UNITED STATES OF AMERICA

BEFORE THE

FEDERAL ENERGY REGULATORY COMMISSION

STAGECOACH HYDROELECTRIC PROJECT

APPLICATION FOR LICENSE

FOR

MINOR WATER POWER PROJECT

OF

UPPER YAMPA WATER CONSERVANCY DISTRICT

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1. The Upper Yampa Water Conservancy District of the State of Colorado (hereinafter referred to as the "Applicant" or the "District") apply to the Federal Energy Regulatory Commission (the "Commission") for an initial license for the Stagecoach Hydroelectric Project (hereinafter sometimes referred to as the "Project") as described hereinafter.

The Applicant has determined that their proposed Stagecoach Hydroelectric Project is feasible and will provide for the most comprehensive and economic development of the water resources for the affected reach of the Yampa River.

NO.	SUBMITTING AGENCY/Subject	ACTION	IMPACT AREA	DUE DATE
SR #85-06	NATIONAL PARK SERVICE Bent's Old Fort National Historic Site Description: Land protection problems and issues are: 1) Outstanding Mineral Rights Group consisting of 764.29 acres; 2) Two tracts held in proviate ownership across SH 194 consisting of 39.37 acres; 3) State Lands Group consisting of 7.40 acres; and 4) Rights-of-Way Group consisting of 24.60 acres. Contact: Nathalie Powell - 234-4942 (Denver)	Land Protection Plan - Draft	Otero County	03-29-85
SR #85-07	DEPARTMENT OF THE AIR FORCE, Strategic Air Command Aircraft Training Route across Colorado Description: Proposal establishing a new low-level B-1B aircraft training route, over Colorado, Utah and Arizona, needed for flight tests. Route corridor is basically 6 miles wide and route is about 620 miles long with 330 nautical miles of new routing. Contact: Tom Manning - (214) 767-2532 (Dallas, TX)	EA and FONSI	Mineral, Archuleta, La Plata, San Juna, San Miguel and Montrose Counties in Colorado	04-04-85
2710 C-38516 (7-162)	BUREAU OF LAND MANAGEMENT Public Land Sale Description: Public sale of 20 acres, located in Township 1 South, Range 84 West, in Routt County. Contact: Wright Sheldon - BLM/Grand Junction Office 243-6552	Realty Action	Routt County	

2. The location of the Project is:

State or Territory:	Colorado
County:	Routt
Township or Nearby Town	The Stagecoach Hydroelectric Project will be located near the town of Steamboat Springs, Colorado
Stream or Body of Water:	Yampa River

3. The exact name and business address of the Applicant is as follows:

Upper Yampa Water Conservancy District
John Fetcher, Secretary/Treasurer
Steamboat Springs, CO 80488-0339

4. The names and business address of the persons authorized to act as agents for, and accept service on behalf of, the Applicant and to whom all correspondence, orders and pleadings in this proceeding should be addressed are as follows:

John Fetcher, Secretary/Treasurer
Upper Yampa Water Conservancy District
Steamboat Springs, CO 80488-0339

John Williams
Project Manager
Tudor Engineering Company
Suite 610
Denver, CO 80202

Jean Yves Perez
Woodward-Clyde Consultants
Harlequin Plaza-North
7600 East Orchard Road, Suite 101
Englewood, CO 80111

5. The Applicant is a public corporation organized under the laws of

5. The Applicant is a public corporation organized under the laws of the State of Colorado and is authorized to carry on the business of developing, transmitting, utilizing or distributing power. The Applicant is a municipality within the meaning of Section 3(7) of the Federal Power Act.

6.(i) The statutory or regulatory requirements of the state in which the project would be located and that affect the project as proposed with respect to bed and banks and to the appropriation, diversion and use of water for power purposes, and with respect to the right to engage in the business of developing, transmitting and distributing power and in any other business necessary to accomplish the purposes of the license under the Federal Power Act are shown on the following table:

REVIEWS, PERMITS, AND LICENSES REQUIRED BY FEDERAL, STATE, AND LOCAL AGENCIES

Agency	Act or Regulation	Requirement	Procedure for Compliance
U.S. Army Corps of Engineers (COE)	Clean Water Act (CWA)	Dredge and Fill Permit (404 Permit)	Submit application.
	NEPA	EIS	COE cooperates with USBR in preparation of EIS.
	Executive Orders 11988 and 11990	Wetlands study and mitigation	Prepare wetlands study.
U.S. Environmental Protection Agency (EPA)	NEPA, CWA and FWPCA	EIS, 404 Permit application, Colorado Pollutant Discharge System (CPDS) Permit, and state water quality certificate (Section 401) review	EPA reviews. COE and Colorado Water Quality Control Division (WQCD) coordinate their activities with EPA.
U.S. Fish and Wildlife Service (USFWS)	ESA, FWCA, Fish and Wildlife Improvement Act, Migratory Bird Conservation Act, Bald Eagle Protection Act	Compliance with provisions of the Acts	Request listing of endangered and threatened species; submit biological assessment report and request biological opinion.
	NEPA	EIS	USFWS cooperates with USBR in preparation of EIS.
U.S. Bureau of Land Management (BLM)	Federal Land Policy and Management Act of 1976 (FLPMA)	Compliance with provisions of the Act	Initiate application if federal lands involved.
	NEPA	EIS	BLM reviews EIS.
U.S. Forest Service (USFS)	FLPMA	Compliance with provisions of the Act	Initiate application if federal lands involved.
	NEPA	EIS	USFS reviews EIS.

REVIEWS, PERMITS, AND LICENSES
REQUIRED BY FEDERAL, STATE, AND LOCAL AGENCIES

Agency	Act or Regulation	Requirement	Procedure for Compliance
U.S. Advisory Council on Historic Preservation (ACHP)	National Historic Preservation Act, Sec. 106 (NHPA) and Executive Order 11593, Sec. 2 (b) (36 CFR 800)	Compliance with provisions of the Act and Executive Order	Request and engage in consultation with State Historic Preservation Office (SHPO) ACHP.
Air Pollution Control Division (APCD), Colorado Department of Health (CDOH)	CRS 1973, 25-7-123, 5 CCR 1001-3 Regulation No. 1	Open Burning Permit	Submit application for permit approval.
	CRS 1973, 25-7-112, 5 CCR 1001-5, Regulation No. 3	Air Contaminant Emissions Notice (ACEN)	Notice of fugitive dust must be given and application made for a fugitive dust permit.
Water Quality Control Division (WQCD), CDOH	FWPCA, CWA, CRS 1973, 25-8-501 through 508 5 CCR 1002-2	Colorado Pollutant Discharge System (CPDS) Permit which fulfills requirements for National Pollutant Discharge Elimination System (NPDES) Permit.	Submit application for permit.
	FWPCA, Sec. 401 Colorado Water Quality Control Act CRS 25-8-302(f)	Water Quality Certificate (401 Certificate) required prior to issuance of 404 Permit by COE.	Submit application.
	CRS 1973, 25-1-107 5 CCR 1003-1 (Location and construction of water works)	100-year floodplain certification	Submit information on location and size of proposed works; request certification.

