

1-1-2015

## Is the Bay Delta Conservation Plan Adequately Funded?

Vincent Vu

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### Recommended Citation

Vincent Vu, *Is the Bay Delta Conservation Plan Adequately Funded?*, 21 HASTINGS WEST NORTHWEST J. OF ENVTL. L. & POL'Y 163 (2018)

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## Is the Bay Delta Conservation Plan Adequately Funded?

*Vincent Vu\**

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### **I. Introduction**

The Sacramento-San Joaquin Delta (“Delta”) is a vibrant, but deteriorating, estuary ecosystem that supplies much of California’s water. The Delta is one of California’s most valuable natural resources. Freshwater from the Sierra Nevada mountain range flows through the Delta, where it feeds a unique ecosystem and supplies water to much of the state. The Delta and its islands create a unique habitat for hundreds of aquatic and terrestrial species.<sup>1</sup> It supplies water to twenty million Californians and

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\* J.D. Candidate, University of California, Hastings College of the Law, 2015; B.A., University of California, Irvine, 2011. I would like to thank Professor Clifford

supports economies in the San Francisco Bay Area, the Central Valley, and Southern California.<sup>2</sup> Water from the Delta also irrigates farmland where “much of the nation’s domestic fresh produce is grown.”<sup>3</sup> The Delta is the heart of California’s water system and indicative of the state’s environmental and economic conditions.

The Bay Delta Conservation Plan (“BDCP” or “Plan”) is a comprehensive regional conservation strategy for restoring the Delta; it operates as an integral part of California’s water management portfolio. The BDCP would secure California’s water supply through the development of a critical water delivery infrastructure. Additionally, the Plan would “restore or protect approximately 150,000 acres of habitat to address the Delta’s environmental challenges,”<sup>4</sup> through a series of twenty-two conservation measures.<sup>5</sup> Each conservation measure represents a specific action meant to improve the Delta system. These conservation measures are “aimed at improving water operations, protecting water supplies and water quality, and restoring the Delta ecosystem within a stable regulatory framework.”<sup>6</sup> While the BDCP and its conservation measures represent laudable goals of water security and habitat protection, they do not exist in a vacuum. The implementation of these conservation measures are regulated by various federal and state statutes.

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Lee, Deputy Attorney General, California Department of Justice, for his support and instruction on California water resources law.

1. BAY DELTA CONSERVATION PLAN, *About the Delta*, <http://baydeltaconservationplan.com/AboutTheDelta/AbouttheDelta.aspx> (last visited May 3, 2014).

2. BAY DELTA CONSERVATION PLAN HIGHLIGHTS 1 (2013), *available at* [http://baydeltaconservationplan.com/Libraries/Dynamic\\_Document\\_Library/Draft\\_BDCP\\_Highlights\\_12-9-13.sflb.ashx](http://baydeltaconservationplan.com/Libraries/Dynamic_Document_Library/Draft_BDCP_Highlights_12-9-13.sflb.ashx).

3. *Id.*

4. BAY DELTA CONSERVATION PLAN, *What is BDCP?*, <http://baydeltaconservationplan.com/AboutBDCP/WhatistheBDCP.aspx> (last visited May 3, 2014).

5. *Id.*

6. *Id.*

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The federal Endangered Species Act (“ESA”) makes it illegal to harm endangered species,<sup>7</sup> but allows parties to legally harm such species if they develop a habitat conservation plan (“HCP”) and apply for an incidental take permit (“ITP”).<sup>8</sup> As the Bay Delta is home to a number of endangered species,<sup>9</sup> some of its actions will undoubtedly affect endangered species. Thus, the BDCP is subject to the ESA.<sup>10</sup>

Additionally, the ESA requires HCPs to be “adequately funded.”<sup>11</sup> However, the statute does not provide any guidance for determining when a plan is adequately funded or what an adequately funded plan should look like.

The BDCP is being developed as an HCP to comply with the ESA. However, the Plan may not be adequately funded.<sup>12</sup> While on paper the Plan projects funding equal to its estimated costs, other factors are relevant to determine if the Plan is adequately funded.

To explore the legal implications behind the ESA’s adequate funding requirement and their application to the BDCP, this note will: (1) review the ESA and its provisions, specifically the adequate funding requirement; (2) provide an overview of the BDCP and its funding sources; (3) discuss case law relevant to the adequate funding requirement; (4) apply case law to the BDCP and make a determination of its funding adequacy; and (5) make recommendations on how the BDCP can ensure that it will withstand judicial scrutiny with respect to the adequately funded requirement.

## II. The Endangered Species Act as a Champion of Species Protection

The ESA is the “most comprehensive legislation for the preservation of endangered species ever enacted by any nation.”<sup>13</sup> When Congress enacted the ESA, it did so with the intent “to halt and reverse the trend toward

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7. See 16 U.S.C. § 1532(19) (2011); see also L. Misha Preheim, *Biophilia, the Endangered Species Act, and a New Endangered Species Act Paradigm*, 42 WM. & MARY L. REV. 1053, 1065–69 (2001) (discussing different interpretations of “harm” under the Endangered Species Act).

8. Some actions, though detrimental to an endangered species, are desirable and beneficial. The HCP and ITP provisions allow such beneficial actions to be taken if the harm to endangered species is limited and mitigated.

9. Bay Delta Conservation Plan Highlights, *supra* note 2, at 29.

10. *Id.*

11. 16 U.S.C. § 1539(a)(2)(B)(iii) (2011).

12. The Plan’s estimated costs total \$24.75 billion, and the Plan’s estimated funding totals \$24.75 billion. However, the Plan may have overestimated the funding available from certain sources.

13. *Babbitt v. Sweet Home Chapter of Cmty. for a Great Oregon*, 515 U.S. 687, 698 (1995).

species extinction—whatever the cost.”<sup>14</sup> Congress declared that the purpose of the ESA is “to provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved, [and] to provide a program for the conservation of such endangered species and threatened species . . . .”<sup>15</sup>

The ESA accomplishes these species protection goals through a “comprehensive suite of affirmative mandates, strict prohibitions, strong recommendations, and limited exceptions.”<sup>16</sup> The ESA provides substantive protections to any listed endangered or threatened species. These protections include a prohibition against any federal agency activity that may jeopardize a listed species or adversely modify or destroy its critical habitat, a prohibition against any activity that would result in the “take”<sup>17</sup> of a listed species, and a requirement for federal agencies to develop programs that conserve and recover listed species.<sup>18</sup>

ESA protections begin with the listing of a species as endangered or threatened.<sup>19</sup> Once a species is listed, section 9 of the ESA prohibits any person subject to the jurisdiction of the United States from, among other things, “taking” an endangered species.<sup>20</sup> The ESA’s prohibition against taking listed species provides broad protection for threatened or endangered species. Section 11 of the ESA outlines civil and criminal penalties for violations of the Act.<sup>21</sup>

To fulfill the ESA’s goals, federal agencies must ensure that any action “authorized, funded, or carried out by [a federal] agency . . . is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat of such species.”<sup>22</sup> The jeopardy determination is made by the federal agency in consultation with the appropriate wildlife agency—either the National

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14. *Tenn. Valley Auth. v. Hill*, 437 U.S. 153, 184 (1978).

15. 16 U.S.C. § 1531(b) (2011).

16. SAM KALEN & MURRAY FELDMAN, *ESA ENDANGERED SPECIES ACT 2–3* (American Bar Association Section of Environment, Energy and Resources Basic Practice Series, 2nd ed. 2012).

17. Within the ESA, “take” means “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.” 16 U.S.C. § 1532(19) (2011).

18. KALEN & FELDMAN, *supra* note 16, at 4.

19. J. PEYTON DOUB, *THE ENDANGERED SPECIES ACT: HISTORY, IMPLEMENTATION, SUCCESSES, AND CONTROVERSIES* 57–58 (2013); *see also* 16 U.S.C. § 1533 (2011).

20. 16 U.S.C. § 1538(a) (2011).

21. 16 U.S.C. § 1540 (2011).

22. 16 U.S.C. § 1536 (2011).

Marine Fisheries Service (“NMFS”) or the Fish and Wildlife Service (“FWS”).<sup>23</sup> This consultation process with a wildlife agency is defined in section 7 of the ESA and further protects listed species from harm by limiting federal action that is detrimental to them.

The ESA includes two mechanisms that allow parties, including federal agencies, to engage in otherwise prohibited activities—i.e., a legal “take” of a listed species may be allowed in some circumstances. If it is likely that a federal agency’s action will affect a protected species, section 7 requires the agency to go through a formal consultation process with the appropriate wildlife agency.<sup>24</sup> Following this consultation, the wildlife agency prepares a Biological Opinion (“BiOp”) summarizing its findings.<sup>25</sup> If the BiOp concludes that the proposed action will cause incidental taking of a protected species, but will not jeopardize the species or threaten critical habitat, the wildlife agency may issue an incidental take statement (“ITS”).<sup>26</sup> The ITS allows for limited takings of a protected species.<sup>27</sup>

Similarly, section 10 of the ESA governs actions by private parties and other non-federal entities. Section 10 authorizes the NMFS or FWS to allow limited takings through an ITP.<sup>28</sup> Applicants for an ITP must provide a conservation plan that specifies:

- (i) the impact which will likely result from such taking;
- (ii) what steps the applicant will take to minimize and mitigate such impacts, and the funding that will be available to implement such steps;
- (iii) what alternative actions to such taking the applicant considered and the reasons why such alternatives are not being utilized; and
- (iv) such other measures that the Secretary may require as being necessary or appropriate for purposes of the plan.<sup>29</sup>

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23. KALEN & FELDMAN, *supra* note 16, at 65.

