BUREAU OF RECLAMATION

Hydropower Facility Maintenance, Rehabilitation, and Replacement and Lease of Power Privilege Categorical Exclusions Substantiation Report

U.S. Department of the Interior

April 2026

Mission Statements

The U.S. Department of the Interior protects and manages the Nation's natural resources and cultural heritage; provides scientific and other information about those resources; and honors its trust responsibilities or special commitments to American Indians, Alaska Natives, Native Hawaiians, and affiliated Island Communities.

The mission of the Bureau of Reclamation is to manage, develop, and protect water and related resources in an environmentally and economically sound manner in the interest of the American public.

Hydropower Facility Maintenance, Rehabilitation, and Replacement and Lease of Power Privilege Categorical Exclusions Substantiation Report

April 2026

Substantiation Report on the Bureau of Reclamation's Analysis of National Environmental Policy Act Records to Establish Categorical Exclusions for Hydropower-related Activities.

prepared by

National Programs Office
Natural and Cultural Resources Division
Bureau of Reclamation
Department of the Interior

Contents

Acronyms and Abbreviations

AQ – Air Quality
BMPs – Best Management Practices
BOR – Bureau of Reclamation
BR – Biological Resources
CL – Climate
CE – Categorical Exclusion
CR – Cultural Resources
DOI – Department of the Interior
EA – Environmental Assessment
EIS – Environmental Impact Statement
EN – Energy
EO – Executive Order
ESA – Endangered Species Act
FONSI – Finding of No Significant Impact
FRN – Federal Register Notice
HTW – Hazardous and Toxic Waste
IR – Irrigation
ISS – Indian Sacred Sites
ITA – Indian Trust Assets
JKPGP – John W. Keys III Pump-Generating Plant
LOPP – Lease of Power Privilege
LU – Land Use
MW – Megawatt
NEPA – National Environmental Policy Act
NO – Noise
NRHP – National Register of Historic Places
OI – Other Impacts
PR – Power
SE – Socioeconomics
SHPO – State Historic Preservation Office
SO –Secretary's Order
THPO – Tribal Historic Preservation Office
TPP – Third Power Plant
TR – Transportation
UVWUA – Uncompahgre Valley Water Users Association
VR – Visual Resources
WL – Wetlands
WQ – Water Quality
WR – Water Resources
WRT – Water Rights

Introduction

The Bureau of Reclamation (Reclamation) has developed two categorical exclusions (CEs) under the National Environmental Policy Act (NEPA) for hydropower-related activities to add to its NEPA implementing procedures. These CEs address two categories of actions: (1) maintenance, rehabilitation, and replacement of existing hydropower facilities and equipment, and (2) issuance of leases of power privilege (LOPP) or alternative authorizations for non-federal hydropower development that augments or supplements existing Reclamation Project facilities.

The establishment of new CEs for hydropower-related activities is a key component of Reclamation's ongoing Hydropower Action Plan. This action plan prioritizes capital investment, process improvement, and technological innovation to maximize hydropower energy production, cost-savings, and operational efficiencies across Reclamation's hydroelectric facilities. By streamlining environmental reviews for routine and low-impact hydropower actions, these CEs support Reclamation's mission to manage water and related resources in an environmentally and economically sound manner. The Hydropower Action Plan emphasizes robust asset management and the protection of dispatchable energy sources, ensuring that Reclamation continues to deliver reliable, low-cost hydropower and associated benefits to western communities.

These procedural improvements are directly aligned with the Administration's priorities under Executive Order (EO) 14154, Unleashing American Energy, and Secretary's Order (SO) 3418 of the same name. These orders provide the policy framework for expanding domestic energy production, reducing regulatory barriers, and modernizing federal energy infrastructure. By establishing CEs for maintenance, rehabilitation, and replacement of existing hydropower facilities, as well as for the issuance of LOPPs, Reclamation is advancing national energy goals and fulfilling its responsibilities under both the Hydropower Action Plan and the relevant EOs and SOs. The new CEs enable Reclamation to efficiently implement hydropower projects that are consistent with these directives, while maintaining rigorous environmental safeguards through NEPA's extraordinary circumstances review.

In accordance with the Department of the Interior (DOI)'s NEPA regulations at 43 CFR 46.205(h), Reclamation has determined that the actions covered by the CEs are of a type that normally do not significantly affect the quality of the human environment. To support this determination, Reclamation has developed this written substantiation record, which includes a review of previously implemented actions and associated environmental assessments (EAs) and findings of no significant impact (FONSIs). These records demonstrate that the categories of actions have consistently resulted in no significant environmental effects.