REVIEWS, PERMITS, AND LICENSES REQUIRED BY FEDERAL, STATE, AND LOCAL AGENCIES

Agency	Act or Regulation	Requirement	Procedure for Compliance
State Engineer (SE), Division of Water Resources (DWR), Colorado Department of Natural Resources (CDNR)	CRS 1973, 37-87-105 2 CCR 402-1	Approval of plans for dam and reservoir	Submit plans and specifications for proposed works.
	CRS 1973, 37-87-122 2 CCR 402-1	Permit to construct temporary erosion control dams	Submit application, including plans of proposed works.
Mined Land Reclamation Division (MLRD), CDNR	CRS 1973, 34-32-100 et seq. 2 CCR 4071, Rules 2, 3, 4	Limited Impact, Regular, or Special Mining and Reclamation Permit for riprap, sand, and gravel for project	Submit application.
Colorado Division of Wildlife (CDOW), CDNR	CRS 1973, 34-32-101 et seq. CCR 2.04.11	Compliance with regulations	Submit plans and request consultation.
Colorado State Historic Preservation Office (SHPO)	CRS 1973, 24-80.1-101 through 108; 24-65.1-104(6), 201(C), 202(3), 302	Cultural Resource clearance	Request clearance.
Colorado Soils Conservation Board (SCB)	CRS 1973, 35-72-101 et seq.	Compliance with statute	Prevent blowing soil conditions as directed.
Colorado Division of Labor (DOL), Public Safety Section	CRS 1973, 9-7-101 et seq. 7 CCR 1101-9	Permit for Explosive Materials	Submit application.
Routt County, Colorado	Comprehensive Plan	Conform to Plan	Comply with Comprehensive Plan.
	County regulations 1041 regulations	Regular Impact Permit	Submit application for permit to Planning Department.

REVIEWS, PERMITS, AND LICENSES REQUIRED BY FEDERAL, STATE, AND LOCAL AGENCIES

Agency	Act or Regulation	Requirement	Procedure for Compliance
Routt County, Colorado (Continued)	County regulations	Rezoning to Impact Zone with underlying Agriculture Zone	Same as for Regular Impact Permit.
	County regulations	County Road Access Permit	Submit application for permit to applicale department.
	County regulations	Road Use Permit (overweight and overlength vehicle)	Submit application for permit to applicable department.
	County regulations and Uniform Building Code (UBC)	Obtain necessary building permits	Make application to County Building Department
	County regulations	Vacation and dedication of county roads	Make application to Planning Department for subdivision exemption.

6.(ii) The various steps which the Applicant has taken or plan to take to comply with each of the laws cited above are set forth in paragraph 6(i) of this initial statement.

7. Brief Project description:

(i) The proposed installed generating capacity is 800 kW

(ii) Check appropriate box:

[ ] existing dam [x] unconstructed dam

[ ] exiting dam, major modified project

8. There are no lands of the United States or any other public lands affected by the Stagecoach Hydroelectric Project or the Stagecoach Reservoir Project.

9. Construction of the Project is planned to start within 18 months and is planned to be completed within 36 months from the date of issuance of the license.

The following exhibits are filed herewith and are hereby made a part of this application:

Exhibit A	Project Description
Exhibit E	Environmental Report
Exhibit F	Design Drawings
Exhibit G	Project Map

VERIFICATION

State of Colorado)
) ss:
County of Routt)

John Fetcher, being first duly sworn, deposes and says that he is the Secretary of the Upper Yampa Water Conservancy District, the Applicant applying for a license, and that he has read the foregoing Application and knows the contents thereof, and that the same are true and correct to the best of his knowledge and belief.

_____
John Fetcher, Secretary
Upper Yampa Water Conservancy District

Subscribed and sworn to before me, a Notary Public of the State of Colorado this _____ day of _____, 1985.

_____
Notary Public

My Commission expires _____

EXHIBIT A

DESCRIPTION OF THE PROJECT

UPPER YAMPA WATER CONSERVANCY DISTRICT
BOX 5220 - STEAMBOAT VILLAGE, CO 80499

11 February 1985

Mr. David Yamada
Routt Planning Department
P.O. Box 773749
Steamboat Springs, CO 80477

RE: Application for Federal Power License
Stagecoach Hydroelectric Project
Upper Yampa Water Conservancy District

Dear Dave:

The Upper Yampa Water Conservancy District is submitting an application for "license to produce power" to the Federal Energy Regulatory Commission (FERC) at the proposed Stagecoach Reservoir Project.

An Environmental Assessment Report is currently being prepared for the Stagecoach Reservoir Project which will be submitted to the U.S. Bureau of Reclamation as part of a PL-984 Small Reclamations Project Act Loan Application. The Bureau of Reclamation will act as the lead federal agency in preparing an Environmental Impact Statement.

The Stagecoach Hydroelectric Project will utilize the dam and reservoir of the Stagecoach Dam and Reservoir Project to develop hydroelectric power. The hydropower plant will operate on run-of-river flows using releases made to accommodate other project purposes such as irrigation and municipal and industrial water supply. The proposed outlet works conduit will become the turbine penstock and the planned valve house will house the hydroelectric equipment. An 800 kw horizontal Francis turbine, which will produce approximately 4,260,000 kwhr of energy each year, is planned.

FERC regulations require coordination between various federal, state and local agencies during the preparation of the "Application for License" to obtain input from those agencies and incorporate their comments and recommendations in the final application. The FERC also requires complete documentation of this coordination as a part of the final report.

We are submitting a draft copy of the "Application for License" for your review. The purpose is to permit us to include your initial comments in the " Exhibit E-Environmental Report" before submitting the license application to FERC. After submittal to FERC, you will receive the final application for formal review.

We invite you to respond with your comments to assist us in presenting the best project for all concerned. The enclosed draft of the "Application for License" contains the following:

Exhibit A - Description of the Project
Exhibit E - Environmental Impact Report
Exhibit F - Design Drawings
Exhibit G - Project Map

According to the FERC regulations, all agencies must be permitted at least 30 days to provide their comments. Based on that requirement and our schedule, we plan to submit the application to FERC on March 11, 1985. We would appreciate your comments before that date so that we can include them in the final application.

Thank you for your assistance in this review process. Please send your comments and questions to:

Woodward Clyde Consultants
7600 East Orchard Road
Harlequin Plaza North, Suite 101
Englewood, Colorado 80111
Attention: Daniel L. Johnson
Senior Project Engineer
Phone 303-694-2770

Sincerely,

John R. Fetcher
Secretary/Treasurer

James Funk
President

/ji

Enclosures

EXHIBIT A
DESCRIPTION OF PROJECT

1. TURBINE/GENERATOR

   (a) Number of units.....1
   (b) Capacity of each unit.....800 kw
   (c) Provision of future units.....none

2. TYPE OF HYDRAULIC TURBINE.....Horizontal Francis

3. METHOD OF PLANT OPERATION

   (a) Manual or automatic.....Automatic
   (b) Base loading or peaking.....Base load

4. AVERAGE ANNUAL ENERGY.....4,260,000 kwh

5. AVERAGE HEAD.....118 feet

6. RESERVOIR

   (a) Surface area at spillway crest elevation 7,200.0.....777 Ac.
   (b) Gross storage capacity.....33,738 Ac. ft.
   (c) Net storage capacity.....33,738 Ac. ft.

7. HYDRAULIC CAPACITY

   (a) Plant (maximum).....109 cfs
   (b) Average stream flow .....76 cfs
   (c) Drainage area.....227 sq. miles