24. 16 U.S.C. § 1536(a) (2011).

25. 16 U.S.C. § 1536(b)(3) (2011). If a jeopardy finding is made, the wildlife agency will identify “reasonable and prudent alternatives” to the proposed action that would avoid jeopardizing the species. 16 U.S.C. § 1536(b)(4) (2011).

26. *See* 16 U.S.C. § 1536(b)(4) (2011).

27. 16 U.S.C. 1536 (o)(2) (“[A]ny taking that is in compliance with the terms and conditions specified in a written [ITS] . . . shall not be considered to be a prohibited taking of the species concerned.”).

28. 16 U.S.C. § 1539 (2011).

29. 16 U.S.C. § 1539(a)(2)(A)(i–iv) (2011).

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This plan is known as the habitat conservation plan (“HCP”). Additionally, the wildlife agency must find certain conditions in the permit application and related conservation plan before it can issue the ITP, including:

- (i) the taking will be incidental;
- (ii) the applicant will, to the maximum extent practicable, minimize and mitigate the impacts of such taking;
- (iii) the applicant will ensure that *adequate funding* for the plan will be provided;
- (iv) the taking will not appreciably reduce the likelihood of the survival and recovery of the species in the wild; and
- (v) the measures, if any, required under subparagraph (A)(iv) will be met.<sup>30</sup>

Once the HCP and ITP requirements have been met, the wildlife agency may issue the ITP, allowing limited legal takings of a listed species.

The BDCP is subject to the ESA because the activities related to the conservation measures will harm various species in the Delta that are listed as threatened or endangered.<sup>31</sup> As state and federal actors are involved, the Plan is subject to both sections 7 and 10 of the ESA. The BDCP is intended to meet the requirements for the issuance of an ITP under section 10 to allow for the incidental take of species resulting from the implementation of covered activities by DWR and certain SWP and CVP contractors.<sup>32</sup> Additionally, the Plan is intended to “support the issuance of a joint BiOp under section 7 by USFWS and NMFS authorizing the incidental take associated with BDCP actions undertaken by Reclamation and CVP contractors within the Plan Area.”<sup>33</sup>

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30. 16 U.S.C. § 1539(a)(2)(B)(i–v) (2011) (emphasis added).

31. See U.S. Fish & Wildlife Service, Sacramento-San Joaquin Delta Species, [http://www.fws.gov/sfbaydelta/es/species\\_info.cfm](http://www.fws.gov/sfbaydelta/es/species_info.cfm) (last visited Jan. 10, 2015) (listing threatened, endangered, and other species of interest in the Bay Delta).

32. BAY DELTA CONSERVATION PLAN PUBLIC DRAFT, CHAPTER 4 INTRODUCTION 1-8 (2013).

33. *Id.* The joint BiOp will also “address the decision by USFWS and NMFS to issue Section 10 permits to the Authorized Entities (i.e., the issuance of Section 10 permits is a federal action subject to Section 7).” *Id.*

### III. The Bay Delta Conservation Plan

The BDCP is a fifty-year comprehensive regional conservation strategy meant to “conserve ecosystems in a sustainable manner and contribute to the recovery of threatened and endangered species.”<sup>34</sup> The Plan was developed to fulfill federal and state statutory provisions for:

[T]he issuance of permits authorizing take of covered species from the California Department of Fish and Wildlife under Section 2835 of the Natural Community Conservation Planning Act, and permits from the U.S. Fish and Wildlife Service and the National Marine Fisheries Service pursuant to Section 10 of the federal Endangered Species Act.<sup>35</sup>

The Plan will also be used in the ESA section 7 consultation between the U.S. Department of the Interior, Bureau of Reclamation; U.S. Fish and Wildlife Service; and National Marine Fisheries Service.<sup>36</sup> The consultation process and Plan will manage and direct the future of the Bay Delta for many years.

The BDCP is one part of an effort to protect the Delta’s ecosystem and insure the continued operations of the State Water Project (“SWP”) and federal Central Valley Project (“CVP”). These two water projects maintain vital water delivery programs that supply water throughout California. Currently, the projects’ pumps receive their water through the natural conveyance of water flowing from the Sacramento and San Joaquin rivers through the Delta system. At the same time, the BDCP hopes to restore and protect wildlife habitats both in the Delta waters and on the land adjacent to the Delta.

The BDCP intends to secure California’s water future and restore or protect approximately 150,000 acres of habitat through various conservation measures. For example, Conservation Measure One (“CM1”) proposes the construction and operation of a dual-conveyance water system that will take water from the North Delta, channeling it through two large underground tunnels, and delivering it to the South Delta, where the SWP and CVP water pumps operate.<sup>37</sup> Other conservation measures include various mitigation and habitat conservation measures. Conservation Measure Four “would restore 65,000 acres of freshwater and brackish tidal habitat,”<sup>38</sup> and Conservation Measure Eight “would restore 2,000 acres of grassland and protect 8,000 acres

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34. BAY DELTA CONSERVATION PLAN PUBLIC DRAFT, EXECUTIVE SUMMARY 1 (2013), available at [http://baydeltaconservationplan.com/libraries/dynamic\\_document\\_library/public\\_draft\\_bdcpl\\_executive\\_summary.sflb.ashx](http://baydeltaconservationplan.com/libraries/dynamic_document_library/public_draft_bdcpl_executive_summary.sflb.ashx).

35. *Id.* (footnote omitted).

36. *Id.*

37. BAY DELTA CONSERVATION PLAN HIGHLIGHTS, *supra* note 2, at 28–31.

38. *Id.* at 37.

to achieve biological goals and objectives for covered species.”<sup>39</sup> Building a dual conveyance water transport system and restoring or protecting 150,000 acres of land is no easy task. Each conservation measure will require significant amounts of funding to be implemented and maintained.

## A. BDCP Chapter 8 – Costs and Funding

Capital and maintenance costs for the BDCP are high because the Plan covers a large geographic area, is comprised of multiple conservation measures that will be implemented in various stages, and will span a fifty-year timeframe. Funding for the Plan is also complex and will come from various sources. Chapter eight of the BDCP public draft covers the implementation costs and funding sources of the twenty-two conservation measures.<sup>40</sup>

### 1. BDCP Costs

The Plan’s costs will come from implementation of the conservation measures, program administration, monitoring and adaptive management, and responding to changed circumstances. Conservation measure costs are broken down into: (1) water facilities construction and operations; (2) natural community restoration and protection; and (3) other stressors.<sup>41</sup>

For example, CM1, the water facilities and dual-conveyance tunnel system, is the largest budgetary expense and cornerstone of the BDCP. The capital costs for CM1’s water facility construction are estimated to be \$14.57 billion.<sup>42</sup> Capital costs include \$161.2 million for land acquisition and \$1.44 billion in construction costs.<sup>43</sup> Additionally, the water facilities will require \$1.456 billion over the course of fifty years in operation and maintenance costs.<sup>44</sup>

Capital costs for the entire Plan are estimated at \$19.85 billion.<sup>45</sup> Operation and maintenance costs are estimated at \$4.9 billion.<sup>46</sup> In total,

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39. *Id.* at 41.

40. BAY DELTA CONSERVATION PLAN PUBLIC DRAFT, CHAPTER 8 IMPLEMENTATION COSTS AND FUNDING SOURCES 8-1 (2013).

41. *Id.* at 8-2.

42. *Id.* at 8-62, Table 8-33.

43. *Id.* at 8-14, Table 8-5. These capital costs are associated with the first ten years of the Plan; the Plan projects no additional spending for construction costs during years eleven to fifty. *Id.* Total costs for the lifetime of the Plan may be much higher.

44. *Id.* at 8-14, Table 8-5.

45. Capital costs estimates reflect fifty-year considerations and undiscounted in 2012 dollars. *Id.* at 8-62, Table 8-33.

46. *See supra* note 45.

implanting the BDCP is estimated to cost \$24.75 billion over fifty years.<sup>47</sup> The high cost of implementation raises concerns about the Plan's funding. Unfortunately, the BDCP public draft only includes vague descriptions of what these sources are over the long-term.

