Klamath Basin Settlement Agreements: Issues in Brief

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Summary

The Klamath River Basin on the California-Oregon border is a focal point for local and national discussions on water allocation and species protection. Previously, water and species management issues have exacerbated competition and generated conflict among several interests—farmers, Indian tribes, commercial and sport fishermen, federal wildlife refuge managers, environmental groups, and state, local, and tribal governments. Drought conditions and a recent call for water by senior water rights holders have again brought these issues to the forefront.

In 2010, the Secretary of the Interior and the governors of Oregon and California, along with multiple interest groups, announced the result of multi-year negotiations in an effort to resolve long-standing issues in the basin: two interrelated agreements, supported by the federal government and signed by the two states and numerous other parties. These agreements, known as the Klamath Basin Restoration Agreement (KBRA) and the Klamath Hydroelectric Settlement Agreement (KHSA), together aim to provide for water deliveries to irrigators and wildlife refuges, fish habitat restoration, and numerous other related actions. Generally, the KBRA provides for actions intended to restore Klamath fisheries and for assurances for water deliveries to wildlife refuges and federal project irrigators under certain circumstances, among many other things. The KHSA lays out a process that could potentially lead to the removal of four privately owned dams on the Klamath River. This dam removal would be one of the largest and most complex projects of its kind ever undertaken.

Some parts of the Klamath Agreements are already being carried out under existing authorities. Studies to inform a Secretarial Determination on dam removal under the KHSA have been completed, and some restoration actions have already begun. However, new authorization from Congress is required in order for the most significant components of the agreements to be implemented. Other ongoing processes in the Klamath Basin, such as the recent water rights adjudication by the State of Oregon, may result in significant changes in water allocations in the basin with or without federal legislation to authorize the Klamath Agreements. However, these developments are related.

The Klamath Agreements were originally set to expire in 2012 if no authorizing legislation was enacted, but have been extended to 2014. Legislation in the 112th Congress would have authorized the agreements, including hundreds of millions of dollars in federal actions under the KBRA and authorization for the Secretary of the Interior to make a "final" dam removal recommendation under the KHSA. No such legislation has been proposed in the 113th Congress.

Congressional consideration of the Klamath Agreements could include whether the federal government should act beyond its current activities in the Klamath Basin, the type of strategies proposed in the agreements and their cost, and the potential for the approach in the Klamath Basin to serve as precedent for the resolution of similar conflicts in other parts of the country.

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Introduction

The Klamath River Basin, a region along the California-Oregon border, has become a focal point for local and national discussions on water resources and species management. Water management issues were brought to the forefront when severe drought conditions in 2001 exacerbated competition for scarce water resources and generated conflict among several interests—farmers, fishermen (commercial and sport), other recreationists, federal wildlife refuge managers, environmental organizations, and state, local, and tribal governments. Subsequent problems with Klamath Basin fisheries, in particular events in 2002 and 2006, exacerbated these conflicts. Recent low water conditions and a call for water by senior water rights holders have again brought these issues to the forefront.

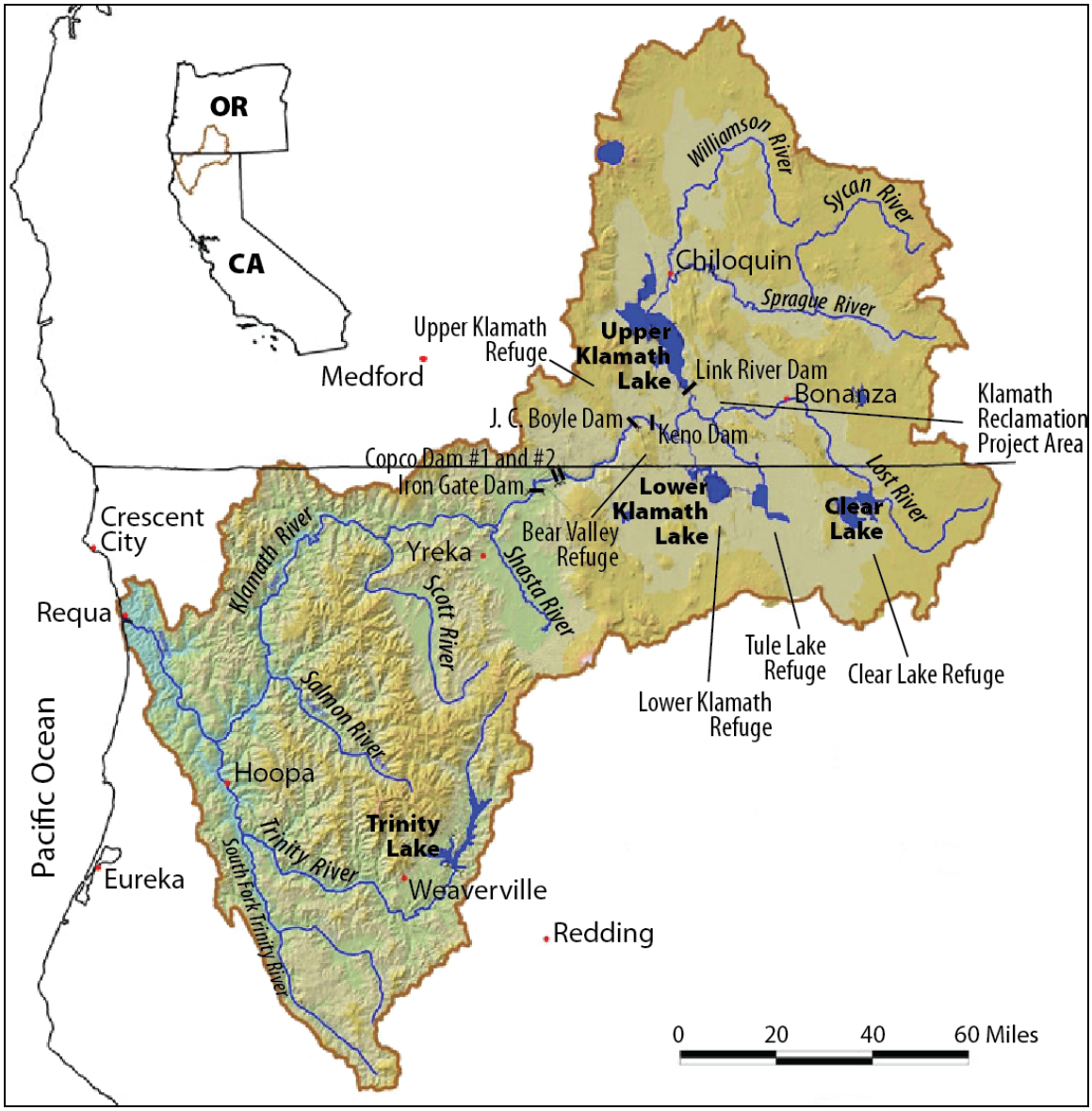
Congress has oversight authority over federal activities in the Klamath Basin related to operation of the Bureau of Reclamation's Klamath Project, management of federal lands (including six national wildlife refuges, managed by the Fish and Wildlife Service); and implementation of Endangered Species Act (ESA) and other federal laws.[1] Previously Congress has held hearings and appropriated funding to address issues in the Klamath Basin. Past congressional debate has generally focused on the role of the ESA in water management, the operation of the Klamath Project, and other topics such as supplemental support for parties impacted by federal policies.

