

RECLAMATION

Managing Water in the West

**Record of Decision for the
Narrows Project
Final Environmental Impact Statement**



U.S. Department of the Interior
Bureau of Reclamation
Upper Colorado Region

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Introduction and Reclamation's Action

In November 2012, the Bureau of Reclamation (Reclamation) completed and published the *Narrows Project Final Environmental Impact Statement* (FEIS). The Narrows Project is a non-Federal dam and reservoir proposed by the Sanpete Water Conservancy District (SWCD) on Gooseberry Creek in Sanpete County, Utah. The proposed Federal action is that Reclamation will:

(1) approve or deny a loan application under the Small Reclamation Projects Act (SRPA), as amended (43 U.S.C. 422a-422k; 70 Stat. 1044); and

(2) determine whether to allow SWCD to use 304.5 acres of Reclamation withdrawn land, under the authority of Section 10 of the Reclamation Project Act of 1939 (53 Stat. 1187, 43 U.S.C. 485a) as implemented in 43 CFR Part 429.

The FEIS describes the potential effects that would result from public and/or private funding of the non-Federal Narrows project (including an SRPA loan) and authorizing use of Federal lands for the project's construction, operation, and maintenance.

Reclamation was the lead agency in preparing and publishing the FEIS in compliance with the National Environmental Policy Act of 1969, as amended (NEPA). Two cooperating agencies also participated in preparing the EIS: the U.S. Department of Agriculture Forest Service (USDA Forest Service) and the U.S. Army Corps of Engineers (USACE).

The FEIS and this Record of Decision were prepared pursuant to NEPA, the Council on Environmental Quality's regulations (40 CFR 1500-1508), and the Department of the Interior's NEPA regulations (43 CFR 46). The decision made herein is based on the FEIS filed with the Environmental Protection Agency as announced in the *Federal Register* on November 16, 2012.

Proposed Action and Alternatives Considered in the FEIS

The FEIS describes and analyzes the potential effects of four alternatives. The No Action Alternative represents the conditions of the affected area in Sanpete and Carbon counties if the project were not built. Three action alternatives were analyzed regarding the issuing of an SRPA loan to SWCD and allowing SWCD to use Federal lands to build a dam and reservoir. The SWCD's dam and reservoir could be built in one of three sizes at the same location—16.1 river miles upstream of Scofield Reservoir. Three reservoir sizes were analyzed to enable the USACE to determine the Least Environmentally Damaging Practicable Alternative.

Under all three action alternatives, a supplemental water supply would be developed for currently irrigated lands and for municipal and industrial (M&I) water users in north Sanpete County. The largest reservoir under the action alternatives would require

diversion of up to 5,400 acre-feet of water annually from the Gooseberry Creek drainage in the Colorado River Basin to northern Sanpete County in the Sevier River drainage basin. The water rights used under any of the action alternatives represent about 6.6 percent of the average annual yield of the Price River above Price City. It is anticipated that use of the reservoir yield will change over time. SWCD's conversion of water from irrigation to M&I use would occur in stages under all action alternatives.

The Preferred Alternative is the largest dam and reservoir of those considered in the FEIS with a reservoir capacity of 17,000 acre-feet of water stored behind a dam having a height of 120 feet, a crest length of 550 feet, and a reservoir surface area of 604 acres. It would provide an average annual yield of 5,136 acre-feet for supplemental irrigation of 15,420 acres of currently irrigated farmland and 855 acre-feet of water for M&I use. Supplemental irrigation is expected to yield a third crop of alfalfa in an area where usually only two crops are harvested.

Under the Preferred Alternative, SWCD's proposal would require a total of 1,931 acres of land, of which 304.5 acres would be Reclamation withdrawn land with 255 acres for the dam, 1.5 acres for the Upper Cottonwood Creek pipeline, 34 acres for relocation of State Road 264, 12 acres for the recreation area, and 2 acres for a quarry.

The Mid-Sized Reservoir Alternative would have a capacity of 12,450 acre-feet stored behind a dam having a height of 110 feet, a crest length of 475 feet, and a reservoir surface area of 489 acres. It would produce an average annual yield of 4,964 acre-feet per year. The Reclamation withdrawn land (304.5 acres) required for the Mid-Sized Reservoir Alternative would be the same as for the Preferred Alternative because the dam and recreation area will be located on the Reclamation withdrawn land. The major portion of the reservoir basin will be located on private land; the reduction in reservoir size will be reflected in a reduction in the amount of private land required for the project.

The Small Reservoir Alternative would have a capacity of 7,900 acre-feet stored behind a dam having a height of 100 feet, a crest length of 425 feet, and a reservoir surface area of 362 acres. It would produce an average annual yield of 4,710 acre-feet per year. The Reclamation withdrawn land (304.5 acres) required for the Small Reservoir Alternative would be the same as for the Preferred Alternative. As noted above, the major portion of the reservoir basin will be located on private land; the reduction in reservoir size will be reflected in a reduction in the amount of private land required for the project.