## 2. BDCP Funding

The BDCP is funded by various sources, including federal and state measures, water contractors, and interest accounts. Initial state funding is projected to come largely from a water bond.<sup>48</sup> Federal funding is expected to "come from the same authorities that have been used in the past to support Delta restoration efforts."<sup>49</sup> Funding for CM1 will be provided by "the participating state and federal water contractors for construction and operation of the new water facilities, as well as for mitigation necessary to address impacts to terrestrial and aquatic impacts associated with construction and operation."<sup>50</sup>

California is expected to provide 16.6 percent (\$4.12 billion) and the federal government is expected to provide 14.3 percent (\$3.55 billion) of the Plan's overall funding.<sup>51</sup> State and federal water contractors are expected to provide the remaining funds, estimated to be 68.4 percent (\$16.93 billion). Overall, the BDCP documents assume that the entire cost of the Plan is adequately covered by its projected funding sources.

While the BDCP makes certain projections regarding funding sources, this is not the equivalent of a financial plan that provides definitive funding certainty. The Plan acknowledges the difference between its estimates and a financial plan, stating "[s]eparate financial plans, funding agreements, legislative authority, and other documents will be needed to enable the use of certain funding sources."<sup>52</sup> Specific funding sources can be broken down into four types: (1) participating state and federal water contractors; (2) state funding; (3) federal funding; and (4) other funding sources.

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47. BAY DELTA CONSERVATION PLAN HIGHLIGHTS, *supra* note 2, at 86. For a more detailed breakdown of estimated costs, see BAY DELTA CONSERVATION PLAN PUBLIC DRAFT, Chapter 8.2.

48. BAY DELTA CONSERVATION PLAN PUBLIC DRAFT, *supra* note 40, at 8-70.

49. *Id.* at 8-64.

50. *Id.*

51. *Id.* at 8-65 to 8-66, Table 8-37.

52. *Id.* at 8-64.

**i. Funding from Participating State and Federal Water Contractors**

The BDCP estimates that state and federal water contractors will provide \$16.93 billion of the Plan's overall funding.<sup>53</sup> Financial support from state and federal water contractors is vital to the implementation of the Plan and CM1 because state and federal funding is mostly directed towards the conservation measures related to habitat restoration or protection.<sup>54</sup> According to the Plan, participating state and federal water contractors have committed to fully funding "construction, operation, and construction-related mitigation costs for implementation of CM1 Water Facilities and Operation."<sup>55</sup> This funding will be provided through agreements between the California Department of Water Resources ("DWR"), the operator of the SWP, and water contractors.<sup>56</sup> To raise the funds necessary to finance CM1, state and federal water contractors could issue "general obligation or revenue bonds."<sup>57</sup> Individual water contractors may also issue revenue bonds collectively through a joint powers authority.<sup>58</sup> However, funding sources from participating water contractors are not fully secured and water contractors have not agreed on a specified allocation of costs for the Plan.<sup>59</sup> While the water contractors are committed to funding CM1, they have not promised anything specific.

The certainty of funding from participating water contractors is questionable. The BDCP attempts to make an economic argument to support their assumption that participating state and federal water contractors will provide the necessary funding. The Plan argues that CM1 is affordable<sup>60</sup> and that BDCP would result in a net economic benefit of \$4.5 billion to water contractors.<sup>61</sup> The exact allocation of costs between state and federal water contractors will not be determined until it is near the time

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53. *Id.* at 8-65-66, Table 8-37.

54. *See generally* BAY DELTA CONSERVATION PLAN HIGHLIGHTS, *supra* note 2, at 25.

55. BAY DELTA CONSERVATION PLAN PUBLIC DRAFT, *supra* note 40, at 8-73 (emphasis omitted).

56. The BDCP assumes that new water facilities will be owned by California. *Id.* at 8-70. As such, water contractors will be contracting with a state agency to fund CM1.

57. Only water contractors with property tax revenue may issue general obligation bonds. *Id.* at 8-78 n.56.

58. *Id.* at 8-78.

59. *Id.* at 8-83 to 8-84.

60. *Id.* at 8-81.

61. *Id.* at 8-83.

that ITPs are issued.<sup>62</sup> Similar to the uncertainty of participating water contractor funding, state and federal funding is rather uncertain as well.

## ii. State Funding Sources

The State is projected to provide \$4.12 billion of the Plan's funding.<sup>63</sup> State funding may come in the form of: (1) new water bonds; (2) DWR issued bonds; and (3) other earmarked funds. The BDCP draft relies heavily on funding from a water bond on the 2014 ballot, Proposition 1.<sup>64</sup> In November 2014, voters passed California Proposition 1, which "[a]uthorize[d] \$7.545 billion in general obligation bonds for state water supply infrastructure projects, including surface and groundwater storage, ecosystem and watershed protection and restoration, and drinking water protection."<sup>65</sup> While Proposition 1 was written to sound neutral as to BDCP, the Plan's language assumes the BDCP will receive a significant portion of the water bond:

Funds derived from the issuance of such bonds would be used, in part, to satisfy the State's financial commitments to the BDCP. . . . The BDCP is expected to secure a large portion of the funds allocated to Delta sustainability, as well as smaller portions of funds allocated to conservation and watershed protection. The water bond will support the public benefits of Plan implementation, particularly natural community restoration and other stressors conservation measures.<sup>66</sup>

Further, the BDCP estimated that the water bond would provide \$11.14 billion for water related projects.<sup>67</sup> Unfortunately for the BDCP, Proposition 1 only authorized \$7.545 billion—BDCP overestimated the bond's funding by \$3.595 billion.<sup>68</sup> Since the BDCP assumed that it would receive most of the funding authorized by the water bond, there is currently a discrepancy between BDCP's costs and its assumed funding sources. There is no guarantee that BDCP will receive most of the \$7.545 billion from the bond.

While the water bond is assumed to provide a significant portion of the BDCP's funding, DWR also has its own authority to create limited

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62. *Id.* at 8-84.

63. *Id.* at 8-65 to 8-66, Table 8-37.

64. *Id.* at 8-84.

65. California General Election, Official Voter Information Guide, <http://www.voterguide.sos.ca.gov/en/propositions/1/> (last visited Jan. 10, 2015).

66. BAY DELTA CONSERVATION PLAN PUBLIC DRAFT, *supra* note 40, at 8-84.

67. *Id.*

68. *See id.* at 8-85, Table 8-46, attached as Appendix 1, for BDCP's estimates of how much it would receive from the water bond.

funding mechanisms to implement the BDCP. For example, DWR may issue its own revenue bonds<sup>69</sup> to be repaid with revenue from participating SWP water contractors. DWR may also issue revenue bonds secured by SWP power-generating facilities.<sup>70</sup> The Burns-Porter Act authorizes the sale of \$1.75 billion in state general obligation bonds to help finance the original construction of the SWP; it is estimated that \$168 million in state general obligation bonds were unspent and are still available for SWP related uses.<sup>71</sup> While the BDCP would qualify for some of these funds, it would be competing against other state programs for the limited funds.<sup>72</sup> Lastly, DWR also has power to provide interim funding, prior to the issuance of other bonds, by issuing commercial paper notes.<sup>73</sup> Approximately one-hundred million dollars in water revenue commercial papers notes may still be issued by DWR.<sup>74</sup> Because BDCP is still in its planning phases, DWR has not yet exercised any of its bond issuing power. DWR's authority to issue bonds is more reliable than assumptions about water bond funding. However, DWR's ability to fund the Plan is limited and it would be unable to finance the entirety of the BDCP on its own.

There are other state sources that can provide some additional funding to the BDCP, such as certain statutes and administrative bodies that have earmarked funds for Delta conservation related purposes. For example, some funds from California's Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006,<sup>75</sup> also known as Proposition 84, have been allocated for "grants to implement Delta water quality improvement projects that protect drinking water supplies."<sup>76</sup> Thus, these funds may be available to the BDCP if aspects of the Plan relate to Proposition 84's goals. For example, Conservation Measure 19 ("CM19"), Urban Stormwater Treatment, would provide grant funding to public agencies, cities, and counties to develop stormwater management programs

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69. The BDCP provides a brief explanation of revenue and state general obligation bonds: "[a] revenue bond is a municipal bond secured by the revenue from a specific project (e.g., a power plant). Unlike state general obligation bonds, revenue bonds are secured by specified revenues rather than taxes and the amount of funding that can be raised is limited by project revenue." *Id.* at 8-71.

70. *Id.* at 8-72.

71. *Id.*

72. *Id.*

73. *Id.*

74. Commercial paper notes issued by DWR may not exceed \$139.7 million at any one time. *Id.*

75. CAL. PUB. RES. CODE § 75001–75130 (2006).

76. CAL. PUB. RES. CODE § 75029 (2006).

or systems where stormwater drains into Delta waterways.<sup>77</sup> Projects promoting CM19 may be eligible to receive some grant funding from Proposition 84. However, funds from Proposition 84 are not automatically allocated to the BDCP—the Plan would have to secure funding from Proposition 84 by qualifying for its goals.