The Klamath Basin Restoration Agreement (KBRA) and the Klamath Hydroelectric Settlement (KHSA), collectively referred to as the "Klamath Agreements" in this report, were signed in 2010 by a wide array of basin interests (although not all basin interests support the agreements). They aim to address many of the ongoing conflicts in the Klamath. The KBRA would, among other things, set limits for water allocations for irrigators and wildlife refuges under a range of conditions related to the amount of water forecast in a given year; attempt to make available additional water and power supplies in the basin; and provide for restoration and monitoring of certain fish species. It also includes other assurances to settle ongoing water conflicts between basin tribes and other entities. The KHSA lays out a process that could lead to removal of four nonfederal hydroelectric dams currently owned and operated by a private entity, PacifiCorp. If carried out as envisioned, the project would be one of the largest, most complex dam removals in history. Under the KHSA, the Secretary of the Interior led a study process to determine whether removal of these dams is in the public interest. Most of this study process has been completed, but the final step in the process, a determination by the Secretary, requires authorization by Congress.

In addition to dam removal, the Klamath Agreements require congressional authorization to move forward on other key components. Consideration of the agreements could result in Congress revisiting previous issues it has discussed related to the Klamath, as well as new ones. This report focuses on congressional consideration of the Klamath Agreements. It assumes familiarity with the basin's issues on the part of the reader. For more detailed information about the Klamath, including a more detailed summary of the Klamath Agreements and the basin itself, see the companion CRS Report R42157, *Klamath River Basin: Background and Issues*, coordinated by Charles V. Stern.

[1] Two freshwater species (Lost River and shortnose suckers) and one anadromous species (Coho salmon) are listed as endangered under the federal Endangered Species Act (ESA).

Figure 1. Klamath River Basin



Source: Bureau of Reclamation, adapted by CRS.

Background

The Klamath River Basin is a sparsely populated area on the Oregon and California border with limited water resources (see **Figure 1**). Irrigated agriculture in the upper basin relies largely on water provided by the Bureau of Reclamation's Klamath Project. Other farmers and ranchers ("non-project" irrigators) also rely on basin water supplies for irrigation. The area is home to six national wildlife refuges that rely on the same water supplies to sustain migratory bird populations, and several Native American tribes who were historically dependent on lower and upper basin fish species. Two species of upper basin fish are currently listed as endangered under the Endangered Species Act (the Lost River and short nose sucker), and one species of lower basin fish is listed as threatened under ESA (coho salmon, an anadromous fish).

The basin also includes seven dams on the Klamath River and its tributaries, built between 1918 and 1962. Six of these dams are owned by PacifiCorp, a private company, and are known collectively as the Klamath Hydroelectric Project.[2] The dams produce hydroelectric power for the basin, including power for irrigators and other areas.[3] The original FERC license to operate the KHP expired in 2006, and PacifiCorp applied for relicensing of the KHP in 2004. To date, a new long-term license has not been granted for the project because of the lack of state certification under Section 401 of the Clean Water Act, as well as ongoing uncertainty related to fish passage upgrades and agreements discussed below. PacifiCorp is operating the dams on a temporary annual license until these issues are solved.

Previous Events

While water and species management issues have been prevalent throughout the history of the Klamath Project, recent congressional consideration related to Klamath Basin issues usually centers on one or more of three seminal events in 2001, 2002, and 2006. These events resulted in press coverage, legal conflicts, and studies which framed the negotiations and agreements that are currently at issue. Most recently, in the summer of 2013 a call on water rights resulted in limitations on water deliveries for junior water rights holders in the upper part of the basin.

Several events put the Klamath region in the national spotlight. In 2001, as a result of previous biological opinions by the federal Fish and Wildlife Service (FWS) and the National Marine Fisheries Service (NMFS), Reclamation severely curtailed water deliveries to the Klamath Project to provide more water for endangered fish in the basin and prevent their extinction.[4] These allocations were met with protests by area irrigators, who threatened to open irrigation head gates by force.[5] Later, in 2002, irrigators received more water than had been allocated in 2001, but thousands of fish (mainly Chinook salmon) died on the lower part of the Klamath River, largely due to poor water conditions and fish health in that part of the basin. In 2006 NOAA severely restricted ocean fishing for salmon in the region due to low numbers of naturally spawning adults (due in part to residual effects of the aforementioned 2002 event). This resulted in a large decrease in that year's commercial and recreational salmon catch compared to previous years.

The federal government provided emergency funding in response to these and other events in the Klamath. The funding included at least $170 million in addition to regular programmatic expenditures over the last decade. For instance, for the 2001 and 2006 events, the federal government provided approximately $35 million and $60 million in emergency aid, respectively.[6]

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[2] Link River Dam, a non-hydroelectric dam, is owned by Reclamation and operated by PacifiCorp.