All other project features/actions are the same under each action alternative. All action alternatives would include the following non-Federal project features/actions:

- Construction of the Narrows Dam and Reservoir on Gooseberry Creek;
- Modification of the inlet and outlet portions of the Narrows Tunnel to measure and convey water from the Narrows Reservoir to the Upper Cottonwood Creek Pipeline;
- Construction of the Upper Cottonwood Creek Pipeline to carry project water from the Narrows Tunnel outlet to Cottonwood Creek;

- Construction of the Oak Creek Pipeline to convey water from Cottonwood Creek to the community of Fairview;
- Construction of the East Bench Pipeline to convey project water from Cottonwood Creek to project service areas south of Fairview;
- Relocation of State Road 264 around the reservoir;
- Modification of Forest Development Road Nos. 50124, 50150, and 50225;
- Modification of the snowmobile parking area along Forest Development Road No. 50150;
- Construction of recreation facilities adjacent to Narrows Reservoir; and
- Execution of environmental commitments to mitigate or reduce potentially adverse effects.

Environmentally Preferable Alternative

The analyses in the FEIS show the No Action Alternative to be the environmentally preferable alternative.

Reclamation's Decision

Reclamation's decision is to select one part and reject one part of the Preferred Alternative. Reclamation will license the use of the Federal land, but will not accept or review a final loan application and will not issue an SRPA loan. Thus, the decision is for the United States to enter into a license agreement with SWCD authorizing SWCD to use 304.5 acres of Reclamation withdrawn lands subject to specific conditions described in the Environmental Commitments section of this document as well as in the FEIS. This decision includes the potential for refinement of the license agreement terms and conditions to ensure appropriate and responsible use of Federal lands.

The initial license agreement will be for a period not to exceed 50 years, but will terminate after 15 years if SWCD has not begun project implementation by awarding a construction contract for the dam and issuing a Notice to Proceed with construction. The licensed use of the land will begin on the date the license agreement is signed by all parties. The agreement will be renewable in order to cover the anticipated 100-year life of the dam. Such renewal will be at the discretion of the Secretary of the Interior based on the prevailing policy at the time of renewal.

Basis for Decision and Issues Evaluated

The decision provides the best means to minimize or avoid environmental harm while allowing SWCD to use Reclamation withdrawn lands to develop storage of its non-Federal Narrows Project water rights and thereby provide additional water for irrigated agriculture and future M&I use. In making this decision to license use of the withdrawn

lands, Reclamation reviewed the alternatives described in the FEIS and their predicted environmental, economic, technical, and social impacts. Although Reclamation considered the economic impact analysis of the project as appropriate for NEPA compliance, Reclamation did not and will not evaluate the loan application appended to the FEIS.

Although Reclamation has the legal authority to issue the loan under the SRPA, Reclamation ceased administering SRPA loans in 1987. As a result, no funding is currently available for SRPA loans. Reclamation is not seeking appropriations and will not in the near future seek appropriations for SRPA funding. In addition, the prospect of future SRPA funding through Congressional write-in is unlikely.

Throughout the entire NEPA compliance process, Reclamation considered all comments from public entities, private organizations, individuals, and Federal, State, and local agencies. Issues of particular concern included water resources, water rights, water quality, fisheries, special status species, economics, and land resources. Reclamation has reviewed each of these issues in making the decision to issue the license agreement to SWCD. The following subsections highlight these issues. It is important to note that in each case, adverse effects were either determined to be negligible or are subject to mitigation through environmental commitments (see the Environmental Commitments section below).

Water Resources

Water resources were the major factor in deciding on the selected alternative. As noted above, the Narrows Project, as defined by SWCD, would provide a supplemental water supply for currently irrigated lands and M&I water users in north Sanpete County. The Narrows Project would permanently reduce downstream flows on the Price River. Decreased storage levels in Scofield Reservoir would increase the potential of reaching dead storage in Scofield Reservoir by 20 percent. Decreased storage in Scofield Reservoir would also result in reduced spills from the reservoir, which could, in turn, affect the Price River and the rivers to which it is tributary. In light of these concerns, it is important to note that Reclamation planned, sized, and constructed Scofield Reservoir to accommodate a far larger dam and reservoir at the Narrows site. Excess capacity in Scofield Reservoir was planned to accommodate far larger diversions than the Narrows Project. The existing Scofield Reservoir was designed to ameliorate water supply effects.

The proposed Narrows Reservoir would inundate approximately 5 miles of small streams or creeks, including 1 mile of Upper Gooseberry Creek. Middle Gooseberry Creek, between the proposed Narrows Reservoir and Lower Gooseberry Reservoir, would see a reduction in annual flows, principally during spring runoff; however, the minimum flow requirements from the Narrows Project would eliminate historic periods of dry stream channels. Mitigation measures will also include 300 acre-feet of stored water to be managed for water quality and aquatic biological resources. A transbasin diversion through the existing Narrows Tunnel to Cottonwood Creek would result in lower peak flows on Gooseberry Creek during the spring runoff period, but that effect would be offset by higher flows during the irrigation season.

Water Rights

An important decision criterion was ensuring the Narrows Project would comply with Utah State law and the non-Federal Narrows Project water rights. The distribution of water between Sanpete and Carbon counties has been adjudicated and approved by the Utah State Engineer. As a result, the development of the Narrows Project should have a limited impact on the previously developed Carbon County water rights holders because SWCD's use of water for project purposes has been anticipated since the water rights were settled in 1984. As mentioned above, the annual depletion for the Narrows Project represents 6.6 percent of the average annual yield of the Price River above Price City.