Another potential source of state funding is Proposition 1E, The Disaster Preparedness and Flood Protection Bond Act of 2006,<sup>78</sup> which authorized \$4.09 billion in general obligations funds to “rebuild and repair California’s most vulnerable flood control structures to protect homes and prevent loss of life.”<sup>79</sup> Additionally, the Interagency Ecological Program,<sup>80</sup> which provides funding for monitoring and studies of ecological change in the Delta, is projected to provide fifty-five million dollars over the permit term to the BDCP monitoring and adaptive management programs.<sup>81</sup> The Delta Stewardship Council,<sup>82</sup> which manages twenty-five million dollars in research grants related to “providing a more reliable water supply for California and protecting, restoring, and enhancing the Sacramento-San Joaquin Delta ecosystem,” is assumed to provide fifty percent of the “funds available to the program (an average of \$1.8 million annually)” to support the Plan’s adaptive management and monitoring programs.<sup>83</sup>

The state has various options to help meet its funding obligations under the BDCP, including state issued bonds, DWR issued bonds, and existing sources. However, many of these funding sources have not been secured by the BDCP. While BDCP expects these various state funding sources to contribute \$4.12 billion to the Plan’s budget, state funding sources for the BDCP are highly uncertain. Similarly, the BDCP’s reliance on some federal funding sources is also questionable.

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77. BAY DELTA CONSERVATION PLAN HIGHLIGHTS, *supra* note 2, at 49.

78. CAL. PUB. RES. CODE §5096.800–5096.968 (2006).

79. BAY DELTA CONSERVATION PLAN PUBLIC DRAFT, *supra* note 40, at 8-86.

80. The Interagency Ecology Program’s mission is to “provide ecological information and scientific leadership for use in management of San Francisco’s Estuary. INTERAGENCY ECOLOGY PROGRAM – MISSION AND GOALS, <http://www.water.ca.gov/iep/about/mission.cfm> (last visited April 11, 2015).

81. BAY DELTA CONSERVATION PLAN PUBLIC DRAFT, *supra* note 40, at 8-91.

82. The Delta Stewardship Council’s mission is to achieve the coequal goals of “providing a more reliable water supply for California and protecting, restoring, and enhancing the Delta ecosystem.” *Mission of the Council*, DELTA STEWARDSHIP COUNCIL, <http://www.deltacouncil.ca.gov/mission-council> (last visited Apr. 11, 2015).

83. BAY DELTA CONSERVATION PLAN PUBLIC DRAFT, *supra* note 40, at 8-92.

### iii. Federal Funding Sources

The BDCP expects to secure \$3.55 billion of its budget from the federal government.<sup>84</sup> Federal sources are broken down in the BDCP by: (1) existing federal appropriations; (2) new federal appropriations; (3) federal grant programs; and (4) other federal funding sources. Existing federal appropriations include the Central Valley Project Improvement Act Restoration Fund and other California Bay-Delta appropriations.<sup>85</sup> The Central Valley Project Improvement Act Restoration Fund was established to contribute to the implementation of the Central Valley Project Improvement Act (“CVPIA”).<sup>86</sup> The BDCP claims that it has the potential to secure two million dollars annually (one-hundred million dollars total over the permit term) to support implementation of conservation measures related to the CVPIA.<sup>87</sup> Other existing federal funding sources include federal Bay-Delta appropriations, which are administered through the CALFED Bay-Delta Restoration Program.<sup>88</sup> The BDCP assumes that it will receive a substantial amount of the funds available to the CALFED program.<sup>89</sup> In addition to existing sources, the Plan seeks to establish funding sources from new federal authorizations.

The BDCP hopes to create additional federal authorizations based on its national public benefits. BDCP estimates that its implementation will “increase California business output by over \$83.5 billion and create or preserve up to 1.1 million jobs.”<sup>90</sup> The substantial national public benefits may factor into federal considerations for new appropriations. Furthermore, the BDCP permittees intend to seek additional federal authorizations through Congress.<sup>91</sup> New federal appropriations to support large-scale restoration projects have also been demonstrated for past projects, such as the Lower Colorado River Multi-Species Conservation Plan and the Platte River Restoration Program.<sup>92</sup>

Along with federal appropriations, the Plan will draw on existing federal grant programs. Existing federal grants operate similarly to existing state grant programs in the sense that the BDCP is not guaranteed funding from existing federal grants and will compete against other programs to secure

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84. *Id.* at 8-65 to 8-66, Table 8-37.

85. *Id.* at 8-99.

86. *Id.*

87. *Id.* at 8-101.

88. *Id.* at 8-103.

89. *Id.* at 8-106 to 8-108.

90. *Id.* at 8-109.

91. *Id.*

92. *Id.*

funding. Potential funding for the Plan from existing federal sources include: the Wetlands Reserve Program, the Cooperative Endangered Species Conservation Fund, the Environmental Quality Incentives Program, the Land and Water Conservation Fund, the National Coastal Wetlands Conservation Grant Program, restoration partnership grants with NMFS, estuary habitat restoration grants from NMFS, and the San Francisco Bay Area Water Quality Improvement Fund.<sup>93</sup> The BDCP expects to receive funding from each of these programs to support various conservation measures.<sup>94</sup>

Other sources of federal funding available to the BDCP include bills recently introduced to Congress, but not yet passed. For example, the Infrastructure Facilitation and Habitat Conservation Act of 2013 would “provide federal loans or create federal loan guarantees for public agencies that buy land for habitat conservation.”<sup>95</sup> If signed into law, this program could support implementation of conservation measures related to natural communities protection and restoration.<sup>96</sup> These various federal funding sources are expected to provide \$3.55 billion to the BDCP budget.<sup>97</sup>

#### **iv. Other Funding Sources**

The BDCP is also expected to obtain some funding from interest income, interest-bearing endowment accounts, and potentially a state tax credit for the donation of conservation lands through the National Heritage Preservation Tax Credit Act of 2000.<sup>98</sup>

#### **v. Funding Assurances**

In the event that funding sources do not meet all costs, the Plan provides for certain funding assurances to compensate for such shortfalls. The BDCP creates an Implementation Office, which will “annually evaluate the performance of the funding mechanisms and, notwithstanding other provisions in the Plan, will develop any necessary modifications to the funding mechanisms to address additional funding needs.”<sup>99</sup> Contingencies were incorporated into restoration (twenty percent), management (ten percent), and monitoring costs (twenty percent).<sup>100</sup> These contingencies are “designed

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93. *Id.* at 8-110 to 8-118.

94. *Id.*

95. *Id.* at 8-118.

96. *Id.*

97. *Id.* at 8-65 to 8-66, Table 8-37.

98. *Id.* at 8-119 to 8-120.

99. *Id.* at 8-120.

100. *Id.* at 8-121.

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to account for potential increases in costs unrelated to inflation.”<sup>101</sup> In the event that costs of restoration, management, or monitoring increase, the Implementation Office has the authority to consider: (1) adjusting funding sources to cover additional costs; (2) identifying new funding sources to supplement existing funding; (3) providing advances from endowment funds; (4) deferring management, restoration, or monitoring actions; and (5) adjusting management or monitoring activities.<sup>102</sup>

The Plan also calls for specific actions in the event of a shortfall in state or federal funding. If there is a shortfall in state or federal funding, the Implementation Office can adjust spending in such a way that continues to meet the obligations of the Plan.<sup>103</sup> Further, the Implementation Office will “confer with fish and wildlife agencies to identify alternative courses of action,” such as “adjusting the scope of the Plan in proportion to the public funding shortfall.”<sup>104</sup>

While funding for restoration, management, and monitoring costs contained contingency amounts and are protected by fail-safe mechanisms, no similar assurances are made for the implementation of CM1. The Plan assumes assurances for CM1 based on an economic benefit analysis that results in a positive net benefit for participating state and federal water contractors.<sup>105</sup> Although conservation measures two through twenty-two have strong assurances that funding will be provided, the funding assurances for CM1 are speculative and highly contingent upon unquestioned participation from participating water contractors.

Overall, the BDCP believes that it has assured adequate funding for its \$24.75 billion budget from participating water contractors, state and federal sources, and interest bearing accounts.<sup>106</sup> However, to determine if the Plan has provided enough funding, an analysis of the ESA’s adequate funding is required.

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101. *Id.*

102. *Id.*

103. *Id.* at 8-122.

104. *Id.*

105. *Id.* at 8-81.

106. The BDCP draft report was released before Proposition 1 passed. In light of the reduced bond amount authorized by Proposition 1, compared to what the BDCP drafts thought would be authorized, the total costs of the project are no longer covered by the funding sources described in the BDCP.

#### IV. The Endangered Species Act's Adequate Funding Requirement

The ESA requires the wildlife agency to ensure that an HCP is adequately funded before it can issue an ITP. Under section 10(a)(2)(B)(iii), “the applicant will ensure that *adequate funding* for the plan will be provided.”<sup>107</sup> The adequately funded requirement embodies the ideology behind the ESA’s incidental take allowance—that some harm to listed species may be reasonable, but any such harm must be mitigated. The requirement ensures that applicants take the ESA’s species preservation goals seriously by creating a standard against which their HCPs can be judged. However, the statute does not further define what adequately funded means. Does the HCP need to secure one-hundred percent of its funding before it can be approved? How much needs to be cash-in-hand? How much uncertainty in funding sources is acceptable, if any? To better understand the adequate funding requirement, the term “adequate funding” must be defined.