[3] Power costs for pumping are significant for area irrigators, who rely on the KHP for power. (Unlike other Reclamation projects, there is no power component to the Klamath Project.)

[4] Although Klamath Project irrigators have continued to face uncertainty since then, there has not been a curtailment of water deliveries.

[5] Due to changed water conditions and other supplemental measures, irrigators received partial water deliveries later that year.

[6] Figures for 2001 are based on 2002 estimates by Oregon State University. See William S. Braunworth, Jr., Teresa Welch, and Ron Hathaway, et al., *Water Allocation in the Klamath Reclamation Project, 2001*, Oregon State University Agricultural Extension Service, Special Report 1037, 2002, p. 267, http://extension.oregonstate.edu/catalog/html/sr/sr1037-e/. This includes approximately $20 million in aid that was provided from USDA under the Supplemental Appropriations Act, 2001 (P.L. 107-20), $2.2 million provided from BOR for payments to farmers for groundwater, and an additional $13 million in USDA funding provided under other emergency authorities, including crop insurance. (continued...)

Aid in addition to regular agency programs and appropriations was also provided in other years. Between 2002 and 2007, Reclamation spent $14 million on a pilot water bank for the Klamath to alleviate water shortages.[7] Due to drought events in 2010, an additional $10 million in supplemental appropriations was provided to the Klamath Basin in that year, and $2 million was provided for a Klamath Drought Initiative by the U.S. Department of Agriculture (USDA).[8] The 2002 farm bill provided $50 million to the Klamath Basin, and USDA funding was also provided under other general authorities and programs authorized in the 2002 and 2008 farm bills.[9]

Klamath Water Rights Adjudication

The questions related to the quantification of tribal water rights are interconnected with the determination of water rights within the Klamath Basin. The Klamath Basin is "over-allocated," meaning that claims to water exceed the amount available in most years. This often leads to legal conflicts over the proper allocation of limited resources. Allocation of water resources is largely determined by state law. Western states generally follow a system of prior appropriation, which provides certain quantities of water to water users depending on their relative seniority in acquiring water rights. State appropriative rights can be complicated by federal water rights such as those of tribes claiming water rights reserved by the creation of a tribal reservation. In addition to tribal reserved water rights, other federal rights, such as those associated with federal land reservations like national forests and national wildlife refuges, also may not be quantified. The uncertainties resulting from the lack of quantification of these rights has led to ongoing legal disputes over the allocation of water within the Klamath Basin.

Oregon undertook a general adjudication of water rights in the Klamath Basin (known as the Klamath Basin Adjudication (KBA)) to address these disputes. The KBA began in the 1970s to determine water rights among various users in the Klamath Basin. The general process of the adjudication is as follows: parties with claims or contests must file with the Oregon Water Resources Department (OWRD); an administrative panel then hears the contests and issues proposed orders based on the hearing; and the OWRD reviews the proposed orders and issues its final findings and order, which is filed with a state court. The OWRD's final findings and order were filed with the state court in March 2013. The order generally upheld previous claims and determined that the most senior claims in the basin are held by the United States in trust for the Klamath Tribes, and carry a priority date of "time immemorial." Even with the conclusion of the administrative adjudication, parties that are dissatisfied with the outcome may pursue judicial appeals. For example, following the OWRD's final determinations, parties may file "exceptions to the Determination" with the state court. Following the state trial court's decision, litigants may appeal through the state's court of appeals, state supreme court, and possibly the U.S. Supreme Court. Thus, although the KBA has been completed and announced, many observers expect that appeals may be made and that disputes over the allocation of the Klamath Basin's water resources will continue. This may be especially true now that senior water rights holders have made a "call" on water, which may affect junior water rights holders.

Sources: Or. Rev. Stat. 539.010 et seq., United States v. Braren, 338 F.3d at 973-74. All documents related to the adjudication are available at http://www.oregon.gov/owrd/Pages/adj/index.aspx.

(...continued)

For the 2006 fishery disaster declaration, the full funding amount was provided to through the Commerce Department under the U.S. Troop Readiness, Veterans' Care, Katrina Recovery, and Iraq Accountability Appropriations Act, 2007 (P.L. 110-28).

[7] Personal correspondence, Bureau of Reclamation, June 6, 2012.

[8] The 2010 funding was provided to Reclamation under the Supplemental Appropriations Act, 2010 (P.L. 111-212). For more information on the USDA funding, see http://www.or.nrcs.usda.gov/programs/klamath/index.html.

[9] $50 million to aid water conservation efforts in the Klamath was provided in the 2002 farm bill (P.L. 107-171). Additionally, funding under general authorities was provided under both the 2002 farm bill and the 2008 farm bill (P.L. 110-246), although exact amounts are not available.

In addition to the aforementioned events, an ongoing state water rights adjudication in Oregon, which was first initiated in the 1970s, received added attention in 2013. The State of Oregon upheld a number of previous water rights claims, including, among other things, that the Klamath Tribes have water rights with a date of "time immemorial." Significantly, these water rights may now be exercised over junior water rights holders in the basin to limit their water deliveries. The ongoing adjudication process is a major factor in Klamath settlement negotiations. (See box above, "Klamath Water Rights Adjudication.")

Klamath Settlement Agreements

In response to conflicts and other issues in the Klamath basin, the federal government facilitated talks among multiple groups between 2002 and 2010, including formal negotiations to reach "settlement" agreements between 2006 and 2010.[10] Participants in negotiations included state governments, tribes, counties, irrigators, fishermen, and conservation groups. The goal of the negotiations was a long-term solution to the multiple water and endangered species issues in the Klamath Basin, including the aforementioned issues associated with irrigation deliveries and flows for fish, as well as potential issues associated with pending water rights adjudications and relicensing of the basin's hydroelectric dams. The two agreements that resulted from the negotiations, the KBRA and the KHSA, are officially linked in that signatories officially see them as complementary and do not support authorization of one agreement without the other.[11] Originally, both agreements were set to expire without congressional authorization by 2012, but this deadline has since been extended to 2014.

