BDCP will convert habitat needed to meet conservation goals for a small number of species presently proposed for coverage by the Yolo HCP/NCCP, necessitating the removal of those species from the plan.[209] As the BDCP and the Yolo HCP/NCCP need some of the same lands to achieve their stated (and potentially conflicting) conservation goals,[210] coordination is necessary to assure that land is used as effectively as possible.[211]

Yolo County clearly communicated its concerns to the Natural Resources Agency (in its BDCP capacity) regarding potential conflicts with the Yolo HCP/NCCP, expressing an expectation of the Agency''s continued support for the local plan.[212] Similarly, with respect to the Bypass, Yolo County

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207. The Joint Powers Agency funded a study to identify potential impacts of the BDCP Fremont Weir/Yolo-Bypass conservation measure on the Yolo Heritage Program HCP/NCCP. TECH. ASSOCS. INT'L CORP., YOLO COUNTY NATURAL COMMUNITY CONSERVATION PLAN/HABITAT CONSERVATION PLAN (NCCP/HCP): IMPLICATIONS OF THE PROPOSED BDCP FREMONT WEIR MODIFICATIONS FOR THE YOLO HNP (2009).The study identified the potential impacts from 3,000 cfs and 6,000 cfs inundation scenarios. *See id.* at 5. These are the two scenarios (Maximum Biological Benefits Scenario (MBBS) and Balanced Benefits Scenario (BBS)) analyzed for the BDCP. *See id.* at 1. According to the study,

> the weir modification and altered flooding regime has the potential to affect a small subset of species proposed to be covered by the Yolo NHP. While the BBS will have minimal effect because it will not increase flooding frequency or significantly expand the acreage of potentially suitable habitat subject to inundation, the MBBS would create more frequent floods of greater extent and for much longer durations than have previously occurred, and as a result, has the potential to affect species more seriously. Because of the constraining existing land uses, the preliminary conclusion of this analysis are that increased flooding will not create additional habitat for nesting or foraging, rather, the flooding may deprive species of shelter, nesting sites, and food.

Id. at 10.

208. *Id.* at 13–14 ("While the plan may enhance habitat for the Delta tule pea, and potentially not affect the least bittern, additional, more extensive or longer flooding would likely reduce habitat suitability for the giant garter snake, black tern, California black rail, yellow-headed blackbird, northern harrier and short-eared owl. Generally, the effects are more negative with the MBBS than the BBS because more of the resources required by the affected species would be inundated, for longer periods, and in deeper water.").

209. *Id.* at 14 (concluding that "with most species potentially being affected negatively, the overall effect would be to lose individuals of those species which could, in turn, affect coverage by the Yolo NHP under the ESA for that species").

210. *See* Comment Letter from Helen M. Thomson, Chairwoman, Yolo HCP/NCCP Joint Powers Agency, to Mike Chrisman, Chairman, Cal. Natural Res. Agency (Mar. 20, 2009), *available at* http://baydeltaconservationplan.com/Libraries/Dynamic_Document_Library/Yolo_Natural_Heritage_Program_-_3-20-09.sflb.ashx. According to the Yolo HCP/NCCP Joint Powers Agency, the BDCP planning area overlaps with approximately 90,920 acres of the Yolo HCP/NCCP planning area. *Id.*

211. *See, e.g.*, Nolon, *supra* note 199, at 413 (arguing that by recognizing the importance of local governments in environmental protection systems we would encourage integration of protective approaches).

212. *See* Letter from Helen M. Thomson, *supra* note 168 (setting forth Yolo County's position on the "Fremont Weir/Yolo Bypass Habitat Improvements Conservation measure" and related projects); *see also* YOLO CNTY. BD. OF SUPERVISORS, YOLO COUNTY DELTA POLICIES, DESIRED OUTCOMES, AND

emphasized to the Natural Resources Agency that the YBWA is an invaluable community asset which should be preserved in perpetuity with the BDCP—rather than eliminated or substantially compromised—and that flood protection must not be adversely impacted.[213] Although the County did not take any position on the conservation measure included within the developing BDCP, Yolo County emphasized its unwillingness to support the conservation measure unless its concerns are addressed and the agricultural, flood protection, terrestrial species habitat, and other existing characteristics of the Bypass are generally preserved.[214] Perhaps with a more central role for Delta counties in the initial planning stages, these conflicts between local government efforts and the broader BDCP HCP/NCCP could have been aired, discussed, and minimized, with the added benefit of broader public understanding and engagement.

