

Cavendish Hydroelectric Project (FERC No. 2489)
Town of Cavendish, Windsor County, Vermont
2009 Annual CRMP Report

November 3, 2009

This letter report is provided on behalf of the Central Vermont Public Service Corporation (CVPS) in fulfillment of its obligations regarding the Cavendish Project Cultural Resource Management Plan (CRMP).¹ Article 412² requires implementation of the provisions of the Programmatic Agreement. Under federal law, the FERC is required to consider the effects of hydroelectric projects that it licenses on historic properties. Pursuant to Section 106 of the National Historic Preservation Act and its regulations under 36 CFR 800, these parties are acting in accordance with Stipulation II.D. of the Programmatic Agreement, executed in September 1994, for the Cavendish Project.³ The Programmatic Agreement requires the filing of an annual report on the activities conducted under the CRMP on the anniversary date of issuance of the license.

2009 Annual Report

The CRMP outlines procedures that are intended to continuously protect and maintain historic properties during the term of CVPS's FERC license to operate its Cavendish Project.

Archaeological Historic Properties

The limits of the Cavendish Project (FERC No. 2489), as defined in the CRMP, extend roughly 2.7 miles (4.3 kilometers) upstream along the Black River from the dam. The Project shoreline is monitored each year in accordance with Section 3.2.3 of the CRMP with specific attention given to locations surrounding identified and potential archaeological sites. Areas of bank destabilization and riparian zone loss are to be identified, and appropriate remedial actions, if necessary, are designed in consultation with other concerned organizations.

Field Observations

Charity Baker, an archaeologist qualified under 36 CFR 61, conducted the annual monitoring of the Project shoreline with Hugh Henry on September 10, 2009. The inspection was conducted via canoe between the Project's upper limit and the dam. Existing conditions were documented using a Canon PowerShot A85 digital camera and manual notes.

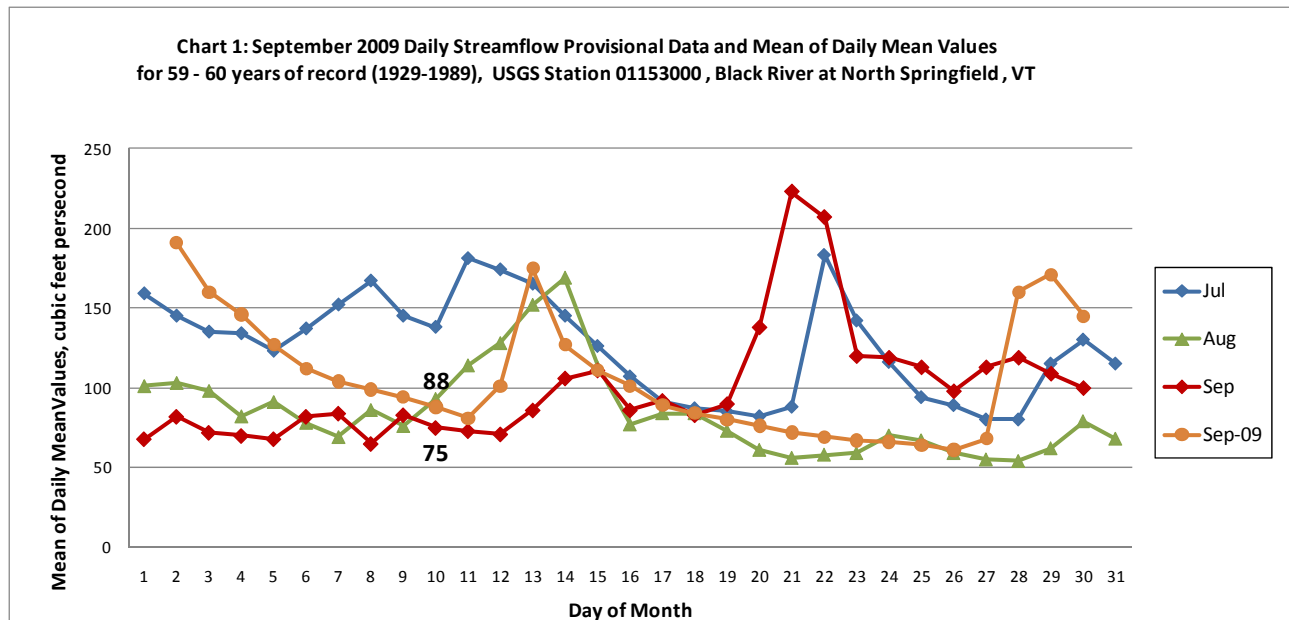
Streamflow data from the New England District Corps of Engineers Reservoir Regulation Team at the North Springfield Dam downstream from the Project indicates that the discharge on that day was 88 cubic feet per second (mean of daily mean values). Daily streamflow statistics from the U.S. Geological Survey Black River gaging station at North

¹ The Cavendish Project CRMP was accepted by the FERC on June 21, 1999.