Klamath Basin Restoration Agreement

The KBRA was negotiated by stakeholders and other groups in the Klamath Basin. It was agreed to by more than 40 signatories, or "parties," although not all interests in the basin support it. Broadly speaking, under certain conditions, parties to the KBRA promise to support diversions for Klamath Project irrigators and federal wildlife refuges that correlate to a given year's forecast inflows into Upper Klamath Lake. Water that is "surplus" to these inflows and not subject to other valid water rights (e.g., off-project diversions) would be allocated to other uses, including instream flows (see **Table 1** for a summary of this arrangement). In exchange for this support, environmental interests would gain additional federal and state funding for fisheries restoration, some of the aforementioned surplus water supplies, and related assurances for dam removal under the KHSA (which is expected to restore fisheries). Parties have also agreed that implementation of the ESA will not be affected under the agreement. For their part, three of the largest four tribes in the basin agreed to support the project and refuge diversions and not make a call on certain water rights in exchange for the aforementioned restoration actions, federal actions to restore fisheries, and economic aid.

[10] Although negotiations occurred throughout the early 2000s, many trace the current agreements to a series of administrative hearings in 2006 related to the relicensing of the Klamath Hydroelectric Project under the Federal Power Act (16 U.S.C. §797(e)).

[11] The agreements, as well as other documents related to the Klamath restoration process, are available at http://klamathrestoration.gov/.

Table 1. Water Allocations in the Klamath Basin Restoration Agreement

	Water Forecast[a]		
	"Dry" Year[b]	**"Average" Year[c]**	**"Wet" Year[d]**
Klamath Reclamation Project	March-Oct.: 330,000 Nov.-Feb.: 45,000	March-Oct. (formula-based): 330,000-385,000 Nov.-Feb.: 45,000	March-Oct.: 385,000 Nov.-Feb.: 45,000
Wildlife Refuges	March-Oct.: 48,000 Nov.-Feb.: 35,000	March-Oct. (formula-based): 48,000-60,000 Nov.-Feb.: 35,000	March-Oct.: 60,000 Nov.-Feb.: 35,000
Environmental/Other[e]	n/a	n/a	n/a

Source: Klamath Basin Restoration Agreement, Appendix E-1, p. E-25.

Notes: Units in whole acre-feet (a/f). Columns indicate the water allocation under a given forecast scenario. Rows indicate the diversion reserved for a specific location.

a. Forecast references the March 1 Natural Resources Conservation Service Forecast for Net Inflow into Upper Klamath Lake for the period April 1-September 30.

b. "Dry" indicates inflows less than 287,000 a/f. Section 19.2.2.B.v of the KBRA provides that if an "Extreme Drought" is declared by OWRD and voluntary water conservation measures triggered under the KBRA are insufficient, diversions may be reduced below the levels specified in the KBRA.

c. "Medium" indicates forecast inflows ranging from 287,000 a/f- 569,000 a/f.

d. "High" indicates forecast inflows of more than 569,000 a/f.

e. Additional allocations (including environmental flows for fish) are assumed in the KBRA, but not provided with a specific diversion limit/guarantee.

Although exact projections of the effects of the KBRA allocations on various water users are subject to debate, compared to recent water years they are generally expected to result in less water for Klamath Project irrigators in wet years, but more certainty, and potentially greater allocations than may have been the case otherwise, in dry years. Under the agreement, area irrigators are also promised funding to develop low-cost power to replace hydropower previously provided by the PacifiCorp dams, as well as funding to potentially make available more water supplies through means yet to be determined.[12] Irrigators who did not agree to the KBRA, including some off-project irrigators in the upper basin, are not subject to the KBRA's assurances as they relate to tribal water rights.

The federal government is not party to the KBRA until Congress enacts authorizing legislation. Many of the actions envisioned by the KBRA have been interpreted as not being authorized, and would require significant federal appropriations to go forward. According to previous estimates by parties to the KBRA, federal costs to implement the Klamath agreements would be $798.5 million or $536 million over 15 years, depending on the assumptions used.[13]

[12] This may include, but not be limited to, lease or purchase of water.

[13] 2011 estimates by nonfederal interests noted that approximately $262 million in ongoing "base funding" for Klamath restoration (i.e., funding currently spent under existing authorities) should be available for redirection toward actions in the KBRA, resulting in the lower estimate (approximately $536 million) for "new" federal funding required to implement the KBRA. See Ed Sheets Consulting, "Klamath Basin Restoration Agreement Revised Cost Estimates." June 17, 2011, http://216.119.96.156/Klamath/2011/06/RevisedCostEstimates.pdf. Hereinafter Revised Cost Estimates.

Klamath Hydroelectric Settlement Agreement

The KHSA initiates a process that could lead to removal of four nonfederal hydroelectric dams (J.C. Boyle, Iron Gate, Copco 1, and Copco 2) currently owned and operated by a private entity, PacifiCorp, and provides related assurances. Most significantly, the KHSA lays out a process for additional studies and environmental review by the Secretary of the Interior to consider removal of the dams (known as the "Secretarial Determination"). Under the agreement, facilities' removal would be paid for by ratepayers in California and Oregon ($200 million) and an assumed California Water Bond ($250 million). The entity responsible for removal (known as the Dam Removal Entity, DRE) has yet to be defined.[14] The KHSA also addresses the interim operation of the dams as well as proceedings that could lead to transfer, decommissioning, and removal of the dams. The KHSA would transfer one dam (Keno Dam) to the Bureau of Reclamation, and would initiate a process to decommission other resources associated with the project.

In contrast to the KBRA, the federal government was party to the KHSA, and some actions within the KHSA have been interpreted by Reclamation to not require an explicit authorization by Congress (i.e., they are authorized under existing, more general, authorities) and have been completed. The central component of the KHSA, the dam removal study, was conducted under Reclamation's general authorities and finalized in October 2012.[15] DOI and most parties agree that congressional authorization is necessary to make a final Secretarial Determination on dam removal and to move forward with that project.[16] The Secretarial Determination was originally expected by March 2012, but since no authorizing legislation has been enacted, the deadline (which was not binding) has passed.