As required by 43 CFR 46.205(h), Reclamation has:

1. Developed this written record to substantiate its determination,

2. Consulted with the Council on Environmental Quality regarding the establishment of the CEs, and
3. Provided public notice in the Federal Register of the establishment of the CEs and the availability of this substantiation record.

This substantiation report summarizes the rationale and supporting documentation for the two CEs and demonstrates that they meet the criteria for CEs under NEPA.

New Reclamation Categorical Exclusions

New Categorical Exclusion 1: D.10 Hydropower-related Maintenance, Rehabilitation, and Replacement

Maintenance, rehabilitation, and replacement of existing hydropower facilities and equipment, including all powertrain and balance of plant equipment, which may involve a minor change in size, location, and/or operation. Covered facilities and equipment include, but are not limited to, turbines, generators, transformers, cranes, pumps, gates, control and communication systems, and new instrumentation.

New Categorical Exclusion 2: C.5 Lease of Power Privilege (LOPP) Authorizations

Issuance of a lease of power privilege or alternative authorization by Reclamation, approving non-federal hydropower development which merely augments or supplements existing Reclamation Project facilities.

Reclamation substantiated these CEs using a review of previously implemented actions that were evaluated through EAs and resulted in FONSIs. Reclamation's reviewed actions approved in reliance on 10 EAs with FONSIs as representative of the types of activities normally evaluated in EAs that support FONSIs, and for which post-implementation confirms that such actions do not normally result in significant environmental effects.

Hydropower Facility Maintenance, Rehabilitation, and Replacement

Reclamation evaluated representative projects authorized in reliance on EAs that supported FONSIs to support the determination that the actions covered under the CE for hydropower facility maintenance, rehabilitation, and replacement are of a type that would not result in significant environmental impacts. Each EA disclosed effects associated with maintenance, rehabilitation, and replacement activities at existing hydropower facilities, all of which were confined to previously developed areas and consistent with the extraordinary circumstances review required for CE use under 43 CFR 46.215. The EAs analyzed upgrades to turbines, generators, transformers, and other equipment, and post-implementation review demonstrated the validity of the FONSIs that such actions do not normally result in significant effects on the human environment.

Reclamation decided to incorporate the term 'minor' in the new D.10 CE because its use is well established in several existing Reclamation CEs, and decades of implementation of those CEs have demonstrated that the term provides an appropriate level of flexibility for evaluating actions in relation to their specific characteristics and location. Specific considerations for "minor"

include things such as physical size, surrounding land use, extent of potential ground disturbance on previously undisturbed land, and the magnitude of any change in relation to hydrologic conditions or any potential effects on the aquatic system.

Table 1 summarizes the types of projects, Reclamation regions, underlying actions, and resources evaluated in the Affected Environment and Environmental Consequences sections of each EA. Additional details on the analyzed impacts are provided in Appendix 1. The CE would apply to maintenance, rehabilitation, and replacement activities similar in nature to those reviewed, provided no extraordinary circumstances are present that would require further NEPA analysis.

Table 1 – Hydropower Maintenance, Rehabilitation, and Replacement Environmental Assessment/Finding of No Significant Impact Examples[1]

#	Year	EA/FONSI Title	Region/Project	Underlying Action/Summary	Resources evaluated
1	2012	John W. Keys III Pump-Generating Plant Modernization Project	Columbia-Pacific Northwest/Grand Coulee	Overhaul and modernize 12 pump and pump-generating units to be completed in 10-15 years. include work on the unit controls, transformers, circuit breakers, and the fire protection equipment.	WR, WQ, BR, HTW, PR, LU, CR, ISS, ITA, OI

[1] Air Quality (AQ), Biological Resources (BR), Climate (CL), Other Impacts (OI), Cultural Resources (CR), Indian Sacred Sites (ISS), Hazardous and Toxic Waste (HTW), Indian Trust Assets (ITA), Land Use (LU), Noise (NO), Power (PR), Socioeconomics (SE), Transportation (TR), Wetlands (WL), Water Quality (WQ), Water Resources (WR), Water Rights (WRT). For further information on the effects analyzed, see Appendix 2. Note: Biological Resources also includes terrestrial and aquatic wildlife, vegetation, and sensitive, threatened, and endangered species; Land Use includes recreation.

