

**RECREATION AND LAND USE
IDYLWILDE HYDROELECTRIC PROJECT**



Prepared for—
WATER CONSULT
535 North Garfield Avenue
Loveland, Colorado 80537
970-667-8690

Prepared by—
ERO Resources Corporation
1842 Clarkson Street
Denver, Colorado 80218
303-830-1188

January 20, 2011

Contents

| | |
|--|---|
| Introduction..... | 1 |
| Project Description..... | 1 |
| Existing Environment | 1 |
| Land Use Setting..... | 1 |
| Recreational Uses | 2 |
| Potential Impacts..... | 4 |
| Direct and Indirect Impacts..... | 4 |
| Cumulative Impacts | 4 |
| Mitigation Measures | 5 |
| Preliminary Issues and Recommended Studies | 5 |
| Preliminary Issues..... | 5 |
| Recommended Studies..... | 5 |
| Agencies Contacted | 5 |
| References..... | 5 |

Figures

- Figure 1. Site location.
- Figure 2. Project area.
- Figure 3. Recreation and land use.

Recreation and Land Use

Idylwilde Hydroelectric Project

Introduction

The City of Loveland, Colorado (City) is proposing to relicense Federal Energy Regulatory Commission (FERC) Project No. 2829, Idylwilde Hydroelectric Project (the Project). The Project is owned and operated by the City. Water Consult retained ERO Resources Corporation (ERO) to prepare preapplication materials associated with recreation and land use for the proposed relicensing. This report addresses the requirements for a preapplication document described in FERC's Integrated License Application Process (18 CFR 5.6).

Project Description

The Project is on the Big Thompson River along U.S. Highway 34 (U.S. 34), 14 miles west of the City (Figure 1). The dam is on National Forest lands managed by the Arapaho-Roosevelt National Forest. A hydroelectric plant was built on municipally owned property, allowing generation and distribution of energy from the Project to begin in 1925. The original dam and hydroelectric plant were destroyed in the Big Thompson River flood on July 31, 1976, and were subsequently rebuilt and returned to full service in 1981.

The dam is 50.5 feet high and has a total length of 239.1 feet. The reservoir has a surface area of 3.67 acres at spillway elevation, and impounds about 45 acre-feet of water. A minimum bypass flow of 7 cubic feet per second (cfs) is maintained through the dam to provide suitable habitat in the stream reach below. The penstock, 9,534 feet in length, originates at the dam and delivers water to two 450-kilowatt turbine-generator units in Loveland's Viestenz-Smith Mountain Park. The penstock crosses Forest Service and privately owned lands, and U.S. 34. Two taps along the penstock provide access to water for fire protection and 15 irrigation services are tapped into the line. The power generated is connected to the City's distribution system through a 22-kilovolt transmission line 1,153 feet in length.

Existing Environment

LAND USE SETTING

The Project facilities are in south-central Larimer County, Colorado, about 12 miles west of the City and 12 miles east of Estes Park. The Project involves a combination of National Forest lands, private land, and land owned by the City. Private lands are primarily used for residential homes and vacation cottages along the south bank of the

river to the east of the dam. Most of this area is encompassed by the 2 Eagles Resort, which provides room and vacation cabin rentals (2 Eagles Resort 2010).

The dam and reservoir are on National Forest land, immediately adjacent to the U.S. 34 corridor. After leaving National Forest System land near the reservoir, the pipeline crosses multiple private parcels before reaching City-owned land (Larimer County 2010). The pipeline then reenters and crosses National Forest land for about 2,700 feet before reaching City land associated with the Viestenz-Smith Mountain Park. The hydroelectric plant is within the park (Figure 2).

The City currently has an easement for the dam, reservoir, and portions of the pipeline corridor on National Forest System land. This easement expires in 2016 (Howard, pers. comm. 2010). Research conducted by the City has not revealed the existence of any easements or agreements with private property owners along the pipeline (Howard, pers. comm. 2010).

The general land use setting and recreation facilities are shown on Figure 3.

RECREATIONAL USES

The Project area is within the scenic Big Thompson Canyon, which is a recreation thoroughfare for visitors to the nationally important recreation areas of Estes Park and Rocky Mountain National Park. The canyon itself also provides a variety of land- and water-based recreational opportunities.