8. PROJECT FEATURES

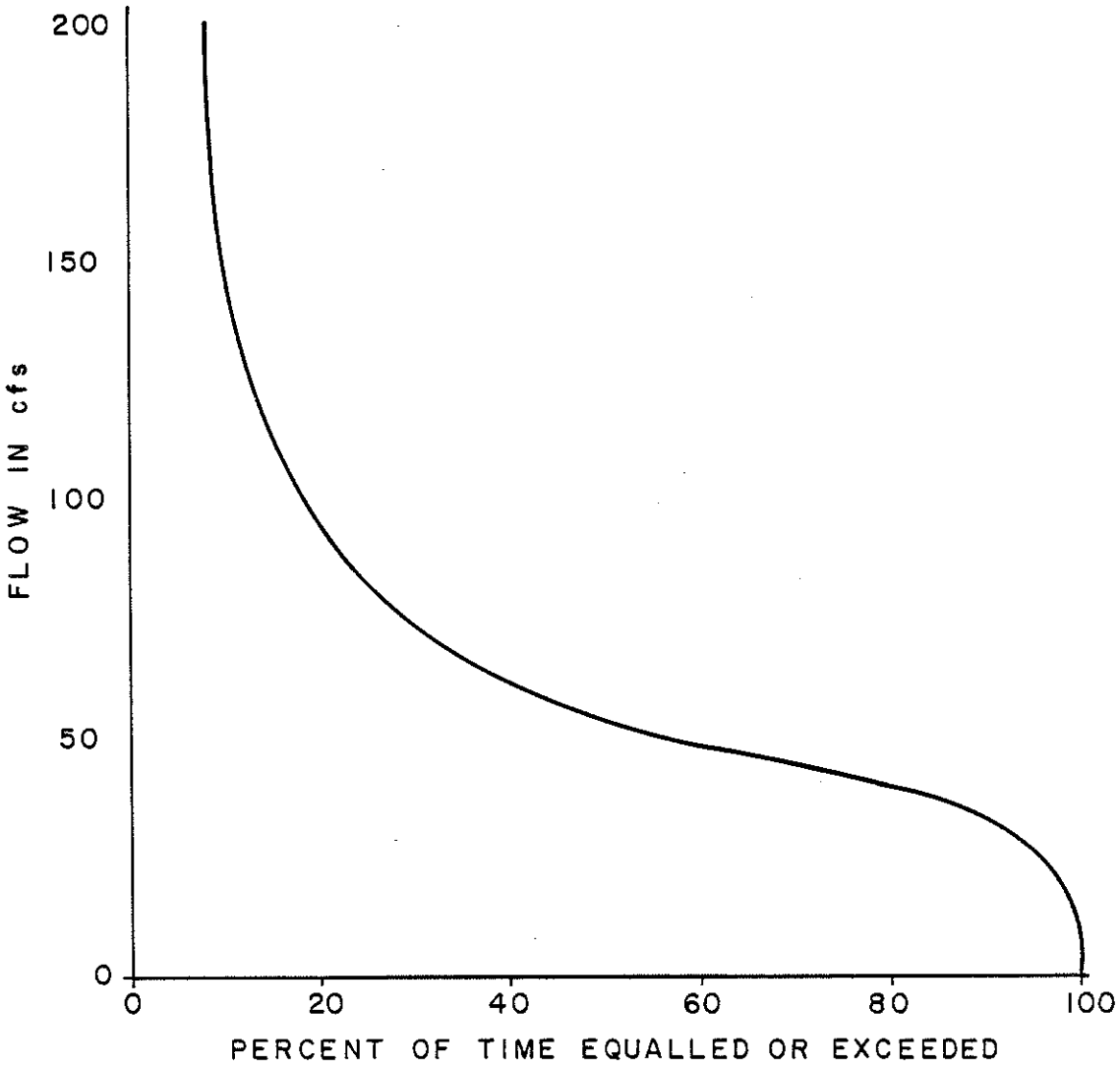
   (a) Outlet Works Conduit
      (i) Type.....Steel pipe
      (ii) Diameter.....60 in
      (iii) Length.....120 ft
      (iv) Construction material.....Concrete encased steel pipe
      (v) Capacity (total).....450 cfs
   (b) Power Penstock
      (i) Type.....Welded steel
      (ii) Diameter.....36 inch
      (iii) Length.....20 ft
      (iv) Capacity.....110 cfs
   (c) Operating Gates
      (i) Type.....Turbine shutoff valve and bypass outlet gate
      (ii) Number of gates/valves.....2
      (iii) Size of gates.....36" and 30"
      (iv) Type of gates.....Butterfly valve and jet-flow gate
      (v) Capacity (total).....450 cfs

(e) Powerhouse
    (i) Exterior dimensions.....40 ft x 40 ft
    (ii) Type of construction.....Reinforced concrete
(f) Transmission lines
    (i) Size.....34 kV
    (ii) Length of line.....1.8 miles
    (iii) Tower construction.....Wood pole

9. ESTIMATED COST.....$1,100,000

10. PURPOSE OF PROJECT

To utilize the releases from the proposed Stagecoach Reservoir Project in the most cost effective and economical manner. Power revenues from the project will be used by the Upper Yampa Water Conservancy District to help payoff the capital investment in the Stagecoach Reservoir Project and subsequently to help to cover the reservoir operation and maintenance costs.



STAGECOACH HYDROELECTRIC PROJECT

FLOW DURATION CURVE

EXHIBIT E

ENVIRONMENTAL REPORT

EXHIBIT E
ENVIRONMENTAL REPORT

E.1. GENERAL

The Stagecoach Reservoir Project, which will provide the water supply and hydraulic head for the Stagecoach Hydroelectric Project, has been submitted to the U.S. Department of the Interior, Bureau of Reclamation for application for a PL-984 loan under the Small Reclamations Project Act (Public Law 84-984). As part of this loan application, an environmental assessment report has been prepared and is included, in draft form, in Appendix E-1. The Bureau of Reclamation has assumed the position of lead agency for the Stagecoach Reservoir Project and will prepare the Environmental Impact Statement.

In order to comply with the Federal Energy Regulatory Commission regulations, [18CFR §4.61(d)(2)] this Exhibit E - Environmental Report addresses only the environmental concerns directly related to the hydropower aspects of the Stagecoach Hydroelectric Project. The majority of this environmental report is taken directly from the environmental assessment report included in Appendix E-1.

E.2. ENVIRONMENTAL SETTING

E.2.1. General

The Stagecoach Hydroelectric Project is situated on the Yampa River approximately 17 miles south of Steamboat Springs, Colorado, and is comprised of a hydroelectric generating plant and transmission line. The associated Stagecoach Reservoir Project is made up by the dam and reservoir and will occupy a portion of the Yampa River Valley. The site of both projects is surrounded by comparatively low mountains. Elevations range from about 7065 feet, msl at the streambed and center line of the dam axis and 7200 feet, msl at the normal high water line, to 8971 feet, msl on Woodchuck hill,

2 miles southeast of the dam site. Blacktail Mountain, one mile north of the dam site is at elevation 8681 feet, msl and the Thorpe Mountain, 2-1/2 miles northwest of the upper end of the reservoir, is at 8892 feet, msl. The ridge, on which the Stagecoach ski facilities are located, 2 miles south of the reservoir, is over 9200 feet, msl. The river is meandering in the area and many oxbows are visible in aerial photographs of the area. Several small tributaries confluence with the river in the valley. The cultivated portion of the valley averages about 1/2 to 3/4 of a mile wide.

E.2.2. **Vegetative Cover**

The vegetation of the project study area is comprised of seven (7) diverse plant communities which are generally typical of the surrounding region. The vegetation's structural diversity reflect both the cool, moist atmospheric conditions as well as the wide range of edaphic conditions, which includes some wet as well as excessively drained soils. The seven plant communities and their respective acreages and percentages of the total study area are listed in the following tabulation:

Vegetation Community	Study Area	
	Acres	Percent
Sagebrush	1,508	36
Brush	429	10
Coniferous Forests	113	3
Deciduous Forest	458	11
Willow	165	4
Riparian Rush	274.5	7
Agricultural	1,033.5	25
Subtotal	3,981	96
Rockland	81	2
Open Water	38	1
Disturbed	21	0+
Developed	45	1
Total	4,166	100

E.2.2.1. Description

The sagebrush community type is dominated by big sagebrush and mountain snowberry and occur on the lower more gentle slopes above the floodplain. This community type is the most prevalent in the study area comprising 36 percent of the study area.

The agricultural community type is the second most prevalent in the project study area. Dominant plant species in the community are smooth brome, alfalfa, and bluegrass. The agricultural community occupies irrigated and dryland pastures and hayland meadows. This community covers 25 percent of the project study area.

Together the sagebrush and agricultural community types occupy over 60 percent of the project study area with none of the other five vegetation community type units and four miscellaneous map units exceeding 10 percent of the total study area. Additional descriptions of the two dominate community types and all the other vegetation community and miscellaneous units are presented in Appendix E-1.