2. Avoid the Potential Conservation Paradox: Local Land Use and the "Greater Good"

While local governments may be an important source of conservation planning and careful stewardship of farmland, open space, and natural resources, the emergence of new challenges should be recognized.[215] Local governments that forgo or seek to limit urban and industrial development may be deprived of self-determination and become the reluctant hosts of habitat restoration and other mitigation and conservation measures needed to satisfy the urbanization and economic needs of more politically powerful jurisdictions. The economy of Yolo County is strongly supported by agriculture, in part due to a conscious effort by local governments to shun the perceived financial rewards of rapid urbanization and increased local revenues in favor of maintaining the rural character of the area. Yolo County has successfully preserved its agricultural heritage, and over 90 percent of its land area remains undeveloped. Nonetheless, the BDCP is a threat to rice farming——one of the most valuable commodities produced by Yolo County agriculture——throughout the Yolo Bypass.[216] Agriculture in the bypass is estimated to produce up to $50 million annually.[217]

But BDCP is only part of a larger trend. Yolo County's preservation of open space and agriculture has made it a target for those seeking mitigation credit for projects outside the county where there is insufficient suitable land.

HABITAT PROJECT PARAMETERS (2009), *available at* http://www.yolobypass.net/docs/BDCPSubcommittee/Yolo%20County%20Desired%20Outcomes.pdf.

213. *See* Letter from Helen M. Thomson, *supra* note 168.

214. *Id.*

215. *See* Colburn, *supra* note 200, at 967–70 (examining problems of the scale and identity of local governments as constraints on effectiveness).

216. *See* Hudson Sangree, *Habitat Land Rush Worries Yolo Rice Farmers, Officials*, SACRAMENTO BEE, Dec. 19, 2010, *available at* 2010 WLNR 25044838.

217. *Id.*

Put simply, "Yolo County has become a prime target for those seeking to profit from environmental damage done elsewhere."[218] This creates a troubling paradox. Indeed, the BDCP recognizes that "[i]ncreasing the frequency, magnitude, and duration of inundation in the Yolo Bypass floodplain is the largest opportunity for enhancing seasonally inundated floodplain habitat in the Central Valley."[219] The same "opportunity" is also very appealing to mitigation banking firms, out-of-county developers, and others drawn to the abundance of affordable farmland in Yolo County available to satisfy their mitigation needs.

Local governments in the California Bay Delta have begun to respond to these pressures. For example, although it has only a few such banks, Solano County includes mitigation banks among the activities requiring a discretionary use permit.[220] Yolo County is contemplating similar measures. Notably, early in the Yolo County process, environmental groups criticized the County's proposal to regulate wetland projects.[221] Despite this, in Yolo County, the conversion of farmland to habitat and related land speculation in connection with the BDCP (as well as the biological opinions) is already underway. The Westlands Water District—a very large water agency serving primarily agricultural users in the southern San Joaquin Valley—purchased nearly 3000 acres of farmland in the southern Yolo Bypass for a potential Delta smelt project in 2008.[222] In 2010, the Board of Supervisors responded to this acquisition (and a wide range of similar efforts) by adopting a moratorium on certain restoration projects to provide time to consider a land use permit process.[223]

We have progressed significantly to a point where the regulation of conservation easements, mitigation banks, and other tools must be

218. *Id.*

219. *See* CAL. DEP'T OF FISH AND GAME, *supra* note 181, at 3-19 (drft. 2012).

220. SOLANO CNTY., CAL., CODE ch. 28.21, tbl.28.21.A (2012) (conservation bank is a conditionally allowed use in A-20 Zoning District); *see also* CMTY. ALLIANCE WITH FAMILY FARMERS & THE SOLANO RES. CONSERVATION DIST., SOLANO CONSERVATION AND RESTORATION MANUAL 31–33 (2005), *available at* http://caff.org/wp-content/uploads/2010/07/SolanoConservationManual.pdf.

221. *See* Chris Unkel et al., *Protect all Resources*, DAVIS ENTER., Aug. 2, 2009 (representing Ducks Unlimited, California Waterfowl, Audubon California, Yolo Basin Foundation and Defenders of Wildlife) (on file with author). The groups were concerned that the costs imposed by requiring a layer of government regulation may reduce the interest in voluntary conservation. On the other hand, we have already many incentives for private conservation, such as special tax treatment for conservation easements. For a recent critique examining over-paying for this form of private conservation, refer to Josh Eagle, *Notional Generosity: Explaining Charitable Donors' High Willingness to Part With Conservation Easements*, 35 HARV. ENVTL. L. REV. 47 (2011); *id.* at 82 ("Overpaying for the public benefits created by conservation easements reduces the amount that could be used to meet other conservation needs.").

