



TOWN OF MENDON
WATER COMMISSION

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DEP Public Water Supply (PWS) ID #217900

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Long-Range Plan

January 2017

(Adopted at the 1/12/17 Water Commission Meeting)

Introduction

The Massachusetts Department of Environmental Protection (MA DEP) cited the lack of a long-range plan as a deficiency when reviewing the Mendon Water System (MA DEP Public Water System [PWS] 2178000) on June 26, 2014.

To remedy this deficiency, we are required to have a long-range plan developed by June 30, 2017.

Description of Public Water Supplies in Mendon

It is important to note that the Town of Mendon has neither a Water Department nor any employees dedicated to operating and maintaining the public water supplies within Mendon. The Board of Water Commissioners hires a contracted Water Operator to perform these functions. (The board's part-time clerk generates quarterly bills to customers after receiving meter readings from the contracted Water Operator. These readings are typically performed a few days after the Hopedale supply meters are read by their operator. The meter readings are usually received from the operator at about the same time as the invoices from the Town of Hopedale.)

The Mendon public water supply system (MA DEP PWS 2179000) consists of two customer subsystems: Cape Road area, with 127 (was 128; 3 Mill River Dr disconnected from the water system after digging their own well in c. 2013) connections and Dudley Road, with 17 connections. The service charges for the five fire hydrants on Milford St, Mendon, are also billed to Mendon by Hopedale. Several customers have a private well for watering their lawns in addition to domestic water connections to the Mendon Public

Water System. The car wash to be built on Williams St (off of Cape Rd) (2016) has committed to use a private well for water supply.

Cape Road Subsystem

The Cape Road subsystem is presently fed as a “consecutive” system from Hopedale (PWS 2138000) with the meter pit located just north of the junction of Cape Road (Route 140) and Hartford Avenue East in Mendon and South Main Street (Route 140) in Hopedale.

This subsystem formerly was fed as a “consecutive” system from Bellingham (PWS 2025000) at the Bellingham town line on Hartford Avenue East in Mendon/Hartford Avenue in Bellingham. The meter pit was located in or near the south side of the Hartford Avenue East roadway. The Bellingham feed was discontinued due to poor water quality at some time in the past.

The Cape Road subsystem consists of parts of Hartford Avenue East; parts of Cape Road; the industrial subdivision known as both Williams Street and Whitin Street (next to the GASCO service station); part of Bates Street; Edwards Road; Joseph Road; Talbott Farm Drive; Parker Road; and, Mill River Drive. The water main which feeds Talbott Farm Drive, Parker Road, Mill River Drive, and two residences on Hartford Ave East runs along the side of Williams St (aka Whitin St) from Cape Rd.

Prior to being fed by Hopedale, this subsystem was fed by the Milford Water Company (PWS 2185000) using their water main on South Main Street in both Milford and Hopedale.

This segment of the Mendon system is billed by Mendon after it receives a bill from Hopedale, and is maintained by Mendon using a contracted Water Operator.

The MA Department of Environmental Protection (DEP) has insisted that Mendon provide a plan for an alternate or emergency connection to this subsystem (See below.).

There are plans in the Mendon Water Commission files for pressure boosting pumps to be added to the Cape Rd area subsystem. These plans were never carried out and we are unaware of any inadequacies with the existing pressure.

Dudley Road Subsystem

The Dudley Road subsystem is fed as a “consecutive” system from Westcott Road in Hopedale, apparently with an emergency and maintenance feed from Ballou Road in Hopedale. This subsystem is sometimes called “Bedrosian” (the name of the Dudley Road subdivision developer) on Mendon’s water bills from Hopedale. This segment also is billed and maintained by Mendon.

Apparently, leak detection on the Dudley Road Subsystem is contracted for by the Hopedale Water Department when they do leak detection on the Westcott Road area of the Hopedale water system.

Other Subsystems

In addition to Cape Road and Dudley Road, there are several other water subsystems which the Mendon Water Commission is responsible for in one way or another.

The northeastern portion of Milford Street in Mendon (Route 16) has several water customers (including some on Harrington Street in Mendon and on Eight Rod Road in Mendon, apparently), whose billing and maintenance are provided directly by the Hopedale Water Department. There are plans in our files to meter the water main as it crosses from Hopedale into Mendon, but these were never carried out.

There are also several properties with street addresses on Wescott Road in Hopedale and on Ballou Road in Hopedale – with the lot frontages in Hopedale but the houses and majority of lot area are in Mendon – which are served and connections maintained as if they were in Hopedale. For example, the homeowners of 10 Ballou Road, Mendon, were allowed to connect to the Hopedale system in 2015 after radon was discovered in their well.

There are three other Public Water Systems owned by the Town of Mendon whose testing is arranged for and paid for by the Mendon Water Commission:

- a) The Town Hall area on Main Street, including the former town library building, the Town Hall, the present Police Department building and the former Fire Department garage and office building (PWS2179027);
- b) The Mendon Senior Center on Providence Street (PWS2179028); and,
- c) The Mendon Memorial Field complex off Millville Street and Taft Avenue, which now includes an extension to the Town Beach on Taft Avenue (PWS2179029).

The separate Public Water Supply at the Mendon Town Beach (PWS2179030) was deactivated on 8/3/2012 after well pollution proved too difficult to manage and it was replaced with a feed from Memorial Field.

It is possible that the new Taft Public Library on North Avenue – which opened in July, 2016, will be required to become a Public Water System, since it may serve at least 25 individuals at least 60 days a year (310 CMR 22.02). During its construction, the Board of Library Trustees stated they would not meet that threshold.

The new Fire Department building on Morrison Dr and the new Police Department building possibility on Morrison Dr have individual wells and it is believed that they will not be required to become Public Water Systems.(If they do share a well, they may meet the requirements to become a single Public Water System.)

In addition, there are a number of other PWSs in Mendon, some publicly owned (but not by the Town of Mendon) and some privately owned. Examples of publicly owned PWSs

are the Clough Elementary School and Miscoe Hill Middle School, both located on North Avenue and both owned and maintained by the Mendon-Upton Regional School District. Examples of privately owned PWSs are the two commercial plazas on Hasting Street (Route 16) and the automobile dealership complex on Uxbridge Road (Route 16). The testing of these PWSs is arranged for by their respective owners, and copies of the testing reports are on file at the Mendon Board of Health (See list at Appendix A.).

A few customers are served by the Bellingham water system operated by the Bellingham Department of Public Works (PWS2025000) from the Bellingham water main on Mendon Road (Route 140) in Bellingham. Lowell's Restaurant on Cape Road in Mendon near the Bellingham town line is believed to have become one of Bellingham's customers after the well belonging to the previous owner (PWS179018) Mendon Jade Restaurant) became unsuitable.

Present and Near Term Projects

Water Meter Replacement

Mendon's May, 2016 Annual Town Meeting appropriated sufficient funds to replace all customers' water meters with modern, remote-read capability ones. This replacement project began in July, 2016 and is expected to be concluded by the June 30 end of Fiscal Year 2017.

The improved precision meter reading "wand" has been received, training on the software has been received (and may need to be repeated for the water department clerk), and all need software and licenses are installed. The annual software license fee will be included in the Water Commission budgets for Fiscal Year 2018 and beyond.

Leak Detection

Two significant leaks were found over the past two calendar years. In August, 2015, a leak was detected by evident surface water and repaired at the junction of the 6-inch type Asbestos-Cement (AC) water main and the 2-inch type AC water main on Bates Street (south of No.35). A major leak on Hartford Avenue East (near No. 95) was found and repaired in April 2016.

Because the leaks caused the amount of water provided by Hopedale (according to its meters) to Mendon to substantially exceed the amount of water actually used by Mendon customers (according to customers' meters) operational deficits occurred in the Mendon budget.

The Water Commission now plans to conduct an annual leak detection program at an estimated annual cost of \$1200.

In addition, an amount estimated to pay for fixing one leak is now included in each fiscal year's budget for the Water Commission.

Water Use Monitoring

Due to the period of time during which the leak on Hartford Avenue East went undetected, the amount of water provided by Hopedale (according to its meters) to Mendon substantially exceeded the amount of water actually used by Mendon customers (according to customers' meters), resulting in an operational deficit.

With the leak detected and repaired, there should no longer be such a discrepancy. If there is, possible actions include:

- a. Re-examining the two subsystems for additional (smaller) leaks that could not be detected previously because of the major leak;
- b. Carefully examining all buildings connected to the water system and all fire hydrants for non-metered usage by inspection;
- c. Increasing surveillance of fire hydrants for un-authorized usage (possibly by adding tamper-indicating "tell-tales" to each hydrant and inspecting the tell-tales periodically). Anecdotal stories told to commission members include swimming pool water tanker trucks and hydro seeding trucks filling up at Mendon system hydrants; and,
- d. Having the Hopedale meters recalibrated or installing duplicate Mendon-owned master meters downstream from the Hopedale master meters. The latter would represent a major expense.

It may be necessary to monitor the Hopedale supply meters (with that town's assistance and at Mendon's cost) to determine what time(s) of day or day(s) of occurrence(s) the excess usage occurs. To do so would require 24-hour physical access to the meter pit located in the South Main Street, Hopedale roadway (an impracticality, since that intersection is fairly busy 24 hours a day) and to the meter pit located in the middle of Dudley Road at Westcott Street in Hopedale.

Mendon could pay for remote reading hardware to update these meters to make reading them become safe at any hour of the day or night. This would represent a major expense and also require a place for the appropriate hardware to be located and staff trained and assigned to monitor the meter readings.

Water Shut-off Valves

Presently, not all main roads within the Cape Road subsystem can be isolated by shut-off valves if a water main break occurs.

Our contracted Water Operator has recommended the addition of one additional shut-off valve along the Cape Road (Route 140) roadway. The estimated cost for purchasing and installing this valve is between \$3,000 and \$5,000, not counting the costs of obtaining a road opening permit from MassHighway and for State Police details during construction.

Record Retention Issues

A first-draft of a record retention schedule has been proposed for the Water Commission's records. A finalized schedule and organizing and reviewing of the files will probably wait until a town-government wide records retention effort commences.

Due to the changing of the Water Commission's membership over the past decades, changes in where water was being supplied from, and the hiring of an outside consultant to conduct day-to-day water system maintenance, the current commission members do not have readily available records of the entire physical layout of the water system plant including property shut off ("corporation valves") locations.

The Mendon Highway Department has drawings showing water mains and hydrants from when Hartford Avenue East was rebuilt from the Bellingham town line to west of Cape Road (during 2014 or 2015).

The existing Water Commission files will be thoroughly searched during calendar year 2017. The Milford Water Company was contacted in July, 2016 and has begun a search of its records. The contracted Mendon Water Operator also may have some records.

The proposed building of a Geographical Information System (GIS) for the town government should offer an opportunity to plot all known information about the existing public water system(s).

If records detailing the physical layout of the water system plant cannot be located, the Board of Water Commissioners will have to contract with a civil engineering company to "map" the system.

Longer-Term Possible Projects

At present, there is no immediate reason to carry out any of the following projects. This situation may change if additional water is required due to individual homeowner's well pollution or due to future customers developing commercial, industrial, or residential developments anywhere in town.

Back-up Supply for Cape Road Area

The MA DEP required that we look at the possibility of providing a back-up or alternative supply to the Cape Road water subsystem on or before June 30, 2017. We have met the MA DEP requirement "to consider" this project.

Our contracted Water Operator estimated that a permanent back-up supply connection from the Hopedale water system to the Cape Road subsystem would cost in the \$89,000 to \$100,000 range and would require prior approval by the Hopedale Water and Sewer Board.

The most economical way to do this is to provide a meter pit (including meters, valves, etc.) on or adjacent to Plain Street in Hopedale south of the southern-most fire hydrant (located across from the ice skating rink parking lot) and then lay a water main along Plain Street in Hopedale across Hartford Avenue East in Mendon to the Mendon water main near the fire hydrant at the corner of Hartford Avenue East and Talbott Farm Drive.

This would require either a street opening across Hartford Avenue East to install the water main or “driving” the new water main under Hartford Avenue East.

In case of emergency before such an alternative connection is provided, a larger fire hose could be run from the Hopedale fire hydrant mentioned above to the Mendon fire hydrant also mentioned above, across the surface of Hartford Avenue East and temporarily protected by planks, timbers, or hot-top.

A more durable temporary supply can be provided by the use of Vitraulic or similar temporary pipe on the surface adjacent to Plain Street in Hopedale, but buried shallowly as it crosses Hartford Avenue East connecting the two fire hydrants mentioned above. Metering can be included with the temporary piping. During the winter, freezing is a possible problem for both temporary supply schemes.

Shut-off Valves

Currently, a leak in the Cape Road subsystem requires shutting down that entire subsystem or working with water under pressure while the leak is repaired. This is due to the lack of shut-off valves that could isolate smaller segments of the subsystem, and thus reduce the number of customers who are inconvenienced.

In August, 2016, the Water Commission requested it’s contracted Water Operator to provide pricing details to purchase and install shut-off valves to isolate the major roads within the Cape Road subsystem.

While the Dudley Road subsystem involves only one roadway, it also may make sense to look at isolating it into two parts through the installation of a shut-off valve.

System Expansion

At present, both subsystems of the Mendon water system are constrained by our agreement with our supplier, the Hopedale Water and Sewer Department, not to connect any additional customers. Mendon also is bound by contract to attempt to find additional sources of water (and has found one source during 2013 which would not provide an adequate supply to meet state standards).

If Mendon wants to connect any additional public water customers in the areas of the existing water subsystems or anywhere else in town, an additional supply (or supplies) of potable water must be found.

There are a number of ways which, singly or in combination, can achieve these goals for particular areas of Mendon. At present, there appears to be no strong reason to pursue these possibilities. However, if further development in the areas along Williams St (Whiten Way) and Nathan Street (west of 21, 23, and 25 Cape Rd), along the northwest side of Milford Street, or in any other area of town which is unable to supply adequate potable water from local wells (due to lack of quality (e.g. pollution) or quantity or due to regulations and agreements, then one or more of the following projects must be completed.

Water Storage Tank

There is, at present, no substantial storage of water in either Mendon or Hopedale. Thus, all water consumed must be pumped and treated at the same rate at which it is consumed. If a water storage tank were added to the Mendon (or Hopedale) water system, water could be pumped from the ground at a rate suited to the well and aquifer but used at a different rate (with higher peaks). In addition, with adequate storage, water from the wells can be temporarily replaced with water contained in the storage tank(s) during routine maintenance or during a water main break or mechanical failure in the well plant or water treatment plant.

A significant size water storage tank (500,000 gallons or 66,845 cubic feet) would provide 10-12 days of normal usage on the Cape Rd subsystem or a very substantial water supply for fire fighting in that area, but it would cost between \$250,000 and \$1 million, possibly even more.

A storage tank also would require routine maintenance and active (mostly automatic) management of water going in and water coming out of the tank, and, possibly, some additional treatment (sanitizing). It is possible that the addition of a water storage facility could relieve enough of the peak load on Hopedale's wells that additional customers (in Mendon and in Hopedale) could be served with the existing wells.

A water storage tank was originally included with the plans for the Dudley Rd (Bedrosian) subdivision, but the Mendon Planning Board eventually allowed the developer to substitute other (not water related) improvements instead of providing the water storage tank.

New Source of Potable Water

A new source of water is probably required for any expansion of usage or expansion of the area of coverage in the Cape Rd subsystem (e.g., to build commercial, industrial, or residential buildings in the land west of 21, 23, or 25 Cape Road) or for any expansion of the area of water supply coverage in the Milford Street area (e.g., the commercially zoned area northwest of the last residence or of the landscaping business on Milford Street).

Any other area of town which requires a new (non "private" well) for water supply also may also require a public source of potable water due to inadequacy of or pollution of local wells (e.g., the Town Hall campus). As most "private" wells in town no longer

meet the MA DEP requirements for separation from other structures and other uses of land, it is a future possibility that replacing “failed” or inadequate wells with new local wells will be difficult or impossible while meeting the current or future regulations.

Import Potable Water

There are a number of possible sources of potable water from adjacent towns:

1. From the original connection at Hartford Avenue East from the Bellingham water system. The quality and quantity of water in the Bellingham water system has substantially improved since the days of Mendon’s previous connections. New wells have been added and water treatment has improved. However, about half of Bellingham’s wells are in the Charles River basin and they may be subject to the Charles River basin water withdrawal rules, which may limit the amount of water that can be obtained with this connection. The physical plant of the original connection is believed to have been removed and would have to be replaced.
2. From the Milford Water Company (or the Town of Milford, if it succeeds in its efforts to buy the water company) by laying a new water main via Hopedale or via Bellingham. The Milford Water Company is under the upper Charles River basin water withdrawal rules, which limit the amount of additional water which they can supply.
3. From the end of the Bellingham water main on Mendon Street in Bellingham near the boundary with Mendon on Cape Road and Bellingham Street. It is believed that there are a few customers in Mendon who already obtain potable water as retail customers of the Bellingham Water Department. The same upper Charles River basin water withdrawal rules may apply to this water from Bellingham. The nearest existing Mendon water main is at approximately No. 55 Cape Rd or 41A Bates Street (which would require new water main back to 35 Bates Street).
4. From the end of the Bellingham water main on North Street, Bellingham, not too far from the south end of Bates Street in Mendon. This part of Bellingham may not be subject to the upper Charles River basin water withdrawal rules since the wells serving this area appear to be in the Peters River basin which is part of the Blackstone River watershed. The nearest existing Mendon water main is at No. 41A Bates St (somewhat north of Bellingham Street). A connection here could serve future development on or off of south portion of Bates Street and Thayer Road.
5. From the Blackstone water main (evidenced by a fire hydrant) at the old railroad right-of-way crossing on Bellingham Street in Blackstone – about 1,000 feet +/- through forested land to the Mendon town line, then 4,000 feet +/- through open and forested land to the south end of the Bates Street and then 5000 feet +/- to the south end of the water main on Bates St. Most of this area of Blackstone and Mendon is relatively undeveloped. Without a connection to the present Cape Rd area water mains, this connection could serve Colonial Dr, Puddingstone Lane,

Pine Needle Dr, and southern Providence St near the Mendon town line and Catalpa Lane, Thayer Rd (south portion), and Bates St (south section) further north.

6. From the Blackstone water main (evidenced by a fire hydrant) at the corner of Blackstone Street and Elm Street in Blackstone, about 1,000 feet to the south end of Providence Street in Mendon which could serve, for example, Colonial Drive and Puddingstone Lane in Mendon.
7. There appear to be no water mains in Millville within 5,000 feet of the Mendon town line.
8. From the Uxbridge water main (evidenced by a fire hydrant) at the corner of Chapin Street and Blackstone Street in Uxbridge 5,200 feet +/- to the west end of Southwick Street in Mendon, which could serve the Southwick Zoo and other properties on Southwick Street and on Asylum Street in Mendon.
9. From the Uxbridge water main (evidenced by a fire hydrant) on Henry Street in , Uxbridge about 2,500 feet from the Mendon town line at Park Street in Mendon, which could serve the south end of Park Street, the south end of Mowry Street and Pleasant Street.
10. From the Uxbridge water main (evidenced by a fire hydrant) on Mendon Street (Route 16) in Uxbridge just east of the West River bridge about 3,500 feet from the Mendon town line which could serve Mowry Street and Uxbridge Road (Route 16) in Mendon. This connection has been proposed by the Uxbridge Water Department to serve all properties in Mendon, using approximately 8,000 feet of water main. The Uxbridge proposal was later modified to not force all properties in Mendon to connect.
11. From Uxbridge water main (evidenced by a fire hydrant) on East Hartford Avenue in Uxbridge just east of West Hill Dam Road about 3,500 feet from the Mendon town line at Hartford Avenue West in Mendon just west of the north end of Mowry Street.

There appear to be no water mains in Northbridge or in Upton within 5,000 ft of the Mendon town line.

There are Hopedale fire hydrants at the corner of Freedom Street and Moore Road (near Hopedale Street in Mendon); at Mantoni Street in Hopedale near Mantoni Street in Mendon; and, at Mill Street in Hopedale near George Street in Mendon, which could be used to supply water to nearby neighborhoods of Mendon (and of Hopedale) if adequate water supplies were available.

It appears that the Hopedale residential area north of Freedom Street, and northeast of Neck Hill Road (in both Mendon and Hopedale) do not, at present, have public water.

The Hopedale properties on the north side of Hartford Avenue East in Mendon do not appear to have public water. The Hopedale office park and commercial areas north of Hartford Avenue East (Mendon) east of South Main St (Rt 140) on Charlesview Rd or South Main St probably have Hopedale public water supply water provided via Charlesgate Rd or a nearby right of way, although they may use individual wells.

New Sources of Groundwater Within Mendon

Note: A groundwater well generally needs some treatment of its water in a (relatively) nearby facility before it is distributed to users. A public groundwater well is usually relatively shallow (perhaps up to 80 feet deep) and of a larger diameter than a private domestic (home) well, often 300 feet deep or more).

Note: The peak flow rate demands on a well can be reduced by providing a significant water storage tank (See above.). This may make an otherwise unsuitable well adequate for peak demands.

In 1947 (+/-) test wells were drilled, apparently northeast of the corner of Providence Street and Hartford Avenue East, probably west of the Muddy Brook. Sufficient water was apparently found for the town buildings on Main St and other properties on Providence Street (north of Hartford Avenue East) and surrounding areas (according to the then current regulations).

No permanent well was built and no water supply was provided because “endangered species” were discovered in the same area. This land is owned by the town today. Is the endangered species issue something that can not be overcome by locating a well on the grass lands in the same general vicinity (possibly east of the Muddy Brook)?

In 2012 test wells were drilled somewhere south of Hartford Avenue East as an attempt to replace the water being supplied from Hopedale. Water was found, but with inadequate flow rates for the water system. The use of water storage (e.g., a water tank – See above.) would reduce the peak flow requirements on a well(s) and the average flow rate might be adequate to meet actual needs and regulatory requirements.

From a hydrology point of view, the swampy areas all along the Mill River in Mendon seem to represent likely places to drill new wells for public water supply. Any well for use as a public water supply would probably require some treatment, both for sanitation (chlorine or similar) and possibly for mineral content (high iron content is likely). A rough estimate for a test well is \$50,000. Well locations near or south of Thayer Road (modern active portion off of Bates Street) could serve the Thayer Road and Catalpa Lane area, the Colonial Drive and Puddingstone Lane area and the other streets north of the Blackstone town line on Providence Street including Quissett Hill Road.

Another swampy area that should be investigated is the area from Quissett Hill Road west (across the cart path known as Old Dam Swamp Road) across Blackstone Street to Millville Street. Much of this area is conservation land owned by the town, the state, or other conservation groups. Wells in this area, if carefully located, could be installed (and the ancillary facilities built) with small (but not zero) disruption of the environment. Wells in this area could easily serve much of Mendon south of Route 16.

Some of the area along or near Northbridge Road includes swampy areas which may be suitable for water supply wells. The well for the former Miscoe Springs bottling plant at No. 89 Northbridge Road is located such that it does not conform to MA DEP regulations for a public water supply. However, there is a lot of low (and swampy) land east of there which may be good candidates for a well (and its ancillary facility). As far as is known, virtually all land in this area is privately held. There are a few swampy parcels between West Hill Road and Washington Street which are listed on the Mendon Assessor's maps as having "unknown" owners.

Other areas which should be considered for public water wells are near the lake behind the Miscoe Hill Middle School (and partly on school property) and along the valley which contains the Muddy Brook (which includes a corner of the town-owned property diagonally across the street from the school). Such a well (and the ancillary facilities) could serve the Miscoe Road, Metcalf Road, Davenport Drive, northern North Avenue, and Hopedale Street neighborhoods.

Replace Undersized Water Main

The water "main" south of No. 35 Bates St (fire hydrant on east side of street) is 2-inch type AC water pipe which is too small for the installation of additional fire hydrants or water main extensions. If a water main extension southward or a connection to the Bellingham water main is contemplated on Bates Street, this pipe would need to be replaced with a 6-inch or 8-inch water pipe. There does not seem to be a need for this replacement at this time.

Background

Watershed

There are four watersheds in which Mendon is located or which affect the town of Mendon: the (upper) Charles River basin, the Peters River basin, the Mill River basin and the West River basin. The Peters River, the Mill River, and the West River all flow into the Blackstone River and are part of the Blackstone River basin.

Previously, the Mendon Public Water System (and the Hopedale water system) obtained "finished" water from the Milford Water Company, which obtains all of its water from the Charles River basin. The Charles River basin is heavily regulated as to the amount of water drawn from its aquifer. The Bellingham water system draws some of its water from the Charles River basin and some of its water from the Peters River basin and mixes them after treatment.

The Charles River basin is bounded on the west by an (often faint) ridge line which (approximately) runs west of South Street in Hopkinton, near the water tower west of Highland Street in Milford, across West Street in Milford where it becomes Route 140, west of Route 140 in Hopedale (west of South Main Street), just west of Cape Road (Route 140) in Mendon, then southeasterly southwest of Mendon Street in Bellingham, and south of Mechanics Street in Bellingham (and on and on eventually through Boston to the Atlantic Ocean.)

The Mill River basin is bounded through Milford, Hopedale, and Mendon by the Charles River basin on the east (See above.), and on the west by high land running from eastern Upton, south through the junction of Route 16 (Hastings Street and Uxbridge Road in Mendon) and Millville Street, then southeast of Millville Street into Millville, with the Mill River running into the Blackstone River near the eastern part of the south edge of Blackstone at the Rhode Island border.

The Mill River basin does not appear to be heavily regulated as to water withdrawal at this time. The Hopedale water system wells are entirely within the Mill River basin and quite close to the Mill River itself.

The West River basin is bounded on the east by the Mill River basin (See above.) and on the west by the Blackstone River and Canal basin in Uxbridge. The West River runs into the Blackstone River in Uxbridge south of Route 16 and east of Route 122. The West River basin does not appear to be heavily regulated as to water withdrawal at this time.

The Peters River basin (Bellingham) is separated from the Charles River basin on the north by the ridges and hills south of Mechanics Street in Bellingham and on the west from the Mill River basin by the ridges and hills generally west of Route 126 (South Main Street) and the southern portion of Pulaski Boulevard in Bellingham. The Peters River flows into the Blackstone River in Woonsocket, Rhode Island, somewhat east of where the Mill River flows into the Blackstone River.

Appendix A

Public Water Systems relevant to Mendon

(Source: <http://www.mass.gov/eea/agencies/massdep/water/drinking/pws-documents-search-tool.html> in August, 2016)

Current Public Water Systems in Mendon

- PWS# 2179000 – Mendon Water Department
- PWS# 2179001 – Mendon Housing Authority (Sunrise apartments off Blackstone Street)
- PWS# 2179002 – Commercial/Industrial Plaza at 28-32 Hasting Street
- PWS# 2179003 – Hood’s Plaza on Hastings Street
- PWS# 2179004 – Miscoe Hill Middle School
- PWS# 2179005 – Clough Elementary School
- PWS# 2179006 – 45-49 Uxbridge Road
- PWS# 2179007 – New England Steak House on Uxbridge Road
- PWS# 2179008 – Alicante Restaurant on Uxbridge Road
- PWS# 2179009 – Shopping plaza at 10-16 Hasting Street
- PWS# 2179011 – Southwick Wild Animal Farm
- PWS# 2179013 – George’s Surf and Turf restaurant on Uxbridge Road
- PWS# 2179014 – Grand View Ballroom off Park Street
- PWS# 2179016 – Imperial Cars on Uxbridge Road
- PWS# 2179018 – Mendon Village at 2 Maple Street (building with Post Office)
- PWS# 2179021 – Dunkin Donuts on Uxbridge Road
- PWS# 2179022 – Imperial Plaza on Uxbridge Road
- PWS# 2179023 – Mendon Twin Drive-In on Milford Street
- PWS# 2179024 – End Zone Sports Pub on Milford Street
- PWS# 2179025 – Hide-A-Way Pizza on Uxbridge Road
- PWS# 2179026 – Barry’s Place on Hastings Street
- PWS# 2179027 – Mendon Town Hall complex on Main Street
- PWS# 2179028 – Mendon Senior Center on Providence Street
- PWS# 2179029 – Memorial Field complex/Town Beach off Millville Street and Taft Ave

Other Relevant Public Water Systems

- PWS# 2138000 – Hopedale Water and Sewer Department
- PWS# 2025000 – Bellingham Department of Public Works
- PWS# 2032000 – Blackstone Water Department
- PWS# 2185000 – Milford Water Company
- PWS# 2216006 – Northbridge Water Division
- PWS# 2303000 – Upton Department of Public Works, Water/Wastewater Division
- PWS# 2304000 – Uxbridge Department of Public Works, Water Division