#### NHDHR Inventory # MER0168

#### Name, Location, Ownership

- 1. Historic name Town of Merrimack Wastewater Treatment Facility (& Pump Stations)
- 2. District or area n/a. See R&C # 12098, 9/11/20
- Street & number Treatment Facility: Mast Road

Souhegan Pump Station: 24 Railroad Av.; Thornton's Ferry Pump Station: 14

Griffin St.

- City or town Merrimack
- Hillsborough County
- 6. Current owner Town of Merrimack

#### **Function or Use**

- 7. Current use(s) Wastewater Treatment Facility
- 8. Historic use(s) same

#### Architectural Information

- 9. Style Other: Industrial
- 10. Architect/builder Builder: Town of Merrimack/ Engineer: Anderson-Nichols & Co. Inc., Boston /

Contractor: Harvey Construction Co. Inc., Manchester, NH/ Contractor: J. P. Griffin, Inc., Portsmouth, NH

- 11. Source Original plans
- 12. Construction date 1969-1970
- 13. Source Town records, newspapers.
- 14. Alterations, with Various, described in text, dates undetermined. dates
- 15. Moved? no ⊠ yes □ date:

#### **Exterior Features**

- 16. Foundation Concrete
- 17. Cladding Brick

- 18. Roof material Rubber membrane
- 19. Chimney material

Metal

20. Type of roof

Flat

21. Chimney location

n/a 3

22. Number of stories

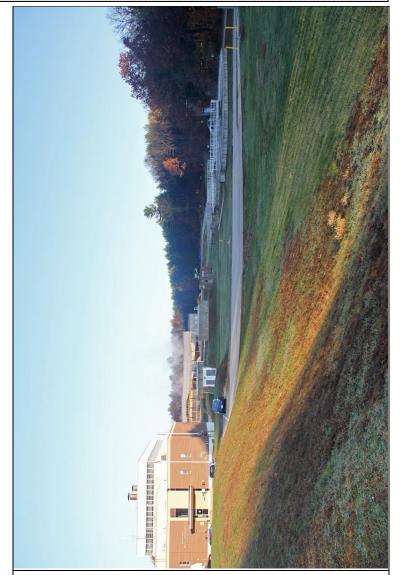
23. Entry location

- Facade off center
- 24. Windows Other: industrial, metal, fixed over awning

no ⊠ yes □ date: Replacement?

#### Site Features

- Other: large open industrial site beside 25. Setting Merrimack River
- 26. Outbuildings multiple buildings and structures
- 27. Landscape features Other: large flat open maintained grassed areas



35. Photo # 1

Direction

- 36. Date 11/10/2020
- 37. Reference (file name or frame #): MER0168\_001
- 28. Acreage 36.58 ac.
- 29. Tax map/parcel # Plant: Map 2E Lot 5; Souhegan Pump

Station: Map 5D1 Lot 11; Thornton's Ferry

Pump Station: Map 4D1 Lot 8

30. Map reference NH Stateplane NAD83 (FT):

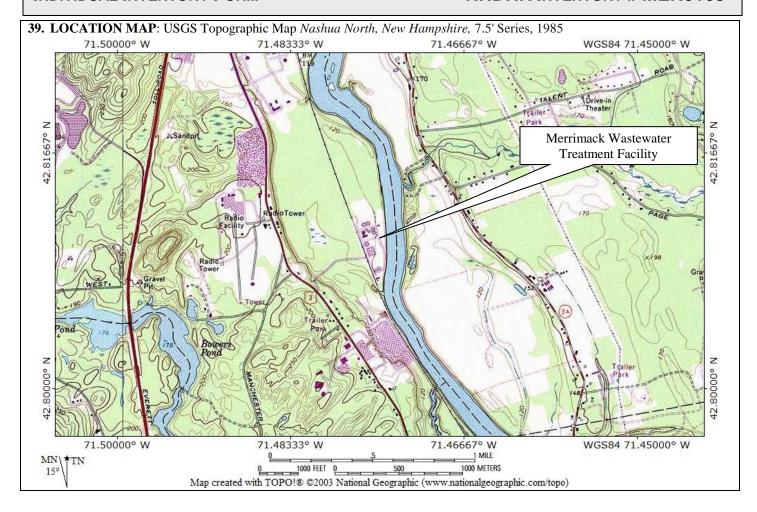
x = 1035400.947 y = 113425.159

31. USGS quad and scale Nashua North, NH 7.5 minute 1985

#### Form prepared by

- 32. Name Richard M. Casella
- Historic Documentation Company, Inc. 33. Organization
- 34. Date of Survey 11/10/2020

