NPS Form 10-900
(Oct. 1990)

OMB No. 10024-0018

United States Department of the Interior
National Park Service

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NATIONAL REGISTER

National Register of Historic Places Registration Form

This form is for use in nominating or requesting determinations for individual properties and districts. See instructions in *How to Complete the National Register of Historic Places Registration Form* (National Register Bulletin 16A). Complete each item by marking "x" in the appropriate box or by entering the information requested. If an item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials, and areas of significance, enter only categories and subcategories from the instructions. Place additional entries and narrative items on continuation sheets (NPS Form 10-900a). Use a typewriter, word processor, or computer, to complete all items.

1. Name of Property

historic name Roxbury Fish Hatchery

other names/site number Roxbury Fish Culture Station

2. Location

street & number Vermont Route 12A N/A not for publication

city or town Roxbury N/A vicinity

state Vermont code VT county Washington code 023 zip code 05675

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act, as amended, I hereby certify that this [X] nomination [ ] request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60. In my opinion, the property [X] meets [ ] does not meet the National Register criteria. I recommend that this property be considered significant [ ] nationally [X] statewide [X] locally. ([ ] See continuation sheet for additional comments.)

Signature of certifying official/Title — Date 2/2/94

Vermont State Historic Preservation Office
State of Federal agency and bureau

In my opinion, the property [ ] meets [ ] does not meet the National Register criteria. ([ ] See continuation sheet for additional comments.)

Signature of certifying official/Title — Date

State or Federal agency and bureau

4. National Park Service Certification

I hereby certify that the property is:

- [X] entered in the National Register. [ ] See continuation sheet.
- [ ] determined eligible for the National Register [ ] See continuation sheet.
- [ ] determined not eligible for the National Register.
- [ ] removed from the National Register.
- [ ] other, (explain:) _____

Signature of the Keeper — Date of Action

Beth L. Savage — 3/24/94

Roxbury Fish Hatchery
Name of Property

Washington, Vermont
County and State

5. Classification

Ownership of Property
(Check as many boxes as apply)

- ☐ private
- ☐ public-local
- ☒ public-State
- ☐ public-Federal

Category of Property
(Check only one box)

- ☐ building(s)
- ☒ district
- ☐ site
- ☐ structure
- ☐ object

Number of Resources within Property
(Do not include previously listed resources in the count.)

Contributing	Noncontributing	
4	3	buildings
		sites
2	4	structures
		objects
6	7	Total

Name of related multiple property listing
(Enter "N/A" if property is not part of a multiple property listing.)

Fish Culture Resources of Vermont

Number of contributing resources previously listed in the National Register

0

6. Function or Use

Historic Functions
(Enter categories from instructions)

AGRICULTURE / fishing facility

Current Functions
(Enter categories from instructions)

AGRICULTURE / fishing facility

7. Description

Architectural Classification
(Enter categories from instructions)

no style

Materials
(Enter categories from instructions)

foundation Concrete
walls Weatherboard
roof Asphalt
other

Narrative Description
(Describe the historic and current condition of the property on one or more continuation sheets.)

DESCRIPTION

The Roxbury Fish Culture Station is located two miles south of Roxbury Village, in the town of Roxbury, on a narrow, ten-acre strip of land stretching between the Central Vermont Railroad line and Vermont Route 12A. The fish hatchery, as it is commonly called, was established in 1891 and is the oldest state hatchery in Vermont. Owned by the State of Vermont and managed by the Vermont Department of Fish and Wildlife, all of the station's historic buildings are well preserved and include an 1891 hatchery building, a c. 1894 ice house, an 1897 carriage barn, a 1935 storage barn and c. 1937 stone barbecue, both built by the C.C.C. The historic buildings are arranged in a park-like setting around a linear series of five ponds, the largest of which is lined with conifer trees. The ponds and hatch house are fed by spring and surface water diverted from Flint Brook. To the south of the cluster of historic buildings, a biology lab, added to the site in 1960, and a 1980 storage barn complete the complex. While non-contributing due to age, the biology lab is significant as representing a broader approach to fish culture practice, which, beginning in the 1940s, increasingly studied the prevention and treatment of disease in fish. Because this is the state's first fish hatchery, the buildings, structures, waterways and landscape that make up the Roxbury Fish Culture Station are extremely important historical and architectural resources related to Vermont's architectural and agricultural heritage within the context, "Fish Culture in Vermont, 1850 - 1943." The fish culture station continues to operate, much as it did in 1891, and though technological advancements have made fish propagation more efficient, the historic hatchery retains its integrity of location, design, setting, materials, workmanship, feeling and association.

Understanding the resources at the Roxbury Fish Culture Station includes a brief description of artificial fish propagation. In 1891 fish culture meant procuring, incubating and hatching eggs, rearing the resultant fry, and distributing the offspring to lakes and streams. Key to the operation was an abundant supply of fresh water and access to transportation. While technological advancements have made the process more efficient, the basics are the same today as in 1891. Today, brood stock are kept in the

lower ponds of the Roxbury station (#4). (The youngest fish are kept in the upper ponds, nearest the source of water.) During spawning, eggs and milt are expressed into bowls and left approximately ten minutes to fertilize. The eggs are then rinsed with fresh water and placed in a single layer in plastic hatching trays. The trays are transferred to the hatchery building (#1), where they are placed in vertical racks and incubated with a continuous flow of fresh water to provide adequate oxygen. In the 19th and early 20th century, tall, glass hatching jars were commonplace (a modification of which is still used to hatch wall-eyed pike). Once hatched, the fry are kept in concrete rearing troughs in the hatchery building. Until the mid-20th century, troughs were made of cypress, but as fish culture became more concerned with the prevention of disease, concrete became the material of choice. When the fish reach a fingerling stage (approximately three to four inches long), they are transferred to production ponds in the yard (#4). In the spring, the offspring are stocked in area streams and lakes. Before the advent of the automobile, eggs, fish and fry were transported by rail, or, for shorter distances, by wagon. In 1930, the Department of Fish and Game purchased a fleet of trucks ending the dependency on the railroad. It is interesting that the switch from train to automobile coincided with the railroad lines terminating their policy of free transport. Fry, fingerling and fish were shipped in "fish cans" that looked like large milk cans with a perforated inset for holding ice. As the ice melted, it provided oxygen for the fish. Today, trucks are equipped with large holding tanks, and, with the modern network of roadways, the offspring are quickly transferred. In the 1940s and 1950s, planes were used to stock remote ponds.

Because fish propagation is dependent on an uninterrupted flow of water, a manager, or superintendent, as he was historically called, lived at the site. Built in 1895, the original, 2-1/2 story, ten-roomed superintendent's house sat at the south end of the ponds, facing the hatchery yard. In 1970 the house was demolished due to escalating maintenance costs and the rising expense to heat the building. A residential trailer (#9) replaced the vernacular frame building.

Before 1957, fish food was produced at the site by grinding meat organs and mixing in grain. The meat was stored in an ice house (#2) that also housed a grinding room and lean-to workshop. In 1957 dry pellet food was introduced, revolutionizing the process. Despite the change, the cold storage facilities, now adapted with a compressor rather than ice blocks, remains intact.

In 1952, state and federal biologists began a study of fish habitat in the various watersheds throughout the state. The study was implemented to better stock species in the most appropriate environment. This program went hand-in-hand with the growing emphasis on fish health. In 1960, the state built a biology lab near the southern boundary of the property. While non-contributing due to age, this building is significant for representing the broadening scope of fish culture.

Critical to artificial fish propagation is an abundant supply of fresh water. The water flowage must be appropriate to carry oxygen to the stock and with enough force to carry waste products away. The water supply at Roxbury is an "open" system, that is, a mixture of ground water and surface water. A large spring house (#5) collects the ground water, which is then mixed with water diverted from Flint Brook. The volume of brook water is controlled at a valve house (#6). The water flows to the series of five ponds (#4), to above ground plastic rearing pools, and to the hatchery building (#1). Inside the hatchery building, the water passes through nitrogen removal tubes before flowing to incubation trays and rearing troughs. As the water leaves the hatch house, it flows to the lower three ponds, a settling basin, and finally feeds into the Third Branch of the White River.

Three criteria influenced locating the first state hatchery at Roxbury: cost, transportation and water quality. The land for the Roxbury hatchery was donated to the state through the generosity of Hon. E. H. Spaulding. The initial appropriation from the state legislature to build and equip the hatchery was $2,400. The property was located on the Central Vermont Railroad line. To transport fish cans, an earthen loading ramp was built leading to the rail line. When the hatchery was established, there was an abundance of water from numerous springs on the property. In addition, water rights were obtained from E. P., J. K. and E. K.

Burnham to tap Burnham Brook (now Flint Brook). By 1928 a diminished water flow was recognized. This came about gradually over a period of years and was accounted for, in part, by the clearing of forest growth protecting water sheds. Today, insufficient water capacity continues to haunt the Roxbury Fish Culture Station.

Because this is a working fish culture station, the resource can be viewed in its true environmental context, including smell and sound. Throughout the yard and hatchery, water rushes into ponds, through headers and raceways, into rearing troughs and gently filters over incubation trays. The sounds and smells bring this historic sight to life. The station is open to visitors, and there is a picnic area with two stone barbecues (#7) built by the C.C.C. located on a ledge overlooking the yard.

1. Hatchery Building, 1891 / 1897

Following an appropriation in 1891 by the Vermont State Legislature for $2,400, the state Fish and Game Commission established the first state-owned hatchery at Roxbury, Vermont, constructing a 28' by 55' hatchery building. That year 1,000 trout to be used as breeders were placed in ponds in front of the hatchery building, and eggs were shipped here for incubation. The first fry plants the following year totaled 553,500 fish, consisting of brook, lake, "loch leven" and rainbow trout, and landlocked salmon. Operations quickly exceeded the capacity of the building so that a 30' addition containing more rearing troughs was completed in 1896. By 1912 the building needed extensive repairs, and the sills and foundation were replaced. During 1910, 1911 and 1912, the state propagated brook, rainbow, lake and brown trout, and landlocked and Chinook salmon. Now, the hatchery mainly raises brook, brown, lake and rainbow trout.

The vernacular, 1891 hatchery building is 1-1/2 stories, 4 x 8 bay, 28' wide by 85' long, with the gable-front facing the yard (north). The southernmost 30' were added to lengthen the trough room in 1897. The northernmost 15' section of the building contains offices with the main entrance, a half-glass, horizontal-paneled door, at the right bay of the facade, balanced by a batten

door at the left bay. The present doors replace original four-paneled doors, and the left bay entrance was widened, probably in 1938 when the interior was renovated. The facade is protected by a hipped roof, full width, concrete deck porch. When built, the front of the porch formed the wall of an approximately 25' square rearing pool that was part of a series of pools extending approximately 75' north of the building. The elongated hatchery sits on a concrete foundation, has clapboard siding and a gable roof covered with asphalt shingles with standing seam ice flashing at the lower third of the slope. There are four wood ventilators at the ridge above the trough room and a brick chimney at the west slope near the ridge above the office section. Architectural detail includes wide cornerboards rising to a narrow frieze, and plain surrounds with a drip cap framing the regular 6/6, double-hung sash. The exterior of the building is remarkably unchanged.

The interior of the hatchery building has two offices, a storage closet and a bathroom in the front section, and an elongated trough room, or hatch room, below grade (down four steps), stretching behind. The interior represents a series of renovations made to the building in response to changing fish culture technology. When built, the hatchery was equipped with wooden rearing troughs set on a wood floor. In the wet environment, the floors and sills quickly deteriorated, and in 1912, the building was raised out of the ground, placed on new sills, and the decaying floor was replaced by a concrete floor set two feet lower than the original floor to better take advantage of gravity for the water delivery system. This necessitated pouring concrete walls five feet high from the floor to raise the woodwork out of the ground. The concrete half-wall now supports diagonal bracing that was added to reinforce the ceiling. Because the floor was dropped and the walls raised, the base of the windows now begin approximately six feet above the floor, a feature not found in subsequent state hatcheries. The second renovation took place in 1938 when the C.C.C. installed toilets and a new heating system in the hatchery building. By this time the hatchery had probably been electrified. Finally, in 1977, as prevailing fish culture practice suggested that wood troughs can harbor harmful microorganisms, the cypress troughs were replaced with six, paired, concrete troughs, each approximately 3' tall by 7' wide by 20' long. There is a walkway at the ends and on either side of

the paired troughs. The front (north end) of the hatch room holds a rack with twelve columns of hatching trays, and there are additional racks placed in the rearing troughs as needed. The hatching trays and troughs are supplied with a mixture of spring and surface water delivered through a nitrogen removal tube.

2. Ice, Meat and Cook House, c. 1894

By 1894 an ice, meat and cook house, 25 x 30 feet, was added to the complex, and during the biennial term 1896 - 1898, the building was equipped with a gasoline motor with fixtures and cutters for grinding meat. At that time, attendants prepared fish food by grinding meat organs and mixing in grain. It was not until 1957 that dried pellet food was first introduced, revolutionizing the feeding process. Ice was critical not only for cold storage, but it was used for shipping eggs, fry, fingerlings and fish. Fish cans, which looked like large milk cans, were used to transport the stock on trains, wagons, and trucks. The cans were fitted with a perforated inset for holding ice, so that as the ice melted, it provided oxygen for the stock. Ice was cut from frozen ponds in the winter, brought to the hatchery, and packed in a room with one-foot walls insulated with sawdust. The insulated room is now replaced by a walk-in cooler that, in the mid-1940s, was added to the lean-to on the north side of the building. The 1948 biennial report states that the construction of a large walk-in cooler allowed the department to buy in large quantities when prices are down, and in Roxbury this policy has made a definite savings possible. At one time there was a second, small ice house and shed near the picnic area, demolished about 1954.

The ice, meat and cook house is a 1-1/2-story, 2 x 2 bay, gable-front, vernacular building facing west (the yard). A three-quarter-length lean-to, housing a walk-in freezer, is attached to the north eaves-side. This c. 1950 appendage replaces an original, full-length lean-to with parapet front that served as the main entrance to the building. The ice, meat and cook house is slightly elevated on a concrete foundation that appears to be a c. 1930 renovation. It has clapboard siding and a gable roof with a wide overhang and corrugated metal roofing with a brick ridge

chimney. Architectural detail includes cornerboard trim and a wide, plain frieze. The facade is articulated with a 6/6 gable window and a vertical board, double-leaf door, flanked right by a horizontal-paneled pedestrian door. A photograph appearing in the 1896 Fish and Game Commission biennial report shows that the facade originally had 6/6 double-hung sash in the two first story bays with the existing window in the gable. The current pattern may date from c. 1950. Multi-paned fixed sash and double-hung 6/6 sash articulate the south and west elevations, respectively. The rear (west) elevation originally had a door for loading ice and no windows. The present sash appear to be the windows that originally articulated the east facade.

The interior of the ice, meat and cook house is open, used for storage and as a tool shed. The interior sawdust-insulated room is now removed, as is the cook stove, though the chimney remains in the attic.

3. Carriage barn, c. 1897

During the biennial term 1896 - 1898, a 28' x 30' barn was built with a lean-to on each side. A horse, harnesses, wagons, carts and sleds were purchased at the same time. The barn looks very much as it did in 1897 with minor modifications as the building was adapted to the automobile. The biennial report states that during 1937 and 1938 the C.C.C. installed a new truss rod in the garage to brace the top floor. Assuming that the report is referring to the carriage barn, the truss was probably added to counteract support lost when the stalls were removed, not an uncommon occurrence.

The vernacular, 1-1/2 story, 3 bay wide, gable-front carriage barn sits just to the north of the ice, meat and cook house (#2) on a concrete foundation facing west Full-length lean-tos are attached to the north and south eaves-sides. The barn has clapboard siding and asphalt shingle roofing. Details include plain cornerboards and frieze. The 3 bay west facade has historic 3-part folding garage doors, dating from c. 1935, that replace an original sliding door in the left bay and two small square stanchion windows in the right bay. A hay loft door remains at the second

story crowned with a 6/6 double-hung sash. The rear elevation has irregular 6/6 sash with plain surrounds and a drip cap.