2	2019	Third Power Plant G19-G21 Modernization Project	Columbia-Pacific Northwest/Grand Coulee	Modernize three distinct power generation units (G19 through G21) on-site at the Grand Coulee Dam Third Power Plant, including the turbine runners, shafts, stators, and wicket gates.	WQ, HTW, LU, SE, CR, VR, ITA, ISS, OI, BR
3	2018	Hungry Horse Powerplant Modernization and Overhaul Project	Columbia-Pacific Northwest	Modernize and overhaul the powerplant by replacing and upgrading existing generators and auxiliary systems. Difference between 2 action alternatives is the scheduling and timing of the project work.	AQ, OI, WR, WQ, BR, PR, LU, VR, CR, ITA, TR, SE
4	2018	Minidoka Powerplant Unit Structure Maintenance and Rehab	Columbia-Pacific Northwest	Replacement and repair of the bulkhead gate structure that has deteriorated over 75 years in service. The bulkhead gate steel slots and adjacent concrete have deteriorated to a point where the bulkhead gate may not be adequately stabilized in the structure, and failure could result in the dewatering of Lake Walcott. Leaks caused by this degradation severely hamper the ability to dewater and perform adequate routine maintenance on the lower portion of Unit.	BR, WR, WQ, NO, LU, SE, CR, ISS, ITA

5	2002	Morrow Point Trash Rack Cleaning Project	Upper Colorado Basin/Western Colorado Area Office	Lowering water elevation of Morrow Point Reservoir and cleaning the power plant intake trash racks. Elevation lowered by approx. 31 feet to about 7129 feet using controlled releases from Blue Mesa and Morrow Point Dam and Power Plants.	LU, BR, WQ, WR, CR, ITA, SE

Lease of Power Privilege Contracts

Reclamation reviewed representative projects authorized with reliance on EAs that supported FONSIs for non-federal hydropower development projects authorized under LOPP agreements to substantiate the CE for these activities. The EAs evaluated projects that utilized existing Reclamation infrastructure without altering its primary purpose or operation, and all disclosed environmental effects consistent with the extraordinary circumstances review for CE use under 43 CFR 46.215. The analysis covered a range of LOPP contract actions, and included post-implementation review confirming that, as predicted in the FONSIs supported by these EAs, such projects do not normally result in significant environmental impacts.

Table 2 provides an overview of the LOPP contract types, Reclamation regions and projects, underlying actions, and resources evaluated in each EA. Further information on the effects analyzed is available in Appendix 1. The CE would cover LOPP authorizations similar in scope to those reviewed, provided no extraordinary circumstances apply that would necessitate additional NEPA analysis.

Table 2 – LOPP Contract Environmental Assessment/Finding of No Significant Impact Examples[2]

#	Year	EA/FONSI Title	Region/Project	Underlying Action/Summary	Resources evaluated
6	2010	Carter Lake Hydropower Project	Upper Colorado Basin/Colorado Big Thompson Project	LOPP contract with Colorado Water Conversation to allow connection to the existing dam outlet and use of water released from the outlet for the generation of hydroelectric power.	WQ, BR, CR, LU, VR, TR, NO
7	2016	Pueblo Hydropower Project	Missouri-Arkansas Texas Basin/Eastern Colorado Area Office	The LOPP would authorize the use of federal lands, facilities, and Fryingpan-Arkansas (Fry-Ark) Project water to construct, operate, and maintain a 7-MW hydropower plant and associated facilities at Pueblo Dam (Pueblo Hydropower Project).	WR, SE, WQ, BR, LU, CR, ITA, AQ, VR
8	2014	Shavano Falls Hydropower Project	Upper Colorado Basin / Western	LOPP would authorize the use of federal facilities and Uncompahgre Project water to construct, operate	EN, WL, LU, BR,

[2] Air Quality (AQ), Biological Resources (BR), Climate (CL), Other Impacts (OI), Cultural Resources (CR), Environmental Justice (EJ), Energy (EN), Irrigation (IR), Indian Sacred Sites (ISS), Indian Trust Assets (ITA), Land Use (LU), Megawatt (MW), Noise (NO), Socioeconomics (SE), Transportation (TR), Wetlands (WL), Water Quality (WQ), Water Resources (WR), Water Rights (WRT). For further information on the effects analyzed, see Appendix 2. Note: Biological Resources also includes terrestrial and aquatic wildlife, vegetation, and sensitive, threatened, and endangered species; Land Use includes recreation.

