

## SUMMARY

### S.1 Purpose and Need of the Proposal

The Columbia River Basin in Washington is affected by a variety of water resource management problems that limit the availability of water for agriculture and economic development and for sufficient streamflows for fish species. Hundreds of water rights applications for new diversions from the Columbia River are pending, some for over a decade. Several of the communities along the river do not have adequate or reliable water rights for growth and economic development. State water rights issued since 1980 are subject to interruption during periods of low river flows.

The Washington state Legislature determined that a priority of water management in the Columbia River Basin is the development of new water supplies to meet the economic and community development needs of people and instream flow needs of fish. In 2006, the Legislature enacted the Columbia River Water Management Act (Engrossed Second Substitute House Bill (ESSHB) 2860 – subsequently codified as Chapter 90.90 RCW) to address these issues. The proposal involves establishment of a Columbia River Water Management Program (Management Program) in response to the legislation.

### S.2 Description of the Proposal

The Columbia River Water Management Act directs the Washington State Department of Ecology (Ecology) to “aggressively pursue the development of water supplies to benefit both instream and out-of-stream uses.” Ecology is currently in the process of developing a Management Program to facilitate implementation of the legislation. This programmatic Environmental Impact Statement (EIS) evaluates two major aspects of the Management Program—the components of the Columbia River Water Management Program and early implementation actions. A complete description of the proposal is provided in Chapter 2.

#### S.2.1 Columbia River Water Management Program

The Management Program consists of several water supply development components authorized by the Columbia River Water Management Act. Those components include administration of the Columbia River Basin Water Supply Development Account which the legislation created to fund storage, conservation, and other projects to provide new water supplies for the Columbia River Basin. The Columbia River Water Management Act also authorized Ecology to fund feasibility studies, design, or construction of storage facilities. For the purposes of the EIS, Ecology is evaluating impacts associated with the following types of storage projects:

- New large storage facilities (greater than 1 million acre-feet);
- New small storage facilities (less than 1 million acre-feet);
- Modification of existing storage facilities; and
- Aquifer storage and recovery (ASR).

Conservation and other water supply projects can also be funded under the Management Program. Ecology is evaluating the impacts of the following types of conservation projects in this EIS:

- Municipal conservation;
- Agricultural water conservation and irrigation efficiency through regional or irrigation district infrastructure improvements;
- Pump exchanges;
- On-farm conservation and irrigation efficiency improvements; and
- Industrial conservation.

The legislation authorizes Ecology to enter into Voluntary Regional Agreements (VRAs) to provide new water for out-of-stream use, streamline water rights application processes, and protect instream flows. VRAs allow water users to enter into agreements with Ecology to exchange a package of conservation projects for new water rights or water right transfers. The legislation describes minimum requirements that must be met for Ecology to approve VRAs, including mitigation to prevent negative impacts to instream flows on the mainstem Columbia and Snake Rivers during critical flow periods.

Ecology is also proposing a strategy for developing new water supplies to meet instream flow needs. Several of the Management Program components will be used to augment streamflows, including storage and conservation projects. Ecology will work with the Washington Department of Fish and Wildlife and other fisheries co-managers to develop and implement the instream flow strategy.

Ecology is also considering a number of policy alternatives and guidelines for implementing the Management Program. These policy alternatives include options for:

- Funding and screening proposed storage and conservation projects;
- Calculating net water savings from conservation;
- Defining acquisition and transfer;
- Conditioning water rights on instream flows;
- Initiating and processing Voluntary Regional Agreements;
- Defining “no negative impact” to instream flows;
- Defining main channel and one-mile zone;
- Coordinating VRA mitigation and processing of new water rights;
- Coordinating VRA and non-VRA processing of new water rights;
- Funding projects associated with VRAs; and
- Including exempt wells in the water resources information system.

### **S.2.2 Early Actions**

The Management Program includes three early actions—additional drawdown of Lake Roosevelt to supply water for some instream and out-of-stream water uses in the project area, development of a supplemental feed route to Potholes Reservoir, and a decision regarding the VRA proposal

submitted by the Columbia-Snake River Irrigators Association. The first two early actions are being developed in cooperation with the U.S. Bureau of Reclamation (Reclamation).