The stalls are removed from the interior of the barn, which is now an open space, mostly used for storage, though a white-washed ceiling identifies the stall location. It is significant that six-by-six beams span the entire 28' width of the barn. Pre-1900 photographs of the hatchery show what appears to be a lumber mill across what is now Route 12A, where the beams must have been milled.

4. Ponds, 1912, c. 1940

The history of the ponds and water system is complex, because at Roxbury the system was continuously upgraded. The upgrades and alterations are generally described in the Department of Fish and Wildlife biennial reports. The most critical criteria for fish culture is an abundance of fresh water. In 1891, Roxbury was chosen as the site of the first state hatchery, in part, because of the property's abundant spring water supply. When the hatchery was established in 1891, four ponds were built that housed brood stock and served as rearing ponds. By 1894 eight ponds had been constructed, varying in size from 15 to 200 feet long, and in width from 10 to 30 feet. An 1896 photograph shows that the ponds were located directly in front of the hatchery building, so that the edge of the concrete deck front porch formed the sidewall of one of the ponds. Spring water was conducted to the ponds through plank flumes, which could be used for holding small trout, as well as for breeders to ascend when ready to spawn. These ponds were constructed so that each one could be drawn off and cleaned without interfering with the water supply of the others. In contrast, the current system of ponds is arranged in a linear pattern with water from the upper ponds flowing to the lower ponds, without an independent runoff. Inability to quarantine individual ponds leaves the present system less desirable. By 1895 the state obtained water rights from Burnham Brook (now Flint Brook), and water was carried to the ponds and hatchery in a plank flume and open ditch. In the summer, spring water was mixed with brook water to keep the ponds cool and healthy, and in the winter, the mixture of these waters kept the pools from freezing. By

adding surface water with ground water, the system became an "open" system, in contrast to a "closed" system, which is strictly ground water. The downside of an "open" system is that surface water can hold contaminants not found in spring or well water; nevertheless, sufficient flowage is critical, and most fish culture stations do have an open system. During the summer of 1895, six ponds were enlarged and the School House Spring, mentioned in the 1890 deed (from Spaulding to the state), was laid in stone and concrete and connected with the main spring by 320 feet of two-inch galvanized iron pipe. By 1912 more appropriations led to several improvements, including installing larger pipes to conduct the water to the hatchery and pond system. A heavy stone and concrete dam was constructed on Burnham Brook with water diverted 1700 feet to the hatchery grounds through a 10-inch heavy iron pipe that gradually reduced to a six-inch pipe to increase pressure. The pipe replaced the open ditch and plank flumes previously in place. Ten reinforced concrete raceways, 6' wide by 40' long were constructed in 1912 just west of the hatchery building near the railroad tracks. No evidence remains of this series, and they were apparently buried. At the same time "two earthen ponds of irregular shape with solid reinforced [concrete] outlets" were also constructed. An examination of historic photos suggests that these ponds are Pond #1 and Pond #2, appearing on the attached site map, though the ponds were further developed in the following years. In addition there was a concrete raceway north of Pond #3, which is no longer extant. The 1931-1932 biennial report states that the five main ponds were rebuilt with new concrete headers and spillways installed, suggesting that the current system of five ponds was in place at that time. In 1937 the C.C.C. built a linear series of six raceways with a diversion channel, at the southern end of the series of ponds replacing earthen raceways that had been located there. The C.C.C. raceway is now used as a settling basin as water drains from the fish culture station into the Third Branch of the White River. It is interesting to note that evolution of water pipes included wood, iron, galvanized and PVC piping. Copper and lead, which were commonly used in residences, are toxic for fish. In the trough room, hatching trays (now plastic) and rearing troughs were traditionally painted with aluminum paint.

The Roxbury Fish Culture Station has a linear series of five irregularly shaped ponds, dating from 1912, that terminate in an elongated series of concrete raceways, which were built in 1937 by the C.C.C. The dirt bottom ponds are numbered #1 through #5, north to south, with #1 closest to the source of water. In addition there are two fiberglass circular tanks west of Ponds #1 and #2 that were added c. 1970, and are non-contributing due to age. Ponds #1 and #2 are oval-shaped, with Pond #2 slightly larger, measuring approximately 50' wide by 120' long. Each has a concrete header and outlet. Pond #2 is protected on the west by a screen of pine trees creating a park-like setting. From Pond #2 the water is transported through a conduit under the drive to a small earthen raceway with a pellet feeding station for visitors. Next, the water flows into an approximately 25' x 35' concrete collection basin, from which the water is aerated as it falls through a concrete spillway, and into rectangular-shaped Pond #3, which is approximately 25' wide by 80' long. Pond #4 is smaller, egg-shaped with a concrete spillway leading to an elongated Pond #5, which stretches southward approximately 200'. The superintendent's house sat east of here, overlooking the pond, but was demolished c. 1970. At the southern end of the property, the water flows through the 1937, concrete, C.C.C. raceways and finally into the Third Branch of the White River.

5. Springhouse, c. 1960

The springhouse is non-contributing due to age. The 1892 biennial report states that when the hatchery was built in 1891, the main spring was enclosed in "solid masonry" (presumably concrete). The present structure dates from c. 1960. The spring produces 90 gallons of water per minute.

The approximately 30' by 40' springhouse sits on a concrete foundation with a broad gable roof that stretches nearly to the ground. Gable walls are open with wire stretched between wood support posts.

6. Valve house, c. 1970

Non-contributing due to age. This approximately 3' square concrete structure with metal roofing protects the valves that regulate water intake from Flint Brook.

7. Barbecues, 1938

Fish culture stations have traditionally been the site of tourist activities. In 1938 the CCC built two stone barbecue grills on a bluff overlooking the hatchery. The stone for the barbecues was probably quarried at the site.

8. C.C.C. Barn, 1934-35

The C.C.C. was established in 1933 and was responsible for many of the upgrades at the Roxbury Fish Culture Station throughout the 1930s. This barn was built by the C.C.C. in 1934 or 1935. Sitting close to Route 12A, it now appears isolated, but when it was built it sat behind (south of) the superintendent's house and was logistically associated with that building. The biennial reports state that the barn was remodeled in 1940 to include storage space for supplies.

The vernacular, C.C.C. barn is a 1-1/2-story, approximately 35' by 45' gable-front barn set close to Vermont Route 12A, south of the hatchery building. Now used for storage, the structure sits on a concrete pier foundation, has vinyl siding covering the originals clapboards, and asphalt shingle roofing laid in a basket-weave pattern. The facade has three pairs of diagonal board, double leaf doors with canted framing. The trim is duplicated at the gable window. Windows at the sides and rear are now boarded.

9. Residential Trailer, c. 1970

The residential trailer is non-contributing due to age. In 1895 the state built a 10-roomed superintendent's house at the Roxbury

hatchery. Due to rising maintenance and heating costs the house was demolished in 1970, replaced by this residential trailer.

10. State Biology Research Lab, c. 1960

The State Biology Research Lab is non-contributing due to age. Since 1950 there has been an expanding focus to protect wildlife habitat and insure the general health of fish and wildlife. This biology lab, which serves the central Vermont district, represents that trend. At fish culture stations, the broadened direction is manifest by the continuing research of fish disease and its treatment.

The State Biology Research Lab is a 4 by 2 bay, eaves-front, Ranch style building facing Route 12A (east), with the main entrance left of center protected by a gable-roofed, concrete deck entry porch. Slightly elevated on a concrete foundation the lab is built into a bank so that the front and south sides are 1 story, and the rear and north sides are 2 stories. There is a garage opening into the basement level on the south end. A secondary pedestrian entrance opens into the basement at the rear. The building has synthetic siding and asphalt shingle roofing. Windows are mostly 1/1 sash, some paired.

11. Shed, c. 1980

This shed is non-contributing due to age.

This utility shed is approximately 60' x 30', and is set well back and perpendicular to Route 12A, so that its eaves-front faces the biology lab (#10) (south). Set on a concrete foundation the shed has board and batten siding and corrugated metal roofing. The south elevation has two pairs of cross-braced, batten, exterior sliding doors. There is a pedestrian door on the east elevation.

8. Statement of Significance

Applicable National Register Criteria
(Mark "x" in one or more boxes for the criteria qualifying the property for National Register listing.)

- [X] **A** Property is associated with events that have made a significant contribution to the broad patterns of our history.
- [ ] **B** Property is associated with the lives of persons significant in our past.
- [X] **C** Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.
- [ ] **D** Property has yielded, or is likely to yield, information important in prehistory or history.

Criteria Considerations
(Mark "x" in all the boxes that apply.)

Property is:

- [ ] **A** owned by a religious institution or used for religious purposes.
- [ ] **B** removed from its original location.
- [ ] **C** a birthplace or grave.
- [ ] **D** a cemetery.
- [ ] **E** a reconstructed building, object, or structure.
- [ ] **F** a commemorative property.
- [ ] **G** less than 50 years of age or achieved significance within the past 50 years.

Areas of Significance
(Enter categories from instructions)

Agriculture
Architecture

Period of Significance

1890 - 1943

Significant Dates

1891
1897

Significant Person
(Complete if Criterion B is marked above)

N/A

Cultural Affiliation

N/A

Architect/Builder

unknown

Narrative Statement of Significance
(Explain the significance of the property on one or more continuation sheets.)

9. Major Bibliographical References

Bibliography
(Cite the books, articles, and other sources used in preparing this form on one or more continuation sheets.)

Previous documentation on file (NPS):

- [ ] preliminary determination of individual listing (36 CFR 67) has been requested
- [ ] previously listed in the National Register
- [ ] previously determined eligible by the National Register
- [ ] designated a National Historic Landmark
- [ ] recorded by Historic American Buildings Survey # _____
- [ ] recorded by Historic American Engineering Record # _____

Primary location of additional data:

- [X] State Historic Preservation Office
- [ ] Other State agency
- [ ] Federal agency
- [ ] Local government
- [ ] University
- [ ] Other

Name of repository:

_____

Roxbury Fish Hatchery
Name of Property

Washington, Vermont
County and State

10. Geographical Data

Acreage of Property 7.93 acres

UTM References
(Place additional UTM references on a continuation sheet.)

	Zone	Easting	Northing
1	18	680690	4881120
2			
3			
4			

☐ See continuation sheet

Verbal Boundary Description
(Describe the boundaries of the property on a continuation sheet.)

Boundary Justification
(Explain why the boundaries were selected on a continuation sheet.)

11. Form Prepared By

name/title Ann Cousins

organization Ann Cousins Associates date September 1, 1993

street & number R.R. #1, Box 437-K telephone (802)-434-5193

city or town Richmond state VT zip code 05477

Additional Documentation

Submit the following items with the completed form:

Continuation Sheets

Maps

A **USGS map** (7.5 or 15 minute series) indicating the property's location.

A **Sketch map** for historic districts and properties having large acreage or numerous resources.

Photographs

Representative **black and white photographs** of the property.

Additional items
(Check with the SHPO or FPO for any additional items)

Property Owner

(Complete this item at the request of SHPO or FPO.)

name State of Vt. Agency of Natural Resources, Attn. Thomas Wiggins

street & number 103 S. Main St., 10 South telephone (802)-224-7331

city or town Waterbury state VT zip code 05676

STATEMENT OF SIGNIFICANCE

The Roxbury Fish Culture Station is eligible for listing on the National Register of Historic Places under Criterion A for its contribution to the broad patterns of Vermont agricultural history within the historic context, "Fish Culture in Vermont, 1850 - 1943." Built in 1891, The Roxbury Fish Culture Station was the first state-operated fish culture station in Vermont. Before 1890, Vermont State Fish Commissioners purchased or obtained fish eggs from private or federal hatcheries, incubated the eggs, and reared the resultant fry for planting in Vermont lakes, streams and ponds. With increasing demands on fisheries and the escalating cost of fish eggs, the Vermont Legislature, in 1890, appropriated $2,400 for building a state hatchery. Water, transportation and cost were the three criteria for choosing a site. The Roxbury site was chosen because it had abundant spring water, was located adjacent to the Central Vermont Railroad line, and Hon. E. H. Spaulding, who owned the property, was graciously willing to deed it to the state as a contribution. Following the initial wave of building at the station in the 1890s, the present system of ponds and raceways were built between 1912 and 1940. The C.C.C. worked at the hatchery (as the fish culture station was commonly called) from 1934 to 1940. They were responsible for rebuilding and upgrading the water system, renovating the interior of the hatchery building, building a storage barn, and building a picnic area for visitors. The Roxbury Fish Culture Station is also eligible for the National Register under Criterion C, for embodying the distinctive characteristics of a fish culture station. Included among the historic resources are the original hatchery building, built in 1891 and expanded in 1897; an ice, meat and cook house, built c. 1894; a carriage barn, built c. 1897; a series of five production ponds, established from 1912 to c. 1940; a storage barn, built by the C.C.C. in 1934-35; and two stone barbecues built by the C.C.C. in 1938. The Roxbury Fish Culture Station retains integrity of workmanship, setting, location, feeling, and association, and is being nominated to the National Register of Historic Places under the multiple property listing, "Fish Culture Resources of Vermont." The property meets the registration requirements for the property type, fish culture station.

As early as 1819 Vermonters noticed that fish were getting smaller and that the population was decreasing, though they did not readily understand the causes. Early attempts to reverse the trend included stocking depleted waterways with fish transported from other locations. According to Samuel Swift's 1859 History of Middlebury, in 1819 a group of citizens from Middlebury, Salisbury, Leicester and Whiting journeyed to Lake Champlain and caught a quantity of several species of fish which they transported to Otter Creek in an effort to restore the stream. All species but one died, as they were ill suited for the stream environment.

Concern continued, and in 1856, the Vermont Legislature commissioned well-known in Vermont naturalist, George Perkins Marsh, to investigate the decline of native fish. Marsh cited deforestation, erosion, chemical and agricultural waste and indiscriminate fishing practices as causes for the decline. To reverse the decline, he recommended that the causes must be addressed, and that the state should adopt a program of artificial fish propagation to revive fisheries.

It was not until 1866 that the Vermont Legislature acted on Marsh's recommendations, that year appointing Albert Hager and Charles Barret as the state's first Fish Commissioners. The commissioners joined New Hampshire, Connecticut, and Massachusetts in devising a plan to restore fish runs on the Connecticut and Merrimac Rivers. The plan included purchasing salmon eggs from Canada for propagation. In 1869 the commissioners made the first plant in Vermont, 2,500 land-locked salmon. Over the next twenty years, commissioners, sports clubs and private individuals incubated eggs and reared hatchlings for planting.

In the meantime, in 1871, the U.S. Government initiated a program for fishery conservation when Congress authorized the creation of the Commission of Fish and Fisheries. In 1872 the first federal hatchery was established in California, followed by one in Busksport, Maine. The earliest instance of Vermont commissioners receiving fish from the federal program was in 1873, when they were given 35,000 king salmon and large quantities of shad. The first federal hatchery in Vermont was established at St. Johnsbury

in 1884, to raise trout and salmon for Vermont, New Hampshire and New York.

In 1872 the Commissioner of Fisheries, Middleten Goldsmith, again recommended that the state finance a fish hatchery for "sport and for sale to the public for food." The legislature rejected Goldsmith's request, but continued yearly allocations for purchasing eggs. In 1889, Commissioners Brainerd and Atherton made another strong recommendation to build a state hatchery. The commissioners stated that it would save the state money to produce fry under state supervision. The Legislature finally responded in 1890, by appropriating $2,400 for the "erection and equipment of a fish hatchery," authorized by No. 57 of the Laws of Vermont (in 1890). Several sites were considered in St. Johnsbury, Brattleboro and Pittsford. The criteria was to find a location with an abundant, pure water supply, that was accessible to rail transportation, and that was affordable. The site selected was adjacent to the Central Vermont railway, on the property of Hon. E. H. Spaulding, about two miles south of Roxbury station. Through Mr. Spaulding's generosity the land, with numerous springs, was donated to the state.

In September 1891, construction began on the 28' by 55' hatchery building with an office and workroom (#1). Troughs and trays in the trough (or hatch) room could handle 1,500,000 trout eggs. The biennial report states that the "main spring was enclosed in solid masonry," presumably, concrete. Four small ponds were built of "solid masonry" and supplied with water from the main spring. From the main spring, a three-inch, cast-iron pipe was laid to conduct water 400' to the hatchery building. Two rearing troughs, 60' long by 4' feet wide by 3' feet high, were built for rearing fry. By the late fall 1891, the hatchery was ready for business. One thousand trout to be used as breeders were placed in the ponds. The first fry plants from the hatchery were made in the spring of 1892.