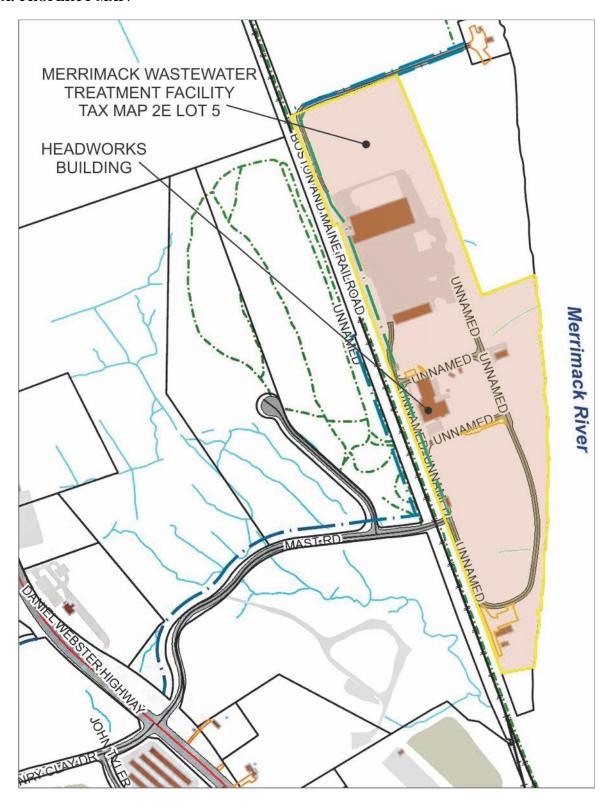
## **NHDHR INVENTORY # MER0168**



## **NHDHR INVENTORY # MER0168**

## INDIVIDUAL INVENTORY FORM

#### **40A. PROPERTY MAP:**



# NHDHR Inventory # MER0168

**INDIVIDUAL INVENTORY FORM** 

40B-1. SITE SKETCH & KEY TO PHOTOS 1 - 14 - TREATMENT FACILITY, NORTH SECTION



# **NHDHR INVENTORY # MER0168**

## **INDIVIDUAL INVENTORY FORM**

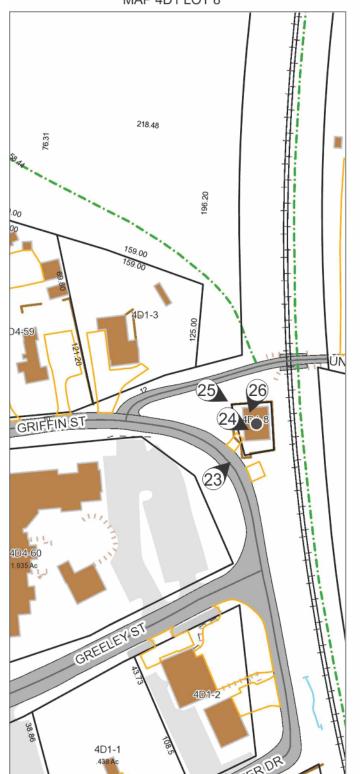
40B-2. SITE SKETCH & KEY TO PHOTOS 15 -22 - TREATMENT FACILITY, SOUTH SECTION

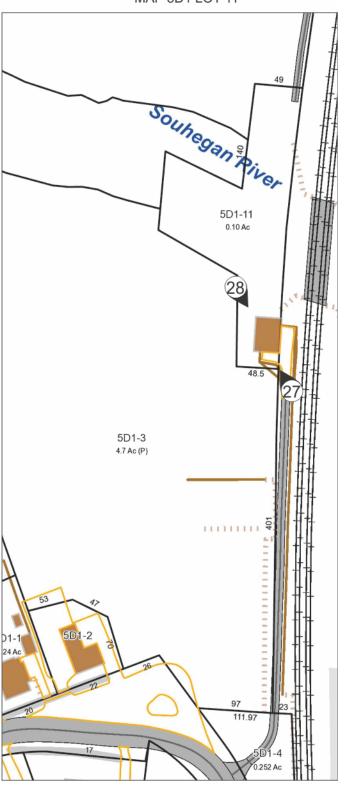


## **NHDHR Inventory # MER0168**

#### 40B-3. SITE SKETCH & KEY TO PHOTOS 23 - 28 - SOUHEGAN & THORNTON'S FERRY PUMP STATIONS

PROPERTY MAP & KEY TO PHOTOS THORNTON'S FERRY PUMP STATION 14 GRIFFIN ST. MAP 4D1 LOT 8 PROPERTY MAP & KEY TO PHOTOS SOUHEGAN PUMP STATION 24 RAILROAD AVE. MAP 5D1 LOT 11





#### NHDHR INVENTORY # MER0168

## 41. Historical Background and Role in the Town or City's Development:

The Merrimack Wastewater Treatment Facility started operations on May 5, 1970. It was built by the Town of Merrimack in conjunction with the construction of the Anheuser Busch brewery just upstream of the Facility, specifically to treat the wastewater from the brewery as well as other commercial, industrial, and residential wastewater that would be later connected to it.

#### Background context:

The Refuse Act, a section of the Rivers and Harbors Act of 1899, prohibited the discharge without a permit of "any refuse matter of any kind or description whatever other than that flowing from streets and sewers and passing therefrom in a liquid state, into any navigable water of the United States, or into any tributary of any navigable water." The Refuse Act is considered to be the oldest federal environmental law in the United States. The law arose out of a need to keep waterways open to navigation rather than protect the purity of the water; sewerage and industrial wastes of every noxious sort, as long as in the liquid state, continued to flow unchecked into waterways often used as sources of drinking water. The enormous growth of American industry during the first half of the 20th century and immediately after World War II, in particular those discharging large volumes of waste process water such as the petrochemical, paper and food processing industries, accelerated the pollution of our waterways to alarming levels.

In the Northeast, where the major rivers had long been been heavily developed and industrialized, pollution had become an acute problem, especially for those communities located downstream. In 1947 Congress passed an act allowing Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island and Vermont to form the New England Interstate Water Pollution Control Commission to provide for the joint coordination and passage of pollution control laws governing the signatory states who shared water bodies and courses.<sup>2</sup> The Federal Water Pollution Control Act of 1948 addressed the need to eliminate the discharge of untreated waste and sewerage into rivers and coastal waters by providing federal grants to state and local agencies to investigate sources of pollution and loans for the construction of wastewater treatment facilities.<sup>3</sup>

The Water Pollution Commission began the study of streams and recommended a stream classification system A, B, C, D, based on water quality, with A being the cleanest, that was later adopted by state legislatures. By 1962, New Hampshire had studied and classified 9500 miles of the state's 15,000 miles of streams. To clean up the highly polluted Merrimack River to a B-1 Classification (acceptable for boating and recreation, fish habitat and public water supply after adequate treatment) was estimated to cost at least \$95 million.<sup>4</sup>