E.2.2.2. Threatened or Endangered Species

A biological assessment of potential impacts of Stagecoach Hydroelectric Project and Stagecoach Reservoir Project on listed species indicates there are no threatened or endangered plant species in the project study area. This assessment represents efforts in full compliance with Section 7 of the Endangered Species Act of 1973 and ammendments of 1978.

E.2.3. **Fish and Wildlife Resources**

A number of inventories of various reaches of the Yampa River in the project study area indicate mountain whitefish (Prosepium williamsoni) dominate the fish population (game fish) with 85.4 percent of the total population. Species of trout and suckers are far fewer in number and accordingly are 12.2 and 2.4 percent of the total population, respectively. The fish population inventories in the Yampa River within the proposed

reservoir basin, above and below the basin, and creel census study data each indicate low trout numbers, low species diversity, small fish size, and low fish production. Additional information on the fisheries characteristics of the Yampa River in the project study area are presented in Appendix E-1.

The project study area is occupied by a large variety of documented and potential wildlife species including 49 species of mammals, as many as 237 species of birds, 4 species of reptiles, and 4 species of amphibians. Wildlife data relevant to the project study area were collected by brief field inventories, literature searches, and contacts with local residents and wildlife managers.

The data indicate elk are the most numerous and important of the big game animals in the project study area and in big game management unit 15, the Yampa unit. A range of 1,000 to 3,000 elk in the northern portions of the unit have summer range in the higher mountains, east, south, and southeast of the project study area. For winter, and especially during severe winters, a portion (10 to 25 percent) of these elk cross the Yampa River and winter on the south facing flanks of Blacktail Mountain just north of the project study area. Migration routes for the elk between the winter and summer ranges lie east of the project study area.

Deep snows normally cover the study area from November until April. For this reason and because the area is in close proximity to human habitations, elk seldom use the wetlands and riparian areas along the Yampa Valley for winter range.

Mule deer are relatively less concentrated in the study area, and they are much more adaptable to the presence of humans in their environment than elk. Elk and mule deer along with black bear, mountain lion, muskrat and beaver are discussed in detail in Appendix E-1.

In game management unit 26, four upland game birds were observed in 1980-81, including blue grouse, doves, sage grouse, and ptarmigan. Additional game birds observed were ducks, geese, and magpies. A total of 45 species of non-game birds were identified in the project study area including

blackbirds, ravens, robins, hummingbirds, bluebirds, sparrows, towhees, mourning doves, warblers, swifts, meadowlarks, magpies, flycatchers, and wrens.

The potential natural fauna of the study area includes 23 species of raptors, seven of which were observed during field trips. Those observed include the turkey vulture, red-tailed hawk, Swainson's hawk, golden eagle, prairie falcon, American kestrel, and the great horned owl. Nesting of raptors along the Yampa River Valley was not documented and should not be expected because of the lack of habitat. However, the cliffs at the proposed dam site and on Blacktail Mountain provide potential nesting habitat for raptors, although none have been observed.

Numerous species of small mammals inhabit unit 26 including cottontails, snowshoe hares, coyotes, jackrabbits, marmots, porcupines, raccoons, deer mice, prairie dogs, squirrels, pocket gophers, shrews, moles, and rats. These species have a wide range of habitat preference but occur in all habitat types in the study area. Many serve as an excellent food base for the predators.

Reptiles and amphibians are of minor importance in the study 85ea. Potential fauna includes a toad, two frogs, a salamander, a lizard, and three snakes. Amphibians are restricted to moist habitats provided by streams, wet meadows, ponds and lakes. Lizards prefer the dry slopes within the study area. Snake species generally inhabit canyon areas near water.

A biological assessment of potential impacts of the Stagecoach Reservoir Project on listed threatened or endangered species was completed in October, 1984. This assessment represents full compliance with Section 7 of the Endangered Species Act of 1973 and amendments of 1978. The USFWS indicated that the bald eagle, black footed ferret, Colorado River squawfish, and humback chub may be affected by the Stagecoach Reservoir Project. The assessment addressed potential project impacts on these species. The bald eagle is an occasional visitor to the project area but cannot be expected to winter or breed in the area.

The assessment concluded that major long-term impacts would not be anticipated, and the project would have no significant effect on any of the species. Concurrence of the USFWS of this assessment should be obtained. Pending receipt of such concurrence from the USFWS, no further action related to endangered species is required unless a significant change in project plans is made or additional biological information is acquired.

The USFWS also indicated that eight species are candidates for official listing as threatened or endangered: Colorado River cutthroat trout, ferruginous hawk, long-billed curlew, mountain plover, razorback sucker, Swainson's hawk, western snowy plover, western yellow-billed cuckoo, and white-faced ibis. The assessment indicated that three of these species (the long-billed curlew, white-faced ibis, and snowy plover) would benefit from the projects if they were present in the project area which they are not at the present time. The Colorado River cutthroat trout has not been reported in the upper Yampa River system. The other four species have not been reported in the area and their presence is unlikely.

E.2.4. **Water Quality and Quantity**

Yampa River is a major tributary of the Green River which in turn is a major tributary of the Colorado River. Major tributaries of the Yampa River above the dam site are Bear River and Hunt Creek. These streams originate on the high slopes of the Flat Top Mountains to the southwest. The drainage basin above the dam site is 227 square miles according to the USGS.

The USGS had a gaging station near the dam site for 5 years from 1939 to 1944 and for 16 years from 1957 to 1972. The average discharge for the 21 year period of record was 86.1 CFS or 62,380 acre-feet per year. During this period of record, there were depletions to the Colorado River basin by way of the Stillwater Reservoir and Stillwater Ditch.

The stream segment of the Yampa River on which the project is located is the main stream of the Yampa River from the confluence of the Bear River and Wheeler Creek to the confluence with Elkhead Creek just above Craig, Colorado. This segment has been classified by the WQCC as "Recreation -

Class 2" and "Aquatic Life - Class 1 - cold water fishery." The "recreation - Class 2" classification generally results in a standard of 2,000 fecal coliforms per 100 milliliters (ml). The segment has been classified as suitable for water supply and agricultural uses.

A review of EPA secured sampling data for water quality beginning in 1970 indicates that several standards are exceeded occasionally. Among those parameters that are sometimes exceeded under existing conditions are: ammonia (both un-ionized and as N), nitrates, cadmium, copper, lead, iron (dissolved), mercury, and silver. However, in general, the water quality of the Yampa River is good, is capable of supporting a cold water fishery, and comes close to qualifying for "Recreation - Class 1" for contact swimming with its low fecal coliforms counts.

E.2.5. **Land and Water Uses**

The existing land use in the project vicinity is primarily agricultural both in the reservoir area and within one mile of the normal high water line (NHWL). The primary exception is approximately 180 residential units south of the reservoir together with a nonoperational ski area and a sewage treatment plant. The agricultural uses are irrigated haylands and livestock grazing. A private gravel pit is 3/4 of a mile west of the upper end of the Stagecoach Reservoir.

All project lands are zoned Agricultural and Forestry (AF). All neighboring farm lands and all government lands, including BLM, USFS, and CDOW lands, are also zoned AF. The South Shore Subdivision, containing undeveloped lots, is zoned Low Density Residential (LR). The condominium area and the Meadow Green Subdivision, both, are zoned High Density Residential (HR).

The use of these lands has not appreciably changed in the last 40 years. Agricultural land, irrigated and irrigable, within the Stagecoach Service area is developed primarily to range livestock operations and raising of meadow hay. Cattle currently use most of the basin with the exclusion only of the steepest slopes. Much of the Yampa floodplain in the basin is currently used as hayland, as are some of the gently sloping terraces above.

The ditch book of the Upper Yampa Water Conservancy District's ditch rider shows that 2,415 acres is currently being irrigated sometime during each growing year. His estimate is that 1,449 acres (60 percent) is in irrigated pasture and 966 (40 percent) is in hay.