			Colorado Area Office	and maintain 2.8-MW hydropower facilities at a location known as "Shavano Falls."	IR, CR, AQ, SE,
9	2014	South Canal Drop 4 Hydropower Project	Upper Colorado Basin /Western Colorado Area Office	LOPP would authorize the use of federal lands, facilities and Uncompahgre Project water to construct, operate and maintain a 4.8-MW hydropower facility. Also issue license agreements to allow the construction, operation, and maintenance of 1.27 miles of overhead power lines to connect the new facility to the existing electrical grid.	WR, SE, WL, WQ, BR, LU, ITACR, AQ, VR, OI
10	2015	South Canal Drop 5 Hydropower Project	Upper Colorado Basin / Western Colorado Area Office	LOPP with the UVWUA for construction, operation, and maintenance of the Drop 5 hydropower project. The lease would authorize the use of federal lands, facilities and Uncompahgre Project water to construct, operate and maintain a 2.4-MW hydropower facility.	WR, SE, WL, WQ, BR, LU, ITA, CR, AQ, OI

To substantiate the CEs, Reclamation reviewed previously implemented actions that were evaluated through EAs and resulted in FONSIs. These actions are representative of the types of activities covered by the CEs and demonstrate that such actions do not normally result in significant environmental effects.

The substantiation process included:

- Identification of relevant EAs and FONSIs completed for hydropower facility maintenance and non-federal hydropower development under LOPP agreements.
- Evaluation of the environmental effects disclosed in those documents.
- Review of mitigation measures, best management practices, and extraordinary circumstances screening applied in each case.
- Post-implementation review of actions authorized to validate FONSIs.
- Confirmation that no Environmental Impact Statements (EISs) were required for these types of actions and that no litigation has challenged the use of CEs for similar activities.

Extraordinary Circumstances

DOI's NEPA procedures require that all proposed actions be evaluated for extraordinary circumstances prior to applying a CE. The extraordinary circumstances listed in 43 CFR 46.215 include, but are not limited to:

- Potential effects on public health or safety;
- Impacts to historic properties or cultural resources;
- Effects on threatened or endangered species or their critical habitat.

For each of the projects whose EAs and FONSIs were reviewed for this substantiation report, Reclamation confirmed that no extraordinary circumstances were present. The CEs would only be applied when such circumstances are absent, ensuring that actions with the potential for significant effects will continue to undergo appropriate NEPA review.

Conclusion

Based on the review of substantiating documentation, Reclamation has determined that the two CEs meet the criteria outlined in 43 CFR 46.205(h). The actions covered by these CEs:

- Are consistent with Reclamation's mission and hydropower program objectives;
- Have been implemented successfully in the past without significant environmental effects;
- Have not resulted in litigation or controversy;
- Will continue to be subject to extraordinary circumstances screening under 43 CFR 46.215.

Accordingly, Reclamation concludes that the CEs for (1) maintenance, rehabilitation, and replacement of hydropower facilities and (2) issuance of LOPP authorizations are appropriate for inclusion in the Department's NEPA procedures.

Appendix 1 – Summary of Impacts Evaluated in the Substantiating EAs/FONSIs

Hydropower Maintenance, Rehabilitation, and Replacement EAs/FONSIs

1. John W. Keys III Pump-Generating Plant Modernization Project (2012)

Description: Modernization of six pumps and six pump-generating units at the John W. Keys III Pump-Generating Plant (JKPGP) at Grand Coulee Dam to address aging infrastructure, improve operational flexibility, and ensure long-term reliability.

The FONSI disclosed potential impacts based on the EA; all were considered not significant. Impacts are summarized as follows:

- **Hydrology**: The project would not significantly affect Banks Lake elevations. Daily fluctuations may increase slightly but remain within the existing 1565–1570 feet operating range. Irrigation deliveries and summer flow augmentation would be unaffected.

- **Water Quality**: No changes to pollutants or water temperature are expected. Slight increases in daily water level variation would remain within the current operating window and would not result in shoreline erosion or water quality degradation.

- **Threatened and Endangered Species**: No adverse effects. Construction occurs in previously disturbed areas. Slight hydrologic changes are limited to Banks Lake and would not affect bull trout, pygmy rabbit, or Ute ladies'-tresses.

- **Fisheries**: No quantifiable effects. Habitat and water quality conditions would continue to support warm- and cold-water fisheries. Slight daily water level changes would not impact fish recruitment or prey base.

- **Wildlife**: No significant impacts. Slight increases in daily water level variation would not affect nesting, foraging, or migratory habitats. Construction noise would be localized and temporary.

- **Hazardous or Toxic Wastes**: Minimal risk. Waste generation (e.g., lead, asbestos, oils) would increase slightly during modernization but would be managed under existing safety and environmental protocols.