### **S.2.2.1 Lake Roosevelt Drawdown**

Reclamation proposes to divert or release a total of 132,500 acre-feet from its existing storage right for water in Lake Roosevelt. During non-drought years 82,500 acre-feet of water would be used to provide the following:

- 25,000 acre-feet of municipal/industrial supply;
- 30,000 acre-feet of irrigation water for replacement of ground water supplies in the Odessa Subarea; and
- 27,500 acre-feet for streamflow enhancement downstream of Grand Coulee Dam.

During drought years, Reclamation proposes to divert or release an additional 50,000 acre-feet to provide:

- 33,000 acre-feet of water for Columbia River mainstem interruptible water right holders; and
- An additional 17,000 acre-feet for flow augmentation downstream of Grand Coulee Dam.

The non-drought year diversions and releases would result in approximately a 1-foot drawdown of the reservoir, and the drought-year diversions and releases would draw the lake down another 0.5 foot. Prior to making decisions on water rights needed for the proposed drawdown, both Ecology and Reclamation will work with the Confederated Tribes of the Colville Reservation, the Spokane Tribe of Indians, and the National Parks Service to address issues associated with the diversions and releases.

#### **Supplemental Feed Route**

Reclamation, in cooperation with the state of Washington, is studying possible supplemental feed routes to convey water from Banks Lake to Potholes Reservoir to supply the South Columbia Basin and East Columbia Basin Irrigation Districts. For each of the three alternative routes, feed water would flow from Banks Lake to Billy Clapp Reservoir behind Pinto Dam. The alternatives for the supplemental feed routes are:

- Crab Creek Route Alternative;
- W20 Canal Route Alternative; and
- Frenchman Hills Route Alternative.

### **S.2.2.2 Columbia-Snake River Irrigators Association Voluntary Regional Agreement**

The Columbia-Snake River Irrigators Association (CSRIA) submitted a VRA to Ecology following passage of the Columbia River Water Management Act. The CSRIA represents irrigators with farming operations in eastern Washington. The CSRIA proposes to undertake conservation and other measures to create new sources of conserved water that can be exchanged for new uninterruptible water rights on the Columbia River and lower Snake River. The conserved water would be transferred to Ecology's Trust Water Rights Program. The VRA does

not specify where the projects would be located. The VRA includes provisions for payments to reimburse Ecology for conservation projects funded in advance by the state. The conservation projects could be undertaken by municipal as well as agricultural users.

### **S.3 Summary of Impacts and Mitigation**

This section summarizes the identified probable adverse environmental impacts and proposed mitigation measures associated with the Management Program. Impacts for each alternative are presented, followed by a brief discussion of general mitigation measures. These impacts and mitigation measures are discussed in greater detail in Chapters 4 and 5.

This programmatic EIS compares the impacts of implementing the Management Program against the No Action Alternative of not implementing the Management Program. If the Management Program were not implemented, the allocation of water and processing of water rights would continue under existing programs and policies.

#### **S.3.1 Columbia River Water Management Program**

The impacts of the components of the Management Program are presented in Chapter 4. The impacts are discussed in general terms, because the details of projects that would be proposed under the Management Program are not known. The scale of impacts would vary depending on the specific project proposed. Depending on the type of project proposed, specific projects may require additional environmental review to identify specific impacts.

The intent of the Columbia River Water Management Program is to increase water supply in the project area to provide additional streamflows for fish, and to meet community and economic needs. Improved water supplies may expand agriculture and municipal development in the project area. Any commercial or residential development that occurs as a result of the Management Program would comply with local planning and zoning requirements, but may require expansion of transportation systems and public utilities and services. Expanded agriculture may result in additional conversion of shrub-steppe habitat, with negative impacts on native vegetation and wildlife. The socioeconomic impacts of additional water supply would likely be positive for those who receive the water, but may have negative impacts for others at the local and regional level.