Cities and towns along the Merrimack River came under increasing pressure by the public to construct wastewater treatment plants. <sup>5</sup> In 1962 the Town of Merrimack was awarded a federal grant of \$11,500 under the Federal Water Pollution Control Act, "for the purpose of making a preliminary survey and recommending a plan of action for the construction of a sewage disposal plant." The engineering consulting firm of Anderson-Nichols & Company, Inc. of Boston, with an office in Concord, NH, was hired to conduct to study and plan. <sup>6</sup> In 1964 Merrimack obtained another federal grant in the amount of \$12,000 for Anderson-Nichols to continue with project planning. <sup>7</sup>

During 1966 and 1967 Merrimack approved an additional \$75,000 for Anderson-Nichols to prepare final design and specifications and the appropriation of \$2,000,000 through the sale of bonds "for the purpose of constructing a municipal sewerage disposal system, including sewerage, interceptors, pumping stations, treatment works, and other such related facilities...but progress stalled due to lack of available funds in the contributing agencies.<sup>8</sup> The City of Nashua was ahead

<sup>&</sup>lt;sup>1</sup> U.S. Code Title 33. NAVIGATION AND NAVIGABLE WATERS Chapter 9. PROTECTION OF NAVIGABLE WATERS AND OF HARBOR AND RIVER IMPROVEMENTS GENERALLY Subchapter I. IN GENERAL Section 407. *Deposit of refuse in navigable waters generally.* 

<sup>&</sup>lt;sup>2</sup> New England Interstate Water Pollution Control Compact. July 31, 1947 [S. 1418] Public Law 292 [Chapter 407].

<sup>&</sup>lt;sup>3</sup> NH Department of Environmental Services. "Water Quality, Legislative History." Online at https://www.des.nh.gov/organization/divisions/water/wmb/wqs/history

<sup>&</sup>lt;sup>4</sup> Nashua Telegraph, "State Slowly Gaining on Water Pollution Problem, But No Salmon," November 14, 1962; *Ibid*, "River Communities Now Stirring in Effort to Clean up Streams," August 11, 1966.

<sup>&</sup>lt;sup>5</sup> Nashua Telegraph, "Area Group Stages Strong Campaign For Depollution of Merrimack River," October 27, 1966.

<sup>&</sup>lt;sup>6</sup> Merrimack, Town of. *Annual Reports of the Town of Merrimack, New Hampshire for the Year ending December 31, 1962.* Nashua, NH: Maxfield Press, 1963. Hereafter cited as *Merrimack Annual Reports*.

<sup>&</sup>lt;sup>7</sup> Merrimack Annual Reports, 1964.

<sup>&</sup>lt;sup>8</sup> Merrimack Annual Reports, 1966, 1967.

## NHDHR Inventory # MER0168

of Merrimack in the design of their sewerage treatment plant, and Merrimack submitted a proposal to Nashua to connect their wastewater collection piping system into Nashua's system to avoid having to build their own treatment plant, "providing suitable engineering and cost-sharing arrangements could be made." This proposal, although well received by Nashua, would not come to fruition.

Then on January 10, 1968, the Anheuser Busch brewing company of St. Louis, Missouri, announced that it had chosen Merrimack for its New England location of one of its new breweries, part of a massive expansion program that included plants already under construction in Columbus, Ohio and Jacksonville, Florida. The \$40 million brewery, consisting of eleven buildings with a total floor space of 560,000 square feet, would be located on 294 acre parcel along the Merrimack River and employ 350 persons. August A. Busch, president and chairman, promised that the brewery – the largest in New England – would be the "the most modern in the world;" Governor John W. King noted that the brewery will be one of the largest construction projects ever undertaken in New Hampshire."

The brewery, slated to be completed in 1970, would produce large quantities of wastewater and its construction was conditioned on Merrimack completing a sewerage/wastewater treatment plant capable of handling the additional load. Merrimack's Sewer Committee reported that a "speed-up" of the sewer plant construction schedule was now imperative, and that "commitments must be firmed up by the townspeople to insure final favorable decision by Anheuser Busch to locate in Merrimack." In the face of such a fortuitous economic development for the town, Merrimack Selectmen wasted no time calling a special Town Meeting on February 13, 1968 for voters to authorize a \$3 million bond issue for the sewer plant; the measure passed in a historic vote of 492 to 7. 12

In May, Anheuser Busch acquired the 294 acre parcel along the river (just north of the Merrimack Wastewater Facility) and planned for construction to begin in July. In June, Merrimack Selectmen David Pickering and Edward Haseltine, Water District Commissioner Ronald Geiger, State Water Pollution Board member Russell Nylander, along with several Anheuser Busch representatives, flew in the firm's private jet to Florida to tour the construction of the Jacksonville brewery. The brewery, similar to that to be built in Merrimack, was nine months into the expected 18-month construction period, employing 900 workers on a schedule considered a record for a plant of that size. In the Indian India

Groundbreaking for the Merrimack brewery on September 4, 1968, was a monumental affair attended by over 500 people, with speeches by Governor King and other dignitaries. The highlight was an unconventional ground breaking by August A. Busch, Jr. riding a two bottom plow pulled by the famous eight-horse team of Budweiser Clydesdales.<sup>15</sup>

#### Merrimack builds waste treatment plant

Meanwhile Anderson-Nichols engineers were preparing plans and specifications for a larger sewerage treatment plant to accommodate not only the present needs of the town plus the huge waste output of the brewery but also for the explosive industrial and residential growth the community was experiencing. Bid documents were ready and advertised in early 1969 and opened on March 27 with Harvey Construction Co. of Manchester, NH submitting the winning bid of \$4,333,000.<sup>16</sup> Various sources state that construction of the plant began in April, however no newspaper articles on the groundbreaking were located. By October 1969 "construction was progressing rapidly" on an accelerated schedule mandated by Anheuser Busch to insure the plant would be ready to accept brewery waste at its startup, as required by "State and Federal Water Pollution Control Agencies." Bids for Contract 2, to construct the main pumping station to service the plant and to extend sewers north to the brewery and south to the new Nashua Corporation industrial site under construction, were accepted by the town in October 1969. J. P. Griffin, Inc. of Portsmouth, NH submitted the winning bid of \$1,130,000.

