

CARVER FALLS HYDROELECTRIC PROJECT (P-11475)

The Carver Falls Project is located in the Towns of Fair Haven and West Haven, in Rutland County, Vermont and in the Town of Hampton, in Washington County, New York. The dam is located at river mile 3.8 on the Poultney River. The river forms a portion of the state border between Vermont and New York, and drains into the southern end of Lake Champlain. The Nature Conservancy's Lower Poultney River Natural Area is located approximately 1.5 -2 miles downstream.

Carver Falls is the highest major falls in Vermont, and contains two falls at the head of a limestone gorge. The falls have been altered by hydropower development since 1894. For 100 years before that date, they were harnessed to drive mill operations. The river above the falls lies in a ravine 100 feet deep. Below the falls, the ravine is 200 feet deep. A cave in a limestone cliff above the ravine is located about one mile below the falls.



The Lower Poultney River is one of four Outstanding Resource Waters (ORW) in Vermont. Based on this designation, the Vermont Agency of Natural Resources (VANR) developed a management plan for the Lower Poultney River that established the following goal: "For that portion of the Lower Poultney River within Vermont borders, the State will seek to manage certain activities affecting the water quality, flows, course, current, and cross-section of the Lower Poultney River to preserve and enhance the exceptional natural, cultural, scenic, and recreational values of the river and river corridor."

The Project was first developed in 1894, and has changed considerably over the years. A new dam section was added following the 1927 flood, and additional repairs and expansion followed a subsequent flood in 1940. The project was acquired by the Central Vermont Public Service Corporation in 1929. It received an original FERC license in 2009, and an amended license in 2011.



The Project dam is located at the top of the 80-foot drop of Carver Falls, with one abutment on the Vermont shore of the river and the other abutment on the New York side of the river. The powerhouse, several hundred feet downstream of the falls, is on the New York side of the river. The concrete and stone masonry dam impounds a 10-acre reservoir that extends 1,770 feet upstream with an elevation of 233.3 feet above mean sea level (msl), and a useable storage capacity of 800,000 cubic feet. The dam is 514 feet long, with two spillway sections. The northern spillway is 110 feet long and

topped with 6-foot flashboards. The southern spillway is 150 feet long and topped with 1.5-foot flashboards. The steel penstock is 220 feet long and 7 feet in diameter. It bifurcates into two 132-foot long 3 to 4-foot diameter penstocks. Two steel surge tanks are located approximately 20 feet below the point of bifurcation, one for each penstock. A butterfly valve is located in the 4-foot penstock below the surge tank. Both surge tanks are 44 feet high and have respective diameters of 72 inches and 48 inches.

The powerhouse contains two turbine generating units, one with a capacity of 1,451 kW and the other with a capacity of 808 kW, as well as appurtenant facilities. Both state water quality certifications were amended in 2010 and the License was amended in 2011 for replacement of the former Unit No. 1 (1,100 kW) with the new 1,451 kW unit. Unit replacement was completed in 2011. Project power is transmitted through a 275-foot-long, 2.4-kilovolt transmission line connected to the regional grid.