Federal district courts have provided some clarification on the threshold of adequate funding. Five cases have examined the adequate funding requirement as applied to HCPs.<sup>108</sup> Interestingly, courts have found HCPs to be adequately funded more often than not, ruling that three HCPs were adequately funded and two were not.

To be considered adequately funded, the ITP must not work against the HCP’s funding mechanisms. In *National Wildlife Federation v. Babbitt* (*Natomas I*), the court concluded that the HCP was adequately funded, but the ITP was not adequately funded because it relied on the speculative future actions of others.<sup>109</sup> *Natomas I* involved an HCP issued by the FWS to the City of Sacramento (“Sacramento”) for the development of the Natomas Basin.<sup>110</sup> The

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107. 16 U.S.C. § 1539(a)(2)(B)(iii) (2011) (emphasis added).

108. Five cases have discussed the adequate funding requirement. Of the five cases, three appeared in the United States District Court for the Eastern District of California in front of Judge David F. Levi: *National Wildlife Federation v. Norton* (*Natomas II*), No. CIV-S-04-0579 DFLJF, 2005 WL 2175874 (E.D. Cal. Sept. 7, 2005); *National Wildlife Federation v. Norton*, 306 F. Supp. 2d 920 (2004); *National Wildlife Federation v. Babbitt* (*Natomas I*), 128 F. Supp. 2d 1274 (E.D. Cal. 2000). Of the two remaining cases, *Southwest Center for Biological Diversity v. Bartel*, 470 F. Supp. 2d 1118 (E.D. Cal. 2006), appeared in the Southern District of California before Judge Rudi M. Brewster, and *Loggerhead Turtle v. County Council of Volusia County, Fla.*, 120 F. Supp. 2d 1005 (2000), appeared in the Middle District of Florida before Judge Ann C. Conway.

109. *Natomas I*, 128 F. Supp. 2d at 1295.

110. *Id.* at 1276–78.

Natomas Basin was the habitat of the Giant Garter Snake, a threatened species under the ESA, and the Swainson's hawk, a threatened species under the California Endangered Species Act.<sup>111</sup> Five local jurisdictions<sup>112</sup> would apply for individual ITPs to develop certain portions of the Basin under the HCP.<sup>113</sup> The HCP required funding to implement various mitigation measures, including the preservation of land to compensate for habitat loss.<sup>114</sup> The plaintiffs challenged the FWS's finding that Sacramento ensured adequate funding for the HCP, claiming that with respect to the Sacramento's ITP, the adequate funding finding was arbitrary and capricious because the City explicitly refused to "ensure funding in the event of a shortfall."<sup>115</sup>

General principles of judicial deference to administrative decisions based on expert opinion play some role in the ESA section 10 adequate funding analysis. Regarding the plaintiffs' first challenge, the administrative record supported the Secretary's finding that the initial mitigation fee adequately covered the costs of the mitigation program because it was set based on expert opinion.<sup>116</sup> The court found FWS's decision to rely on those experts deserved deference.<sup>117</sup> Consequently, the court found that the initial mitigation measures in the HCP were adequately funded.

However, subsequent ITPs could create funding shortfalls so that the HCP would no longer be adequately funded. The HCP did not allow for retroactive fee increases. Increases in the mitigation fee could only be applied to development that occurred subsequent to the realization that additional funding for the mitigation measures would be necessary.<sup>118</sup> This funding mechanism leaves open the possibility that "there may not be any future permittee to whom increased costs may be shifted."<sup>119</sup> Therefore, the plan relied on the speculative future actions of third parties to compensate for funding shortfalls—"the Plan's funding mechanism depend[ed] on continual infusions of new developable land to provide funding for mitigation necessitated by previous development."<sup>120</sup> The ESA requires applicants to guarantee funding, and the speculative future actions of third

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111. *Id.*

112. These five jurisdictions included: the City of Sacramento, Sacramento County, Sutter County, Reclamation District No. 10, and the Natomas Central Mutual Water Company. *Id.* at 1280.

113. *Id.*

114. *Id.* at 1280–81.

115. *Id.* at 1293–94 (internal quotation marks omitted).

116. *Id.* at 1293.

117. *Id.* at 1293–94.

118. *Id.* at 1294.

119. *Id.*

120. *Id.*

parties to ensure funding does not provide an adequate guarantee.<sup>121</sup> Thus, the ITP frustrated the statutory requirement by leaving open the possibility of a funding shortfall.<sup>122</sup> A revised HCP was later reviewed by the same court with a different outcome and is discussed later in this section.

*Southwest Center for Biological Diversity v. Bartel* is another case where the reliance on speculative future actions was found to violate the adequate funding requirement.<sup>123</sup> In *Southwest Center*, plaintiffs challenged the FWS's decision to issue an ITP to the City of San Diego ("San Diego") based on its conservation plan.<sup>124</sup> Actions proposed by the city would result in the take of or harm to seven listed species on the brink of extinction.<sup>125</sup> As part of its mitigation plan for the destruction of sensitive species, San Diego planned to create a permanent natural reserve for the listed species.<sup>126</sup> Under the conservation plan, the city maintained responsibility for two categories of expenses: "[f]irst, the money to acquire the land that it must contribute to the Preserve, and second, the funds required to administer the [multi-species conservation plan] and Subarea Plan for the life of the ITP."<sup>127</sup>

The court found that San Diego's plan violated the adequate funding requirement because it relied on undependable and speculative funding sources. When trying to show that the plan was adequately funded, the city only "promised to use its best efforts to implement the financing and land acquisition components . . . [and] cannot guarantee that funds for the purchase of lands in the Preserve System will be available."<sup>128</sup> San Diego refused to guarantee funding from a clearly identified source of revenue.<sup>129</sup> Instead, the city relied on future actions and uncertain funding sources, such as "a regional plan with other jurisdictions, a possible bond issue requiring voter approval, or raising the sales tax."<sup>130</sup> According to the court, this reliance was based on "speculative future actions by unnamed parties" and the funding language was "vague, non-committal, and refer[ed] to hopes and

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121. *Id.* at 1295.

122. *Id.* at 1294–95.

123. *Southwest Center for Biological Diversity v. Bartel*, 470 F. Supp. 2d 1118, 1156–57 (2006).

124. *Id.* at 1122.

125. *Id.* at 1126–28. The listed species included: "two small aquatic crustacean species (San Diego fairy shrimp and Riverside fairy shrimp) and five plant species (Otay mesa mint, California Orcutt grass, San Diego button celery, San Diego mesa mint, and spreading navarretia (also known as prostrate navarretia))." *Id.* at 1123.

126. *Id.* at 1129.

127. *Id.* at 1155.

128. *Id.* at 1156 (internal quotations omitted).

129. *Id.*

130. *Id.*

promises.”<sup>131</sup> Therefore, the FWS could not “rationally conclude that the City will ensure adequate funding as the ESA requires.”<sup>132</sup> *Natomas I* and *Southwest Center* both serve as important reminders that applicants cannot rely on speculative future actions to show that an HCP is adequately funded.

The following three cases serve as examples where adequate funding was ensured. *National Wildlife Foundation v. Norton* involved the issuance of an ITP by the Secretary of the Interior (“Secretary”) for the development of Metro Air Park (“Park”), a commercial business center adjacent to the Sacramento International Airport.<sup>133</sup> The Park would be located in the Natomas Basin, an area with threatened species.<sup>134</sup> The Metro Plan contained conservation measures to mitigate the impact of development on covered species, including a provision to permanently protect half an acre of habitat for every acre of land developed.<sup>135</sup>

These mitigation measures were to be “funded through mitigation fees paid by each developer when the developer obtains a grading permit.”<sup>136</sup> Additionally, each developer was required to become a member of the Metro Air Park Property Owners Association (“Association”) and subscribe to its Covenants Conditions and Restrictions (“CC&Rs”).<sup>137</sup> The CC&Rs grant the Association the “authority to impose any necessary supplemental fees on already-developed parcels—such that the first developers may yet be liable for an additional assessment if future land costs soar” and “require the Association to impose supplemental fees if necessary to fully implement the Plan.”<sup>138</sup> The court concluded that the assurances of the Association ensured adequate funding because it gave the Plan enough flexibility to overcome shortfalls.

However, the plaintiffs argued that assurances based on the Association were inadequate because the property owners could “dissolve the Association rather than impose additional fees upon themselves.”<sup>139</sup> A provision within the CC&Rs required any Association action that modified, revoked, or terminated the Plan or permit would require the prior written consent of the Secretary and California Department of Fish and Game.<sup>140</sup> Dissolution of the Association would also violate the Metro Air Park

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131. *Id.* at 1156–57.

132. *Id.* at 1157.

133. *National Wildlife Foundation v. Norton*, 306 F. Supp. 2d 920, 921 (2004).

134. *Id.*

135. *Id.* at 922.

136. *Id.* at 923.

137. *Id.*

138. *Id.* at 926.