The following summary focuses on the major long-range or operational impacts that would occur for the Management Program components. Short-term impacts associated with construction or development of specific projects are described in Chapter 4.

##### **S.3.1.1 Storage Component**

The major impacts associated with new storage or modified storage facilities would be to surface water (Section 4.1.1.3); ground water (Section 4.1.1.4); fish, wildlife, and plants (Section 4.1.1.6); and cultural resources (Section 4.1.1.9). Impacts to other elements of the environment would also occur as described in Chapter 4. Table 4-2 highlights the differences in impacts for the major types of storage projects that Ecology is considering for the Management Program. The most significant impacts would be associated with large storage facilities.

### **Surface Water**

Potential impacts to surface water associated with storage facilities include:

- Conversion of free flowing stream reaches to regulated waterways (on-channel only);
- Changes to flow regimes and channel morphology downstream;
- Evaporative losses from reservoirs and conveyance lines;
- Fluctuations in reservoir and downstream water levels;
- Potential for dam breach and catastrophic flooding;
- Changes to downstream sediment loading and gas entrainment;
- Blockage of natural debris carried downstream (on-channel only);
- Increased stream temperature downstream of the impoundment;
- Decreased dissolved oxygen downstream of the impoundment; and
- Increased temperatures in the impoundment and potential for eutrophication.

### **Ground Water**

Potential impacts to ground water associated with storage facilities include:

- Increased recharge rates and ground water levels near the storage facility;
- Changes to ground water recharge and discharge along reaches downstream of diversions;
- Changes in ground water flow directions; and
- Potential decrease in ground water quality, depending on contaminant concentrations at reservoir locations.

### **Fish, Wildlife and Plants**

Potential impacts to fish, wildlife, and plants associated with storage facilities include:

- Loss of existing habitat under the reservoir;
- Altered hydrologic and thermal regimes;
- Fish passage impediments;
- Changes in aquatic species from free-flowing to ponded;
- Permanent loss of plant communities in areas inundated;
- Loss of shrub-steppe communities;
- Displacement of wildlife from areas inundated; and
- Increased conversion of shrub-steppe habitat to agricultural use.

### **Cultural Resources**

Potential impacts to cultural resources associated with storage facilities include:

- Inundation of cultural resources;
- Destruction or damage of cultural resources;

- Increased vandalism and artifact collecting; and
- Effects on the integrity of Traditional Cultural Properties through inundation or alteration of characteristics that make the areas Traditional Cultural Properties.

### **S.3.1.2 Conservation Component**

The impacts of conservation projects would vary with the type and scale of the conservation project. Small on-farm conservation projects would have few impacts. Larger regional scale projects would have greater impacts. Table 4-3 highlights the differences between the general types of conservation projects being considered under the Management Program. The major impacts associated with implementing conservation programs would be to surface water (Section 4.1.2.3); ground water (Section 4.1.2.4); and fish, wildlife, and plants (Section 4.1.2.6). Impacts to other elements of the environment are described in the other sections of Section 4.1.2.

#### **Surface Water**

Potential impacts to surface water from conservation projects include:

- Increased streamflows, with more water available for instream flows and other beneficial uses;
- Improved water quality with increased streamflows; and
- Reduced streamflows and decreased water quality.

#### **Ground Water**

Potential impacts to ground water from conservation projects include:

- Reduced artificial ground water recharge from decreased seepage;
- Changed local ground water recharge with both positive and negative impacts; and
- Changed ground water quality from artificial recharge.

#### **Fish, Wildlife, and Plants**

Potential impacts to fish, wildlife, and plants from conservation projects include:

- Benefits to fish from increased streamflows;
- Loss of wetlands and habitat from reduced leakage;
- Increased waterfowl habitat resulting from constructed ponds;
- Loss of shrub-steppe habitat from expanded irrigation and development; and
- Altered habitats for fish, wildlife, and plant species from expanded irrigation and development.