The plant was designed as a two-stage biological treatment facility, today referred to as a secondary treatment plant with Biological Nutrient Removal; treatment is accomplished in two general processes known as Primary and Secondary. The

<sup>&</sup>lt;sup>9</sup> Nashua Telegraph, "BPW Supports City-Merrimack Sewer System," October 27, 1966.

<sup>&</sup>lt;sup>10</sup> Portsmouth Herald, "Brewery To Set Up N.H. Plant," January 11, 1968.

<sup>&</sup>lt;sup>11</sup> Merrimack Annual Reports, 1967.

<sup>&</sup>lt;sup>12</sup> Nashua Telegraph, "Way Cleared for Brewery in Merrimack," February 14, 1968.

<sup>&</sup>lt;sup>13</sup> Nashua Telegraph, "Anheuser-Busch Acquires Big Tract in Merrimack," May 8, 1968; *Ibid*, Anheuser-Busch Firm Acquires Old Legend, Historic River Lock," September 4, 1968.

<sup>&</sup>lt;sup>14</sup> Nashua Telegraph, "Merrimack officials See Florida Brewery Project," June 24, 1968.

<sup>&</sup>lt;sup>15</sup> Nashua Telegraph, "Record Construction Project Started," September 4, 1968: *Ibid*, Anheuser-Busch Activities in Merrimack," September 5, 1968.

<sup>&</sup>lt;sup>16</sup> Nashua Telegraph, "Bids Opened in Merrimack," March 28, 1969.

<sup>&</sup>lt;sup>17</sup> The "Agencies" referred to are believed to be the Federal Water Quality Administration and the N.H. Water Supply and Pollution Control Commission. *Nashua Telegraph*, "Merrimack Waste Treatment Plant Construction Progressing Rapidly, October 15, 1969.

#### **NHDHR INVENTORY # MER0168**

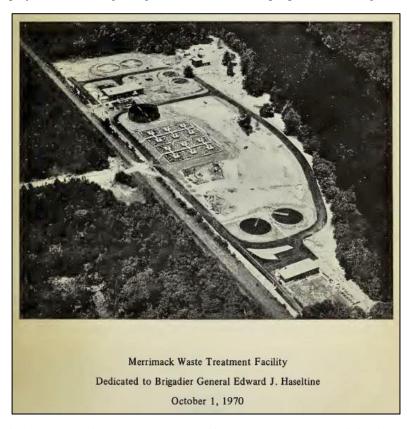
plant was built with a flow capacity of 5.0 million gallons per day and consisted of: Headworks Building housing offices, personnel spaces, piping, pumps, equipment and controls, Main Pump Station, Primary Tanks, Sludge Pump, Trickling Filter, Aeration Tanks, Final Tanks, Chlorinator Building, Chlorine Contact Tank, and other small buildings, vaults, equipment and underground piping. [The physical plant is further described in Description section below.]

Initial startup of the treatment plant, pumping station and first phase of the interceptor sewer occurred on May 5, 1970, presumably coinciding with the first load of wastewater from the Anheuser-Busch brewery. The *Nashua Telegraph* reported on April 23<sup>rd</sup> that the Anheuser-Busch brewery had begun its brewing process and the first beer would be produced in early June.

A dedication ceremony of the completed plant was held on October 1, 1970. A brass plaque marking the occasion is affixed to the lobby wall of the Headworks building listing all those who contributed to the facility (photo below). The plaque reads: "Merrimack Waste Treatment Facility, dedicated to Brig. Gen. Edward J. Haseltine, whose untiring efforts contributed immeasurably to its development." Hazeltine was Chairman of the Board of Selectmen and had served on the Board for over twenty years. Speakers included U.S. Congressman James Cleveland, Governor Walter Peterson, John Pallazzi, head of the State Water Supply and Pollution Control Commission; the event was attended by a large number of other dignitaries and the public at large.

The Report of the [Merrimack] Sanitation Committee for 1970 included the following statement:

It is gratifying to note that State and Federal grants have, in fact, been made to the Town totaling ninety percent of the project costs. Recognizing that our fellow townspeople were willing to take the long step in authorizing a \$10,000,000.00





ABOVE: Dedication plaque attached to lobby wall of Headworks Building.

LEFT: Frontispiece of 1970 Merrimack Annual Town Report

indebtedness with only a hope that this Federal and State participation would materialize, we are pleased that financing has worked out so well. 19

During 1972 Contract 2 was completed, which included the Merrimack River Interceptor, the Thornton's Ferry Pump Station and the Souhegan River Pump Station. Additional contracts for expansion of the system into other areas of town as well as modifications to the original system were made through the 1970s and continue today.<sup>20</sup>

<sup>&</sup>lt;sup>18</sup> Nashua Telegraph, "Merrimack Waste Treatment Plant Dedicated to Brig. Gen. Hazeltine," October 2, 1970.

<sup>&</sup>lt;sup>19</sup> Merrimack Annual Reports, 1970.

#### **NHDHR INVENTORY # MER0168**

**42. Applicable NHDHR Historic Contexts**: 90. Water supply, distribution and treatment in New Hampshire, 1850 to present.

**43. Architectural Description and Comparative Evaluation**: The Merrimack Wastewater Treatment Facility consists of an integrated group of buildings, structures and equipment situated on a 36.58 acre parcel along the Merrimack River (see Section 40A, Property Map). Wastewater from homes and businesses is collected by sewers and piped to the Facility by gravity and by pump stations comprising associated offsite infrastructure. This inventory report includes the main components of the Treatment Facility and the Souhegan and Thornton's Ferry Pump Stations that were constructed under the two original contracts for the facility in 1969 and 1970. Later added buildings and structures on the Facility property that are less than 50 years of age have also been photographed although the exact dates of their construction was not determined.