139. *Id.*

140. *Id.*

Implementation Agreement, which obligates the Association to carry out the Plan's conservation measures.<sup>141</sup> Further, dissolution of the Association would lead to a "failure to fully implement the Plan" and thus be a violation of the permit.<sup>142</sup> The ESA authorizes "civil and criminal penalties against 'any person who knowingly violates . . . any provision of any' incidental take permit."<sup>143</sup> Based on these safeguards, the court disagreed with the plaintiffs and viewed the Association as an ensured source of funding.<sup>144</sup> *Norton* makes it clear that flexibility to overcome shortfalls and the ability to apply retroactive fee increases are important to ensuring adequate funding.

In the aftermath of *Natomas I*, the court found the revised *Natomas Basin HCP* to be adequately funded because it provided safeguards to ensure that mitigation costs would not outstrip development.<sup>145</sup> Similar to the original HCP, the revised HCP required funding to implement conservation measures which mitigated the development's impact on threatened species.<sup>146</sup> The Secretary approved the City of Sacramento and Sutter County's new ITPs, authorizing 15,517 acres of development.<sup>147</sup> The plaintiffs made two main arguments with regards to inadequate funding: (1) "the permittees have not guaranteed that they will fund the mitigation plan in the event that the developer fees prove inadequate;" and (2) "developers are immune from retroactive fee increases."<sup>148</sup> The plaintiffs base these challenges on the assertion that "since the fees will be set and then paid by developers on an annual basis, the fees collected may be insufficient if property costs increase between the time the fees are collected and the time mitigation lands are purchased."<sup>149</sup> However, the court disagreed with the plaintiffs' claims.

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141. *Id.*

142. *Id.* at 927.

143. *Id.* (citing 16 U.S.C. § 1540(a)(1), (b)(1) (2011)).

144. *Id.*

145. *Natomas II*, CIV-S-04-0579 DFLJF, 2005 WL 2175874, at \*19 (E.D. Cal. Sept. 7, 2005).

146. *Id.* at \*1-2.

147. *Id.* at \*2.

148. *Id.* at \*19 (internal quotation marks omitted).

149. *Id.*

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Several fail-safe provisions in the revised HCP protected it from unexpected increases in land costs that might occur between the collection of fees and acquisition of reserve lands.<sup>150</sup> The revised HCP required the Natomas Basin Conservancy<sup>151</sup> to “maintain a 200-acre cushion of reserve lands, so that development will not outpace the acquisition of mitigation land.”<sup>152</sup> Additionally, the developer can be required to dedicate land rather than pay a fee if land costs increase before mitigation fees can be adjusted.<sup>153</sup> This ability to require dedication of land instead of fee payment provided flexibility to meet the revised HCP’s mitigation requirements in the event of a revenue shortfall. A catch-up fee ordinance also protected against rising land costs by allowing the gap between fee payment and land acquisition to be narrowed.<sup>154</sup> Lastly, the mitigation fees are not capped under the revised HCP, unlike the mechanism in *Natomas I*.<sup>155</sup>

The court concluded that these fail-safe provisions provided enough flexibility to ensure funding for the revised HCP.<sup>156</sup> Any such shortfalls could be compensated for with the fail-safe provisions. *Natomas I* and II reinforce the idea that being able to obtain additional resources from current applicants is vital to ensuring adequate funding of an HCP; overcoming shortfalls should not fall solely on new developers, who may never come.

*Loggerhead Turtle v. County Council of Volusia County, Florida*<sup>157</sup> also provides positive treatment to an HCP with respect to the section 10 adequate

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150. *Id.*

151. The Natomas Basin Conservancy “is the entity that owns, acquires, and manages the reserve lands” that the revised HCP requires. *Id.* at \*3.

152. *Id.* at \*19 (internal quotation marks omitted).

153. *Id.*

154. *Id.*

155. *Id.*

156. *Id.*

157. *Loggerhead Turtle v. County Council of Volusia County, Fla.*, 120 F. Supp. 2d 1005 (2000). In *Loggerhead Turtle*, the loggerhead sea turtle (*Caretta caretta*) and Green sea turtle (*Chelonia mydas*) were named as plaintiffs, along with Shirley Reynolds and Rita Alexander. The practice of naming an animal species as a lead plaintiff in an ESA cases is not uncommon. See, e.g., *Palila v. Hawaii Dep’t of Land & Natural Res.*, 852 F.2d 1106, 1107 (9th Cir. 1988) (holding that the Palila bird (*Loxioides bailleui*) has “legal status and wings its way into federal court as a plaintiff in its own right”). Generally, in cases where animal species succeed as plaintiffs, the defendants did not challenge standing. See *id.* When standing is challenged, the animal species is often found to lack standing. See, e.g., *Hawaiian Crow (‘Alala) v. Lujan*, 906 F. Supp. 549, 552 (D. Haw. 1991) (denying an animal species standing because it was not a “person” as defined in the ESA (citing 16 U.S.C. § 1539(13)), but finding that relief could still be obtained by the other plaintiffs).

funding requirement. *Loggerhead Turtle* dealt with an ITP that was issued to the County of Volusia ("County") for the take of endangered and threatened sea turtles.<sup>158</sup> Along the coast, newly hatched sea turtles were being drawn towards land by the urban glow of a highly developed beachfront community, instead of following the moon's light towards sea.<sup>159</sup> Additionally, nesting females avoided "areas where beachfront light is most intense, and abort nesting attempts at a greater frequency in lighted areas."<sup>160</sup> The County applied for and was granted an ITP for these takings.<sup>161</sup>

The court rejected the plaintiffs' argument that the mitigation measures were not adequately funded and applied a deferential standard of review to the Service's determination that the HCP and ITP ensured adequate funding.<sup>162</sup> The court relied on a strict statutory reading: the "statute speaks in terms of future action" and only requires that the Secretary "be satisfied that the applicant *will* ensure that adequate funding for the plan *will* be provided."<sup>163</sup> The Secretary appropriately found that adequate funding was ensured based on the County's strong commitment to the HCP.<sup>164</sup> Additionally, the ITP was conditioned upon the Service's approval of the County's budget allocations.<sup>165</sup> The court considered these two factors to be enough to overcome the plaintiffs' challenges.

The court found the Service's reliance on the County's annual budgeting and appropriations reasonably satisfied the adequate funding requirement.<sup>166</sup> This reliance closely resembles the reasoning in *Natomas I*, where the court deferred to the FWS's acceptance of expert estimates in setting the initial mitigation fee.<sup>167</sup> *Loggerhead Turtle* potentially states that a strong commitment to fund an HCP may satisfy the adequate funding

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In cases where the animals are the sole plaintiff, courts have concluded that they lack standing to sue. *See, e.g.*, *Cetacean Cmty. v. Bush*, 386 F.3d 1169, 1179 (9th Cir. 2004) (holding that the sole plaintiff, the Cetacean Community, representing all the world's whales, porpoises, and dolphins, lacked statutory standing).

For more on the issue of animal standing, see Cass R. Sunstein, *Standing for Animals (with Notes on Animal Rights)*, 47 UCLA L. REV. 1333, 1334 (2000).

158. *Loggerhead Turtle*, 120 F. Supp. 2d at 1008.

159. *Id.* at 1008–09.

160. *Id.* at 1009.

161. *Id.* at 1010.

162. *Id.* at 1021.

163. *Id.*

164. *Id.* at 1021–22.

165. *Id.* at 1021.

166. *Id.*

167. *See supra* notes 109–122 and accompanying text (discussing the outcome of *Natomas I*).

requirement.<sup>168</sup> Additionally, it may be helpful when the wildlife agency has final approval of budget allocations because the agency can still fulfill the statutory requirement to ensure that the plan's mitigation measures are adequately funded. These five cases stand for the following five principals: (1) applicants cannot rely on the speculative future actions of third parties to compensate for funding shortfalls; (2) flexibility is necessary to overcome potential shortfalls; (3) a plan should have the authority to apply retroactive fee increases; (4) the applicants should be strongly committed to their HCP's mitigation measures; and (5) principles of administrative law are applicable to the analysis. The courts' analyses in these cases help clarify the threshold for adequate funding to allow for an analysis of the BDCP's funding adequacies.

## V. Is the BDCP Adequately Funded?

Based on the factors above, the BDCP is not adequately funded. Using an analysis extrapolated from case law surrounding the adequate funding requirement, one can determine if the BDCP properly ensured that its mitigation measures would be adequately funded as required by section 10 of the ESA. It is clear that the statute does not require an HCP or ITP to have secured one-hundred percent of its funding as cash on hand, and the amount of funding secured is not necessarily relevant. Instead, it is more important for an applicant to have funding from reasonable sources and have the flexibility to obtain additional funds as necessary.

### A. The Balanced Budget Approach

One way of determining if a plan is adequately funded is to balance the costs and its funding sources—i.e., to ensure that there is no deficit. In Chapter Eight of the draft report, the BDCP provides a balance sheet analysis where costs and funding sources are explained. Based on some heavy assumptions regarding costs and funding, the BDCP concluded that it had a balanced budget—that funding and costs were equal. At the time the report was released, it is plausible that a reviewing court would give deference to the BDCP's use of experts to come to the balanced budget conclusions. Assuming that the BDCP's estimates are accurate and it would get all the funding it projected, the Plan may be adequately funded. However, this is no longer the case.