### **S.3.1.3 Voluntary Regional Agreements**

The primary impacts of implementing Voluntary Regional Agreements (VRAs) would be changes to how Ecology processes water rights. VRAs are intended to streamline the water rights application process. These impacts are described in Section 4.1.3 and in Chapter 6. Impacts of specific storage or conservation projects that may be included in VRAs would be similar to those described above and in more detail in Chapter 4. The two main changes to processing water rights are:

- Protection of instream flows in the mainstem Columbia and Snake Rivers during designated months is deemed adequate mitigation for new water rights; and
- Consultation requirements are reduced and restructured.

### **S.3.1.4 Policy Alternatives**

Chapter 6 is a discussion of the policy alternatives that Ecology considered for implementing the Management Program. The alternatives relate to how Ecology will interpret some provisions of the Columbia River Water Management Act, how new water rights would be processed under the legislation, and how potential conflicts with existing policies would be resolved. Ecology has selected preferred alternatives for policy implementation. These are presented in Chapter 6.

### **S.3.1.5 No Action Alternative**

Under the No Action Alternative, the Columbia River Water Management Program would not be implemented. Water allocation and the processing of water rights would continue under the existing programs and policies. There would be less state funding for storage, conservation, or other water projects and no coordinated program for implementation.

Impacts of the No Action Alternative are described in Section 4.2. Although storage and conservation projects could be developed without the Management Program, the rate of development would be significantly slower. There would be fewer opportunities to improve the reliability of interruptible and other water rights. There would be fewer incentives to increase streamflows in the Columbia and Snake Rivers. There would be no Voluntary Regional Agreements to streamline the processing of new water rights applications and water rights changes. Processing of Columbia River water rights applications would continue to be slowed by the current consultation process. Without the Management Program, there would be less opportunity for development of a coordinated program to improve water allocation in the Columbia River Basin in Washington.

### **S.3.1.6 Mitigation Measures**

Mitigation measures to minimize short-term impacts would include construction best management practices (BMPs) to reduce erosion and sedimentation. Mitigation measures for impacts to cultural resources would be developed in consultation with the Washington Department of Archaeology and Historic Preservation and the affected tribes. Any property and right-of-way acquisitions would be conducted in accordance with Washington State law. Acquisitions would be negotiated with each landowner on a case-by-case basis.

Recommended mitigation measures are described for each element of the environment in Chapter 4. When specific projects are proposed, specific mitigation measures would be developed based on more detailed studies of impacts. These studies would include detailed feasibility and cost-benefit analysis of major storage facilities. All projects would comply with applicable local, state, and federal regulations. Mitigation measures would be developed in coordination with state and federal fish and wildlife agencies, the state Department of Archaeology and Historic Preservation, and affected tribes.

### **S.3.2 Early Actions**

A general description of the types of impacts associated with the early actions is provided in Chapter 5. Ecology's assessment of impacts is focused on the SEPA actions related to the early actions.

#### **S.3.2.1 Lake Roosevelt Drawdown**

The additional drawdowns of Lake Roosevelt are intended to provide water to meet beneficial uses in the project area. Reclamation will conduct NEPA review of the contracts and agreements it enters into with the state. Potential impacts of the drawdown include:

- Additional exposure of sediments which could become airborne;
- Minor increases in streamflows in the Columbia River;
- Small reductions in the amount of ground water withdrawn in the Odessa Subarea;
- Potential impacts to resident fish in Lake Roosevelt and tributaries;
- Increased impacts to nesting wildlife species along the lake shore;
- Increased exposure of cultural resources;
- Increased potential for vandalism of cultural resources;
- Reduced potential for hydropower generation at downstream facilities;
- Impacts on payments by the Bonneville Power Administration to the Colville Confederated Tribes pursuant to the 1994 Settlement Agreement between the Confederated Tribes of the Colville Reservation and the United States;
- Increased reliability of interruptible water rights;
- Potential for expansion of irrigated agriculture and additional decline of shrub-steppe habitat;
- More reliable water supply, allowing continuation of current economic activities; and
- Expanded municipal and industrial development.

The SEPA action associated with the Lake Roosevelt drawdown is Ecology's approval of Reclamation's requests for new water rights and water right changes. The impacts of granting these water rights are described in Section 5.1.2.5.