222. CAL. DEP'T OF FISH AND GAME, *supra* note 2, at 77.

223. Yolo Cnty., Cal., Ordinance 1401 (Oct. 19, 2010), *available at* http://141.174.195.7/docs/2012/BOS/20121023_43/1257_Attachment%20A—October%2012,%202010%20Moratorium%20Ordinance.pdf.

reconsidered.[224] In some instances, financial resources are squandered to achieve only nominal or illusory gains in habitat conservation. In other cases, habitat is insufficiently weaved together to provide potential broad multi-species benefits. Further, local government scrutiny of private restoration efforts could better facilitate achievement of multi-species conservation that is balanced with land use goals. But these benefits will need to be weighed against the potential drawbacks of chilling voluntary conservation efforts. Federal and state agencies working in concert with local governments and other key stakeholders will be vital to achieving workable solutions.[225]

Land use, long the province of local governments, is an avenue for improving the quality of the natural environment. When it comes to state and federal efforts, however, local governments lack legal power to veto or constrain restoration decisions. State and federal projects preempt local measures, not only for structural or constitutional reasons, but also in recognition of a broader scale of restoration that may be achievable only by state and federal conservation efforts.[226] But this is hardly a compelling reason to relegate local governments to a bystander role. State and federal entities must be able to facilitate and promote multiple restoration and habitat conservation projects. Local governments need to be an integral part of future habitat conservation and restoration planning at the state and federal levels. Looking at the role they are now playing, and could play in the future by steering more robust habitat conservation and restoration efforts, this approach would help efficiently integrate disparate efforts in a manner that is equitable to local interests.[227] The conservation paradox could easily deter adoption of smart-growth principles, attention to multi-species conservation and open space, and regional partnerships pursued by some local governments.

3. Make a Genuine Commitment to Obtaining Public Input and Engagement

Including public voices in land use planning helps to promote a shared community vision and sense of place. The capacity of local government to help voice local concerns and promote conservation efforts is important in the broader context of why, in particular, local support and vision is invaluable to restoration projects. In fact, there are many reasons restoration proponents

224. *See, e.g.*, Katrina Miriam Wyman, *Rethinking the ESA to Reflect Human Dominion Over Nature*, 40 ENVTL. L. REP. 10,803, 10,808 (2010) (suggesting steering private and non-profit conservation efforts).

225. *See, e.g.*, Nolon, *supra* note 199, at 412–13.

226. This by no means will always be the case. Hypothetically, ill-conceived state and federal restoration measures could well conflict with more aggressive and better-designed conservation initiatives by local governments.

227. For a discussion of the connection between local government and ecosystem services, see Keith H. Hirokawa, *Sustaining Ecosystem Services Through Local Environmental Law*, 28 PACE ENVTL. L. REV. 760 (2011).

should seek public input and engagement in the development of the BDCP. Research has demonstrated the importance of community support to sustain long-term restoration efforts.[228] Moreover, public opposition to land use changes can often be addressed through broader engagement.[229] The *sui generis* nature of the BDCP collaboration creates a perfect breeding ground for conflict: while many acres of land will be used to fulfill the development and conservation objectives, impacted landowners and stakeholders were neither formally represented by local government officials in the planning process nor provided meaningful public input opportunities.

Citizen engagement in environmental decision making has become more commonplace, both within and outside traditional administrative venues. Land trusts, non-profit organizations, and unique local government structures all contribute new insights to environmental protection. The contributions of the non-profit YBF, however, have been largely ignored in the context of the BDCP. And as previously noted, despite its legal responsibility for local land use and decades of responsible stewardship, Yolo County was not offered a seat at the table. The general rejection of these entities through much of the initial BDCP process means that unique opportunities for citizen engagement were, at best, effectively given away for nothing. This is more than just lamentable: it is a recipe for disengagement and distrust that could permeate the legacy of BDCP.

In a process such as this, the opportunity to provide input during the environmental review process offers little consolation. Pursuant to NEPA and CEQA, the BDCP must be analyzed for impacts on the environment, as well as a range of alternatives including a "no action alternative." This environmental impact assessment is currently underway.[230] Despite a change in the structure for developing the BDCP, additional scoping or revisiting of issues will not be allowed to delay completion of the EIS/EIR.[231] Furthermore, although the public draft of BDCP indicated it was 70 percent complete, it also conceded the

228. *See, e.g.*, DOYLE & DREW, *supra* note 105.

229. *See generally* Sean F. Nolon, *Negotiating the Wind: A Framework to Engage Citizens in Siting Wind Turbines*, 12 CARDOZO J. CONFLICT RESOL. 327 (2010).

230. *See* Press Release, U.S. Dep't of the Interior, Schedule for Bay Delta Conservation Plan Environmental Review, Effects Analysis Announced (Aug. 11, 2011).