Refer to the Site Sketches and Key to Photos in Section 40B-1, 2 & 3 above for current site conditions; Figures 1 & 2 below and the Frontispiece from the 1970 Merrimack Annual Town Report (Section 41, above) depict the original 1970 site conditions.

The Treatment Facility as originally built consisted of three brick buildings, the Headworks Building, Main Pump Station, and Chlorinator Building, and twelve structures: two Equalization Tanks, two Primary Tanks, two Sludge Tanks, Sludge Pump House, Trickling Filter, Aeration Tank, two Secondary Clarifier Tanks (originally called Final Tanks), and the Chlorine Contact Tank. A third Primary Tank and a third Secondary Clarifier Tank, both essentially identical to the original tanks were later added; the additional "future" third Equalization Tank, third Sludge Tank and second Trickling Filter shown on the original plans (Figure 1) were not added. The later added massive Sludge Incinerator building and associated Ash Lagoon and Sawdust Shed are now abandoned due to environmental issues and changes in technology.

A comprehensive description of the equipment and processes of the plant and the numerous upgrades and modifications made, is beyond the scope of this report; the Treatment Facility does, however, continue to function as a whole in accordance with its original design.

With the exception of the Headworks Building designed with personnel spaces, the other buildings and structures are strictly devoid of architectural embellishment, being by their nature technical industrial equipment efficiently designed for a specific purpose. The utilitarian buildings designed solely to house equipment – the Main Pump Station, Chlorinator Building, Sludge Pump House, Sludge Blower Building, Aeration Blower Building and offsite Pump Stations, are rectangular masonry structures with flat roofs, solid metal doors, and no windows. Photographs below allow further understanding of these resources.

The Headworks Building is a two story rectangular brick building, approximately 134' by 72' with a flat roof (see Figures 3 & 4; Photos 2-6). As previously mentioned, it was designed to house personnel spaces on the second floor including an office area, meeting room, lavatory, locker and shower room, lunch room, laboratory, workshop and storeroom. The first floor housed mechanical equipment including piping, pumps, generators and related equipment and controls. The main entrance leads into a lobby and stair hall; it is off center and distinguished from the flanking brick façade with the use of textural concrete facing on the exterior. A flat cantilevered canopy extends across the entry area at the second floor level. The primary entry door and all windows are of the commercial type with aluminum frames and fixed glazing; the vertical 3-light windows have an operable bottom sash. The interior of the building is undistinguished architecturally being strictly utilitarian with the exception of the entry lobby which features a stylized stair balustrade and exposed brick walls.

Overall the property can be compared to many hundreds if not thousands of wastewater treatment plants constructed in the 1960s, 1970s and 1980s in the wake of the water pollution control laws passed prior to and during this time frame. The Headworks Building exhibits a use of period materials and detailing that reflects commercial/industrial design practice at the time. A visual survey of other wastewater treatment plants was not possible, but such plants were designed by a relatively small number of specialized engineering firms that shared common practice and reused effective standardized plans many times over with minor variation.

**44.** National or State Register Criteria Statement of Significance: The Merrimack Wastewater Treatment Facility was the Town's largest public works project in its history. It was a direct outgrowth of federal and state requirements to

<sup>&</sup>lt;sup>20</sup> The Annual Reports for 1972-1974 note that Contract 6 & 7 were completed in December 1972, Contract 3 was completed in early 1973; Contract 4 and Contract 8 were awarded in early 1973. The nature of the work under these contracts was not described in the Town Reports and was beyond the scope of this Inventory Form to investigate.

#### **NHDHR Inventory # MER0168**

improve the water quality of the Merrimack River; the cessation of direct dumping of sewage and industrial wastewater into the river resulting from its construction has been of great importance to the Town of Merrimack, the State of New Hampshire and downstream communities in Massachusetts. The location and construction of the Anheuser Busch brewery in the town, reportedly the largest private development in the state's history up to that time, was contingent upon and integrated with construction of the Treatment Facility to receive its wastewater. Therefore the property can be considered potentially eligible for the National Register under Criterion A, for its association with these events, important to local and state history.

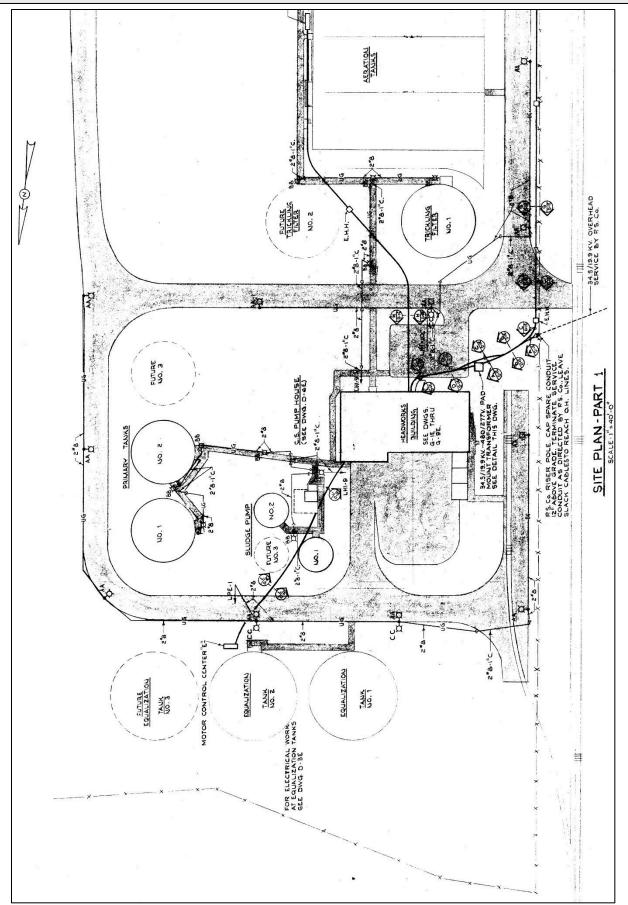
The Merrimack Wastewater Treatment Facility "embodies distinctive characteristics of a type, period or method of construction" and would be considered potentially eligible for the National Register under Criterion C, if it possesses integrity, and "if it is an important example (within its context) of building practices of a particular time in history."<sup>21</sup> The property is of standardized design with unexceptional features and does not possess important architectural or engineering details that would distinguish it as an important example of its type relative to the many hundreds if not thousands of other similar wastewater treatment plants built in the US during the latter third of the 20<sup>th</sup> century. The property therefore does not possess characteristics that make it an important example of building practices that are associated with its property type. On this basis, the property would not be considered potentially eligible for the National Register under Criterion C.

