Klamath Basin Settlement Agreements

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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 water project and wildlife refuge managers, environmental groups, hydropower facility operators, and state, local, and tribal governments. Drought conditions and a call for water by senior water rights holders in 2013 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 results of a multi-year negotiation process 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 being carried out under existing authorities. Studies to inform a determination on dam removal under the KHSA by the Secretary of the Interior are complete and some restoration actions have been initiated. However, congressional authorization is required for the most significant components of the agreements to be implemented.

The KBRA and KHSA did not address all outstanding issues in the basin. A water rights adjudication by the state of Oregon (in progress since the 1970s) is ongoing, and in 2013 reaffirmed “time immemorial” tribal water rights in the upper part of the Klamath Basin. This resulted in a “call” on water rights and reductions to water supplies for some off-project irrigators during the low water year of 2013. To resolve these issues and prevent such a scenario from occurring again, a separate settlement agreement (the Upper Klamath Basin Settlement Agreement) was negotiated by stakeholders and finalized in April 2014. To be implemented, the agreement would need to be authorized along with the KBRA and KHSA.

The KBRA and KHSA were originally set to expire in 2012 if no authorizing legislation was enacted, but have since been extended to 2014. In the 113th Congress, S. 2379 and S. 2727 are similar bills that would both authorize the Klamath Agreements. Among other things, they would authorize new federal actions in the agreements that generated support from disparate parties, such as a plan to align supply and demand in the Klamath Basin through various strategies and actions to provide low-cost replacement power for area irrigators. The bills would also authorize a “final” determination on dam removal that is required of the Secretary of the Interior before dam removal under the KHSA can move forward.
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Introduction

The Klamath River Basin, a region along the California-Oregon border, has been 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, and conflict over the relicensing of the Klamath Hydropower Project, exacerbated these conflicts. Low water conditions and a call for water by senior water rights holders in 2013 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 Basin. 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 supplemental 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, although it would not settle all ongoing conflicts in the basin. 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, must be authorized by Congress.

The Klamath Agreements require congressional authorization to move forward on key components; however, some activities under existing authorities have already been undertaken. Consideration of the agreements could result in Congress revisiting previous issues in the Klamath Basin, as well as new ones. This report focuses on congressional consideration of the Klamath Agreements. It assumes some familiarity with the basin on the part of the reader.\(^2\)

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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).

2 For detailed background about the basin, see CRS Report R42157, Klamath River Basin: Background and Issues, coordinated by Charles V. Stern.


Background

The Klamath River Basin is a largely 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 (“off-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 that 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. Historically, all but one of the dams produced hydroelectric power for the basin, including low-cost power for Klamath Project irrigators. The original Federal Energy Regulatory Commission (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 the status of the Klamath Agreements, discussed below. Until a new FERC license is issued, the project continues to operate under a temporary annual license with the same conditions of the expired FERC license.

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 that occurred 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 under the newly released Oregon water rights adjudication resulted in limitations on water deliveries for junior water rights holders in the upper part of the basin.

Several events have 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. These allocations were met with protests by area irrigators, who threatened to open irrigation head gates by force. 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 Basin. 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.

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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.) The low-cost rates for Klamath irrigators expired with the original 50-year term of the project’s FERC license in 2006, and have thus increased.

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 however, near the end of the growing season.

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 (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 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

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, but may be affected by federal laws and activities. Western states generally follow a system of prior appropriation, under which certain quantities of water are allocated 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 have led to ongoing legal disputes within the Klamath Basin.

Oregon undertook a general adjudication of water rights in the Oregon portion of the Klamath Basin (known as the Klamath Basin Adjudication (KBA)) to address these disputes. The KBA began in the mid-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, appeals could prolong the disputes over the allocation of the Klamath Basin's water resources. In the meantime, some parties are able to make "calls" on water rights that were determined under the adjudication. During the summer of 2013, the Klamath Tribes and Reclamation made a "call" on basin water rights for the first time under the adjudication.


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\(^7\) 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](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 these events, an Oregon state water rights adjudication in the basin that was first initiated in the 1970s received added attention in 2013 (See box above, “Klamath Water Rights Adjudication”). At the conclusion of the adjudication’s administrative phase, 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.” These water rights are now protected under Oregon law and were exercised over junior water rights holders in the basin for the first time in the summer of 2013. The 2013 “call” on water rights limited or shut off water deliveries to some junior water rights holders (for the most part, off-project irrigators) in the upper basin.10

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 two major “settlement agreements” between 2006 and 2010.11 Participants in negotiations included state governments, tribes, counties, irrigators, fishermen, conservation groups, and hydropower facility owners and users. 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.12 Originally, both agreements were set to expire without congressional authorization by 2012, but this deadline has since been extended to 2014. In response to concerns and outstanding issues in the upper basin, in 2013 a task force was convened to incorporate additional issues not addressed by the KBRA and KHSA. Among other things, it resulted in an additional settlement agreement in late 2013, the “Upper Klamath Basin Comprehensive Agreement.” This agreement is also discussed below.

