

United States Department of the Interior
National Park Service

OFFICE OF THE SUPERVISOR
EAST

For NPS use only

National Register of Historic Places
Inventory—Nomination Form

received

1000

date entered

See instructions in *How to Complete National Register Forms*
Type all entries—complete applicable sections

1. Name

historic GARLAND MILL

and/or common GARLAND MILL

2. Location

street & number Garland Road, (Slightly SW of it's intersection with Pleasant Valley Road along Garland Brook.) not for publication

city, town Lancaster vicinity of ~~Congressional district~~ (Second)

state N.H. code 33 county Coos code 007

3. Classification

Category	Ownership	Status	Present Use	
<input type="checkbox"/> district	<input type="checkbox"/> public	<input checked="" type="checkbox"/> occupied	<input type="checkbox"/> agriculture	<input type="checkbox"/> museum
<input checked="" type="checkbox"/> building(s)	<input checked="" type="checkbox"/> private	<input type="checkbox"/> unoccupied	<input type="checkbox"/> commercial	<input type="checkbox"/> park
<input type="checkbox"/> structure	<input type="checkbox"/> both	<input type="checkbox"/> work in progress	<input type="checkbox"/> educational	<input type="checkbox"/> private residence
<input type="checkbox"/> site	Public Acquisition	Accessible	<input type="checkbox"/> entertainment	<input type="checkbox"/> religious
<input type="checkbox"/> object	<input type="checkbox"/> in process	<input type="checkbox"/> yes: restricted	<input type="checkbox"/> government	<input type="checkbox"/> scientific
	<input type="checkbox"/> being considered	<input checked="" type="checkbox"/> yes: unrestricted	<input checked="" type="checkbox"/> industrial	<input type="checkbox"/> transportation
	<input checked="" type="checkbox"/> N/A	<input type="checkbox"/> no	<input type="checkbox"/> military	<input type="checkbox"/> other:

4. Owner of Property

name Thomas R. Southworth

street & number Garland Road

city, town Lancaster vicinity of state New Hampshire

5. Location of Legal Description

courthouse, registry of deeds, etc. Coos County Courthouse/Registry of Deeds

street & number 148 Main Street - PO Box #286

city, town Lancaster state New Hampshire

6. Representation in Existing Surveys

title None has this property been determined eligible? yes no

date federal state county local

depository for survey records

city, town state

7. Description

Condition		Check one	Check one
<input type="checkbox"/> excellent	<input type="checkbox"/> deteriorated	<input type="checkbox"/> unaltered	<input checked="" type="checkbox"/> original site
<input type="checkbox"/> good	<input type="checkbox"/> ruins	<input checked="" type="checkbox"/> altered	<input type="checkbox"/> moved date <u>n/a</u>
<input checked="" type="checkbox"/> fair	<input type="checkbox"/> unexposed		

Describe the present and original (if known) physical appearance

Garland Mill is a rectangular wooden structure having an overall length of 84 feet and an overall width of 51 feet. The building's frame is effectively one story high, although the long posts extend below the enclosed portion of the structure to afford space beneath the mill for machinery and the outflow of water. The frame consists of evenly-spaced posts which support a floor of wooden girders and joists and a roof of low-pitched rafters. The mill was originally about one-third of its present size; the early frame is largely intact and includes the original roof, still in place beneath part of the present roof. The walls of the building are covered with pine and spruce sheathing laid vertically. The roof is covered with asphalt-impregnated roll roofing.

The north elevation of the structure provides the principal access and has three wide doors and several randomly-spaced windows. The east and west elevations, which respectively provide slips for bringing logs into the mill and discharging lumber, have wide doors. The south elevation, facing Garland Brook, has several windows and several sheathed areas where the location of former windows can be discerned. The mill has been extended on the west by the addition of an eighteen-foot-wide shed-roofed section which provides additional floor space near the back slip. The north side of the mill's roof has been extended some twelve feet along the side of this addition.

The mill projects southward on its high posts from a retaining wall of field stones running at right angles to the dam along the north wall of the building. This retaining wall has now been faced with concrete. The south side of the mill, opposite the retaining wall, and the west side, opposite the dam, are open and allow water from the tail race to flow back to the adjoining brook. The frame of the building is supported by the wall posts, which originally rested on mud sills laid on or embedded in the ground; today the posts are for the most part supported on concrete footings.

The main floor of the mill is a single large room except for a 10- by 12- foot tool crib. Logs are floated to the mill in the pond on the east side and brought into the building on a front slip or inclined plane. An endless chain pulls the logs lengthwise to a log deck inside the east door, and from here they are placed on the saw carriage. After being passed through the circular saw, logs are converted to boards or timbers which pass to the west end of the building on rollers. Here they may be run through a surface planer which stands at the north side of the mill and then discharged through a wide door in the end of the shed-roofed extension at the end of the building. A covered chain and sprocket conveyer carries waste slabs out of the mill to the south. A similar conveyor moves saw-dust and planer shavings into a separate shed to the north; this is a two-story framed building with vertical board siding and a gable roof.