231. *See* Letter from John Laird, Sec'y, Cal. Natural Res. Agency, to David Hayes and Jane Lubchenco (Aug. 9, 2011), *available at* http://www.doi.gov/news/pressreleases/loader.cfm?csModule=security/getfile&pageid=255678 (transmitting schedule for completing EIR/EIS and BDCP Chapter 5 Effects Analysis). The Secretary notes that delay cannot be caused by "revisiting issues" and instead that the timely completion of the EIR/EIS is necessary to "substantively engage the public on issues so vital to California's environment and economy." *Id.* In reply, see Letter from Contra Costa, Sacramento, San Joaquin, and Solano County Supervisors to John Laird, Sec'y, Cal. Natural Res. Agency (Aug. 31, 2011), *available at* http://blogs.esanjoaquin.com/san-joaquin-river-delta/files/2011/09/8-31-11SecLaird4countyFINAL.pdf (acknowledging timeline and criticizing it as "hurried" and violating commitment to a new "open, transparent and inclusive" BDCP process for Delta public communities).

last 30 percent was where the "heavy-lifting" was still necessary.[232] Legally-mandated public input on the EIS/EIR comes at a point where significant resources have already been expended, and strong momentum toward an endpoint, for better or worse, has been generated.[233] This indicates a mismatch between the formal, legal time frame for public input and need for engagement of the public in development of the restoration strategies for the Delta: simply put, the EIS/EIR stage is far too late to serve as a primary means of engaging the public, particularly in a complex and contentious restoration project such as BDCP.[234]

A lack of public support and engagement dragged down potential BDCP momentum. A public relations officer was only hired after several years of planning had already taken place. Until late 2010, however, the BDCP process continued to rely on the widely criticized Steering Committee as the principal forum for public input, which it generally received briefly and without comment after the Committee members concluded their discussion of individual agenda items. The shift in the early months of 2011 to an emphasis on inclusive "issue groups" devoted to specific key unresolved issues of stakeholder concern, while promising, was still unsatisfying to many local governments in the Delta. Subsequent announcement of potential post-approval BDCP implementation governance in July of 2012 illustrated the difficulty state and federal partners had in fashioning effective means of engaging broader public input. Outreach efforts to accommodate public input and public relations work must begin immediately, and in earnest. Although BDCP failed at the outset to take this to heart, a turnaround at any point to open up formal representation of local interests could prove valuable.

Local values and vision must be encompassed if the debate over water supply, habitat restoration, and other matters within the scope of BDCP will ever evolve past a general view that water policy in the northern and southern parts of California is a matter of "us versus them."[235]

232. The BDCP indicates that while some sections are clearly defined, others are "incomplete, disputed among members [of the Steering Committee], or otherwise under development." BAY DELTA CONSERVATION PLAN STEERING COMMITTEE, *supra* note 28, at 2. Perhaps most critically, a good description of the project is still unavailable.

233. *See* Doremus, *supra* note 196, at 712–13 (emphasizing the limitations of obtaining public input after a draft permit has already been completed).

234. Some members of the public will become engaged during the earlier scoping phase of large projects. For a discussion of how lawyers might advocate to supplement formal processes in land use decision making, see Sean F. Nolon, *The Lawyer as Process Advocate: Encouraging Collaborative Approaches to Controversial Development Decisions*, 27 PACE ENVTL. L. REV. 103 (2009).

235. *See generally* ELLEN HANAK ET AL., PUBLIC POLICY INST. OF CAL., CALIFORNIA WATER MYTHS (2009) (discussing tendency for groups to demonize one another and promoting factual grounding to resolve issues).

B. Addressing the Unequal Impacts of Restoration Goals

As previously discussed, it is important to avoid a situation where local conservation measures are rendered self-defeating. Biodiversity protection can have unequal distributional impacts, harming local interests to benefit larger conservation goals.[236] The benefits of healthy and resilient environments are distributed broadly, while the cost in economic terms may be borne by only a few or concentrated in one location.[237] Addressing those impacts could enable restoration efforts to attract local support and as a result improve their viability. Financial compensation for land acquisitions constitutes only a part of addressing distributional impacts, as the benefits accrue only to the individual landowner rather than the broader community that is impacted.[238] BDCP, as a large-scale ecosystem restoration with many project components that will reflect a host of trade-offs, must respond to this challenge.

While there may be many instances of unequal impacts within the existing broader BDCP, the YBWA conflict raises the question of agricultural displacement. The coequal goal of the BDCP is to secure reliable water deliveries. In large part, these deliveries are necessary to support agriculture, which consumes a majority of water conveyed from the Delta to other areas by the SWP and CVP. The state and federal governments are in essence facilitating the transfer of wealth from one region to another by compromising Delta agriculture to ensure a more reliable water supply for other agricultural areas.[239] Fairness minimally dictates a recognition of this favoring treatment. Changes necessary to avoid environmental collapse in the Delta must occur, and mitigation has already begun to be considered for those changes.[240] Just when and how mitigation for economic impacts of restoration—for example, the loss of revenue previously generated by farmland that is converted to

236. *See* Bradley C. Karkkainen, *Biodiversity & Land*, 83 CORNELL L. REV. 1, 94 (1997). Professor Karkkainen explains the frequently foregone opportunity for development, using a shopping center as an example and posing its location in either a biodiversity rich wetland or biodiversity poor cornfield. *Id.*

237. The term "common-pool resources" may be used in this context. The term has been defined elsewhere as "a natural or man-made resource system that is sufficiently large as to make it costly (but not impossible) to exclude potential beneficiaries from obtaining benefits from its use." ELINOR OSTROM, GOVERNING THE COMMONS: THE EVOLUTION OF INSTITUTIONS FOR COLLECTIVE ACTION 30 (1990).