Because the additional drawdowns are within the normal operation of Lake Roosevelt, it is unclear whether additional mitigation measures are required for the actual drawdown. Studies currently being conducted by the Confederated Tribes of the Colville Reservation will factor into that decision. The Agreement in Principle between the state and the Confederated Tribes

(Section 1.3.1.2) provides for the mitigation of certain impacts. Ecology will determine appropriate mitigation for changes to water rights in the water rights application process, which does not permit impacts to existing water rights.

### **S.3.2.2 Supplemental Feed Routes**

The specific impacts of developing a supplemental feed route to Potholes Reservoir will be determined by Reclamation in a NEPA Environmental Assessment (EA) on the project. The general impacts associated with the project are described in Section 5.2, and Table 5-1 compares the impacts for the three proposed routes.

The Crab Creek route would use an existing stream channel. Increased flow in Crab Creek may increase erosion but could benefit fish and wildlife in the stream. The Crab Creek and W20 Canal routes would require the most construction with related short-term disturbances. The Frenchman Hills route would use an existing drainage route and require improvements to two highway culverts. The Frenchman Hills route would route water directly to Potholes Reservoir and bypass Moses Lake.

For all alternatives, the impacts to Potholes Reservoir would be similar. The supplemental feed route is intended to provide a more reliable water supply to the South Columbia Basin Irrigation District and greater flexibility in the delivery system. The amount of water delivered to Potholes Reservoir would not change as a result of the supplemental feed route. Mitigation enhancement measures would be developed in Reclamation's NEPA EA for the project.

The SEPA action associated with this early action would be the issuance of permits such as the Hydraulic Project Approval and construction stormwater permits. These permits would be issued through the normal agency approval process, which would establish specific permit conditions. Reclamation is preparing a NEPA EA on the project.

### **S.3.2.3 Columbia-Snake River Irrigators Association Voluntary Regional Agreement**

The primary impacts of Ecology's approval of the CSRIA Voluntary Regional Agreement (VRA) would be to water rights processing. Specific projects that may be undertaken to implement the VRA would have impacts similar to those described in Chapter 4. As described in Section S.3.1.3, the processing of new water rights and water rights changes under the VRA process is intended to streamline the process. It would do so by changing the consultation requirements and by providing specific mitigation requirements.

### **S.3.2.4 No Action Alternative**

Under the No Action Alternative for the early actions, Ecology would not partner with Reclamation to implement the additional drawdown of Lake Roosevelt or the supplemental feed route. No additional water from Lake Roosevelt would be available to supply municipal/industrial uses, instream flows, or interruptible water rights. The 30,000 acre-feet of water to help reduce ground water use in the Odessa Subarea would need to be provided through another method or process. Reclamation will continue to study options for providing additional surface water to the Odessa Subarea. The state would not provide funding for a new

supplemental feed route to Potholes Reservoir. The East Low Canal would continue to be used to supply Potholes Reservoir, and funds to improve the delivery system would need to be secured through another source. Ecology would not process the Columbia-Snake River Irrigators Association VRA. The processing of new water rights and water rights changes for members of CSRIA would not be streamlined and would continue under existing policies and regulations. CSRIA members would have fewer incentives to implement conservation projects and water management improvements.

## **S.4 Project Phasing and Schedule of Future Environmental Review**

This programmatic EIS has been prepared to generally address probable significant adverse impacts associated with implementation of components of the Columbia River Water Management Program. This EIS is being prepared in accordance with the State Environmental Policy Act (SEPA) and discusses actions subject to SEPA review. Individual projects associated with the Management Program may require additional environmental review when they are proposed. These projects may require SEPA compliance, National Environmental Policy Act (NEPA) compliance, or both, depending upon the implementing agency, source of funding, and/or types of permits required. Projects will be evaluated as they are developed and ready for environmental review; this could occur within the next few years for some of the early action items, or as long as several years in the future for other projects.

Tables S-1 and S-2 summarize the anticipated future review of the Management Program components, and the early actions and other known projects. In addition to the SEPA and NEPA compliance summarized in the tables, the projects will comply with all applicable federal, state, and local regulations.