The segment of the Yampa River through the project study area has been classified as suitable for water supply and agricultural uses.

Fishing success in the Yampa River within the study area is limited and fishermen use of the area is minimal. Low fish production and the limited sport fish recreational potential appear to be related to the poor quality of the fish habitat.

E.2.6. **Recreational Uses**

Recreation is a most significant regional factor with skiing and winter sports placing Routt county among the top five in the state. The county had over 839,000 skier visits in 1983-84 and had nearly 10 percent of the total skier visits in the state. Other very popular pursuits are big game hunting, fishing, camping, hiking and backpacking, picnicking, boating, sailing, golf, horseback riding, snowmobiling, and sightseeing. The county annually leads the state in number of elk harvested.

Recreational uses of the lands within the project study area are basically limited to the hunting of small game and gamebirds. Fishing is poor and big game hunting is limited to mainly deer.

E.2.7. **Historical and Archeological Resources**

A total of three prehistoric sites and eleven historic sites were recorded and field investigated during the cultural resources inventory. The three prehistoric sites that were recorded during the inventory indicate that there was little, if any, prehistoric residential occupation in the project area. The primary aboriginal activities indicated by the evidence are the quarrying and initial reduction of chalcedony as primary stages in the production of chipped stone artifacts, with the final manufacturing stages

occurring elsewhere. Information from local artifact collectors suggest that evidence of residential occupation, i.e., campsites, is typically found some distance from the river outside the project area.

It is concluded that further archeological reserach at the three prehistoric sites is unlikely to provide significant amounts of information relating to archeological research problems in the prehistory of Colorado. While further information might be obtained about primary reduction techniques, the absence of temporal diagnostics would severely limit the usefulness of this information. Also, the rare occurrence of utilized flakes and finished stone artifacts precludes the investigation of subsistence activities or other activity patterning at the sites. Consequently, it is concluded that the prehistoric sites recorded during the inventory are not eligible for nomination to the National Register of Historic Places.

A total of eleven historical sites in the reservoir survey area were found. Six are homesteads (the Pedersen Place, the Black Place, the Overman Place, the Pieper Place, the McKnight Place, and the Jule Herold Place); and five are organizational or institutional in nature (Yellow Jacket Schoolhouse, the Yellow Jacket Roping Club Corral, the Gravel Pit/Gardner Cabins, Early Stage and Wagon Routes, and Traditional Irrigation Systems). Only two of the homesteads were settled by those for whom the sites are named; it was preferred to follow contemporary social usage as expressed by the valley residents. Several other early homesteads were identified from county records as included in part by the project area, but all traces of their associated structures have either vanished long ago or are located well outside the survey boundaries. These homesteads were therefore not recorded as sites. For each site recorded, sketch maps were drawn, Colorado Cultural Resource Survey Forms were completed, and at least two photographs were taken of each structure or feature. Documentation of the eleven sites is sufficient, none are eligible for the National Register of Historic Places, and no further work is necessary.

E.2.8. Scenic and Aesthetic Resources

The following modifications to the natural environment in the project area have already been made by human activities: roads, bridges, fences, power and telephone lines and poles, farm and ranch buildings, corrals, farm equipment storage areas, cultivated fields, haystacks, irrigation ditches, a sewage disposal plant, ski lifts and runs, a quarry, parking areas, single family home and condominium developments, an abandoned gaging station, revegetated areas, wood gathering and timber harvesting both past and present, rock removal and displacement, jeep trails and hiking paths, man-caused grass and forest fires, reservoirs, campsites, air and water pollution, and fishing and wildlife harvesting and harassment.

E.3. ENVIRONMENTAL IMPACTS

E.3.1. General

Environmental impacts resulting from installation of hydroelectric generating facilities at Stagecoach Dam are expected to be minimal. The powerhouse construction will coincide with the dam construction, and anticipated financing for both will be through a Small Projects Reclamation Act PL-984 loan. Short-term impacts of the proposed project are associated primarily with the construction of the switchyard and transmission line. The expected impacts, both positive and negative, are enumerated below, and the mitigation measures are underlined.

E.3.2. Vegetative Cover

Disturbance of areas for construction and access will occur primarily in the big sagebrush communities. These disturbed areas will be minimized and restoration of all appropriate sites carried out. The only communities of particular concern are the old blue spruce forests downstream from the proposed damsite, which are not likely to be affected.

Minor short-term impacts will occur on botanical species during the erection of the transmission line. Proper measures for revegetation of

disturbed areas will be taken to avoid problems of erosion. Soil and sub-soil materials will be used from the construction process to re-establish disturbed areas according to Colorado reclamation laws. No long-term impacts on the botanical populations are anticipated.

No impact is anticipated on the wetland community as a direct result of the hydropower project, however, extensive mitigation is proposed to replace the wetland acreage impacted by the creation of the reservoir. (See Appendix E-1.)

Specifically, the proposed mitigations include provisions of a wildlife habitat, waterfowl pond, reservoir island, wetland creation around the perimeter of the reservoir, public access buffer zone on the south shore of the reservoir, recreation facilities, convenience center, two marinas, and public trails and preservation of elk winter range on Blacktail Mountain and other open space areas.

E.3.3. **Fish and Wildlife**

E.3.3.1. Fishery Measures

The downstream fishery will be impacted in several ways.

- Due to sediment entrapment, the release waters below the dam will be much clearer than the present flows without the project.
- Project flows will become more consistent; peak flows will be diminished and low flows will be increased.
- Temperatures of the releases will be moderated; due to multi-level releases, the temperatures can be maintained between 39°F and 59°F.
- Degradation of the substrate will occur from the release of clear waters. The flushing of the silt from the streambed will leave gravel and cobble that will be more conducive for trout spawning.

- The resulting gravel and cobble substrate will also provide a much better habitat for aquatic insects and invertebrates (fish food).
- The project will provide 1/2 mile of additional public access to the downstream fishery.
- The project will have an insignificant effect on the flows of the Yampa River in the Dinosaur National Monument and on the Green River, especially during July and August, the critical spawning months for the Colorado River squawfish. The overall impact of the project on the downstream fishery due to the impacts listed above should result in a much improved sports fishery.

Fish mortality resulting from collision with moving parts, pressure changes, velocity changes and acceleration may occur in the penstock and turbine. The rate of incidence is dependent upon the size and the life stage of the fish as well as the characteristics of the hydroelectric unit. The unit proposed for the Stagecoach Hydroelectric Project is a small horizontal Francis turbine which utilizes a low speed runner. Most research done on the Francis turbine indicates that a survival rate of 60-80 percent has been demonstrated in well designed power plants. It is also indicated that maximum survival of fish during passage through hydroelectric plants takes place at the highest operating efficiency.

The proposed hydroelectric project will use the reservoir multilevel outlet release structure as the power plant intake. The multilevel intake structure will be designed to operate at flow velocities of less than one foot per second when all the flow is passing through the turbine. This will minimize the potential for entrainment of fish during the times when the likelihood of fish mortality is greatest.

The Stagecoach Reservoir will create potential for a significantly increased acreage of coldwater fishery. The 31 acres of current wetted streambed surface areas will be increased to 777 acres of standing water. It is proposed that fry-fingerling trout, one to four inches in length, will be stocked in the reservoir. If the growth and survival rate of

these fishes were to prove inadequate, catchable-size fish could then be stocked. It is assumed that a sufficient number of spawning areas with adequate size gravel is present in stream reaches above the reservoir. However, if spawning areas are not available, an annual stocking program would be required to fill the void created by the lack of natural reproduction. A comprehensive fish management plan, including the development and implementation of a stocking schedule to include species composition could be coordinated by the USFWS and CDOW.

It is anticipated that stream spawning game and nongame fishes will migrate to upstream reaches and return to the more hospitable reservoir environment. The net result of these spawning activities could lead to the maintenance of self-sustaining fish populations. However, increased fishing pressure could result in decreased numbers, size, and a reduced catch per man-hour of effort and stocking may be required. An annual stocking rate of 100, 5-inch trout (5 lb.) per acre could provide an acceptable reservoir fishery.