Congressional Interest

Both Klamath Agreements require congressional authorization to move forward. Companion bills to authorize the Klamath Agreements were introduced in the 112th Congress in the House and Senate (H.R. 3398 and S. 1851). The bills would have authorized most of the agreements by reference, and explicitly reinforced other provisions in the agreements. No such legislation has been introduced in the 113th Congress.

In considering legislation related to Klamath restoration, Congress may focus on a number of issues, including the cost of the legislation and the advisability of the array of specific strategies and actions in the two agreements (e.g., dam removal, payments to irrigators to forgo diversions, etc.) versus the status quo and the potential for future disruptions in water supply to irrigators, to fish and wildlife, and to tribes in the basin.

[14] Recommendation of a Dam Removal Entity, or DRE, would be a part of the final Secretarial Determination, which requires congressional authorization.

[15] The dam removal study process included 50 different science, engineering, technical, and economic studies. See http://klamathrestoration.gov/sites/klamathrestoration.gov/files/2013%20Updates/Final%20SDOR%20/0.Final%20Accessible%20SDOR%2011.8.2012.pdf.

[16] The settlement states that a final Secretarial Determination on dam removal may not be made until federal legislation has been enacted. See*, Klamath Hydroelectric Settlement Agreement*, p. 20. Available at http://klamathrestoration.gov/sites/klamathrestoration.gov/files/Klamath-Agreements/Klamath-Hydroelectric-Settlement-Agreement-2-18-10signed.pdf. Accessed May 10, 2011. (Hereinafter *Hydroelectric Settlement.*)

Role of the Federal Government

The role of the federal government in the Klamath Basin centers largely on operation of the Bureau of Reclamation's Klamath project, management of several national wildlife refuges and other fish and wildlife resources under the ESA, and tribal trust responsibilities.[17] The federal role has been contentious in the past and is a central question related to congressional consideration of the Klamath Agreements. Both agreements assume numerous actions by the federal government, and as noted earlier, many of these actions cannot go forward absent new congressional authorization. In particular, without congressional authorization for the Secretary to make a dam removal determination, the four dams could not be removed under the process currently envisioned in the KHSA. Further, without authorization of its provisions, many of the programs under the KBRA could not go forward, such as fisheries restoration, water rights retirement, and other actions which allowed for the widespread support for the KBRA's water allocations.

Supporters of the Klamath Agreements argue that because of the federal government's prominent role in the basin, including its role in the area's resource allocation conflicts, it has a responsibility to help solve these issues. These groups note that federal involvement, including operation of the Klamath Project, implementation of ESA, and management of fisheries and federal lands, is central to the issues in the basin. They argue the agreements represent a consensus achieved by majority of basin interests that are traditionally opposed to one another, and are the best opportunity to solve the region's problems going forward. They also argue that many of the expenses for these agreements are likely to be offset in the form of reduced future federal expenditures for litigation and emergency financial support. Supporters also note that the agreements will be a valuable source of jobs within the basin.[18]

Opponents of one or both of the agreements cite a number of reasons for their opposition. Some of those opposed to the agreements note that the federal government has no clear obligation to authorize and implement the agreements. Many of these entities have argued that the activities represented in both agreements, including dam removal and water quality improvements, could potentially occur without the federal involvement through pre-existing processes.[19] Others, including off-project water users and some local interests, note that the agreements, like previous federal actions in the Klamath, amount to federal overreach and are likely to harm the local economy, especially the agricultural and recreation industries. Finally, others argue against federal authorization of the settlement agreements because they believe that specific components of the agreements will undermine existing federal laws (e.g., the Endangered Species Act) and/or federal responsibilities (e.g., tribal trust responsibilities), or that they will fail to achieve their stated goals (e.g., fisheries restoration).

[17] For example, in addition to its responsibilities under the federal Endangered Species Act and Clean Water Act, as well as other federal laws, the Department of the Interior plays an important role in the potential call for administration of water rights under state law for project irrigators, refuges, and the Klamath Tribe.

[18] DOI has estimated that dam removal itself will create approximately 1,400 jobs in the one-year timeframe for this project, while other actions under the KBRA will create 4,600 jobs over 15 years, with additional gains to farming and fisheries industries See Klamath Regional Economics Fact Sheet, available at http://klamathrestoration.gov/sites/klamathrestoration.gov/files/Econ.Fact.Sheet.Sept.21.pdf.

[19] Thomas P. Schlosser, "Dewatering Trust Responsibility: the New Klamath River Hydroelectric and Restoration Agreements," *Washington Journal of Environmental Law and Policy*, vol. 1, no. 1 (July 2011), p. 60. Available at http://digital.law.washington.edu/dspace-law/bitstream/handle/1773.1/1043/1WJELP042.pdf?sequence=1. (Hereinafter Schlosser.)

Cost of Implementation

The cost to the federal government to implement actions proposed under the Klamath agreements is contentious. Most of the actions in the KBRA are funded by the federal government, including most of the costs for the water resources, fisheries restoration, and tribal components of the agreement. The original 2010 KBRA included an estimate of $970 million in total costs from 2010 to 2020.[20] Since that time, estimates have been revised downward to $798.5 million or $536 million, depending on which assumptions are used.[21]

Cost estimates to implement the KHSA have not changed substantially since the original agreement, and may not garner as much attention from Congress since states are the primary entities responsible for funding dam removal under the KHSA.[22] Previous studies by DOI to inform the Secretarial Determination estimated potential costs of approximately $290 million for dam removal, which is less than the amount anticipated to be available from ratepayers ($200 million) and the State of California ($250 million).[23] One potential issue related to these costs is whether the Secretary will recommend the federal government as the dam removal entity. If so, a major question may be how the department would handle additional costs for dam removal, such as costs resulting from lawsuits.