- **Visual Quality**: No significant impacts. New equipment would be installed in locations not visible from key public viewpoints and would blend with existing infrastructure.

- **Power**: Positive impact. Modernization would improve JKPGP's ability to provide balancing reserves and support grid reliability without changing overall power generation capacity.

- **Recreation**: No adverse effects. Slight increases in daily water level variation would not affect access to or use of recreation facilities at Banks Lake or Grand Coulee Dam.

- **Transportation**: Minor, short-term increases in traffic due to construction. No long-term transportation impacts expected.

- **Socioeconomics**: Positive regional economic effects from construction-related employment and spending. Temporary, minor increases in local school enrollment anticipated.

- **Cultural Resources**: Adverse effects to historic properties (JKPGP and associated structures) mitigated through a Section 106 Programmatic Agreement with State Historic Preservation Office (SHPO) and Tribal Historic Preservation Office (THPO).

- **Indian Trust Assets**: No impacts. Project does not affect trust lands, water rights, or access to resources.

- **Indian Sacred Sites**: No impacts. No sacred sites identified in the project area; access would not be restricted.

2. Third Power Plant G19-G21 Modernization Project (2019)

Description: Modernization of three hydroelectric generating units (G19–G21) at the Grand Coulee Dam Third Powerplant (TPP) to ensure 40+ years of reliable hydropower generation. The project includes potential full replacement of major components and construction of temporary support facilities.

The FONSI disclosed potential impacts based on the EA; all were considered not significant. Impacts are summarized as follows:

- **Water Resources**: No significant impacts to water quality, hydrology, or fisheries resources. Operations will remain within existing hydrologic parameters. No anticipated changes to total dissolved gas, temperature, or dissolved oxygen levels during construction or operation.

- **Land Use**: All activities occur within existing federal lands. No changes to land use or expansion into undeveloped areas. Temporary facilities will be removed post-construction.

- **Biological Resources**: No effect on threatened or endangered species or critical habitat. No significant impacts to aquatic or terrestrial species. Spill-related total dissolved gas risks minimized through continued joint operations with Chief Joseph Dam.

- **Cultural Resources**: No adverse effects to National Register-eligible archaeological sites or historic structures. Section 106 consultation concluded with concurrence from the Colville THPO.

- **Indian Sacred Sites**: No direct or indirect impacts to sacred sites. Consultation with the Colville THPO confirmed no adverse effects.

- **Indian Trust Assets**: No impacts to Indian Trust Assets. Project does not affect trust lands or reserved rights such as water, hunting, or fishing.

- **Socioeconomic Resources**: Positive regional economic impacts from construction expenditures. Estimated $27.3 million in local spending, supporting over 200 jobs over 10 years. No long-term population or school enrollment impacts expected.

- **Air Quality and Climate**: Minor temporary emissions from construction equipment are expected. No significant contribution to greenhouse gases or air quality degradation is anticipated.

- **Other Impacts**: Other nearby projects (e.g., G22–G24 overhaul, fire station construction) do not overlap in ways that would amplify environmental effects. Cultural, socioeconomic, and transportation impacts are minor and temporary.

3. Hungry Horse Powerplant Modernization and Overhaul Project (2018)

Description: Ten-year modernization of the Hungry Horse Powerplant, including turbine and generator upgrades, fire safety improvements, crane replacements, and overhaul of the selective withdrawal system.

The FONSI disclosed potential impacts based on the EA; all were considered not significant. Impacts are summarized as follows:

- **Water Resources:** Temporary increases in spill through hollow-jet valves may occur during the one year when two generating units are offline. Overall reservoir operations and discharges remain consistent with current practices.

- **Land Use:** No changes to land use are expected. All work occurs within existing Reclamation facilities and disturbed areas.

- **Biological Resources:** No significant impacts to wildlife or vegetation are expected. Construction occurs in previously disturbed areas, and wildlife are expected to temporarily relocate.

- **Threatened and Endangered Species:** The project may affect, but is not likely to adversely affect, bull trout. Section 7 consultation with the U.S. Fish and Wildlife Service concluded no jeopardy or adverse modification of critical habitat. Mitigation includes continued temperature control via the selective withdrawal system.

- **Cultural Resources:** Replacement of historic cranes constitutes an adverse effect under NHPA Section 106. A Memorandum of Agreement with SHPO mitigates this impact. No significant impacts to cultural resources are expected.

- **Indian Sacred Sites:** No sacred sites are present or affected. No access restrictions or physical impacts are expected.