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 an abbreviated 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

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10 In contrast to the events of 2001, Klamath Project irrigators faced minimal curtailments to their irrigation supplies resulting from the water rights call.
11 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)).
12 The agreements, as well as other documents related to the Klamath restoration process, are available at http://klamathrestoration.gov/.
removal under the KHSA (which is expected to restore fisheries). Parties have also agreed that the ESA will not be amended 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.

Table 1. Water Allocations in the Klamath Basin Restoration Agreement

<table>
<thead>
<tr>
<th></th>
<th>“Dry” Yeara</th>
<th>“Average” Yearc</th>
<th>“Wet” Yeard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project</td>
<td>Nov.-Feb.: 45,000</td>
<td>Nov.-Feb.: 45,000</td>
<td>Nov.-Feb.: 45,000</td>
</tr>
<tr>
<td>Wildilfe Refugee</td>
<td>March-Oct.: 48,000</td>
<td>March-Oct. (formula-based): 48,000-60,000</td>
<td>March-Oct.: 60,000</td>
</tr>
<tr>
<td></td>
<td>Nov.-Feb.: 35,000</td>
<td>Nov.-Feb.: 35,000</td>
<td>Nov.-Feb.: 35,000</td>
</tr>
<tr>
<td>Environmental/Otherf</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
</tr>
</tbody>
</table>


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

a. “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.

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

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. The wildlife refuge allocation is expected to provide for unmet refuge demand in Lower Klamath National Wildlife Refuge. Other diversions to wildlife refuges that are provided pursuant to existing laws and contracts would continue to be provided for out of the Reclamation Project allocation.

f. Additional allocations (including environmental flows for fish) are assumed in the KBRA, but not provided with a specific diversion limit/guarantee; thus they are not displayed here.

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.13 Irrigators who did not initially agree to the KBRA, including some off-project irrigators in the upper basin, were not subject to the KBRA’s assurances as they relate to tribal water rights. However, these irrigators have subsequently come

13 This may include, but not be limited to, lease or purchase of water.
to an agreement with the Klamath tribes that may prevent future curtailment of deliveries in exchange for promised retirement of some water rights and support for the KBRA and KHSA.\(^\text{14}\)

The federal government is not party to the KBRA until Congress enacts authorizing legislation. Some of the actions envisioned by the KBRA have been interpreted as not being authorized, and would require significant federal appropriations to go forward. Initial estimates stated that total federal costs to implement the Klamath agreements would be $798.5 million or $536 million over 15 years (depending on the assumptions used). A 2013 revision to these figures estimates clarified that the “new” appropriations needing to be authorized in order to implement the agreements would total approximately $250 million over 15 years.\(^\text{15}\)

### 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.\(^\text{16}\) 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.\(^\text{17}\) 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.\(^\text{18}\) 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.

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\(^\text{14}\) See below section, “Upper Klamath Basin .”

\(^\text{15}\) See below section, “Cost of Implementation .”

\(^\text{16}\) Recommendation of a Dam Removal Entity, or DRE, would be a part of the final Secretarial Determination, which requires congressional authorization.


Upper Klamath Basin Settlement Agreement

In July of 2013, members of the Oregon congressional delegation requested that a separate task force, the Klamath Basin Task Force, be convened to discuss several outstanding issues not addressed in the Klamath Agreements. These issues included (1) water rights conflicts in the upper basin that were not addressed in the KBRA and that led to decreased irrigation deliveries in the summer of 2013 (see above section, “Previous Events”); (2) power issues among both Klamath Project and off-project irrigators; and (3) the perceived need to reduce the overall cost of the Klamath Agreements.

The task force released its report on December 3, 2013. It recommended support for authorizing legislation with specific components in addition to the KBRA and KHSA, such as a new settlement agreement among water rights holders in the Upper Klamath Basin (which was not provided for in the original KBRA). It also recommended the inclusion of authority to serve off-project irrigators with the same low-cost power envisioned for Klamath Project irrigators under the KBRA. Finally, it addressed cost concerns by recommending that any authorizing legislation for the Klamath Agreements include only new authorities and authorizations of appropriations needed to execute the agreements at a total cost of $250 million over 15 years.