#### 45. Period of Significance: 1970

- **46. Statement of Integrity**: The property (Treatment Facility and Pump Stations) retains integrity of location, workmanship, setting, association, and feeling. The integrity of the original design and materials has been diminished to varying degrees to meet the evolving process and operational needs inherent in an industrial property of this type. To meet these changing needs, original buildings, structures and equipment have been abandoned, upgraded and altered and new buildings, structures and equipment have been added. Such alterations are characteristic of the property type and do not affect the property's ability to convey its functional design and purpose.
- **47. Boundary Discussion:** The boundary of the property is defined by the three Town-owned property parcels on which the subject resources are located: Treatment Facility, Map 2E Lot 5; Souhegan Pump Station, Map 5D-1 Lot 11; Thornton's Ferry Pump Station, Map 4D-1 Lot 8, as delineated in Item 40B above.
- **48. Bibliography and/or References:** Refer to footnotes.

Surveyor's Evaluation:				
NR listed:	individual within district	NR eligible: individualX_ within district	NR Criteria:	AX B C
Integrity:	no	not eligible more info needed		D E

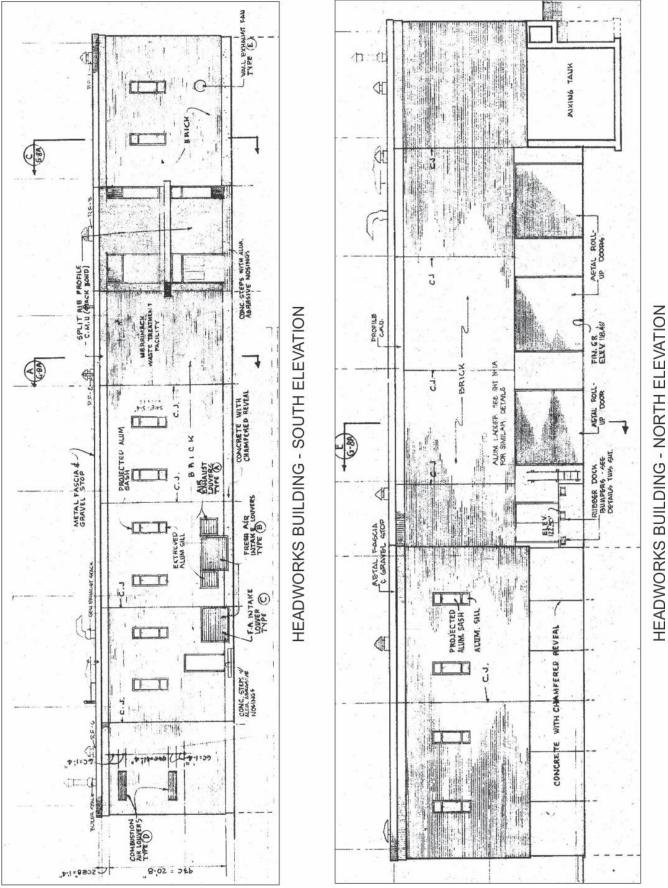
<sup>&</sup>lt;sup>21</sup> See "Applying Criterion C: Distinctive Characteristics of Type, Period and Method of Construction," *National Register Bulletin No.* 15, p. 18. The NPS requires a need for *importance* when assessing properties that "embody distinctive characteristics of a type, period or method of construction" which would otherwise broadly apply to essentially all properties and was not the intent of the National Historic Preservation Act. See also, *Bulletin* 15, "How to Identify the Type of Significance of a Property, Introduction," p. 11: "Criterion C would apply to those buildings structures, objects whose architectural form or style reflects important design qualities integral to the industry."



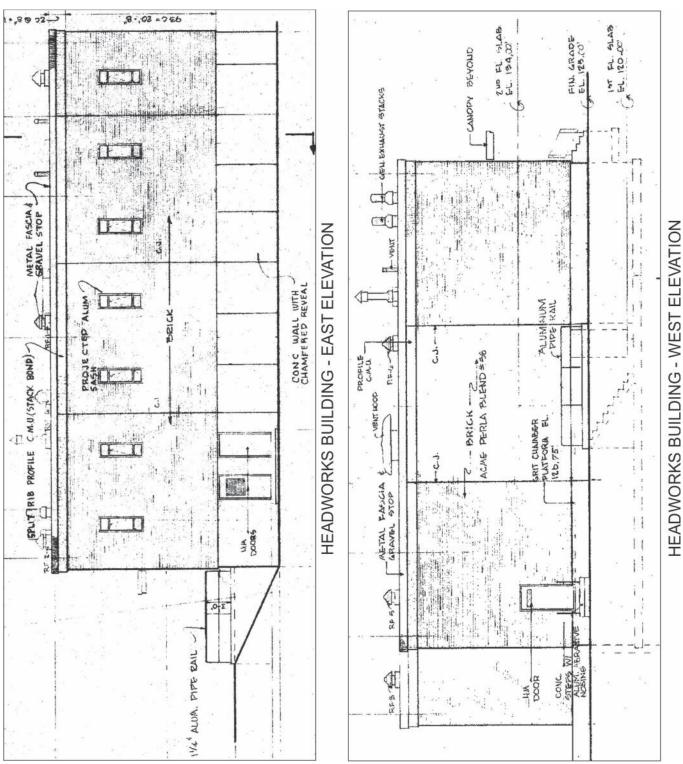
**FIGURE 1:** Site plan from Contract 1 Plans, "Sheet D-1E, Site Work – Part 1" [north section]. Anderson-Nichols & Co. Inc., January 31, 1969.

