RECLAMATION

Managing Water in the West

FONSI No. 2010-16A

Carter Lake Hydropower Project Environmental Assessment

Finding of No Significant Impact

Approved: _____ Date: 8/19/2010

U.S. Department of the Interior
Bureau of Reclamation
Great Plains Region
Eastern Colorado Area Office

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INTRODUCTION

This Finding of No Significant Impact has been prepared to document the environmental review and evaluation of the proposed action in compliance with the National Environmental Policy Act of 1969, as amended. Based on the following finding, the Bureau of Reclamation (Reclamation) has determined that entering into a Lease of Power Privilege (LOPP) contract with Northern Colorado Water Conservancy District (Northern Water) at Carter Lake will not result in a significant impact to the human environment.

PREFERRED ALTERNATIVE

Reclamation evaluated the effects of two alternatives: the No Action Alternative and the Proposed Action Alternative, and has selected the latter as the Preferred Alternative. Under this alternative, Reclamation will enter into a LOPP contract with Northern Water. The contract allows connection to the existing Carter Lake Dam Outlet and use of water released from the outlet for the generation of hydroelectric power. Issuing the contract will lead to the construction, operation, and maintenance of a nonfederal hydroelectric generation facility on Carter Lake Dam, Colorado Big-Thompson Project (C-BT), and associated power transmission lines and facilities. In May 2009, Reclamation issued a notice of intent to accept proposals for a contract to develop hydroelectric power. In November 2009, Reclamation selected Northern Water as the potential lessee for development of hydropower at Carter Lake Dam Outlet under a LOPP contract.

FINDING OF NO SIGNIFICANT IMPACT

In the attached Environmental Assessment, Reclamation evaluated the environmental consequences associated with implementing the Proposed Action. A brief summary of the environmental effects of the Proposed Action is listed below. **Based on this analysis, Reclamation has determined that the Preferred Alternative would not cause significant impacts.**

There would be no impacts expected to air quality, hydrology and reservoir operations, wetlands, floodplains, prime and unique farmlands, environmental justice, Indian trust resources, or socioeconomic resources as a result of the issuance of the proposed contract.

Water quality – The Proposed Action would have no significant impact on water quality. Construction activities would potentially affect the water quality of surface runoff, but soil- and erosion-control best management practices (BMPs) will be used during construction to reduce the potential for sediment transport. Construction and operation of the hydropower facility will not result in changes in water levels or operations, and will not affect water quality in Carter Lake. The proposed action will result in a slight decrease in temperature and dissolved oxygen in water released to the St. Vrain Supply Canal. The effects to water temperature and dissolved oxygen will be barely perceptible and will have a short-term, localized, negligible impact on water quality in the St. Vrain Supply Canal.

Geology and soils – The Proposed Action will have no significant impact on geology and soils. Ground disturbing activities during construction will occur mostly within previously disturbed areas. Construction of the hydropower facility will result in a surface disturbance of less than 1 acre, including less than 0.10 acre within a previously undisturbed area. Use of BMPs and implementation of a Stormwater Management Plan (SWMP) will reduce the potential for erosion

and soil loss during construction. The effects to geology and soils will be localized, short-term and minor.

Vegetation – The Proposed Action will have no significant impact on vegetation. The hydropower facility will be constructed mostly within existing disturbed areas. Vegetation will be cleared on less than 1 acre at the power house and substation site, of which less than 0.10 acre is native shrub-grassland. Temporarily disturbed vegetation will be restored with native vegetation following construction. Implementation of BMP weed-control practices will minimize the potential for weed establishment and long-term impacts. The effects to vegetation will be localized, short-term and minor.

Fish and Wildlife – The Proposed Action will have no significant impact on fish and wildlife. Fish from Carter Lake will continue to be prevented from entering the outlets by a screen. Most of the project area has been previously disturbed. Human presence and construction noise will temporarily disturb and displace resident wildlife during or following construction. Raptors are unlikely to be affected because no nests were found during July 9 and 13, 2010 nest surveys. The surveys were conducted within a 0.25 mile radius of the project site and fulfilled the Colorado Department of Wildlife's raptor survey recommendations. Also, transmission lines will be constructed in a manner to reduce risk electrocution risk to raptors. Generally, wildlife will be expected to move and find alternative forage and cover areas during construction. The effects to fish and wildlife will be localized, short-term and minor.

Threatened, endangered and special status species – The Proposed Action will have no effect on threatened, endangered, and special status species. No federally listed species or their habitat occurs in the project area. The Proposed Action will not result in depletions to the Platte River system; therefore, the project will have no effect on Platte River species. There will be no effects to threatened and endangered species.

The project will result in increased noise and human activity and temporary loss of habitat that could potentially affect several special status species (northern pocket gopher, Townsend's big-eared bat, bald eagle, and ferruginous hawk). The effects to special status species, if present, will be localized, short-term and minor.

Cultural resources – The Proposed Action will have no significant impact to cultural resources. Impacts will occur to the St. Vrain Supply Canal (5LR11011.1), which is officially eligible for inclusion to the NRHP. The integrity of the St. Vrain Supply Canal has been compromised by work in the 1990's and will not be seriously compromised by the Proposed Action. Reclamation recommended a finding of no adverse effect to historic properties as a result of the Proposed Action. The Colorado State Historic Preservation Officer (SHPO) concurred with this finding in a letter dated July 19, 2010. There will be no adverse effects to historic properties.

Recreation - The Proposed Action will have minor impact on recreation. There will be no change in water levels in the reservoir and, therefore, no effect to water-based recreation. The project area is not open to the public and, therefore, there will be no change in recreational use during or after construction of the hydropower facility. Visitors might be temporarily inconvenienced by noise or traffic during construction. There will be no road closures. The effects to recreation will be localized, short-term and minor.

Visual resources – The Proposed Action will have no significant impact on visual resources. Temporary visual impacts will occur during construction from equipment, materials, and ground disturbances. The hydropower facility will be visible from three residences located more than ½

mile from the project area, but will be constructed to blend with the landscape with minimal visual intrusion. Outdoor lighting will be kept to a minimum and will consist of fixtures that point downward. The effects to visual resources will be localized, short and long-term and minor.

Noise – The Proposed Action will have no significant impact on noise. Construction activities will result in temporarily elevated noise levels near the hydropower facility from equipment such as graders, trucks, backhoes, and other smaller pieces of equipment or machinery. Limited blasting may also be required during construction. Construction noise will be buffered by natural terrain and distance, and will not be noticeable to most visitors using the lake and campgrounds. The turbines and generators will be fully enclosed by the power house, which would be insulated to reduce noise outside the building. The effects of construction noise will be localized, short-term and minor. No long-term noise impacts are expected.

Transportation – The Proposed Action will have no significant impact on transportation. Construction will involve a temporary increase in construction traffic near the project area. Impacts will be confined to areas near the project area and will be limited to the construction period. It is anticipated that the hydropower facility will be monitored remotely, but there will be a slight increase in vehicle traffic required to monitor the facility, with an additional one to two vehicle trips per day by Northern Water staff. The effects to transportation will be localized, short-term and minor.

ENVIRONMENTAL COMMITMENTS

Construction zones will be identified with construction fence, silt fence, or similar material prior to any construction activity. The fencing will define the construction zone and confine activity to the minimum area required for construction. All protection measures will be clearly stated in the construction specifications, and workers will be instructed to avoid conducting activities beyond the construction zone. Disturbances will be limited to specifically designated construction limits. No machinery, vehicles, or equipment will access areas outside the construction limits.

Construction equipment staging will occur within existing areas of disturbance. Off-site equipment and vehicle parking will be limited to designated staging areas.

Contractors will be required to properly maintain construction equipment to minimize noise (i.e., mufflers and brakes). Construction vehicle engines will not be allowed to idle for extended periods. Material and equipment hauling will comply with all legal load restrictions.

Water sprinkling will be used, as needed, to reduce fugitive dust in work zones.

All tools, equipment, barricades, signs, surplus materials, and rubbish will be removed from the project work limits upon project completion.

Erosion-control BMPs for drainage and sediment control will be implemented to prevent or reduce nonpoint source pollution and minimize soil loss and sedimentation in drainage areas. These BMPs may include, but are not limited to, silt fencing, filter fabric, temporary sediment ponds, check dams of pea gravel-filled burlap bags or other material, and/or immediate mulching of exposed areas to minimize sedimentation and turbidity impacts as a result of construction activities. Silt fencing fabric will be inspected daily during project work, and weekly after project completion, until removed. Silt removal will be accomplished in such a way as to avoid introduction into any flowing water bodies.

Regular site inspections will be conducted to ensure that erosion-control measures are properly installed and functioning effectively.

A SWMP will be developed as part of the National Pollutant Discharge Elimination System (NPDES) Stormwater permit with the Colorado Water Quality Control Division prior to construction.

All equipment will be maintained in a clean and well-functioning state to avoid or minimize contamination from fluids and fuels. Prior to starting work each day, all machinery will be inspected for leaks (e.g., fuel, oil, and hydraulic fluid), and all necessary repairs will be made before work begins.

A hazardous spill plan will be required from the contractor prior to the start of construction stating what actions will be taken in the case of a spill and preventive measures to be implemented. Hazardous spill clean-up materials will be on-site at all times. This measure is designed to avoid/minimize the introduction of chemical contaminants associated with machinery (e.g., fuel, oil, and hydraulic fluid) used in project implementation.

All temporarily disturbed ground will be reclaimed using appropriate BMPs and use of native plants. Until the soil is stable and vegetation is established, erosion-control measures will be implemented to minimize erosion and prevent sediment from reaching streams.

To prevent the introduction of, and minimize the spread of, nonnative vegetation and noxious weeds, the following measures will be implemented during construction:

- Soil disturbance will be minimized.
- All haul trucks bringing fill materials will be covered to prevent seed transport.
- Vehicle and equipment parking will be limited to within construction limits or approved staging areas, and these sites will be treated for exotic species if necessary.
- All fill, rock, and additional topsoil will be obtained from weed-free sources.

Monitoring and follow-up treatment of exotic vegetation will occur after project activities are completed.

No construction activities will occur at night. Night is defined from 7:00 p.m. or sunset (whichever is earlier) until 7:00 a.m.

Transmission construction must meet the National Electric Safety Code regulations and guidelines set forth in Suggested Practices for Avian Protection on Power Lines: the State of the Art in 2006 (Avian Power Line Interaction 9APLIC) 2006), which provides information on specialized design for avian use to prevent electrocution including, providing for a minimum of 60 inch (or appropriate to species expected in area) spacing of conductors and grounded hardware.

The construction contractor will be required to keep all garbage and food waste contained and removed daily from the work site to avoid attracting wildlife into the construction zone. Construction workers will be instructed to remove food scraps and not feed or approach wildlife.

Should the Contractor, any of the Contractor's employees, or parties operating for or associated with the Contractor discover or encounter evidence of possible cultural or paleontological resources, the Contractor shall immediately cease all ground-disturbing activities in the vicinity of the site and notify the Area Manager, giving the location and nature of the findings. The

Contractor shall secure the discovery area from further disturbance. The Contractor shall not resume work within the vicinity until notified by the Area Manager.

Northern Water shall immediately provide an oral notification to Reclamation's authorized official of the discovery of human remains on Reclamation land. Northern Water shall forward a written report of their findings to Reclamation's authorized official within 48 hours by certified mail. Northern Water shall cease activity, and stabilize and protect such discoveries until authorized to proceed by Reclamation's authorized official. Protective and mitigative measures specified by Reclamation's authorized official shall be the responsibility of Northern Water.

Construction will not occur on weekends or holidays.

There will be no road closures during construction to minimize disruption in traffic flow.

The power house will be constructed with an earth-tone architectural block veneer.

Outdoor lighting will be kept to a minimum and will use fixtures that point downward.

Construction traffic will generally be limited to daylight hours and will not be earlier than 7:00 a.m.

The turbines and generators will be fully enclosed by the power house, which will be insulated to reduce noise outside the building.