The Legislature in 1892 appropriated $5,000 for completing and equipping the hatchery, which included building a 25' by 30' ice, meat and cook house (#2), and eight additional ponds. The ponds varied in size from 15' to 200' long, and in width from 10' to 30'. These were divided into 15 compartments. The water was

conducted to them through plank flumes which could be used to hold small trout, as well as for breeders to ascend when ready to spawn. A photograph appearing in the 1894 biennial report shows the ponds immediately in front (north) of the hatchery building, so that the end of the concrete deck entry porch forms the wall of a pond.

The 1894 the Legislature appropriated $7,000 for the state hatchery to purchase more property and build a 10-room house for the superintendent. The house was built in 1895, behind (south of) the hatchery building, on a slight rise, so that the attendant could look out over the hatchery yard. The house was demolished in 1970 due to rising heating and maintenance costs. In 1895, the State acquired all water rights to Burnham Brook (now Flint Brook). A dam was built on the brook, the water conveyed to the station in a plank flume and open ditch, and additional piping was laid to conduct the spring and brook water to the hatchery. During the summer of 1895 six ponds were enlarged, School House Spring, referred to in Burnham's deed to the state, was laid in stone and concrete and connected with the main spring by 320' of 2" galvanized iron pipe. In the fall of 1895 about one million eggs were taken from the parent brook, lake and rainbow trout. This was the first season in the history of the state hatchery that there was no expenditure for fish eggs.

During the biennial term, 1896 - 1898, a 28' by 30' barn was built with a lean-to on each side (#3). A horse, harnesses, wagons, carts and sleds were also purchased, as well as a gasoline motor with fixtures and cutters for grinding meat for fish food. Because the state had already outgrown the hatchery building, an addition of 30' was made at the south end. As the hatchery facility grew, there was a need for more water. In 1898 water rights and a change of course of Burnham Brook was purchased and changed on the property of Messrs. Kennedy and Bean.

The next wave of improvements began in 1912. An increased supply of water was obtained by building a new dam at Burnham Brook, making it necessary to put in a 10' iron pipe to conduct the water to the hatchery and pond system. This replaced an open ditch and plank flumes previously in place. Ten reinforced concrete raceways were built (no longer extant), and two irregularly-shaped

earthen ponds with solid reinforced concrete outlets were also constructed (#4, Ponds 1 & 2). The hatchery building, which was originally built with wood floors, was raised out of the ground, placed on new sills, and the decaying floor was replaced by a solid concrete floor two feet lower than the original floor. By lowering the hatch room, water flowage was aided by gravity. Subsequent state hatcheries incorporated the sunken hatch room in their original design.

During 1910, 1911 and 1912 the State propagated brook, brown, rainbow, and lake trout, and landlocked and Chinook salmon. In 1912 Commissioner John Titcomb raised the question of instituting a fishing license for anglers. Up until this time revenue from hunting licenses, supplemented with legislative appropriations, was used for the protection of both fish and game. In 1915 an angler's license law was passed, but not without opposition. The Burlington Free Press on March 16, 1916, said a larger vote than had been expected was given for the new license, with the opposition coming from those who felt fishing was a God-given right, and those who feared that Fish and Game would have too much money. Rep. Stacy of Hartford wanted the revenue divided with schools. As it was, the enactment of the fishing license law and repeal of the biennial appropriation enabled the Fish and Game Commission the unique distinction of being the only state department wholly maintained without legislative appropriation.

By 1916 other fish culture and field stations had been established. The Roxbury hatchery became known as the central station, about which were grouped a series of field stations at Lyndon Center, Bennington, Vernon, White River Junction, Canaan and Burlington. While Roxbury was the principal state hatchery, in fact, larger distributions were being made from the stations at Bennington and Canaan which by 1930 graduated from field stations to become established state hatcheries. In 1931, a fourth hatchery was built as Salisbury. Roxbury continued to have problems maintaining water capacity. Diminished water prohibited the Roxbury station from operating at capacity.

As the economy was grinding to a halt in the 1930s, improvements continued at the Roxbury hatchery. The biennial report states that in 1932 the five main ponds were rebuilt with new concrete

headers and spillways. This report suggests that the current system of ponds was probably in place at this time. In 1934-35, the C.C.C. built a storage barn (#8) behind (south of) the hatchery building, near the superintendent's house. In 1938, they poured a concrete series of raceways at the southern end of the property (#4). These raceways are mainly used as a settling basin, as the water flows into the Third Branch of the White River. The C.C.C. also renovated the interior of the hatchery building, adding toilets and a new heating system. On a bluff, overlooking the hatchery yard, they constructed two stone barbecues for visitors (#7).

As the country entered the war years, improvements and new building was halted because of lack of workers and materials. In 1960, the state added a biology research lab (#10) to the complex. While this building is non-contributing due to age, it is significant for representing an expanding focus of fish culture. From the 1850s through the 1930s, the primary focus has been on fish propagation and conservation of fisheries. From 1940 to the present, the focus has expanded to include the study and treatment of disease in fish. The biology lab is operated by the Department of Fish and Wildlife serving central Vermont.

Today the Roxbury Fish Culture Station, with its intact collection of historic buildings and earthen ponds, continues to operate as a hatchery. While critical water systems have been continuously improved, the historic buildings have been carefully preserved, making this station an excellent resource contributing to the understanding of Vermont's agricultural heritage, within the historic context, "Fish Culture in Vermont, 1850 - 1953." The period of historic significance is 1891 - 1943. Because this is an operating fish culture station, the daily activities add an invaluable context that can't be captured in words or photographs. Everywhere--is the smell and sound of water. The water transforms the station to make it alive. It defines, and it characterizes. It rushes and falls and gurgles and flows and drips, and sometimes, when a fish jumps, it plops. The Roxbury Fish Culture Station is open to visitors.

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Interviews

Barber, Ralph. Roxbury, Vermont. August, October, 1993.

Devoid, Howard. Salisbury. Vermont. January 6. 1993.

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Ray, Bill. Roxbury, Vermont. August, 1993

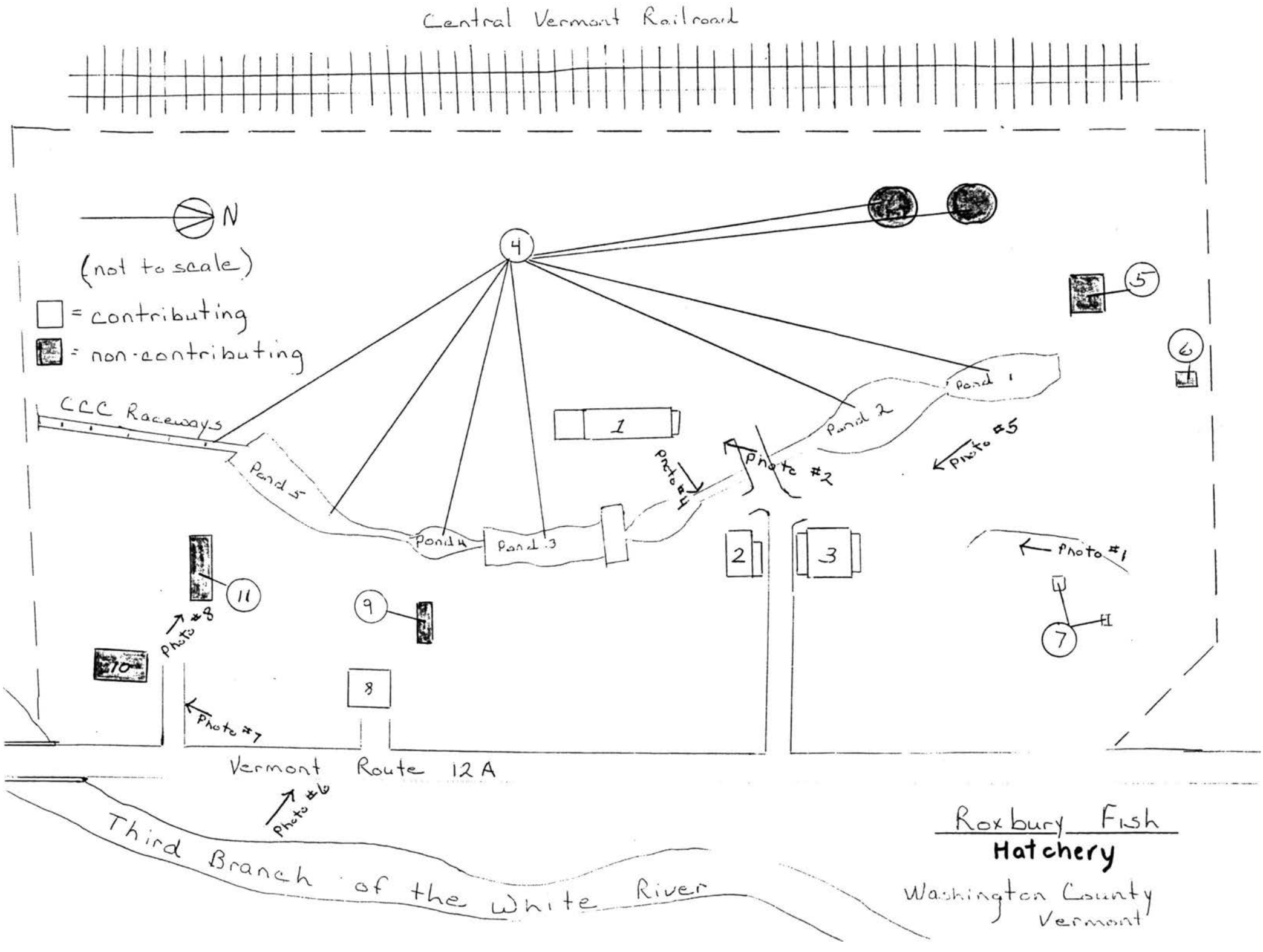
GEOGRAPHICAL DATA:

Verbal Boundary Description:

The boundary of the Roxbury Fish is indicated as Parcel #44 on Map #9 of the Roxbury Tax Maps.

Boundary Justification:

The nominated property includes 7.93 acres deeded from Hon. E. N. Spaulding to the State of Vermont on August 1, 1891, recorded in Book 16 Pages 437-439 of the Roxbury Land Records.



Roxbury Fish Hatchery

Washington County
Vermont

NPS Form 10-900-a
(8-86)

OMB Approval No. 1024-0018

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section number _____ Page _____

~~Fish Culture Resources of Vermont MPS~~
VERMONT

		Date Listed
COVER	Substantive Review	3/24/94
94000177	Roxbury Fish Hatchery	3/24/94
94000176	Salisbury Fish Hatchery	3/24/94

1. #1, #2, #3, #4, Roxbury Fish Hatchery
2. Washington, Vermont
3. Ann Cousins
4. January, 1993
5. Vt. Division for Historic Preservation
6. View looking South. (l. to r.) #3 Carriage Barn #2 Ice Meat and Cook House, #1 Hatchery Building #4 Ponds.

Photograph #1

1) #1 Hatchery Building, Roxbury Fish Culture Station
Hatchery
2) Washington, Vermont
3) Ann Cousins
4) January 1993
5) Vermont Division for Historic Preservation
6) View looking southwest, #1 Hatchery Building

Photograph #2

1) #1 Hatchery Building, Roxbury Fish Hatchery
2) Washington, Vermont
3) Ann Cousins
4) January, 1993
5) Vermont Division for Historic Preservation
6) Interior of Hatchery Building

Photograph #3

1) #2 Ice, Meat and Cook House, Roxbury Fish Hatchery

2) Washington, Vermont

3) Ann Cousins

4) January 1993

5) Vermont Division for Historic Preservation

6) View looking Northeast, #2 Ice Meat and Cook House, #3 Carriage Barn in background

Photograph #4

1) #3 Carriage Barn, Roxbury Fish Hatchery
2) Washington Co., Vermont
3) Ann Cousins
4) January, 1993
5) Vt. Division for Historic Preservation
6) View looking Southeast, #3 Carriage Barn

Photograph #5

1) #8 CCC Barn, Roxbury Fish Hatchery
2) Washington Co. Vermont
3) Ann Cousins
4) January 1993
5) Vermont Division for Historic Preservation
6) View looking Northwest, #8 CCC Barn

Photograph #6

1) #10 State Biology Research Lab, Roxbury
Fish Hatchery
2) Washington Co., Vermont
3) Ann Cousins
4) January 1993
5) Vt. Division for Historic Preservation
6) View looking Southwest, #10 State Biology
Research Lab

Photograph #7

#11 Shed Roxbury Fish Hatchery
Washington Co. Vermont
Ann Cousins
January 1993
Vt. Division for Historic Preservation
View looking Northwest, #11 Shed, Central Vermont Railroad tracks in background

Photograph #8

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

STATE OF VERMONT
VERMONT AGENCY OF ENVIRONMENTAL CONSERVATION

ROXBURY QUADRANGLE
VERMONT
7.5 MINUTE SERIES (TOPOGRAPHIC)
SW/4 BARRE 15' QUADRANGLE

6472 II NE (WAITSFIELD) | 6472 II NW (NORTHFIELD) | 6472 II NE (BARRE WEST)

72°45′ | 44°07′30″ | 42′30″ | 40′ | 72°37′30″ | 460 000 FEET | 590 000 FEET

Roxbury Fish Hatchery
Roxbury, Washington Co, VT
18/680690/4881120

Mapped, edited, and published by the Geological Survey

Control by USGS and NOS/NOAA

Topography by photogrammetric methods from aerial photographs taken 1973. Field checked 1975. Map edited 1980

Projection and 10,000-foot grid ticks: Vermont coordinate system (transverse Mercator)
1000-meter Universal Transverse Mercator grid, zone 18
1927 North American Datum
To place on the predicted North American Datum 1983 move the projection lines 2 meters south and 36 meters west as shown by dashed corner ticks

Fine red dashed lines indicate selected fence and field lines where generally visible on aerial photographs. This information is unchecked

There may be private inholdings within the boundaries of the National or State reservations shown on this map

UTM GRID AND 1980 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET
MN 15½° 276 MILS | GN 1°36′ 28 MILS

SCALE 1:24 000
1 MILE
1000 0 1000 2000 3000 4000 5000 6000 7000 FEET
1 KILOMETER

CONTOUR INTERVAL 20 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U. S. GEOLOGICAL SURVEY
DENVER, COLORADO 80225, OR RESTON, VIRGINIA 22092
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

QUADRANGLE LOCATION

Map photoinspected 1983
No major culture or drainage changes observed

ROAD CLASSIFICATION
Primary highway, hard surface
Secondary highway, hard surface
Light-duty road, hard or improved surface
Unimproved road
Interstate Route | U. S. Route | State Route

ROXBURY, VT.
SW/4 BARRE 15' QUADRANGLE
N4400—W7237.5/7.5

1980
PHOTOINSPECTED 1983
DMA 6472 II SW—SERIES V813

● INTERIOR—GEOLOGICAL SURVEY, RESTON, VIRGINIA—1991

National Register of Historic Places

Note to the record

Additional Documentation: 2021

United States Department of the Interior
National Park Service
National Register of Historic Places Registration Form

This form is for use in nominating or requesting determinations for individual properties and districts. See instructions in National Register Bulletin, *How to Complete the National Register of Historic Places Registration Form.* If any item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials, and areas of significance, enter only categories and subcategories from the instructions.

1. Name of Property
Historic name: Roxbury Fish Hatchery (Additional Documentation)
Other names/site number: Roxbury Fish Culture Station
Name of related multiple property listing: Fish Culture Resources of Vermont
(Enter "N/A" if property is not part of a multiple property listing)

---

2. Location
Street & number: 3696 Roxbury Road
City or town: Roxbury State: VT County: Washington
Not For Publication: ☐ Vicinity: ☐

---

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act, as amended,

I hereby certify that this _X_ nomination ___ request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60.