² Order Issuing Subsequent License issued November 4, 1994 (69 FERC ¶ 62,110).

³ Executed among the Commission, the Advisory Council on Historic Preservation and the Vermont State Historic Preservation Officer.

Springfield, VT (01153000) indicate that this volume at the North Springfield gaging station is slightly above the 75 cubic feet per second mean for September 10 (Chart 1).



The shorelines along the upper end of the Project continue to support healthy vegetation, ranging from emergent wetland plant species to mature forest growth (Photograph 1). No instances of erosion were observed along impoundment shorelines.



Photograph 1: Black River shoreline below Depot Street bridge, looking east, September 10, 2009.

The nineteenth-century Fitton mill archaeological complex, designated as VT-WN-182 in the Vermont Archeological Inventory, is in an excellent state of preservation and protected by shrubs and mature mixed hardwoods that form a healthy riparian zone (Figure 1 and Photograph 2).



Photograph 2: Healthy riparian growth surrounding foundations of Fitton mill archaeological complex, VT-WN-182, along shoreline, looking southeast, September 10, 2009.

Below the archaeological complex and the dam, hemlock trees populate the banks along the rocky gorge to the powerhouse and the portage trail downstream. The trail is in excellent condition, with no evidence of erosion. In summary, the Black River shorelines within the Cavendish Project support a healthy riparian zone, and the archaeological Fitton Mill complex is well protected and preserved. No known or potential archaeological sites are currently threatened within the Project.

Historic Standing Buildings, Structures and Components

A recent alteration to the Cavendish generating station building was noted during the 2009 inspection (Photograph 3).

In consultation and concurrence with the State Historic Preservation office, the historic slate shingle roof of the Cavendish generating station building was replaced by standing seam sheet metal. As documented in the attached request letter, dated April 27, 2009 and approved on June 13, 2009, with an accompanying Memorandum of Agreement and Section 106 report, the adverse effect on the historic fabric of the building is justified by the substantial benefits that will result.



Photograph 3: New standing seam metal roof on Cavendish generating station, September 10, 2009.

Public Outreach and Education

In accordance with Section 3.2.4. of the CRMP, CVPS collaborated with Black River Action Team (BRAT), a volunteer organization. To celebrate its tenth year, BRAT organized a public event at the Cavendish Project with CVPS on June 20, 2009. Approximately 20 participants joined a free walking tour of the Fitton Mill complex, led by CVPS consulting archaeologist Charity Baker, and Kristen Underwood, senior hydrogeologist with South Mountain Research and Consulting. Historic documents, maps and photographs were presented and compared with the existing conditions at the



Photograph 4: Walking tour participants inspect boarding house ruins within the Fitton Mill complex at VT-WN-182, looking northeast, June 20, 2009.

site, as well as historic photographs and maps depicting the effects of the 1927 flood event, including an avulsion of the Black River to the north of the Cavendish Project. The day concluded with a tour inside the active Mack Molding plant located just upstream of the Cavendish Project impoundment. The building complex formerly housed the nineteenth-century Gay Brothers woolen mill company. CVPS's partners included Black River Action Team (BRAT) WaterWorx educational program, South Mountain Research and Consulting, Mack Molding, and the Cavendish Historical Society.

Proposed Actions for 2010

Given the healthy and stability of the Project shorelines, no mitigation efforts need be considered at this time. The Project will be monitored in 2010 for any changes, particularly those that might affect archaeological historic properties including known site VT-WN-182. CVPS will also work with BRAT to plan for and host a public event within the Project during 2010.

Sincerely,

A handwritten signature in black ink that reads "Charity M. Baker". The signature is written in a cursive, flowing style.