238. Beyond private individual compensation, there are also programs designed to compensate local governments based on foregone local property tax revenue. For example, in California, counties are to receive payments equivalent to taxes for property that the State acquires and operates as wildlife management areas that generate income from the property. *See* CAL. FISH & GAME CODE § 1504 (West 2012).

239. It is largely believed that isolated conveyance facilities will increase salinity and in turn have "a starkly negative effect on Delta agricultural revenues." DELTA PROTECTION COMM'N, ECONOMIC SUSTAINABILITY PLAN FOR THE SACRAMENTO-SAN JOAQUIN DELTA 93 (drft. 2011) (final version was adopted by the Delta Protection Commission in 2012).

240. *See* MANAGING CALIFORNIA'S WATERS, *supra* note 9, at 190 n.4 (discussing mitigation payments); *id.* at 192 (noting that under any plan some farmers will go out of production); *id.* at 192–93 (discussing some principles for mitigation, but supporting ad hoc decisions); *id.* at 195–96 (discussing community mitigation funds).

habitat—should be made to local government entities or impacted communities, however, is an unanswered question the Bay Delta restoration controversy will soon be confronting.[241]

The assumption that a strong state-federal partnership supporting restoration will adequately marry federal resources with local concerns is, at least thus far in the BDCP process, utterly wrong.[242] In the case of the Bay-Delta restoration, the existing state-federal partnership lacks sufficient local focus because the state is unable to represent the diversity of local concerns. California is a diverse state and the five Delta counties have unique needs and concerns with regard to the BDCP. The water needs of southern California are frequently pitted against the water needs of northern California in an unfair and unproductive blame game[243] that now, through BDCP, has expanded to include an unprecedented level of habitat restoration that will supplant agriculture and other land uses in many Delta locations. The prospect of such changes, together with new water supply infrastructure serving distant regions of the state, is inequitable, particularly in the absence of a comprehensive commitment to safeguard local concerns. Marginalizing the contribution of local elected government officials cements the notion that solutions proposed by BDCP reflect an unfair bias favoring powerful interests outside the Bay-Delta region.

Consequently, economic mitigation might be part of achieving BDCP goals.[244] To avoid further inflaming resentment, the approach to mitigation should be well vetted by representatives of impacted communities and based on principles of equity. Ad hoc decisions about who receives compensation, and how much, without adequate ground rules, will simply add gridlock and continuing distrust to a suspect process. Regardless, this form of economic mitigation does not touch the losses that are implicated if the YBWA balance is compromised. Nor could it compensate for the loss of a community asset hard-won by years of work by dedicated conservationists. The conflict thus emphasizes why impact avoidance is always preferable to mitigation.

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241. *See id.* at 190–96.

242. *See* Dominic Izzo, *For a Ravaged Gulf Coast, the Future is Now*, *in* NAT'L WETLANDS NEWSLETTER, *supra* note 16, at 30. A state-federal partnership for integrated restoration is recommended by some for this reason. "The obvious choice for a restoration lead group would be a federal-state partnership of some stripe, a pairing that would marry local concern with federal muscle." *Id.* at 32 (recommending the Mississippi River Commission as lead in comprehensive restoration planning).

243. *See generally* HANAK ET AL., *supra* note 235. The political reality of more representatives in the California State and U.S. Congress from water-scarce southern California and fewer in the water-abundant Sacramento area led to intractable conflict where political wrangling was depended on to achieve results. *See* DOYLE & DREW, *supra* note 105, at 139.

244. This goes beyond compensating landowners for purchase of lands or an interest therein. For example, payments to local governments to address economic losses and displacement or payments to forego farming of agricultural lands might be considered. *See e.g.*, Tony Perry, *MWD, Farmers Near Deal for Water*, L.A. TIMES, Jul. 7, 2001, *available at* http://articles.latimes.com/2001/jul/07/local/me-19444 (discussing potential payments for community projects such as education or retraining); Felicity Barringer, *Empty Fields Fill Urban Basins and Farmers' Pockets*, N.Y. TIMES, Oct. 24, 2011, at A12, http://www.nytimes.com/2011/10/24/science/earth/24water.html?pagewanted=all&_r=0.