The saw arbor, carriage, surface planer, and an edger which stands near the lumber rollers are all products of the now defunct Lane Manufacturing Company, formerly of Montpelier, Vermont. Also in the mill but not in use are a clapboard saw with carriage, a clapboard planer, a tongue-and-groove mashing, a grain grinder, and a reciprocating-arm horizontal cut-off saw that was formerly powered by a separate tub wheel.

-See Continuation Sheet #1

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Continuation sheet #1 - DESCRIPTION

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A very large wooden penstock, measuring eight feet by eight feet, extends some forty feet from a trash rack in the pond to the center of the mill. There it drops to a turbine which was manufactured in 1938 by the S. Morgan Smith Company and which is located near the center of the south side of the mill. The turbine powers two main shafts which turn in Babbitt metal bearings mounted on the lower posts of the structure. Most of the pulleys on the shafting are wooden, and leather belts transmit power from the pulleys to the machinery on the main floor of the mill.

The dam extends north and south adjacent to the east wall of the mill. Like most dams associated with small rural mills, it is constructed of log cribbing filled with earth and stones. It has a wood plank apron and wooden splash boards. The spillway of the dam is 32 feet long and is faced with concrete; it discharges surplus water over an eight-foot drop to the brook below.

East of the sawmill and dam on the balance of the property are a roadway for access by logging trucks, a area where logs are piled before being rolled into the pond, a shallow water wetland area, and a field.

8. Significance

Period	Areas of Significance—Check and justify below			
<input type="checkbox"/> prehistoric	<input type="checkbox"/> archeology-prehistoric	<input type="checkbox"/> community planning	<input type="checkbox"/> landscape architecture	<input type="checkbox"/> religion
<input type="checkbox"/> 1400–1499	<input type="checkbox"/> archeology-historic	<input type="checkbox"/> conservation	<input type="checkbox"/> law	<input type="checkbox"/> science
<input type="checkbox"/> 1500–1599	<input type="checkbox"/> agriculture	<input type="checkbox"/> economics	<input type="checkbox"/> literature	<input type="checkbox"/> sculpture
<input type="checkbox"/> 1600–1699	<input type="checkbox"/> architecture	<input type="checkbox"/> education	<input type="checkbox"/> military	<input type="checkbox"/> social/ humanitarian
<input type="checkbox"/> 1700–1799	<input type="checkbox"/> art	<input type="checkbox"/> engineering	<input type="checkbox"/> music	<input type="checkbox"/> theater
<input checked="" type="checkbox"/> 1800–1899	<input type="checkbox"/> commerce	<input type="checkbox"/> exploration/settlement	<input type="checkbox"/> philosophy	<input type="checkbox"/> transportation
<input type="checkbox"/> 1900–	<input type="checkbox"/> communications	<input checked="" type="checkbox"/> industry	<input type="checkbox"/> politics/government	<input type="checkbox"/> other (specify)
<input type="checkbox"/> invention				

Specific dates ca. 1860, 1877 **Builder/Architect** Eben C. Garland

Statement of Significance (in one paragraph)

Industry:

Garland Mill is a rare survivor of the type of water-powered sawmill that flourished by the thousands in nineteenth-century New England and provided most of the lumber produced in that region before the advent of logging railroads, large-scale timber harvesting, and steam-driven saws. Garland Mill is typical of its period and locale, having survived as a medium-sized factory with a varied production. It has long been cited as the only commercial sawmill in New Hampshire that operates solely by waterpower.¹

Garland Mill was built about 1860 by Eben Crocket Garland (1817-1891), a carpenter who had come to Lancaster a few years earlier after living in several towns of southern New Hampshire.² Lying in the northernmost county of New Hampshire, Lancaster had been granted in 1763 and had seen the construction of several sawmills during the latter decades of the eighteenth century.³ The full exploitation of the timber resources of the town and others in the same region did not begin until the mid-nineteenth century, however; at that time the development of the turbine provided a more reliable source of power than the waterwheel on small streams with a low hydrostatic head, while the extension of the Atlantic and St. Lawrence Railroad to neighboring Northumberland in 1852 and the Concord and Montreal Railroad to Lancaster in 1870 provided a broadened market for local lumber.⁴