There is a proposed minimum flow of 40 cfs to be released from the dam. The downstream fishery should be improved from the existing conditions because of minimum flows, regulated temperature releases, and cleaner water. Neither the reservoir nor the downstream fishery will be stocked by the District. Negotiations will be made by the District with the CDPOR, the CDOW, and private individuals or entities for such stocking on a regular basis. There will be no passage for fish through the dam for upstream migration or spawning.

E.3.3.2. Wildlife Measures

Long-term impacts on the terrestrial population will result primarily from the transmission lines which will follow the proposed access road along the north shore of the reservoir westerly to an existing 34 KV transmission line along County Road Number 14. The existence of the transmission line will have the potential for increased incidences of electrocution of large raptors, whose wingspan can stretch the distance between two conductors during landing and take-off, and of collision of all size birds with the transmission lines. The conductors will be spaced to

minimize the electricution danger, and all transmission line construction will incorporate techniques outlined in the "Raptor Research Report No. 4, 1981, Suggested Practices for Raptor Protection on Power Lines - The State of the Art in 1981".

In order to minimize the danger of collision, especially for water fowl, the top of the transmission lines will remain below the elevation of the dam crest as they run along the toe of the dam. Consideration was given to underground routing of the transmission lines, but this alternative was found to be quite costly and posed substantial technical difficulties.

A positive impact of the transmission lines will be the presence of additional roosting and even nesting opportunities for the raptoral and passerine birds.

The terrestrial vertebrate fauna of southern Routt County is a rich one, of which the elk herd is perhaps the greatest concern from the viewpoint of wildlife managers and the local population. The proposed Stagecoach Hydroelectric Project has only minimal impacts to the terrestrial populations, however, the proposed Stagecoach Reservoir Project will impact the indicator species, elk, in the following ways:

- There would be a loss of 228 habitat units (HU) of winter range and 244 HU of critical winter range due to inundation by the reservoir. The affected reparian habitat corridor along the Yampa River is designated Resource Category 2.
- There will be a loss of relatively minor migration routes for a very small number of elk due to the reservoir.
- The formation of ice on the surface of the reservoir during cold weather could be hazardous to elk and other big game. It is possible they could break the ice and drown while attempting migrations across the reservoir.
- Possible increase of harassment of elk and all wildlife from increased human use of the project area and from unleashed pets.

Other impacts from the Stagecoach Reservoir Project on wildlife are as follows:

- Loss of 280 acres of wetlands and reparian willow thickets which are breeding habitat for shorebirds and songbirds and habitat for many small non-game mamals, furbearers, reptiles, amphibians, and non-game varmints.
- Although no raptor nests have been observed or are known to exist in the project area, construction of the project may disturb raptor nesting.

Important secondary effects include increased human use of the area, increased access, the encouragement of ancillary development, including four-season residences, increased human population density with attendant dogs and cats, and increased interaction between humans and wildlife.

Positive effects of the proposed Stagecoach Reservoir Project include an increase in habitat for shorebirds, possible increase in the amount of habitat for waterfowl, and the potential for better protection for critical elk winter range on the south-facing slope of Blacktail Mountain.

E.3.3.3. Endangered Species

A biological assessment of potential impacts of the Stagecoach Reservoir Project on listed species was completed in October 1984. This assessment represents full compliance with Section 7 of the Endangered Species Act of 1973 and amendments of 1978. The USFWS indicated that the bald eagle, black footed ferret, Colorado River squawfish, and humpback chub may be affected by the Stagecoach Reservoir Project. The assessment addressed potential project impacts on these species. There are no threatened or endangered plant species in the project area. The bald eagle is an occasional visitor to the project area but cannot be expected to winter or breed in the area. The assessment concluded that major long-term impacts would not be anticipated, and the project would have no significant effect on any of the species. Concurrence of the USFWS of this assessment should be obtained. Pending receipt of such concurrence from the USFWS, no further

action related to endangered species is required unless a significant change in project plans is made or additional biological information is acquired.

The USFWS also indicated that eight species are candidates for official listing as threatened or endangered; Colorado River cutthroat trout, ferruginous hawk, long-billed curlew, mountain plover, razorback sucker, Swainson's hawk, western snowy plover, western yellow-billed cuckoo, and white-faced ibis. The assessment indicated that three of these species (the long-billed curlew, white-faced ibis, and snowy plover) would benefit from the project if they were present in the project area which they are not at the present time. The Colorado River cutthroat trout has not been reported in the upper Yampa River system. The other four species have not been reported in the area and their presence is unlikely.

E.3.4. **Water Quality**

Impacts to the water quality by the Stagecoach Hydroelectric Project are expected to be negligible. The flow regime for the proposed power plant will match the irrigation, municipal and industrial releases proposed for the project operation.

Recent developments in fisheries science have shown that the outflow from reservoirs can be controlled in such a way as to create one to ten miles of blue-ribbon angling below the dam simply by regulating the amounts and temperatures of the reservoir outflow. A relatively constant year-round temperature in the outflow results in an exceptionally dense population of fish-food organisms, as well as a dense population of fast-growing trout. If possible, the reservoir outflow temperatures will be kept between 4° and 15° C., and this will be possible because the multilevel intake structure will have a series of three or four regulated outlets spaced from bottom to top. In this fashion bottom water (4° C) can be released in the winter and various mixtures in the summer to produce favorable warm weather temperatures, depending, of course, on the changing specific temperature stratification curve of the reservoir water mass.

The minimum flow immediately downstream from the dam is proposed to be 40 cfs whereas the minimum recorded flow at the damsite is 9 cfs. This will hve a beneficial effect on the downstream fishery.

The instream flow analysis for the Stagecoach Reservoir Project shows an increase in downstream flowing water habitat over the existing river conditions. The analysis of the Stagecoach Reservoir Project operations shows a decrease in the peak flow and an increase in the monthly flows on a year-round basis. This decreased peak in the spring and increased flow in late summer will produce a flow regime closer to the optimum for trout fry and juveniles. The decrease in spring flows will decrease habitat available for whitefish fry and increase habitat for trout fry.

Average annual drawdown will be 0.75 feet with the greatest drawdowns being during the winter and early spring seasons immediately preceding the spring runoff. This low average drawdown will allow recreationists full use of the reservoir during late spring, summer, and fall seasons.

All Stagecoach Reservoir Project contractors will be required to comply with applicable federal, state and local laws and regulations, including all necessary permits, concerning the control and abatement of water pollution. Construction activities will be performed by methods that will prevent entrance or accidental spillage of solid matter, contaminants, debris, and other pollutants into streams, water courses, or underground water sources. Such pollutants include, but are not restricted to, refuse, garbage, cement, concrete, oil and other petroleum products, and aggregate processing tailings. Approved portable toilets will be located at appropriate sites within the project. Sanitary wastes from these toilets will be periodically removed and disposed of at the Morrison Creek Water and Sanitation District (MCWSD) sewage treatment plant or at some other approved site. The contractors' activities will be monitored by government personnel to ensure compliance with all permit conditions, laws and regulations.

Existing domestic sewage disposal systems within the Stagecoach Reservoir Project to be abandoned will be removed and/or disinfected.

All contracts between the owner and the contractors shall specify that the contractors will provide and implement an erosion control plan that will comply with state requirements for erosion control dams and the Colorado Pollutant Discharge System (CPDS) permit. The erosion control plan will include provisions that will ensure:

1. The fewest stream diversions possible will be made including the early placement of the permanent river diversion;

2. Leaving a specified buffer zone on each side of the stream channel undisturbed;

3. The diversion of storm runoff around disturbed areas to reduce the sediment load reaching the stream;

4. Excavated materials will not be stockpiled or deposited near or on stream banks, steep slopes, wetlands, or other stream perimeters where they could be washed away by high water or storm runoff or encroach upon the stream itself;

5. The clearance of the reservoir area will be done as late in the construction schedule as possible; clearing just prior to filling the reservoir would be the optimum schedule, and;

6. To the maximum extent possible, equipment for instream construction will operate from the stream banks, not in the stream.