Water-based Recreation

Big Thompson Canyon, including Idylwilde Reservoir, is used as a recreational fishery, supporting both fly fishing and bait fishing. This reach of river includes a natural brown trout population, and is considered a fishing “hot spot” by the Colorado Division of Wildlife (CDOW 2010). The section of river below the dam is known locally to be a high quality fishery (2 Eagles Resort 2010). The Big Thompson River is not classified as a gold-medal trout stream (Colorado Fishing Network 2010).

The Big Thompson River through the Project area is used as a kayak run when the river flows are sufficient (above about 300 cfs) (Stafford and McCutchen 2007). While kayaking below the dam is becoming increasingly popular (Clark, pers. comm. 2011), it is not a major kayaking destination and is generally not used for rafting.

Land-based Recreation

Reservoir Facilities

Recreation facilities at Idylwilde Reservoir include a highway turnoff and parking area along the north side of the reservoir, a pit toilet, and an informational kiosk. This area is a popular wayside stop for visitors traveling through the canyon and is used for fishing

access and sightseeing (including viewing nearby bighorn sheep) (Howard, pers. comm. 2010). There is paved parking for handicapped access near the pit toilet, but no handicapped access to the reservoir.

Viestenz-Smith Mountain Park

The City's Viestenz-Smith Mountain Park encompasses the hydroelectric plant on the eastern end of the Project area. The park is the most popular recreation destination within the Big Thompson Canyon, providing a variety of amenities including two large picnic areas, a playground, restrooms, a nature information center, and environmental education facilities (City of Loveland Parks and Recreation 2010a; Clark, pers. comm. 2011). The ruins of the former hydroelectric plant, which was destroyed in the 1976 flood, provide a historical interpretation opportunity. Across the highway to the south, the park also includes parking and trailhead facilities. The rebuilt hydroelectric plant is on the southern edge of the park near U.S. 34. The power plant tailrace discharges to a pond in the park, which drains to the Big Thompson River.

Trails

The Round Mountain National Recreation Trail (NFS trail #969) is on City and National Forest System land on the eastern end of the Project area. The trailhead is along the south side of U.S. 34 across from the Viestenz-Smith Mountain Park. This trail system includes two trails that diverge about $\frac{1}{4}$ mile from the trailhead – the Foothills Nature Trail and the Summit Adventure Trail. The Foothills Nature Trail is a 1-mile segment that includes multiple nature and historical interpretation stations. The 4.5-mile Summit Adventure Trail climbs 2,700 feet to the summit of Sheep Mountain (City of Loveland Parks and Recreation 2010b, 2010c; USDA Forest Service 2007) (Figure 2).

The existing Idylwilde pipeline crosses the Round Mountain Trail twice, within the first $\frac{1}{2}$ mile of the trail, as it descends toward the hydroelectric plant.

Relevance to Current and Future Recreation Needs

The 2008 Colorado Statewide Comprehensive Outdoor Recreation Plan (SCORP) identifies the following recreation trends relevant to the Project area (Colorado State Parks 2008):

- Sightseeing, scenic driving, and walking are among the top 10 most popular outdoor activities in Colorado.
- About 41 percent of Colorado's population participate in trail-related activities (e.g., hiking), 33 percent participate in wildlife viewing, 15 percent participate in fishing, and 11 percent participate in paddle sports (e.g., kayaking).
- More than 75 percent of Coloradans participate in outdoor recreation activities on a weekly basis.

- The average distance traveled to recreate outdoors was 17 miles during the week and 41 miles on the weekend.
- Roughly one-half of survey participants identify “forests and/or lakes with limited trails, camping, boating, and fishing opportunities” as their preferred destination.

The SCORP does not identify any specific recreation needs that are relevant to the Project area.

The City’s current (2001) Parks Master Plan shows no alterations planned for recreation facilities over a 10-year horizon. That plan may be updated over the next several years, but there is currently no discussion about changes at Viestenz-Smith Mountain Park or Idylwilde Reservoir (City of Loveland Parks and Recreation 2001; Howard, pers. comm. 2010).

Other Analysis Criteria

Shoreline management: The Project area contains a small diversion reservoir that does not have shoreline facilities or a shoreline management plan.

Special designations: The Big Thompson River is not designated as, or eligible for inclusion in the National Wild and Scenic River System, and has no state-level protections or special designations. Reaches of the Big Thompson River above and below the Project area are included in the state’s instream flow program (see the *Water Resources* section). However, the reach between the dam and tailrace return does not have an instream flow water right. None of the public lands within or adjacent to the Project area are designated as, or are under study for inclusion as, a Wilderness.