Garland and his son Charles enlarged the mill several times to enable it to compete with comparable factories in the region and to meet the evolving demands of the marketplace. By 1870, after about a decade of operation, the mill represented an investment of some \$6,000 by its owner. It employed six men (two of them Garland's sons George and Charles, who later engaged in the same business in Chatanooga, Tennessee) and distributed a yearly payroll of \$600. At that time, the mill was powered by nine waterwheels which generated a total of 70 horsepower. The factory operated five saws, including one upright or reciprocating saw, 1 circular clapboard saw, and two shingle saws. Its annual production, though limited to about three months of actual operation during the year, was some 250,000 board feet of spruce lumber, 250,000 shingles, and an indeterminate quantity of clapboards.⁵ At the same period, New Hampshire had some 640 waterpowered sawmills of the same general type as Garland Mill, of which the greatest number, more than 200, were concentrated in the two northernmost counties of Grafton and Coos. Lancaster alone had five waterpowered lumber mills; one waterpowered mill for the production of piano sounding boards from the town's extensive forests of large spruce trees; four waterpowered mills for making potato starch and one for the manufacture of starch casks; one waterpowered door, sash, and blind factory; and several other prospering mills which used the town's streams for motive power.⁶

-See Continuation Sheet #2

9. Major Bibliographical References

-See Continuation Sheet #4

10. Geographical Data

Acreeage of nominated property 5 ±

Quadrangle name MT. WASHINGTON, NH

Quadrangle scale 1:62500

UMT References

A

1	9	3	0	2	7	0	0	4	9	2	7	2	2	5
Zone			Easting				Northing							

B

Zone			Easting				Northing							

C

Zone			Easting				Northing							

D

Zone			Easting				Northing							

E

Zone			Easting				Northing							

F

Zone			Easting				Northing							

G

Zone			Easting				Northing							

H

Zone			Easting				Northing							

Verbal boundary description and justification

-See Continuation Sheet #5

List all states and counties for properties overlapping state or county boundaries

state N/A code county code

state code county code

11. Form Prepared By

name/title Thomas R. Southworth

organization Garland Mill

date May 13, 1982

street & number Garland Road

telephone (603) 788-2619

city or town Lancaster

state New Hampshire

12. State Historic Preservation Officer Certification

The evaluated significance of this property within the state is:

national state local

As the designated State Historic Preservation Officer for the National Historic Preservation Act of 1966 (Public Law 89-665), I hereby nominate this property for inclusion in the National Register and certify that it has been evaluated according to the criteria and procedures set forth by the National Park Service.

State Historic Preservation Officer signature

Commissioner, NH Dept. of Resources & Economic Development

title NH State Historic Preservation Officer

date September 23, 1982

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I hereby certify that this property is included in the National Register

Ronnie Ann Dargatzis
Keeper of the National Register

date 11/12/82

Attest:

date

Chief of Registration

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Continuation sheet #2 - STATEMENT OF
SIGNIFICANCE

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By 1875, Garland had added chair manufacturing to the mill's production, making his factory one of twenty-three in New Hampshire engaged in the same business.⁷ Garland also manufactured other furniture, advertising "bedsteads in any quantity, kitchen and loafer's chairs a hundred a week, bureaus, sinks and other furniture" at the same period.⁸

In 1877 the Garland Mill was damaged by fire and was promptly rebuilt on an enlarged scale with modernized equipment. By 1880 Garland was operating his mill nearly full-time during eight months of the year, providing work for six men on ten- to twelve-hour days, seasonal work for six more, and paying \$1,175 in yearly wages. Garland was converting the timber into some 450,000 board feet of lumber, 100,000 shingles, and 80,000 barrel or cask staves each year. He had introduced a gang saw of ten blades, the second-largest such saw in the township. He had modernized his power source, replacing the nine wheels of a decade earlier with four Blake turbines of varying sizes; these produced a total of 75 horsepower from a head of sixteen feet. Although some other mills in Lancaster were using Tyler turbines, manufactured nearby in Claremont, New Hampshire, Blake's wheels, made in Pepperrell, Massachusetts, had long been the favorite in Lancaster and were used in four of the town's six waterpowered mills in 1880.⁹

The coming of the railroad to the Lancaster region had provided a market for the town's forest products. The construction in 1887-8 of the Kilkenny Railroad, a logging line, to the very headwaters of Garland Brook quickly depleted the timber supply upon which Garland Mill and other small waterpowered factories depended.¹⁰ Such mills were quickly transformed from profitable businesses to marginal operations, and many were abandoned. In 1888 Charles Garland, Eben's son, sold Garland Mill to William B. Alden,¹¹ Alden eventually sold the business to his son Harold, who operated it until recent years.

The motive power of Garland Mill has changed somewhat since Garland's installation of Blake turbines in the 1870s. Until recently, the mill machinery was powered by a Houston turbine manufactured in Wisconsin in 1873. To improve efficiency, this has been supplanted by an S. Morgan Smith turbine of 1938 taken from a former grist mill in the area. Although Garland Mill has had turbines made by various manufacturers over the years, the type of motive power has never changed, now has the mode of power transmission through shafting and belts. The mill thus retains its architectural and technological integrity as a post-Civil War factory, one of the last operating examples of its kind in New England.