Charity Baker
Project Archaeologist

CC

Abenaki Nation

Kimberly D. Bose, FERC

Beth Eliason, CVPS

John Greenan, CVPS

Hugh Henry, Architectural Historian

Nancy Boone, SHPO, Vermont Division for Historic Preservation

Mike Scarzello, CVPS

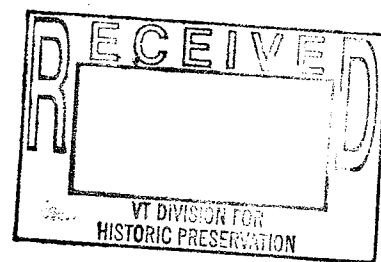
Kelly Stettner, Black River Action Team



Figure 1: Cavendish Hydroelectric Project (FERC No. 2489 VT) Town of Cavendish, Windsor County, Vermont



Central Vermont Public Service Corporation
LETTER OF CONCURRENCE



April 27, 2009

Nancy Boone, Acting State Historic Preservation Officer
Vermont Division for Historic Preservation
National Life, Drawer 20
Montpelier, VT 05620-0501

Re: Cavendish Hydroelectric Station -Replacement of Powerhouse Roof Sheathing,
Cavendish, Vt.; Federal Energy Regulatory Commission License No. 2489.

Dear Ms. Boone:

This letter treats the responsibility of the Federal Energy Regulatory Commission and its licensee, Central Vermont Public Service Corp. (CVPS), Rutland, Vermont, owner of the Cavendish Hydroelectric Station, to comply with Section 106 of the National Historic Preservation Act and 36 CFR Part 800, the Federal regulations that implement Section 106.

The Cavendish Hydroelectric Station was developed originally in 1907-08 by the Claremont Power Co. of Claremont, New Hampshire. CVPS succeeded to the ownership of the Cavendish station upon its corporate formation in 1929. The station consists of a small complex including primarily a concrete dam on the Black River, a 1090-foot steel penstock, a hip-roofed brick powerhouse containing three 400-520 kilowatt generating units, a substation, and related equipment.

In 1992, M. H. Bowers of Louis Berger and Associates prepared a National Register of Historic Places Registration Form for the Cavendish Hydroelectric Station. The Bowers document concludes that the Cavendish station meets the criteria of eligibility for listing in the National Register, and that the powerhouse contributes to its significance. The powerhouse retains historic integrity although the century-old slate shingles on the roof have deteriorated to the extent of requiring nearly annual repair to counter persistent leakage.

Central Vermont Public Service Corp. now proposes to remove the slate shingles and metal ridge caps from the powerhouse roof. Replacing those historic materials, CVPS will install standing- seam sheet metal on the hip roof and a gabled ventilating dormer on the southeast slope. Also, CVPS will remove but not replace the exterior brick stove chimney that rises from the eaves of the east façade.

An architectural historian qualified under 36 CFR Part 61, Hugh H. Henry, Chester, Vt., has conducted documentary research on the powerhouse, reviewed the proposed project, and prepared the Section 106 report accompanying this letter. Mr. Henry determined that the project

will have an "adverse effect" on the historic character of the powerhouse. The adverse effect involves the removal of original fabric, the slate shingles, from the roof, and their replacement by different material, standing- seam sheet metal. The latter will introduce noticeable change in the appearance of the roof.

A Memorandum of Agreement regarding the replacement of the slate shingles has already been prepared. An original of that document accompanies this letter for approval and signature by the State Historic Preservation Officer.

The adverse effect on the historic roof fabric is justified by the substantial benefits that will result from the replacement of the slate shingles. Most importantly, the standing-seam sheet metal will eliminate the repeated water leaks that now threaten to cause damage or fire to the historic generating equipment inside the powerhouse. The metal will provide highly durable sheathing with little maintenance over the long term, and thereby contribute to the operational and economic viability of the generating station.

Central Vermont Public Service Corp. proposes to mitigate the adverse effect by documenting the powerhouse roof and its slate shingles with 35mm black-and-white photographs and the Section 106 report. That report has already been completed and accompanies this letter, together with color print photographs for the purpose of your review of this proposed action. CVPS will submit the documentary black-and-white photographs upon their receipt from the photographic laboratory.

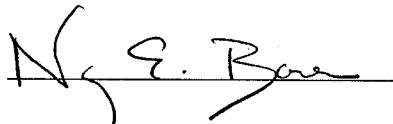
In conclusion, Central Vermont Public Service Corp. requests the concurrence of the State Historic Preservation Officer with the determination presented above. The signature of the Officer on the line below will constitute concurrence in this process.

Sincerely,



Central Vermont Public Service Corp.