The BDCP's assumptions about state water bonds were incorrect. The Plan assumed that it would receive a significant portion of the \$11.14 billion water bond. Unfortunately for the BDCP, Proposition 1 only authorized \$7.545 billion—the BDCP was wrong to the tune of \$3.595 billion.

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168. The idea of administrative overlap in adequate funding challenges is discussed *infra* Part III.

Additionally, specifics regarding how the water bond will be distributed have not been finalized. Potentially, the Plan will not receive as much funding from the water bond as it hoped. In that case, the BDCP would no longer have a balanced budget. It would be at a deficit because it has not accounted for enough funding to cover its costs. While the BDCP's budget sheet is not currently balanced, it may still be adequately funded based on the case law principles discussed above.

## **B. Adequate Funding Case Law Principles**

As case law shows, a balanced budget with one-hundred percent cash on hand is not required for an HCP to be adequately funded. The following factors have been highlighted by courts as important considerations in an adequate funding analysis: (1) the HCP must be adequately funded from reasonable sources;<sup>169</sup> (2) applicants cannot rely on speculative future actions to ensure adequate funding or compensate for funding shortfalls;<sup>170</sup> (3) flexibility to obtain additional fees and retroactive fee increases is vital;<sup>171</sup> (4) applicants should be strongly committed to funding the plan's mitigation measures; and (5) principles of administrative law are applicable to an adequate funding analysis.<sup>172</sup>

The BDCP must ensure adequate funding from reasonable sources for the HCP. The BDCP asserts that "adequate funding to implement BDCP has been assured."<sup>173</sup> This assessment is based on the assumption that all costs have been accounted for with an equivalent level of funding. Additionally, the court in *Natomas I* was deferential to the HCP's use of experts to determine that the cost analyses were done correctly. An analysis on this factor, in addition to the court's deference to an agency's decision to rely on experts, might satisfy the adequate funding requirement. The BDCP funding sources are also fairly reasonable. Water contractors, state and federal funds, and income accounts are all typical sources of funding for such projects. The concern is that BDCP's calculations about state funding sources are inaccurate. The Plan assumed that the water bond would be authorized for more than was actually passed by voters. Therefore, BDCP's own internal figures may no longer hold true. It might be necessary for

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169. *Natomas II*, 2005 WL 2175874, at \*19.

170. *Southwest Center for Biological Diversity v. Bartel*, 470 F. Supp. 2d 1118, 1156–57 (2006).

171. *National Wildlife Federation v. Norton*, 306 F. Supp. 2d 920, 926 (2004); *Natomas II*, 2005 WL 2175874, at \*19.

172. *Natomas I*, 128 F. Supp. 2d 1274, 1288–89 (E.D. Cal. 2000); *Loggerhead Turtle v. County Council of Volusia County, Fla.*, 120 F. Supp. 2d 1005, 1013 (2000).

173. BAY DELTA CONSERVATION PLAN PUBLIC DRAFT, *supra* note 40, at 8-120.

BDCP to rerun its calculations in light of the reduced funding available from Proposition 1.

In addition to internal figures, reliance on other parties is another factor that courts could examine in an adequate funding analysis. The BDCP may not rely on speculative future actions to ensure adequate funding or compensate for funding shortfalls. The current funding structure for the BDCP relies mostly on the participation of state and federal water contractors and the receipt of state and federal funds. New contracts reassessing their contributions to the SWP and CVP have not been signed by participating water contractors. Additionally, state and federal funds have not been secured or apportioned to the BDCP. Thus, the BDCP is inadequately funded and reliant on speculative funding sources. However, by the time this issue is ripe for litigation,<sup>174</sup> it is likely that new contracts with participating water contractors will be signed and some state and federal funding secured. As discussed in the BDCP public draft, contribution levels from water contractors are planned to be determined near the time that permits are issued for the BDCP.<sup>175</sup> The adequacy of the funding may depend on the type and amount of funding that is secured. While speculative funding sources are not acceptable, it is unknown how certain the funding sources will be until after the appropriate ITP applications are reviewed. Thus, it is too early to determine if the BDCP is not adequately funded due to its reliance on speculative funding.

Courts also focus on the flexibility of an HCP, i.e., its ability to obtain additional funds in the event of a shortfall or unpredicted rising costs. The BDCP contains several funding assurances in the event of a shortfall.<sup>176</sup> Contingencies were calculated into restoration, management, and monitoring budgets.<sup>177</sup> The Implementation Office will also conduct annual reviews and adjust funding mechanisms as necessary to address additional funding needs.<sup>178</sup> The Implementation Office also has the power to adopt certain fail-safe provisions to provide additional funds as necessary to restoration, management, or monitoring efforts.<sup>179</sup> However, CM1 does not have the same assurances that restoration, management, or monitoring efforts have.

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174. The appropriateness of litigation over the adequate funding requirements is discussed in greater detail, *infra* Part VI. Briefly, litigation would be most appropriate after final agency action, such as the granting of an ITP.

175. BAY DELTA CONSERVATION PLAN PUBLIC DRAFT, *supra* note 40, at 8-84.

176. *Id.* at 8-120 to 8-121.

177. *Id.* at 8-121.

178. *Id.* at 8-120.

179. Discussed *supra* Parts I.A.2.v; *see also* BAY DELTA CONSERVATION PLAN PUBLIC DRAFT, *supra* note 40, at 8-121.

The funding assurances for CM1 seem highly speculative and contingent upon unquestioned commitment from participating water contractors. While the BDCP states that water contractors have fully committed to the plan, it does not specify what commitments have been made or provide any concrete indication that the water contracts will supply all the funds the Plan expects them to provide. Further, the Plan does not discuss any provisions that allow it to increase fees charged to participating water contractors. It may be that such fee-increase provisions will be a part of individual water contracts. However, courts have been clear that HCPs need to be flexible and have the power to retroactively apply fee increases on all developers—past or future.<sup>180</sup> As CM1 is the cornerstone of the BDCP, it is unlikely that a reviewing court will find that the BDCP has the appropriate level of flexibility to ensure adequate funding because the Plan lacks flexibility with the water contractors.

The fourth factor important in an adequate funding analysis relates to the applicant's commitment to the mitigation measures. It is difficult to speculate on the level of commitment that the various parties have to the BDCP. A court may infer that commitment is strong because: (1) this process has been going on for years and will continue for many more years; (2) there are many parties involved, each coordinating together to complete the BDCP; and (3) continued operation of the SWP and CVP will require some action to secure that water system.<sup>181</sup> Without more information about the parties' or the future administrative record, it is difficult to determine how committed the parties are to the BDCP.

There are some factors that weigh in favor of adequate funding and some that weigh against. The following two factors support a conclusion that the BDCP has adequate funding: (1) the BDCP has appropriately listed reasonable funding sources to meet its projected costs; and (2) by the time ITPs are granted, funding sources should no longer be speculative. However, the BDCP's lack of flexibility to reassess fees charged to water contractors provides a strong argument against its funding adequacies. This flexibility is the most important factor to the adequate funding analysis. Without this flexibility, it would be arbitrary and capricious for the NMFS and FWS to issue an ITP based on the HCP. Additionally, one can infer that the parties are strongly committed to the BDCP process and thus its mitigation measures. One final factor is necessary to consider in an adequate finding analysis—the administrative law overlap.

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180. *National Wildlife Federation v. Norton*, 306 F. Supp. 2d 920, 926 (2004); *Natomas II*, No. CIV-S-04-0579 DFLJF, 2005 WL 2175874, at \*19 (E.D. Cal. Sept. 7, 2005).

181. Jeffrey Mount, et al., *The Draft Bay-Delta Conservation Plan: Assessment of Environmental Performance and Governance*, 20 HASTINGS W.-N.W. J. ENVTL. L. & POL'Y 245, 267–72 (2014) (discussing the BDCP's impact on California's water supply infrastructure).

## VI. Administrative Law Implications for the Adequate Funding Requirement

The wildlife agency's determination of whether an HCP is adequately funded is an administrative agency decision and thus governed by principles of administrative law. While the ESA contains a citizen suit provision in section 11(g), review of agency action is more appropriate under the Administrative Procedure Act ("APA"). The ESA citizen suit provision "grants district courts jurisdiction over suits when the relevant agency has neglected a nondiscretionary duty."<sup>182</sup> Adequate funding review is inherently a discretionary decision, thus the ESA citizen suit provision could not be invoked to review an adequate funding decision. Rather, judicial review of final agency action is governed by the APA.<sup>183</sup>

Under the APA, the court must set aside any agency action that is found to be "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law."<sup>184</sup> When reviewing an agency's decision, a court should not "substitute its judgment for that of the agency, but rather must determine whether the evidence in the administrative record permitted the agency to make the decision it did."<sup>185</sup> The courts will be deferential to an agency "where the challenged decision relies upon the agency's expertise," including instances where the agency reviews conflicting viewpoints.<sup>186</sup>

It is likely that any review of the BDCP and relevant ITPs will involve a deferential standard, as two courts have already done. In *Natomas I*, the court deferred to the FWS's reliance on expert opinion to set the initial mitigation fee.<sup>187</sup> In *Loggerhead Turtle*, the court deferred to the FWS's acceptance of the County's strong commitment to funding the HCP and the agency's final approval of the budget allocations as not arbitrary or

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182. KALEN & FELDMAN, *supra* note 16, at 159; *see also* 16 U.S.C. 1540(g)(1)(c) (2011) (authorizing suit "where there is alleged a failure of the Secretary to perform any act or duty under section 1533 of this title which is not discretionary with the Secretary").