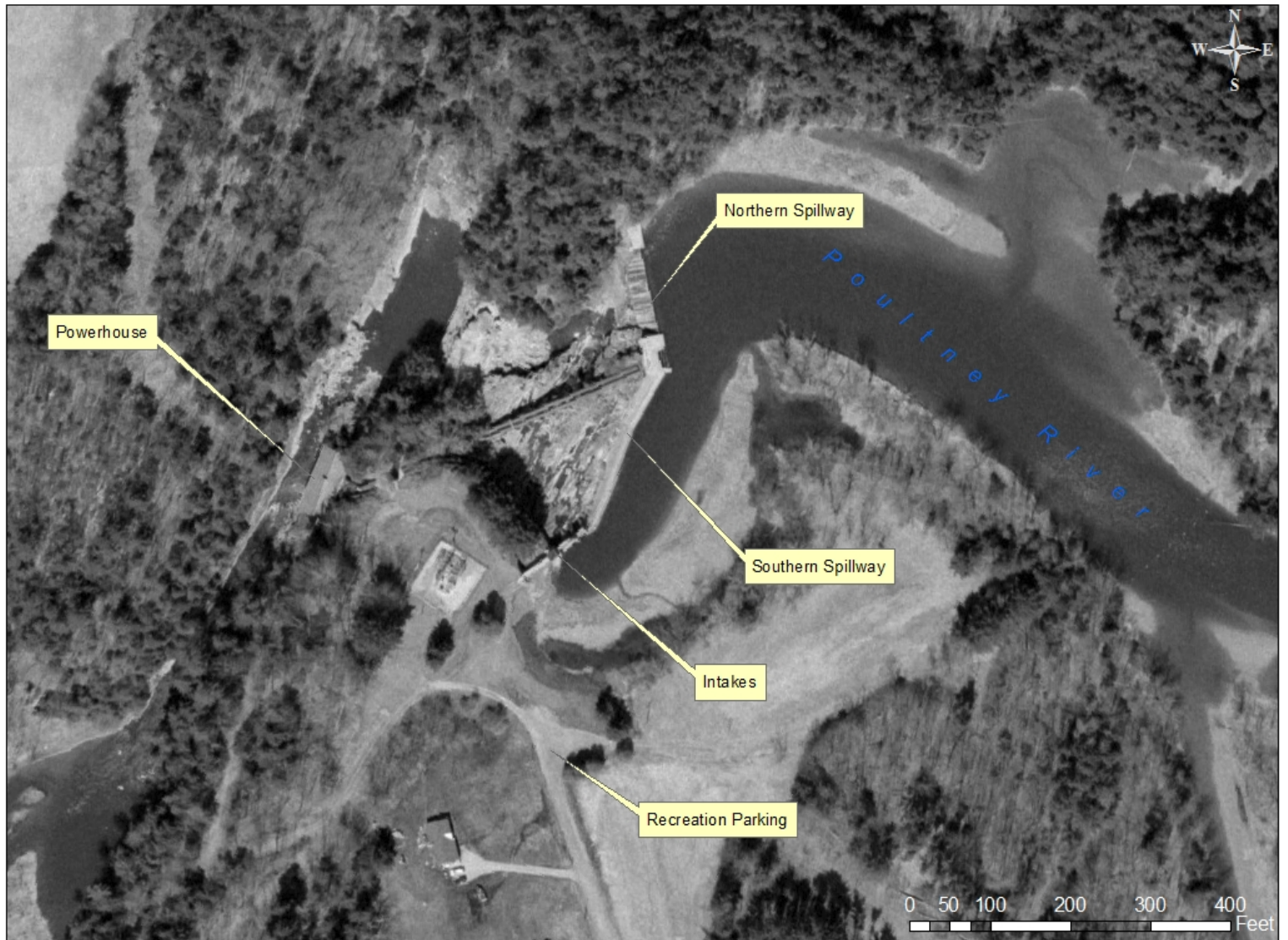
The bypass reach is 700 feet long, and includes the bedrock gorge occupied by the falls and the plunge pool at its base. It also includes immediately adjoining areas on the left bank of the river that are presently occupied by the electrical substation and other Project facilities. The Project operates in a run-of-river mode.

The Project License was based on a Settlement Agreement (SA) with the New York State Department of Environmental Conservation (NYSDEC) and New York Rivers. Other participants in the negotiations, but not signatories to the SA included Vermont Natural Resources Council (NRC), the Poultney River Committee, the National Wildlife Federation-Vermont Chapter, and Vermont Agency of Natural Resources (VANR). The Settlement was the product of negotiations begun after appeals were filed by the VANR and the NRC on the water quality certification issued by the New York DEC under the Clean Water Act in April 1995.