# CHLORINE CONTACT SITE PLAN - PART FINAL TANK, NO. FOR FINAL TANK WORK, SEE DWG. D-6E MATCH LINE

**FIGURE 2:** Site plan from Contract 1 plans, "Sheet D-2E, Site Work – Part 2" [south section]. Anderson-Nichols & Co. Inc., January 31, 1969.



**FIGURE 3:** Headworks Building drawings from Contract 1 plans, North and South Elevations, from Sheets G-5A and G-6A. Anderson-Nichols & Co. Inc., January 31, 1969.



**FIGURE 4:** Headworks Building drawings from Contract 1 plans, East and West Elevations, from Sheets G-5A and G-6A. Anderson-Nichols & Co. Inc., January 31, 1969.

## **NHDHR INVENTORY # MER0168**

Date photos taken: 11/10/2020



Photo:# 2 Description: Headworks Building, south side, main facade. Houses offices, personnel rooms, equipment and controls.

Reference (file name or frame #): MER0168\_002 Direction: N

Date photos taken: 11/10/2020

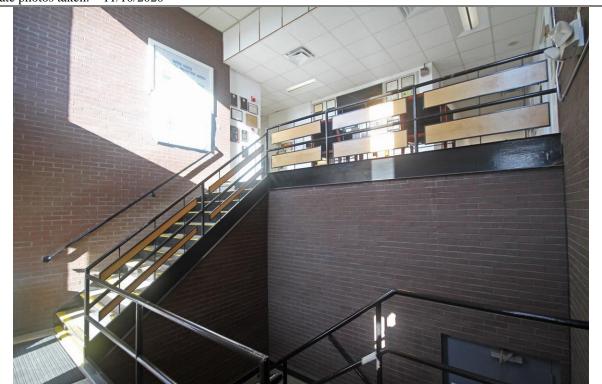
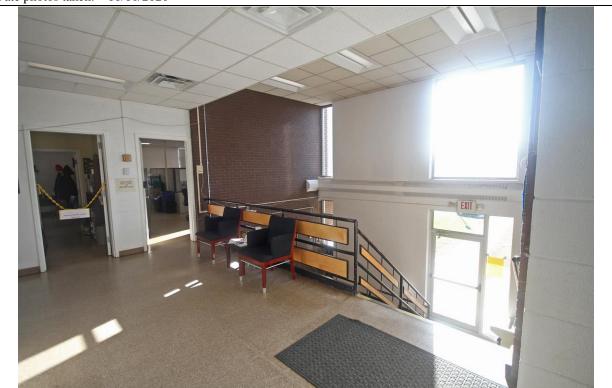


Photo:# 3 Description: Headworks Building, entrance lobby and stair hall, the only area with architectural finish consisting of exposed brick walls and stylized balustrade.

Reference (file name or frame #): MER0168\_003 Direction: NW

## **NHDHR INVENTORY # MER0168**

11/10/2020 Date photos taken:



Description: Headworks Building, lobby at 2<sup>nd</sup> floor landing. Other than lobby, walls are painted Photo:# cement masonry units or gypsum wallboard; ceiling are suspended acoustic panels.

Reference (file name or frame #): MER0168\_004 Direction: SE

Date photos taken: 11/10/2020



Photo:# Description: Headworks Building, east side, with later incinerator building (off system) attached to rear (north) side.

Reference (file name or frame #): MER0168\_005 Direction:

## **NHDHR INVENTORY # MER0168**

Date photos taken: 11/10/2020



Photo:# | 6 | Description: Headworks Building, south and west sides.

Reference (file name or frame #): MER0168\_006 Direction: NE

Date photos taken: 11/10/2020



Photo:# 7 Description: View E from Headworks roof, showing three open Primary Clarifier Tanks (tank on right later added).

Reference (file name or frame #): MER0168\_007 Direction: E

## **NHDHR INVENTORY # MER0168**

Date photos taken: 11/10/2020



Photo :# 8 Description: View NE from Headworks roof, showing Sludge Pump House between two Sludge Holding Tanks. Small brick Sludge Blower building added later.

Reference (file name or frame #): MER0168\_008 Direction: NE

Date photos taken: 11/10/2020



Photo:# 9 Description: View NE from Headworks roof, showing Sludge Tank, center, followed by Equalization Tanks 1 & 2, and open sawdust shed later added for sludge processing.

Reference (file name or frame #): MER0168\_009 Direction:

# **NHDHR INVENTORY # MER0168**

Date photos taken: 11/10/2020



Photo:# 10 Description: Main Pumping Station & Interceptors, north & west sides. Interceptors deliver wastewater by gravity to deep well at rear; pumps lift the wastewater Equalization Tanks.

Reference (file name or frame #): MER0168\_010 Direction: SE



Photo:# 11 Description: Main Pumping Station & Interceptors, west & south sides.

Reference (file name or frame #): MER0168\_011 Direction: NE

## **NHDHR INVENTORY # MER0168**

11/10/2020 Date photos taken:



Description: Ash Lagoons, later added for sludge processing, now abandoned. Photo:#

Reference (file name or frame #): MER0168\_012 Direction:





13 Description: Sawdust shed, later added for sludge processing, now abandoned. Photo:# NE

Reference (file name or frame #): MER0168\_013 Direction:

## **NHDHR INVENTORY # MER0168**

Date photos taken: 11/10/2020



Photo:# Description: Compost Facility, east & south sides, later added for sludge composting.