Water Quality

Water quality was an important decision criterion for both public health and for aquatic resources in the Price River and tributaries involved in the Narrows Project. With respect to the drinking water for Price City, there are no demonstrated correlations among drought, gastrointestinal illness, and need for chlorination at the city's water treatment plant. Without such correlations, there are no identified means by which the anticipated reduction in Scofield Reservoir water supply could lead to adverse public health effects in Price City or other areas served by the treatment plant. Thus, it is highly improbable that public health will be adversely affected by the selected action.

As a result of the project, timing of flows, temperature, turbidity, and the ecological composition of several rivers and streams would be affected. Water quality downstream from the Narrows Project would be more sensitive to future activities that degrade or improve water quality. These activities may include phosphorus load reduction efforts in the Scofield Reservoir drainage and salinity control efforts in the Price River Watershed. Water quality mitigation measures have been proposed by SWCD to maintain water quality and comply with the Clean Water Act. These are described in the Environmental Commitments section below.

Fisheries

The sport fisheries below Scofield Reservoir and in Cottonwood Creek, Fish Creek, and unnamed tributaries will be adversely affected by the depletions for the Narrows Project. However, 300 acre-feet of stored water will be used to enhance fisheries as a fishery mitigation measure. Other mitigation measures are incorporated into the selected alternative (see FEIS Section 2.2.2.2.1 as well as the Environmental Commitments section below).

Special Status Species

An important decision criterion was avoiding jeopardy to species listed under the Endangered Species Act (ESA). Reclamation consulted with the U.S. Fish and Wildlife Service (Service) under Section 7 of the ESA and the Service issued a jeopardy opinion. The opinion specified that the Recovery Implementation Program for the Upper Colorado River Basin Endangered Fish Species (RIP) would serve as the reasonable and prudent alternative for the Narrows Project. Continued progress of the RIP allows the states to continue to deplete water and develop their respective shares of the river. As shown in the

Environmental Commitments section below, SWCD has specific commitments related to ESA-listed species.

Economics

In the short-term, the number of jobs created during construction of the Narrows Project would be less than one percent of the base employment, output, and income of Sanpete and Carbon counties. The increase in employment is the most significant short-term economic impact that would occur from construction activities.

In the long-term, the Narrows Project would increase farm income by 11 percent in Sanpete County. The increase in farm income is the result of the reservoir making it possible to store water from spring runoff for use during the drier summer months. This would allow local farmers the opportunity to have a longer, more-productive growing season.

Land Resources

The Narrows Project would require a total of 1,931 acres of land, of which 304.5 acres would be Reclamation withdrawn land. The rest of the land is privately owned. Land use would change from recreation, range, and wildlife habitat to dam, reservoir, project facilities, and reservoir-based recreation. The project would not alter the 15,420 acres of currently irrigated farmland; rather, it would provide a third crop on the same land.

Summary of Comments Received on the Final EIS

Following the *Federal Register* Notice of Availability of the FEIS on November 16, 2012, Reclamation received 13 e-mails/letters on the FEIS. Reclamation evaluated all comments to determine whether they presented “significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts.” After considering all comments, Reclamation concluded that the comments received do not raise “significant new circumstances or information” and, as a result do not require supplementing the FEIS. Although the deadline for receipt of comments was 5:00 p.m. on Monday, December 17, 2012, Reclamation accepted and reviewed all comments, including those received after the deadline.

A number of the comments focused on the SRPA loan including the project’s eligibility for funding and its ability to meet SRPA criteria. Because Reclamation will not evaluate an application or provide SRPA funding, Reclamation did not address these comments in any detail. The following is a summary of comments sorted by the date they were received.

U.S. Fish and Wildlife Service

Two e-mails were received from the Service on December 10, 2012, and December 17, 2012. The Service provided a letter duplicating the content of the e-mails. The primary concern was potential effects to greater sage-grouse, a candidate species for listing under the ESA. Reclamation acknowledges this concern and has added a new environmental

commitment requiring an inventory of these birds and an assessment of possible effects. In addition, Reclamation added a commitment for compliance with the Migratory Bird Treaty Act and Bald and Golden Eagle Protection Act.

Citizen 1

An e-mail dated November 8, 2012, from a member of the public questioned whether the USACE could select the large reservoir alternative as the Least Environmentally Damaging Practicable Alternative. This decision will be made by USACE. The individual was also concerned about the project cost and effects on Carbon County. The FEIS addressed both cost and effects on Carbon County.

Citizen 2

An e-mail dated December 2, 2012, from a member of the public raised concerns about climate change and threats to the trout fishery associated with Scofield Reservoir. The FEIS addressed the effects on the fishery. Reclamation's additional analysis of climate change is described below.

Citizen 3

A letter was received on December 6, 2012, from a member of the public, questioning the project's effects on the lower Price River, its effects on trout fisheries, and its cost. The FEIS addressed the effects on river flows, fisheries, and the project's cost-benefit ratio.