The EPA and the WQCD of the CDOH have been monitoring the water quality of the Yampa River above its confluence with Oak Creek since November 17, 1970 (the STORET program). Several samples were obtained in June and July of 1984 at district expense. The USGS commenced sampling the water in July 1984 under contract with the district. This program includes sediment and bedload samples, as well as water temperature, streamflow, turbidity, and dissolved oxygen samples. The location of the USGS collection of samples is at the new gaging station just below the Stagecoach Reservoir Project damsite established in July 1984. The USGS sampling program will be ongoing and will monitor any

changes in stream water quality due to construction and operation of the Stagecoach Reservoir Project.

E.3.5. **Land and Water Uses**

The Stagecoach Hydroelectric Project will have no impact on the existing or proposed land or water uses. The hydropower project will be operated on a run-of-the-river basis with no change in flow regime from the operating procedures planned for the Stagecoach Reservoir Project. The reservoir will inundate approximately 466 acres of irrigated agricultural land used for agricultural purposes, specifically for the raising of hay and for grazing of livestock. In addition, another 150 to 200 acres are used for grazing of livestock and some haying within the wetlands. This constitutes approximately 1.5 percent of the total irrigated hayland in the county.

Mitigation for the loss of this irrigated farmland will be accomplished by taking the 4,000 acre-feet of designated irrigation water in the project and exchanging it for 4,000 acre-feet of municipal and industrial water in Yamcolo Reservoir. The 4,000 acre-feet of additional irrigation water in Yamcolo Reservoir will be used for supplemental irrigation of up to 3,000 acres of non-productive or low-productive land in the Toponas-Egeri Creek area. The net effect of this mitigation is an estimated doubling of the value of hay and pasture to Routt County.

E.3.6. **Recreation**

The Stagecoach Reservoir Project includes extensive plans for providing recreational facilities. It is anticipated that the project with its recreation facilities will attract about 150,000 people (recreation days) during the first year of operation. If the reservoir proves to be a popular fishery and boating lake, that number could double in ten years. This would be a big step towards balancing the recreation seasons. About 250,000 people (recreation days per year) are now being attracted to Steamboat lake. If the recreation season can be more or less balanced, motels, restaurants, service stations, and other businesses catering to the tourist and recreationist would reduce their vacancy rate and provide steady year-round employment, a big plus for the county.

The Stagecoach Hydroelectric Project will not have any negative impact on the proposed recreation facilities. On the other hand, the hydropower facility will provide for additional parking and access to the area below the dam.

E.3.7. **Historical and Archaeological Resources**

Investigations relative to the Stagecoach Reservoir Project have revealed a total of three prehistoric sites and eleven historic sites. These were recorded and field investigated during the cultural resources inventory. Some of the sites will be inundated by the reservoir while the remainder are in close proximity. Since no significant information is likely to be gained from preservation of any of the sites and sufficient documentation has been made of each site, there will be no environmental impacts on the 14 sites from implementation of the Stagecoach Resevoir Project.

As the majority of the proposed Stagecoach Hydroelectric Project construction will be limited to land that is part of the proposed dam construction, it is highly unlikely that any additional historical or archaeological findings would become evident during the course of the proposed project construction. However, the Applicant will follow the regulations in 36 CFR 800 in consultation with the Colorado State Historic Preservation Officer. This consultation will also include determination of which land areas, if any, will need additional survey work prior to project construction.

E.3.8. **Scenic and Aesthetic Resources**

In order to ensure that the proposed project will blend with the surrounding environment, a major portion of the hydroelectric power plant structure will be below grade and the roof of the powerhouse will only be about 15 feet above grade. This low profile powerhouse structure will not obstruct any horizon lines or major views. Materials used will be concrete, similar to the stilling basin.

A fence will be constructed around the switchyard to avoid the public coming in contact with the high voltage lines. In addition, the powerhouse will not be open to the public. However, the proposed project will in no way impede access to lands that are presently available to the public. In fact, increased opportunity for public usage of the area below the dam will be provided with the addition of a parking area.

All disturbed areas in relationship to the above construction will be graded and revegetated in compliance with Colorado State laws and in a manner that blends with the rest of the setting below the dam.

The transmission line will extend approximately 2 miles between the switchyard and the existing transmission line west of the proposed project. There will be some new visual impact from this transmission line, but it will be designed to minimize adverse environmental impacts.

Modifications to the existing environment that will result from construction of the Stagecoach Reservoir Project are as follows: a dam, a reservoir a campground, marinas, parking areas, modified and new roads, an enlarged quarry, borrow excavations, cut and fill areas, newly revegetated areas including new wetland areas, relocated power and telephone lines, park and recreation areas, and new trails and paths.

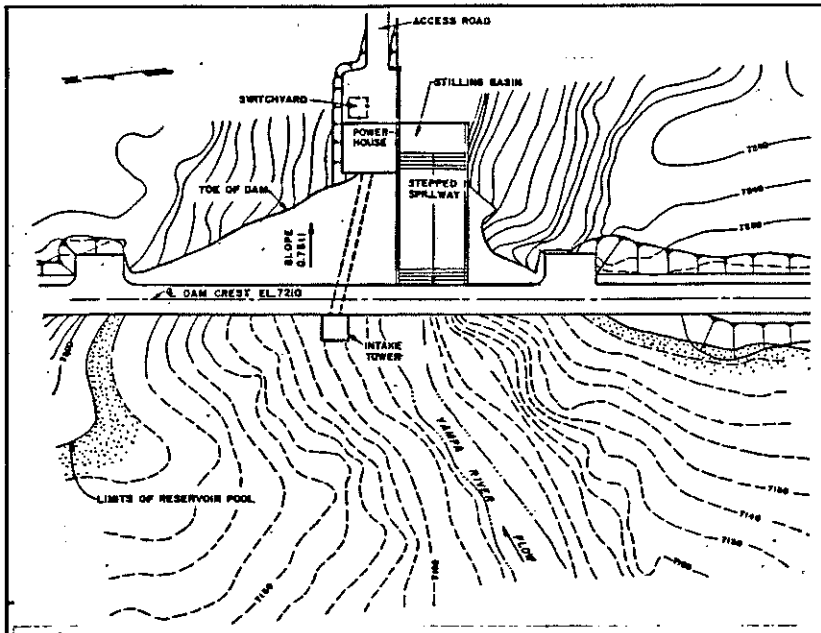
Changes in topography and the natural shape of the landscape, and visual impacts on the aesthetic quality of the mountain and valley terrain from above-ground project components will be mitigated as discussed in Appendix E-1. Mitigation measures will include revegetation of disturbed areas, retention of existing roads to the greatest extent possible, and discreet location of individual campsites.

During project construction, certain activities including surface excavations, batch plant and aggregate plant operations, temporary roads, materials and equipment storage areas, and construction camps will temporarily detract from the scenery. Such detractions, however, will be visible only in localized areas where the activities occur. The reservoir basin will be cleared just prior to filling; for a short period, it will appear less

attractive. Successful restoration of visual quality by revegetation of the activity areas will probably take 2 to 5 years and up to 25 years to reach full maturity or preproject conditions.