There is no formal estimate of potential future savings to state and federal governments associated with the agreements. Supporters point to previous costs to federal and state governments, including at least $170 million in additional aid for irrigators and fisheries beyond "regular" appropriations provided from 2001 to 2011.[24] Additionally, advocates point to decreased costs for litigation. Although the agreements would not prevent future litigation, supporters argue that if authorized, they would obligate parties to pursue other dispute resolution mechanisms and would thus render future litigation costs less likely. Opponents note that none of these savings are guaranteed under the agreements, and that supplemental appropriations and expenditures for litigation may still be necessary.

Supporters also argue that in addition to potential savings, the KBRA and KHSA could create significant economic benefits (in terms of both traditional and "non-use" benefits). Studies commissioned as part of the dam removal process by DOI estimated the potential value of restoration, including non-use values.[25] The department estimated the net value of restoring the Klamath at $16 billion-$84 billion, depending on the assumptions and methodology used.[26] Some

[20] KBRA, Appendix C-2, p. C.6. Costs for the agreement were estimated in 2007 dollars.

[21] Recent estimates sometimes note that approximately $262 million in ongoing "base funding" for Klamath restoration (i.e., funding currently spent in the Klamath under existing authorities) would be available for redirection toward actions in the KBRA, resulting in a lesser estimate (approximately $536 million) for the required "new" discretionary funding that is needed to implement the KBRA. Revised Cost Estimates, p. 3.

[22] The KHSA provides that the states of California and Oregon are responsible for up to $450 million of the costs for dam removal, but makes no provision for costs beyond this cap. If estimates conclude that costs are likely to exceed $450 million, then the Secretary must put off a determination until a plan to address these costs is developed.

[23] Department of the Interior, "Final Secretarial Determination Overview Report," October 2012. p. 28. http://klamathrestoration.gov/keep-me-informed/secretarial-determination/role-of-science/secretarial-determination-studies.

[24] See "Previous Events" section for a breakdown of this funding.

[25] Non-use values were calculated based on regional and national surveys which asked respondents to estimate their willingness to pay for different restoration scenarios

[26] Department of the Interior, *Secretarial Overview Report for the Secretary of the Interior*, An Assessment of Science (continued...)

dispute these estimates, seeing them as unrealistically large and derived from questionable methodologies.

Obtaining authorization and appropriations for these activities from Congress may be difficult. For new authorizations, there are procedural hurdles that need to be overcome in the House. New authorizations may not be eligible for consideration without an "offset" of another authorization, pursuant to House "Cut-Go" protocol. Beyond authorization of new funds, some observers also note that it is unlikely that DOI will obtain the new appropriations envisioned for the KBRA in a constrained budgetary environment. Hypothetically, a lack of discretionary appropriations or overall progress associated with future actions initially assumed in the KBRA could affect the status of support for either agreement among the parties, and thus cause additional conflicts among the agreement's supporters. Supporters have for the most part acknowledged these difficulties, but argue that initial authorization of the agreements is an important first step, and that the basin's issues are important enough to warrant congressional authorization and funding.

Dam Removal

Some believe that congressional authorization of the agreements would be an implicit endorsement of dam removal. Since authority for the Secretary of the Interior to make a final determination on dam removal is a key step in the KHSA, some argue that the authorization process is the primary opportunity for Congress to weigh in for or against this decision. The report findings that were previously sent to the Secretary did not find major drawbacks associated with dam removal, and many have concluded that a positive finding by the Secretary would be likely if congressional authorization were provided. While many in Congress support dam removal as a means to restore rivers, others see it as an unnecessary and expensive step that decreases the availability of renewable energy. Additionally, while the KHSA anticipates that ratepayers and the State of California will be the primary entities funding dam removal, it remains unclear whether the federal government will be involved in this process and, if so, how.

There is considerable disagreement among stakeholders on whether dam removal would happen without the KHSA and the related determination by the Secretary of the Interior. Opponents have noted that dam removal, funded by PacifiCorp, would be likely under FERC relicensing. However PacifiCorp and supporters of the KHSA note that a different outcome (such as fish passage upgrades) could occur under the FERC process for a number of reasons (for more information, see below section, "Stakeholder Views").

(...continued)

and Technical Information, January 23, 2012, p.364 http://klamathrestoration.gov/sites/klamathrestoration.gov/files/2013%20Updates/Final%20SDOR%20/0.Final%20Accessible%20SDOR%2011.8.2012.pdf.

Science and the Klamath Agreements

The science underpinning water allocation and other decisions in the Klamath Basin has been contentious. Most prominently, the biological opinions by the Fish and Wildlife Service (FWS) and the National Marine Fisheries Service (NMFS), which led to the 2001 decision to not make deliveries available to the Klamath Project, were extremely controversial. Reclamation's 2002 decision to reject the NMFS and FWS opinions was similarly controversial. These decisions were the subject of a 2004 National Research Council review which concluded that scientific data were insufficient to support the FWS and NMFS management regimes that had been proposed for Upper Klamath Lake for the 2001 growing season. However the review found support for other measures in the biological opinions.[27]

The science underpinning the KBRA and the KHSA has also been criticized. The KHSA underwent lengthy peer review and public comment processes, but was the subject of a scientific integrity complaint by a Reclamation science advisor who alleged that DOI violated a 2009 executive order by misrepresenting the effect of dam removal on salmon in study summaries, among other things.[28] On January 7, 2013, seven Reclamation biologists filed a separate scientific integrity complaint, alleging that Reclamation officials violated DOI scientific integrity policies by threatening to reassign or eliminate scientists within the Fisheries Resources Branch of the Klamath Basin Area Office.[29] These officials argue that they were targeted for retribution because their science contradicted that of other agencies, such as FWS and NMFS. Finally, a complaint related to the scientific analysis underpinning dam removal was also filed with DOI by the Siskiyou County Board of Supervisors in April 2013.[30]

Implementation of ESA

The extent to which the Klamath Agreements will alter implementation of the Endangered Species Act (ESA) and other federal laws is a matter of disagreement. Previous biological opinions established minimum flows on the Klamath River for coho salmon, as well as actions intended to aid the recovery of Lost River and shortnose suckers. According to supporters, the Klamath Agreements will be considered to the maximum extent practicable under the Endangered Species Act.[31] At the same time, both agreements state that implementation of the agreements shall not affect implementation of the Endangered Species Act by the Department of the Interior or the National Marine Fisheries Service.[32] A perceived conflict between these two objectives, and a lack of clarity on how exactly they will be interpreted and implemented, has resulted in ongoing disagreements among some stakeholders.