The new settlement agreement recommended by the Task Force, the Upper Klamath Basin Comprehensive Agreement (also known as the Upper Basin Settlement) was circulated for public comments and finalized in April 2014. It would ostensibly prevent a scenario such as the 2013 call on water rights from occurring again in exchange for, among other things, an additional 30,000 acre-feet per year in inflows into Upper Klamath Lake (resulting from reduced off-project agricultural uses in the upper basin); it would also provide for certain riparian restoration actions and certain regulatory assurances related to the Endangered Species Act. In exchange, senior water rights holders have agreed to not make a call on junior water rights similar to 2013. In order to be implemented, the Upper Klamath Basin agreement would need to be ratified along with the KBRA in any future authorizing legislation.

Congressional Interest

The Klamath Agreements require congressional authorization to be implemented. In the 113th Congress, S. 2379 and S. 2727 would both authorize the agreements, including components requiring congressional authorization in the KBRA, the KHSA, and the Upper Klamath Basin agreement. The only difference between the two bills is that S. 2727 includes a section at the end of the legislation, Section 10, which would alter the requirements for a mutual ditch or

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19 As stated above, the KBRA anticipated an “Off-Project Water Agreement” that was not included in the KBRA.
21 This is less than previous estimates to implement the Klamath Agreements and may be contingent on a number of assumptions (see below section, “Cost of Implementation”).
irrigation company to be exempt from certain income taxes under Section 501(c) of the Internal Revenue Code. This potential change was not addressed in the KBRA or KHSA.

Both bills would provide new federal authority for actions envisioned under the agreements, in particular elements that many argue were key for obtaining widespread support for the agreements. This includes approximately $250 million for new activities envisioned under the KBRA and the Upper Basin Settlement for various actions in the on-project plan. Some of the most prominent activities include a drought response plan, water rights retirement for certain junior water rights holders, and low-cost power for project and off-project irrigators, among other things. Both bills would also provide congressional authorization for a secretarial determination on dam removal under the KHSA, which is key to the dam removal process moving forward as currently envisioned. Many elements of the KBRA and KHSA could hypothetically go forward under existing authorities, but parties have agreed to support authorization for the full agreements.

In the 113th Congress, the Senate Energy and Natural Resources Committee held a hearing on the Klamath Agreements on June 20, 2013. In the 112th Congress, legislation to authorize the Klamath Agreements (H.R. 3398 and S. 1851) was introduced but not acted on. Similar to the current legislation, these bills would have authorized most of the KBRA and KHSA by reference, and explicitly reinforced other provisions in the agreements.

In considering legislation related to Klamath restoration, Congress may focus on a number of issues, including the cost of implementing the legislation, its position on specific strategies and actions in the two agreements versus the status quo and the potential for future disruptions in water supply deliveries in the basin. A brief discussion of some of these issues is provided below.

### 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. 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, a subset of these actions cannot go forward absent new congressional authorization. In particular, the agreements envision an expanded federal role in the Klamath in regard to the dam removal process (i.e., a determination on dam removal), provision of payments for water rights retirement, and pursuit of low-cost power for irrigators, among other things. These actions are not currently authorized in the basin and have been proposed among others to

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24 As previously discussed, it was this hearing that led to the creation of the Klamath Basin Task Force. See Senate Committee on Energy and Natural Resources, Water Resource Issues in the Klamath River Basin, 113th Cong., 1st sess., June 20, 2013.

25 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 any potential call for administration of water rights under state law for project irrigators, refuges, and the Klamath Tribes.
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 a 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.

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. Others, including 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. Some also generally oppose the removal of operational dams and associated hydropower facilities, including those in the Klamath Basin. 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).

Cost of Implementation

The cost to the federal government to implement actions proposed under the Klamath agreements (in particular the KBRA) has been viewed by some as problematic. Some Members of Congress have expressed concerns about the cost to the federal government to implement the agreements. It has been assumed by most that the majority of actions in the KBRA would be federally funded, including the costs for the on-project plan, fisheries restoration, and tribal components of the agreement.

There have been multiple cost estimates to implement the Klamath agreements which have in some cases contradicted one another or employed differing assumptions. The original 2010

26 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.FactSheet.Sep21.pdf.