State Historic Preservation Officer:



Date: 6/13/09

Enclosures

MEMORANDUM OF AGREEMENT

AMONG THE FEDERAL ENERGY REGULATORY COMMISSION, THE VERMONT STATE HISTORIC PRESERVATION OFFICER, AND CENTRAL VERMONT PUBLIC SERVICE CORPORATION;

WHEREAS, the Federal Energy Regulatory Commission (FERC) has determined that the proposed project to replace the slate shingles on the powerhouse roof at the Cavendish Hydroelectric Station in Cavendish, Vermont, FERC License No. 2489, will have an effect on a property eligible for the National Register of Historic Places, and has consulted with the Vermont State Historic Preservation Officer (SHPO) pursuant to 36 CFR Part 800, regulations implementing Section 106 of the National Historic Preservation Act (16 U.S.C. 470ff.);

NOW, THEREFORE, the FERC and the Vermont SHPO agree that the project shall be implemented in accordance with the following stipulations in order to take into account the effect of the project on historic properties.

Stipulations

The FERC will ensure that the following measures will be carried out:

- 1 Prior to any removal or other alteration, the property owner, Central Vermont Public Service Corporation, will document the powerhouse roof and its existing slate shingles with 35mm black- and-white photographs. A summary report (the Section 106 Report) that describes the property, its history, the proposed project, and the current condition of the slate shingles on the powerhouse roof will accompany the photographs. This documentation must meet the Secretary of the Interior's Standards and Guidelines for Documentation and shall be submitted to the Vermont SHPO. The Vermont SHPO must review and approve this documentation prior to the proposed replacement of the slate shingles with standing-seam sheet metal.
- 2 The 35mm black-and-white photographs of the powerhouse roof and its slate shingles together with the Section 106 Report will constitute sufficient mitigation for this action.
- 3 Should any signatory party object within 30 days to any actions proposed pursuant to this agreement, the FERC shall consult with the objecting party to resolve the objection. If the FERC determines that the objection cannot be resolved, the FERC shall request the comments of the Advisory Council on Historic Preservation pursuant to 36 CFR Section 800.6(b). Any Council comment provided in response to such a request will be taken into account by the FERC in accordance with 36 CFR Section 800.6(c)(2) with reference only to the subject of the dispute; the FERC's responsibility to carry out all actions under this agreement that are not the subjects of the dispute will remain unchanged.

Execution of this Memorandum of Agreement by the FERC and the Vermont SHPO and implementation of its terms shall constitute evidence that the FERC has taken into account the proposed replacement of the slate shingles on the powerhouse roof at the Cavendish Hydroelectric station and its effects on historic properties.

FEDERAL ENERGY REGULATORY COMMISSION

By: N/A

Date: _____

VERMONT STATE HISTORIC PRESERVATION OFFICER

By: N. G. Bae

Date: 6/13/09

CONCUR

By: Bauer & Elverson
Central Vermont Public Service Corporation

Date: 6/23/09

SECTION 106 REPORT

CAVENDISH HYDROELECTRIC STATION (FERC NO. 2489) POWERHOUSE ROOF SHEATHING REPLACEMENT

CENTRAL VERMONT PUBLIC SERVICE CORP.

CAVENDISH, VERMONT

APRIL 2009

Abstract

This Section 106 report treats the proposed replacement of the slate shingles on the roof of the historic powerhouse located at the Cavendish Hydroelectric Station complex on the Black River, Cavendish, Vermont. Constructed during 1907-08, the powerhouse possesses a hip roof sheathed with original slate shingles. The combined effects of aging and weathering of the slate shingles have caused increasing breakage and water leakage during recent years with the accompanying risk of damage or fire to the electrical generating equipment inside the building. The Cavendish Hydroelectric Station complex has been evaluated as eligible for the National Register of Historic Places. The owner of the Cavendish Hydroelectric Station, Central Vermont Public Service Corp. (CVPS), proposes to remove the slate shingles from the powerhouse roof and install standing-seam metal sheathing. The project will have an adverse effect on the historic fabric of the powerhouse but will restore the integrity of the roof sheathing and will contribute to the operational and economic viability of the generating station. The content of this report and the forthcoming black-and-white photographs will serve as mitigation for the replacement of the roof sheathing.