Experience from large-scale restoration projects such as the Everglades indicate that serious assessment and acknowledgement of potential trade-offs is necessary to avoid unduly harming various interests.[245]

C. Reconciling Conflicts among Restoration Goals

Some conflicts cannot be avoided. As demonstrated by the YBWA story, future restoration projects will likely encounter conflicts over targeted species and appropriate trade-offs in land use.[246] Large-scale restoration goals may begin to confront single-species restoration barriers. The BDCP has largely failed to discuss the trade-offs it is making to achieve its goals, although it recognizes they are being made. The current draft BDCP states that "restoration of tidal habitats to provide new physical habitat and enhanced food production for covered fish species and certain covered wildlife and plants will necessarily remove terrestrial habitat that supports other covered wildlife and plant species."[247] The gravity of such an outcome is notable. Without having laid the groundwork with the public, the resentment over massive changes perceived to be caused by a small fish—though in the case of the Yolo Bypass, restoration is primarily intended to benefit salmon rather than Delta smelt—will likely persist.[248]

Beyond the context of the BDCP, conservation conflict among species has led to some thought regarding resolution principles.[249] Overall, a case-by-case approach has been recommended, with promotion of the principle that large areas of restoration supplying a mix of habitats may achieve multi-species

245. *See* NAT'L RESEARCH COUNCIL, PROGRESS TOWARD RESTORING THE EVERGLADES: THE FOURTH BIENNIAL REVIEW 108 (2012). "If trade-offs inherent within the . . . system are not acknowledged, and management actions switch between the extremes of what is best for one group versus another, the outcome is likely to be more harmful than need be for all groups involved." *Id*. (citing to the Everglades Restoration SERES report).

246. *See* Charles Simenstad et al., *When Is Restoration Not? Incorporating Landscape-scale Processes to Restore Self-Sustaining Ecosystems in Coastal Wetland Restoration*, 26 ECOLOGICAL ENGINEERING 27, 36 (2006) (discussing conflict between waterfowl and fish habitat in restoration projects in the Pacific Northwest region). The authors describe attempts at compromise among conflicting restoration goals by dividing the restoration site in half, but caution that "compromising wetland restoration may in some cases be counterproductive to the intent of both sides of the compromise." *Id*. at 36.

247. BAY DELTA CONSERVATION PLAN STEERING COMMITTEE, *supra* note 28, at 3-6 (noting that these conservation measures will also be "covered activities" to ensure appropriate permitting pursuant to applicable laws).

248. *See, e.g.*, HANAK ET AL., *supra* note 235, at 6 (suggesting that many perceive the ESA to be one "villain"); *see also* TEAL ET AL., *supra* note 189. One panelist described an encounter with a cab driver in Sacramento who, it was clear, blamed the crisis on a fish, and the panelist emphasized that public opinion shapes legislative action. TEAL ET AL., *supra* note 189, at 1–2.

249. For example, the National Research Council expressed giving preference to long term over short term, considering whether the decision would lead to irreversible harm to one species, and the important role played in ecosystem or ecological function of the species. NAT'L RESEARCH COUNCIL, SCIENCE AND THE ENDANGERED SPECIES ACT 121 (1995).

conservation and reduce such conflicts.[250] Additional thought must be given to the likelihood of recovery success, lack or existence of other restoration opportunities, and unique opportunities to achieve multiple land use objectives, with conservation just one part of achieving the public interest.[251]

In theory the HCP/NCCP planning approach has much better potential for avoiding these conflicts. Yet, as with the instant case of BDCP, the constraints imposed by development objectives still impede a vision that elevates the recovery of species. BDCP's process was not a problem-solving and solution-seeking collaborative approach such as that taken by the YBWA process.[252] The YBWA itself represents both an opportunity for multi-species conservation and multifunctionality, but it is also one of the most unique opportunities for fishery habitat enhancement in the entire Delta.[253] While obviously much emphasis has been placed on the opportunity for aquatic habitat restoration, far less weight has been given to the latter benefits of multifunctionality and ecosystem management for multiple species. A balanced approach that accommodates multiple species—both aquatic and terrestrial—is much more in line with the community's approach to YBWA restoration over the past decade. Without adequately exploring the irreconcilability of this conflict, the BDCP re-restoration of the YBWA will strike at the identity of the community as seeking compatible conservation and agricultural uses.