## **S.5 Areas of Significant Uncertainty and Controversy**

There are several areas of uncertainty associated with the Management Program, in part because specific projects to implement the Management Program have not been proposed. Potential impacts have been evaluated at a programmatic level. This EIS is intended to provide decision-makers with an analysis of impacts that is conceptual in nature to assist with decision-making on how to implement the Management Program. The conceptual analysis indicates the general range of impacts that will be associated with components of the Management Program. When specific projects are proposed under the Management Program, additional environmental review may be conducted. That additional review is expected to resolve some of the uncertainties associated with impacts of the Management Program.

A major area of uncertainty in the Columbia River Basin is the relationship between environmental variables and the survivability of anadromous fish. This uncertainty was confirmed by the National Research Council report commissioned by Ecology (see Section 1.3.1.3). In particular, the relationship between flow levels in the Columbia River and salmon survival is not clear. It is known that lower survival rates and changes in salmon migratory behavior are expected when streamflows become critically low or when water temperatures become excessively high. However, the specific flow requirements of fish are not known.

**Table S-1. Future Environmental Review for Management Program Components**

<b>Management Program Component</b>	<b>Future Environmental Review</b>	<b>Comments</b>
<b>Storage</b>		
New Large (>1 million acre-feet)	SEPA and NEPA review Likely SEPA lead agency: Ecology Likely NEPA lead agency: Reclamation, Corps of Engineers	Environmental documentation would likely be an EIS under both NEPA and/or SEPA. Congressional authorization and appropriation may be required.
New Small (< 1 million acre-feet)	SEPA and/or NEPA review Likely SEPA lead agency: Ecology, Irrigation Districts Likely NEPA lead agency: Reclamation, Corps of Engineers	Environmental documentation would likely be an EIS. Congressional authorization and appropriation may be required.
Modification of Existing Facilities Includes projects such as raising the height of existing impoundments and changing operation of existing facilities.	SEPA and/or NEPA review Likely SEPA lead agency: Ecology, Irrigation Districts, Public Utility Districts Likely NEPA lead agency: Reclamation, Corps of Engineers	Level of environmental review would depend on the type of project proposed. Those requiring substantial construction would likely require an EIS; lower levels of construction would likely be a Supplemental EIS (if applicable) or SEPA Checklist.
Aquifer Storage and Recharge	SEPA review Likely SEPA lead: Ecology, Local City/County or utility with SEPA lead agency status	
<b>Conservation</b>		
Municipal	SEPA review Possible NEPA review, depending on funding Likely SEPA lead agency: Municipality/County/Utility with SEPA lead agency status  Likely NEPA lead agency: Environmental Protection Agency, US Department of Agriculture, other federal agency with funding authority	Incentives programs are unlikely to require review. Reclaimed water projects would require SEPA evaluation if federal funds are requested.

Management Program Component	Future Environmental Review	Comments
Regional Agricultural Efficiency Improvements	SEPA and/or NEPA review Likely SEPA lead agency: Conservation Districts, Irrigation Districts with SEPA authority Likely NEPA lead agency: Reclamation, Natural Resources Conservation Service	Level of environmental review would depend upon the nature of improvements proposed. Minor changes would likely fall below SEPA and/or NEPA thresholds of significance.
On-Farm Conservation	Additional review unlikely	Anticipated improvements would likely fall below SEPA or NEPA thresholds of significance.
Industrial	SEPA review	Some improvements would fall below SEPA significance thresholds, other improvements could require a SEPA checklist if construction is involved.
Pump Exchanges	SEPA review NEPA review Likely SEPA lead agency(ies): Ecology Irrigation Districts with SEPA authority, Local municipality/County Likely NEPA lead agency: Reclamation, Corps of Engineers	Major pump exchange projects could require a SEPA EIS. Federally funded projects would require NEPA review. Tribal projects may require TEPA review.
<b>Voluntary Regional Agreements</b>		
Storage or conservation projects	SEPA and/or NEPA review Likely SEPA lead agency: Ecology, local irrigation districts Likely NEPA lead agency: Reclamation, Natural Resources Conservation District	Smaller scale, on-farm conservation projects likely would not require SEPA review. NEPA review would be triggered by permit requirements or funding.
Water rights changes	SEPA threshold determination by Ecology	