Potential Impacts

DIRECT AND INDIRECT IMPACTS

Relicensing and continued operation of the existing Idylwilde Project facilities would not affect any recreation or land use resources.

CUMULATIVE IMPACTS

Implementation of the Windy Gap Firming Project would slightly increase flows in the river in the Project area during some months (by up to 18 cfs during July). These small increases in flow would not affect fishing in Idylwilde Reservoir or along the Big Thompson River through the Project area. Likewise, such small increases could benefit kayaking opportunities through the Project area, but those benefits would be negligible.

The Upper Front Range 2035 Regional Transportation Plan (CDOT 2008) identifies general goals and strategies for improvements to the U.S. 34 corridor through the Project area. The overall vision is to increase mobility, improve safety, and maintain system

quality. Implementation of the general strategies outlined in the plan would benefit recreation resources in the Project area by improving the safety and accessibility of the highway corridor for visitors.

MITIGATION MEASURES

No mitigation measures are recommended for recreation or land use resources.

Preliminary Issues and Recommended Studies

PRELIMINARY ISSUES

No issues have been raised to date regarding the lack of easements or similar property agreements for the portion of the pipeline that crosses private lands. Any issues that may be resolved in the future would be subject to legal resolution.

RECOMMENDED STUDIES

No additional studies are needed for recreation or land use resources.

Agencies Contacted

The agencies contacted for this report were:

Larry Howard
City of Loveland
200 N. Wilson Avenue
Loveland, Colorado 80537
970-962-3703

Adam Clark
Mountain Park Specialist
City of Loveland
970-962-3432

References

2 Eagles Resort. Estes Park Hotels, Cabins, Lodging: 2 Eagles Resort. 2010. Available at: <http://www.2eaglesresort.com/index.html>. Last accessed: November 24.

City of Loveland Parks and Recreation. 2001. Loveland Parks and Recreation Master Plan. October 16.

City of Loveland Parks and Recreation. 2010a. Viestenz-Smith Mountain Park Handout.

City of Loveland Parks and Recreation. 2010b. Foothills Nature Trail. Available at: <http://www.ci.loveland.co.us/parksrec/FNT.htm>. Last accessed: November 15.

City of Loveland Parks and Recreation. 2010c. Summit Adventure Trail. Available at: <http://www.ci.loveland.co.us/parksrec/SAT.htm>. Last accessed: November 15.

Clark, Adam. 2011. City of Loveland. Personal communication with Bill Mangle, ERO Resources Corporation. January 13.

Colorado Department of Transportation (CDOT). 2008. Upper Front Range 2035 Regional Transportation Plan. Prepared by Felsberg, Holt & Ullevig. January.

Colorado Division of Wildlife (CDOW). 2010. Northeastern Colorado Hot Spots. Available at: <http://wildlife.state.co.us/Fishing/WhereToGo/HotSpots/HotSpotNortheast.htm>. Last accessed: November 29.

Colorado Fishing Network. 2010. Gold Medal Streams. Available at: <http://www.coloradofishing.net/goldmedal.htm>. Last accessed: November 29.