In my opinion, the property _X_ meets ___ does not meet the National Register Criteria. I recommend that this property be considered significant at the following level(s) of significance:

___national __X_statewide ___local
Applicable National Register Criteria:

_X__A ___B _X_C ___D

Laura V. Trieschmann July 23, 2021

Signature of certifying official/Title: **Date**

Vermont Division for Historic Preservation

State or Federal agency/bureau or Tribal Government

Roxbury Fish Hatchery (Additional Documentation) Washington, Vermont
Name of Property County and State

In my opinion, the property ___ meets ___ does not meet the National Register criteria.

Signature of commenting official: **Date**

Title : **State or Federal agency/bureau or Tribal Government**

4. National Park Service Certification

I hereby certify that this property is:

___ entered in the National Register

___ determined eligible for the National Register

___ determined not eligible for the National Register

___ removed from the National Register

_X_ other (explain:) Accept Additional Documentation

James Gabbert 8/6/2021
Signature of the Keeper Date of Action

5. Classification

Ownership of Property

(Check as many boxes as apply.)

Private: ☐

Public – Local ☐

Public – State X

Public – Federal ☐

Category of Property

(Check only **one** box.)

Building(s)	X
District	
Site	
Structure	
Object	

Number of Resources within Property

(Do not include previously listed resources in the count)

Contributing	Noncontributing	
5	6	buildings
2	1	sites
2	3	structures
0	0	objects
9	10	Total

Number of contributing resources previously listed in the National Register 6

---

6. Function or Use

Historic Functions

(Enter categories from instructions.)

AGRICULTURE/SUBSISTENCE: fishing facility

Current Functions
(Enter categories from instructions.)
AGRICULTURE/SUBSISTENCE: fishing facility

---

7. Description

Architectural Classification
(Enter categories from instructions.)
No style

Materials: (enter categories from instructions.)
Principal exterior materials of the property: Wood, concrete, asphalt

Narrative Description
(Describe the historic and current physical appearance and condition of the property. Describe contributing and non-contributing resources if applicable. Begin with **a summary paragraph** that briefly describes the general characteristics of the property, such as its location, type, style, method of construction, setting, size, and significant features. Indicate whether the property has historic integrity.)

Summary Paragraph

The Roxbury Fish Hatchery is located two miles south of Roxbury Village, in the town of Roxbury, Vermont. It is situated on a narrow, 7.93-acre strip of land stretching between the Central Vermont Railroad line and Vermont Route 12A (Roxbury Road). The Roxbury Fish Hatchery was established in 1891 and was the first state-owned and operated hatchery in Vermont. It is still owned by the state today and managed by the Vermont Department of Fish and Wildlife. The station's historic buildings are well preserved, and include an 1891 hatchery building, a c.1894 icehouse, an 1897 carriage barn, a 1935 barn, a 1960 laboratory, and two c.1937 stone barbecue hearths. The property also has a series of fish-rearing ponds and several new buildings.

This document amends the 1994 National Register nomination for the Roxbury Fish Hatchery with an updated resource inventory. Between August 27 and September 2, 2011, Tropical Storm Irene caused extensive damage to the property. The site is located on an alluvial plain between the Flint Brook and the Third Branch of the White River. During Tropical Storm Irene, Flint

Brook, which ran 1,200 feet to the north of the property, overtopped its embankment. Floodwaters swept through the 1,100-foot-long Fish Hatchery property before connecting with the Third Branch White River south of the hatchery. The supporting buildings had minor damage; the lab had extensive damage. The water carried a portion of a nearby residence into the springhouse, destroying both structures. The storm damaged the ponds and raceways and rendered the facility inoperable for an extended period. The Fish Hatchery had similar flooding and damages in 1998 and 2006, including damage to the ponds.

The flooding caused by Tropical Storm Irene required the Roxbury Fish Hatchery to temporarily cease operations and it could not fulfill its primary purpose of producing yearling Brook and Rainbow Trout for stocking. Since Tropical Storm Irene, the Vermont Fish and Wildlife Department (VFWD was unable to meet its fish culture goals due to the loss of the Roxbury Fish Hatchery, with trout production shortfalls of at least 30% per year since 2011. Before August 2011, the Roxbury Fish Hatchery produced about 85,000 catchable trout per year. Due to its high level of production before Irene and relatively low operating costs, the Roxbury Fish Hatchery is considered critical to achieving the fish production goals of the VFWD fish hatchery system. Rather than repair the property to pre-disaster condition, the State of Vermont reconstructed the hatchery in a way that protects the ponds and the fish from future damage. VFWD felt that this was a better long-term solution with fewer environmental impacts than operating in a pond-based system. The State retained the historic buildings and removed the three of the ponds. The State restored two ponds (#7 and #8) to pre-disaster (though not functional) condition and stock it with fish so that visitors can learn and understand the hatchery's historic operation.

Beyond the advantages of the existing Roxbury Fish Hatchery location, including outstanding fish quality and quantity production for comparatively low operating costs, the Roxbury Fish Hatchery required the rehabilitation to keep the property in the hands of the State of Vermont. According to the original deed, which conveyed the Roxbury Fish Hatchery property to the State of Vermont, if the State ceased raising fish at the Roxbury Fish Hatchery property, the land reverted to the original heirs of the estate. As the Roxbury Fish Hatchery property also hosts the VFWD District Office and laboratory facilities, moving the Roxbury Fish Hatchery to another location would result in substantial relocation effort and cost to the State.

Through support from the Federal Emergency Management Agency (FEMA), the Roxbury Fish Hatchery applied for assistance to rebuild the Roxbury Fish Hatchery to modern standards of operation and with increased flood resiliency. Through the Section 106 process, the VDHP required an updated National Register nomination. The storm's floodwaters caused extensive damage to the springhouse, damaged ponds, and raceways, and functionally destroyed the Roxbury Fish Hatchery by filling in the fish rearing ponds with sediment. This form documents

changes to the property caused by Tropical Storm Irene in 2011 and related new construction that is required to keep the fish hatchery operational. The resources are being re-numbered in this new document because some were removed and others were added since the original listing in 1994.

As Vermont's first fish hatchery, the buildings, structures, and waterways at the Roxbury Fish Hatchery are significant historical and architectural resources related to Vermont's architectural and agricultural heritage. The Roxbury Fish Hatchery retains sufficient integrity and is being nominated to the National Register of Historic Places under the multiple property listing, "Fish Culture Resources of Vermont." The fish culture station continues to operate much as it did in 1891, with technological improvements that are to be expected for a functioning agricultural facility such as this one.

Narrative Description

The primary purpose of the Roxbury Fish Hatchery is artificial fish propagation. In 1891, fish culture involved procuring, incubating, and hatching eggs, rearing the resultant fry, and distributing the offspring to lakes and streams. This process required an abundant supply of freshwater and access to transportation routes. While technological advancements have made the process more efficient, the basic process is the same today as in 1891. The following resources are present on the property today:

1. **Hatchery Building, 1891 / 1897, contributing building**

   This is a 1½ story, four by eight-bay, 28- by 85-foot, gable-roofed building with the gable-front facing the yard (north). The southernmost 30 feet was added to lengthen the trough room in 1897. The northernmost 15-foot section of the building contains offices with the main entrance, a half-glass, horizontal- paneled door, at the right bay of the facade, balanced by a batten door at the left bay. The present doors replaced four-paneled doors, and the left bay entrance was widened c.1938. A hipped roof, full width, concrete deck porch spans the front (north) elevation. The front of the porch initially formed the wall of an approximately 25-foot square rearing pool that was part of a series of pools extending about 75- feet north of the building. The elongated hatchery sits on a concrete foundation, has clapboard siding and an asphalt shingle roof with standing seam ice flashing at the lower third of the slope. There are four wood ventilators at the ridge above the trough room and a brick chimney at the west slope near the ridge above the office section. Architectural detail includes wide corner boards rising to a narrow frieze, and plain surrounds with a drip cap framing the regular 6/6 windows. The exterior of the building reflects its original construction.

The interior of the hatchery building has two offices, a closet and a bathroom in the front section, and an elongated trough room, or hatch room, below-grade (down four steps), stretching behind. The interior represents a series of renovations made to the building in response to changing fish culture technology. The hatchery initially had wooden rearing troughs set on a wood floor. In the wet environment, the floors and sills quickly deteriorated. In 1912, the State raised the building out of the ground, installed new sills, and replaced the decaying floor with a concrete floor. The new floor was set two feet lower than the original to take advantage of gravity for the water delivery system. This necessitated pouring concrete walls five feet high from the floor to raise the woodwork out of the ground. The concrete half-wall now supports diagonal bracing that reinforces the ceiling. Because the floor was dropped and the walls raised, the base of the windows now begin approximately six feet above the floor, a feature not found in subsequent State hatcheries. The second renovation took place in 1938 when the CCC installed toilets and a new heating system in the hatchery building. By this time, the hatchery was most likely electrified. In 1977, as prevailing fish culture practice suggested that wood troughs can harbor harmful microorganisms, the State replaced the cypress troughs with six, paired, concrete troughs, each approximately 3' tall by 7' wide by 20' long. There is a walkway at the ends and on either side of the paired troughs. The front (north end) of the hatch room holds a rack with twelve columns of hatching trays, and there are additional racks placed in the rearing troughs as needed. A mixture of spring and surface water supply the hatching trays and troughs, delivered through a nitrogen removal tube.

2. Ice, Meat, and Cook House, c.1894, contributing building

This is a 1½ story, two by two-bay, 25- by 30-foot, gable-front building facing west. A c.1950, three-quarter-length lean-to, housing a walk-in freezer, is attached to the north eaves-side. This appendage replaced an original, full-length lean-to with parapet front that served as the main entrance to the building. The building rests on a c.1930 concrete foundation. It has clapboard siding and a complete overhanging corrugated metal roof. There is a brick ridge chimney. Architectural details include corner board trim and a wide, plain frieze. The facade is articulated with a 6/6 gable window and a vertical board, double-leaf door, flanked right by a horizontal-paneled pedestrian door. The elevation originally had 6/6 windows in the two first story bays with the existing window in the gable. The current pattern may date from c.1950. Multi-paned fixed sash and 6/6 windows articulate the south and west elevations, respectively. The rear (west) elevation originally had a door for loading ice and no windows. The present windows appear to be the windows that originally articulated the east facade. The interior of the building is open, used as a tool shed. The interior sawdust-insulated room and the cookstove have been removed, and a chimney remains in the attic.

3. Carriage Barn, c.1897, contributing building

This 1½ story, 28- by 30- foot, three-bay wide, gable-front carriage barn sits just to the north of the ice, meat, and cookhouse (#2). Resting on a concrete foundation, it faces west. There are full-length lean-tos attached to the north and south eaves-sides. The barn has clapboard siding and an asphalt shingle roofing. Details include plain corner boards and frieze. The three-bay west elevation has c.1935, three-part folding garage doors that replaced an original sliding door in the left bay, and two small square stanchion windows in the right bay. A hayloft door remains at the second story crowned with a 6/6 window. The rear elevation has irregular 6/6 windows with plain surrounds and a drip cap.

The interior stalls have been removed, although a white-washed ceiling identifies the stall locations. It is now an open space used for storage, and six-by-six beams span the entire width of the barn. The barn looks very much as it did in 1897 with minor modifications for automobile storage. The 1937/1938 Biennial Report states that the CCC installed a new truss rod in the garage to brace the top floor. Assuming that the report refers to the carriage barn, the additional truss most likely necessary to support the top floor following removal of the horse stalls.

4. Hearth, 1938, contributing structure

5. Hearth, 1938, contributing structure

Located at the northernmost end of the property are two identical outdoor cooking hearths. each measuring five feet by four feet and built of stone, brick, and concrete. They have a two-foot-tall raised back for leaning cooking grates. The hearths rest on a concrete pad with fire-clay brick forming the firebox interior and local fieldstone along the exterior and raised portion. A coarse mortar joins the stones. There are portions of an iron bar at the front of the hearth. The iron bar "was used for supporting fuel in order to increase the draft when the fire is being started."[1] According to the 1937 United States Forest Service Publication *Camp Stoves and Fireplaces,* the Roxbury Fish Hatchery hearths are the informal raised hearth style. The stone for the barbecues was probably quarried at the site as the hearth "should be constructed of informal stonework to avoid any formal effect contrasting unnecessarily with the natural conditions."[2] **(Figure 1)**

[1] Taylor, A.D. *Camp Stoves and Fireplaces*. United States Government Printing Office. Washington DC, 1937.
[2] Ibid.

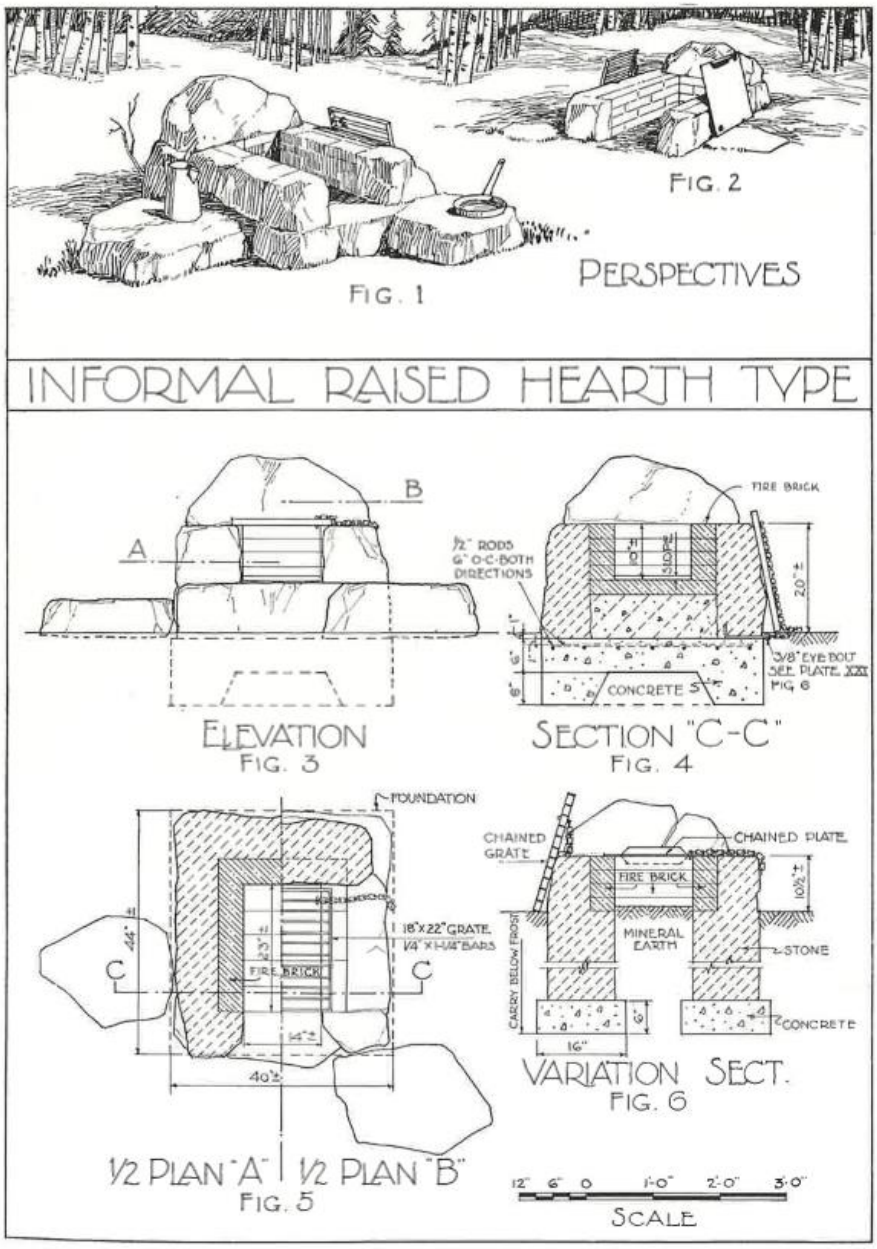


PLATE VII

Figure 1 Raised Cooking Hearth Plans (A.D. Taylor)

6. Springhouse, c.1960, c. 2016, non-contributing structure due to alterations

This c.1960, 30- by 40-foot springhouse sits on a concrete foundation with a c. 2016 broad gable roof that stretches nearly to the ground. Gable walls are open with wire

stretched between wood support posts.

The main spring was initially enclosed in an c.1891 concrete structure which remains inside the new structure. When the Roxbury Fish Hatchery built the new springhouse after the flood, it left the original foundation.