183. 5 U.S.C. § 706 (2011); *Pac. Coast Fed'n of Fishermen's Ass'ns v. Nat'l Marine Fisheries Serv.*, 265 F.3d 1028, 1033–34 (9th Cir. 2001) ("Only final agency decisions are subject to review under the APA.").

184. 5 U.S.C. § 706(2)(A) (2011).

185. *Natomas II*, No. CIV-S-04-0579 DFLJF, 2005 WL 2175874, at \*7 (E.D. Cal. Sept. 7, 2005) (citing *Balt. Gas & Elec. Co. v. Natural Res. Def. Council, Inc.*, 462 U.S. 87, 97 (1983)).

186. *Id.* at \*7.

187. *See supra* notes 109–122 and accompanying text (discussing the outcome of *Natomas I*).

capricious.<sup>188</sup> The judicial deference analysis should also be applied to the BDCP.

The judicial deference issue will likely hinge on the BDCP's ability to raise additional funds to overcome shortfalls or other increases in costs. As seen in prior adequate funding analyses, a reviewing court will often look to see if an HCP has the authority and flexibility to raise fees, even retroactively on past developers. The BDCP does not contain any similar funding assurances or flexibility for CM1, the foundation of the Plan. This lack of assurances and flexibility is unreasonable, arbitrary, and capricious. Unless the new contracts with the participating water developers contain some provision to increase fees, it is unlikely that CM1's lack of funding assurances will be seen as reasonable. Thus, the BDCP may not be adequately funded because the Plan lacks flexibility to overcome shortfalls in CM1's funding.

## **VII. Recommendations to Ensure Adequate Funding**

To ensure adequate funding, as required in section 10 of the ESA, the BDCP and subsequent ITPs should adopt certain provisions. Most importantly, flexibility to compensate for funding shortfalls must be authorized by the HCP and ITP. Additionally, ITP applicants cannot rely on speculative future actions of others to ensure adequate funding. Instead, the Plan should be able to compensate for funding shortfalls within its existing structure, without relying on future actions of others. The BDCP's restoration, management, and monitoring programs are flexible and do not rely on speculative funding sources; their funding sources contain mechanisms to create additional funding as necessary. However, CM1's funding sources are neither flexible nor soundly established.

CM1 is the cornerstone of the BDCP. If any piece must be adequately funded, CM1 and its related mitigation measures should be. As CM1 is entirely funded by participating water contractors, it is vital that some mechanism be built into their contracts that will allow for additional or increased fees to be collected if shortfalls arise.<sup>189</sup> Such a mechanism will ensure that the Plan will be adequately funded because there is flexibility to raise additional funds if necessary and there will be no reliance on speculative future actions of others to ensure sufficient funding. This flexibility is important to satisfy the adequate funding requirement.

It would also be prudent for the BDCP to adopt some funding assurances for CM1. These assurances can come in the form of extra

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188. *Loggerhead Turtle v. County Council of Volusia County, Fla.*, 120 F. Supp. 2d 1005, 1021 (2000).

189. It would be even better if a retroactive fee increase option were incorporated into the plan, as well as written into the new contracts with state and federal water contractors.

funding sources for CMI, such as earmarked state bonds or federal appropriation funds. The Plan could seek to obtain some of the new federal authorizations for CMI specifically. Additional fail-safes should be built into CMI's funding sources to account for potential shortfalls. This flexibility in funding is vital to ensure adequate funding for the BDCP.

### VIII. Conclusion

The BDCP is a comprehensive plan that provides detailed analysis of its costs and funding options. As an HCP, section 10 of the ESA places certain restrictions on the BDCP. Additionally, section 10(a)(2)(B)(iii) requires ITP applicants to ensure that their HCP is adequately funded. The most important factor for ensuring that an HCP is adequately funded is to provide mechanisms and flexibility in the plan that act as fail-safes to compensate for the almost inevitable funding shortfalls. Additionally, such flexibility is necessary to ensure that related HCPs do not have to rely on speculative future actions to ensure funding for their mitigation measures.

Two other issues may also be applicable to an adequate funding analysis: (1) the historical precedent of past large water projects;<sup>190</sup> and (2) the California Natural Community Conservation Planning Act ("NCCPA").<sup>191</sup> Exploring how other large water projects were funded and the

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190. While the history of past large water projects is raised here, further substantive analysis is beyond the scope of this paper's analysis.

191. California also contains its own requirement for developing a restoration plan similar to the HCP process. The Natural Community Conservation Planning Act ("NCCPA"), CAL. FISH & GAME CODE § 2800–2840 (2003), requires the protection of habitat, natural communities, and species diversity through the development of a natural community conservation plan. *See* CAL. FISH & GAME CODE § 2801 (2003). The Act requires developers to create a natural community conservation plan ("NCCP"), similar to the federal ESA's HCP. CAL. FISH & GAME CODE § 2820 (2003). The Act also requires that the NCCP contain "provisions that ensure *adequate funding* to carry out the conservation actions identified in the plan." CAL. FISH & GAME CODE § 2820(a)(10) (2003) (emphasis added).

A review of the legislative history for the Act does not provide any indication of what the legislature meant by "adequate funding." Additionally, there is no case law on the NCCPA to expand on the definition of "adequate funding." It is likely that any reviewing court will apply the same adequate funding standard as used in the federal ESA analysis. The similarity in wording between the NCCPA and the federal ESA further supports the likelihood of a similar analysis between the two statutes. As such, the NCCPA's adequate funding requirement is unlikely to substantially alter the federal ESA analysis.

funding challenges they faced may shed light to BDCP's predicament. Looking into where past projects projected funding versus their actual received funding would provide perspective on the level of speculation in BDCP's projected funding sources. To provide context for the BDCP, such an analysis should focus on past California water projects.

While historical precedents and California law provide additional factors to consider in the adequate funding analysis, the federal ESA provides a much more fertile ground for such an analysis. Based off a review of the federal ESA's adequate funding requirement, the BDCP has not ensured that it is adequately funded. While some factors support an argument that the Plan is adequately funded, the BDCP fails to meet the most important factor of the analysis—flexibility. CMI lacks the flexibility to overcome shortfalls and its current funding source, participating water contractors, seems too speculative. CMI may only be one conservation measure out of the entire BDCP, but all conservation measures must ensure funding or the plan as a whole should not be considered adequately funded. To ensure that the BDCP is adequately funded, flexibility must be built into CMI, and the funding from water contractors should be more definitely secured.

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For information on the NCCPA and its relationship to the BDCP, see Mount, et al., *supra* 181, at 262–67 (discussing and comparing conservation standards under the ESA and NCCPA).

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Appendix I<sup>192</sup>

Table 8-46. Estimated Funding for 2014 Water Bond Relevant to the BDCP (based on 2010 allocations)

Category Relevant to the BDCP (2010 Proposed Bond Section)	Total Funding Assumed (millions) <sup>a</sup>	Proportion Assumed for the BDCP <sup>b</sup>	Total Estimated for the BDCP (millions)
<b>Delta Sustainability (79731)</b>			
• Improvements in Delta cities and counties	\$750	13%	\$100
• Implement Bay Delta Conservation Plan	\$1,500	80%	\$1,200
<i>Subtotal: Delta Sustainability</i>			<i>\$1,300</i>
<b>Conservation and Watershed Protection</b>			
Ecosystem and watershed protection (79750)	\$1,785	6%	\$100
Coastal Conservancy (79750(a))	\$250	20%	\$50
Wildlife Conservation Board (79750(c))	\$215	14%	\$30
Farmland Conservancy and Watershed Coordinator grant programs (79750(j))	\$20	20%	\$4
Central Valley Project Improvement Act project that improves salmonid fish passage in Sacramento River (79760)	\$60	50%	\$30
<i>Subtotal: Conservation and Watershed Protection</i>			<i>\$214</i>
<b>Total Funding Estimated for the BDCP</b>			<b>\$1.514</b>
Notes:			
<sup>a</sup> Based on allocations for 2010 bond; amounts in 2014 or in a future year may be different.			
<sup>b</sup> Based on overlap of BDCP conservation measures with the purpose of the program and potential competitiveness of the BDCP with other projects in the geographic area of the program (some are local, others are statewide).			
Source: Meral pers. comm.; Senate Bill 2, 2009-10 7th Ex. Sess. (CA 2009).			

192. BAY DELTA CONSERVATION PLAN PUBLIC DRAFT, *supra* note 40, at 8-65, Table 8-46.