- **Indian Trust Assets:** No Indian Trust Assets are present in the project area; therefore, no impacts are anticipated.

- **Socioeconomic Resources:** Temporary economic benefits may result from construction employment and contracting. No long-term adverse effects are expected.

- **Recreation:** Minor temporary impacts to recreation may occur due to increased traffic and activity near the dam. No long-term effects are expected.

- **Noise:** Temporary increases in noise from construction activities are expected but will be contained within the dam structure and limited to normal working hours.

- **Water Quality:** Short-term increases in total dissolved gas may occur due to increased spill. These effects are temporary and localized, with no long-term degradation expected.

- **Air Quality and Climate:** Minor temporary emissions from construction equipment are expected. No significant contribution to greenhouse gases or air quality degradation is anticipated.

- **Other Impacts:** The project is coordinated with other maintenance activities and includes mitigation to avoid overlapping effects.

4. Minidoka Powerplant Unit Structure Maintenance and Rehab Project (2018)

Description: The project involves structural repairs to Unit 7 at Minidoka Powerplant in Idaho, including replacement of deteriorated concrete and steel components and installation of sluice gate plugs. Work will occur during a 4-month dewatering period.

The FONSI disclosed potential impacts based on the EA; all were considered not significant. Impacts are summarized as follows:

- **Water Resources:** Short-term, localized changes in water velocity are expected during dewatering and construction, with no long-term or cumulative effects on Snake River flows.

- **Land Use:** No changes to land use are anticipated. The project area is not publicly accessible and is already designated for power generation and water storage.

- **Biological Resources**: Temporary displacement of fish, waterfowl, and mammals may occur during construction. No long-term or cumulative effects are expected. Surveys will be conducted to ensure no presence of Snake River physa snails in the dewatered area.

- **Threatened and Endangered Species:** No effect is anticipated. If any Snake River physa snails are found, they will be relocated under appropriate permits.

- **Cultural Resources:** No impacts to cultural or historic properties were identified. SHPO concurred with a finding of no adverse effect.

- **Indian Sacred Sites:** No sacred sites are present in the project area. No access restrictions or physical impacts are expected.

- **Indian Trust Assets:** No Indian Trust Assets are present in the affected area; therefore, no impacts are anticipated.

- **Socioeconomic Resources:** Minor, short-term economic benefits may result from local construction and contracting activities. No long-term effects are expected.

- **Recreation:** Temporary disturbance to nearby recreational areas may occur, but the project site itself is not open to public access. No long-term effects are expected.

- **Noise:** Temporary increases in noise levels will occur during construction, limited to working hours and within 200 feet of the site. No long-term or cumulative effects are expected.

- **Water Quality:** Short-term increases in sediment and turbidity may occur downstream, especially after cofferdam removal. These effects are expected to dissipate within 1 km and will not result in long-term degradation.

- **Air Quality and Climate:** No significant emissions or greenhouse gas contributions are expected. Construction activities are limited in scope and duration.

- **Other Impacts:** No impacts are anticipated across all resource categories due to the localized and temporary nature of the project.

5. Morrow Point Trash Rack Cleaning Project (2002)

Description: The proposed action involves a controlled drawdown of Morrow Point Reservoir to an elevation of approximately 7,129 feet to allow for the cleaning of the powerplant intake trash racks. This maintenance activity is necessary to remove accumulated debris and ensure continued efficient operation of the Aspinall Unit hydropower system.

The FONSI disclosed potential impacts based on the EA; all were considered not significant. Impacts are summarized as follows:

- **Water Quality:** Short-term environmental impacts are anticipated during the drawdown and refill period, including potential increases in turbidity and sediment transport, which could affect downstream water quality and trout spawning habitat. However, these impacts are expected to be temporary and will be mitigated through real-time water quality monitoring and adjustments to reservoir releases.

- **Geology and Landslides:** The project includes specific measures to monitor and minimize landslide activity in known unstable areas along the reservoir shoreline. Survey points will be used to detect movement, and drawdown rates will be adjusted accordingly to reduce the risk of sediment release and ensure public safety.

- **Recreation:** Recreational access to Morrow Point Reservoir may be temporarily restricted during the drawdown period to protect public safety and natural resources. Potential to affect tour boat operations and fishing activities was minimized by implementing a controlled drawdown and refill of Morrow Point Reservoir that avoided peak recreation seasons..

- **Fish and Wildlife Resources:** May experience short-term disturbance, particularly in relation to sedimentation and changes in water levels. However, no long-term adverse effects are expected, and flushing flows are not anticipated to be necessary unless other mitigation measures prove insufficient.