7. Pond, 1912, c.1940, c.2017, Contributing Site

This is a historic, oval-shaped, dirt bottom pond. It has a concrete header and outlet. Before Tropical Storm Irene, the Roxbury Fish Hatchery had a linear series of five irregularly shaped c.1912 ponds that terminated in an elongated series of c.1937 concrete raceways. They are protected on the west by a screen of cedar trees, creating a park-like setting. In order to comply with the Americans with Disabilities Act (ADA), there is a concrete walkway along the pond with railings to accommodate visitors.

8. Pond, 1912, c.1940, c.2017, Contributing Site

This is a historic, oval-shaped, dirt bottom pond. It has a concrete header and outlet. It is immediately to the south of Resource #7.

9. Influent Treatment Building, c. 2019, non-contributing building due to age

This is a 38- by 14-foot, one-story, pre-engineered metal building with concrete masonry walls, metal siding, concrete slab, and a metal shed roof. There is an off-center double door on the east elevation. The Influent Treatment Building has drum filters, the main electrical distribution and ultraviolet disinfection machines.

10. Restroom, c. 2019, non-contributing building due to age

This is a one-story prefabricated, precast concrete building resting a concrete slab.

11. Upper Tank Pavilion, c. 2019, non-contributing building due to age

This is a one-story, pre-engineered metal building with a metal roof and resting on a concrete slab. It has metal siding resting on a concrete wall. Centered on the gable end is an overhead vehicular door. It is approximately 25-feet high, 75-feet wide, and 80-feet long. It consists of six 20-foot diameter tanks with concrete bottoms and stainless-steel walls. It has wire mesh windows.

12. Lower Tank Pavilion, c. 2019, non-contributing building due to age

This is a one-story, pre-engineered metal building with a metal roof and resting on a concrete slab. It has metal siding resting on a concrete wall. Centered on the gable end is an overhead vehicular door. It is approximately 25-feet high, 75-feet wide, and 80-feet long. It consists of six 20-foot diameter tanks with concrete bottoms and stainless-steel walls. It has wire mesh windows.

13. Effluent Treatment Building, c. 2019, non-contributing building due to age

This is a 38- by 14-foot, one-story building with concrete masonry walls, concrete slab, and a metal shed roof. There is an off-center double hollow door on the east elevation accessing an interior, metal grating landing. The building houses pumps and effluent drum filters.

14. Clarifier Tanks, c. 2019, non-contributing structure due to age

This is a concrete tank with a stainless-steel cover located on a concrete slab.

15. Sludge Tank, c. 2019, non-contributing structure due to age

This is a concrete tank with a stainless-steel cover located on a concrete slab.

16. Chemical Effluent Pond, c. 2019, non-contributing site due to age

This is a plastic-lined pond with dirt and grass banks.

17. C.C.C. Barn, c.1934-35, contributing building

This is a 1½ story, 35- by 45-foot, gable-front barn. It is set close to Vermont Route 12A, south of the hatchery buildings. It is situated perpendicular to the road. The structure sits on a concrete pier foundation, has vinyl siding covering the original clapboards, and asphalt shingle roofing laid in a basket-weave pattern. The front (street-facing) elevation has three pairs of diagonal board, double-leaf doors with canted framing. The trim is duplicated at the gable window. The rear and side windows are boarded up.

The 1941 biennial report state that the barn was remodeled in 1940 to include space for supplies.

18. Shed, c.1980, non-contributing building due to age

This is a 60-by 30-foot, wood frame barn. It is set well back and perpendicular to Route 12A. The eaves-front faces the biology lab (#18). Set on a concrete foundation, the shed has board and batten siding and corrugated metal roofing. The south elevation has two pairs of cross-braced, batten, exterior sliding doors. There is a pedestrian door on the east elevation.

19. State Biology Research Lab, c.1960, contributing building

This four by two-bay, eaves-front, Ranch style building faces Route 12A (east). It has a medium setback and is oriented parallel to the road. This building has a composite shingle roof and vinyl siding. The left of the center entrance is protected by a gable-roofed, concrete deck entry porch. Slightly elevated on a concrete foundation, the lab is built into a bank so that the front and south sides are one story, and the rear and north sides are two stories. There is a garage opening into the basement level on the south end. A secondary pedestrian entrance opens into the basement at the rear. Windows are mostly 1/1 sash.

8. Statement of Significance

Applicable National Register Criteria
(Mark "x" in one or more boxes for the criteria qualifying the property for National Register listing.)

[X] A. Property is associated with events that have made a significant contribution to the broad patterns of our history.

[ ] B. Property is associated with the lives of persons significant in our past.

[X] C. Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.

[ ] D. Property has yielded or is likely to yield information important in prehistory or history.

Criteria Considerations

(Mark "x" in all the boxes that apply.)

☐ A. Owned by a religious institution or used for religious purposes

☐ B. Removed from its original location

☐ C. A birthplace or grave

☐ D. A cemetery

☐ E. A reconstructed building, object, or structure

☐ F. A commemorative property

☐ G. Less than 50 years old or achieving significance within the past 50 years

Areas of Significance

(Enter categories from instructions.)

Agriculture
Architecture
Other: Tourism

Period of Significance

1891-c.1960

Significant Dates

1897
c.1935

Significant Person

(Complete only if Criterion B is marked above.)

_____

Cultural Affiliation

_____

_____

Architect/Builder

_____

Statement of Significance Summary Paragraph (Provide a summary paragraph that includes level of significance, applicable criteria, justification for the period of significance, and any applicable criteria considerations.)

The Roxbury Fish Hatchery is eligible for listing in the National Register of Historic Places under Criterion A for its contribution to the broad patterns of Vermont agricultural history within the historic context, "Fish Culture in Vermont, 1850 - 1943." Built in 1891, the Roxbury Fish Hatchery was the first state-operated fish culture station in Vermont. The Roxbury Fish Hatchery is also eligible under Criterion C for its design and construction, which includes collection of resources built by the Civilian Conservation Corps (CCC). The CCC worked at the Roxbury Fish Hatchery from 1934 to 1940. They were responsible for rebuilding and upgrading the water system, renovating the interior of the hatchery building, building a barn, and building a picnic area for visitors. Today, the Roxbury Fish Hatchery includes a CCC built garage as well as two informal raised hearths. The CCC contributions to the Roxbury Fish Hatchery reflect the CCC's fish management and recreation endeavors. The Roxbury Fish Hatchery is also eligible under Criterion A for its association with Tourism in Vermont. The fish station served as a popular tourist spot with accommodations for travelers, including picnic tables and cooking hearths. The period of significance is 1891, the date of construction through c. 1960, when the State Biology Research Lab was built.

Narrative Statement of Significance (Provide at least **one** paragraph for each area of significance.)

Historic Context

Hatchery Operating Procedures

The Roxbury Fish Hatchery grows rainbow trout and brook trout for stocking in state waters. The management size for each species is 10 inches for Rainbow Trout and 8 inches for Brook

Trout. To achieve the size goals, it takes approximately 1.5 years for each species to grow to adult size.

The Salisbury Fish Culture Station serves as the state's broodstock station, and delivers Rainbow and Brook trout eggs in August and September to the Roxbury Fish Hatchery. The eggs are disinfected and brought in the hatchery and placed in incubators until hatching. During incubation, a continuous flow of freshwater provides adequate oxygen. They are incubated for approximately six months before moved into the modern facility and grown for another year to a size goal of 8-10 inches.

They are then transferred to small troughs (rearing tanks) where they continue to develop until the sac fry start feeding. Until the mid-twentieth century, there were cypress troughs, but as the State became more concerned with the prevention of disease, the hatcheries used concrete.

In the spring, the production in the hatch house is at its maximum capacity. The hatchery moves the fish to the rearing pavilions. Once the fish have been transferred out to the large circular tanks, they continue to grow and are split out as the densities in the tanks reach maximum capacity.

The water process starts at the influent building (#9), where the water is conditioned for optimal trout growth. Water is put through mechanical filtration to remove any solids and then passed through a UV light channel where the UV light kills any harmful bacteria or pathogens.

From the influent building, the water flows down through the facility; its first stop is in a concrete structure outside the building the adds additional oxygen to the water. After that, the water enters the upper pavilion (#11) and enters the six twenty-foot circular tanks inside. Once the water leaves the upper pavilion for reuse in the lower pavilion (#12), it again goes through another concrete box for adding oxygen. Then the water is also added to another six tanks in that building. In this building, all water passes through a four-inch drain line that goes to effluent treatment (#13).

As water enters the effluent treatment, it passed through two machinal filter units called drum screens. These screens remove uneaten fish feed and waste to keep nutrients such as phosphorus from leaching out into the receiving water of the Third Branch of the White River. The removed waste is sent to a clarifier (#14) and then further processed to a sludge tank (#15). The sludge is eventually pumped out and reused at a local farm as fertilizer in crop production.

The fish remain in the tanks until the following spring and sent out as yearlings into State waters. The hatchery retains between 3,000 and 5,000 Brook Trout for an additional year to grow to 14 inches for the State trophy trout stocking.

Before the advent of the automobile, the State transported the eggs, fish, and fry by wagon or rail. In 1930, the Department of Fish and Game purchased a fleet of trucks ending the dependency on the railroad. The Roxbury Fish Hatchery shipped fry, fingerling, and fish in "fish cans" – large cans with a perforated insert for holding ice. Upon delivery, the recipients returned the cans to the Roxbury Fish Hatchery for reuse. As the ice melted, it provided oxygen for the fish. Today, trucks have large holding tanks, and the trucks rapidly deliver the offspring on the modern network of roadways, the offspring. In the 1940s and 1950s, planes were used to stock the remote ponds. The forest services also use helicopters for stocking.

Historic Context: Agriculture

The Roxbury Fish Hatchery is eligible for listing on the National Register of Historic Places under Criterion A for its contribution to the broad patterns of Vermont agricultural history within the historic context, "Fish Culture in Vermont, 1850 - 1943."

In the early nineteenth century, Vermont recognized that the State's fish population was getting smaller and that the overall population was decreasing. Vermont's concern for its fish culture was part of a larger national trend that evolved due to the exploitation of biological and natural resources of waterways. The State's early attempts at reversing this trend was to stock depleted waterways with fish from other locations. In 1819, Middlebury, Salisbury, Leicester, and Whiting citizens journeyed to Lake Champlain in 1819. They caught several species of fish, which they transported to the Otter Creek in an effort to restore the stream. All species but one died, as the lake fish were ill-suited for the stream environment.

In 1856, the Vermont Legislature commissioned well-known in Vermont naturalist, George Perkins Marsh, to investigate the decline of native fish. Marsh blamed the depopulation on human interaction with the environment. He felt that development, deforestation, erosion, and chemical and agricultural waste all contributed to the decline of the fish populations:

> It is believed moreover, and doubtless with good reason, that the erection of sawmills, factories and other industrial establishments on all our considerable streams, has tended to destroy or drive away fish, partly by the obstruction which dams present to their migration, and partly by filling the water with sawdust, vegetable and mineral coloring matter from factories, and other refuse which render it less suitable as a habitation for

aquatic life.[3]

In addition to the effects of development, Marsh also blamed the fisherman who either overfished the waters or fished during the spawning season for the decline. Marsh believed that "the diminution of the fish is generally ascribed mainly to the improvidence of fishermen in taking them at the spawning season, or in greater numbers at other times than the natural increase can supply."[4] In conclusion, Marsh wrote:

> At present, the numbers of the fish in all our waters…are so much reduced, that this branch of the animal kingdom has ceased to possess any pecuniary value in Vermont; and on the contrary the few that remain are popularly regarded as, in an economic point of view, rather a detriment than an advantage, as furnishing a temptation to idleness, not a reward to regular industry.[5]

To reverse the decline, he recommended that Vermont had to address the causes and that the State should adopt a program of artificial fish propagation to revive fisheries.

> Trout thus grown are so inferior in flavor to fish caught in brooks and mountain lakes, that they can scarcely be recognized as belonging to the same species, but if hatched, protected, and fed during the first year or two in artificial waters, and then dismissed to seek such food as nature provides, they equal in all respects naturally bred fish, and maybe greatly multiplied in number, without any diminution in size, or deterioration in quality.[6]

During the 1850s, Ohio and New York attempted to rear fish, following European practices. It was not until 1866 that the Vermont Legislature acted on Marsh's recommendations, appointing Albert Hager and Charles Barret as the State's first Fish Commissioners. The Commissioners joined New Hampshire, Connecticut, and Massachusetts in devising a plan to restore fish runs on the Connecticut and Merrimac Rivers. The Commission cited the success of European efforts:

> Numerous instances were cited where experiments had been made in Great Britain and France to restock streams that had become nearly or quite destitute of edible fish. In every instance where the efforts had been judiciously made, the results were successful. The barren streams, in many instances, had become sources of wealth to the nation and furnished an immense amount of wholesome food for the inhabitants thereof. Is it placing too high an estimate upon Yankee enterprise and New England character to say that as

[3]Marsh, George Perkins Marsh. *Artificial Fish Propagation in Vermont*. Burlington Free Press, Burlington, 1857
[4]Ibid
[5]Ibid
[6] Ibid.

good and even better results may follow similar efforts to restock the streams of New England?[7]

Following much of the same reasons laid out by Marsh ten years earlier, the multi-state Commission declared the following reasons for fish population decline:

1. Impassable dams. Over these, fish-ways may be built with little waste of water.

2. Pollution of water by lime, dyes, soap, sawdust, and other mill refuse. Much of all these should not be thrown at all into the water. As to the dirty water from wool or cloth washing, it may be confined to one side of the river by a plank screen placed opposite the raceway.

3. Destruction of young fish by mill-wheels, which may be avoided by a lattice placed across the mouth of the mill canal.

4. Destructive modes of fishing, among which we may include gill-nets, weirs, very, long seines, pots, set-hooks, fire-fishing, and fishing through the ice, all of which should be by law forbidden.

5. Fishing too much, and at wrong seasons. For migratory fish, certain days in each week should be "closed," -that is to say, no fishing should then be allowed, and the taking of trout on their spawning beds should be rigorously interdicted. [8]

The plan included purchasing salmon eggs from Canada for propagation. In 1869 the Commissioners made the first plant in Vermont, 2,500 land-locked salmon. Over the next twenty years, Commissioners, sports clubs, and private individuals incubated eggs and reared hatchlings for planting.

In 1871, the US Government initiated a program for fishery conservation when Congress authorized the creation of the Commission of Fish and Fisheries. The following year, the first federal hatchery was established in California, followed by one in Bucksport, Maine. By the 1870s, 19 of 37 states practiced fish culture and incubated Atlantic salmon, and later rainbow trout eggs.[9] The earliest instance of Vermont Commissioners receiving fish from the federal program was 1873 when the Federal government gave 35,000 king salmon and large quantities

[7] *Report of Commissioners Relative to the Restoration of Sea-Fish by Order of the Legislature of Vermont*. Freeman Steam Printing, Montpelier, Vermont, 1867.
[8] Vermont Department of Fish and Game*. Biennial Reports of the Commissioners of Fish and Game*. Montpelier, 1867 - 1970.
[9] *Bennington Fish Culture Station National Register Nomination*. Bennington, Bennington County, Vermont. United States Department of the Interior, National Park Service,1994.

of shad. The first Federal hatchery in Vermont was established at St. Johnsbury in 1884 to raise trout and salmon for Vermont, New Hampshire, and New York.

In 1872 the Vermont Commissioner of Fisheries, Middleton Goldsmith, recommended that the state finance a fish hatchery for "sport and for sale to the public for food."[10] The Vermont Legislature rejected Goldsmith's request but continued yearly allocations for purchasing eggs. In 1889, Commissioners Brainerd and Atherton made another strong recommendation to build a state hatchery. The Commissioners stated that it would save the state money to produce fry under state supervision. The Legislature finally responded in 1890, by appropriating $2,400 for the "erection and equipment of a fish hatchery," authorized by No. 57 of the Laws of Vermont (in 1890).