Citizen 4

An e-mail dated December 8, 2012, from a member of the public raised a concern about the project's potential to "negatively impact the Price River Gorge in the Book Cliffs Wilderness Study Area." The author is likely referring to the Desolation Canyon Wilderness Study Area. Immediately above the confluence of the Price River and Green Rivers, the Price River flows through a portion of the study area. The FEIS addresses the effects of the project on the Price River in its upper reaches, concluding that the effects on the river will likely be negligible. For the lower reaches of the Price River, the FEIS notes that the effects of the project's depletions will be addressed under the RIP.

Citizen 5

A series of e-mails were received on December 11, 2012, from a member of the public raising concerns about the project's effects on the Price River. The individual was also concerned with the cost of the project and its potential effects on trout fisheries. The FEIS addressed the effects on river flows and fisheries. The project's cost-benefit ratio indicates that project benefits outweigh costs.

Utah Rivers Council

An e-mail and duplicate letter received from the Utah Rivers Council on December 14, 2012, raised the following main concerns with the FEIS (Reclamation's responses are included at the end of each comment):

(1) The FEIS for the project fails its purpose under NEPA and does not follow the requirements of SRPA.

The decision meets Reclamation's purpose and need for action. Because Reclamation will not review a final SRPA loan application or fund a loan, the issue regarding SRPA requirements is moot.

(2) Reclamation failed to adequately address the impacts of climate change.

In the interim between the publication of the Draft FEIS and the FEIS, Reclamation published two key documents related to climate change—*SECURE Water Act Section 9503(c) – Reclamation Climate Change and Water 2011* and *West-Wide Climate Risk Assessments: Bias-Corrected and Spatially Downscaled Surface Water Projections (Technical Memorandum No. 86-68210-2011-0)* (WCRA). The WCRA made detailed data available for a limited number of drainages and gauging stations. In response to this comment, Reclamation performed a sensitivity analysis using WCRA and the associated data for Fish Creek. Because the Fish Creek drainage is snow-fed, analysis of its data produces more reliable results than a similar rain-fed drainage.

A comparison of the range of hydrologies analyzed in the FEIS and the WCRA projections for Fish Creek to 2050 and 2099 shows that the difference between the hydrology analyzed in the FEIS and the hydrology analyzed using WCRA is negligible. In short, Reclamation has employed the best available tools and analyses in assessing the impact of climate change before completing this Record of Decision and has found the impact to be minimal and within the range analyzed in the FEIS.

(3) That the project is disproportionately harmful to the environment, wasteful of taxpayer dollars, bad for the regional economy, and as such should not be funded by a loan through the SRPA.

The FEIS addressed the economic impacts including the cost-benefit ratio of the project. The positive cost-benefit ratio is an indication the area has the resources to pay for the project and that the project will be a net benefit. The impact on the regional economy will be positive. There will be no SRPA loan.

Citizen 6

An e-mail was received December 15, 2012, from a member of the public who is concerned with Sanpete County paying for the water project and the effects on Carbon County.

These issues have been addressed in the FEIS.

Carbon Water Conservancy District

An e-mail and duplicate letter from the law firm of Parsons Behle & Latimer on behalf of the Carbon County Water Conservancy District (CWCD), dated December 17, 2012, raised the following concerns (Reclamation's responses are included at the end of each comment):

(1) Reclamation did not evaluate a sufficiently-wide range of alternatives.

Some years ago, Reclamation set aside work on the Draft EIS to consider additional alternatives. In addition to the action alternatives, Reclamation considered 13 alternatives and eliminated them from study. These 13 alternatives represented a full-range of reasonable options. These alternatives and their reasons for elimination are described in the FEIS.

(2) Reclamation should have “re-scoped” the EIS and issued a draft EIS—not a supplemental EIS.

Reclamation conducted additional public scoping after publishing a Notice of Intent to prepare a supplemental EIS in November 2003. CWCD participated in that public scoping process and the associated public meetings.

(3) The seismic analysis in the FEIS is flawed.

In addition to the seismic analysis described in the FEIS, Reclamation also requires additional seismic analysis as a condition of project implementation (see Environmental Commitment 1 in the Environmental Commitments section below).

(4) Reclamation failed to address adequately concerns about the timing and volume of M&I water use.

The CWCD noted a discrepancy between the applicant’s loan application and the FEIS description. The description on page 2-5 of the FEIS indicates that the average annual M&I delivery would be 855 acre-feet per year, although initially it would be about 500 acre-feet and it could increase to 2,800 acre-feet per year. Given that these volumes are based on population growth and future demand, the data in the FEIS do not require supplemental analysis.

(5) Reclamation did not address the growth-inducing effects of project M&I water within Sanpete County.

In addressing growth-inducing affects of M&I water, Reclamation differentiates between situations when there are other sources of water and when there are not. When the new water supply is the only source of water, there is the possibility that the new supply will induce growth. In such cases, Reclamation analyzes the effects of induced growth as part of NEPA compliance. When there are multiple sources of available water, Reclamation does not consider growth inducement as being reasonably foreseeable and as a result not attributable to the action. In the case of the Narrows project, there are other sources; Reclamation did not analyze growth-inducement effects.