The Settlement Agreement included five key components:

1. Walleye Spawning: Central Vermont would provide a continuous flow to the bypassed reach of 50 cfs, or inflow if less, from April 1 through May 15 of each year to protect walleye spawning in the bypassed reach.
2. Penstock Removal: To improve site aesthetics, Central Vermont would remove the site's two abandoned, above-ground penstocks and concrete cradles. The stone cradles would remain.
3. Public Access: Central Vermont would provide improved parking and viewing access opportunities for the general public at the falls.
4. Aesthetic Releases: Central Vermont would release a flow over the southern spillway of 2.5 inches, or inflow if less, for aesthetic purposes on Memorial Day, July Fourth, Labor Day, Columbus Day, and every Sunday during the months of July and August. These flows would be released during daylight hours commencing at 9:00 a.m.
5. Carver Falls Advisory Council: The Settlement would establish a Carver Falls Advisory Council, chaired by the New York DEC, to represent various interests in the project.

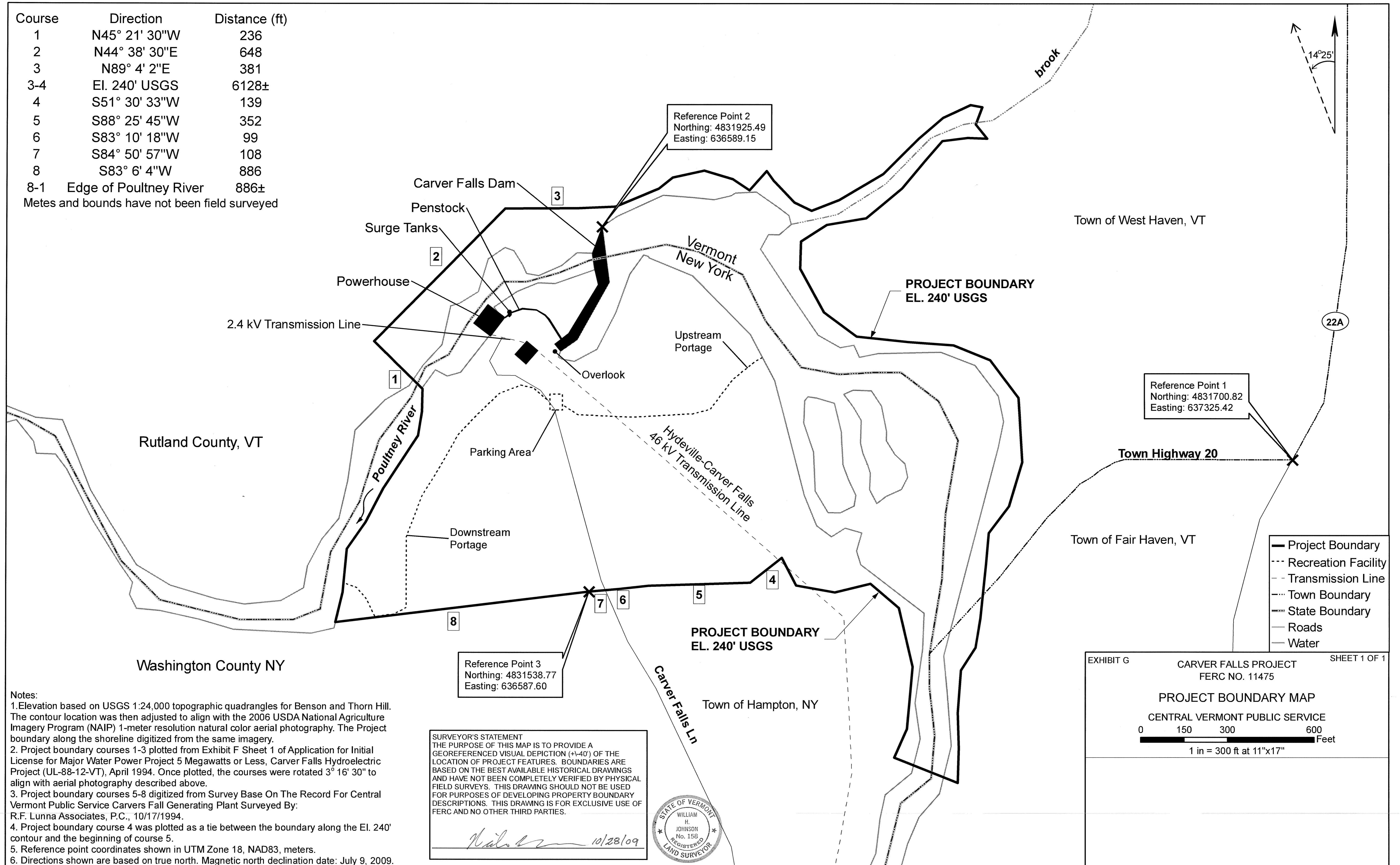
Carver Falls Project Overview.