- **Biological Resources:** No impacts to threatened or endangered species are expected, and informal consultation with the U.S. Fish and Wildlife Service confirmed that the project would not affect listed species or critical habitat.

- **Cultural Resources:** The potential exposure of the historic Cimarron Narrow Gauge railroad bed will be protected during the drawdown. No adverse effects to known cultural sites are anticipated.

- **Indian Trust Assets:** There are no Indian Trust Assets or sacred sites within the project area.

- **Socioeconomic:** A temporary reduction in hydropower generation and potential effects on commercial guiding services. These impacts are considered minor and short-term, with power replacement costs treated as standard operational expenses.

- **Other Impacts**: Expected to be minimal and short-lived. The project is designed to avoid overlap with other regional activities and includes environmental commitments to ensure that any incremental effects are not significant.

Lease of Power Privilege (LOPP) EAs/FONSIs

1. Carter Lake Hydropower Project (2010)

Description: *Construction, operation, and maintenance of a non-federal hydroelectric generation facility at Carter Lake Dam under a LOPP contract with Northern Water.*

The FONSI disclosed potential impacts based on the EA; all were considered not significant. Impacts are summarized as follows:

- **Water Resources:** No significant impacts. Slight, localized, and short-term changes in water temperature and dissolved oxygen in the St. Vrain Supply Canal are expected but are negligible.
- **Land Use:** No changes to land use. Construction occurs within previously disturbed areas.
- **Biological Resources:** Minor, short-term displacement of wildlife due to construction noise and activity. No long-term effects. Fish are protected by existing screens.
- **Threatened and Endangered Species:** No effect. No federally listed species or critical habitats are present in the project area.
- **Cultural Resources:** No adverse effects. The St. Vrain Supply Canal is eligible for the National Register of Historic Places (NRHP), but its integrity has already been compromised. The SHPO concurred with a finding of no adverse effect.
- **Indian Sacred Sites:** No sacred sites are present or affected.
- **Indian Trust Assets:** No Indian Trust Assets are present in the project area.
- **Socioeconomic Resources:** Minor, short-term economic benefits from construction. No long-term adverse effects.
- **Recreation:** Minor, short-term inconvenience from noise and traffic. No changes to water levels or access.
- **Air Quality and Noise:** Temporary construction noise and dust are expected but will be mitigated with BMPs. No long-term impacts.
- **Visual Resources:** Minimal visual intrusion. Facilities will be designed to blend with the landscape.
- **Transportation:** Minor, short-term increase in traffic during construction. No long-term impacts.
- **Other Impacts:** None anticipated.

2. Pueblo Hydropower Project (2016)

Description: *Construction and operation of a 7-MW hydropower plant at Pueblo Dam under a LOPP with the Southeastern Colorado Water Conservancy District and partners.*

The FONSI disclosed potential impacts based on the EA; all were considered not significant. Impacts are summarized as follows:

- **Water Resources:** No changes to Fry-Ark Project operations. Hydropower will operate as "run of dam." No impacts to water rights or deliveries.
- **Land Use:** No changes to land use. Construction occurs on previously disturbed lands.
- **Biological Resources:** Minor temporary disturbance to wildlife and vegetation. Approximately 12 acres temporarily disturbed; 1 acre permanently lost. Revegetation and weed control measures will be implemented.
- **Threatened and Endangered Species:** No effect. No listed species or critical habitats are present. ESA compliance confirmed.
- **Cultural Resources:** No historic properties affected. The SHPO concurred. Stop-work protocols in place for discoveries.
- **Indian Sacred Sites:** No sacred sites are present or affected.
- **Indian Trust Assets:** No Indian Trust Assets are present in the project area.
- **Socioeconomic Resources:** Temporary construction jobs and long-term revenue from power sales. Estimated 19,000 MWh/year of renewable energy generated.
- **Recreation:** Short-term closures of outlet works and channel during construction. No long-term effects. Coordination with Colorado Parks and Wildlife required.
- **Air Quality and Noise:** Minor, temporary construction dust and noise. Long-term noise from enclosed turbines will be negligible. Significant CO_2 offset estimated.
- **Visual Resources:** Minimal impact. Facilities will be below grade and designed to blend with surroundings.
- **Other Impacts:** Compatible with other Fry-Ark and regional projects.

3. Shavano Falls Hydropower Project (2014)

Description: Construction and operation of a 2.8 MW hydropower facility at Shavano Falls under a LOPP with the Uncompahgre Valley Water Users Association (UVWUA).