(6) Reclamation did not incorporate its newly-downscaled global climate change model for the Colorado River Basin in the analysis.

See Reclamation’s response to the Utah Rivers Council’s comments on climate change above.

(7) Cost and budget estimates are inadequate.

As noted above, the FEIS addressed the benefit/cost ratio of the project using indexed and updated cost estimate and budget figures. As there will be no SRPA loan, SWCD will seek other financing which will require it to meet other public and private sector budget and cost estimate requirements before the project is realized.

(8) The FEIS contains insufficient analysis of effects on sage-grouse and sage-grouse habitat.

Concerns about sage-grouse habitat have been addressed in a new environmental commitment.

(9) FEIS wetlands and other waters analysis is inadequate for NEPA compliance and Section 404 permitting requirements.

Section 404 permitting is a separate process under the purview of the USACE. Environmental commitments address wetlands and other waters concerns.

(10) The 36 CFR 800 process needs to be completed prior to issuing a ROD.

The inventory data included in the FEIS are sufficient for projecting the nature and scale of potential adverse effects on historic properties for NEPA purposes; there are environmental commitments that must be met to complete the process prior to any ground-disturbing activities.

(11) There is insufficient information about who will manage the recreational facilities and what the management costs might be.

An environmental commitment requires agreements between the USDA Forest Service and SWCD for managing public recreation.

(12) The FEIS fails to address CWCD's prior water quality comments and concerns.

Reclamation revised the water quality information published in the draft supplemental EIS before publishing the FEIS. Reclamation based the revisions on water quality comments received from CWCD and others.

Trout Unlimited

An e-mail and duplicate letter received from the Stonefly Society Chapter of Trout Unlimited on December 17, 2012, raised a wide range of concerns—most of which are fully addressed in the FEIS. It raised some concerns with the NEPA process, including alternatives, mitigation measures, and supplementing the FEIS. In response to NEPA process concerns, Reclamation reiterates that the FEIS and this Record of Decision were prepared pursuant to NEPA, the Council on Environmental Quality's regulations (40 CFR 1500-1508), and the Department of the Interior's NEPA regulations (43 CFR 46).

Trout Unlimited also raised the following specific concerns (Reclamation's responses are included at the end of each comment):

(1) The FEIS failed to fully address vegetation and water quality in Scofield Reservoir.

As noted above, Reclamation revised the water quality information published in the draft supplemental EIS before publishing the FEIS. Reclamation based the revisions on water quality comments received from CWCD and others.

(2) There is a need for an operational plan for the new Narrows Reservoir.

This is true. The ROD and FEIS establish the sideboards for operation and maintenance of the dam and reservoir. The development of operational plans and agreements is not Reclamation's responsibility nor is it part of the environmental compliance process; it is part of project implementation.

(3) There are general concerns about the SRPA loan and cost of the project.

As noted above, Reclamation will not review an SRPA application and will not issue an SRPA loan. The FEIS addressed the benefit/cost ratio of the project using indexed and updated cost estimate and budget figures.

Citizen 7

An e-mail received on December 18, 2012, from a member of the public raised concerns with the analysis done on sage-grouse and the mechanisms in place to enforce environmental commitments. As noted above, Reclamation has added a sage-grouse and sage-grouse habitat environmental commitment. All commitments are the responsibility of Reclamation or SWCD. Reclamation will coordinate with SWCD in meeting its commitments. The SWCD must initiate, make progress, or complete a large number of its environmental commitments before Reclamation will execute the license agreement. Also, Reclamation has imposed a reporting requirement regarding compliance with the remainder of the commitments.

Citizen 8

A letter received on or about December 20, 2012, (the date of receipt was not recorded) from a member of the public raised concerns about the effect of the project on trout fisheries in the Gooseberry and Upper Fish Creek drainages including Gooseberry and Scofield Reservoirs. The FEIS addresses fishery impacts in Section 3.10.

Summary of Edits to the Environmental Commitments

The FEIS contains a list of environmental commitments in Appendix G. Reclamation has amended specific commitments and added additional commitments in response to comments received following publication of the FEIS. The following summarizes new commitments and significant amendments to existing commitments.

Environmental Commitment 3: Highway Standards

Reclamation added Environmental Commitment 3 to address the Utah Department of Transportation's (UDOT) comments on the draft EIS regarding highway safety standards. During the design phase of the dam, SWCD will consult with UDOT to ensure that the state highway across the dam meets engineering safety standards.

Environmental Commitment 15: Greater Sage-Grouse Lek Survey

Reclamation added Environmental Commitment 15 to address comments regarding sage-grouse and sage-grouse habitat. Under that commitment, SWCD will conduct lek, nesting, and brood-rearing surveys to identify greater sage-grouse use of the project area before construction is begun. Survey methodology will be coordinated with the Utah Division of Wildlife Resources (DWR) and the Service. Depending on the results of the surveys, SWCD will coordinate and implement appropriate mitigation measures in coordination with the DWR and the Service, prior to the initiation of construction.

Environmental Commitment 19: Utah State Dam Safety and Stream Alteration Permits

Reclamation amended Environmental Commitment 19 to include a requirement that, prior to dam construction, SWCD would obtain a State Dam Safety Permit and a State Stream Alteration Permit. The Utah State Engineer is responsible for operation and maintenance oversight, which includes all facility inspections as well as oversight of dam safety.