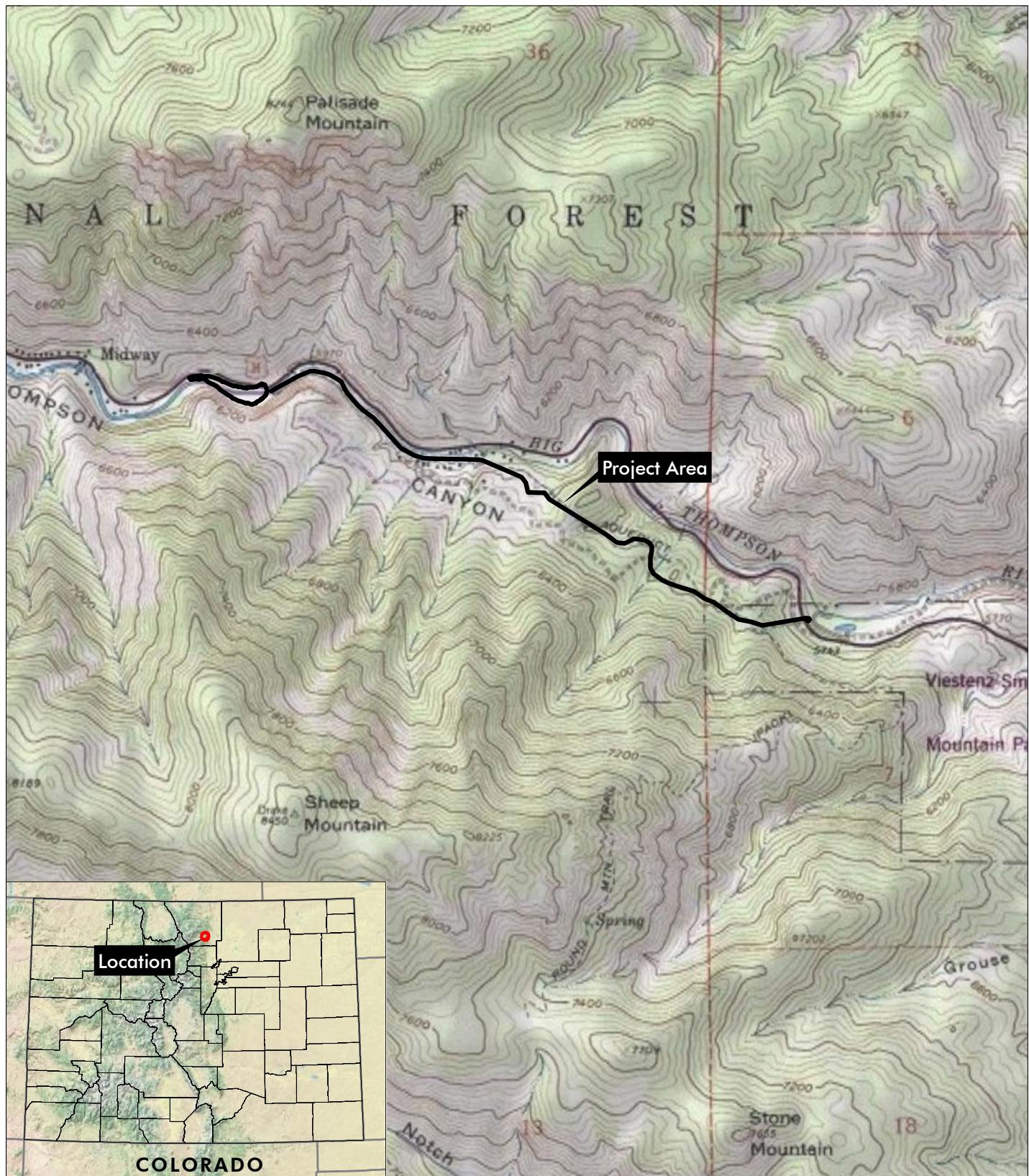
Colorado State Parks. 2008. Colorado Statewide Comprehensive Outdoor Recreation Plan.

Howard, L. 2010. City of Loveland. Personal communication with Bill Mangle, ERO Resources Corporation. Email and phone communication with additional input from A. Clark and J. Meisel-Buns, City of Loveland. November 29 and 30.

Larimer County. 2010. Tax Parcel GIS Map. Created by Larimer County GIS Online Mapping Tool. Available at: <http://maps1.larimer.org/apps/lcparlocator/default.aspx?theme=maps/TaxParcel>. Last accessed: November 23.

Stafford, E. and K. McCutchen. 2007. Whitewater of the Southern Rockies. Wolverine Publishing, Silt, CO.

USDA Forest Service. 2007. Round Mountain Trail (#969). Informational handout. Canyon Lakes Ranger District, Arapaho & Roosevelt National Forest. Fort Collins, CO. Last updated: January.