D. Overlooking the Benefits of Small-Scale Restoration

The BDCP has largely failed to take account of the significance of the YBWA for the community—a fact it would have not missed if there were

250. *See id.*

251. Professor J.B. Ruhl emphasized the use of an ecosystem approach to promote long-term species diversity and "multifunctionality" when facing potential species trade-offs. *See* J.B. Ruhl, *Climate Change and the Endangered Species Act: Building Bridges to the No-Analogue Future*, 88 BOSTON U. L. REV. 1, 61 n.234 (2008) (citing to Andy Hector & Robert Bagchi, *Biodiversity and Ecosystem Multifunctionality*, 448 NATURE 188, 188 (2007)). Particularly in the context of climate change, Professor Ruhl recommended the ESA implementing agency prevent decline of "doomed" species (those with no chance of survival), but avoid assisting doomed species if those action might harm other species. *Id.* The most recent draft Delta Plan prepared by the Delta Stewardship Council suggests that some native species in the Delta may be in the predicament of "doomed" species. *See* DELTA STEWARDSHIP COUNCIL, FINAL DRAFT DELTA PLAN 146 (drft. 2012), *available at* http://deltacouncil.ca.gov/sites/default/files/documents/files/DeltaPlan_PFD_Sept5_2012_RedlineChapters.pdf (noting some loss of native species to extinction may be inevitable with even a two degree increase in air and water temperature).

252. *See, e.g.*, Antony S. Cheng, *Build it and They Will Come? Mandating Collaboration in Public Lands Planning and Management*, 46 NAT. RESOURCES J. 841, 843 (2006) (elaborating on collaboration as a problem-solving process rather than decision making process).

253. *See* Ted R. Sommer et al., *Habitat Associations and Behaviour of Adult and Juvenile Splittail in a Managed Seasonal Floodplain Wetland*, 6 S.F. ESTUARY AND WATERSHED SCI. 1, 4 (2008) (noting that the Yolo Bypass Wildlife Area is "the largest contiguous area of non-agricultural floodplain habitat"); *see also* Simenstad et al., *supra* note 246, at 27–39. Simenstad et al. note that strategically placed restoration sites can provide disproportional benefits to anadromous fishes, such as juvenile Pacific salmon. *Id.* at 34.

formal involvement of Yolo County or sufficient efforts to accommodate and respond to public input during formative stages of the draft. Though it is small in comparison with the broad plans for Delta restoration encompassed in the BDCP, the YBWA is one of the largest public/private ecosystem restorations in the western United States. The idea for the YBWA was initially conceived at the dining table of a local resident.[254] The YBF is a key partner in a unique management framework.[255] Every step of the YBWA creation, expansion, and coordination with other Delta, wetlands, and habitat restoration initiatives is characterized by a high level of engagement of local stakeholders. It followed the broad objective of the CALFED ERP. While some restoration projects are ill-informed and ill-conceived, due to misunderstanding of the historical setting or biological objectives realistic to achieve, the YBWA was none of these things. It achieved success by building slowly, from the ground up.

Restoration projects may become larger, overlap, and even potentially change goals due to the passage of time and environmental pressures such as climate change and water supply limitations. It is quite possible that natural areas will undergo multiple transformations.[256] Certainly restoration efforts must be broader to knit together sufficient habitat. But restoration on moderate scales is still useful for several reasons. First, small-scale experimentation can increase the depth and breadth of restoration knowledge. For example, the YBWA was one of the first examples of ecosystem rather than single-species focused management. Its demonstration wetlands, educational mission, and collaboration with other entities have been key in increasing knowledge. Second, successes can be used as a platform for expansion. The YBWA history illustrates how one project can grow over time. The first restoration of wetlands was followed by additional land acquisitions over the course of several years. This allowed trust, and in turn, functional working relationships among different parties, to be built over time. Third, a core mission of the restoration movement is to provide an opportunity to build harmonious relationship between those engaged in it and the land[257]—a worthy goal often difficult to

254. LMP, *supra* note 40, app. E. ("History of Yolo Basin Foundation"); *id.* ("This effort literally began around kitchen tables and living room floors with discussions among members of Putah Creek Council and Yolo Audubon Society. They had a vision of reestablishing a portion of the wetlands of the Putah Creek Sinks that were once part of a vast inland sea. The first presentation to an elected official, Yolo County Supervisor Betsy Marchand, was given on Robin Kulakow and Bill Julian's living room floor.").

255. Professor Lee Breckenridge identifies that non-profit organizations increasing role in conservation management can provide transformative frameworks for land management. *See generally* Lee P. Breckenridge, *Nonprofit Environmental Organizations and the Restructuring of Institutions for Ecosystem Management*, 25 ECOLOGY L.Q. 692 (1999) (evaluating changing role of non-profit organizations in environmental decision making).

256. *See, e.g.*, Nancy A. McLaughlin & W. William Weeks, *In Defense of Conservation Easements: A Response to The End of Perpetuity*, 9 WYO. L. REV. 1, 52–56 (2009) (discussing the doctrine of *cy pres* for conservation easements when their objectives can no longer be met).