The FONSI disclosed potential impacts based on the EA; all were considered not significant. Impacts are summarized as follows:

- **Water Resources:** No changes to water supply for irrigation or municipal use. No increase in diversions from the Uncompahgre River.
- **Land Use:** No new access roads. Construction is limited to existing disturbed areas.
- **Biological Resources:** Temporary disturbance to wildlife and vegetation. Permanent loss of 0.04 acres of wetland. Minor reduction in riparian habitat expected.
- **Threatened and Endangered Species:** No listed species or suitable habitat present. Covered under existing Programmatic Biological Opinion for the Gunnison River basin.
- **Cultural Resources:** Adverse effects to NRHP-eligible sites mitigated through a Memorandum of Agreement with the SHPO, including Level I documentation.
- **Indian Sacred Sites:** No sacred sites are present or affected.
- **Indian Trust Assets:** No Indian Trust Assets are present in the project area.
- **Socioeconomic Resources:** Long-term revenue for UVWUA and short-term construction employment. Estimated 12,973 MWh/year of renewable energy.
- **Recreation:** No impacts. Civilian Conservation Corps Shavano Falls Road restricted to light vehicles only.
- **Air Quality and Noise:** Minor temporary construction noise and dust. Enclosed turbines will not produce detectable operational noise. CO_2 emissions offset expected.
- **Visual Resources:** Facilities will be painted and designed to blend with surroundings.
- **Other Impacts:** No significant other impacts. Hydropower use is consistent with project purposes.

4. Uncompahgre Project-South Canal Drop 4 Hydropower Project

Description: *Construction and operation of a 4.8 MW hydropower facility at Drop 4 on the South Canal, including 1.27 miles of overhead power lines.*

The FONSI disclosed potential impacts based on the EA; all were considered not significant. Impacts are summarized as follows:

- **Water Resources:** No changes to irrigation or municipal water supply. No increase in diversions from the Gunnison River.
- **Land Use:** Construction occurs within previously disturbed areas. No new access roads are required.

- **Biological Resources:** Temporary disturbance to 12 acres of vegetation and wildlife habitat. Construction timing restrictions will minimize impacts to wintering mule deer and elk. One inactive raptor nest identified; no disturbance expected.

- **Threatened and Endangered Species:** No listed species or critical habitat present. Covered under the Gunnison Basin Programmatic Biological Opinion.

- **Cultural Resources:** Adverse effects to NRHP-eligible resources mitigated through a Memorandum of Agreement with the SHPO. Level II documentation required.

- **Indian Sacred Sites and Trust Assets:** None present or affected.

- **Socioeconomic Resources:** Estimated 15,744 MWh/year of renewable energy. Long-term revenue for UVWUA. Short-term construction employment and local economic benefits.

- **Air Quality and Noise:** Minor temporary construction noise and dust. Enclosed turbines will minimize operational noise. CO_2 emissions offset expected.

- **Visual Resources:** Facilities will be painted to blend with surroundings.

- **Other Impacts:** No significant other impacts identified.

5. Uncompahgre Project-Drop 5 Hydropower Project

Description: *Construction and operation of a 2.4 MW hydropower facility at Drop 5 on the South Canal.*

The FONSI disclosed potential impacts based on the EA; all were considered not significant. Impacts are summarized as follows:

- **Water Resources:** No changes to irrigation operations or water rights. No increase in diversions from the Gunnison River.

- **Land Use:** Construction within existing rights-of-way. No new access roads are required.

- **Biological Resources:** Temporary disturbance to 6 acres of habitat. Minor impacts to wintering deer. No significant effects on BLM Sensitive Species.

- **Threatened and Endangered Species**: No effect to listed species.

- **Cultural Resources:** Adverse effects to NRHP-eligible segments of the South Canal mitigated through SHPO consultation. Construction fencing and avoidance measures required.

- **Indian Sacred Sites and Trust Assets:** None present or affected.

- **Socioeconomic Resources:** Estimated 8,623 MWh/year of renewable energy. Long-term revenue for UVWUA. Short-term construction benefits.
- **Air Quality and Noise**: Minor temporary construction impacts. Enclosed turbines will minimize operational noise. Estimated CO_2 offset of 17.8–18.7 million pounds/year.
- **Visual Resources:** Facilities will be non-reflective and painted to blend with surroundings.
- **Other Impacts:** No significant other impacts. Other hydropower projects on the South Canal (Drops 1, 3, 4, and proposed Drop 2) are compatible.