Establishing the Roxbury Fish Hatchery

The state considered sites in St. Johnsbury, Brattleboro, and Pittsford. The criteria were to find a location with an abundant, pure water supply accessible to rail transportation, and that was affordable. The site selected was adjacent to the Central Vermont railway, on the property of Hon. E. H. Spaulding, about two miles south of Roxbury station. Through Mr. Spaulding's generosity, the land, with numerous springs, was donated to the State. The deed stated:

> Commencing on the westerly side of the highway leading from Roxbury village to East Granville, at a point exactly opposite the center of the schoolhouse in School District No. 8, as now located in said Roxbury; thence on the line running westerly to the easterly line of the Central Vermont Railroad, a distance of two hundred and two feet at a stake at a telegraph pose; thence southerly on said easterly line of said railroad at a distance of eight hundred and sixty-four feet; thence easterly to the aforesaid highway, four hundred and twenty-eight feet at a point four hundred and thirty-eight feet southerly of said center of the schoolhouse; thence northerly on said westerly line of said highway to place of beginning. Also, the right to take all the water from a spring near said schoolhouse and all water from other springs owned by this grantor in said vicinity, with the right to enter upon land and lay pipe or pipes to convey water from said springs and to repair or to relay said pipe or pipes. Also, the right to use all water that flows from a large spring and all water brought there on the above bounded land at any point below said described land, as far as where it, said stream, empties into the large brook, with a right to construct ponds thereon, turn the channel of said stream, and to have sole control of said stream down to where it empties into large brook as aforesaid, and right to enter thereon. Also, right to lay pipe across my land to the brook above Burnham's mill and right to enter upon land to lay said pipe and repair the same, and right to divert water from the stream

[10] Ibid.

> to said pipe. I, said Spaulding, also grant and convey to said the State of Vermont the right to quarry stone on my land to be used in the construction of dams and buildings on the said premises, and I agree to clear oil the lumber and sheds now on said land within one year from the ensealing of these presents. It is also agreed that this conveyance shall include the long shed now standing on said land.[11]

With an abundance of water being a primary criterion for a hatchery site, a spring on the site was of significant importance.

> There is an abundance of water from numerous springs located on the State property, but up to the present time, one large spring supplied all demands for spring water. This large spring is a natal fountain of water, gushing from a ledge of rocks. The water is of an even temperature, varying but little from 48 degrees Fahrenheit the year around.[12]

The State of Vermont also secured water rights from J.K. Burnham, who operated a "clapboard mill." The State had "the sole and exclusive right to take water and to lay aqueducts for taking water from the stream … this shall include the right to enter on said premises and stream to lay and repair aqueducts and build a dam for holding water."[13]

In September 1891, the Roxbury Fish Hatchery began construction on the 28- by 55-foot hatchery with an office and workroom (#1). Troughs and trays in the trough (or hatch) room could handle 1,500,000 trout eggs. The biennial report states that the "main spring was enclosed in solid masonry," presumably, concrete. Four small ponds were built of "solid masonry" and supplied with water from the main spring. From the main spring, a three-inch, cast-iron pipe was laid to conduct water 400-feet to the hatchery building. Two rearing troughs, 60-feet by three-feet high, were built for raising fry. By the late fall of 1891, the hatchery was ready for business. The Roxbury Fish Hatchery placed 1,000 breeder trout in the ponds, but they were not prepared for spawning season. As a result, the hatchery obtained over 500,000 eggs for the first season. The first fry plants from the hatchery were made in the spring of 1892.

The Legislature in 1892 appropriated $5,000 for repainting the hatchery and "provided with a large sign, 'Vermont State Fish Hatchery,' which has been placed on the roof."[14] The State also laid new pipe connecting the hatchery to the spring and brook water. The State also installed a picket fence "to protect the property from intruders." The 1893 work also included building a 25-

[11]Vermont Department of Fish and Game. *Biennial Reports of the Commissioners of Fish and Game*. Montpelier, 1896
[12]Vermont Department of Fish and Game. *Biennial Reports of the Commissioners of Fish and Game*. Montpelier, 1896
[13]Ibid
[14]Ibid

by 30-foot ice, meat and cookhouse "for storing ice, which is to be used in shipping fry, keeping meat, and preparing it properly for food. The building has been clapboarded and painted two coats."[15] The 1892 appropriation also funded eight additional ponds. The ponds varied in size from 15- to 200-feet long and from 10- to 30-feet in width. The ponds consisted of 15 compartments. Plank flumes conducted the water to the ponds. The flumes also held small trout, and breeders ascended the flumes when they were ready to spawn. A photograph appearing in the 1894 biennial report shows the ponds immediately in front (north) of the hatchery building so that the end of the concrete deck entry porch forms the wall of a pond.

In 1894 the Legislature appropriated $7,000 for the State hatchery to purchase more property and build a 10-room house for the superintendent. The house was built in 1895, south of the hatchery building, "located upon a knoll about mid-way of the new purchase, and commands a view of all the grounds of the hatchery plant."[16] The superintendent lived on-site with his family and "acted as superintendent under the direction of the Commissioner and employs such labor as the exigencies of the work require, usually two to three men."[17] In addition to housing the superintendent, the cottage also had two rooms set aside "for the use of the Commissioners, as office and sleeping room, and ore furnished from the Commissioners' fund.[18] Up to this point, the Commissioners incurred expenditures "for hotel and livery expenses and board."[19] The Roxbury Fish Hatchery demolished the house in 1970 due to rising heating and maintenance costs.

In 1895, the Burnham mill conducted extensive repairs on its dam and penstock. Up to this point, the leakage from the Burnham dam provided adequate water for the hatchery. With the repairs, there was the potential of an inadequate amount of water reaching the hatchery. The State secured "an absolute and indisputable title to all the water from the Burnham brook on the Burnham premises at the cost of one thousand dollars, which included in addition to the water rights, a clapboard mill, a penstock, and a dam, all dilapidated and practically worthless to the State."[20] During the summer of 1895, the State enlarged six ponds, and School House Spring, referred to in Burnham's deed to the State, was laid in stone and concrete and connected with the main spring by 320' of 2" galvanized iron pipe. In the fall of 1895, about one million eggs were taken from the parent brook, lake, and rainbow trout. This was the first season in the history of

[15] Ibid.
[16]Vermont Department of Fish and Game. *Biennial Reports of the Commissioners of Fish and Game*. Montpelier, 1896[16]
[17]Vermont Department of Fish and Game. *Biennial Reports of the Commissioners of Fish and Game*. Montpelier, 1913
[18]Vermont Department of Fish and Game. *Biennial Reports of the Commissioners of Fish and Game*. Montpelier, 1896[18]
[19]Ibid.
[20]Ibid.

the State hatchery that there was no expenditure for fish eggs.

The book *Rod and Gun in New England*, published in 1897, provided the following summary of the Roxbury Fish Hatchery:

> Not till 1890 did Vermont invest in a hatchery for the artificial propagation of fish when an appropriation of $2,400 was made for the purchase of a site and the construction of a hatchery. Since the first appropriation, the Legislature has liberally supported the institution, which was located at Roxbury; and today, it is regarded as one of the best equipped and most productive of its kind in New England. Its work is confined to the propagation of the trout family or Salmonidae, the native brook trout, and lake trout receiving special attention. It has a capacity of 2,000,000 eggs which are hatched, and the fry is planted at ages varying from three months to one year old from the time they begin to take food. The larger portion of the product is distributed as fed fry (about three months old) in the months of May and June. After the general distribution in June, shipments are made each month to relieve the overcrowded condition resulting from the rapid growth of the fry. The first shipments are made as fingerlings in October. The number of ponds at the hatchery is increased annually to provide space for rearing a larger portion of the product to the fingering age. The water supply at Roxbury is unexcelled in the qualities essential to the propagation of the Salmonidae.[21]

The annual report from the same year proved a positive outlook for the Roxbury Fish Hatchery:

> Roxbury water has never failed the State of Vermont. The Burnham brook, which supplies the tanks of breeding fish, has been sufficient with a mixture of our spring water to keep our fish clean and healthy. The temperature in extremes being 33 degrees to 64 degrees. The spring is a wonder, flowing summer and winter, a stream sut7icient to hatch a million eggs, with extremes in temperature of 44 degrees to 50 degrees.[22]

During a 1904 inspection of the hatchery, the Commissioner of Fisheries and Game "found many repairs absolutely needed" as "the sills and sleepers in the south end of the hatchery were rotted and broken down so that the floor lay on the ground. Nearly one-half of the hatchery was out of Commission. The curbing in all the ponds was rotted away and caving in. Also, the dam at the lower pond was in the same condition."[23] The following year, the State installed new sills and

[21]Samuels, Edward Augustus, *With rod and gun in New England and the Maritime Provinces*. Samuels & Kimball, Boston, 1897.
[22]Vermont Department of Fish and Game. *Biennial Reports of the Commissioners of Fish and Game*. Montpelier, 1897
[23]Vermont Department of Fish and Game. *Biennial Reports of the Commissioners of Fish and Game*. Montpelier, 1905

floors, a new roof on the west side of the hatchery, and new shingles. It also repaired the dam and rebuilt a pond. In preparation of the 1906 Legislative session, the hatchery outlined the following needs for the site:

> First, the barn leaks badly, also the meat room and cold storage should be shingled. The flume which carries the brook water to the ponds will have to be renewed. A new ice house will have to be built. The fence around the hatchery grounds repaired, many posts having rotted away, also the fence should be painted. In order to continue the hatching of trout, there will have to be purchased twenty-eight new hatching troughs and new supply troughs. They being decayed and out of Commission. A new dam for the large pond near the house. The neglect in replacing this dam two years ago has handicapped my work, causing considerable loss to the State by not being able to carry the usual number of trout. It is necessary to repair the underpinning wall of the house. We also need a few more shipping cans made especially for long-distance shipping.[24]

The next wave of improvements began following a visit from a Commissioner in 1912. He concluded:

> Soon after the appointment of the present Commissioner, a visit to this hatchery revealed the fact that there was not a pond that would hold water, and the few fish on hand were in the spring water basin, one of the sources of water supply to the hatchery building. The sills and underpinning of the hatchery building, as well as the floor, were badly decayed. On one side, the roof was shingled, and on the other, it was papered. All the buildings needed more or less repairs and to be painted. The water system, supplying the water in the ponds, was in bad shape.

The State of Vermont built a new stone and cement dam at Burnham Brook, which helped increase water supply. They replaced the open ditch and plank flumes connecting the water to the hatchery with a 10-foot iron pipe. The State built ten reinforced concrete raceways (no longer extant) and two irregularly-shaped earthen ponds with solid reinforced concrete outlets. The State raised the hatchery building and installed new sills, a solid concrete floor that was two feet lower than the original wood floor. By lowering the hatch room, gravity aided water flow. Subsequent state hatcheries incorporated the sunken hatch room in their original design.[25] The hatchery also added,

> An auxiliary hatchery building of about one third the capacity of the main hatchery has

[24]Vermont Department of Fish and Game. *Biennial Reports of the Commissioners of Fish and Game*. Montpelier, 1906
[25]Vermont Department of Fish and Game. *Biennial Reports of the Commissioners of Fish and Game*. Montpelier, 1912

> been constructed south of the superintendent's cottage for the purpose not only of increasing the facilities for hatching and rearing fish but also for conducting experiments of a practical and economic nature.[26]

This auxiliary building is no longer extant, having been destroyed in the 1927 flood.

Between 1910 and 1912, Vermont propagated brook, brown, rainbow, and lake trout, and landlocked and Chinook salmon. In 1912 Commissioner John Titcomb raised the question of instituting a fishing license for anglers. Up until this time, revenue from hunting licenses, supplemented with legislative appropriations, was used for the protection of both fish and game. In 1915 an angler's license law was passed, but not without opposition. The *Burlington Free Press* reported that the licensing opposition came from those who felt fishing was a God-given right and those who feared the financial power of Fish and Game. The enactment of the fishing license law and repeal of the biennial appropriation gave the Fish and Game Commission the distinction of being the only state department wholly maintained without legislative appropriation.

By 1916 other fish culture and field stations had been established. The Roxbury Hatchery became known as the central station, about which were grouped a series of field stations at Lyndon Center, Bennington, Vernon, White River Junction, Canaan, and Burlington. While Roxbury was the principal State hatchery, there were larger distributions at the Bennington and Canaan stations. At this time, the Roxbury Fish Hatchery was neglected and in a state of disrepair. The 1918 Biennial report stated:

> The State has now an investment in this property of about $25,000. No construction has been attempted, and necessary repairs only have been made during this period … Roxbury Hatchery contains within its boundaries evidence of abandoned experiments covering a period of years. It has no doubt been worked beyond its capacity of water supply and equipment, as shown by serious losses of young fish at certain seasons each year.[27]

The following year, the Roxbury Fish Hatchery lost "a large number of brood and exhibition fish" when they were placed "on exhibition at the State Fair at White River Junction in October 1919. The cause of this loss was traceable to the water supply."[28]

[26]Ibid.
[27]Vermont Department of Fish and Game. *Biennial Reports of the Commissioners of Fish and Game*. Montpelier, 1918
[28]Vermont Department of Fish and Game. *Biennial Reports of the Commissioners of Fish and Game*. Montpelier, 1919.

In 1924, the Vermont Fish and Game Department reported that Vermont streams and ponds were in danger of being fished out unless the State undertook a massive restocking with hatchery-reared fry and fingerlings. This report mirrored George Perkins Marsh's 1856 report to the State legislature on the causes of and remedies for the decline of the native fish population. As before, pollution, erosion, construction of dams, and indiscriminate fishing practices were cited as contributing to the reduction observed at State fisheries. With the goals of growing larger fish before distribution and eliminating disease and overcrowding in the hatcheries, the Roxbury Fish Hatchery transferred many trout fry to the South Vernon station, which operated as a rearing station during summer months. The State encouraged sportsmen's organizations to construct rearing pools around the state, with the later distribution of the fingerlings to nearby streams.[29]

The flood of 1927 damaged state-owned sites and hampered the plans to expand production capabilities at the existing hatcheries. The flood set back expansion plans, and the Fish and Game Department focused on replacing the lost stock.

The flood of 1927 caused extensive damage to the Roxbury Fish Hatchery. The flood destroyed the c.1912 auxiliary hatchery building, the perimeter fence, the rearing pools, "and large quantities of silt, gravel, and refuse swept into them and the larger brook ponds."[3031] The floodwaters killed or swept away approximately 15,000 lake and native trout and obstructed the source of water supply. The total value of the damages was roughly $3,200. The flood compounded problems that already existed at the site. By 1927, the water supply was a serious problem. The diminished flow came "about gradually over a period of years and is accounted for in part by the clearing up of forest growth protecting watersheds, and, in part, by other unknown causes prevalent throughout New England."[32]

As the nationwide economy was grinding to a halt in the 1930s, improvements continued at the Roxbury hatchery. In 1931, the State rebuilt the five main ponds with new concrete headers and spillways. The hatchery also added new rearing troughs, "increasing the fry and fingerling capacity of this station by about fifty percent."[33] The State renovated the superintendent's house, rearing shed, and garage. The 1930s were years of growth and expansion of fish culture in Vermont. The State built a stripping station for brown trout and landlocked salmon in Newport,

[29] Vermont Department of Fish and Game. *Biennial Reports of the Commissioners of Fish and Game*. Montpelier, 1926
[30] *Salisbury Fish Culture Station National Register Nomination*. Salisbury, Addison County, Vermont. United States Department of the Interior, National Park Service,1994.
[31]Vermont Department of Fish and Game. *Biennial Reports of the Commissioners of Fish and Game*. Montpelier, 1919.
[32]Vermont Department of Fish and Game. *Biennial Reports of the Commissioners of Fish and Game*. Montpelier, 1928,
[33]Vermont Department of Fish and Game. *Biennial Reports of the Commissioners of Fish and Game*. Montpelier, 1932[33]

an eyeing station in Morgan, and a fourth State hatchery in Salisbury.[34]

During World War II, the State halted improvements and new construction because of a lack of workers and materials. After 1945, there was an increase in resources, available human resources, and fishing licenses. Taking advantage of renewed resources and fishing interest, State hatcheries resumed activity following World War II.[35] The 1956 report wrote

> In the opinion of the Commission, the Roxbury hatchery has never been an efficient one. The lack of water has been a great handicap, and surveys have failed to reveal any additional amount that was satisfactory. However, some additional water has been found, and a four-inch pipe has been laid to convey it to the hatchery.[36]

Improvements over the next two years included the installation of new walk-in freezer and assorted building repairs. With this work, the hatchery was "in a position to produce more fish and operate economically"[37]In 1957, the Roxbury Fish Hatchery installed a new retaining wall "in keeping with general modernization of department rearing facilities."[38]

From the 1850s through the 1930s, the State focused primarily on fish propagation and conservation. From 1940 to the present, the focus expanded to include the study and treatment of disease. Starting in the mid-1960s, Vermont acknowledged that the water quality in Vermont's streams and ponds was steadily improving. To assist in these environmental efforts, the Vermont Department of Fish and Game hired at least eight new biologists. Water quality and lack of chemical pollutants were an increasing concern at all Vermont hatcheries, not only for incoming water but for the water released to the streams after being used in the hatchery operation.

In the 1960s, the renewed national awareness of environmental issues brought increased pressures on wildlife managers to preserve our natural resources. In 1961, the State of Vermont joined with the US Department of Fish and Wildlife, adopting a procedure for research and evaluation of fish habitat. This program became an extension of the watershed study begun in 1952 by State and Federal biologists. This cooperative effort between biologists, hatchery superintendents, and game wardens charted stream conditions and the amount of fish a body of

[34] *Bennington Fish Culture Station National Register Nomination*. Bennington, Bennington County, Vermont. United States Department of the Interior, National Park Service,1994.
[35] Ibid.
[36]Vermont Department of Fish and Game. *Biennial Reports of the Commissioners of Fish and Game*. Montpelier, 1958
[37]Vermont Department of Fish and Game. *Biennial Reports of the Commissioners of Fish and Game*. Montpelier, 1956
[38]Vermont Department of Fish and Game. *Biennial Reports of the Commissioners of Fish and Game*. Montpelier, 1958

water could support.[39] In 1960, the State added a biology research lab (#16), "where experimental work with fish can be done under controlled conditions. This lab may well prove its worth early by helping to eliminate some of the recurring problems that were difficult to cope with in the past because of lack of equipment and adequate personnel."[40]

The new laboratory housed the Research and Management Division, which conducted the necessary research and data collection "to supply continuous crops of fish and game on a predictable basis for recreation."[41] The division strived "to maintain maximum populations of desirable species at levels where breeding stock is guaranteed in order to produce practical surpluses to be taken by the hunter and fisherman. Suitable habitat determines how large these harvest maximums can be."[42] In the late 1960s, the lab was used to "determine variations in physical development, age structure, and reproductive rate of the deer herd."[43] During the 1968-1969 archery seasons, the State provided hunters with special envelopes "in which the hunter mailed half of the lower jaw of his deer to the Roxbury laboratory for age determination."[44] In 1963, "the Roxbury Station had a new roof as well as some siding put on the so-called CCC building."[45]

During the 1960s, the outreach department of Vermont Fish and Wildlife used the outbuildings for storage. They contained "land posters, information & education literature, spark plugs, oil filters, and other hardware as well as bulk office supplies and the many forms needed by all branches of the Department …The overage has to be taken over the road to a barn attic at the Roxbury Hatchery, a mere 16 miles away."[46]

Historic Context: Tourism

The Roxbury Fish Hatchery is also eligible under Criterion A as it is significant for its association with the growth and development of tourism in Vermont.

The Roxbury Fish Hatchery supported the children's fishing programs run by Vermont Fish and

[39] *Bennington Fish Culture Station National Register Nomination*. Bennington, Bennington County, Vermont. United States Department of the Interior, National Park Service,1994.
[40]Vermont Department of Fish and Game. *Biennial Reports of the Commissioners of Fish and Game*. Montpelier, 1966
[41]Vermont Department of Fish and Game. *Biennial Reports of the Commissioners of Fish and Game*. Montpelier, 1970
[42]Ibid.
[43]Vermont Department of Fish and Game. *Biennial Reports of the Commissioners of Fish and Game*. Montpelier, 1969
[44]Ibid.
[45]Vermont Department of Fish and Game. *Biennial Reports of the Commissioners of Fish and Game*. Montpelier, 1963
[46]Ibid.

Wildlife, bringing over 2,000 annual visitors to Roxbury. The series of ponds and surrounding vegetation created a park-like atmosphere on the Roxbury Fish Hatchery grounds, and the CCC picnic area with its cooking hearths reflect the longtime use of the grounds for tourism and recreation. Part of the appeal in building Vermont hatcheries was that Vermont's waterways were integral to the State's tourism. In Vermont, as early as the 1890s, fishing was considered the second most profitable enterprise after the dairy industry.[47][48] Vermont fostered sportfishing as railroads, and then automobiles, made remote fishing sites accessible to more people. As early as 1893, the State recognized the RCFS for its tourism potential. When proposing the fish hatchery, the Commissioners reported:

> It does not come naturally within the jurisdiction of the Fish and Game Commissioners, but they are constrained to make mention of it for the reason that they receive a great many letters from would-be visitors who desire to bring their families to some locality in the country where good fishing or shooting prevails.[49]

The 1893 Annual Report stated that since the hatchery was

> Adjacent to the track of Central Vermont railroad company …The hatchery buildings and ponds are easily seen by passengers on the trains. In fact, the fish in some of the ponds can be seen from the cars when the trains are not running at too high a rate of speed.[50]

During the 1895 season, there were approximately 250 visitors at the Roxbury Fish Hatchery. The superintendent showed "this large number of visitors every possible courtesy, it takes time, and the Legislature should either enact to close the doors to visitors, which would be unwise and inconsistent, or keep in view this fact in making appropriations for its support. Visitors cannot be allowed the freedom of the premises without an attendant."[51] By 1902, the hatchery opened its doors to visitors on Saturdays only. The policy was "found to be an excellent rule and is still in force. To the visitors, every possible courtesy has been extended by Mr. Keyes [Hatchery superintendent] and his assistants. It is believed that the hatchery is benefited by the intelligent inspection of visitors."[52] Following several 1912 repairs, the Commissioners reported that

[47] *Bennington Fish Culture Station National Register Nomination*. Bennington, Bennington County, Vermont. United States Department of the Interior, National Park Service,1994.
[48] Perry, Florence J. *Progress Report of the Vermont Fish and Game Department*. Montpelier, Vermont, 1964.
[49] Vermont Department of Fish and Game*. Biennial Reports of the Commissioners of Fish and Game*. Montpelier, 1891.
[50] Vermont Department of Fish and Game*. Biennial Reports of the Commissioners of Fish and Game*. Montpelier, 1896
[51] Ibid.
[52] Vermont Department of Fish and Game. Biennial Reports of the Commissioners of Fish and Game. Montpelier, 1903

> The institution is now in such shape that in proportion to the work done it will not cost so much to maintain it as heretofore, but with a contemplated increased output of fish there will naturally be an increased cost in maintenance. It is now a good advertisement for the State and attracts much attention from tourists passing either by highway or railway.[53]

When the CCC installed the two hearths and picnic tables, it reflected the use of the Roxbury Fish Hatchery as a public park. In 1935, the Forest Service hired Albert D. Taylor, president of the American Society of Landscape Architects, to evaluate structures in America's public parks. Taylor produced a three-volume report that included drawings of many types of recreation structures, such as bathhouses, shelters, amphitheaters, playgrounds, and barbecue hearths. Up to this point, these types of structures were foreign to the country's recreational facilities, and through his designs, the CCC transformed the nation's park infrastructure. These hearths are similar to hearths built by the CCC at Wilgus State Park (Windsor, Vermont). Townsend State Park (Townsend, Vermont), Gifford Woods State Park (Sherburne, Vermont), Calvin Coolidge State Park (Plymouth, Vermont). The durable stoves are a testimony to the craftsmanship of the CCC workers who built them.

Historic Context: Civilian Conservation Corps

The Roxbury Fish Hatchery is also significant for its association with the Civilian Conservation Corps (CCC). The barn and hearths reflect the CCC's contributions to both fish management and enhancing Vermont's recreational infrastructure. The barn and hearths are representative examples of CCC designs and are reminders of these New Deal relief agencies, recalling the substantial accomplishments of the CCC. These resources demonstrate their association with public works programs. The resources retain characteristics of Park Rustic style, such as the use of native materials, evidence of handcraftsmanship.

In 1934-35, the CCC built a garage behind (south of) the hatchery building, near the former superintendent's house. Formed in 1933, the CCC was a Depression-era program created by President Franklin Delano Roosevelt. The CCC created opportunities for young men to work on flood control, soil erosion, road building, and tree planting. The young men enlisted for six-month enrollments, making thirty dollars a month. Designed to keep the men's dignity aloft during dark times, the CCC was a bridge between employment and more stable employment. The National Park Service staff prepared the majority of plans and

[53] Vermont Department of Fish and Game. Biennial Reports of the Commissioners of Fish and Game. Montpelier, 1913

drawings for CCC related projects.

While forestry dominated CCC projects, there were several instances in which the CCC was involved with fish management. In the May 1936 edition of *The Stumble*, the newsletter for the CCC camp in Rochester, William Davis wrote about a partnership between the Forest Service, Bureau of Fisheries, and Vermont Conservation Department. It involved a project in which three streams and one lake were set aside for special permit fishing to be accurate data about fish populations. Davis wrote that "an effort is being made to get an accurate estimate of the hatch, so this, in turn, can be checked against the stocking rounds of each stream. This is a fundamental procedure in any fish management work."[54] In July 1937, the Plymouth Camp completed fisheries-related work such as "pools deepened for dry seasons" and "research on fish reproduction."[55]

While the CCC's efforts are well documented in Vermont State Parks and Forests, side projects such as the work at the Roxbury Fish Hatchery were prevalent. For instance, after the superintendent's house at the Game Farm at Milton was destroyed by fire in 1933, the CCC built a new house.[56] In 1938, the CCC assisted the Milton Hatchery with the construction of a new administrative building.

In 1937, there was extensive work to the Roxbury Fish Hatchery superintendent's office, including "repaired by a new roof, new sills, new porch floor, foundation wall repaired and house shored, new sewer drain and septic tank."[57] The CCC returned to the Roxbury Fish Hatchery in 1937, improving the hatchery building by installing a new septic tank and toilets.

In 1938, the CCC poured a concrete series of raceways at the southern end of the Roxbury Fish Hatchery property. These raceways were mainly used as a settling basin, as the water flows into the Third Branch of the White River. The CCC also renovated the interior of the hatchery building, adding toilets and a new heating system. On a bluff, overlooking the hatchery yard, they constructed two stone hearths for visitors (#4 and #5).

[54] Davis, William, "Test Streams." *The Stumble, Volume 1, Number 5, May 1936*, *CCC Camp 1143, Rochester, Vermont*, Vermont Historical Society, Barre Vermont.
[55] "The Civilian Conservation Corps in Vermont, A Study of Camp Calvin Coolidge, Plymouth, Vermont." The First Earlham College Vermont Off-Campus Study Group, Fall 1970. Vermont Historical Society, Barre, Vermont.
[56] Vermont Department of Fish and Game. *Biennial Reports of the Commissioners of Fish and Game*. Montpelier, 1933[56]
[57] Vermont Department of Fish and Game. *Biennial Reports of the Commissioners of Fish and Game*. Montpelier, 1938[57]

While stationed with Camp Washington, Company #198 in Northfield, Vermont, Arthur P. Wagner performed work similar to that of the Roxbury Fish Hatchery. Staring in 1936, Wagner's did work at Bear Mountain, north of Roxbury, including "building parks, and picnic areas, road construction, picnic tables, and benches, and large fireplaces for barbecues."[58] Wagner's camp was likely responsible for the construction at the Roxbury Fish Hatchery as the company conducted work the in-Roxbury State Forest where they built the access road on the Rice Block

> Containing many impressive culverts and at one time, three significant bridges. The CCCs built at least two other significant access roads within the forest, as well as building a dam on the Cram Hill Block, complete with a log cabin style lean-to for camping. The men of the CCC also planted many trees and treated 800 acres with timber stand improvement within the forest.[59]

The Northfield CCC camp also set up Spike Camp in Roxbury during the winter of 1935/1936, assisting the town with the effects of a November blizzard.

The CCC developed a strong relationship with the local community. The town provided food, library books, funding for sports teams, and theatrical offering for the men. Simultaneously, the camps often assisted the community with firefighting, lifesaving efforts, and rebuilding after floods and other natural disasters. The CCC also built several State parks featuring pavilions, shelters, tenting areas, and picnic areas featuring tables and barbecues hearths. For the men of the 191st Company in Waterbury, they often worked at Smuggler's Notch, "creating recreational facilities such as picnic areas with fireplaces, lean-to shelters, ski trails, latrines, and the planting of hundreds of trees to replace diseased and malformed ones."[60]

On August 27, 2011, Tropical Storm Irene caused the most severe flooding in Vermont since the record flood of November 1927. The Flint Brook, located approximately 1,200 feet north of the Roxbury Fish Hatchery site, broke through a retaining wall and swept through the site before entering the Third Branch of the White River.

After several years of analysis and planning. the State of Vermont started refurbishing the Roxbury Fish Hatchery in 2018. Improvements include the installation of modern hatchery and water treatment technology, the rehabilitation of the two upper ponds, and added restrooms for

[58] Wagner, Arthur P., "My Story of the Civilian Conservation Corps." National Association of Civilian Conservation Corps Alumni, East Bay Chapter 59, June 22, 1991. Vermont Historical Society, Barre, Vermont.
[59] Roxbury State Forest, Vermont Department of Forests, Parks and Recreation website.
[60] Galo, George, "The 191st Company the Civilian Conservation Corps. April 1939-April 1940, A Year in the Life of A CCC Recruit." Prime Offset Printing, 1997. Vermont Historical Society, Barre, Vermont.

visitors.

Today the Roxbury Fish Hatchery continues to operate as a hatchery. The historic buildings have been carefully preserved, making this station an excellent resource contributing to the understanding of Vermont's agricultural heritage.

9. Major Bibliographical References

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Previous documentation on file (NPS):

____ preliminary determination of individual listing (36 CFR 67) has been requested
__X__ previously listed in the National Register
_____previously determined eligible by the National Register
_____designated a National Historic Landmark
____ recorded by Historic American Buildings Survey #_____
_____recorded by Historic American Engineering Record # _____
____ recorded by Historic American Landscape Survey # _____

Primary location of additional data:

_X___ State Historic Preservation Office
____ Other State agency
____ Federal agency
____ Local government
____ University
____ Other
Name of repository: _____

Historic Resources Survey Number (if assigned): _____

10. Geographical Data

Acreage of Property 7.93

Use either the UTM system or latitude/longitude coordinates

Latitude/Longitude Coordinates (decimal degrees)
Datum if other than WGS84:
(enter coordinates to 6 decimal places)

Lat: 44.064632 Long: -72.744274

Verbal Boundary Description (Describe the boundaries of the property.)

The boundary of the Roxbury Fish is Parcel #44 on Map #9 of the Town of Roxbury Tax Maps.

Boundary Justification (Explain why the boundaries were selected.)

The nominated property includes 7.93 acres deeded from Honorable E. N. Spaulding to the State of Vermont on August 1, 1891, recorded in Book 16 Pages 437-439 of the Roxbury Land Records.

11. Form Prepared By

name/title: Brian Knight
organization: Brian Knight Research
street & number: P.O. Box 1096
city or town: Manchester state: VT zip code: 05254
e-mail brianknight@fastmail.fm
telephone: 201.919.3416
date: March 30, 2021

Additional Documentation

Submit the following items with the completed form:

- **Maps:** A **USGS map** or equivalent (7.5 or 15 minute series) indicating the property's location.

- **Sketch map** for historic districts and properties having large acreage or numerous resources. Key all photographs to this map.

- **Additional items:** (Check with the SHPO, TPO, or FPO for any additional items.)

Photographs

Submit clear and descriptive photographs. The size of each image must be 1600x1200 pixels (minimum), 3000x2000 preferred, at 300 ppi (pixels per inch) or larger. Key all photographs to the sketch map. Each photograph must be numbered, and that number must correspond to the photograph number on the photo log. For simplicity, the name of the photographer, photo date, etc. may be listed once on the photograph log and doesn't need to be labeled on every photograph.

Photo Log

Name of Property: Roxbury Fish Hatchery
City or Vicinity: Roxbury
County: Washington State: Vermont
Photographs 1-5, 8, 15-16 by Devin Colman, April 2021
Photographs 6-7, 9-14 by Brian Knight, July 2020

Photograph **1** of 16: Looking to the northwest along VT Route 12A at (L to R) HD #19: State Biology Research Lab, #18: Shed, and #17: CCC Barn

Photograph **2** of 16: Looking to the northwest along VT Route 12A at (L to R) HD #15: Sludge Tank, #14: Clarifier Tank, #13: Effluent Treatment Building, #12: Lower Tank Pavilion, and #11: Upper Tank Pavilion

Photograph **3** of 16: Looking to the southeast along VT Route 12A at (R to L) HD #3: Carriage Barn, HD #2: Ice, Meat & Cook House, and HD #11: Upper Tank Pavilion

Photograph **4** of 16: Looking to the east across HD #7: Pond towards HD #3: Carriage Barn and HD #2: Ice, Meat & Cook House

Photograph **5** of 16: Looking to the north at HD #8: Pond, with HD #6: Springhouse in the background, and HD #3: Carriage Barn on the right

Photograph **6** of 16: Looking to the southwest at HD #1: Hatchery Building

Photograph **7** of 16: Looking to the northwest at HD #1: Hatchery Building

Photograph **8** of 16: Interior view looking south at HD #1: Hatchery Building

Photograph **9** of 16: Looking to the southeast at HD #2: Ice, Meat & Cook House

Photograph **10** of 16: Looking to the northeast at HD #3: Carriage Barn

Photograph **11** of 16: Looking to the west at HD #6: Springhouse

Photograph **12** of 16: Looking to the northwest at HD #18: Shed

Photograph **13** of 16: Looking to the northwest at HD #17: CCC Barn

Photograph **14** of 16: Looking to the west at HD #19: State Biology Research Lab

Photograph **15** of 16: Looking north at HD #4: Hearth

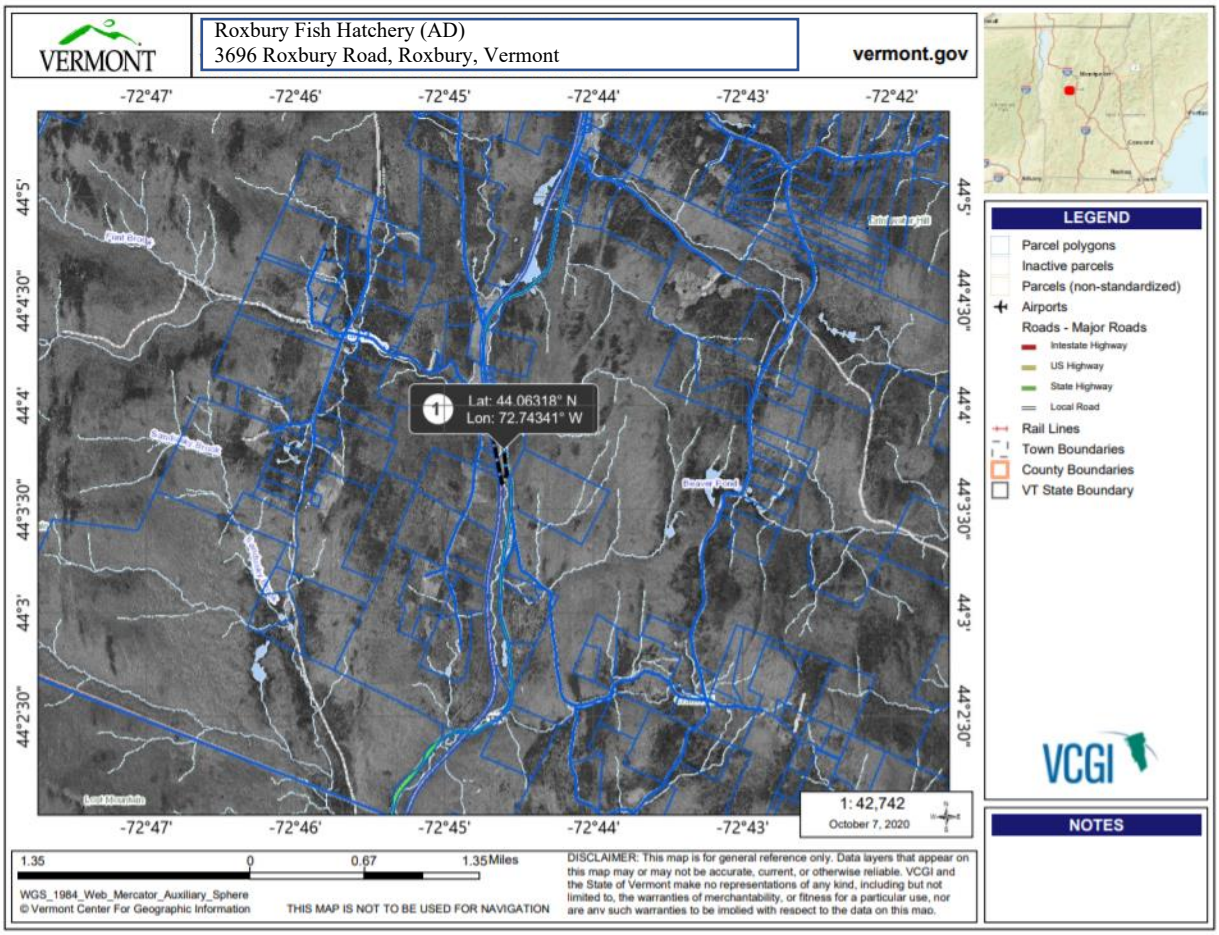
Photograph **16** of 16: Looking north at HD #5: Hearth

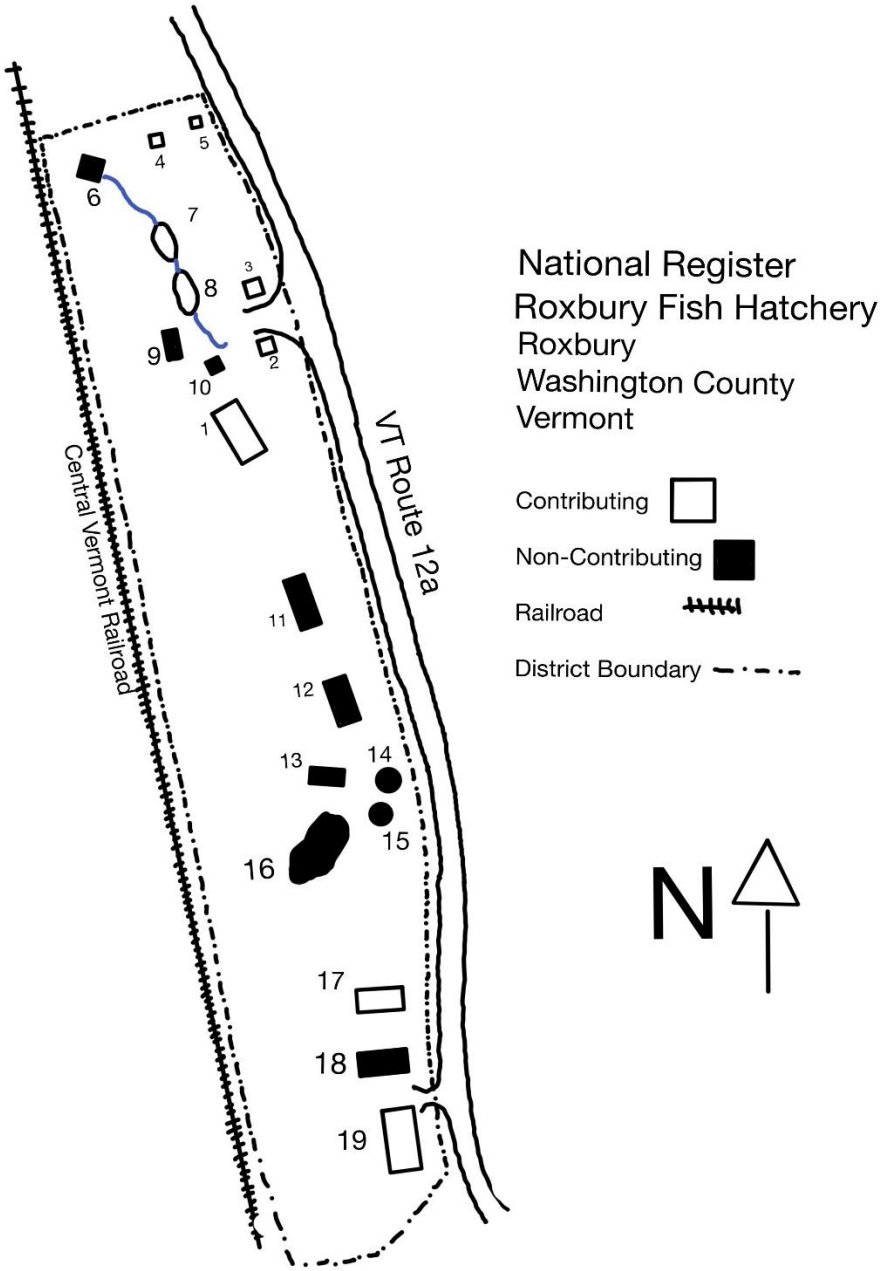
Paperwork Reduction Act Statement: This information is being collected for applications to the National Register of Historic Places to nominate properties for listing or determine eligibility for listing, to list properties, and to amend existing listings. Response to this request is required to obtain a benefit in accordance with the National Historic Preservation Act, as amended (16 U.S.C.460 et seq.).

Estimated Burden Statement: Public reporting burden for this form is estimated to average 100 hours per response, including time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding this burden estimate or any aspect of this form to the Office of Planning and Performance Management. US Dept. of the Interior, 1849 C. Street, NW, Washington, DC.

Roxbury Fish Hatchery (Additional Documentation) Washington, Vermont
Name of Property County and State

Maps




National Register
Roxbury Fish Hatchery
Roxbury
Washington County
Vermont
Contributing
Non-Contributing
Railroad
District Boundary
VT Route 12a
Central Vermont Railroad
N
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List of Figures

National Register of Historic Places
Memo to File

Correspondence

The Correspondence consists of communications from (and possibly to) the nominating authority, notes from the staff of the National Register of Historic Places, and/or other material the National Register of Historic Places received associated with the property.
Correspondence may also include information from other sources, drafts of the nomination, letters of support or objection, memorandums, and ephemera which document the efforts to recognize the property.

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

NATIONAL REGISTER OF HISTORIC PLACES
EVALUATION/RETURN SHEET

REQUESTED ACTION: NOMINATION

PROPERTY NAME: Roxbury Fish Hatchery

MULTIPLE NAME: Fish Culture Resources of Vermont MPS

STATE & COUNTY: VERMONT, Washington

DATE RECEIVED: 2/07/94 DATE OF PENDING LIST: 3/01/94
DATE OF 16TH DAY: 3/17/94 DATE OF 45TH DAY: 3/24/94
DATE OF WEEKLY LIST:

REFERENCE NUMBER: 94000177

NOMINATOR: STATE

REASONS FOR REVIEW:

APPEAL:	N	DATA PROBLEM:	N	LANDSCAPE:	N	LESS THAN 50 YEARS:	N
OTHER:	N	PDIL:	N	PERIOD:	N	PROGRAM UNAPPROVED:	N
REQUEST:	N	SAMPLE:	N	SLR DRAFT:	N	NATIONAL:	N

COMMENT WAIVER: N

√ ACCEPT ___ RETURN ___ REJECT 3/24/94 DATE

ABSTRACT/SUMMARY COMMENTS:

Built in 1891, the Roxbury Fish Hatchery was the first state-operated fish culture station in Vermont representing an extremely significant aspect of the State's agricultural legacy.

RECOM./CRITERIA Accept A&C
REVIEWER Sawyer
DISCIPLINE Architectural History
DATE 3/24/94

DOCUMENTATION see attached comments Y/N see attached SLR Y/N

CLASSIFICATION

___count ___resource type

STATE/FEDERAL AGENCY CERTIFICATION

FUNCTION

___historic ___current

DESCRIPTION

___architectural classification
___materials
___descriptive text

SIGNIFICANCE

Period Areas of Significance--Check and justify below

Specific dates Builder/Architect
Statement of Significance (in one paragraph)

___summary paragraph
___completeness
___clarity
___applicable criteria
___justification of areas checked
___relating significance to the resource
___context
___relationship of integrity to significance
___justification of exception
___other

BIBLIOGRAPHY

GEOGRAPHICAL DATA

___acreage ___verbal boundary description
___UTMs ___boundary justification

ACCOMPANYING DOCUMENTATION/PRESENTATION

___sketch maps ___USGS maps ___photographs ___presentation

OTHER COMMENTS

Questions concerning this nomination may be directed to

_____ Phone _____

Signed _____ Date _____

VERMONT

State of Vermont
Division for Historic Preservation
Deane C. Davis Building, 6th Floor
One National Life Drive, Montpelier, VT 05620-0501
http://accd.vermont.gov/historic-preservation

[phone] 802-828-3540

Agency of Commerce and Community Development

July 27, 2021

Joy Beasley
Keeper of the National Register
National Park Service
National Register Program
1849 C Street, NW (Mail Stop 7228)
Washington, DC 20240

Re: Nomination to the National Register of Historic Places for Property in Vermont

Dear Ms. Beasley:

This submittal contains a true and correct copy of the nomination for the Roxbury Fish Hatchery (Additional Documentation) located at 3696 Roxbury Road in Roxbury, VT, to the National Register of Historic Places. This nomination serves to replace the original 1994 nomination with updated information about the property following repairs and improvements made to the property following Tropical Storm Irene in 2011.

Notification
The property owner(s), Chief Elected Official and Regional Planning Commission were notified of the proposed nomination on March 22, 2021.

☒ No objections to the nomination were submitted to the Division during the public comment period.

☐ An objection to the nomination was submitted to the Division during the public comment period. A copy of the objection is attached.

☐ A letter of support for the nomination was submitted to the Division during the public comment period. A copy of the letter is attached.

Certified Local Government
☒ The property being nominated is not located in a CLG community.

☐ The property being nominated is located in a CLG community, and a copy of the local commission's review is attached.

Rehabilitation Investment Tax Credits

☒ This property is not utilizing the Rehabilitation Investment Tax Credits.

☐ This property is being rehabilitated using the Rehabilitation Investment Tax Credits. A copy of the *Part I – Evaluation of Significance* form is attached.

NPS Grant-Funded Submissions

☒ Not funded with a NPS grant
☐ Underrepresented Communities Grant
☐ African American Civil Rights Grant
☐ History of Equal Rights Grant
☐ Tribal Heritage Grant
☐ Paul Bruhn Historic Revitalization Grant
☐ Disaster Recovery Grant

State Review Board

The Vermont Advisory Council on Historic Preservation reviewed the draft nomination materials at its meeting on April 22, 2021. The Council voted that the property meets the National Register Criteria for Evaluation under Criteria A and C and recommends that the State Historic Preservation Officer approve the nomination.

If you have any questions concerning this nomination, please do not hesitate to contact me at (802) 585-8246 or devin.colman@vermont.gov.

Sincerely,
VERMONT DIVISION FOR HISTORIC PRESERVATION

Devin A. Colman
State Architectural Historian

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

NATIONAL REGISTER OF HISTORIC PLACES
EVALUATION/RETURN SHEET

Requested Action:	Additional Documentation
Property Name:	Roxbury Fish Hatchery (Additional Documentation)
Multiple Name:	Fish Culture Resources of Vermont MPS
State & County:	VERMONT, Washington

Date Received:	Date of Pending List:	Date of 16th Day:	Date of 45th Day:	Date of Weekly List:
7/27/2021			9/10/2021	8/13/2021

Reference number:	AD94000177
Nominator:	

Reason For Review:

X Accept _____ Return _____ Reject **8/6/2021** Date

Abstract/Summary Comments:	Updates the original nomination to acknowledge changes due to disastrous flooding.
Recommendation/ Criteria	Accept Additional Documentation

Reviewer Jim Gabbert Discipline Historian

Telephone (202)354-2275 Date

DOCUMENTATION: see attached comments : No see attached SLR : No

If a nomination is returned to the nomination authority, the nomination is no longer under consideration by the National Park Service.