**Table S-2. Future Environmental Review for Early Actions and Other Identified Projects**

<b>Project</b>	<b>Future Environmental Review</b>	<b>Comments</b>
Lake Roosevelt Drawdowns	SEPA Supplemental EIS SEPA lead: Ecology NEPA Evaluation NEPA lead agency: Reclamation will conduct NEPA on any federal action for the use of water	Ecology anticipates releasing the Supplemental EIS in March 2008.
Supplemental Feed Route	NEPA Environmental Assessment NEPA lead agency: Reclamation	Reclamation expects to complete EA in late summer 2007.
CSRIA Voluntary Regional Agreement	SEPA review of Implementation Plan	Ecology will develop an Implementation Plan.
Off-Channel Storage Project (Hawk Creek, Foster Creek, Sand Hollow, Crab Creek alternatives)	Appraisal Report Feasibility Study NEPA/SEPA EIS SEPA lead agency: Ecology NEPA lead agency: Reclamation	Appraisal Report is expected in March/April 2007. Additional studies will depend on whether a site is feasible and whether Congress authorizes the studies and appropriates funds. Studies could be completed in 2011.
Odessa Subarea Special Study	Appraisal Report Feasibility Study NEPA/SEPA EIS SEPA lead agency: Ecology NEPA lead agency: Reclamation	Appraisal Report is expected in September 2007. The Feasibility Study and NEPA EIS review could start in 2008 with completion in 2010.
Walla Walla Pump Exchange	Feasibility Study NEPA NEPA lead agency: Corps of Engineers	SEPA Review may be required. Feasibility Study and NEPA expected to be complete in 2007.
Yakima River Basin Projects Black Rock Reservoir	Feasibility Study NEPA/SEPA EIS NEPA lead agency: Reclamation SEPA lead agency: Ecology	Feasibility Study and NEPA/SEPA EIS are underway. Feasibility Study and NEPA/SEPA EIS expected to be complete in 2008.

Several potential storage sites have been proposed in the project area. The technical and economic feasibility of these sites is not yet known. Reclamation and Ecology will continue to evaluate the viability of the sites through an appraisal level assessment. A feasibility study and NEPA and SEPA analyses will be conducted if Congressional authorization is provided.

The purpose of the Columbia River Water Management Program is to develop new water supplies to provide for continued economic development and to supplement streamflows for fish. It is uncertain how much additional water can be made available through storage, conservation, and other water management projects. The socioeconomic impacts of the Management Program are also uncertain. As discussed in Sections 4.1.1.7 and 4.1.2.7, the Management Program could have both positive and negative economic impacts on local and regional economies.

One area of controversy that could be associated with implementation of the Management Program is the extension of irrigated agriculture and other development in the shrub-steppe environment of eastern Washington. Shrub-steppe habitat has declined throughout the West. Expanded development could exacerbate that decline and further impact declining shrub-steppe plant and wildlife species.

Another area of controversy related to the Management Program is the ongoing debate throughout the West about the construction and operation of reservoirs. Typically construction of a large reservoir is accompanied by controversy, with some people opposed to any reservoir construction. Land acquisition for proposed storage facilities is likely to be controversial, and the commitment of land and existing beneficial uses to a storage reservoir will also likely be the subject of controversy.

Additional evaluations currently being conducted by the Bureau of Reclamation, U.S. Environmental Protection Agency, U.S. Geological Survey, Confederated Tribes of the Colville Reservation, and local agencies and utilities will provide additional information that will help to resolve the uncertainties associated with implementation of the Management Program. This information will be incorporated into the Management Program as it is available. Continuing coordination among the key stakeholders, including Reclamation, the Washington Department of Fish and Wildlife, the Department of Archaeology and Historic Preservation, affected tribes and other state and federal agencies, will ensure that this information is incorporated, and uncertainties are reduced.