257. The mission statement of the Society for Ecological Restoration identifies it as an organization that "promote[s] ecological restoration as a means of sustaining the diversity of life on Earth and

achieve outside grassroots restoration projects. Last, small-scale restoration efforts can allow parties with divergent interests to improve their environment. The YBWA demonstrates that people can agree on very little at the outset, but still manage to accomplish significant gains for the environment they are rooted in. At some point, or on some level, the BDCP process lost sight of building on existing success. It would be prudent to aggressively encourage participation by stakeholders who could champion ecological restoration and its many benefits.

CONCLUSION

> *There is no doubt that restoration will continue to play an important role in the future of biodiversity protection, particularly in the climate change era.*[258]

The next round of restoration in the Yolo Bypass has the potential to shape perceptions about ecological restoration more generally. Similar to many land use decisions, restoration often reflects a negotiation among individuals regarding desired environmental conditions. Is restoration merely a subterfuge to facilitate continued overconsumption and mismanagement of natural resources? Is it likely to be imposed, without sufficient input, on communities lacking sufficient political muscle to insist on an inclusive framework for design and implementation? Or can it be pursued collaboratively, in a way that acknowledges the trade-offs in land and habitat conversion and the unique value that local entities have contributed toward conservation efforts?

The YBWA, as it presently exists, has already accomplished on a smaller scale the goals that California purports to seek through a new Delta Plan, and habitat restoration predicated on the BDCP.[259] The collaborative process initiated by the YBF canvassed existing assets, brought stakeholders together, leveraged common ground, and changed the land to provide multiple benefits to wildlife, people, and the local community. But the conflict between the BDCP and the YBWA provides a cautionary tale. Collaborative structures that

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reestablishing an ecologically healthy relationship between nature and culture . . . ." *Mission & Vision*, SOC'Y FOR ECOLOGICAL RESTORATION, http://www.ser.org/about/mission-vision (last visited Nov. 13, 2012). One of the foundational works on ecological restoration by Professor William Jordan III explains the importance of this element for the future of restoration success. *See* Jordan, *supra* note 1. Philosopher Andrew Light presents the argument of how the engagement in restoration can build a positive relationship between people and their environment. *See* Andrew Light, *Restoring Nature, Ecological Restoration and the Culture of Nature: A Pragmatic Perspective*, *in* RESTORING NATURE, *supra* note 19, at 49 (identifying how the practice can restore not only the environment but the human relationship with the nonhuman world).

258. *See* Ruhl, *supra* note 251, at 29. Professor Ruhl concludes that "[i]t is sobering to find that ecological reshuffling is inevitable and to realize that the ESA can't do anything about it." *Id.* at 62. The Bay Delta is expected to be significantly impacted by climate change. *See* Editorial, *Delta is Highly Vulnerable to Climate Change*, SAN JOSE MERCURY NEWS, Aug. 1, 2011, *available at* http://www.cacoastkeeper.org/news/delta-is-highly-vulnerable-to-climate-change.

259. *See* Yolo Basin Foundation, *Spring Flooding Imperils Bypass*, DAVIS ENTER., Apr. 26, 2009 (urging that BDCP not "throw the baby out with the bathwater!").

are in fact not inclusive may do more to alienate stakeholders than traditional top-down governance structures. While robust public input processes could potentially offset that balance, the BDCP process has been neither inclusive nor ambitious in obtaining stakeholder input. Thus, local governments, particularly in California where the NCCP process has taken hold, must be partners in regional habitat conservation planning.

The restoration measures considered by the BDCP will be wide-ranging and seek to be transformational. This article examined the conflict between the successful restoration of the multi-use YBWA and one proposed conservation measure of the BDCP. The restoration of aquatic habitat could threaten the multi-use and multi-species approach used at the YBWA. The critiques of the lack of engagement applies to multiple aspects of the ongoing efforts to restore the environmental health of the Delta, including projects that may directly re-restore natural habitat or redesign water conveyance to southern California.[260] Efforts to address distributional impacts and include local voices in the design and implementation process must be more robust to help garner the public support necessary for the ambitious restoration being planned in the Delta.

260. For example, the Stones Lake National Wildlife Refuge may also be potentially impacted by moving intake infrastructure and potentially using an existing area for fish habitat. *See* Letter from Osha Meserve to BDCP Steering Committee (Nov. 2, 2010), *available at* http://baydeltaconservationplan.com/Libraries/Dynamic_Document_Library/Comments_on_BDCP_Components_Affecting_Stone_Lakes.sflb.ashx. The Association, formed in 1995, is a non-profit volunteer benefit corporation. Like the affected Delta Counties and the Yolo Basin Foundation, the Association criticizes BDCP's weak public input process. *Id.* at 2 ("Rather than engage stakeholders in the design and planning process, the BDCP has primarily made decisions in a vacuum without the input of the affected community.").

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