Idylwilde Hydroelectric Project

Sections 1 and 2, T5N, R71W; Section 7, T5N, R70W; 6th PM

UTM NAD 83: Zone 13N; 474730mE, 4474958mN

Latitude, Longitude: 40.424874°N, 105.297895°W

USGS Drake, CO Quadrangle

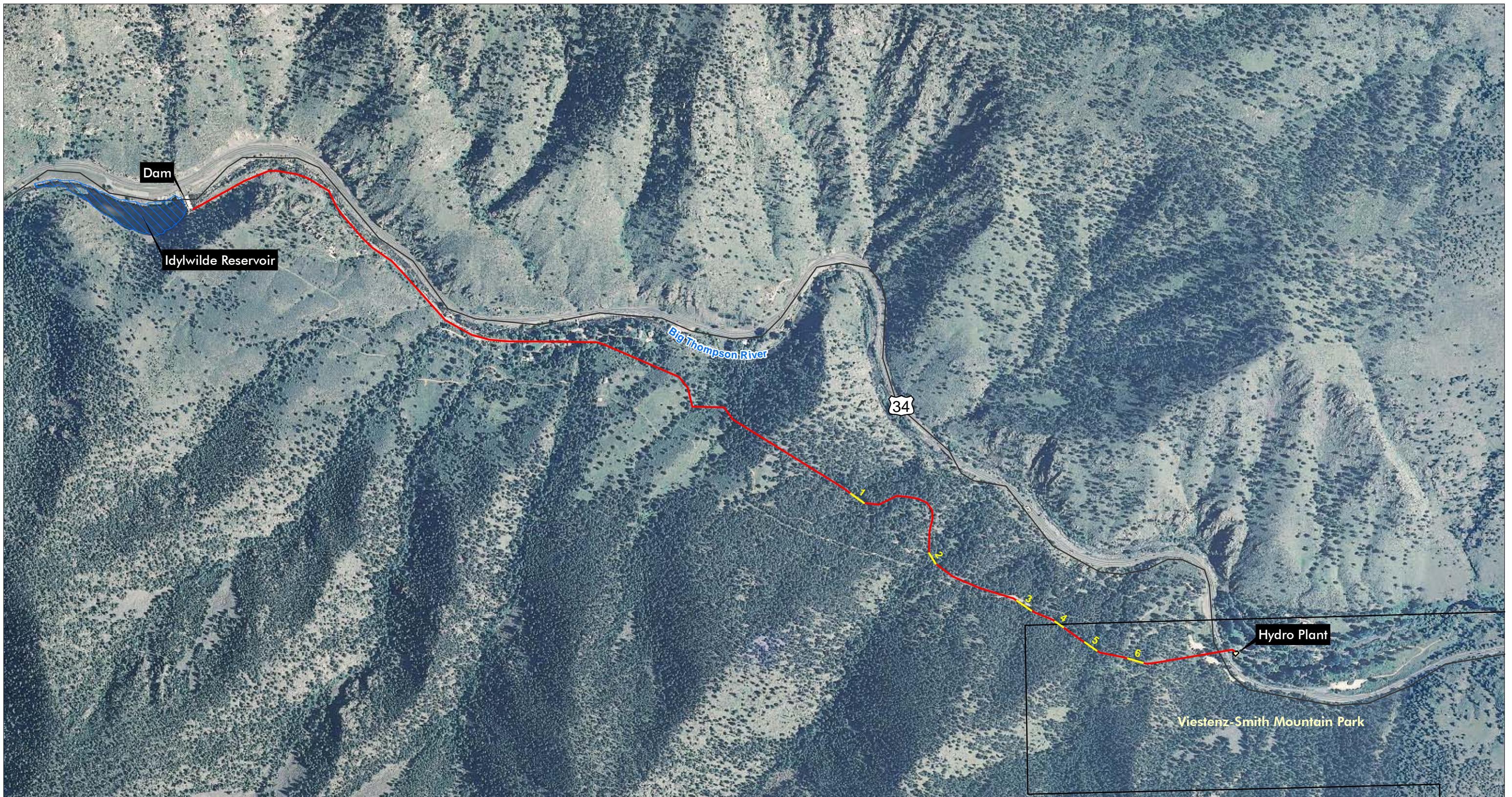
Larimer County, Colorado

0 1,000 2,000
Feet

Figure 1
Site Location

Prepared for: Water Consult
File: 4872 figure 1.mxd [WH]
December 2010

ERO
ERO Resources Corp.