KBRA estimated $970 million (in 2007 dollars) for the total cost to implement the KBRA over a 10-year window. Most of these costs were assumed to be incurred by the federal government, although the exact split was not specified. In 2011, this figure was revised to estimate the federal government’s portion of expenses over a newly assumed a 15-year window (rather than a 10-year window). This estimate indicated that the federal cost to implement the agreement over 15 years would be $799 million (again in 2007 dollars). The 2011 revision reflected increased state commitments for some activities and altered assumptions in other areas. The 2011 estimate included an estimate of “base” funding already being spent in the basin that could potentially reduce the “new” costs of the agreements to the federal government, but it did not estimate the amount of budget authority required for new, previously unauthorized activities. These estimates were further revised in a December 2013 report by the Klamath Basin Task Force, which estimated that $923 million (in 2014 dollars) in federal funds would be required to implement the agreements, and that $250 million of this funding would be from newly authorized appropriations. Table 2, below, provides a comparison of these costs, including estimates in constant dollars.

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<td>Estimated Costa</td>
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<td>$795 ($926)</td>
<td>$923 ($923)</td>
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<td>“New” Federal Budget Authorityb</td>
<td>na</td>
<td>$215 ($247)</td>
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**Source:** KBRA (2010), 2011 Revised Cost Estimates, and 2013 Klamath Task Force Report. Adjustments to constant dollars are based on CRS estimated inflation adjustments.

**Notes:** “na” indicates the source did not include these estimates. “KTF” indicates “Klamath Task Force.” The KBRA originally estimated that the agreements would be implemented over a 10-year window, but subsequent revisions have provided estimated total costs over a 15 year window.

a. The 2010 KBRA was an estimate of all costs required to implement the KBRA (i.e., federal and nonfederal costs) in 2007 dollars. The 2011 Revised Estimates estimated federal costs in 2007 dollars. The 2013 Klamath Task Force Estimate revised the 2011 federal cost estimates and used 2014 dollars.

b. The 2010 KBRA did not include an estimate for required “new” authorizations of appropriations. The original 2011 Revised Cost Estimates provided an estimate of available “base” agency funding (i.e., ongoing funding) that could further reduce the total estimated costs for the agreements, but did not estimate “new” budget authority required. The 2013 Klamath Task Force Report provided an estimate for “new” authorizations of appropriations both for 2013 and for the 2011 document (retroactively), which are the basis for the amounts shown here.

29 Cost estimates for the agreement were originally provided in the KBRA, Appendix C-2, p. C.6. Costs for the agreement were estimated in 2007 dollars.
31 The 2011 revised estimates assumed that approximately $262 million in base or redirected federal funding would be available in future years toward purposes outlined in the Klamath Agreements.
32 See 2013 Bezdek Memo. The 2013 document also appeared to retroactively revise the 2011 assumption of $799 million for total federal funding down to $795 million.
In contrast to the KBRA, 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. Previous studies by DOI to inform the Secretarial Determination estimated potential costs of approximately $290 million for dam removal, which is less than the combined amount anticipated to be available from ratepayers ($200 million) and the state of California ($250 million). 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 potential 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 that would be unlikely to occur if the agreements are implemented, including at least $170 million in additional aid for irrigators and fisheries beyond “regular” appropriations that was provided from 2001 to 2011. 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 that are expected to be less costly 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 also still be necessary.

In addition to savings, supporters also argue that the KBRA and KHSA could create economic benefits, both in terms of traditional and “non-use” benefits. Studies commissioned to advise DOI’s secretarial determination for dam removal estimated that the total potential value of restoration (including non-use values) could total $16 billion-$84 billion, depending on the assumptions and methodology used. Some dispute these estimates and argue that they are unrealistically large and/or derived from questionable methodologies.

Obtaining authorization and appropriations for these activities from Congress may be difficult. In the 113th Congress, authorization of new programs and projects by both chambers has been limited. 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 or KHSA could affect the status of support for either agreement among the parties, and thus cause additional conflicts among the agreement’s

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33 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.
35 See “Previous Events” section for a breakdown of this funding.
36 This includes potential forgone costs for litigation that would have been pursued absent the Upper Klamath Basin Agreement in Principle, whose execution is connected to the Klamath Agreements.
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 (in particular the KHSA) 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 authorization of the agreements is the primary opportunity for Congress to weigh in for or against this decision. Although it did not formally recommend dam removal, the study findings intended to inform the Secretary’s dam removal determination did not find major drawbacks associated with dam removal. Thus, some have concluded that if Congress authorizes the Secretary to make the dam removal determination, a positive finding would be likely. 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, the extent to which the federal government will be involved in this process remains unclear.

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**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. 38

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. 39 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. 40 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 2013.41

Stakeholders disagree on whether dam removal would happen without the KHSA and the related determination by the Secretary of the Interior. Opponents have noted that PacifiCorp-funded dam removal would be likely under FERC relicensing conditions; however, PacifiCorp and other supporters of the KHSA note that a different outcome (such as fish passage upgrades) could occur.