Environmental Commitment 29: Raptor Protection

Reclamation amended Environmental Commitment 29 to ensure that SWCD uses appropriate U.S. Fish and Wildlife Service guidelines regarding raptor protection.

Environmental Commitments

The following list catalogs all 38 environmental commitments designed to avoid or minimize adverse impacts. Reclamation will not issue the license agreement unless SWCD and Reclamation have initiated or completed those environmental commitments that must be initiated before construction. SWCD will be required to submit an annual report on the status of the implementation of all of its environmental commitments. Reclamation will monitor compliance with those other commitments that must be initiated or completed during and/or after the construction period.

Note: The party responsible for each of these commitments is identified in parentheses at the end of each commitment.

Before and During Design

1. *Seismic Study* – Prior to design of the Narrows Dam and appurtenant structures, conduct a seismic study, as outlined in the Federal and Utah State Guidelines, for the dam and reservoir site. The study will reflect the current standard of care prescribed. Additional geologic field evaluation and assessment of the dam and

reservoir site will be completed. The field evaluation and assessment will address the proximal active faults associated with the site and describe the earth materials underlying the dam and reservoir. This evaluation will ensure adequate design of project features. Designs will incorporate the maximum accelerations and Maximum Credible Earthquake associated with natural and or manmade seismic events that could potentially occur in the area. Mitigation for other potential geologic hazards will also be integrated into the project design. (SWCD)

2. *Seepage Studies and Permeability Testing* – Prior to dam construction, complete a reservoir study to determine the possibility of leakage from the reservoir basin into adjacent fault and fissures and into coal veins. This will require drilling or other methods to assess the likely seepage rate into the fault zones through the overlying material. Permeability testing in the overburden and in the fault zone will be evaluated to assess seepage rates. (SWCD)
3. *Highway Standards* – During the design phase of the dam, consult with UDOT to ensure that the State highway across the dam meets engineering safety standards. (SWCD)

Before Construction

4. *National Register of Historic Places Eligibility* – Evaluate three previously recorded sites in the reservoir basin for National Register of Historic Places (NRHP) eligibility. Limited testing necessary to evaluate the sites will be accomplished by placing auger holes in a pattern on each site or excavating test units. (Reclamation)
5. *Cultural Resources Inventory (Reservoir and Wetlands)* – Inventory for cultural resources any of the reservoir basin, dam construction zone, and road realignments not inventoried in 1979—including a ¼-mile zone around the pool area that will be impacted by recreational use of the reservoir. Inventory the location of all recreational facilities proposed in the project plan, in addition to all areas slated for wetlands enhancement. (Reclamation)
6. *Cultural Resources Inventory (Pipelines)* – Inventory for cultural resources the rights-of-way for the proposed East Bench and Oak Creek Pipelines, consisting of 16.1 linear miles of proposed water pipeline near Fairview in Sanpete County. (Reclamation)
7. *Cultural Resources Inventory (Tunnel)* – Inventory for cultural resources and evaluate the existing historic tunnel delivery system on Gooseberry Creek for its NRHP eligibility. (Reclamation)
8. *Cultural Resources Overview (USDA Forest Service)* – Conduct a cultural resources overview of USDA Forest Service information on historic features in and near the project area and evaluate any features within the project area as to their NRHP eligibility. (Reclamation)

9. *Paleontological Survey* – Conduct a paleontological literature search and survey of the project area and its immediate vicinity, with the particular view of assessing the likelihood of recovering remnants of Pleistocene fauna during the project. (Reclamation)
10. *Cultural Resource Inventory (Classes I and III)* – Conduct Class I and Class III cultural resource inventories for the entire area of potential effects (APE), as defined in Section 3.16.1 of the FEIS, prior to initiation of final design and construction. (Reclamation)
11. *Section 106 Consultation* – Consult with the SHPO and other consulting parties on all findings and determinations made throughout the Section 106 process. Such consultation includes consultation with the State Historic Preservation Office (SHPO) regarding the NRHP eligibility of any historic or archaeological sites found during work associated with any of the above commitments. If Reclamation and the SHPO jointly reach the conclusion that significant sites will be impacted by the project, Reclamation will then consult with SHPO and with the Advisory Council on Historic Preservation to negotiate a Memorandum of Agreement (MOA) that outlines mitigation measures to be taken prior to project construction to avoid adverse effects of the project on historic properties. (Reclamation)
12. *Air and Water Quality* – Comply with applicable Federal and State laws, orders, and regulations relating to air and water quality in all construction activities. This will include obtaining proper permits, such as a 402 Storm Water Permit from the State of Utah, and complying with any limitations imposed by those permits. Best Management Practices specified in the Nonpoint Source Water Pollution Control Plan for Hydrologic Modification in Utah will be implemented as a requirement of all construction contracts. (SWCD)
13. *Additional Environmental Analysis* – If the action changes significantly from that described in the FEIS because of additional or new information or if other construction areas are required outside the areas analyzed in the FEIS, undertake additional environmental analysis if necessary. (Reclamation)
14. *Section 404 Permit* – Obtain a Clean Water Act Section 404 permit from the USACE. The USACE regulates all the jurisdictional waters of the United States including jurisdictional wetlands. The conditions and requirements of the 404 permit will be strictly adhered to by SWCD. (SWCD)
15. *Greater Sage-Grouse Lek Survey* – Prior to project construction, conduct lek, nesting, and brood-rearing surveys to identify greater sage-grouse use of the project area. Survey methodology will be coordinated with the DWR and the Service. Depending on the results of the surveys, SWCD will coordinate and implement appropriate mitigation measures in coordination with the Utah Division of Wildlife Resources and the USDA Forest Service, prior to the initiation of construction. (SWCD)