While the agreements do not "waive" application of the ESA, some groups that were not signatories argue that certain provisions, in particular the defined water allocations for irrigators, would have the effect of undermining the ESA. These groups note that the allocations for irrigators would provide more water than irrigators received under ESA stipulations during recent "low" water years, and will thus decrease flows from amounts provided under recent biological opinions and provide less water for fisheries. They note that while other processes under the ESA will technically go forward, the assurances in the agreements, if adopted in legislation, could

[27] National Academy of Science, National Research Council, *Endangered and Threatened Fishes in the Klamath River Basin: Causes of Decline and Strategies for Recovery*. Washington, DC 2004. p. 81.

[28] The complaint is available at http://prhouser.com/allegation.pdf.

[29] This complaint is available at http://www.peer.org/assets/docs/noaa/1_7_13_PEER_Scientific_Misconduct_Complaint.pdf.

[30] The complaint is available at http://media.redding.com/media/static/Scientific_Integrity_Complaint_20130319.pdf.

[31] Klamath Basin Coordinating Council, "Summary of the Klamath Basin Settlement Agreements," May 2010, available at http://216.119.96.156/Klamath/Summary%20of%20Klamath%20Settlement%20Agreements%204-5-10.pdf.

[32] For example, see KBRA Sections 2.1, 19.1, 20.3.1, and 22.5.

result in additional pressure on regulatory agencies to adopt biological opinions that allow the flows set forth in the proposed Water Resources Program.[33]

Supporters note that the Klamath Agreements would provide for more resources and actions to improve habitat for fish species, which they argue are just as important as the difference in flows that could occur under some scenarios. Improvements under the KBRA, including new fish habitat and improved water quality, are assumed to result in greater fish abundance, which would in turn allow managers to forgo the previous restrictive flows that were provided under the ESA. Furthermore, some believe that the KBRA could in the long term encourage more cooperative actions, which could improve the likelihood of the recovery of listed species and are preferable to previous "top-down" regulatory actions.

Stakeholder Views

Stakeholder views on the Klamath Agreements can broadly be divided into those supporting the agreements and those opposed to one or both of the agreements. However, such a simple characterization may not do justice to the motivation and preferences of many groups. While a majority of interest groups involved in initial settlement negotiations endorsed both agreements, reasons for support among these groups are varied, and in some cases are likely to be contingent on specific parts of one agreement or another (e.g., guaranteed water, dam removal) going forward. Among those opposed to the agreements, reasons for opposition also vary widely, and include reasons ranging from perceived economic damages resulting from the agreements to their overall lack of environmental protections (or effect on implementation of existing laws).

Support for Agreements

Among those supporting the Klamath agreements are all of the parties listed as "non-federal parties" within both the KBRA and the KHSA. For the KBRA, this includes five state agencies in Oregon and California, three tribes, two counties (in both states), 25 parties related to the Reclamation Project and some off-project interests, and several other groups (including environmental interests). These same groups are also party to the KHSA.[34] Other groups and individuals were not "party" to the agreements but have stated their support for them. Notably, supporters who were party to one agreement have agreed to support authorizing legislation for the other (e.g., KBRA signatories have backed enactment of the KHSA), and have generally argued that the agreements themselves must be linked.

The States of California and Oregon, as well as the Obama Administration, support the agreements because, as a whole, they represent a potential solution to the protracted resource conflicts in the Upper and Lower Basins. Government representatives have also pointed to the

[33] The 2013 joint biological opinion for the operation of the Klamath Project concluded that the ongoing operation of the project as proposed by Reclamation is not likely to jeopardize the existence of federally listed species. National Marine Fisheries Service, United States Fish and Wildlife Service, *Biological Opinions on the Effects of Proposed Klamath Project Operations from May 31, 2013, through March 31, 2023, on Five Federally Listed Threatened and Endangered Species*, SWR-2012-9372, Klamath Falls, Oregon, May 2013. http://www.usbr.gov/mp/kbao/docs/Klamath_Project_Biological_Opinion.pdf.

[34] See KHSA, pp 1-2.

costs that resulted from previous conflicts in the basin, including supplemental aid, crop insurance, mitigation actions, and litigation costs.

Other groups have chosen to support the agreements not just for their potential to end conflicts in the basin, but also because they include specific provisions that are important to them.[35] For instance, environmental groups have pledged to support the allocations for irrigation absent a similar allocation for fish in exchange for assurances of dam removal under the KHSA and other promised fisheries restoration actions under the KBRA. Among irrigators, those on the Klamath Project have pledged to support restoration provisions and less water in wet years in exchange for benefits from water supplies in dry years that would presumably be higher than under the status quo. Approximately half of the off-project irrigators in the upper basin support the agreements, in some cases because the agreements offer potential alternatives that are preferable to losing water deliveries outright due to status of their junior water rights.[36]

For its part, PacifiCorp supports removal of its four dams under the KHSA because retirement of the dams under the terms of the KHSA reportedly represents a more cost-effective option for its ratepayers than FERC relicensing.[37] Previously there have been disagreements over which option the company would pursue in absence of the KHSA: FERC relicensing for ongoing operations on all four dams (which would entail costly improvements for fish passage, and altered operations for water quality) or a surrender of its license and related decommissioning of some or all of the Klamath hydropower projects.[38] Both options would likely be costly for PacifiCorp and its ratepayers, and could cost the company more than the proposed arrangement under the KHSA. As proposed, dam removal under the KHSA would be funded partially by ratepayers, with the other portion funded by the State of California. The KHSA would allow the company to operate the dams under the current management regime through 2019, through annual extensions to the project's FERC license.