Black and white digital orthophotography obtained from Vermont Mapping Program.

Course	Direction	Distance (ft)
1	N45° 21' 30"W	236
2	N44° 38' 30"E	648
3	N89° 4' 2"E	381
3-4	El. 240' USGS	6128±
4	S51° 30' 33"W	139
5	S88° 25' 45"W	352
6	S83° 10' 18"W	99
7	S84° 50' 57"W	108
8	S83° 6' 4"W	886
8-1	Edge of Poultney River	886±

Metes and bounds have not been field surveyed



Notes:
1. Elevation based on USGS 1:24,000 topographic quadrangles for Benson and Thorn Hill. The contour location was then adjusted to align with the 2006 USDA National Agriculture Imagery Program (NAIP) 1-meter resolution natural color aerial photography. The Project boundary along the shoreline digitized from the same imagery.
2. Project boundary courses 1-3 plotted from Exhibit F Sheet 1 of Application for Initial License for Major Water Power Project 5 Megawatts or Less, Carver Falls Hydroelectric Project (UL-88-12-VT), April 1994. Once plotted, the courses were rotated 3° 16' 30" to align with aerial photography described above.
3. Project boundary courses 5-8 digitized from Survey Base On The Record For Central Vermont Public Service Carvers Fall Generating Plant Surveyed By: R.F. Lunna Associates, P.C., 10/17/1994.
4. Project boundary course 4 was plotted as a tie between the boundary along the El. 240' contour and the beginning of course 5.
5. Reference point coordinates shown in UTM Zone 18, NAD83, meters.
6. Directions shown are based on true north. Magnetic north declination date: July 9, 2009.

SURVEYOR'S STATEMENT
THE PURPOSE OF THIS MAP IS TO PROVIDE A GEOREFERENCED VISUAL DEPICTION (+/-40') OF THE LOCATION OF PROJECT FEATURES. BOUNDARIES ARE BASED ON THE BEST AVAILABLE HISTORICAL DRAWINGS AND HAVE NOT BEEN COMPLETELY VERIFIED BY PHYSICAL FIELD SURVEYS. THIS DRAWING SHOULD NOT BE USED FOR PURPOSES OF DEVELOPING PROPERTY BOUNDARY DESCRIPTIONS. THIS DRAWING IS FOR EXCLUSIVE USE OF FERC AND NO OTHER THIRD PARTIES.

William H. Johnson 10/28/09

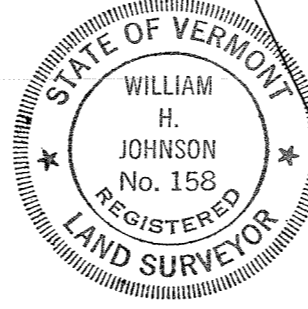


EXHIBIT G CARVER FALLS PROJECT SHEET 1 OF 1
FERC NO. 11475
PROJECT BOUNDARY MAP
CENTRAL VERMONT PUBLIC SERVICE
0 150 300 600 Feet
1 in = 300 ft at 11"x17"