16. *Ground-Nesting Bird Survey* – Conduct a survey of ground nesting birds prior to any ground disturbing activities within the construction area. This survey will be conducted by a biologist to avoid, to the extent possible, any negative impacts to these birds. If ground-nesting birds are found using the construction area appropriate mitigation measures would be developed. (SWCD)
17. *Golden and Bald Eagles* – Conduct a survey for both Golden and Bald Eagles or active roosting or nesting sites prior to any ground disturbing activities within the construction area. This survey will be conducted by a biologist to avoid, to the extent possible, any negative impacts to these birds. If Eagles are found using the construction area appropriate mitigation measures would be developed. (SWCD)
18. *Migratory Birds* – Conduct a survey of migratory birds prior to any ground disturbing activities within the construction area. This survey will be conducted by a biologist to avoid, to the extent possible, any negative impacts to these birds. If migratory birds are found using the construction area appropriate mitigation measures would be developed. (SWCD)

Before, During, and After Construction

19. *Utah State Dam Safety and Stream Alteration Permits* – Obtain a State Dam Safety Permit and a State Stream Alteration Permit prior to dam construction. In addition, standard reclamation management practices will be applied during construction activities to minimize environmental effects and will be included in construction specifications. Such practices or specifications include sections in the present report on public safety, dust abatement, air pollution, noise abatement, water pollution abatement, waste material disposal, erosion control, archaeological and historical resources, vegetation, and wildlife. All public access roads used during construction will be repaired and restored to pre-construction condition before construction contractors leave the project area. (SWCD)
20. *Water Quality Monitoring* – In coordination with the Utah Division of Water Quality and other relevant parties, develop a water quality monitoring plan for all project-related features, impacted downstream water bodies, and potential mitigation locations. Monitoring will begin prior to construction of project facilities and will establish baseline conditions for water quality and phosphorus loading at potential mitigation locations. Monitoring will continue through all phases of construction to determine construction-related impacts, if any. Monitoring will also continue post-construction to determine the effectiveness of mitigation measures and determine other impacts, if any, from operation of the project. In addition, SWCD will implement the water quality monitoring plan and all mitigation measures described in Chapters 2 and 3 of the FEIS. (SWCD)

During Construction

21. *Discovery of Cultural Sites* – In the event that any cultural site, feature, or artifact (historic or prehistoric) is discovered during construction, whether on the surface or as an inadvertent subsurface discovery, cease construction in the area of discovery immediately, and report the finding immediately to the Provo Area Office archaeologist. Construction in the area of discovery shall not resume until an assessment of the cultural material and an evaluation to determine appropriate actions to prevent loss of significant cultural or scientific value can be made by a professional archaeologist. (SWCD)
22. *Discovery of Remains* – Any person who knows or has reason to know that he or she has inadvertently discovered possible human remains on Federal land, must provide immediate telephone notification of the discovery to Reclamation's Provo Area Office archaeologist. Work will stop until the proper authorities are able to assess the situation onsite. This action will promptly be followed by written confirmation to the responsible Federal agency official, with respect to Federal lands. The Utah SHPO and interested Native American tribal representatives will be promptly notified. Consultation will begin immediately. This requirement is prescribed under the Native American Graves Protection and Repatriation Act (43 CFR Part 10) and the Archaeological Resources Protection Act of 1979 (16 U.S.C. 470). (SWCD)
23. *Vertebrate Fossils* – Should vertebrate fossils be encountered during ground disturbing actions, suspend construction in the area of discovery until a qualified paleontologist can be contacted to assess the find. (SWCD)
24. *Pesticides and Hazardous Wastes* – Require all construction contractors to comply with Federal and State laws concerning the use of pesticides and hazardous wastes. (SWCD)
25. *Asphalt Road Surface Removal* – Remove the asphalt surface from the roads within the reservoir basin. (SWCD)
26. *Undesirable Plants and Animals* – Take appropriate steps to prevent the spread of, or otherwise control, undesirable plants and animals within areas affected by construction activities. Equipment used for the project will be inspected for reproductive and vegetative parts, foreign soil, mud, or other debris that may cause the spread of weeds, invasive species, and other pests. Such material will be removed before moving vehicles and equipment onto any Federal land. Upon the completion of work, decontamination will be performed within the work area before the vehicle and/or equipment are removed from Federal project lands. (SWCD)
27. *Fugitive Dust* – Implement best management practices to control fugitive dust during construction. The contractor will follow the U.S. Environmental Protection Agency recommended control methods for aggregate storage pile emissions to

minimize dust generation, including periodic watering of equipment staging areas, along with all construction and haul roads within the project boundaries. All loads that have the potential of leaving the bed of the truck during transport will be covered or watered to prevent the generation of fugitive dust. (SWCD)