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40 This complaint is available at http://www.peer.org/assets/docs/noaa/1_7_13_PEER_Scientific_Misconduct_Complaint.pdf.
41 The complaint is available at http://media.redding.com/media/static/Scientific_Integrity_Complaint_20130319.pdf.
under the FERC process for a number of reasons (for more information, see below section, “Stakeholder Views”).

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.42 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.43 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 result in additional pressure on regulatory agencies to adopt biological opinions that allow the flows set forth in the proposed Water Resources Program.44

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.

43 For example, see KBRA Sections 2.1, 19.1, 20.3.1, and 22.5.
Stakeholder Views

While 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, 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., guarantees related to water supplies, 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, one county (Humbolt County, in California), 25 parties related to the Reclamation Project, some off-project interests, and several other groups (including environmental interests). These same groups are also party to the KHSA.45 Other groups and individuals were not “party” to the agreements but have stated their support for them. These include, most recently, off-project irrigators in the upper basin who have agreed to support the Klamath Agreements under the Upper Klamath Basin Agreement in Principle, signed in April 2014. Notably, supporters have agreed to support authorizing legislation for both agreements (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 they represent a potential solution to the protracted resource conflicts in the upper and lower basins. Government representatives have also pointed to the 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.46 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.47

45 See KHSA, pp 1-2.
46 General obligations for nonfederal parties to support the agreement are laid out in Part I of the KBRA.
47 While off-project irrigators are not provided with similar assurances to those of project users for water supplies, they (continued...)
For its part, PacifiCorp notes that it 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.\(^4\)\(^8\) 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.\(^4\)\(^9\) Both options would likely be costly for PacifiCorp and its ratepayers, and could potentially cost the company more than the arrangement under the KHSA.\(^5\)\(^0\) The KHSA also has the added benefit of allowing the company to operate the dams under the current management regime through 2019, through annual extensions to the project’s FERC license.

### Opposition to Agreements

Some groups and individuals oppose the Klamath agreements and 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. Still others, including county officials in the areas of the Reclamation Project and dams, oppose the agreements in their elected capacities. Notable opponents of the Klamath agreements include local officials in Klamath County in Oregon and Siskiyou County in California, the Hoopa Valley and Resighini Rancheria and Quartz Valley tribes, the Northcoast Environmental Center (NEC), Waterwatch of Oregon, Oregon Wild, and others. As noted above, some groups who initially opposed the agreements, including approximately half of the off-project irrigators in the upper basin, recently reached an agreement, the Upper Basin Agreement, whose effectiveness is tied to the authorization of the KBRA and KHSA. Other opponents, including Klamath and Siskiyou County, have since stated their opposition to that agreement for its ties to the KBRA and KHSA (which they also oppose).\(^5\)\(^1\)

(...continued)

may stand to benefit from other programs in the agreement that would not otherwise be available to them, such as the water rights retirement program.

\(^4\) 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.

\(^5\) 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.

\(^1\) As proposed, dam removal under the KHSA would be funded partially by ratepayers, with the other portion assumed to be funded by the State of California. (The status of the latter funding is contingent on a water bond scheduled for a statewide election in November 2014.)

\(^5\) Letter from Siskiyou County Board of Supervisors and Klamath County Board of Commissioners to The Honorable Mary Landrieu, Chair, Committee on Energy and Natural Resources, May 30, 2014.
Some groups oppose the agreements because they believe they will further damage the region’s economy. Some off-project users continue to oppose the agreements (including the Upper Basin Settlement) because of economic damages to farmers resulting from water rights retirement and restoration requirements. Siskiyou County has opposed the agreements for a number of reasons, including the assertion that the PacifiCorp dams provide flood protection and economic benefits for downstream areas. 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.

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 feel that the provisions of the KBRA have the potential to terminate the duty of the United States to assert and protect tribal fishery rights when they conflict with operation of the Klamath Reclamation Project. They argue that the KBRA would subordinate the senior priority rights of the tribe to the junior water rights of the irrigation project. 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. 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. 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.

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 water supplies for fish and the inclusion of lease-land farming on wildlife refuges. Along with 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).

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52 DOI has argued that these concerns are unfounded.
53 This is particularly the case in Siskiyou County, where a large majority of voters have previously expressed opposition to removal of the three PacifiCorp dams in California.
54 In particular, the expert panels associated with Chinook and Coho salmon pointed out uncertainties associated with ongoing water quality issues that some believe were not properly reflected in summary documents. See, for example, http://prhouser.com/allegation.pdf.
56 See KBRA, Section 15.4.3.
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