Table of Contents

Introduction.....	3
Project Description	3
Architectural Description.....	3
Statement of Significance	4
Existing Documentation	6
Evaluation of Eligibility for the National Register	6
Evaluation of Effect	6
Mitigation.....	7
Bibliography	7
Qualifications of Consultant	8
Appendix 1. Color Photographs	9

Introduction

This Section 106 report has been prepared to satisfy the requirements of 36 CFR Part 500 relating to a hydroelectric generating station licensed by the Federal Energy Regulatory Commission (FERC) and belonging to the Central Vermont Public Service Corp. (CVPS), Rutland, Vt. The specific subject of this report is the powerhouse constructed during 1907-08 at the Cavendish Hydroelectric Station (FERC No. 2489) situated on the Black River in Cavendish, Vermont.

The field work for this report was accomplished on 15 March 2009 at the Cavendish Hydroelectric Station in Cavendish, Vermont. The architectural characteristics of the powerhouse were recorded by hand-written notes. The color photographs accompanying this report were taken the same date, as were forthcoming 35mm black-and-white photographs.

Hugh H. Henry, a consulting architectural historian, performed the field work, including the photography, and subsequently used that information to prepare this report. Elizabeth Eliason, Environmental Engineer, CVPS, Rutland, Vt. provided information about the proposed project.

Project Description

The proposed action will affect only the hip roof of the powerhouse, and, more specifically, only its sheathing. After a century of exposure, the original slate shingles have weathered and deteriorated to the extent of experiencing frequent breakage and persistent water leakage. In response, CVPS proposes to remove the slate shingles from the entire roof (including the minor southeast gabled dormer) along with the rusted metal caps on the central and lateral ridges. Also, CVPS will remove but not replace the exterior brick stove chimney that rises from the eaves of the east façade.

Replacing the historic materials, CVPS proposes to install standing-seam sheet metal with vertical joints and metal ridge caps. The new material will have an enameled finish with a neutral color.

Architectural Description

The powerhouse stands on the steep west bank of the rocky gorge, oriented parallel to the river. The building incorporates the hip-roofed main block of rectangular plan with dimensions of 31 by 62 feet plus a small flat-roofed ell of 14 by 15 feet added to the north end of the main (west) facade. The brick building rises one story in height on the three landward facades while on the east facade of the main block the exposed concrete substructure descends to river level. The load-bearing walls of the main block are laid in seven-course American bond; wide brick piers define the corners and broad individual bays.

The steel-framed hip roof rises to a central north-south ridge with the minor ridges descending

from each end. Its slopes are sheathed with rectangular slate shingles; the original mixed colors are intermingled randomly with other, mostly darker colors as the result of repeated repairs through the years with then-available slate. The ridges are capped with rolled metal.

The roof proper with the slate shingles terminates at the wall planes. Beyond those lines, metal brackets support deeply overhanging, slightly flared eaves sheathed with sheet copper. An exterior tall brick stove chimney ascends from the east facade through the projecting eaves.

Added at an unknown time to the southeast corner of the roof, a gabled dormer emerges from the lower east half of the south slope while extending the lower east slope. This dormer projects to the outer perimeter of the overhanging eaves; its slate shingles and metal ridge cap match those on the main roof. The gable end of the dormer lacks enclosure, reflecting its purpose of ventilating the interior of the building.

The three-bay main (west) facade presents a central entrance sheltered by an added one-bay, shallow-gabled canopy supported by steel poles. The original double-leaf, four-panel doors are beadboarded diagonally to form an overall chevron pattern. Above the doors, twin four-light, hinged wood sash occupy the segmental-headed transom. A narrow molded surround enframes the ensemble below a brick segmental arch comprised of four header courses.

Flanking the entrance, the two window bays contain large four-over-four wood sash surmounted by four-light, hinged transom sash; a narrow molded surround enframes the ensemble. The brick sills consist of single projecting header courses while the openings are headed by segmental arches like that above the entrance.

The two-bay south facade includes a left entrance with a single-leaf, two-panel door below a two-light transom in an opening headed by a three-course segmental arch. The right-bay window treatment matches that on the main facade. Overlooking the gorge, the east facade is illuminated by four bays of large windows like those elsewhere on the building. At the river level, four tailrace discharge openings in the concrete substructure have segmental-arched heads echoing the window bays.

Added to the powerhouse at an unknown time, the small one-by-one-bay, brick northwest ell lacks an entrance and has only small fixed window sash. A partial chain-link fence stands atop the northwest corner of its neoprene-sheathed flat roof to thwart access from the contiguous rising ground.

Statement of Significance

A National Register of Historic Places Registration Form prepared by M. H. Bowers of Louis Berger and Associates in 1992 (see below) states that the Cavendish Hydroelectric Station "is significant under Criterion C as possessing distinctive features of hydroelectric engineering and architecture during the formative turn-of--the-[twentieth] century decades of the industry's development in the Green Mountain State." The Cavendish station was constructed during 1907-08; according to the Bowers document, "that component which is most clearly representative of its period is the powerhouse, with its solid masonry walls buttressed with pilasters and

segmental-arched window openings with typical wooden sash (both derived from earlier industrial precedent), and the sweeping, slate-clad hipped roof..."

The Cavendish Hydroelectric Station originated as an early venture in the interstate development of hydroelectric generating capacity. Located about 17 miles east of Cavendish, the city of Claremont, New Hampshire possessed extensive textile and shoe-making industries based on the available water power of the Sugar River. The increasing demand for electricity caused the formation in 1907 of the Claremont Power Co., the successor to local street railway and electric light firms.

With the Sugar River cascades fully developed, the new Claremont company needed to find another water power in the region. The deep rocky gorge of the Black River in Cavendish offered that opportunity. A woolen mill owned by James Fitton existed at the head of the gorge from 1867 until its destruction by fire in 1875. The Claremont Power Co. proceeded in 1907 to purchase the Fitton land and flowage rights along with a remnant dam. The firm retained W. A. Brackenridge, a consulting hydroelectric engineer from Niagara Falls, New York, to design a new generating station at the gorge.

Actual construction occurred during 1907-08. The project involved placing a new concrete dam just downstream from the Fitton site, laying a steel penstock 1067 feet in length along the west side of the gorge, and building a brick powerhouse at the point where the gorge bends abruptly eastward. Period photographs show that the slate-shingled hip roof of the newly completed powerhouse lacked the gabled ventilating dormer that would appear on the south slope in later years.

The 1.4-megawatt output of the new Cavendish station enabled the Claremont Power Co. to sell electricity to small power companies in Cavendish and nearby Chester. Then in 1913, the Claremont firm itself was acquired by the Colonial Light and Power Co., controlled by a Virginia-based holding company and a forerunner of the monopolistic interstate consolidation that overtook the electrical utility industry during the 1920s. In 1919, the Colonial firm was reorganized as the Vermont Hydro-Electric Co.

Six years later (1925), the latter entity was merged into the newly formed New England Public Service Co. (NEPSCO), itself a subsidiary of Middle West Utilities, the gigantic Chicago holding company controlled by Samuel Insull.

A c. 1920 plan of the powerhouse records that the penstock delivered water to three turbines connected to 500 kilowatt generators. The small northwest ell existed by that time; it contained three pieces of smaller equipment (probably transformers) also labeled "500 KW. "

The last change in ownership of the Cavendish Hydroelectric Station came in 1929. A major corporate merger within the Insull utility empire brought together eight Vermont companies, including Vermont Hydro-Electric, to form the Central Vermont Public Service Corp. as an enlarged subsidiary of NEPSCO. The onset of the Great Depression resulted in the bankruptcy of Middle West Utilities in 1932, and subsequent Federal regulatory action enabled CVPS to gain independence in 1943. Acquiring title to the Cavendish station in October 1929, CVPS has continued to operate it to the present (2009).

CVPS has made numerous changes in equipment at various times, reflecting technological advances in switchgear and other components; the latter include the inflatable rubber crest added to the dam in 1996. The most significant alteration came in 1979, when the entire steel penstock was replaced in kind but the 100-foot steel surge tower at its lower end was removed in favor of a massive concrete "bunker block" next to the powerhouse.

These changes notwithstanding, the basic components of the engineering design and the manner of operation created by W. A. Brackenridge have remained in service to the present. The Cavendish station, therefore, represents an evolving expression of early twentieth-century hydroelectric development in Vermont.

Existing Documentation

The Cavendish Hydroelectric Station was the subject of a previous effort to document historic resources. In 1992, M. H. Bowers of Louis Berger and Associates, Inc. prepared a National Register of Historic Places Registration Form for Cavendish Hydroelectric Station. That documentation related to the renewal of the Federal Energy Regulatory Commission license (No. 2489) for the generating station rather than an actual nomination to the National Register.

In its architectural description of the Cavendish station, the Bowers document provides only a very brief description of the powerhouse "with a slate-clad hipped roof." The document states that the building "possesses integrity of design, workmanship and materials, having experienced only limited, and generally superficial, alteration over time." Accordingly, the powerhouse contributes to the significance of the Cavendish station.

Evaluation of Eligibility for the National Register

The current Cultural Resources Management Plan (CRMP) for the Cavendish Hydroelectric Project was approved by the Federal Energy Regulatory Commission in 1999. The plan adopts the evaluation of the Bowers 1992 document cited above regarding the eligibility of the Cavendish Project for listing in the National Register of Historic Places. The CRMP mentions specifically the powerhouse among the components that "contribute to the significance of the facility as a historic property."

Evaluation of Effect

The proposed action of installing standing-seam metal to replace the slate shingles on the powerhouse roof would meet the criteria of adverse effect "when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association."

The condition of the slate shingles on the powerhouse roof has reached the stage of requiring nearly annual repairs to overcome repeated breakage and water leakage. Furthermore, the

incidence of leakage threatens to cause damage or fire to the vulnerable and historic electrical generating equipment inside the powerhouse, the most critical components to the continued operation of the hydroelectric station.

The replacement of the slate shingles with standing-seam sheet metal will result in changes in the historic material and appearance of the roof sheathing while also yielding substantial benefits. In design, the slate shingles display dominantly horizontal course lines softened by staggered short vertical joint lines, a somewhat rough texture, and variegated colors reflecting numerous repairs made through the years with available material. The contrasting standing-seam metal will have vertical raised joints flanking smooth surfaces finished with uniform color. While the shingles complement visually the length of the roof, the metal joints will shift emphasis to its comparatively shallow height.

In functional benefits, the standing-seam metal will introduce highly durable material with an extended service life, requiring little maintenance while virtually eliminating leakage. The new roof sheathing will provide greatly increased protection for the generating equipment. The stove chimney has not been used in decades, and its removal will eliminate another opening for moisture to penetrate the interior of the powerhouse.

On balance, the installation of standing-seam metal will diminish the integrity of the original fabric and appearance of the powerhouse roof but will contribute to the operational and economic viability of the hydroelectric station into the foreseeable future. This effect conforms to the basic concept of "continuity of use" that, as stated in the CRMP, guides the management and operation of the Cavendish Hydroelectric Project.

Mitigation

The color photographs accompanying this report, as well as forthcoming black-and-white photographs, record the powerhouse in its present (March 2009) appearance with the roof sheathing of slate shingles and the . These photographs will serve to mitigate the change in the appearance of the building caused by the installation of standing-seam sheet metal on the roof.

Bibliography

Ballou, Chris. "Cavendish Past and Present -The Hydro Station in Cavendish Gorge." *The Black River Tribune*, October 17, 1990.

Cultural Resource Management Plan for Archaeological and Historic Resources within the Cavendish Hydroelectric Project, Cavendish, Windsor County, Vermont. Prepared by Douglas Frink, Archaeology Consulting Team, Inc., Essex, Vermont. Revised April 1999.

National Register of Historic Places Registration Form: *Cavendish Hydroelectric Station.* Prepared by M. H. Bowers, Louis Berger and Associates, Inc., Waltham, Massachusetts. October 1992.

National Register of Historic Places Multiple Property Documentation Form: *Hydroelectric Generating Facilities in Vermont*. Prepared by Martha H. Bowers, Louis Berger and Associates, Inc., Waltham, Massachusetts. May 1992.

Qualifications of Consultant

The consultant who prepared this Section 106 report, Hugh H. Henry, meets the requirements of 36 CFR Part 61 as a qualified architectural historian. Among a broad range of activities during three decades of professional experience, Mr. Henry has prepared National Register documentation and assessments of eligibility for several hydroelectric stations in Vermont.

Appendix 1. Color Photographs

Cavendish Hydroelectric Station
Cavendish, Windsor County, Vermont
Credit: Hugh H. Henry
Date: March 2009



Photograph 1. Powerhouse -main (west) facade showing slate shingles on roof slopes; view looking east.



Photograph 2. Powerhouse -main (west) and south facades showing slate shingles on roof slopes; view looking northeast.



Photograph 3. Powerhouse -south facade showing slate shingles on roof slopes; view looking north.



Photograph 4. Powerhouse -north facade showing slate shingles on roof slopes; view looking southeast.



Photograph 5. Powerhouse -east facade above Black River; view looking southwest.