28. *UPDES Permit* – Obtain a Utah Pollutant Discharge Elimination System (UPDES) Permit before any discharges of water as a point source into any water body. (SWCD)
29. *Raptor Protection* – As noted above, use the Service’s *Utah Field Office Guidelines for Raptor Protection from Human and Land Use Disturbances (2002)* to provide full compliance with environmental laws regarding raptor protection. (SWCD)
30. *Public Access* – Close construction sites to public access. Temporary fencing, along with signs, will be installed to prevent public access. (SWCD)

During and After Construction

31. *Wildlife Mitigation and Range Improvement Measures* – Implement all wildlife mitigation measures described in Chapters 2 and 3 of the FEIS. SWCD will be responsible for funding and acquiring all lands and easements. SWCD will provide native seed to supplement the USDA Forest Service native seed mixture for the watershed and range improvement project. SWCD will fund and construct all improvements, such as fencing. This work will be performed concurrently with construction of other project facilities. All lands and rights-of-way will be acquired, and initial construction of wildlife measures will be completed prior to initial filling of the reservoir. SWCD will also be responsible for funding the mitigation monitoring. SWCD will be responsible to enter into MOAs with the DWR, USDA Forest Service, and other appropriate agencies for all wildlife measures. The MOAs will clearly define the roles and responsibilities of the SWCD, DWR, USDA Forest Service, and other parties for implementation and maintenance of the wildlife measures. (SWCD)
32. *Wetland Mitigation Measures* – Implement the wetland mitigation measures described in Chapters 2 and 3 of the FEIS. SWCD will be responsible for funding and acquiring all lands and rights-of-way. SWCD will provide and transplant any native plantings needed. SWCD will be responsible to ensure that all sediment fences are in good repair and are maintained properly. SWCD will also be responsible to install and maintain any diversion and/or irrigation facilities. This work will be performed concurrently with construction of other project facilities. All lands and rights-of-way will be acquired, and initial construction of wetland measures will be completed prior to initial filling of the reservoir. SWCD will also be responsible to fund the monitoring of wetland mitigation. SWCD will be responsible to enter into MOAs with DWR, USACE, and other appropriate agencies for all wetland measures. The MOAs will clearly define the roles and responsibilities of SWCD, DWR, USACE, and other parties for implementation and maintenance of the wetland measures. (SWCD)

33. *Fishery Mitigation Measures* – Implement all fishery mitigation measures described in Chapters 2 and 3 of the FEIS. SWCD will be responsible for funding and acquiring all lands and rights-of-way. SWCD will fund and construct all improvements, such as fencing and stream channel improvements. SWCD will provide water from its water rights or enter into operating agreements for all instream flows described in Chapter 2 of the FEIS. This work will be performed concurrently with construction of other project facilities. All lands and rights-of-way will be acquired, and initial construction of fishery measures will be completed prior to initial filling of the reservoir. SWCD will be responsible to fund all operation and maintenance costs of mitigation facilities. SWCD will be responsible to enter into a MOA with the DWR and other appropriate agencies for all fishery measures. The MOA will clearly define roles and responsibilities of SWCD, DWR, and other parties for implementing, monitoring, and maintaining the fishery measures. (SWCD)
34. *Sediment Control* – Take appropriate measures to ensure that construction-related sediments will not enter any water bodies either during or after construction. (SWCD)

After Construction

35. *Re-vegetation* – Re-contour and re-vegetate all disturbed lands outside of lands submerged by the reservoir using an approved, weed-free, native, pure live seed mix and appropriate seeding methods. Success of this effort will be evaluated on the basis of percent vegetative cover of the ground surface and level of plant species diversity. The composition of seed mixes will be coordinated with wildlife habitat specialists. Noxious weed control on all disturbed areas will be required. (SWCD)
36. *Water Conservation Plan* – Comply with all existing and applicable Federal, State, and local policies and regulations requiring the preparation, submittal, and implementation of a water conservation plan. (SWCD)
37. *Conservation Implementation* – Require all recipients of Narrows Project water to implement conservation practices to be eligible for project water. (SWCD)
38. *ESA Consultation* – If necessary, re-initiate ESA Section 7 consultation to discuss additional conservation measures in the event sufficient progress has not been achieved under the RIP. It is important to note that SWCD made a partial payment to the RIP in 1995. (Reclamation)

Implementation

Execution of the license agreement is contingent upon:

- SWCD demonstrating it has or will have access to sufficient private or public funding to initiate and complete the project;

- Reclamation meeting its obligations under those FEIS and ROD environmental commitments requiring initiation, progress, or completion before construction;
- SWCD meeting its obligations under those FEIS and ROD environmental commitments requiring initiation, progress, or completion before construction; and
- SWCD remitting all fees and assessments required under the license agreement.

Approved:



Regional Director
Bureau of Reclamation
Upper Colorado Region
Salt Lake City, Utah

JANUARY 3, 2013
Date