[35] General obligations to support the agreement for non-federal parties is laid out in Part I of the KBRA.

[36] The Upper Klamath Water Users Association, which is also party to the agreements, accounts for approximately half of the off-project acreage. As previously noted, off-project irrigators are not provided similar assurances for water supplies. However, they may stand to benefit from additional supplies and water rights retirement programs included in the KBRA that would not otherwise be available, for example.

[37] As part of the approval process for the ratepayer surcharge for dam removal under the KHSA in Oregon and California, PacifiCorp presented information and received concurrence from state regulatory agencies that its proposed ratepayer increases under the KHSA were fair and reasonable for customers compared to likely costs under relicensing. PacifiCorp estimated that relicensing actions such as construction of fish passage and water quality facilities, as well as reduced flow conditions, would cost in excess of $460 million, and would entail more costs to ratepayers than the approximately $200 million ($172 million in 2010 dollars) pledged under the KHSA.

[38] A previous study by the California Energy Commission and the Bureau of Reclamation found that removal of all dams would be the most cost-effective action for PacifiCorp (i.e., less expensive than modification and ongoing operation of the dams), and some have argued that without the KHSA, the dams would be removed. The final environmental impact statement for FERC relicensing of the project (i.e., before the KHSA was signed) recommended a new license with fish passage and other modifications (see http://www.ferc.gov/industries/hydropower/enviro/eis/2007/11-16-07.asp for relicensing documents), which PacifiCorp has argued would be prohibitive (see above note). While some have argued that these costs would eventually force PacifiCorp to surrender its license and fund dam removal itself, PacifiCorp argues that it would pursue relicensing over license surrender and customer-funded dam removal, which have no cap on expenses or liability protections such as those included in the KHSA.

Opposition to Agreements

A number of groups and individuals have opposed the Klamath agreements and now argue against their authorization. Some of these parties were initially involved in settlement negotiations but dropped out for various reasons, while others were not invited to participate in negotiations because they were not seen as representing significant interests. Notable opponents of one or both of the Klamath agreements include Siskiyou County in California, the Klamath Off-Project Water Users Association, the Hoopa Valley and Resighini Rancheria and Quartz Valley tribes, the Northcoast Environmental Center (NEC), Waterwatch of Oregon, Oregon Wild, and others.

Some groups oppose the agreements because they believe they will further damage the region's economy. Some off-project users are opposed to the Klamath agreements and have argued in previous testimony before Congress that the agreement will put farmers (in particular, off-project irrigators) out of business.[39] Siskiyou County has opposed the agreements for a number of reasons, including the assertion by some that the PacifiCorp dams provide flood protection and economic benefits for downstream areas.[40] Some residents and officials in these areas also oppose dam removal because of an expected loss of property taxes associated with certain lands that will lose lake frontage when the dams are removed.[41]

Others argue that the agreements do too little to benefit fisheries, and give up too much to farmers and other interests. For instance, the Hoopa Valley Tribe has been critical of the agreements because they do not provide defined amounts of water for fish, and believe that the federal appropriations for restoration actions are unlikely to be funded. Some have also highlighted the uncertain nature of fisheries restoration in the Klamath under the KBRA. Some believe that these uncertainties were highlighted in expert panels as a part of the larger DOI dam removal study process, but were not adequately acknowledged by DOI in its final studies.[42] Some of these groups favor dam removal, but argue that it could be achieved through the existing FERC relicensing processes and does not need to be tied to the KBRA. They note that by providing annual renewals of the FERC license for the Klamath Hydroelectric Project, the KHSA allows the company to avoid project upgrades (or removal) that would otherwise be paid for by the company and benefit fisheries in the short term.[43] Combined with a lack of performance metrics for fisheries restoration provisions and promises to not make a call on project water rights holders under the KBRA, these opponents assert that the agreements disproportionately benefit PacifiCorp and irrigators at the expense of fisheries.

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[39] Approximately half of off-project land owners are represented by the Klamath Off-Project Water Users Association, which opposes the agreements. See also U.S. Congress, House Committee on Natural Resources, Subcommittee on Water and Power, Testimony of Thomas Mallams, Klamath Off Project Water Users Association, *The Bureau of Reclamation and the American Recovery and Reinvestment Act: A Progress Report and Planning for the Future*, Hearing on the American Recovery and Reinvestment Act, 111th Cong., 2nd sess., July 15, 2010.

[40] In its draft EIS, DOI asserts that most of these concerns are unfounded.

[41] This is particularly the case in Siskiyou County, where 79% of voters expressed opposition to removal of the three PacifiCorp dams in California.

[42] In particular, the expert panels associated with Chinook and Coho salmon pointed out uncertainties associated with ongoing water quality issues and have been highlighted by opponents. See for example,

[43] Thomas P. Schlosser, "Dewatering Trust Responsibility: The New Klamath River Hydroelectric and Restoration Agreements," *Washington Journal of Environmental Law and Policy*, vol. 1, no. 1 (July 2011), p. 42. Available at http://digital.law.washington.edu/dspace-law/bitstream/handle/1773.1/1043/1WJELP042.pdf?sequence=1. (Hereinafter Schlosser.)

Some environmental groups oppose other provisions of the Klamath agreements and dropped out of negotiations as a result. Waterwatch of Oregon and Oregon Wild find fault with a number of the provisions in the agreements, including the lack of defined water supplies for fish and the inclusion of lease-land farming on wildlife refuges.[44] Similar to the Hoopa Valley Tribe, these groups have called for voiding the KHSA and resuming water quality certification processes under the Clean Water Act in order to force dam upgrades or removal through a separate process, which they argue will be more expedient and cost less for state and federal taxpayers (i.e., a process to be funded by PacifiCorp and potentially its ratepayers).[45]

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[44] See KBRA, Section 15.4.3.

[45] Ani Kame'enui and Alexander Borack, "Op-ed: Water Quality Suffers as Congress Dithers," *Redding Record Searchlight,* June 13, 2011.