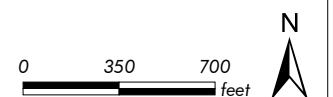
Idylwilde Hydroelectric Project

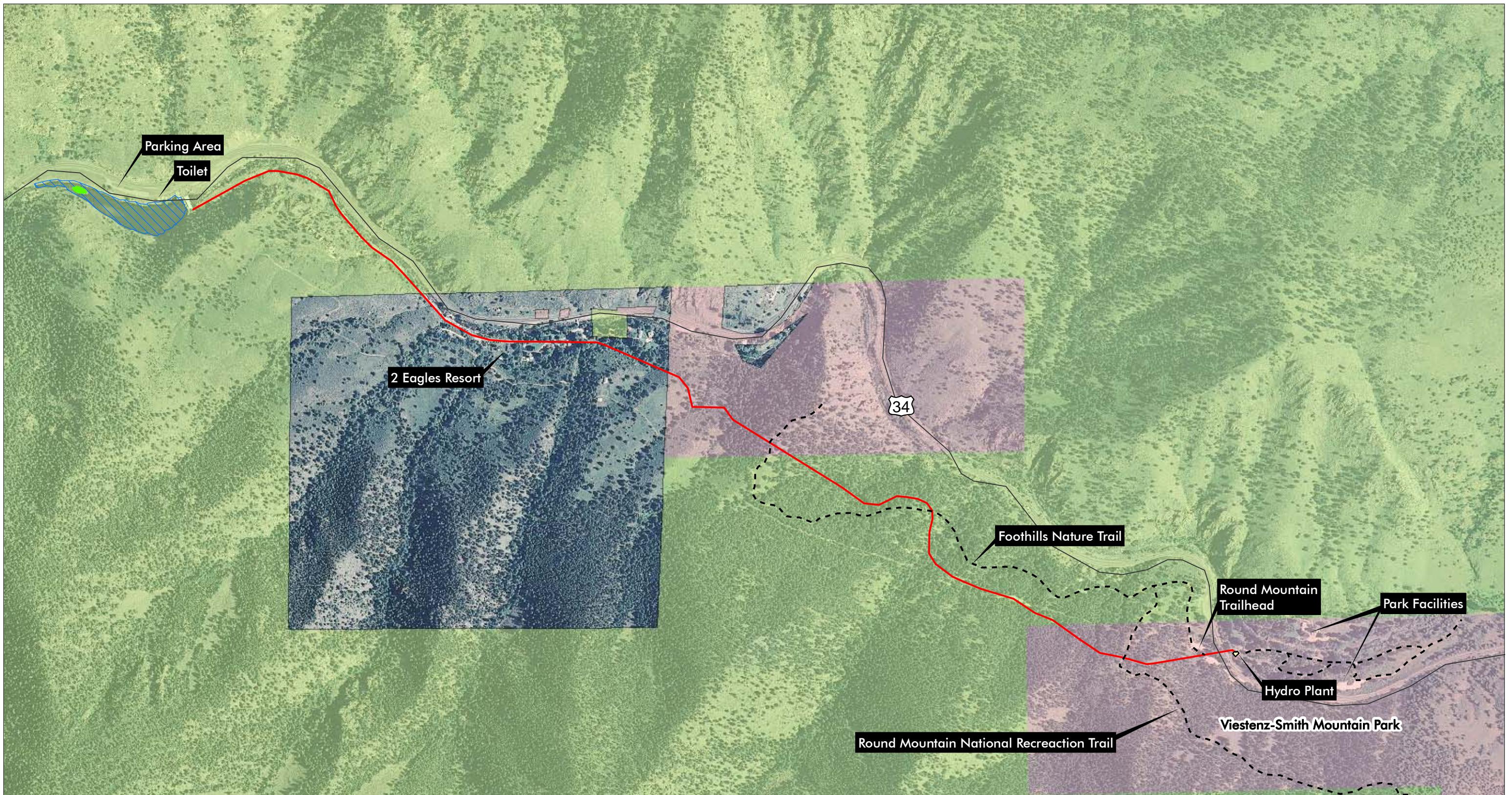
- Idylwilde Pipeline
- Trestles
- Hydro Plant
- Reservoir

Image Source: USDA NAIP, 2009
Data Source: City of Loveland

Figure 2
Project Area

Prepared for: Water Consult
File: 4872 figure 2.mxd (WH)
December 2010





Idylwilde Hydroelectric Project

- Trails
- U.S. Forest Service
- City of Loveland
- Private
- Idylwilde Pipeline
- Hydro Plant
- Island
- Reservoir

Image Source: USDA NAIP, 2009
Data Source: COMAP

Figure 3
Recreation and Land Use

Prepared for: Water Consult
File: 4872 - fig 3 rec and land use.mxd (WH)
January 2011