EXHIBIT F

DESIGN DRAWINGS



SITE PLAN

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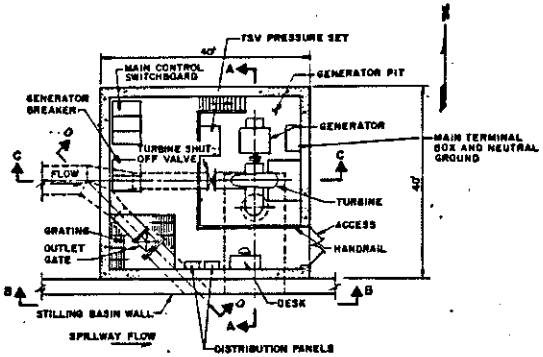

POWERHOUSE FLOOR PLAN

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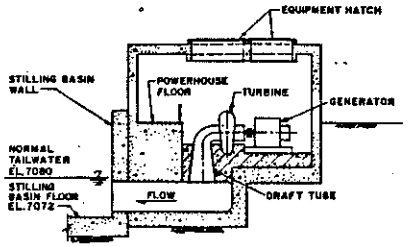

SECTION A-A

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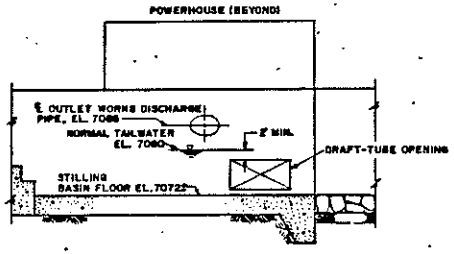

SECTION B-B

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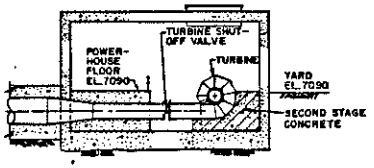

SECTION C-C

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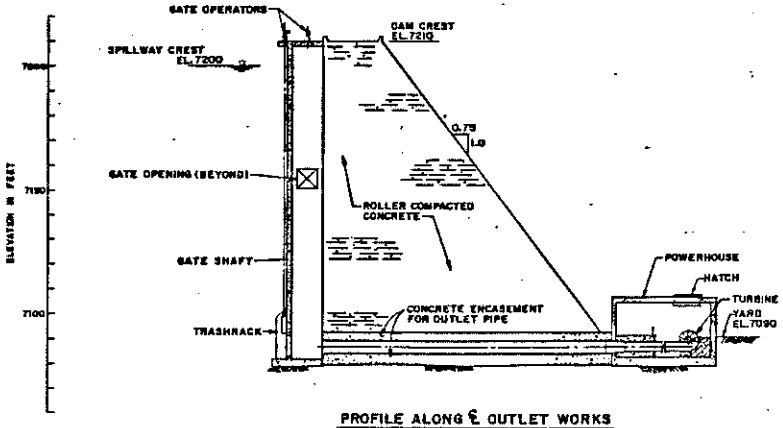

PROFILE ALONG ℄ OUTLET WORKS

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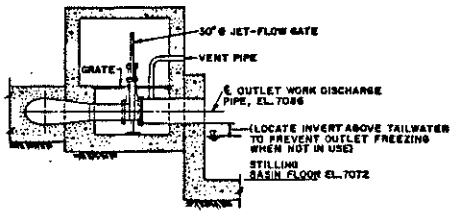

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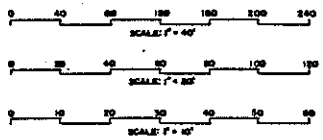


THIS MAP IS PART OF THE APPLICATION FOR LICENSE MADE BY THE UNDERSIGNED THIS ____ DAY OF _____, 19__.

THE UPPER YAMPA WATER CONSERVANCY DISTRICT

BY _____

EXHIBIT F

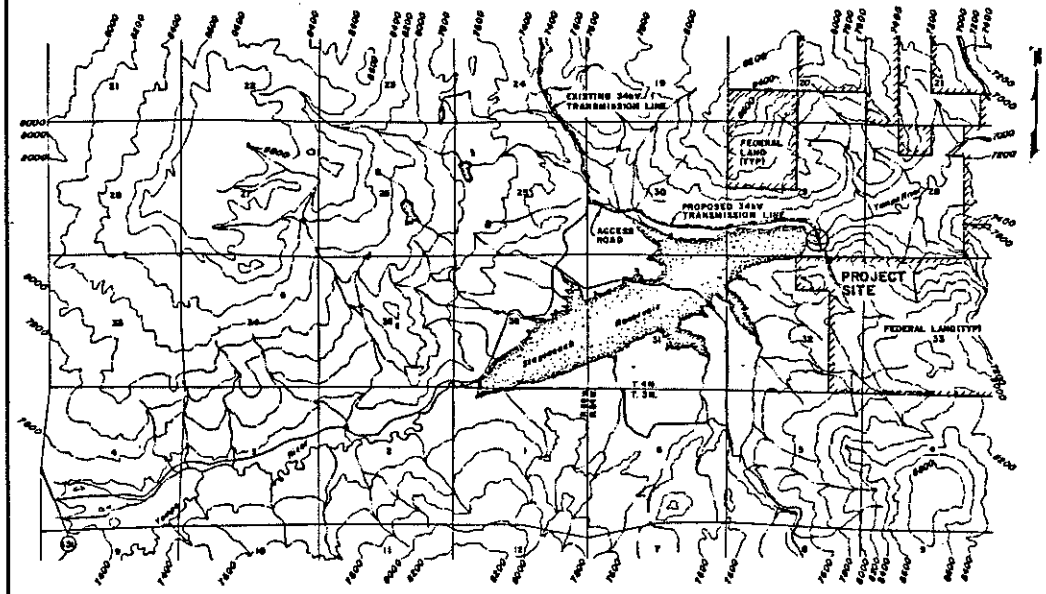
UPPER YAMPA WATER CONSERVANCY DISTRICT
ROUTT COUNTY, COLORADO

STAGECOACH HYDROELECTRIC PROJECT
OUTLET WORKS AND POWERHOUSE
SITE PLAN, PROFILE AND SECTIONS

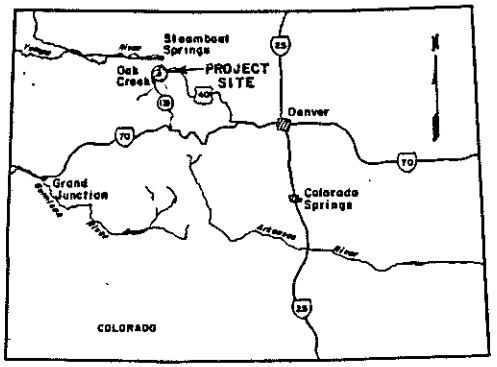
TUDOR ENGINEERING COMPANY — DENVER, COLORADO

EXHIBIT G

PROJECT MAP



PROJECT MAP
SCALE 1" = 2000'



VICINITY MAP
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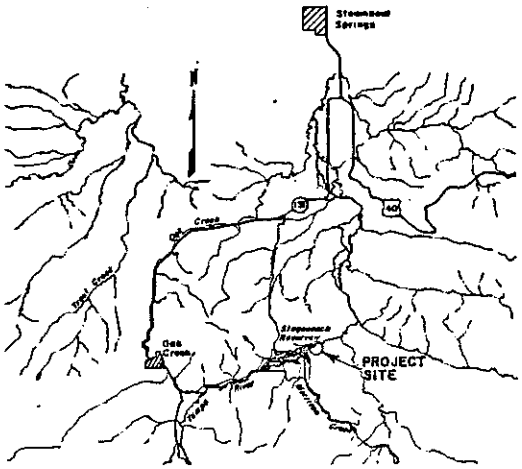

LOCATION MAP
NO SCALE

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SCALE 1" = 2000'

THIS MAP IS PART OF THE APPLICATION FOR LICENSE MADE BY THE UNDERSIGNED THIS ____ DAY OF _____, 19___.
THE UPPER YAMPA WATER CONSERVANCY DISTRICT
BY _____

EXHIBIT G

UPPER YAMPA WATER CONSERVANCY DISTRICT
ROUTT COUNTY, COLORADO
STAGECOACH HYDROELECTRIC PROJECT
PROJECT MAPS

TUDOR ENGINEERING COMPANY DENVER, COLORADO