

UYWCD-CPW
Stagecoach Project Lease Agreement Renewal
April 14, 2021

1. Introductions
2. Overview of Existing Lease Agreement
3. UYWCD Regulatory, Legal, and Decision Requirements
4. CPW/State of Colorado Regulatory, Legal and Decision Requirements
5. Request for Initial Legal Edits of Existing Lease Agreement
6. Schedule for Future Regular Meetings

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Upper Yampa Water Conservancy District	Project No. 9202-000
City of Golden, Colorado, and Vidler Tunnel Water Company	Project No. 2763-001
Oak Creek Power Company	Project No. 2773-000

ORDER ISSUING LICENSE
AND DISMISSING COMPETING
PRELIMINARY PERMIT APPLICATIONS

(Issued March 31, 1987)

Expires 2037

Upper Yampa Water Conservancy District has filed a license application under Part I of the Federal Power Act (Act) to construct, operate, and maintain the Stagecoach Project, located in Routt County, Colorado, on the Yampa River. The project would affect the interests of interstate or foreign commerce. ?

Notice of the application has been published. The motions to intervene that have been granted and the comments and protests filed by agencies and individuals have been fully considered in determining whether to issue this license, as discussed below.

The license application was filed in competition with preliminary permit applications filed by the City of Golden, Colorado, and Vidler Tunnel Water Company (Golden/Vidler) for the Sheephorn Project No. 2763-001, and by Oak Creek Power Company for the Oak Creek Project No. 2773-000. ^{1/} The permit applications failed to substantiate the technical, environmental, economic, and other aspects of their proposals. Substantiation of the permit proposals is a necessary prerequisite to a comparative analysis of competing applications. See Dennis V. McGrew, 32 FERC ¶61,229 (1985). The license has met the statutory and regulatory license requirements, including demonstrating its ability to carry out its plans. Consistent with Section 4.37(a) of the Commission's regulations, which states that the Commission will favor applications for license over applications for preliminary permits, this license is issued to the Upper Yampa Water Conservancy District. The preliminary permit applications for Project Nos. 2763-001 and 2773-000 are therefore dismissed.

^{1/} Preliminary permit applications were filed by the City of Golden, Colorado, and Vidler Tunnel Water Conservancy for Project No. 2763 on November 26 1975, and by Oak Creek Power Company for Project No. 2773 on June 1, 1976. A license application for Project No. 9202 was filed on May 20, 1985, by the Upper Yampa Water Conservancy District.

Project No. 2763 would have been located in Routt, Grand, Summit, and Eagle Counties, Colorado, within Routt, White River, Arapahoe National Forests and Bureau of Land Management lands, on the Colorado, Yampa, and Blue Rivers, and the Muddy, Sheephorn, Piney, Rock, Fishhook, Morrison, Service, and Silver Creeks, and their tributaries.

The project would have consisted of seven major reservoirs, two run-of-river hydroelectric power plants with a total capacity of 62 MW, seven pumping station, 60-miles of tunnels, 130 miles of pipelines, and several dams and dikes for diverting and reregulating streamflows. 2/

Project No. 2773 would have been located in Routt County, Colorado, within Routt National Forest and Bureau of Land Management lands on the Yampa River, and the Martin, Little Morrison, Morrison Service, Trout, the Middle Creeks, and their tributaries. The project would have consisted of five major reservoirs, a run-of-river hydroelectric plant of 20 MW capacity, a pumped storage hydroelectric power plant of 3,600 MW capacity, a thermal plant of 6,400 MW capacity (not a part of the project subject to the Commission's jurisdiction), various water passageways, and related works. The total project construction cost was estimated at 5.5 billion. 3/

Summary of Findings

An Environmental Memorandum (EM) was prepared for this project. Background information, analysis of impacts, support for related license articles, and the basis for a finding of no significant impact on the environment are contained in the EM attached to this order. Issuance of this license is a major federal action that would not significantly affect the quality of the human environment.

2/ By letters dated April 30, 1986, August 8, 1986, and February 18, 1987, Golden/Vidler was directed to submit additional information pertaining to power site withdrawals under section 24 of the Act. The February 18, 1987, letter informed Golden/Vidler that its application would be dismissed if the requested information were not timely filed.

The necessary revisions to the application were not submitted. The application is therefore also dismissed under section 4.32 of the Commission's regulations.

3/ The Oak Creek Power Company (Company) filed with the United States Bankruptcy Court for the District of Colorado, on August 26, 1985, a voluntary petition for relief in accordance with Chapter 11 of Title 11, United States Code. On April 8, 1986, the Company's rights in Routt County, Colorado, allegedly its last remaining assets, were sold by the Sheriff of the County of Routt (Deed Book 619, Page 1620).

The design of this project is consistent with the engineering standards governing dam safety. The project will be safe if constructed, operated, and maintained in accordance with the requirements of this license. Analysis of related issues is provided in the Safety and Design Assessment attached to this order.

The Director, Office of Hydropower Licensing, concludes that the project would not conflict with any planned or authorized development, and would be best adapted to comprehensive development of the waterway for beneficial public uses.

The Director orders:

(I)(A) The application for preliminary permit for Project No. 2763-001 filed by the City of Golden, Colorado, and Vidler Tunnel Water Company is hereby dismissed.

(B) The application for preliminary permit for Project No. 2773-000 filed by Oak Creek Power Company is hereby dismissed.

(II)(A) This license is issued to Upper Yampa Water Conservancy District (licensee) for a period of 50 years, effective the first day of the month in which this order is issued, to construct, operate, and maintain the Stagecoach Project. This license is subject to the terms and conditions of the Act, which is incorporated by reference as part of this license, and subject to the regulations the Commission issues under the provision of the Act.

(B) The project consists of:

(1) All lands, to the extent of the licensee's interests in those lands, enclosed by the project boundary shown by Exhibit G:

<u>Exhibit G-</u>	<u>FERC No. 9202-</u>	<u>Showing</u>
G	2	Project Site

(2) Project works consisting of: (a) a 145-foot-high, 450-foot-long roller compacted concrete dam located downstream of the confluence of Morrison Creek and the Yampa River, impounding; (b) a multi-purpose reservoir with a total storage capacity of 33,738 acre-feet and a surface area of 777 acres at a spillway crest elevation of 7,200 feet msl; (3) a 60-inch-diameter, 120-foot-long steel pipeline; (4) a 36-inch-diameter, 20-foot-long penstock; (5) a 40-foot-by 40-foot powerhouse, located in the vicinity of the dam's outlet works, containing a single Francis turbine-generator unit with an installed capacity of 800 kW; (6) a tailrace; (7) a 1.8-mile-long, 12.5-kV transmission line; and (8) appurtenant facilities.

The project works generally described above are more specifically shown and described by those portions of Exhibits A and F recommended for approval in the attached Safety and Design Assessment.

(3) All of the structures, fixtures, equipment or facilities used to operate or maintain the project and located within the project boundary, all portable property that may be employed in connection with the project and located within or outside the project boundary, and all riparian or other rights that are necessary or appropriate in the operation or maintenance of the project.

(C) The Exhibit G described above and those sections of Exhibits A and F recommended for approval in the attached Safety and Design Assessment are approved and made part of the license.

(D) The following sections of the Act are waived and excluded from the license for this minor project:

4(b), except the second sentence; 4(e), insofar as it relates to approval of plans by the Chief of Engineers and the Secretary of the Army; 6, insofar as it relates to public notice and to the acceptance and expression in the license of terms and conditions of the Act that are waived here; 10(c), insofar as it relates to depreciation reserves; 10(d); 10(f); 14, except insofar as the power of condemnation is reserved; 15; 16; 19; 20; and 22.

(E) This license is subject to the articles set forth in Form L-15, (October 1975), entitled "Terms and Conditions of License for Unconstructed Minor Project Affecting the Interests of Interstate or Foreign Commerce," the license is also subject to the following additional articles:

Article 201. The licensee shall pay the United States the following annual charge, effective the first day of the month in which this license is issued:

For the purpose of reimbursing the United States for the cost of administration of Part I of the Act, a reasonable amount as determined in accordance with the provisions of the Commission's regulations in effect from time to time. The authorized installed capacity for that purpose is 1,070 horsepower.

Article 301. The licensee shall commence construction of project works within two years from the issuance date of the license and shall complete construction of the project within four years from the issuance date of the license.

Article 302. The licensee shall retain a board of three or more qualified, independent, engineering consultants to review the design, specifications, and construction of the project for safety and adequacy. The names and qualifications of the board members shall be submitted to the Director, Office of Hydropower Licensing for approval, with a copy to the Commission's Regional Director.

Among other things, the board shall assess the geology of the project site and surroundings; the design, specifications, and construction of the dikes, dams, spillways, powerhouse, electrical and mechanical equipment, and emergency power supply; instrumentation; the filling schedule for the reservoir(s) and plans and surveillance during the initial filling; and construction procedures and progress. The licensee shall furnish to the board, with a copy to the Regional Director and two copies to the Director, Office of Hydropower Licensing prior to each meeting, allowing sufficient time for review, documentation showing details and analyses of design and construction features to be discussed, significant events in design and construction that have occurred since the last board of consultants meeting, drawings, questions to be asked, a list of items for discussion, an agenda, and a statement indicating the specific level of review to be performed by the board. Within 30 days after each board of consultants meeting, the licensee shall submit to the Director, Division of Inspections copies of the board's report and a statement of intent to comply with the board's recommendations, or a statement identifying a plan to resolve the issue(s). In the event of noncompliance, provide detailed reasons for not doing so. The board's review comments for each portion of the project shall be submitted prior to or simultaneously with the submission of the corresponding Exhibit F final design drawings and design memoranda. The licensee shall also submit a final report of the board upon completion of the project. The final report shall contain a statement indicating the board's opinion with respect to the construction, safety, and adequacy of the project structure(s).

Article 303. The licensee shall file, for approval by Commission, revised Exhibit F drawings showing the final design of project structures. The revised Exhibit F drawings shall be accompanied by a supporting design report and the licensee shall not commence construction of any project structure until the corresponding revised Exhibit F drawing has been approved.

Article 304. The licensee shall at least 60 days prior to start of construction, submit one copy to the Commission's Regional Director and two copies to the Director, Division of Inspections of the final contract drawings and specifications for pertinent features of the project, such as water retention structures, powerhouse, and water conveyance structures. The Director, Division of Inspections may require changes in the plans and specifications to assure a safe and adequate project.

Article 305. The licensee shall review and approve the design of contractor-designed cofferdams and deep excavations prior to the start of construction and shall ensure that construction of cofferdams and deep excavations is consistent with the approved design. At least 30 days prior to start of construction of the cofferdam, the licensee shall submit to the Commission's Regional Director and Director, Division of Inspections, one copy each of the approved cofferdam construction drawings and specifications and the letter(s) of approval.

Article 306. The licensee shall within 90 days of completion of construction file, for approval by the Commission, revised Exhibits A, F and G to describe and show the project as built.

Article 401. The licensee, after consultation with the Colorado Division of Wildlife, the U.S. Fish and Wildlife Service, and the Bureau of Reclamation, shall prepare a detailed wildlife mitigation plan that includes, but is not limited to, the mitigative measures described in attachment number 1 of the final environmental impact statement (filed on November 18, 1986), a detailed schedule for implementing mitigative measures, and a plan and schedule for monitoring the effectiveness of mitigative measures. Within 6 months from the issuance date of this license, the licensee shall file for Commission approval, along with comments received from the agencies consulted, the wildlife mitigation plan, the schedule for implementing mitigative measures, and a plan and schedule to include a completion date for monitoring the success of mitigative measures. At the same time, copies of the plan and schedules shall be served upon the agencies consulted. Further, if the results of the monitoring program indicate that the proposed mitigative measures are not successful, the licensee, within 6 months from the date of completion of the monitoring program, shall file a report on the results of the monitoring, along with comments from the agencies consulted, and for Commission approval, shall recommend improvements to the effectiveness of the fish and wildlife mitigative measures.

Completed
Approved
1990

Article 402. The licensee, after consultation with the U.S. Fish and Wildlife Service, the Colorado Division of Wildlife, and the Bureau of Reclamation, and within 1 year from the date of issuance of the license, shall file a transmission line design plan, prepared in accordance with guidelines provided in the 1981 study, "Suggested Practices for Raptor Protection on Power Lines, Raptor Research Report No. 4," published by the Raptor Research Foundation, Inc. The plan shall include detailed design drawings of the transmission line, clearly showing phase-spacing, configuration, and grounding practices, special design features to minimize collisions by waterfowl, a construction schedule, and comments of the consulted agencies on the adequacy of the design plan. The Commission reserves the right to require changes to the plan. Unless the Director, Office of Hydropower Licensing, instructs otherwise, the licensee may begin construction 60 days after filing the plan.

Approved
1987

Article 403. The licensee, after consultation with the Colorado Department of Parks and Outdoor Recreation, the National Park Service, the U.S. Fish and Wildlife Service, and the Colorado Division of Wildlife, and within 2 years from the issuance date of this license, shall construct, operate, and maintain, or arrange for the construction, operation, and maintenance of the following facilities: (a) a 100-unit campground on the north shore; (b) three picnic areas with parking areas; (c) a convenience center with parking areas; (d) a swimming area; (e) potable water

Completed
1988

and sanitary facilities; (f) a hiking trail along the south shore; (g) a marina on the north shore; (h) a site for self-contained recreational vehicles; and (i) a day use park near the west end of the reservoir. Within 3 months from the completion of the above-mentioned facilities, the licensee shall file with the Commission as-built drawings showing the type and location of these facilities. Documentation of agency consultation shall be included in the filing.

Article 404. The licensee, after consultation with the Colorado Department of Outdoor Recreation, the National Park Service, the U.S. Fish and Wildlife Service, the Colorado Division of Wildlife, the Bureau of Reclamation, and other county and state governmental agencies and organizations, and within 1 year from the issuance date of this license, shall file with the Commission a detailed management plan for using project buffer zone lands. The Commission may require changes to the plan. Implementation of the plan shall not begin until the licensee is notified that the plan complies with the requirements of this article. At a minimum, the plan shall include: (a) allowable uses for the buffer zone lands; (b) conditions to be specified for such allowable uses; and (c) a proposed permit system (with a sample permit). Documentation of agency consultation shall be included in the filing. *completed*

Article 405. The licensee, after consultation with the Colorado Department of Natural Resources, the Colorado State Highway Department, the Bureau of Reclamation, and the Soil Conservation Service, and before starting land-clearing or land-disturbing activities, shall file with the Commission a detailed and site-specific plan to control erosion, sedimentation, turbidity, and bank and slope instability resulting from project construction and operation. The plan shall include functional design drawings of control measures with topographic maps showing their location, an implementation schedule, monitoring and maintenance programs for project construction and operation, and provisions for periodic review of the plan and for making any necessary revisions to the plan. The licensee shall include in the filing documentation of agency consultation on the plan and copies of agency comments or recommendations. If the licensee does not concur with agency comments or recommendations, the licensee shall provide a discussion of the reasons for not concurring, based on actual-site geological, soil, and groundwater conditions. The Commission reserves the right to require changes to the plan. Unless the Director, Office of Hydropower Licensing, directs otherwise, the licensee may commence land-clearing and land-disturbing activities at the project 60 days after filing this plan. *Approved 24 July 87*

Article 406. The licensee shall implement the plan described in the section on Landscape Preservation and Restoration (pages 22 and 23) of the final environmental impact statement filed on November 18, 1986, describing mitigative measures for visual resources and land use. *Done*

Article 407. The licensee, before starting any land-clearing or land-disturbing activities within the project boundaries, other than those specifically authorized in this license, shall consult with the State Historic Preservation Officer (SHPO). If the licensee discovers previously unidentified archeological or historic properties during the course of constructing or developing project works or other facilities at the project, the licensee shall stop all land-clearing and land-disturbing activities in the vicinity of the properties and consult with the SHPO. In either instance, the licensee shall file with the Commission a cultural resource management plan prepared by a qualified cultural resource specialist after having consulted with the SHPO. Done

The management plan shall include (1) a description of each discovered property indicating whether it is listed on or eligible to be listed on the National Register of Historic Places, (2) a description of the potential effect on each discovered property, (3) proposed measures for avoiding or mitigating effects, (4) documentation of the nature and extent of consultation, and (5) a schedule for mitigating effects and conducting additional studies. The Commission may require changes to the plan.

The licensee shall not begin land-clearing or land-disturbing activities, other than those specifically authorized in this license, or resume such activities in the vicinity of a property, discovered during construction, until informed that the requirements of this article have been fulfilled.

Article 408. The licensee, after consultation with the Bureau of Reclamation, the U.S. Fish and Wildlife Service, the Environmental Protection Agency, the Colorado Division of Wildlife, and the Colorado Water Quality Control Division, shall develop a plan to monitor temperature and dissolved oxygen (DO), nutrient, and metal concentrations of discharges from the project. The monitoring plan shall include provisions for continuous monitoring of temperature and DO concentrations from June through October, for bimonthly sampling of nutrients from June through September, and for seasonal sampling of metals, with more intensive sampling of metals if concentrations are found to exceed state standard levels. The plan shall identify procedures that would provide releases optimizing water temperatures for rainbow and brown trout in the Yampa River between the Stagecoach dam and Lake Catamount, provide releases with DO concentrations that meet state standards, and minimize the concentrations of nutrients and metals in project releases. The plan shall include provisions for modifying operation of the multilevel outlet structure or project structures to minimize impacts to the water quality of the reservoir and the Yampa River. The plan shall be filed with the Commission for approval within 6 months from the date of issuance of this license. Comments from the agencies shall be included in the filing. The Commission reserves the right to require modifications to the plan and the schedule. Approved
17 MAR 89

See order
13 July '90

Article 409. The licensee shall operate the Stagecoach Dam and Hydroelectric Project in an instantaneous run-of-river mode for the protection of fish and wildlife resources in the Yampa River. The licensee, in operating the project in an instantaneous run-of-river mode, shall at all times act to minimize the fluctuation of the impoundment surface elevation by maintaining a sufficient discharge from the project so that the flow in the Yampa River, as measured immediately downstream of the project tailrace, approximates the instantaneous inflow to the impoundment. Instantaneous run-of-river operation may be temporarily modified if required by operating emergencies beyond the control of the licensee for consumptive municipal, industrial, and irrigation uses, and to provide an augmentation flow release of 20 cubic feet per second from August 1 through November 30 for enhancing the downstream fishery, as directed by the Bureau of Reclamation (BR), or if required for short periods upon mutual agreement among the licensee, the BR, and the Colorado Division of Wildlife. OK

Article 410. The licensee, after consultation with the U.S. Fish and Wildlife Service, the Bureau of Reclamation, and the Colorado Division of Wildlife, shall develop a plan to monitor the condition of the substrate in the Yampa River. The plan should include provisions for replacing substrate materials that are scoured as a result of project operation, as well as provisions for providing flushing flows if fine sediments reduce the quality of the substrate for invertebrate production or fish spawning. Within 6 months from the date of issuance of this license, the licensee shall file a copy of the plan with the Commission for approval, along with comments from the above agencies on the plan. The Commission reserves the right to require modifications to the plan. Approved
20 MAR 89

Article 411. The licensee, after consultation with the U.S. Fish and Wildlife Service, the Bureau of Reclamation, and the Colorado Division of Wildlife, shall develop a plan to construct fish habitat enhancement structures on all land owned or controlled by the licensee immediately upstream and downstream of the Stagecoach Dam and Reservoir, and on all lands administered by the Colorado Division of Wildlife and the Bureau of Land Management located between Stagecoach Reservoir and Lake Catamount. The fish habitat enhancement plan shall include, but not be limited to, the type, number, and location of the structures and a description of procedures to be implemented in maintaining these structures. Within 6 months from the date of issuance of this license, the licensee shall file a copy of the plan with the Commission for approval, along with comments from the above agencies on the plan. The Commission reserves the right to require modifications to the plan. Approved
23 MAR 89

Article 412. The licensee, after consultation with the U.S. Fish and Wildlife Service, the Colorado Division of Wildlife, and the Bureau of Reclamation, shall develop a plan to install stream-flow gages in the Yampa River to monitor the minimum flow releases required by article 410. The plan shall include the location and design of the gages, identification of the method of flow data USGS
gaging
station
below dam

collection, and a provision for providing the flow data to the agencies. The Commission reserves the right to require modifications to the plan. The plan shall be filed with the Commission for approval within 6 months from the date of issuance of this license and shall include comments from the consulted agencies on the plan.

Article 413. The licensee, after consultation with the U.S. Fish and Wildlife Service, the Environmental Protection Agency, and the Colorado Division of Wildlife, shall develop a plan to monitor changes in fish populations associated with operation of the Stagecoach Project. Within 6 months from the issuance date of the license, the licensee shall file a copy of the plan for Commission approval. Comments from the aforementioned agencies shall be included in the filing.

Approved
13 May 89

If the results of the monitoring indicate that changes in project structures or operation are necessary to minimize adverse project effects to fish resources, the licensee shall also include for Commission approval a schedule for implementing the specific changes, along with comments from the consulted agencies on the changes. The Commission reserves the right to require changes in the measures to protect the fish resources.

Article 414. The licensee, on the anniversary of the issuance of this license, each year for a period of 10 years, shall pay \$9,000 to the Colorado Division of Wildlife for development, operation, and maintenance costs associated with the stocking and management of a reservoir fishery. On the anniversary of this license in 1997, the licensee shall file with the Commission the results of negotiations with the aforementioned agency and recommendations for additional payment to continue stocking and management of the reservoir fishery. Comments and recommendations from the agency should be include in the filing. The Commission reserves the right to require the licensee to make additional payments.

on going

Article 415. The licensee, after consultation with the U.S. Fish and Wildlife Service, the Bureau of Reclamation, and the Colorado Division of Wildlife, shall develop a plan to monitor turbine-induced injury and mortality to fish. Within 6 months from the date of issuance of this license, the licensee shall file a copy of the monitoring plan with the Commission, along with comments from the agencies on the monitoring plan and a schedule for filing the results of the monitoring program. The Commission reserves the right to require modifications to the plan and the schedule. The results of the monitoring shall be submitted to the Commission according to the approved schedule, along with the comments from the consulted agencies on the results.

Done.

No mortality

If the results of monitoring indicate that further measures (i.e., changes in project structures, changes in project operations, or monetary compensations for fish stocking) are necessary to minimize adverse project effects to fish resources, the licensee shall file for Commission approval a schedule for implementing the specific measures, and comments from the consulted agencies on the measures.

Article 416. (a) In accordance with the provisions of this article, the licensee shall have the authority to grant permission for certain types of use and occupancy of project lands and waters and to convey certain interests in project lands and waters for certain other types of use and occupancy, without prior Commission approval. The licensee may exercise the authority only if the proposed use and occupancy is consistent with the purposes of protecting and enhancing the scenic, recreational, and other environmental values of the project. For those purposes, the licensee shall also have continuing responsibility to supervise and control the uses and occupancies for which it grants permission, and to monitor the use of, and ensure compliance with the covenants of the instrument of conveyance for, any interests that it has conveyed, under this article. If a permitted use and occupancy violates any condition of this article or any other condition imposed by the licensee for protection and enhancement of the project's scenic, recreational, or other environmental values, or if a covenant of a conveyance made under the authority of this article is violated, the licensee shall take any lawful action necessary to correct the violation. For a permitted use or occupancy, that action includes, if necessary, cancelling the permission to use and occupy the project lands and waters and requiring the removal of any non-complying structures and facilities.

OK

(b) The types of use and occupancy of project lands and waters for which the licensee may grant permission without prior Commission approval are: (1) landscape plantings; (2) non-commercial piers, landings, boat docks, or similar structures and facilities that can accommodate no more than 10 water craft at a time and where said facility is intended to serve single-family type dwellings; and (3) embankments, bulkheads, retaining walls, or similar structures for erosion control to protect the existing shoreline. To the extent feasible and desirable to protect and enhance the project's scenic, recreational, and other environmental values, the licensee shall require multiple use and occupancy of facilities for access to project lands or waters. The licensee shall also ensure, to the satisfaction of the Commission's authorized representative, that the uses and occupancies for which it grants permission are maintained in good repair and comply with applicable state and local health and safety requirements. Before granting permission for construction of bulkheads or retaining walls, the licensee shall: (1) inspect the site of the proposed construction, (2) consider whether the planting of vegetation or the use of riprap would be adequate to control erosion at the site, and (3) determine that the proposed construction is needed and would not change the basic contour of the reservoir shoreline. To implement this paragraph (b), the licensee may, among other things, establish a program for issuing permits for the specified types of use and occupancy of project lands and waters, which may be subject to the payment of a reasonable fee to cover the licensee's costs of administering the permit program. The Commission reserves the

right to require the licensee to file a description of its standards, guidelines, and procedures for implementing this paragraph (b) and to require modification of those standards, guidelines, or procedures.

(c) The licensee may convey easements or rights-of-way across, or leases of, project lands for: (1) replacement, expansion, realignment, or maintenance of bridges and roads for which all necessary state and federal approvals have been obtained; (2) storm drains and water mains; (3) sewers that do not discharge into project waters; (4) minor access roads; (5) telephone, gas, and electric utility distribution lines; (6) non-project overhead electric transmission lines that do not require erection of support structures within the project boundary; (7) submarine, overhead, or underground major telephone distribution cables or major electric distribution lines (69-kV or less); and (8) water intake or pumping facilities that do not extract more than one million gallons per day from a project reservoir. No later than January 31 of each year, the licensee shall file three copies of a report briefly describing for each conveyance made under this paragraph (c) during the prior calendar year, the type of interest conveyed, the location of the lands subject to the conveyance, and the nature of the use for which the interest was conveyed. ? No conveyance No report

(d) The licensee may convey fee title to, easements or rights-of-way across, or leases of project lands for: (1) construction of new bridges or roads for which all necessary state and federal approvals have been obtained; (2) sewer or effluent lines that discharge into project waters, for which all necessary federal and state water quality certificates or permits have been obtained; (3) other pipelines that cross project lands or waters but do not discharge into project waters; (4) non-project overhead electric transmission lines that require erection of support structures within the project boundary, for which all necessary federal and state approvals have been obtained; (5) private or public marinas that can accommodate no more than 10 watercraft at a time and are located at least one-half mile from any other private or public marina; (6) recreational development consistent with an approved Exhibit R or approved report on recreational resources of an Exhibit E; and (7) other uses, if: (i) the amount of land conveyed for a particular use is five acres or less; (ii) all of the land conveyed is located at least 75 feet, measured horizontally, from the edge of the project reservoir at normal maximum surface elevation; and (iii) no more than 50 total acres of project lands for each project development are conveyed under this clause (d)(7) in any calendar year. At least 45 days before conveying any interest in project lands under this paragraph (d), the licensee must submit a letter to the Director, Office of Hydropower Licensing, stating its intent to convey the interest and briefly describing the type of interest and location of the lands to be conveyed (a marked Exhibit G or K map may be used), the nature of the proposed use, the identity of any federal or state agency official consulted, and any federal or state approvals required for the proposed use. Unless the Director,

within 45 days from the filing date, requires the licensee to file an application for prior approval, the licensee may convey the intended interest at the end of that period.

(e) The following additional conditions apply to any intended conveyance under paragraphs (c) or (d) of this article:

(1) Before conveying the interest, the licensee shall consult with federal and state fish and wildlife or recreation agencies, as appropriate, and the State Historic Preservation Officer.

(2) Before conveying the interest, the licensee shall determine that the proposed use of the lands to be conveyed is not inconsistent with any approved Exhibit R or approved report on recreational resources of an Exhibit E; or, if the project does not have an approved Exhibit R or approved report on recreational resources, that the lands to be conveyed do not have recreational value.


(3) The instrument of conveyance must include covenants running with the land adequate to ensure that: (i) the use of the lands conveyed shall not endanger health, create a nuisance, or otherwise be incompatible with overall project recreational use; and (ii) the grantee shall take all reasonable precautions to ensure that the construction, operation, and maintenance of structures or facilities on the conveyed lands will occur in a manner that will protect the scenic, recreational, and environmental values of the project.

(4) The Commission reserves the right to require the licensee to take reasonable remedial action to correct any violation of the terms and conditions of this article, for the protection and enhancement of the project's scenic, recreational, and other environmental values.

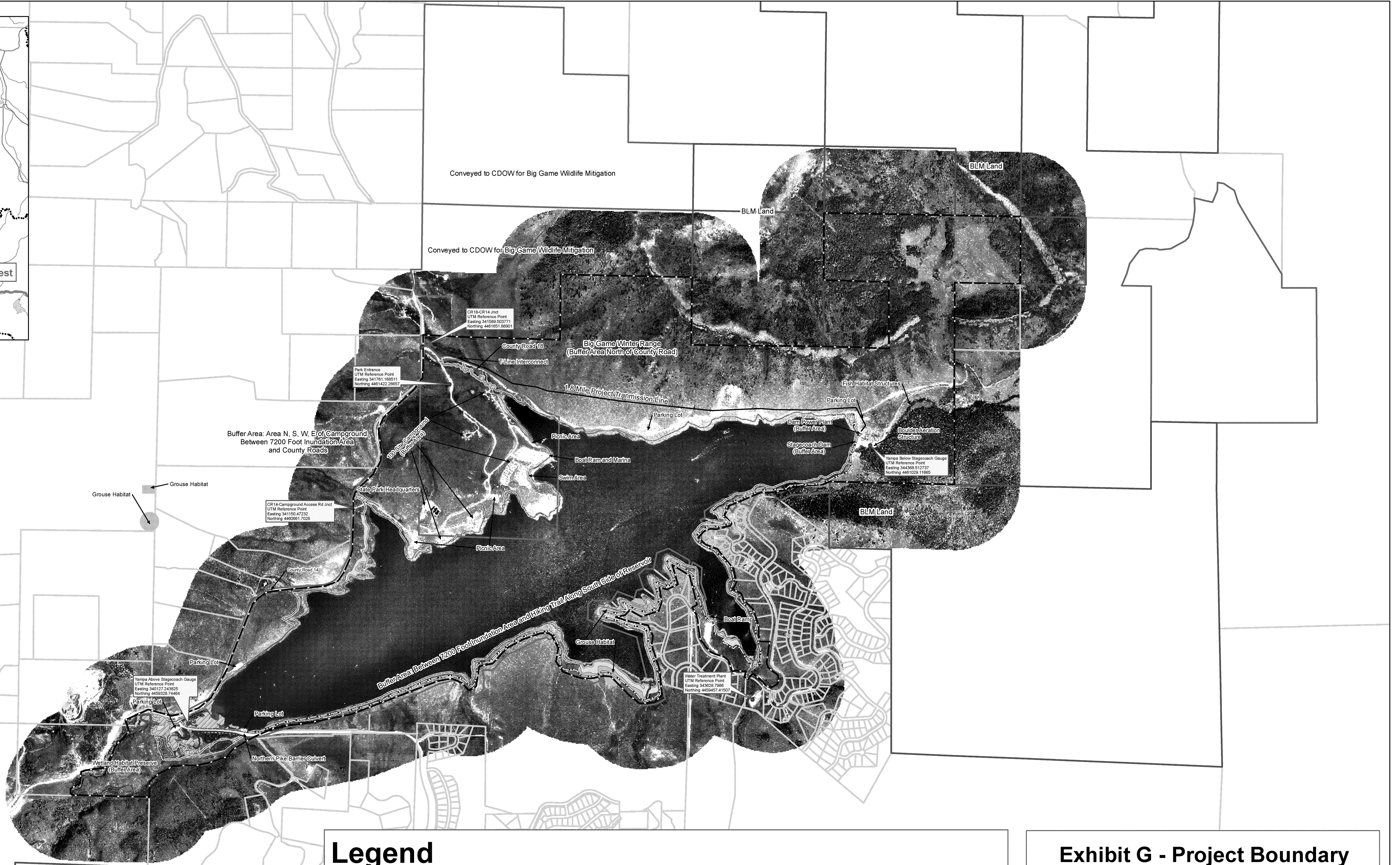
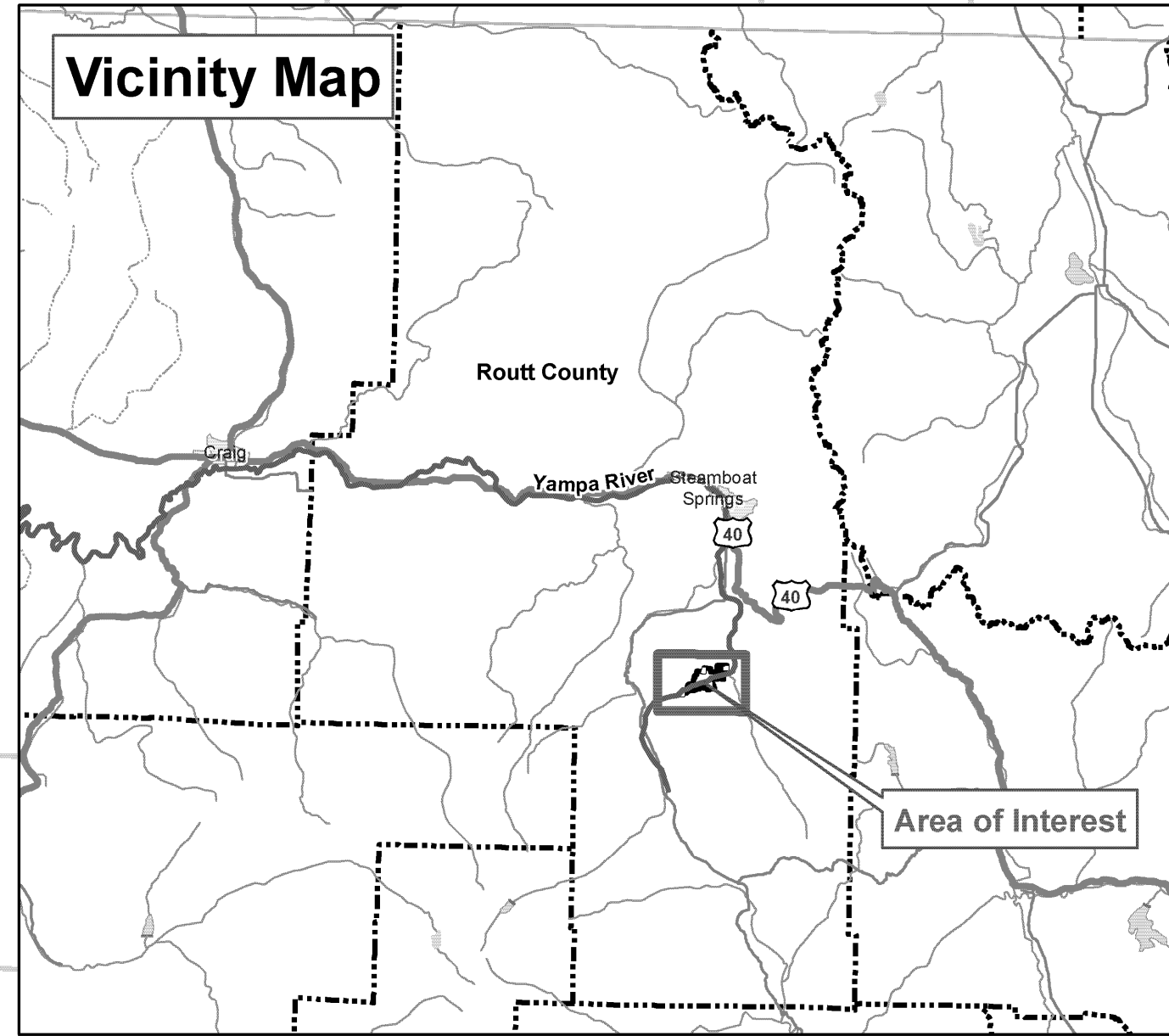
(f) The conveyance of an interest in project lands under this article does not in itself change the project boundaries. The project boundaries may be changed to exclude land conveyed under this article only upon approval of revised Exhibit G or K drawings (project boundary maps) reflecting exclusion of that land. Lands conveyed under this article will be excluded from the project only upon a determination that the lands are not necessary for project purposes, such as operation and maintenance, flowage, recreation, public access, protection of environmental resources, and shoreline control, including shoreline aesthetic values. Absent extraordinary circumstances, proposals to exclude lands conveyed under this article from the project shall be consolidated for consideration when revised Exhibit G or K drawings would be filed for approval for other purposes.

(g) The authority granted to the licensee under this article shall not apply to any part of the public lands and reservations of the United States included within the project boundary.

(III) This order is issued under authority delegated to the Director and is final unless appealed under Rule 1902 to the Commission by any party within 30 days from the issuance date of this order. Filing an appeal does not stay the effective date of this order or any date specified in this order. The licensee's failure to appeal this order shall constitute acceptance of the license.



Fred E. Springer
Acting Director, Office
of Hydropower Licensing



NOTES:
 THIS DRAWING WAS COMPILED BY TETRA TECH EC INC. 19803 NOKULL CREEK PARKWAY, BELLWELL WASHINGTON, 98611. PHONE 425-482-7000. INFORMATION ON THE DRAWING WAS REVIEWED BY INCA INC., A DIVISION OF TETRA TECH, BASED ON THE EXISTING USGS QUADRANGLE MAP AND THE DIGITIZED BOUNDARY LINES FROM LAND OWNERSHIP DATA.

SURVEYOR'S STATEMENT:
 I HEREBY STATE THAT THE FERC P-9202 PROJECT BOUNDARY DEFINITION FOR THE PROJECT AS SHOWN ON THIS EXHIBIT "G" IS DEVELOPED WITHIN REASONABLE ACCURACIES AS REQUIRED IN 18 CFR 4.41 TO THE GEOGRAPHIC LOCATION BASED ON A GRAPHICAL POSITIONING IN REFERENCE TO USGS QUADRANGLE MAPPING WITHIN ± 40 FEET. THE FERC P-9202 DOCUMENTED PROJECT BOUNDARY WAS ADJUSTED AND OR ROTATED TO BEST FIT THE USGS QUADRANGLE MAP FEATURES GRAPHICALLY AND WAS NOT FIELD SURVEYED.

BY: *Michael C. Root* 6/18/09
 MICHAEL C. ROOT, PLS. DATE



INCA Engineers, Inc.
 A Tetra Tech Company
 400 112nd AVENUE, N.E.
 Suite 400
 Bellevue, WA 98059

Legend

•	Reference Points		Impacted Stream or Pond
---	Elk Run Trail		Unimpacted Stream or Pond
	Wetland Areas		Owner Type
	Wetland Mitigation Areas		Federal (BLM)
	7204 Foot Inundation Area		State
	Project Boundary		Private

Exhibit G - Project Boundary

Upper Yampa Water Conservancy District - Slagcoach Hydroelectric
FERC Project No. 9202

Imagery: USGS DOQQ Rown 11/21/2000.
 Projection: Colorado NAD 1983 State Plane (Feet)
 Boundary digitized based on project features, updated 06/05/2009
 Note: This boundary is NOT drawn from survey data.

130 FERC ¶ 62,235
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Upper Yampa Water Conservancy District

Project No. 9202-160

ORDER AMENDING LICENSE

(Issued March 23, 2010)

1. On December 4, 2008, and supplemented on June 15, 2009, Upper Yampa Water Conservancy District (UYWCD), licensee for 800-kilowatt (kW) Stagecoach Hydroelectric Project No. 9202, filed an application to amend its license. UYWCD proposes to raise both the height of the spillway crest and the normal maximum operating elevation of Stagecoach Reservoir by 4 feet, from 7,200 feet mean sea level (msl) to 7,204 feet msl. The project is located on the Yampa River, in Routt County, Colorado.

Background

2. The Stagecoach Project is located on the Yampa River, in Routt County, Colorado, about 16 miles south of Steamboat Springs.¹ The project consists, in pertinent part, of: (1) Project works consisting of: (a) a 145-foot-high, 450-foot-long roller compacted concrete dam located downstream of the confluence of Morrison Creek and the Yampa River, impounding; (b) a multi-purpose reservoir with a total storage capacity of 33,738 acre-feet and a surface area of 777 acres at a spillway crest elevation of 7,200 feet mean sea level (msl); (2) a 60-inch-diameter, 120-foot-long steel pipeline; (3) a 36-inch-diameter, 20-foot-long penstock; (4) a 40-foot-by 40-foot powerhouse, located in the vicinity of the dam's outlet works, containing a single Francis turbine-generator unit with an installed capacity of 800 kW; (5) a tailrace; (6) a 1.8 mile-long, 12.5-kV transmission line; and (7) appurtenant facilities. The reservoir provides water for municipal and agricultural use, recreation, and hydropower generation.

¹ 38 FERC ¶ 62,343, Order Issuing License and Dismissing Competing Preliminary Permit Applications (March 31, 1987).

Proposed Amendment

3. The UYWCD proposes to raise both the height of the spillway crest and the normal maximum operating elevation of Stagecoach Reservoir by 4 feet, from 7,200 feet msl to 7,204 feet msl. This would enlarge the reservoir's storage capacity from 33,275 acre-feet to 36,460 acre-feet. The proposed increase in reservoir surface elevation would increase the surface area of the reservoir from 771 to 819 acres, an increase of 48 acres.

4. The proposal would not affect the project's peak generation capacity, as it is limited to the 800 kilowatt capacity of the existing generator. However, the additional head and volume of water would result in power being generated over a longer period of time. The licensee estimates that the enlargement of Stagecoach Reservoir would result in an increase in the annual generation by about 6 percent, or by approximately 300,000 kW-hours.

Procedural Items

5. On February 17, 2009, the Commission issued a public notice of the licensee's proposal, soliciting comments, motions to intervene and protests, recommendations, terms and conditions, and fishway prescriptions. Comments were filed by the U.S. Department of the Interior (DOI), and the U.S. Fish and Wildlife Service (FWS) regarding protection of federally-listed species. These comments are discussed in the appropriate sections below. Dequine Family LLC commented that the licensee's proposal does not address impacts on Morrison Creek which would result from diversions into Stagecoach Reservoir. However, the licensee's proposal does not include any diversion from Morrison Creek, which joins the Yampa River below the project dam.

6. The Commission issued an Environmental Assessment (EA) on the licensee's proposal on September 15, 2009, and solicited public comments. The only comments received were from the Colorado Division of Wildlife (CDOW). The CDOW wrote that it has worked with the licensee to address anticipated impacts to area aquatic and terrestrial resources, producing a Wildlife Mitigation Plan (WMP), which was included with the licensee's proposal and is discussed in the September 15, 2009 EA. The WMP is specific to the licensee's December 4, 2008 proposal and is attached to this order in Appendix A. The CDOW requested that any further resource protection plans, particularly plans involving components of the WMP, be developed in consultation with the CDOW, and require its approval.

Water Quality Certification

7. Under section 401(a) of the Clean Water Act (CWA),² the Commission may not authorize construction or operation of a hydroelectric project that may result in a discharge from the project unless the state water quality certifying agency has either issued water quality certification (WQC) for the project or has waived certification by failing to act on a request for certification within a reasonable period of time, not to exceed one year. Section 401(d) of the CWA provides that the certification shall become a condition of any federal license that authorizes construction or operation of the project.³ In Colorado, the Colorado Department of Public Health and Environment (CDPHE) is the certifying agency.

8. By letter dated March 10, 2009, the licensee applied to the CDPHE for water quality certification for the proposed action. The CDPHE issued a WQC for the licensee's proposal on February 26, 2010, and it is attached to this order as Appendix B. The February 26, 2010 WQC supersedes an earlier WQC that was issued for the project on June 26, 1986. The requirements of the February 26, 2010 WQC are adopted as requirements of the Stagecoach Project license through paragraph (G) of this order.

9. The February 26, 2010 WQC includes two special conditions and a series of standard certification requirements. The first special condition requires the licensee to continue commitments and coordination with other agencies regarding water quality as outlined in a January 14, 2010 letter from the licensee to the CDPHE, which is attached to the WQC. The commitments include: (1) installation of the boulder aeration structure downstream; (2) removal of sagebrush around the reservoir to decrease pike spawning habitat and nutrient loading; (3) installation of temperature monitoring equipment on the intake tower in the reservoir to monitor reservoir stratification; (4) installation of a real-time, continuously-recording dissolved oxygen (DO) sensor in the project stilling basin; and (5) use of a storm water protection program during the proposed construction. The second special condition requires the licensee to develop and implement a water quality sampling plan at the project, according to parameters included in the WQC.

² 33 U.S.C. § 1341(a) (2006).

³ 33 U.S.C. § 1341(d) (2006).

10. The February 26, 2010, WQC's standard certification requirements include such measures as: (1) allowing CDPHE representatives entry to construction areas, and the project during operation, for inspections; (2) use of erosion and control measures; (3) notification procedures if there are problems complying with the WQC or if potential problems maintaining state standards occur; (4) notification to be provided if there are changes in the proposed project; and (5) prevention of pollutants from entering state waters.

National Historic Preservation Act

11. Under section 106 of the National Historic Preservation Act (NHPA), and its implementing regulations, federal agencies must take into account the effect of any proposed undertaking on properties listed or eligible for listing in the National Register of Historic Places (defined as historic properties), and afford the Advisory Council on Historic Preservation a reasonable opportunity to comment on any undertaking. This generally requires the Commission to consult with the State Historic Preservation Officer (SHPO) to determine whether and how a proposed action may affect historic properties, and to seek ways to avoid or minimize any adverse effects.

12. Archaeological investigations conducted in 1984 in association with the project's original licensing identified 14 archaeological sites within the area subsequently included in the licensed project. The Colorado State Historic Preservation Officer (SHPO) issued an opinion that none of those sites were eligible for the National Register of Historic Places (National Register). The licensee consulted with the SHPO concerning the proposed action. By letter dated August 2, 2006, the SHPO informed the licensee that no historic properties would be affected under the proposal, and that no additional archaeological investigations were necessary.

13. The licensee received a letter from the Southern Ute Tribe, dated August 2, 2006, indicating that no properties of religious or cultural significance to the tribe that are listed in the National Register would be affected by the proposed action. The Commission issued a September 16, 2009 letter to 10 other tribal representatives in the area, indicating that the September 15, 2009 EA was available for review and requesting any comments. No comments have been received.

Threatened and Endangered Species

14. Section 7(a)(2) of the Endangered Species Act (ESA) of 1973⁴ requires federal agencies to ensure their actions are not likely to jeopardize the continued existence of federally listed threatened and endangered species, or result in the destruction or adverse modification of their designated critical habitat.

15. There is concern, as stated by the DOI, regarding the escape of northern pike from the project reservoir, and the fish's travel downstream into designated critical habitat of federally-listed endangered Colorado pikeminnow, razorback sucker, humpback chub, and bonytail chub, which northern pike are known to compete with and prey upon. The DOI also indicated that water depletions adversely affect endangered fishes and their critical habitat, and that depletions from the Yampa River resulting from the proposed enlargement of Stagecoach Reservoir would average 470 acre/feet annually.

16. The Commission designated the licensee as its non-federal representative for the purpose of preparing a draft biological assessment (BA) on the potential effects of raising the reservoir storage level on listed species. The licensee included a draft BA in its December 4, 2008 filing. Commission staff adopted the BA as a final BA and provided it to the FWS on April 7, 2009, requesting formal consultation under the ESA and, if necessary, the preparation of a biological opinion (BO).

17. In a letter to the Commission dated July 15, 2009, the FWS indicated that a Recovery Implementation Program Recovery Action Plan, which identifies actions to recover endangered fishes, had been adopted for the Upper Colorado River. On January 10, 2005, the FWS issued its Final Programmatic Biological Opinion on the Management Plan for Endangered Fishes in the Yampa River Basin (Yampa River PBO). Projects under the Yampa River PBO would avoid a likelihood of jeopardy and/or adverse modification of critical habitat due to water depletion impacts. The FWS wrote that the licensee's proposal qualified the project for participation in the Yampa River PBO. Therefore, the FWS provided a copy of the Recovery Agreement, to be signed by the licensee and returned to the FWS. The licensee supplied a signed copy to the FWS dated September 18, 2009.

⁴ 16 U.S.C. § 1536(a)

18. The FWS BO, dated December 9, 2009, contains a series of eight conservation measures regarding control of northern pike production and escapement during construction and operation of the project. The FWS noted that the identified conservation measures were already measures contained in the WMP, prepared by the licensee and CDOW and filed with the licensee's December 4, 2008 proposal. The FWS indicated that, with the identified conservation measures, the anticipated level of incidental take would not be likely to result in jeopardy to the four listed fish species, or destruction or adverse modification of critical habitat. The eight measures in the WMP identified by the FWS as conservation measures are attached to this order as Appendix C.

19. To help ensure the success of the conservation measures provided by the FWS, and to keep the Commission informed of the status of the measures and protection of listed species, the licensee should file with the Commission, on an annual basis, reports summarizing progress in completing the conservation measures, including copies of relevant consultation with the CDOW and the FWS. Paragraph (H) of this order requires the filing of these annual reports, and identifies elements that would need to be included in the reports.

Recommendations Pursuant to Section 10(j) of the FPA

20. Section 10(j) of the FPA⁵ requires the Commission to include license conditions based upon recommendations of federal and state fish and wildlife agencies submitted pursuant to the Fish and Wildlife Coordination Act,⁶ to "adequately and equitably protect, mitigate damages to, and enhance, fish and wildlife (including related spawning grounds and habitat)" affected by the project. No 10(j) recommendations were submitted for this application.

⁵ 16 U.S.C. § 803(j) (2006).

⁶ 16 U.S.C. §§ 661 (2006) *et seq.*

Recommendations Pursuant to Section 10(a)(1) of the FPA

21. Section 10(a)(1) of the FPA⁷ requires that any project for which the Commission issues a license shall be best adapted to a comprehensive plan for improving or developing a waterway or waterways for the use or benefit of interstate or foreign commerce; for the improvement and utilization of waterpower development; for the adequate protection, mitigation, and enhancement of fish and wildlife; and for other beneficial public uses, including irrigation, flood control, water supply, recreation, and other purposes. No 10(a)(1) recommendations were submitted for this application.

Applicant's Plans And Capabilities**A. Conservation Efforts**

22. Section 10(a)(2)(C) of the FPA requires the Commission to consider the electricity consumption improvement program of the applicant, including its plans, performance, and capabilities for encouraging or assisting its customers to conserve electricity cost-effectively, taking into account the published policies, restriction, and requirements of state regulatory authorities. The UYWCD sells the project's power to Xcel Energy Company, a utility.

23. Staff concludes that, given the limits of its ability to influence users of the electricity generated by the project, the UYWCD complies with section 10(a)(2)(C) of the FPA.

B. Safe Management, Operation, and Maintenance of the Project

24. Commission staff has reviewed the UYWCD management, operation and maintenance of the Stagecoach Project pursuant to the requirements of 18 C.F.R. Part 12 of the Commission's regulations and the Commission's Engineering Guidelines. Staff concludes that there is no reason to believe that the UYWCD cannot continue to safely manage, operate, and maintain these facilities under the proposed amendment.

⁷ 16 U.S.C. § 803(a)(1) (2006).

Comprehensive Plans

25. Section 10(a)(2)(A)⁸ of the FPA requires the Commission to consider the extent to which a project is consistent with federal or state comprehensive plans for improving, developing, or conserving waterways affected by the project.⁹ Staff reviewed eight comprehensive plans that have been filed by federal and state agencies involving Colorado and the Yampa River. Of these, the only one that was found to be relevant to the Stagecoach Project was the U.S. Department of the Interior, Fish and Wildlife Service's Final Recovery Implementation Program for Endangered Fish Species in the Upper Colorado Basin, dated September 29, 1982. The Commission has completed consultation under Section 7 of the Endangered Species Act regarding effects of the licensee's proposal to federally-listed fishes in the Upper Colorado Basin, as discussed earlier in this order. Therefore, no conflicts under Section 10(a)(2)(A) of the FPA were found.

Comprehensive Development

26. Sections 4(e) and 10(a)(1) of the FPA,¹⁰ require the Commission to give equal consideration to power development purposes and to the purposes of energy conservation, the protection, mitigation of damage to, and enhancement of fish and wildlife, the protection of recreational opportunities, and the preservation of other aspects of environmental quality. Any license issued shall be such as in the Commission's judgment will be best adapted to a comprehensive plan for improving or developing a waterway or waterways for all beneficial public uses. The decision to issue this license amendment, and the terms and conditions included herein, reflect such consideration.

27. Based on our independent review and evaluation of the project, recommendations from resource agencies, and the no-action alternative, as documented in the EA, we have selected the licensee's proposal, with the staff-recommended measures along with mandatory conditions, and find that it is best adapted to a comprehensive plan for improving or developing the Yampa River.

⁸ 16 U.S.C. § 803(a)(2)(A) (2006).

⁹ Comprehensive plans for this purpose are defined at 18 C.F.R. § 2.19 (2009).

¹⁰ 16 U.S.C. §§ 797(e) and 803(a)(1) (2006).

Administrative Conditions

A. Exhibits A, F, and G

28. The Commission requires licensees to file sets of approved project drawings on microfilm and in electronic file format. Article 202 that is included in this order requires the licensee to file these drawings approved in ordering paragraph (E).

29. In its amendment application, the licensee filed on December 4, 2008 and supplemented June 15, 2009, a revised Exhibit A, Exhibit G-1 drawing and two Exhibit F drawings that reflect the proposed changes to the project. The Exhibit A, which describes the new project features conform to the Commission's rules and regulations and is approved in ordering paragraph (C) of this order. Staff's review of the Exhibit F and G drawings shows they reflect the proposed project features and project boundary. However, the Exhibit F and G drawings need to be in black and white format, as stated in Article 202. In addition, staff reviewed the project boundary GIS data along with the drawings and was able to verify the project boundary. Paragraph (E) approves the Exhibit F and G drawings, which conform to the Commission's Rules and Regulations.

30. In addition to Article 202, we will monitor the location of approved recreation improvements as part of our oversight of the project. Therefore, Article 203 contains the details and filing specifications for GIS data associated with approved recreation features

B. Start of Construction and Review of Final Plans and Specifications

31. The proposed work approved in this order will be subject to the existing license's article 301 and articles 304 through 306, which we use in this order by reference. To such an extent, any reference to issuance date means the issuance date of this order.¹¹

¹¹ The license articles referenced are: Article 301, for start and completion of construction; Article 304, requirement for final contract drawings and specifications; Article 305, requirement for licensee to review and approve the design of contractor-designed cofferdams and deep excavations; and Article 306, requirement for revised Exhibits A, F and G to describe and show the project as built, after completion of construction.

Environmental Review

A. Wildlife Mitigation Plan

32. The WMP included with the licensee's December 4, 2008 proposal is a signed agreement between the licensee and the CDOW that identifies measures specific to the licensee's proposal to avoid, minimize, and mitigate impacts to water quality, fisheries, wetlands, and wildlife. The WMP, as approved by the CDOW, is attached to this order as Appendix A, and is approved in this order's paragraph (I). Key measures included in the WMP are addressed in the appropriate sections below.

B. Water Quality

33. State water quality standards require that DO concentrations in the Yampa River be no lower than 7 milligrams per liter (mg/L) during trout spawning periods (spring and fall), and 6 mg/L the remainder of the year. Water temperature is not to exceed a mean daily average of 20 degrees centigrade (°C). Stagecoach Reservoir thermally stratifies from early summer through fall, with colder, denser, oxygen-deficient water sinking to the bottom of the reservoir. During June, July, and August, reservoir DO concentrations decrease rapidly below depths of 15 to 20 feet, which is the mid-point of the top gate opening on the intake tower. July through September, the licensee operates the project by adjusting the gates on the intake tower to maintain discharge water temperatures of 12 to 16°C, rather than targeting DO concentrations, because of rapid re-aeration downstream of the project. Although DO concentration in the stilling basin immediately downstream of the dam may be as low as 4.0 mg/L during late summer and early fall, DO concentration of 6.0 mg/L are normally achieved further downstream.

1. Erosion and Sediment Control

34. The construction proposed by the licensee has the potential to affect reservoir and downstream water quality through erosion and sedimentation at areas of construction access, laydown areas, work at the dam spillway, installation of the downstream boulder aeration structure, and work at shoreline recreation areas. The licensee indicates that it would employ water quality protection measures, such as silt fencing, diversion dikes, straw bales, sediment traps, erosion control blankets, and revegetation of disturbed areas. The licensee would also need to comply with the conditions CDPHE's February 26, 2010 water quality certification, and any conditions that are specified through the Corps' Section 404 permitting process.

35. To comply with the Commission's regulations and ensure protection of water quality and aquatic resources, the licensee would need to file its final Erosion and Sediment Control Plan with the Commission's Division of Dam Safety and Inspections-San Francisco Regional Office (D2SI-SFRO) prior to commencement of construction as part of the overall Quality Control and Inspection Plan, as required by Article 304.

2. Changes in Normal Reservoir Elevations and Flows

36. The licensee has indicated that some proposed construction activities may necessitate the manipulation of reservoir water elevations outside of the normal annual drawdowns of approximately 8 to 10 feet. Because construction-related water level manipulations have the potential to increase erosion and re-suspend sediments, and could involve changes in downstream flow releases, staff recommends in the EA that the licensee file, a Drawdown, Refill, and Flow Release Plan, to include identification of maximum rates of change to water levels and flows to be observed during the work. Such a plan would help to protect water quality during construction activities. Paragraph (J) of this order requires a Drawdown, Refill, and Flow Release Plan, and identifies the elements that should be included in the plan.

3. Enhancement and Monitoring of Water Quality

37. To enhance downstream dissolved oxygen (DO) levels, the licensee plans to design and install a boulder aeration structure that would span the Yampa River within 250 feet downstream of the project stilling basin. The boulder aeration structure is a component of both the licensee's WMP written with the CDOW, and of the WQC. The structure would be installed prior to, or simultaneously with, the proposed modification of the dam. To help ensure the success of this measure, which would benefit downstream water quality, fisheries, and federally-listed species, staff recommended in the EA that the licensee file a Boulder Aeration Structure Completion Report with the Commission. The report is required by paragraph (K) of this order, which identifies the elements that would need to be included in the report.

38. The licensee's water quality monitoring plan, which is required under article 408 of the project license, was first approved in a March 17, 1989 order, and was most recently modified in an order issued December 12, 2008.¹² In the December 12, 2008

¹² Order Approving Modification of Water Quality Monitoring Schedule and Requiring Continuously Recording Water Quality Monitoring System under Article 408, issued December 12, 2008. 125 FERC ¶ 62,246.

order, the Commission required the installation of a continuous DO and water temperature monitoring system as part of any license amendment increasing the reservoir elevation. The December 12, 2008 order specified that the system have alarms for elevated water temperatures and low DO concentrations, and remote accessibility. Therefore, to help ensure protection and enhancement of downstream water quality during project operation, the licensee needs to install continuous dissolved oxygen and water temperature monitoring equipment within 60 days of the completion of the proposed construction. Paragraph (L) of this order requires the license to file a report on the work, and a request to amend its existing water quality monitoring plan to reflect the installation and use of the continuous monitoring equipment.

C. Fisheries Resources

39. Stagecoach Reservoir supports fisheries for rainbow trout and trophy northern pike, and the Yampa River downstream supports a fishery for rainbow, brook, and brown trout. The environmental measures to protect and enhance water quality, discussed above, would also protect and benefit the area's fisheries.

40. There is concern that northern pike escaping from the project reservoir would travel downstream and prey on four species of Colorado River Basin fishes which are listed under the ESA. This is discussed in the section below.

D. Terrestrial, Wildlife, and Wetland Resources

41. Sagebrush community, agricultural meadows, montane shrubland, and forests occur in the immediate project area. Wetlands occur along the shoreline at the upstream end of the reservoir and along some tributaries. Wildlife species in the project area include sharp-tailed grouse, and the area is used as severe winter range and winter concentration areas for elk and mule deer. Two active sharp-tail grouse leks¹³ are present near the south reservoir shoreline, which are normally used from mid-April until mid-May. Species considered rare by the state of Colorado potentially occurring in the area include bald eagle, greater sandhill crane, and northern leopard frog.

42. A wetland delineation completed in 2004 included areas at the normal maximum water line of 7,200 feet msl, and areas that would be affected if the water level were

¹³ Leks are areas where male birds display and compete for the attention of females.

raised. Five wetlands identified as jurisdictional waters of the United States. These are areas of open water that include the reservoir, ponds, intermittent and perennial streams, and drainage ditches. Large areas of undisturbed natural wetlands and a wetland habitat preserve are located at the southern end of the reservoir at the Yampa River inlet. Riverine riparian habitats are located downstream along the Yampa River.

43. Vegetation clearing to allow construction access may be required for the proposed construction at the dam and spillway, downstream where the boulder aeration structure would be placed, and at other areas. Vegetation around the reservoir between elevations of 7,200 feet msl and 7,204 feet msl, which would be inundated by increased reservoir elevations, would be cleared. This would include approximately 31 acres of sagebrush and meadow habitat. Additionally, increasing the maximum reservoir elevation would inundate 23.1 acres of wetlands, including 4.1 acres in the existing wetland preserve, and less than 0.1 acre associated with reservoir tributaries. Approximately 1,000 feet of upstream Yampa River shoreline, and 3.0 acres of ponds, all within the wetland habitat preserve, would also be inundated.

44. The WMP that the licensee filed with its proposal contains measures to mitigate the effects to terrestrial and wildlife resources, such as terrestrial vegetation manipulation (including mowing and/or burning) to benefit grouse use of lek locations, conducting annual meetings to review reservoir operation to benefit wildlife, working to enhance sandhill crane habitat, and continuing to honor seasonal road closures to benefit elk.

45. The WMP also includes wetland-specific measures to mitigate for losses in wetland habitat. First, the licensee would design (with CDOW approval) and construct a 7.1-acre wetland area between CR 14 and the reservoir in the upland area between the Stagecoach State Park parking area and the road near the park headquarters. The licensee would also salvage mature willow plants at the reservoir inlet and use them in wetland mitigation efforts. Over time, wetlands in reservoir fringe areas would develop in response to increased water levels, replacing wetlands that would be inundated under the new operations. Additionally, we note that the licensee is consulting with the U.S. Corps of Engineers to obtain a Section 404 Permit, which may require compensatory wetland mitigation and mitigation monitoring, and contingency plans to ensure adequate wetland mitigation.

46. In the September 15, 2009 EA, staff recommended, to help ensure the success of the WMP mitigation measures dealing with terrestrial wildlife and wetlands, that the licensee develop a plan and schedule for post-construction monitoring of such measures contained in the WMP and determining the measures' success, to include an adaptive

management strategy with contingency plans to be implemented if any mitigation measures are found to not be successful.

47. Paragraph (M) of this order requires the filing of a Post-Construction Terrestrial Wildlife and Wetland Mitigation Monitoring Plan, and identifies the elements that would need to be included in the plan.

48. Finally, the licensee needs to determine whether any of the areas to be used for project mitigation as part of this proceeding lie outside of the project boundary, as mapped in the licensee's July 29, 2009 filing with the Commission. If it is determined that any mitigation areas are outside of the project boundary, the licensee should file a revised project boundary to include the mitigation areas. Paragraph (N) of this order addresses the issue of the project boundary.

E. Recreation and Aesthetics

49. During the proposed construction, visitors to the dam would not be permitted to walk across a portion of the dam, as is normally allowed. Visitors to Stagecoach State Park and local residents would be affected to some degree by construction traffic, including construction vehicles and machinery, transportation of materials (e.g., concrete), and workers commuting to the site. Noise from construction traffic could temporarily disturb residents and recreationists in the project area.

50. The licensee's proposal also includes the following mitigation measures to ensure that the park's recreation facilities are protected and enhanced: relocation of vault restrooms to higher elevations; extension of the swim beach; relocation of the concrete picnic pad near the swim beach to a higher elevation; extension of boat ramps; raising of the Little Morrison Creek Bridge and trail; and raising, if necessary, the accessible fishing access and parking near Keystone Day-Use Area. Riprap would be placed along the shoreline to protect recreation areas from erosion. All disturbed areas would be stabilized with appropriate erosion control measures, and revegetated and trees and irrigation systems would be relocated within the area of inundation. The licensee would also install signage to inform float fishermen of limited headroom under the CR No. 14 Bridge when reservoir levels increase above 7,200 feet. To minimize impacts to recreationists while the mitigation measures are being performed, the licensee would commence construction after Labor Day, use appropriate erosion control measures, use existing access areas where practicable, and apply water to construction areas to minimize dust.

51. Some recreation access areas, boat ramps and launching lanes would be unavailable for use during some construction phases, such as during drawdowns that could make boat launching unsafe or impossible, or when the above recreation mitigative measures are being performed. Also, underwater objects or terrain that is normally well submerged could become boating safety hazards. Therefore, to help ensure public safety, paragraph (O) of this order requires the licensee to consult with Colorado State Parks and develop an Informational Signage and Underwater Hazard Survey Plan.

Conclusion

52. The EA for the licensee's proposal contains background information, analysis of impacts, and support for related license articles and requirements. We conclude, based on the record of this proceeding, including the EA and comments thereon, that issuing an amendment to the license as described in this order would not constitute a major federal action significantly affecting the quality of the human environment.

53. This order approves the raise of both the height of the spillway crest and the normal maximum operating elevation of Stagecoach Reservoir by 4 feet, from 7,200 feet msl to 7,204 feet msl, with the mitigation and monitoring measures required by this order.

The Director orders:

(A) The license for the Stagecoach Hydroelectric Project No. 9202, is amended as provided by this order, effective the day this order is issued.

(B) The application to amend the license, as filed December 4, 2008, supplemented on June 15, 2009, to raise both the height of the spillway crest and the normal maximum operating elevation of Stagecoach Reservoir by 4 feet, from 7,200 feet msl to 7,204 feet msl is approved as provided for in this order.

(C) Pages 1-3 of the revised Exhibit A filed on December 4, 2008, are approved and made a part of the license. The filed Exhibit A supersedes the old exhibit A.

(D) Ordering Paragraph (B)(2) of the license is revised to read as follows:

Project works consisting of: (a) a 145-foot-high, 450-foot-long roller compacted concrete dam located downstream of the confluence of Morrison Creek and the Yampa River, impounding; (b) a multi-purpose reservoir with a total storage capacity of 36,460 acre-feet and a surface area of 819 acres at a spillway crest elevation of 7,204 feet mean

sea level; (3) a 60-inch-diameter, 120-foot-long steel pipeline; (4) a 36-inch-diameter, 20-foot-long penstock; (5) a 40-foot-by 40-foot powerhouse, located in the vicinity of the dam's outlet works, containing a single Francis turbine-generator unit with an installed capacity of 800 kW; (6) a tailrace; (7) a 1.8 mile-long, 12.5-kV transmission line; and (8) appurtenant facilities.

(E) The following Exhibit F and G drawings, filed on December 4, 2008 and supplemented on June 15, 2009, are approved and assigned the exhibit drawing numbers as shown in the following table:

Exhibit	FERC No.	Superseding	Title
F-1	9202-18	9202-5	Plan View of Existing Dam
F-1A	9202-19	9202-5	Cross-Section of Existing Dam
G-1	9202-20	9202-7	Project Map and Boundary

(F) The construction, operation and maintenance of the work authorized in this amendment of license is subject to the existing license's article 301 and articles 304 through 306,¹⁴ with Article 304 as revised herein, in addition to the following additional articles 202 and 203:

Article 202. Exhibit Drawings. Within 45 days of the date of issuance of this order, the licensee shall file the approved exhibit drawings, which must be in black and white format, in aperture card and electronic file format.

a) Three sets of the approved exhibit drawings shall be reproduced on silver or gelatin 35mm microfilm. All microfilm shall be mounted on type D (3-1/4" X 7-3/8") aperture cards. Prior to microfilming, the FERC Project-Drawing Number (i.e., P- 9202-020) shall be shown in the margin below the title block of the approved drawing. After mounting, the FERC Drawing Number shall be typed on the upper right corner of each aperture card. Additionally, the Project Number, FERC Exhibit (i.e., G-1), Drawing

¹⁴ The license articles referenced are: *Article 301*, for start and completion of construction; *Article 304*, requirement for final contract drawings and specifications; *Article 305*, requirement for licensee to review and approve the design of contractor-designed cofferdams and deep excavations; and *Article 306*, requirement for revised Exhibits A, F and G to describe and show the project as built, of completion of construction file.

Title, and date of this order shall be typed on the upper left corner of each aperture card. See Figure 1.

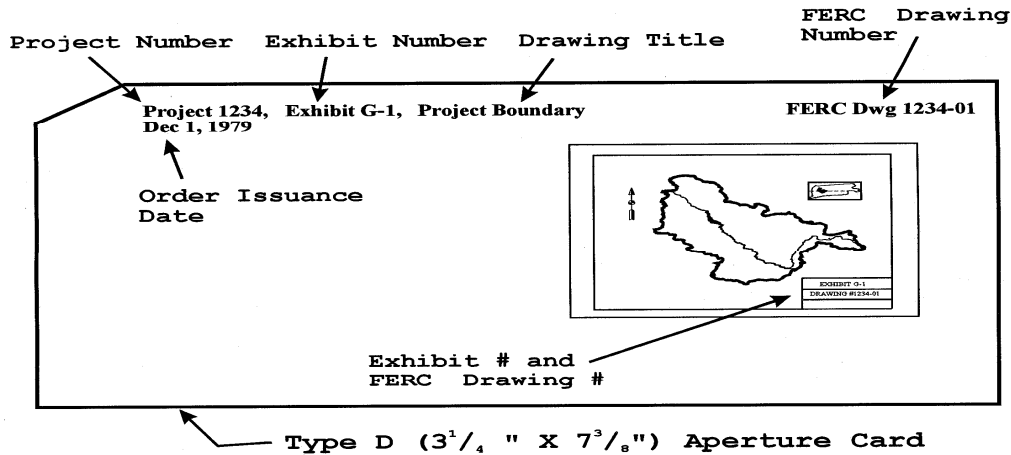


Figure 1. Sample Aperture Card Format

Two of the sets of aperture cards shall be filed with the Secretary of the Commission, ATTN: OEP/DHAC. The third set shall be filed with the Commission's Division of Dam Safety and Inspections San Francisco Regional Office.

b) The licensee shall file two separate sets of exhibit drawings in electronic raster format with the Secretary of the Commission, ATTN: OEP/DHAC. A third set shall be filed with the Commission's Division of Dam Safety and Inspections San Francisco Regional Office. Each exhibit drawing must be contained in a separate electronic raster file; which meets the following format specification:

IMAGERY - black & white raster file
 FILE TYPE – Tagged Image File Format, (TIFF) CCITT Group 4
 RESOLUTION – 300 dpi desired, (200 dpi min)
 DRAWING SIZE FORMAT – 24” X 36” (min), 28” X 40” (max)
 FILE SIZE – less than 1 MB desired

c) For Exhibit G Drawings only, the licensee shall file two separate sets of the project boundary data in a geo-referenced vector electronic file format (such as ArcView shape files, GeoMedia files, MapInfo files, or any similar GIS format) with the Secretary of the Commission, ATTN: OEP/DHAC. The file name shall include: FERC Project Number, data description, date of this order, and file extension in the following format [P-9202, boundary vector data, MM-DD-YYYY.SHP]. The geo-referenced electronic

boundary data file must be positionally accurate to ± 40 feet in order to comply with National Map Accuracy Standards for maps at a 1:24,000 scale. A single electronic boundary data file is preferred and must contain all reference points shown on the individual project boundary drawings. The latitude and longitude coordinates, or state plane coordinates, of each reference point must be shown. The data must be accompanied by a separate text file describing the map projection used (i.e., UTM, State Plane, Decimal Degrees, etc), the map datum (i.e., North American 27, North American 83, etc.), and the units of measurement (i.e., feet, meters, miles, etc.). The text file name shall include: FERC Project Number, data description, date of this order, and file extension in the following format [P-9202, project boundary metadata, MM-DD-YYYY.TXT].

Article 203. Recreational Features. Within 45 days of the date of this order, the licensee shall file location point data that is representative of the approved recreation features included on drawings approved by this order. The location points must be positionally accurate to ± 40 feet in order to comply with National Map Accuracy Standards for maps at a 1:24,000 scale. The location points must include latitude/longitude in decimal degrees, based on the horizontal reference datum of the North American Datum of 1983 (NAD 83). The attribute table for each point must include at least the development name and recreational feature.

Article 304. Contract Plans and Specifications. At least 60 days prior to the start of any construction, the licensee shall submit three copies of its plans and specifications and a supporting design document to the Commission's Division of Dam Safety and Inspections (D2SI) – San Francisco Regional Engineer, and two copies to the Commission (one of these shall be a courtesy copy to the Director, D2SI). The submittal to the D2SI-San Francisco Regional Engineer must also include as part of preconstruction requirements: a Quality Control and Inspection Program, Temporary Construction Emergency Action Plan, and Soil Erosion and Sediment Control Plan. The licensee may not begin construction until the D2SI- San Francisco Regional Engineer has reviewed and commented on the plans and specifications, determined that all preconstruction requirements have been satisfied, and authorizes start of construction.

(G) *Water Quality Certification.* The license for the Stagecoach Project is subject to the conditions of the February 26, 2010 water quality certification issued by the Colorado Department of Public Health and Environment, under section 401 of the Clean Water Act, as those conditions are set forth in Appendix B to this order.

(H) *Annual Reports for Conservation Measures.* The licensee shall file, by December 31 of each year, beginning the year construction is completed, annual reports

summarizing progress in completing the eight conservation measures identified in the U.S. Fish and Wildlife Service's (FWS) December 9, 2009 Biological Opinion, which are attached to this order as Appendix C. The annual reports shall include copies of comments from the FWS and the Colorado Division of Wildlife, or evidence that these agencies were provided 30 days in which to provide comments and did not do so.

(I) *Wildlife Mitigation Plan.* The Wildlife Mitigation Plan (WMP), as included with the licensee's December 4, 2008 proposal, and attached to this order as Appendix A, which identifies mitigation measures specific to the proposal and is an agreement between the licensee and the Colorado Division of Wildlife (CDOW), is approved. Any modifications that are made to the December 4, 2008 WMP, upon agreement between the licensee and the CDOW, shall be filed with the Commission so that the amendments can be reviewed and, if necessary, the approved WMP amended. In addition, any amendment to the measures in the WMP that have been adopted by the U.S. Fish and Wildlife Service (FWS) as conservation measures in its December 9, 2009 Biological Opinion would require the approval of the FWS.

(J) *Reservoir Drawdown Plan.* The licensee shall file, within 60 days of the date of this order and prior to any construction-related drawdown of the reservoir, for Commission approval, a Drawdown, Refill and Flow Release Plan. The plan shall include: (1) identification of water level reductions and durations that are expected to be necessary for the proposed work (2) a summary of recent information on the construction water year, with predicted inflows, water extractions, and outflows, and predicted reservoir levels during the proposed work period; (3) a plan describing how any reservoir level reductions and flow release modifying actions necessary to conduct the proposed work would be accomplished; and (4) identification of maximum rates of change in reservoir levels and flow releases that would be observed to protect aquatic resources. The plan shall identify how flows would be released during the proposed work, and how additional releases, if necessary to achieve or maintain reservoir levels necessary for the proposed work, would be made. Finally, the plan shall describe how the reservoir would be refilled after construction is complete, identifying any maximum reservoir refill rates and maximum rates of change in flow releases that would be observed to protect aquatic resources. The licensee shall develop the plan in consultation with the U.S. Fish and Wildlife Service, Colorado Division of Wildlife, and the Colorado Department of Public Health and Environment. The plan shall include copies of comments from these agencies, or evidence that these agencies were provided 30 days in which to provide comments and did not do so. The plan shall indicate how agency comments that are received are addressed in the plan. The Commission reserves the authority to require changes to the plan to protect area resources.

(K) *Boulder Aeration Structure*. The licensee shall file, within one year of the date of this order, a Boulder Aeration Structure Completion Report. The report shall include, but not be limited to: (1) a description and photographs of the completed structure; (2) a description of the success of the aeration structure, to include dissolved oxygen measurements taken upstream and downstream of the structure during varying generation levels and at locations approved by the Colorado Division of Wildlife (CDOW), the U.S. Fish and Wildlife Service (FWS), and the Colorado Department of Public Health and Environment (CDPHE), and per the continuous monitoring requirement in the paragraph below. The licensee shall develop the report in consultation with the CDOW, the FWS, and the CDPHE. The report shall include copies of comments from these agencies, or evidence that these agencies were provided 30 days in which to provide comments and did not do so. The report shall indicate how agency comments that are received are addressed in the report.

(L) *Water Quality Equipment Installation Report and Plan Amendment*. The licensee shall file, within one year of the date of this order, for Commission approval, a report on the installation of continuous water quality monitoring equipment that was required by the Commission's December 12, 2008 order, and a proposal to amend, as necessary, its existing water quality monitoring plan to reflect the new equipment and its use. The report and amendment request shall include: (1) a description of the equipment installed, and a map showing the location of the monitoring probes; (2) copies of water temperature and dissolved oxygen (DO) concentration data produced by the equipment; (3) a maintenance schedule for the equipment; and (4) a description of how detection of elevated water temperature or low DO concentrations would be responded to. The licensee shall develop the amendment request in consultation with the Colorado Division of Wildlife, the U.S. Fish and Wildlife Service, and the Colorado Department of Public Health and Environment. The amendment request shall include copies of comments from these agencies, or evidence that these agencies were provided 30 days in which to provide comments and did not do so. The filing shall indicate how agency comments that are received are addressed. The Commission reserves the authority to require changes to the amendment request and plan to protect the resources of the Yampa River.

(M) *Terrestrial Wildlife and Wetland Mitigation Monitoring Plan*. The licensee shall file, by December 15, 2010, for Commission approval, a Post-Construction Terrestrial Wildlife and Wetland Mitigation Monitoring Plan. The plan shall include, at minimum: (1) identification of terrestrial wildlife and wetland mitigation areas to be monitored; (2) a schedule for monitoring the success of the mitigation in those areas; (3) criteria to be used in measuring mitigation success; and (4) an adaptive management

strategy with contingencies to be implemented if any mitigation measures are found to not be successful. The licensee shall develop the plan in consultation with the Colorado Division of Wildlife and the U.S. Fish and Wildlife Service. The plan shall include copies of comments from these agencies, or evidence that these agencies were provided 30 days in which to provide comments and did not do so. The plan shall indicate how agency comments that are received are addressed. The Commission reserves the authority to require changes to the plan to protect area resources.

(N) *Mitigation Boundary Report.* The licensee shall file, by December 15, 2010, a report identifying any areas to be used in mitigation that are outside of the project boundary as mapped in the licensee's July 29, 2009 filing with the Commission, and include, as necessary, a schedule for filing a revised project boundary Exhibit G for Commission approval.

(O) *Signage and Underwater Hazard Survey Plan.* The licensee shall file, within 60 days of the date of this order and prior to any construction-related drawdown of the reservoir, for Commission approval, an Informational Signage and Underwater Hazard Survey Plan. The plan shall be prepared in consultation with Colorado State Parks (CSP), and include: (1) identification of the formal access areas around Stagecoach Reservoir that would be posted with informational signs concerning affected access; (2) information that would be included on the signs, to include, as appropriate, (a) identification of recreation areas, ramps or launching lanes that would be significantly affected; (b) an approximate schedule for any unseasonal low water levels that should be expected; (c) the potential for underwater boating hazards, and (d) identification of alternate access areas; and (3) contact information which park visitors could use to obtain further information. In addition, the plan shall include provisions for implementing an underwater hazard survey. The survey shall identify all boating hazards to a depth of three feet below the expected lowest drawdown elevation. The plan shall also include a description of how underwater hazards would be conspicuously marked to adequately warn boaters of their presence. The filing shall include copies of comments on the plan from CSP, or evidence that CSP was provided 30 days in which to provide comments and did not do so. Also, the filing shall indicate how comments received from CSP are addressed in the plan.

(P) This order constitutes final agency action. Requests for rehearing of this order may be filed within 30 days of the date of issuance of this order, pursuant to 18 C.F.R. § 385.713.

M. Joseph Fayyad
Engineering Team Lead
Division of Hydropower
Administration and Compliance

Project No. 9202-160

APPENDIX A

UPPER YAMPA WATER CONSERVATION DISTRICT
STAGECOACH RESERVOIR EXPANSION

WILDLIFE MITIGATION PLAN

Upper Yampa Water Conservancy District Stagecoach Reservoir Expansion



WILDLIFE MITIGATION PLAN

INTRODUCTION

This Wildlife Mitigation Plan (WMP) is a legal agreement between the Colorado Division of Wildlife (CDOW) and the Upper Yampa Water Conservancy District (UYWCD), for the specific purpose of providing action items to avoid, minimize, and mitigate the wildlife impacts associated with the 2009 expansion of Stagecoach Reservoir. This agreement is between the CDOW and the UYWCD and both parties recognize that other referral and/or permitting agencies may request and/or impose additional mitigation requirements as part of their processes.

This plan lists the terrestrial and aquatic wildlife and habitat related concerns that have been identified by the CDOW and the agreed upon mitigation strategies intended to avoid, minimize, and/or mitigate the impact of the expansion.

The UYWCD, their successors or assigns, including any persons and/or entities that might undertake some or all of the owner's commitments, as delineated below, commit to the following wildlife mitigation measures.

The final section of this document contains a signature page to be signed as an agreement between the UYWCD and the CDOW. Through these signatures, the UYWCD and the CDOW agree that this plan provides acceptable mitigation for the impacts that will result from the reservoir expansion.

MITIGATION STRATEGIES

Dissolved Oxygen (DO) Levels

The CDOW is very concerned about the low DO levels that have occasionally occurred in the Yampa River below the dam. The UYWCD has agreed to mitigate these concerns by implementing the following mitigation strategies.

- Design and install a structure on the upper gate of the intake tower to effectively raise the invert of the upper gate by four feet. This structure will be installed as part of the construction process for the dam raise.
- Design (with CDOW input and approval) and install a boulder structure within 250 feet below the stilling basin to accelerate aeration of flows. This structure will be installed either prior to or simultaneously with the construction process for the dam raise.
- Continue to monitor discharge water DO and temperature and maintain both at required levels downstream. DO levels of at least 4.0 mg/l with a target level of 6.0 mg/l must be maintained at all times and DO levels of at least 6.0 mg/l must be maintained at Yampa River Station 2 (YR-2). Water temperature of between 12 and 16 degrees Celsius (° C)

must be maintained at the stilling basin from July 1 thru September 30 annually. Furthermore, the UYWCD will submit monthly reports on its water quality monitoring to the CDOW.

Additional Water Quality Concerns

The CDOW is concerned about the potential for leaks and subsequent contamination of Stagecoach Reservoir and the Yampa River from impacts of the proposed raise on the existing vault toilets. In addition, there are other water quality concerns that have been brought forward by other agencies. The UYWCD has agreed to mitigate these concerns by implementing all the requirements of the Routt County Department of Health which has primary responsibility for permitting the vault toilets. The district will implement the following mitigation strategies.

- Review, and if necessary relocate the restroom storage vault at the Wetland Habitat Preserve off Routt County Road (RCR) 16. If relocation is deemed unnecessary, the UYWCD will notify the CDOW in writing that their surveys determined that the proposed raise will not adversely impact the integrity of the existing restroom storage vault at this location. If necessary, this restroom will be relocated prior to the reservoir being filled above the current 7,200' capacity.
- Review, and if necessary relocate the restroom storage vault toilet at the parking lot off RCR 14. If relocation is deemed unnecessary, the UYWCD will notify the CDOW in writing that their surveys determined that the proposed raise will not adversely impact the integrity of the existing restroom storage vault at this location. If necessary, this restroom will be relocated prior to the reservoir being filled above the current 7,200' capacity.
- Review, and if necessary relocate the restroom storage vault toilet at the parking lot at the Little Morrison Creek boat ramp off RCR 18A. If relocation is deemed unnecessary, the UYWCD will notify the CDOW in writing that their surveys determined that the proposed raise will not adversely impact the integrity of the existing restroom storage vault at this location. If necessary, this restroom will be relocated prior to the reservoir being filled above the current 7,200' capacity.
- Apply to the Colorado Department of Public Health and Environment (CDPHE) for a Water Quality Certificate and comply with all terms and conditions established within said certificate. This application will be submitted prior to the construction process for the dam raise.
- Coordinate with agency partners and evaluate data to help guide future release strategies. The District will install temperature sensors at each gate opening to monitor reservoir stratification as part of the dam raise.

Northern Pike

The CDOW is interested in properly managing and effectively controlling the northern pike population in Stagecoach Reservoir and is concerned that the raise will create additional pike spawning habitat; subsequently increasing pike reproduction and potentially increasing pike escapement from the reservoir. The U.S. Fish and Wildlife Service (USFWS) also expressed similar concerns. The UYWCD has agreed to mitigate our concerns by implementing the following mitigation strategies.

- The UYWCD will operate the reservoir to manipulate water levels to reduce spring flows over the spillway to reduce potential northern pike escapement. This will also limit northern pike spawning habitat in the reservoir in the spring.
- A gravel filter or grate at the wetland/waterfowl mitigation area on the north side of the reservoir will be constructed to prohibit the entry of northern pike and limit access to the spawning/rearing habitat in the wetland/waterfowl area. This will be constructed prior to the reservoir being filled above the current 7,200' capacity.
- Prior to raising the reservoir level, the upland vegetation around the reservoir (between 7200 and 7204 feet) will be cleared up to the new normal high water line to reduce availability of spawning/rearing habitat during the initial years of additional fill.
- A barrier will be installed in the existing four foot diameter culvert under RCR 16 to prevent adult northern pike from entering the wetland area upstream of the culvert and further limit available spawning habitat. This barrier will have openings no greater than 1¼ inch and will be installed prior to the reservoir being filled above the current 7,200' capacity.
- UYWCD acknowledges that some level of escapement of northern pike is likely to be occurring from Stagecoach Reservoir. In addition, the UYWCD recognizes the efforts of the CDOW to control northern pike downstream of Stagecoach Reservoir. As part of that control effort, the CDOW is currently implementing a 5-year northern pike control program at Lake Catamount. Efforts of the CDOW could reduce the impact of northern pike on endangered fish downstream. In five years the CDOW will determine the effectiveness of the northern pike control program at Lake Catamount. If it is determined that efforts of CDOW are not effective and significant numbers of northern pike are traveling downstream into critical habitat, including documented escapement out of Stagecoach Reservoir, the UYWCD will develop and implement revised escapement minimization measures in consultation with CDOW and the USFWS. Any revised escapement minimization measures will be developed and implemented no later than June 30, 2015.
- The UYWCD will participate financially in studies to determine the level of escapement of northern pike from Stagecoach Reservoir. The UYWCD will coordinate with the CDOW to determine the appropriate financial contribution level, not to exceed \$5,000 per year or \$10,000 for the escapement studies, while the CDOW will approve the type

of studies to be conducted. This funding will be available from the date of the agreement until June 30, 2015.

- The UYWCD will conduct an annual spring meeting in early March to review the District's operations to minimize reservoir spilling. During this meeting, the UYWCD, CDOW and the USFWS will review and evaluate northern pike control efforts, northern pike escapement studies, and the status of northern pike in the Yampa River. Additional measures to address northern pike control and/or northern pike escapement from the reservoir may be necessary and will be supported by the UYWCD.
- Northern pike management in the Yampa River system is very dynamic, and there exists 'uncertainties' pertaining to management and control of pike in the Yampa system in the future. As a result, the UYWCD acknowledges that there may be additional requests imposed on them based on future studies and findings.

Wetlands

The proposed expansion will inundate some wetland areas that have significant wildlife values associated with them. The UYWCD has agreed to mitigate this loss by implementing the following mitigation strategies.

- Design (with CDOW input and approval) and construct an 7.1 acre wetland area between RCR 14 and the reservoir in the upland area located between Stagecoach State Park's parking area north of the inlet and the Parks road near their headquarters facilities. This wetland will have a slope ratio no greater than 3:1. The intent of this wetland area will be to create a wetland area suitable for waterfowl production that would replicate the wetland south of RCR 16 that will be inundated by the raise.
- The UYWCD agrees to salvage the mature willow plants at the inlet and use as part of their on-site wetland mitigation efforts. If the UYWCD has excess willows available from this salvage effort, they will provide them to the CDOW for use in other wetlands and/or stream bank restoration efforts. All vegetation harvesting will be conducted prior to the reservoir being filled above the current 7,200' capacity.

Columbian Sharp-tailed Grouse

The proposed expansion will inundate two Columbian sharp-tailed grouse leks. The UYWCD has agreed to mitigate this loss by implementing the following mitigation strategies.

- Implement a vegetation manipulation plan (with CDOW input and approval) that will increase visibility of mating birds at these lek locations. Vegetation manipulation will be done through strategic mowing and/or burning. All vegetation manipulation will be conducted prior to the reservoir being filled above the current 7,200' capacity.
- Seed all upland disturbance areas (including all disturbed areas associated with the Elk Run Trail realignment) with a sharp-tailed grouse friendly seed mixture, which will be

preapproved by the CDOW. All seeding will be done concurrent with those activities creating the disturbances.

- The UYWCD will conduct an annual spring meeting in early March to review the District's operations to minimize reservoir spilling, which could result in the reservoir filling later in the run-off season. Postponing reservoir fill will likely also benefit breeding grouse on the two leks that would be inundated by the raise.

Greater Sandhill Crane

The proposed expansion will inundate some wetland areas used by sandhill cranes. The UYWCD has agreed to mitigate this loss by implementing the following mitigation strategies.

- Work cooperatively with the CDOW and Stagecoach State Park to implement seasonal restrictions to the remaining wetlands in the Wetland Habitat Preserve.
- Work with the CDOW to explore alternatives to enhance sandhill crane habitat elsewhere in the Stagecoach area.

Elk

Elk mitigation has been an integral component to Stagecoach Reservoir. The UYWCD recognizes this and has agreed to the following mitigation strategies.

- The UYWCD will continue to honor the seasonal road closure (January 1 – March 31 annually) on RCR 18. This closure extends from the dam to the junction of RCR 18 and the entrance road to Stagecoach State Park.

AMENDMENT AND ENFORCEMENT

It is understood that this WMP will be recorded in the Routt County records. Furthermore, this WMP shall not be amended without the written consent of the local CDOW District Wildlife Manager and Routt County Board of County Commissioners. No amendment shall require the approval of any owner except the UYWCD and their successors or assigns. No Owner shall be deemed to be a third party beneficiary of this WMP, nor shall this WMP be enforceable by any Owner, except the UYWCD and their successors or assigns. This entire WMP can be enforced by the UYWCD, the CDOW, or Routt County.

ENDORSEMENT

The CDOW agrees that the wildlife impacts associated with the Stagecoach Reservoir expansion would be addressed upon complete execution of this plan.

ASSIGNMENT

The UYWCD may, from time to time, assign its rights and obligations under this WMP by an express assignment set forth in a recordable instrument to be recorded in the Routt County records to any person or entity acquiring an interest in Stagecoach Reservoir. The CDOW and Routt County will be copied on any such assignments. From and after the date of such assignment, the assignee(s) shall succeed to all obligations arising prior to and after the date of this WMP. Any assignee(s) under this WMP may thereafter assign their rights and obligations under this WMP to other such assignee(s), subject to the terms and provisions herein by an express assignment set forth in an instrument in recordable form and recorded in the Routt County records.

Project No. 9202-160

APPENDIX B

STATE OF COLORADO
DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT

401 WATER QUALITY CERTIFICATION NO. 4218
FERC NO. 9202

STATE OF COLORADO

Bill Ritter, Jr., Governor
Martha E. Rudolph, Executive Director

Dedicated to protecting and improving the health and environment of the people of Colorado

4300 Cherry Creek Dr. S. Laboratory Services Division
Denver, Colorado 80246-1530 8100 Lowry Blvd.
Phone (303) 692-2000 Denver, Colorado 80230-6928
TDD Line (303) 691-7700 (303) 692-3090
Located in Glendale, Colorado
<http://www.cdphe.state.co.us>



Colorado Department
of Public Health
and Environment

February 26, 2010

Upper Yampa Water Conservancy District
Attn: Kevin McBride
Fish Creek Filtration Plant
3310 Clear Water Trail
Steamboat Springs, Colorado 80488-0339

Re: Section 401 Water Quality Certification
Colorado 401 Certification No.: 4218
FERC No.: 9202
USACOE 404 Permit No.: SPK-2004-75308
Description: Stagecoach Hydropower Project
Location: 40.285 North, 106.832 West NAD27 in Routt County, Colorado
Watercourse: Stagecoach Reservoir and Yampa River, Upper Colorado River Basin, Segment COUCYA02a and COUCYA02b of Yampa River Sub-basin
Designation: Reviewable

Dear Mr. McBride:

The Colorado Department of Public Health and Environment (CDPHE), Water Quality Control Division (Division) has completed its review of the subject Federal Energy Regulatory Commission (FERC) Permit Application, US Army Corps of Engineers Permit Application and our preliminary determination with the issuance of the State of Colorado 401 Certification Public Notice (5 CCR 1002-82.5(B)). An antidegradation review has also been completed pursuant to Regulation No. 31, Basic Standards and Methodologies for Surface Water (5 CCR 1002-31). The Division's review concluded that no significant impacts to water quality should occur as a result of this project.

This letter shall serve as official notification that the Division is issuing "Conditional Certification" in accordance with 5 CCR 1002-82.5(A)(3). Conditions for certification include:

Special Conditions

- 1) Continue commitments and coordination with other agencies to increase the understanding of the water quality in the Upper Yampa River Basin as outlined in the District's letter to the Water Quality Control Division (Division) January 14, 2010. A copy of the letter is below.
- 2) The applicant will develop and implement a water quality sampling plan of the Stagecoach Hydropower Project. This water quality sampling information will be submitted to Division for use in assessing the impact of the Stagecoach Hydropower Project on waters within the project boundary. Water quality information will be collected from Little Morrison Creek, Stagecoach Reservoir and the Yampa River above and below the reservoir.

Water quality information will be collected for two years prior to each Regulation 33, Upper Colorado River Basin and North Platte River rulemaking hearing. A rulemaking hearing for Regulation 33 is held every five years. The next scheduled rulemaking hearing for this basin is June 2014 followed by 2019. Sampling of lakes and streams by the applicant would be required starting in 2011. All sampling results are to be submitted to the Division prior to the basin rulemaking hearing.

Stream samples of Little Morrison Creek and the Yampa River (above and below Stagecoach Reservoir) will be collected quarterly for two years prior to the basin hearing. Sample locations for these flowing waters will be located to collect water samples representative of ambient stream conditions. Sample parameters will be determined by water quality standards for the waterbody. In addition to the water quality standards, hardness is required to determine the metals standard in many cases. (Little Morrison Creek is currently identified as COUCYA03, the Yampa River is identified as COUCYA02a and Stagecoach Reservoir is identified as COUCYA02b in the Colorado waterbody identification system.) Sample detection limits will be low enough that the sample results can be used to determine use impairment when compared against the waterbody standards. Table 1 Analytical Parameters below identifies parameters that are currently collected and assessed against standards based on the segment standards and laboratory procedures.

Sampling of Stagecoach Reservoir will be conducted three times per year for two years prior to the basin regulation hearing during the growing season, typically July, August and September. Lake sampling and analysis will be based on the following protocols:

In Stagecoach Reservoir, one site consistent with the deepest part of the reservoir showing lake stratification will be sampled. A vertical profile of field parameters including temperature, dissolved oxygen (DO), pH, and conductance will be recorded from the lake surface to the bottom at 1-m intervals. Transparency will be assessed with a Secchi disk. Samples for water quality analyses will be aimed at characterizing conditions in the top layer (epilimnion) and in the lower layer (hypolimnion). The top layer will be sampled using an integrated sampler beginning one meter below the surface of the water. The sample of the lower layer will be collected with the bottom of the sampler in the lower layer positioned two meters above the bottom of the lake, with care to avoid any potential contact with the sediment.

Analytical coverage: Because the primary purpose of the monitoring program is to assess attainment of uses, analytical coverage is aligned closely with the list of standards adopted for the segment. A list of constituents for which numeric standards have been currently adopted for the segments is presented below in Table 1. In addition to the list of parameters, analysis of hardness is required for evaluating standards for most metals, and several constituents must be included in anticipation of the adoption of nutrient criteria. Measurements of chlorophyll and total phosphorus, and counts of algal abundance are essential for assessing trophic status. Total Suspended Solids (TSS) is a useful supplement to chlorophyll because it helps identify lakes where inorganic solids contribute substantially to reductions in transparency.

Table 1 Analytical Parameters
The list of parameters expected to be sampled for the Stagecoach Hydropower Project is based on the current segment standards. All metals samples are dissolved except where noted.

Parameter	Streams	Lakes	PQL*
Field Parameters			
Dissolved Oxygen (D.O.)	+	+	0.1 mg/l
pH	+	+	0.1 S.U.
Conductance	+	+	
Secchi		+	meters
Laboratory Analysis			
Alkalinity, total	+	+	10 ppm
Arsenic, dissolved	+	+	1 ppb
Cadmium, dissolved	+	+	0.3 ppb
Chloride	+	+	2 ppm
Chlorophyll a (surface only)		+	NA
Chromium, dissolved	+	+	20 ppb
Chemical Oxygen Demand	+	+	30 ppm
Copper, dissolved	+	+	4 ppb
Cyanide, direct	+	+	10 ppb
<i>E. coli</i>	+	+	NA
Hardness, total	+	+	10 ppm
Iron, TREC	+	+	10 ppb
Iron, dissolved	+	+	10 ppb
Lead, dissolved	+	+	1 ppb
Manganese, dissolved	+	+	4 ppb
Mercury	+	+	0.2 ppb
Nickel, dissolved	+	+	30 ppb
N-ammonia	+	+	10 ppb
N-kjeldahl	+	+	200 ppb
N-nitrate/nitrite	+	+	50 ppb
Nitrite	+	+	20 ppb
N-total	+	+	NA
Phosphate, ortho	+	+	5 ppb
Phosphorus, total	+	+	3 ppb
Phytoplankton (surface only)		+	NA
Selenium, dissolved	+	+	1 ppb
Silver, dissolved	+	+	0.4 ppb
Solids, dissolved	+	+	10 ppm
Solids, suspended	+	+	10 ppm
Sulfate	+	+	5 ppm
Sulfide (Record H ₂ S smell in field notes)	+	+	
Total organic carbon	+	+	1 ppm
Zinc, dissolved	+	+	10 ppb

*PQL Practical quantification level

References

- US EPA, Methods for the Determination of Metals in Environmental Samples, 1994
- US EPA, Methods for the Determination of Inorganic Substances in Environmental Samples, 1993
- US EPA, Methods for the Chemical Analysis of Water and Wastes, 1983
- Standard Methods for the Examination of Water and Wastewater, 19th Edition, 1995

Field and analytical sampling results will be submitted to the Division prior to the cutoff date for the Regulation 33, Upper Colorado River Basin, currently expected to be August 1, 2013 for the 2014 rulemaking hearing and every five years following based on the current basin regulation review cycle. Sampling results will be in a format, currently electronic, consistent with the Division's annual data request letter.

The conditions of this certification may be modified by agreement of all parties as conditions warrant during the life of the permit.

Upper Yampa Water Conservancy District



January 14, 2010

John Hranac
Surface Water Specialist
Water Quality Control Division
Colorado Department of Public Health and Environment
WQCD-WSP-EDU-B1
4300 Cherry Creek Drive South
Denver, CO 80246-1530

Dear Mr. Hranac:

This letter is to follow up discussions of the 401 certification of the proposed four foot raise of Stagecoach reservoir. The UYWCD has been in discussions with the WQCD, and other agencies, over the past several years and has made a number of commitments regarding the water quality in and leaving the reservoir. Additionally, the District has committed to or coordinated with other agencies to increase the understanding of the water quality of the Upper Yampa River.

We have committed to a number of items that will be included in the new license from the Federal Energy Regulatory Commission (FERC). These include:

- Installation of a lip on the upper intake gate to maintain the relative depth of the existing invert. This will be helpful in balancing the temperature and dissolved oxygen content of water released from the dam.
- Installation of a reeration structure within 250 feet of the stilling basin to further increase the rate of air entrainment in outflows, an improvement from the existing condition.
- Removal of sagebrush around the reservoir in order to decrease potential Northern Pike spawning habitat. This will reduce nutrient loading that might occur from this debris.
- Installation of temperature monitoring on the intake tower to provide real time monitoring of stratification in the reservoir. This will improve the information available for gate operations and provide data for scientific understanding of the limnology of the reservoir.
- Installation of a real time, continuously recording, dissolved oxygen sensor in the stilling basin. This will improve the information available for gate operations and provide data for scientific understanding of the limnology of the reservoir.
- A stormwater control program during construction (also a requirement from the CDPHE).

Mailing Address
P.O. Box 880339
Steamboat Springs, CO 80488-0339

Location
Fish Creek Filtration Plant
3310 Clear Water Trail

Telephone
(970) 879-2424
Fax (970) 879-8169

These commitments are the ones most directly related to water quality. Of course there are many other environmental commitments related to wetlands, fisheries, wildlife and other concerns. These are enumerated in the Environmental Assessment for this project completed by the FERC, the lead federal agency for this project. We also have a completed and signed Recovery Agreement with the U.S. Fish and Wildlife Service, a Wildlife Mitigation Agreement with the Colorado Division of Wildlife, and a 1041 review of the project by Routt County. An application for a 404 permit is currently under review by the U.S. Army Corps of Engineers detailing the wetland mitigation for this project. We understand that the WQCD is in receipt of these documents.

As we have discussed, the District believes that all the technical components of this project have been worked out with the agencies over the course of several years. The District is ready to construct this project once it has obtained all the necessary permits. Funding for the project is in place. Our plan is to construct this project in 2010. This timetable is advantageous to the District as we expect a favorable climate for construction bidding. Also, we are cognizant of the favorable impact on the local businesses this project will have. We ask your help in expediting the final permitting processes necessary from your agency.

Sincerely,

UPPER YAMPA WATER CONSERVANCY DISTRICT



Kevin McBride, P.E.
District Manager

The 401 Certification issued by the Division pursuant to 5 CCR 1002-82.3(C) shall apply to the operation of the project for which a federal license or permit is required, and shall apply to the water quality impacts associated with the project. This certification does not constitute a relinquishment of the Division's authority as defined in the Colorado Water Quality Control Act, nor does it fulfill or waive any other local, state, or federal regulations.

If you have any questions or need additional information, please contact me at (303) 692-3586.

Sincerely,

John C. Hranac
Water Quality Assessor
Water Quality Control Division
Colorado Department of Public Health and Environment

Attachment –Certification Requirements (5 CCR 1002-82.6) (A)

cc: Kimberly D. Bose, Secretary, FERC
Mr. Peter Yarrington, FERC
US Army Corps of Engineers, Western Colorado Regulatory Office
File

Certification Requirements:

- (A) The following requirements shall apply to all certifications:
- (1) Authorized representatives from the Division shall be permitted to enter upon the site where the construction activity or operation of the project is taking place for purposes of inspection of compliance with BMPs and certification conditions.
 - (2) In the event of any changes in control or ownership of facilities where the construction activity or operation of the project is taking place, the successor shall be notified in writing by his predecessor of the existence of the BMPs and certification conditions. A copy of such notification shall be provided to the Division.
 - (3) If the permittee discovers that certification conditions are not being implemented as designed, or if there is an exceedance of water quality standards despite compliance with the certification conditions and there is reason to believe that the exceedance is caused, in whole or in part, by the project, the permittee shall verbally notify the Division of such failure or exceedance within two (2) working days of becoming aware of the same. Within ten (10) working days of such notification, the permittee shall provide to the Division, in writing, the following:
 - (a) In the case of the failure to comply with the certification conditions, a description of (i) the nature of such failure, (ii) any reasons for such failure, (iii) the period of non-compliance, and (iv) the measures to be taken to correct such failure to comply; and
 - (b) In the case of the exceedance of a water quality standard, (i) an explanation, to the extent known after reasonable investigation, of the relationship between the project and the exceedance, (ii) the identity of any other known contributions to the exceedance, and (iii) a proposal to modify the certification conditions so as to remedy the contribution of the project to the exceedance.
 - (4) Any anticipated change in discharge location and/or quantities associated with the project which may result in water quality impacts not considered in the original certification must be reported to the Division by submission of a written notice by the permittee prior to the change. If the change is determined to be significant, the permittee will be notified within ten days, and the change will be acknowledged and approved or disapproved.

- (5) Any diversion from or bypass of facilities necessary to maintain compliance with the terms and conditions herein is prohibited, except (i) where unavoidable to prevent loss of life or severe property damage, or (ii) where excessive storm drainage or runoff would damage any facilities necessary for compliance with limitations and prohibitions herein. The Division shall be notified immediately in writing of each such diversion or bypass.
- (6) At least fifteen days prior to commencement of a project in a watercourse, which the Division has certified, or conditionally certified, the permittee shall notify the following:
 - (a) Applicable local health departments;
 - (b) Owners or operators of municipal and domestic water treatment intakes which are located within twenty miles downstream from the site of the project; and
 - (c) Owners or operators of other intakes or diversions which are located within five miles downstream from the site of the project.

The permittee shall maintain a list of the persons and entities notified, including the date and form of notification.

- (7) Immediately upon discovery of any spill or other discharge to waters of the state not authorized by the applicable license or permit, the permittee shall notify the following:
 - (a) Applicable local health departments;
 - (b) Owners or operators of municipal and domestic water treatment intakes which are located within twenty miles downstream from the site of the project; and
 - (c) Owners or operators of other intakes or diversions which are located within five miles downstream from the site of the project.

The permittee shall maintain a list of the persons and entities notified, including the date and form of notification.

- (8) Construction operations within watercourses and water bodies shall be restricted to only those project areas specified in the federal license or permit.
- (9) No construction equipment shall be operated below the existing water surface unless specifically authorized by the 401 certification issued by the Division.

- (10) Work should be carried out diligently and completed as soon as practicable. To the maximum extent practicable, discharges of dredged or fill material shall be restricted to those periods when impacts to designated uses are minimal.

- (11) The project shall incorporate provisions for operation, maintenance, and replacement of BMPs to assure compliance with the conditions identified in this section, and any other conditions placed in the permit or certification. All such provisions shall be identified and compiled in an operation and maintenance plan which will be retained by the project owner and available for inspection within a reasonable timeframe upon request by any authorized representative of the Division.

- (12) The use of chemicals during construction and operation shall be in accordance with the manufacturers' specifications. There shall be no excess application and introduction of chemicals into state waters.

- (13) All solids, sludges, dredged or stockpiled materials and all fuels, lubricants, or other toxic materials shall be controlled in a manner so as to prevent such materials from entering state waters.

- (14) All seed, mulching material and straw used in the project shall be state-certified weed-free.

- (15) Discharges of dredged or fill material in excess of that necessary to complete the project are not permitted.

- (16) Discharges to state waters not identified in the license or permit and not certified in accordance therewith are not allowed, subject to the terms of any 401 certification.

- (17) Except as otherwise provided pursuant to subsection 82.7(C), no discharge shall be allowed which causes non-attainment of a narrative water quality standard identified in the Basic Standards and Methodologies for Surface Waters, Regulation #31 (5 CCR 1002-31), including, but not limited to discharges of substances in amounts, concentrations or combinations which:
 - (a) Can settle to form bottom deposits detrimental to beneficial uses; or
 - (b) Form floating debris, scum, or other surface materials sufficient to harm existing beneficial uses; or

- (c) Produce color, odor, or other conditions in such a degree as to create a nuisance or harm existing beneficial uses or impart any undesirable taste to significant edible aquatic species, or to the water; or
- (d) Are harmful to the beneficial uses or toxic to humans, animals, plants, or aquatic life; or
- (e) Produce a predominance of undesirable aquatic life; or
- (f) Cause a film on the surface or produce a deposit on shorelines.

(B) Best Management Practices:

- (1) Best management practices are required for all projects for which Division certification is issued except for section 402 permits. Project applicants must select BMPs to be employed in their project. A listing and description of best management practices is located in Appendix I of Regulation No. 82: 401 Certification Regulation 5 CCR 1002-82.
- (2) All requests for certifications which require BMPs shall include a map of project location, a site plan, and a listing of the selected BMPs chosen for the project. At a minimum, each project must provide for the following:
 - (a) Permanent erosion and sediment control measures that shall be installed at the earliest practicable time consistent with good construction practices and that shall be maintained and replaced as necessary throughout the life of the project.
 - (b) Temporary erosion and sediment control measures that shall be coordinated with permanent measures to assure economical, effective, and continuous control throughout the construction phase and during operation of the project.

Project No. 9202-160

APPENDIX C

CONSERVATION MEASURES CONTAINED IN THE
U.S. FISH AND WILDLIFE SERVICE DECEMBER 9, 2009 BIOLOGICAL OPINION

1. UYWCD will operate the reservoir to manipulate water levels to reduce spring flows over the spillway to reduce potential northern pike escapement. This will also limit northern pike spawning habitat in the reservoir in the spring.
2. UYWCD will construct a gravel filter or grate at the wetland/waterfowl mitigation area on the north side of the reservoir to prohibit the entry of northern pike and limit the spawning/rearing habitat in the wetland/waterfowl area.
3. Prior to raising the reservoir level, the upland vegetation around the reservoir (between 7,200 and 7,240 feet) will be cleared up to the new normal high water line to reduce availability of spawning/rearing habitat during the initial years of additional fill.
4. A barrier will be installed in the existing four-foot diameter culvert under County Road 16 to prevent adult northern pike from entering the wetland area upstream of the culvert and further limit available spawning habitat. This barrier will have no openings greater than 1 ¼ inch and will be installed prior to the reservoir being filled above the current 7,200-foot capacity.
5. The UYWCD recognizes the efforts of the Colorado Division of Wildlife (CDOW) to control northern pike downstream of Stagecoach Reservoir. As part of that control effort, the CDOW is currently implementing a 5-year northern pike control program at Lake Catamount. Efforts of the CDOW could reduce the impact of northern pike on endangered fish downstream. After the 5-year program the CDOW will determine the effectiveness of the northern pike control program at Lake Catamount. If it is determined that efforts of CDOW are not effective and significant numbers of northern pike are traveling downstream into critical habitat, including documented escapement out of Stagecoach Reservoir, the UYWCD will develop and implement revised escapement minimization measures in consultation with the CDOW and the Service. Any revised escapement minimization measures will be developed and implemented no later than June 30, 2015.
6. UYWCD will participate financially in studies to determine the escapement of northern pike from Stagecoach Reservoir. The UYWCD will coordinate with the CDOW to determine the appropriate financial contribution level, not to exceed \$5,000 per year or \$10,000 for the escapement studies. The CDOW will approve the type of studies to be conducted. This funding will be available from the date of the agreement until June 30, 2015.
7. UYWCD will conduct an annual spring meeting in early March to review the District's operations to minimize reservoir spilling. The UYWCD, CDOW, and the Service will review and evaluate northern pike control efforts, northern pike escapement studies, and the status of northern pike in the Yampa River. Additional measures to address northern pike control and/or northern pike escapement from the reservoir may be necessary and will be supported by the UYWCD.

8. Northern pike management in the Yampa River system is very dynamic, and there exists "uncertainties" pertaining to management and control of pike in the Yampa system in the future. As a result, the UYWCD acknowledges that there may be additional requests imposed on them as a result of future studies and findings.