¹Historical Sites and Houses of Lancaster, New Hampshire (Lancaster, N.H.: n.p., 1964), p.56.

²James Gray Garland, Garland Genealogy (Biddeford, Me.: the author, 1897), p. 139; Everett S. Stackpole and Winthrop S. Meserve, History of the Town of Durham, New Hampshire, 2 vols. (Durham, N.H.: by the town, 1913), II, p. 175.

³Amos Newton Somers, History of Lancaster, New Hampshire (Concord, N.H.: Rumford Press, 1899), pp 379-383.

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Continuation sheet #3 - STATEMENT OF SIGNIFICANCE

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⁴Ibid., pp. 141-142, 271.

⁵New Hampshire Census, 1870, Vol. 6, Coos County, "Products of Industry in Lancaster;"
Ibid., Vol. 26.

⁶Ibid., Vol. 26, "Products of Industry."

⁷New Hampshire Business Directory for 1875 (Boston: Briggs & Co., 1875), p. 60.

⁸Coos Republican, January 5, 1875.

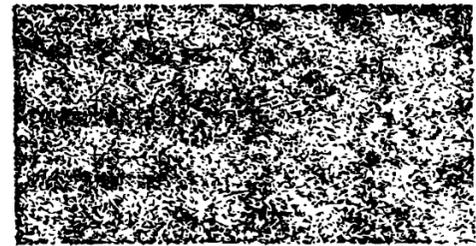
⁹New Hampshire Census, 1880, Vol. 37, "Manufactures," Special Schedule of Manufactures for Lumber Mills and Saw-Mills, Lancaster, N.H.; Report of the Commissioners on the Preliminary Examination of the Water Power of New Hampshire (Manchester, N.H.: John B. Clarke, 1870), p. 77.

¹⁰Somers, History of Lancaster, p. 276; Two Hundred Years: A Bicentennial Sketchbook (Lancaster, N.H.: n.p., 1964), pp. 34-38; C. Francis Belcher, Logging Railroads of the White Mountains (Boston: Appalachian Mountain Club, 1980), pp. 22-26.

¹¹Historical Sites and Houses of Lancaster, New Hampshire, p. 56.

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MAJOR BIBLIOGRAPHICAL

Continuation sheet #4 - REFERENCES

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Historical Sites and Houses of Lancaster, New Hampshire (Lancaster, N.H.: n.p., 1964).

James Gray Garland, Garland Genealogy (Biddeford, Me.: the author, 1897), Everett S. Stackpole and Winthrop S. Meserve, History of the Town of Durham, New Hampshire, 2 vols. (Durham, N.H.: by the town, 1913), II.

Amos Newton Somers, History of Lancaster, New Hampshire (Concord, N.H.: Rumford Press, 1899).

New Hampshire Census, 1870, Vol. 6, Coos County, "Products of Industry in Lancaster;" Ibid., Vol. 26.

New Hampshire Business Directory for 1875 (Boston: Briggs & Co., 1875).

Coos Republican, January 5, 1875.

New Hampshire Census, 1880, Vol. 37, "Manufactures," Special Schedule of Manufactures for Lumber Mills and Saw-Mills, Lancaster, N.H.; Report of the Commissioners on the Preliminary Examination of the Water Power of New Hampshire (Manchester, N.H.: John B. Clarke, 1870).

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Continuation sheet #5 - GEOGRAPHICAL DATA

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GARLAND MILL, Lancaster, NH

Verbal Boundary Description:

The nominated property is a portion of a parcel of land owned by Thomas R. and Nancy Southworth (Lancaster, NH Tax Map page R18, lot 24) and lying on the west side of Garland Road in Lancaster near its intersection with Pleasant Valley Road. The nominated property begins at the western end of the southern abutment of the bridge which spans Garland Brook on Garland Road, then follows the southern bank of Garland Brook and the southern margin of the millpond (as the water stands when the pond is filled to the level of the spillway) westward along Garland Brook to a private bridge that spans the brook west of the mill. From the eastern end of the southern abutment of this bridge the boundary extends northward and eastward along the southern edge of a curving driveway until that driveway intersects Garland Road. From this point the boundary runs southward along the western side of Garland Road across Garland Brook to the point begun at. Boundaries of the nominated property are indicated in red on the attached sketch map (see Continuation Sheet #6).

Boundary Justification:

The nominated property includes the sawmill, pond, and dam as well as a low field and wetland between the drive and pond. Beyond this area associations with the Garland Mill are indirect and not appropriate for inclusion.

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Continuation sheet #6 - SKETCH MAP

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GARLAND MILL, Lancaster, NH

SKETCH MAP