Reference (file name or frame #): MER0168 014 Direction:

Date photos taken: 11/10/2020



Photo:# 15 Description: View S from Headworks roof: round Trickling Filter No. 1, taken off line when anaerobic digester installed at Anheuser Busch lowered wastewater BOD. Aeration Tanks, Aeration Blower Bldg. & Chlorinator Bldg. (center in distance) also shown.

Reference (file name or frame #): MER0168\_015 Direction:

## **NHDHR INVENTORY # MER0168**

Date photos taken: 11/10/2020

Photo:# 16 Description: Aeration Tanks.

Reference (file name or frame #): MER0168\_016 Direction: SW



Photo :# 17 Description: View north from Chlorina

View north from Chlorinator Building, showing three Secondary Clarifier Tanks, called Final Tanks on original plans. Far tank later added. Headworks and yellow Incinerator building seen in distance.

Reference (file name or frame #): MER0168\_017 Direction: N

## **NHDHR INVENTORY # MER0168**

Date photos taken: 11/10/2020



Photo:# 18 Description: Detail of Secondary Clarifier Tank No. 1, view from valve operating platform.

Reference (file name or frame #): MER0168\_018 Direction: NE



Photo:# 19 Description: Chlorinator Building, south side, showing chlorine loading dock on west end of building.

Reference (file name or frame #): MER0168\_019 Direction: NE

## **NHDHR INVENTORY # MER0168**

Date photos taken: 11/10/2020



Photo:# 20 Description: Former dog pound building south of Chlorinator Building, abandoned and unrelated to facility, concrete block construction, age unknown.

Reference (file name or frame #): MER0168\_020 Direction: SE

Date photos taken: 11/10/2020



Photo:# 21 Description: Chlorine Contact Tank. Final treatment of effluent before exiting the facility into Merrimack River.

Reference (file name or frame #): MER0168\_021 Direction: NW

# NHDHR INVENTORY # MER0168

Date photos taken: 11/10/2020



Photo:# 22 Description: Detail of Chlorine Contact Tank showing gauging weir and receiving well that empties into outfall pipe.

Reference (file name or frame #): MER0168\_022 Direction: W





Photo:# 23 Description: Thornton's Ferry Pump Station, south & west sides.

Reference (file name or frame #): MER0168\_023 Direction: NE

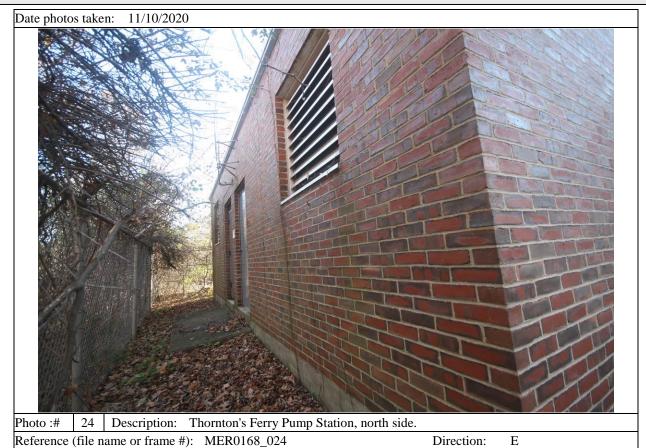






Photo:# 25 Description: Thornton's Ferry Pump Station, interior, showing pumps and electrical controls.

Reference (file name or frame #): MER0168\_025 Direction: SE

## **NHDHR INVENTORY # MER0168**

Date photos taken: 11/10/2020



Photo:# 26 Description: Thornton's Ferry Pump Station, interior, looking down into receiving well.

Reference (file name or frame #): MER0168\_026 Direction: n/a

11/10/2020

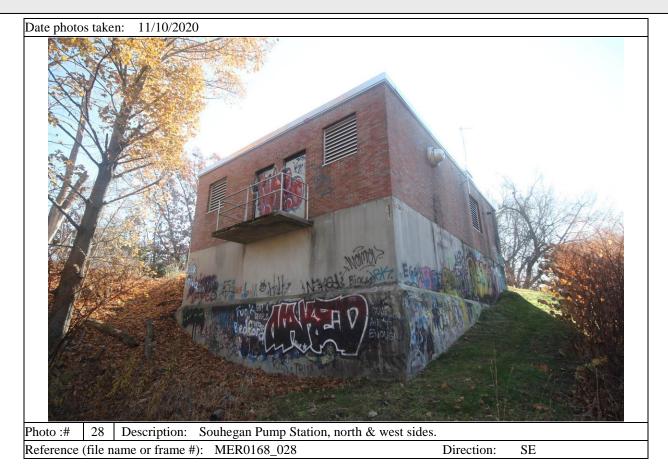
Date photos taken:



Photo:# 27 Description: Souhegan Pump Station, south & east sides. Identical to Thornton's Ferry Pump Station.

Reference (file name or frame #): MER0168\_027 Direction: NW

#### NHDHR INVENTORY # MER0168



## PHOTO KEY IS LOCATED ON PAGES\_ 4, 5, 6

I, the undersigned, confirm that the photos in this inventory form have not been digitally manipulated and that they conform to the standards set forth in the NHDHR Photo Policy. These photos were printed at the following commercial printer OR were printed using the following printer, ink, and paper: <a href="CVS Pharmacy">CVS Pharmacy</a>, Portsmouth, RI

(Color photos must be professionally printed.)

Ruhan M Cantla

The negatives or digital files are housed at/with: \_Historic Documentation Company, Inc., 490 Water St., Portsmouth, RI 02871

SIGNED: