



*The Commonwealth of Massachusetts*  
*Executive Office of Energy and Environmental Affairs*  
*100 Cambridge Street, Suite 900*  
*Boston, MA 02114*

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December 21, 2018

CERTIFICATE OF THE SECRETARY OF ENERGY AND ENVIRONMENTAL AFFAIRS  
ON THE  
NOTICE OF PROJECT CHANGE

PROJECT NAME : New Water and Wastewater Solutions  
PROJECT MUNICIPALITY : North Reading  
PROJECT WATERSHED : Ipswich  
EEA NUMBER : 14975  
PROJECT PROPONENT : Town of North Reading  
DATE NOTICED IN MONITOR : November 21, 2018

Pursuant to the Massachusetts Environmental Policy Act (MEPA, M.G.L. c. 30, ss. 61-62I) and Section 11.10 of the MEPA regulations (301 CMR 11.00), I hereby determine that this project continues to **require** a Final Environmental Impact Report (FEIR). The Proponent must prepare and submit for review a Final Environmental Impact Report (FEIR) in response to the revised Scope provided in this Certificate. The Notice of Project Change (NPC) identifies a change to the Preferred Alternative for water supply and indicates that development of wastewater disposal treatment alternatives have not advanced. Additional study is necessary to develop wastewater alternatives. The Town of North Reading (Town) has requested that the FEIR be limited to the water supply component of the project. The Scope for the FEIR has been revised to reflect changes in the project and the Preferred Alternative for water supply. To address wastewater, the Town must file a subsequent NPC when planning has advanced. Upon review of the NPC, a Certificate will be issued with a revised Scope for a Supplemental EIR.

Original Project Description

The Town's current water supply is provided by groundwater wells (0.96 million gallons per day (MGD)) within the Ipswich River Watershed and supplemented with water purchased from the Town of Andover (1.5 MGD). The Town of Andover's water supply is located within the Merrimack River Basin, thus this purchase is subject to an existing Interbasin Transfer Act (ITA) approval. The Ipswich

River has been listed as one of the most endangered rivers in the United States and is considered a “stressed basin” under the hydrologic criteria established by the Water Resources Commission (WRC).

The original Preferred Alternative for water supply solution consisted of joining the Massachusetts Water Resources Authority (MWRA) water system and purchasing 2.6 MGD to meet demand. Once connected to the MWRA system, the Town would discontinue drinking water withdrawals within the Ipswich River Basin, and convert the water supply from the Town of Andover to an emergency supply. Connections to the MWRA would be made via water infrastructure within the Town of Reading. Once the water supply from the MWRA system was secured, the Town intended to voluntarily forfeit its water withdrawal registration (0.96 MGD) to the Massachusetts Department of Environmental Protection (MassDEP).

The MWRA alternative would have required improvements to the Reading water distribution system, including enlarging, cleaning and lining water mains in Reading; increasing inlet and outlet pipe sizes from the Auburn Street Tank in Reading; and constructing a new water booster pump station.

The original project included implementation of a municipal wastewater collection, treatment and disposal system for approximately 2,000 properties within the highest need areas of the Town. Remaining properties would continue wastewater collection and treatment via existing on-site Title 5 systems or six small-scale wastewater treatment facilities that would discharge to groundwater. The Draft EIR (DEIR) proposed that wastewater from the Town would flow to an existing collection system in the Town of Andover and ultimately be conveyed to the Greater Lawrence Sanitary District (GLSD) for treatment and disposal.

### Project Change

As described in the NPC, the Town is no longer proposing to join the MWRA water system and instead proposes to purchase the entirety of its water supply from the Town of Andover. Comments submitted on the DEIR by the Town of Andover indicated that Andover was capable of supplying North Reading with its long term water needs. Andover provides the majority (61-78% based on data from 2009-2017) of the Town’s water supply. As a result, infrastructure improvements associated with the project change are significantly reduced compared to the MWRA alternative. Since the issuance of the DEIR Certificate on May 13, 2016, the Town and Andover have entered into a 99-year Intermunicipal Water Supply and Purchase Agreement (IMA). The IMA was executed in June 2018 and states that, subject to permitting and necessary infrastructure upgrades, Andover will supply up to a maximum daily withdrawal of 2.4 MGD to the Town through June 30, 2019, a maximum of 2.6 MGD through June 30, 2025, and a maximum of 3.0 MGD thereafter.

The project change will require the installation of two chlorine booster chemical injection stations at two interconnection locations to ensure adequate chlorine residual within the Town’s distribution system. The Central Street chemical feed station will be constructed on the site of an existing pump station. The Main Street chemical feed station will be located at one of three sites near an existing interconnection and meter vault. Two of the three proposed locations for the Main Street chemical feed station are commercial properties and one is a residential property on Cogswell Road.

The water supply component of the project has advanced ahead of the wastewater project and therefore, as indicated in the Certificate on the Environmental Notification Form (ENF) issued on December 7, 2012, the Town has requested that review of wastewater disposal alternatives through MEPA be addressed subsequent to completion of MEPA review for the water supply component.

### Project Site

North Reading is located in the Ipswich River Basin. The Ipswich River watershed provides drinking water to 14 communities and, according to the DEIR, has experienced repeated low-flow or no-flow periods. Upper river segments have gone dry in six of the last ten years. These events are associated with water withdrawals for drinking water and have resulted in fish kills and ecological damage. The Town of Andover is located within the Merrimack River Watershed. Andover's water supply is supported by Haggett's Pond, a 220-acre Class A surface water supply, and 1,422 acres of watershed area. Water is diverted to Haggett's Pond from Fish Brook and the Merrimack River. Andover's distribution systems consists of three pressure zones (1) the West High zone, (2) the Central Low zone and (3) the East High zone. The East High zone serves eastern areas of Andover and North Reading.

### Environmental Impacts and Mitigation

The project change proposes to increase water withdrawals from the Merrimack River Watershed by 1.5 MGD for a total of 3.0 MGD. The project change will significantly reduce construction impacts associated with water main improvements for the original project. No historical impacts are anticipated as a result of the project change. Greenhouse Gas (GHG) emissions are expected to decrease significantly. As noted by MassDEP, reducing groundwater withdrawals within the Town will benefit streamflow and habitat conditions within the Ipswich River Watershed.

### Jurisdiction and Permitting

The original project was subject to MEPA review and required the preparation of a mandatory EIR because it required State Agency Actions and exceeded several EIR review thresholds including:

- New interbasin transfer of water of 1,000,000 or more gpd or any amount determined to be significant by the Water Resources Commission (301 CMR 11.03(4)(a)(2))
- Provided that the Project is undertaken by an Agency, New water service to a municipality or water district across a municipal boundary through New or existing pipelines, unless a disruption of service emergency is declared in accordance with applicable statutes and regulations (301 CMR 11.03(4)(a)(4));
- Construction of one or more New sewer mains ten or more miles in length (301 CMR 11.03(5)(a)(3)); and
- Provided that the project is undertaken by an Agency, New sewer service to a municipality or sewer district across a municipal boundary through New or existing pipelines, unless an emergency is declared in accordance with applicable statutes and regulations (301 CMR 11.03(5)(a)(4));

The project, as proposed in the NPC, exceeds the EIR threshold at 301 CMR 11.03(4)(a)(2). It requires approval in accordance with the ITA (M.G.L. c.21 ss. 8B-D; 313 CMR 4.00) and several water supply permits from MassDEP including a Chemical Addition Retrofit of Water Systems Serving More than 3,300 People. It may also require an Abandonment of a Water Source Permit. The project is subject to the MEPA GHG Emissions Policy and Protocol.

The Town will receive \$3 million from a MassWorks Grant to support the project. Because the Town is receiving Financial Assistance from the Commonwealth for the project, MEPA jurisdiction is broad and extends to all aspects of the project that are likely, directly or indirectly, to cause Damage to the Environment, as defined in the MEPA regulations. The project change does not alter jurisdiction of the project.

### Review of the NPC

The NPC provides a project background, description of existing conditions in the project area, a project description and plans, and project-related impacts. No chemical feed stations are proposed within wetland resource areas. The NPC included the results of a Hydraulic Analysis Memo which provided details regarding the capacity of the Andover water system to serve the Town. The analysis spanned a 20-year period and identified existing and proposed storage, supply and treatment capacity. The NPC included a copy of the IMA which authorizes the sale and supply of potable water to the Town from Andover.

### *Water Supply*

As noted earlier, the Town's purchase of water from Andover is subject to an IMA and the ITA because it will increase the amount of water transferred across a river basin boundary (Merrimack to Ipswich) and a town boundary (Andover to North Reading). Water is supplied to the Town via two interconnections located on Main Street and Central Street along the municipal boundary of the two towns. The Main Street connection is the primary connection and includes a meter and isolation valve. The Central Street connection includes a pump station with chemical addition, meter, and isolation valve. Flows to these locations were modeled under future Maximum Daily Demand (MDD) conditions up to 3.0 MGD. The hydraulic analysis evaluated the impacts to Andover's system based on three interconnection scenarios:

1. Flow through two existing connections at Main Street and Central Street (Preferred Alternative).
2. Flow through a single connection at Main Street only.
3. Flow through the two existing connections at Main Street and Central Street in conjunction with a proposed third connection located at Jenkins Road.

The hydraulic analysis evaluated system pressures, pipe velocities, storage tank filling and draining characteristics and estimated fire flow. The results of the modeling analysis suggest that system pressures and pipe velocities for the Preferred Alternative under future MDD conditions decrease but are generally comparable to existing conditions. Tank storage analysis indicated that tank levels remain generally comparable to existing conditions. However, each of Andover's pressure zones is deficient in storage redundancy should the largest tank be taken out-of-service. The Town of Andover

indicated that they will be addressing storage needs as part of their long-term capital planning. The fire flow analysis indicated that the Central Street location does not meet the required 3,500 fire flow under existing or future conditions. The increased flow to the Town is expected to be directed through the Main Street interconnection.

As described in the NPC, the Town's municipal wells will be downgraded from Active to Emergency status. The water treatment plants will remain operational for at least one year before the Town begins the process of decommissioning. Emergency sources may only be used with MassDEP approval during a declared State of Water Supply Emergency. Water quality monitoring for emergency sources is not required until and unless they are needed for an emergency. MassDEP recommends that the pumps and valves of emergency wells be exercised on a regular basis to ensure that the wells will be operational if an emergency arises. If the wells are to be downgraded to emergency status rather than formally abandoned, an Abandonment of Water Source Permit from MassDEP will not be necessary.

MassDEP comments support the project change because it will reduce water withdrawals in the head waters of the Ipswich River Basin, which has been classified as a Groundwater Withdrawal Category 5. Andover's surface water sources, including the Merrimack River, are far less hydrologically-stressed and better able to support the Town's water demand. Haggett's Pond has a total capacity of 1 billion gallons with a maximum depth of 35-40 feet. The safe yield of the pond is 1.1 MGD with a drawdown capacity of 6-feet. Haggett's Pond is supplemented with water diverted from Fish Brook and the Merrimack River which is chlorinated beforehand. The Town of Andover diverts water approximately 215 days per year.

Andover is authorized to withdraw 8.51 MGD from the Merrimack River Basin in accordance with its Water Management Act (WMA) registration and permit. Compliance with this volume is based on the average day withdrawal over a year. Comments from MassDEP indicate that since 1990, the highest average day demand for Andover, not including water sold to the Town and other water systems<sup>1</sup>, was 6.22 MGD in 2013. The highest average day demand for the Town since 1990 was 1.59 MGD in 2016. Andover authorized volume appears sufficient to supply the Town and remain in compliance with the WMA. Andover's Water Treatment Plan (WTP) has a reported design capacity of 24 MGD. Raw water is pumped from Haggett's Pond through the WTP utilizing four low-lift pumps. Raw water passes through an ozone system for oxidation and disinfection followed by chemical addition for coagulation, pH adjustment, oxidation and disinfection. The chemically treated water then enters a rapid mixing system followed by flocculation and sedimentation. The water is then filtered and disinfected before being pumped into the distribution system. Water for North Andover and portions of Andover is pumped to the Bancroft reservoir. As described in the NPC, the Town of Andover is in the process of replacing the pumps at the WTP which pump water to the Bancroft Reservoir, a concrete water storage tank with a capacity of 6 million gallons.

### *Rare Species*

Comments from the Division of Fisheries and Wildlife's Natural Heritage and Endangered Species Program (NHESP) indicate that Merrimack River is mapped habitat for Shortnose Sturgeon (*Acipenser brevirostrum*), Atlantic Sturgeon (*Acipenser oxyrinchus*) and the Bald Eagle (*Haliaeetus*

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<sup>1</sup> Andover has several emergency connections to neighboring communities include North Andover (2 connections), Tewksbury (3 connections), and Lawrence (3 connections).

*leucocephalus*). NHESP comments indicate that the inter-basin transfer should not result in impacts to state-listed species.

### *Construction*

The Town must comply with MassDEP's Solid Waste and Air Quality Control regulations, pursuant to M.G.L. Chapter 40, Section 54, during construction. All construction activities should be undertaken in compliance with the conditions of all State and local permits. Contractors will be required to use Ultra Low Sulfur Diesel Fuel (ULSD) for motorized equipment and comply with anti-idling provisions (310 CMR 7.11).

## SCOPE

### General

The FEIR should include a detailed description of the proposed project. This description should include: a project history, a description of the overall project scope, a discussion of key planning initiatives and reports completed to date regarding water supply planning and wastewater management, and project objectives and goals. The FEIR should quantify all environmental impacts associated with the water supply project, including impacts associated with water system infrastructure upgrades in the Town of Andover.

Wastewater planning will be addressed in a subsequent NPC which will include a Scope for a Supplemental EIR. Additional analysis of wastewater is not required in this Scope; however, the Town should describe the status of planning, identify any significant developments and provide a schedule for development of alternatives and filing with MEPA.

The FEIR should follow Section 11.07 of the MEPA regulations for outline and content, as modified by this Scope. The FEIR should include a description of the existing environment including North Reading and Andover in accordance with 301 CMR 11.07(6)(g). The FEIR should describe proposed conditions for each project alternative to allow for an accurate assessment of potential environmental impacts including, but not limited to, the location of water, the proposed locations of pump stations and other related equipment. These descriptions should encompass all areas of potential project impact, including areas beyond the boundaries of North Reading.

The FEIR should clearly demonstrate that the Town has sought to avoid, minimize and mitigate Damage to the Environment to the maximum extent feasible. The FEIR should include a detailed description of the project and describe any changes to the project since the filing of the NPC. The FEIR should include a discussion of permitting requirements, the results of any consultation with State Agencies, and how the project will be constructed in accordance with applicable regulatory performance standards.

### Land Alteration

The FEIR should identify Article 97 lands within the Town of Reading and Andover to identify any direct impacts to Article 97 lands or need for easements. If wells are abandoned, the FEIR should

address how former water supply protection properties will be managed and whether land currently within the Zone 1 may be sold or transferred. If the wells will be abandoned, I highly encourage the town to preserve the land.

### Interbasin Transfer

Comments from the WRC identify outstanding information needed to demonstrate that the Town has taken all practical measures to conserve water in the receiving area (Criterion 3). The FEIR must include all information necessary to complete the Interbasin Transfer approval process. Comments from WRC include a general scope for the FEIR. I strongly recommend that the Town meet with the WRC prior to the submission of the FEIR to ensure that all Scope items specific to this project are addressed so that the WRC process, including a public hearing, can be initiated. The FEIR should include direct responses, with supporting data or graphics as necessary. I hereby incorporate WRC's comments by reference into this Certificate.

The ITA review process will include reviewing North Reading's compliance with the Massachusetts Water Conservation Standards, including the performance standards for unaccounted-for water (no more than 10% of the water that enters the distribution system should be unaccounted for) and residential per capita day water use of no more than 65 gallons per person. As identified in WRC's comment letter on the DEIR, North Reading does not meet the ITA Performance Standards for UAW or residential water use in gallons per capita per day (rgcd). The FEIR should discuss how the Town will improve its accounting of water use and describe its water loss control program. In addition, the FEIR should identify water conservation measures the Town will implement (e.g., rebates for low flow fixtures, residential water use audits), a timeline for implementation and an estimate of reductions.

The FEIR should include additional information on Andover's water system. It should identify the current timing of the diversions from the Merrimack River and Fish Brook and describe the potential impacts to these resources and Haggett's Pond associated with the increased water withdrawal. The FEIR should identify whether the increased supply of water to North Reading will increase the frequency of water diversions from the Merrimack River or Fish Brook. The FEIR should identify the percentage of usable capacity of Haggett's Pond that will be transferred to North Reading. The FEIR should include the applicable reservoir and/or drought management plan for Haggett's Pond.

### Water Supply

The FEIR should clearly identify any deficiencies in Andover's water system, including any water quality issues. It should identify measures proposed to resolve any deficiencies, identify the party responsible for implementation and provide a schedule for implementation. In addition, the FEIR should identify proposed improvements to Andover and North Reading's distribution systems, including upgrading transmission mains and associated environmental impacts.

The FEIR should clarify whether North Reading will abandon its wells and retire its WMA registration. If the Town intends to abandon the wells, the FEIR should address consistency of the decommissioning with MassDEP *Guidelines for Public Water Systems*.

### Greenhouse Gas Emissions

The project is subject to the MEPA Greenhouse Gas Emissions Policy and Protocol (“the Policy”). The Policy requires projects to quantify carbon dioxide (CO<sub>2</sub>) emissions and identify measures to avoid, minimize or mitigate such emissions. The Town will be required to quantify the direct and/or indirect CO<sub>2</sub> emissions associated with the project's stationary source energy usage (e.g., building energy use, process-related energy use, pump stations, etc.) and transportation-related emissions (mobile sources), if applicable. To facilitate this evaluation, the GHG analysis should include a comparison of CO<sub>2</sub> emissions associated with an established project baseline to estimated CO<sub>2</sub> emissions associated with a final build condition that incorporates feasible mitigation measures to reduce CO<sub>2</sub> emissions.

The FEIR should include a GHG analysis that calculates and compares GHG emissions associated with: 1) a Baseline, or Business As Usual case (direct and indirect emissions from energy consumption based upon a typical pumping and treatment design and operations) and 2) the proposed Preferred Alternative (direct and indirect emissions from energy consumption based upon the implementation of equipment and operations that achieve reduced GHG emissions compared to the Baseline). The GHG analysis should specifically evaluate proposed pumping and treatment equipment and/or operations protocols to determine if indirect GHG emissions can be reduced compared to the Baseline case. The Town should identify the model or methodology used to analyze GHG emissions, clearly state modeling assumptions, and explicitly note which GHG reduction measures have been modeled and will be implemented within the system.

#### Mitigation/Draft Section 61 Findings

The FEIR should include a separate chapter summarizing proposed mitigation measures. The FEIR should include draft Section 61 Findings for each anticipated State Agency Action. The FEIR should contain clear commitments to implement these mitigation measures, estimate the individual costs of each proposed measure, identify the parties responsible for implementation, and a schedule for implementation in a tabular format.

#### Responses to Comments/Circulation

The FEIR should contain a copy of this Certificate and a copy of each comment letter received. In order to ensure that the issues raised by commenters are addressed, the FEIR should include direct responses to comments to the extent that they are within MEPA jurisdiction. This directive is not intended, and shall not be construed, to enlarge the scope of the FEIR beyond what has been expressly identified in this certificate.

The Town should circulate the FEIR to those parties who commented on the EENF, DEIR, NPC, and to any State Agencies from which the Town will seek permits or approvals, and to any additional parties specified in section 11.16 of the MEPA regulations. To save paper and other resources, the Town may circulate copies of the FEIR to commenters other than State Agencies in a digital format (e.g., CD-ROM, USB drive) or post to an online website. However, the Town should make available a reasonable number of hard copies to accommodate those without convenient access to a computer to be distributed upon request on a first come, first served basis. The Town should send a letter accompanying the digital copy or identifying the web address of the online version of the FEIR

indicating that hard copies are available upon request, noting relevant comment deadlines, and addresses for submission of comments. The FEIR submitted to the MEPA office should include a digital copy of the complete document. A copy of the FEIR should be made available for review at the Eastham public library.



December 21, 2018

Date

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Matthew A. Beaton

Comments received:

11/22/2018 Massachusetts Historical Commission (MHC)  
12/07/2018 Water Resources Commission (WRC)  
12/11/2018 Keith Saxon  
12/11/2018 Jose Albuquerque  
12/11/2018 Massachusetts Department of Environmental Protection – Northeast Regional Office  
(MassDEP – NERO)  
12/17/2018 Massachusetts Division of Fisheries and Wildlife – Natural Heritage and Endangered  
Species Program (NHESP)

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November 19, 2018

**The Commonwealth of Massachusetts**  
William Francis Galvin, Secretary of the Commonwealth  
Massachusetts Historical Commission

Patrick Bowers  
North Reading Department of Public Works  
235 North Street  
North Reading, MA 01864

Dear Mr. Bowers:

RE: North Reading Water Supply and Wastewater Management Plan, North Reading and Reading, MA.  
MHC# RC.53336. EEA #14975.

Staff of the Massachusetts Historical Commission (MHC) have reviewed the Notice of Project Change (NPC), received October 22, 2018, for the project referenced above.

The MHC notes that the project has been modified and multiple project alternatives are under consideration. Project planners should submit the Final Environmental Impact Report (FEIR) and scaled project plans showing existing and proposed conditions for the preferred project alternative to the MHC for review and comment. Project plans should show each phase of improvements or expansion projects, including treatment plant location(s), recharge areas, pump stations, equipment storage and materials staging areas and cross-country water and/or pipeline right-of-ways. The MHC encourages project planners to continue to consult with the North Reading Historical Commission as project planning proceeds.

Project planners should continue to consult the Inventory of Historic and Archaeological Assets of the Commonwealth for identified historic and archaeological properties. Feasible designs and locations that meet the engineering requirements, while also seeking to avoid or minimize impacts to historic and archaeological properties and areas should be considered. Design elements for new construction in historic areas should consider size, scale, massing, height and materials in developing the specifications, and also consider vegetative screening to minimize visual effects.

If the project requires federal funding, licensing, permits or approvals, such as use of State Revolving Fund funding administered by the Massachusetts Department of Environmental Protection, then the MHC will continue to review the project pursuant to Section 106 of the National Historic Preservation Act of 1966, as amended (36 CFR 800) in consultation with the involved federal agencies.

The MHC looks forward to reviewing the information requested above and to continued consultation to avoid, minimize or mitigate adverse effects to significant historic and archaeological resources.

These comments are offered to assist in compliance with Section 106 of the National Historic Preservation Act of 1966, as amended (36 CFR 800), and/or Massachusetts General Laws, Chapter 9, Sections 26-27C (950 CMR 71) and MEPA (301 CMR 11). If you have questions or require additional information please contact Jonathan K. Patton at this office.

Sincerely,

Brona Simon  
State Historic Preservation Officer  
Executive Director  
State Archaeologist  
Massachusetts Historical Commission

xc: Secretary Matthew A. Beaton, EEA, Attn: MEPA Unit  
North Reading Historical Commission  
North Reading Historic District Commission  
Brianna Wentworth, Wright-Pierce

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THE COMMONWEALTH OF MASSACHUSETTS  
WATER RESOURCES COMMISSION  
100 CAMBRIDGE STREET, BOSTON MA 02114

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December 7, 2018

Matthew Beaton, Secretary  
Executive Office of Energy and Environmental Affairs  
Attention: Erin Flaherty, MEPA Office  
EOEA #14975  
100 Cambridge Street  
Boston, MA 02114

Dear Secretary Beaton:

Staff for the Water Resources Commission (WRC) has reviewed the Notice of Project Change (NPC) for the Town of North Reading's New Water and Wastewater Solutions project. Staff has met with the Town several times as they have explored their water and wastewater options, the last time being in June 2017. With this NPC, North Reading is proposing to purchase additional water from Andover, rather than the MWRA, as originally proposed in the Draft Environmental Impact Report (EIR). North Reading is located in the Ipswich River basin and Andover's water supply sources are from the Merrimack River basin. Therefore this potential purchase is subject to the Interbasin Transfer Act (ITA).

The WRC uses the EIR as its ITA application. We do this to provide streamlining of state review processes. Therefore, we are concerned about the statement on page 5 of NPC, indicating that the Town would apply for ITA approval after the issuance of the Final EIR certificate. If a proponent uses the EIR as its ITA application, and provides all the information needed for ITA review through the MEPA process, once the final certificate on the project is issued, an additional application is not needed and the WRC can schedule the two public hearings required under the Act and proceed with the formal ITA decision-making process. If the information is not provided until after the MEPA process is completed, the timing for a WRC decision will be unnecessarily prolonged.

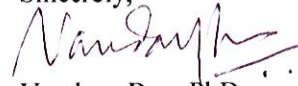
In 1991, the WRC approved a request from North Reading to supplement its water supply through the purchase of additional water from Andover. Currently, North Reading is able to transfer up to 1.5 mgd from Andover under the ITA. In the 27 years that have passed, our hydrologic analyses have improved, and conditions within the donor basin and demands on Andover's water supply system may have changed. Therefore the FEIR should provide more information on Andover's system, including the current timing of the transfers from the Merrimack River and Fish Brook and describe the potential impacts to these streams and to Haggerts Pond, due this increased transfer to North Reading. Page 4 of the NPC discusses the phasing of North Reading's proposed purchase, indicating that the Town would be purchasing up to 3.0 mgd after 2025. The FEIR should clarify if the 3.0 mgd represents the average or maximum amount to be transferred. The ITA regulates on capacity or maximum day use, so in its ITA application, North Reading should be requesting what they have determined to be the maximum needed to address their maximum day demand, minus the already authorized 1.5 mgd transfer. The hydrologic analyses should be conducted on this amount and include the cumulative impacts of all past, authorized or proposed transfers on the Andover system. I strongly urge North Reading and Andover to meet with

WRC staff to discuss the operation of Andover's water supply sources and the potential analyses needed for ITA review. They should contact Michele Drury at 617-626-1366 to set up a meeting at the earliest possible time, prior to development of the FEIR. I have attached a generic scope for ITA issues to be addressed in an EIR for a water supply interbasin transfer, but the hydrologic analyses in the donor basin will need to be tailored for Andover's system. North Reading and Andover should refer to 313 CMR 4.09(2)(g), found at <https://www.mass.gov/files/documents/2018/03/27/313cmr4.pdf>, for the types of information required for these hydrological analyses. In addition, copies of the FEIR (electronic preferred, unless otherwise indicated) must be sent to the distribution list at the end of the attached scope.

In our comments on the DEIR, we discussed the reasons North Reading provided to demonstrate compliance with Criterion #2 of the ITA regulations (Use and Development of Viable In-basin Sources). These included water quality and water quantity issues, as well as the costs of replacing its aging water supply infrastructure. We concluded that the DEIR provided all the information the WRC needs to evaluate North Reading's current proposal against this Criterion. We also listed several issues that needed to be addressed in order to evaluate North Reading's compliance with Criterion #3 of the ITA regulations (Water Conservation). These comments still need to be addressed and any updated information should be provided (for example, documentation of water audits, leak detection programs, master meter calibrations, rate studies, drought plan). In addition, WRC Staff is in the process of updating the ITA Performance Standards. North Reading's FEIR/ITA application should comply with the latest version available at the time of submittal. Again we urge North Reading to provide responses to all ITA issues in the FEIR.

Thank you for the opportunity to comment. If you have any questions, please feel free to call me at 617-626-1248 or Michele Drury at 617-626-1366.

Sincerely,



Vandana Rao, PhD  
Executive Director

cc: Water Resources Commission  
Michele Drury, DCR  
Erin Graham, DCR  
Viki Zoltay, DCR  
Anne Carroll, DCR  
Duane LeVangie, MassDEP  
Michelle Craddock, DER  
Todd Richards, DFW  
Amy Coman-Hoenig, NHESP  
Lauren Glorioso, NHESP  
David Pierce, DMF  
Mark Clark, North Reading  
Patrick Bower, North Reading  
Amy Coppers Constantino, Wright-Pierce



## THE COMMONWEALTH OF MASSACHUSETTS WATER RESOURCES COMMISSION

### **EIR Scope/Interbasin Transfer Act Application for Communities Seeking**

### **APPROVAL FOR WATER SUPPLY DEVELOPMENT**

### **Under the Interbasin Transfer Act**

The MEPA regulations, 301 CMR 11.03, require a mandatory Environmental Impact Report (EIR) for transfers considered “significant” under the Interbasin Transfer Act (ITA). The Water Resources Commission (WRC) uses the EIR as its ITA application. This scope outlines the information required for ITA review and should be incorporated into the EIR. Wherever possible, the applicant should provide this information in an electronic format.

This scope is only for that portion of the EIR that pertains to the INTERBASIN TRANSFER ACT. There may be other issues which need to be addressed in the EIR for a particular project. The MEPA program should be contacted to determine a comprehensive scope.

The Interbasin Transfer Act governs the transfer of water and wastewater between river basins within the Commonwealth. Any water transferred out of a river basin, either for water supply or wastewater treatment purposes, is no longer available to replenish the “donor” basin’s rivers, aquifers, lakes or wetlands. The purpose of the Act is to assure that if an interbasin transfer does occur, the resources of the donor basin are not adversely impacted.

An interbasin transfer of water supply is any transfer of surface or ground waters of the Commonwealth for use and disposal outside of its river basin of origin. The following scope outlines issues to be addressed in the EIR for “significant” water supply transfers. Consultation with DCR’s Office of Water Resources (617-626-1366) is strongly recommended to tailor this scope to a specific proposal.

### **SUMMARY OF PROJECT**

- Project Name
- Location
- Proponent Name, Address, Phone Number, Email Address
- Primary Contact’s Name, Address, Phone Number, Email Address

## **DESCRIPTION OF THE PROPOSED INTERBASIN TRANSFER**

- Describe and explain the reasons for the proposed water supply interbasin transfer.
- Provide the approximate timetable for the construction of the proposed transfer facilities, including the estimated commencement date and the estimated completion date.
- Where applicable, describe the existing transfer system, including out-of-basin conveyance capacity, storage capacity, withdrawal constraints or other limiting factors.
- Describe, in detail, the proposed interbasin transfer, including the maximum capacity, in millions of gallons per day (mgd), of the transfer facilities and the expected average daily volume of transfer. Provide supporting information showing how the capacity of the conveyance was determined. Describe any proposed changes in existing structures and/or changes in operating rules of the water supplier or changes in transfer constraints.
- Describe how the transfer supports the long-range water resources planning of the applicant.
- Describe the operating schedule of the proposed interbasin transfer, including the time periods, amounts to be transferred and the duration of the transfer.
- Provide the name, exact location and river basin of the source(s) of the proposed transfer of water, including the subbasin(s).
- List the communities, sections of communities, water districts or other areas that will use the water proposed to be transferred.
- Provide a precise description of the location, including river basin, of the wastewater discharge point.
- List the known users of this and associated resources, including agricultural operations and nurseries, whose use could be affected by the proposed transfer.
- Include a map of appropriate scale that clearly and accurately illustrates the information requested in this section. Wherever possible, MASSGIS data layers should be used.

## **OTHER PERMITS REQUIRED**

- List the local, State or Federal agencies/commissions from which permits have been obtained or will be sought

## **INFORMATION NEEDED TO EVALUATE THIS PROJECT AGAINST THE EIGHT CRITERIA OF THE INTERBASIN TRANSFER REGULATIONS, 313 CMR 4.09(3)**

Below, in **bold** the criteria for approval of an interbasin transfer are listed, as they appear in the regulations (313 CMR 4.09(3)). Unless otherwise noted, the applicant must respond to all points listed under each criterion.

### **1. That an environmental review pursuant to M.G.L. c. 30, §§61 and 62H, inclusive, has been complied with for the proposed increase.**

- Information needed for Interbasin Transfer review should be provided within the context of the EIR.
- Provide a copy of the ENF, including copies of comments received.
- When issued, provide a copy of the Secretary of Environmental Affairs' certificate stating that the EIR properly complies with MEPA and its regulations.

**2. That all reasonable efforts have been made to identify and develop all viable sources in the receiving area of the proposed interbasin transfer**

Viable Source means a water source or wastewater service alternative that meets the current regulatory requirements of the permitting authorities, and is environmentally sound, technologically feasible and cost-effective. For water supply transfers, Viable Source means a source which can provide drinking water that meets the current water quality standards and water management requirements promulgated by the Department of Environmental Protection or other regulatory agency, and which can be used while preserving reasonable instream flow using the same criteria provided to evaluate impacts on the donor basin listed in 313 CMR 4.09(3)(e). For transfers of water supply, receiving area means the area into which the water is transferred for use, and is thereby receiving the water supply service.

Describe in detail the efforts made to identify and develop all viable sources in the receiving area. Discuss water supply alternatives considered, but rejected. State reasons for rejection. The discussion should include:

- Assessment of the development of abandoned (temporary or permanent), existing and potential in-basin water supply sources. Clearly and accurately locate these sources on a map of appropriate scale.
- A list and summary of studies and reports evaluating in-basin sources in the receiving area. Copies of studies should be made available upon request.
- A description of the costs of developing existing and proposed in-basin sources in the receiving area.
- If cost is a reason given for rejection of an inbasin source, compare these costs with the production costs recently incurred elsewhere in the Commonwealth for similar water supply sources. Refer to the Performance Standards, available from DCR's website: <https://www.mass.gov/files/documents/2017/08/31/Performance%20Standards%20Guidance%20Document.pdf> for guidance on comparing costs.
- Describe the impact on in-basin streamflow that would result from the development of any viable in-basin sources in the receiving area. Refer to 313 CMR 4.09(3)(c).
- Discuss the feasibility of obtaining additional water supply from water supply agencies in cities, towns or districts within the same basin as the receiving area. Are interconnections in place? If not, are such interconnections feasible?

**3. That all practical measures to conserve water have been taken in the receiving area**

- Describe the current water loss control program, including the latest water audit, as specifically as possible, listing the actions that have been implemented or are scheduled to be implemented in the very near future. The ITA Performance Standards require that unaccounted-for water (UAW) should be 10% or less. Describe the amount of unaccounted-for water (in gallons and percent) in the receiving area for the past five (5) years. Describe on-going programs to reduce or keep the amount of unaccounted-for water at reasonable levels (less than 10%).
- Describe the current leak detection and system repair program. Discuss the methodology used (refer to the Interbasin Transfer Act Performance Standards, available from DCR's website: <http://www.mass.gov/eea/docs/dcr/watersupply/intbasin/finalps.pdf>). What was the date of the

most recent leak detection survey? Describe the on-going meter installation, maintenance, and replacement program. State the percentage of the system that is metered. Provide documentation of the annual master meter calibration program and a description of that program. Provide data to show that all permanent water supply services (including public buildings) in the receiving area are metered.

- Section 8D of the ITA (MGL Chapter 21) requires the “implementation of rate structures which reflect the costs of operation, proper maintenance and water conservation and encourage the same” (subsection (2)(c)). Describe the current rate structure. Refer to Appendix C of the Performance Standards, available from DCR’s website: <http://www.mass.gov/eea/docs/dcr/watersupply/intbasin/finalps.pdf>: (1) Does the rate structure reflect the cost of operation, proper maintenance, proposed capital improvements and water conservation. Does it encourage water conservation? If so, how? (2) Is the rate flat, increasing or decreasing? Is it charged according to water use, or some other method? (3) Are the revenues from sales of water dedicated in an enterprise account or is some other accounting procedure used? Describe.
- How often are customers billed? Is billing based on actual meter readings? Provide an example of the bill sent to customers.
- Provide the existing contingency plan(s) for adequately handling water supply emergencies, such as contamination of water supply sources or seasonal or drought related shortages of water supply. (See 313 CMR 4.02 for a definition of ‘contingency plan’.) Explain, if not stated in the plan, how and when water use will be curtailed, when trigger points require action, which water users will be reduced by what measures, and over what period of time, what emergency sources will be utilized, such as interconnections with nearby communities, reactivated sources or new emergency sources.
- Do all public buildings under the control of the proponent have low flow plumbing fixtures? Describe the types of fixtures in these buildings.
- When was the last water audit of public facilities? Provide a copy of the report. Has a system-wide water audit ever been conducted? When? Provide a copy of the report.
- Describe any past or current programs to supply low flow plumbing fixtures to residential customers. What is the residential gallons per capita per day (gpcd) figure for the water supply system? What is the overall gpcd for the system? Provide the Annual Statistical Reports, required by DEP, for the past five years.
- If residential gpcd is greater than 65, describe the comprehensive residential water conservation program that is or will be implemented to reduce this use. If this program is not in place, describe the timetable for implementation. Refer to the Performance Standards.
- Describe the current and proposed public information programs to promote water conservation, the use of water conserving devices, and industrial and commercial recycling and reuse. These programs should include a program which identifies, ranks and works with all commercial, industrial and institutional customers according to amount used in order to determine areas where the greatest potential for water savings exists, should be in place. Are public education programs on-going or intermittent? Explain.
- Describe the measures in place to protect the water supply sources currently serving the receiving area that meet the requirements of the Department of Environmental Protection published in 310 CMR 22.20 and Wellhead Protection regulations 310 CMR 22.21. Include in this description all watershed or aquifer lands (Zones 1 and 2), even if not under the direct

control of the water supply agencies.

**4. That a comprehensive forestry management program which balances water yields, wildlife habitat and natural beauty on watershed lands of surface water supply sources, presently serving the receiving area and under control of the proponent has been implemented.**

- If the community does not have surface water sources, this criterion is not applicable. If the community does, describe existing and proposed watershed forestry management programs on watershed lands currently serving the receiving area and under the control of the proponent. Submit a copy of any applicable forestry watershed plans. Refer to the Interbasin Transfer Performance Standards for the information to be included in a Forestry Management Plan.

**5. That reasonable instream flow in the river from which the water is transferred is maintained.**

This part should describe the hydrologic characteristics of the river basin from which the water is to be diverted and any interdependent ground water regimen.

- Describe the proposed operating schedule for the interbasin transfer. This description should include variations throughout the seasons, the months, and the hours during a 24 hour period.
- Provide the hydrologic information and analyses, as appropriate, listed in 313 CMR 4.09(2)(g) 1-4.

**6. In the case of groundwater withdrawals, the results of pumping tests will be used to indicate the impact of the proposed withdrawal on static water levels, the cone of depression, the potential impacts on adjacent wells and lake and pond levels, and the potential to affect instream values as listed in 313 CMR 4.09(2)(g)**

- If the proposed source is a ground water source, the pumping test for this source should be used to collect site-specific data to evaluate the effects of the project on instream-flow related resources.
- Provide the DEP-approved pumping test report to DCR's Office of Water Resources.
- If not included in the pumping test report, the following information should also be provided:
  - A map of appropriate scale of the site clearly showing test wells, observation wells, and the location of geological cross-sections
  - Pre-pumping test groundwater elevation contour map
  - End of pumping test groundwater elevation contour map
  - Geologic cross-sections including pre- and end of pumping test groundwater levels
  - Documentation of the groundwater model, if used, describing input and output data, model calibration, water balance data, characterization of water sources to the pumping wells.

**7. The Commission shall consider the cumulative impacts of all past, authorized or proposed transfers on streamflows, groundwater, lakes, ponds, reservoirs or other impoundments in the Donor Basin and relevant subbasins.**

- List and describe the impact of all past, authorized and other proposed transfers on the streamflow in the donor basin. This would include analysis of any water supply sources or

sewer systems that have been recently developed or approved and therefore not captured by the historic hydrographs, consideration of any water supply sources in the new source approval or Water Management Act permitting processes, sewerage plans under development, etc.

#### **MITIGATION**

- Describe any proposed flow augmentation provisions, flow protection thresholds, or other mitigation measures proposed to protect instream flow. This should include incorporation of any known stream flow threshold(s) (for example, from federal or state law, previous IBT decision, or DEP requirement) into the proposed operating regimen.

#### **EO 385**

Provide information to demonstrate that this proposal seeks to minimize unnecessary loss or depletion of environmental quality and resources.

Electronic copies (unless otherwise specified) of all Interbasin Transfer EIRs should be sent to the following people. This is only a listing of those people who will be reviewing the EIR specifically under the Interbasin Transfer Act and is not meant to be all inclusive.

<p>Vandana Rao Executive Director Water Resources Commission EOEEA 100 Cambridge Street Boston, MA 02114 <a href="mailto:Vandana.rao@mass.gov">Vandana.rao@mass.gov</a></p>	<p>Michelle Craddock DFG Division of Ecological Restoration 251 Causeway Street Boston, MA 02114 <a href="mailto:michelle.craddock@mass.gov">michelle.craddock@mass.gov</a></p>
<p>Michele Drury (3 bound copies in addition to the electronic copy) DCR Office of Water Resources 251 Causeway Street Boston, MA 02114 <a href="mailto:Michele.drury@mass.gov">Michele.drury@mass.gov</a></p>	<p>David Pierce Division of Marine Fisheries 251 Causeway Street Boston, MA 02114 <a href="mailto:david.pierce@mass.gov">david.pierce@mass.gov</a></p>
<p>Duane LeVangie DEP 1 Winter Street Boston, 02108 <a href="mailto:duane.levangie@mass.gov">duane.levangie@mass.gov</a></p>	<p>DMF Annisquam River Marine Fisheries Field Station 30 Emerson Ave. Gloucester, MA 01930</p>
<p>Todd Richards DFW 1 Rabbit Hill Road Westborough, MA 01581 <a href="mailto:Todd.richards@mass.gov">Todd.richards@mass.gov</a></p>	<p>The Public Libraries of the affected communities in both the donor and receiving basin One bound copy each</p>
<p>Amy Coman-Hoenig/Lauren Glorioso NHESP DFG 1 Rabbit Hill Road Westborough, MA 01581 <a href="mailto:amy.coman@mass.gov">amy.coman@mass.gov</a> <a href="mailto:lauren.glorioso@mass.gov">lauren.glorioso@mass.gov</a></p>	



December 11, 2018

Secretary Matthew Beaton  
Executive Office of Environmental Affairs  
Attn: MEPA Office  
Erin Flaherty, EEA#14975  
100 Cambridge Street, Suite 900  
Boston, MA 02114

Secretary Beaton: – Please find attachments and comments related to EEA#14975 for your review. There is nothing more fundamental to life than water. We need water to drink, take a shower and flush a toilet.

Even though the Town of Andover has been awarded numerous times for the water quality, our water distribution system is aging and requires maintenance. My comments to this change are that we are concerned that the Town of Andover is not capable of handling additional volume at this present time due to the fact they are not able to manage water operations such as the continuing issues of brown water and watershed management.

It puts the environment and residents at risk with potential negative impacts. Here are some examples attached where we have expressed our concerns.

Finally, it is imperative to expand the existing Andover Water Commission that is currently composed of the Board of Selectmen to include North Reading Select Board representation as I suggested in the attached February 2018 email. It was proposed by North Reading Select Board but was rejected by Andover.

Thank you for your time and opportunity to provide comments.

Sincerely,

A handwritten signature in cursive script that reads "Jose L. Albuquerque".

Jose Albuquerque  
197 Greenwood Road  
Andover, MA 01810

Please find a sampling of photos posted on a number of social media sites posted by Andover residents related to the ongoing brown/discolored water issues and complaints from all sections of Andover (i.e. Shawsheen, downtown area, West Andover, etc).

12/5/18



12/5/18



11/25/18



11/11/18



9/26/18



8/25/18



From: Stacey & Joe

Sent: Monday, September 03, 2018 6:08 PM

To: Alexander J. Vispoli <avispoli@andoverma.gov>; Laura Gregory <laura.gregory@andoverma.us>; Christian Huntress <chris.huntress@andoverma.us>; Paul J. Salafia <psalafia@andoverma.gov>; annie.gilbert@andoverma.us

Cc: Andrew Flanagan <aflanagan@andoverma.gov>; Michael.Lindstrom@andoverma.us; fincom@andoverma.gov; eugenie.moffitt@andoverma.us

**Subject: Follow up on Discoloration Water Update**

Dear Board of Selectmen - Thank you for including discolored/brown water as part of the 8/20 BOS meeting. As mentioned by Woodard and Curran, we agree that manganese is an essential nutrient for humans and animals. However, the public deserves to know that overexposure can cause serious health issues, which my wife and I spoke about briefly at this meeting.

Long term exposure to manganese can cause toxicity to the nervous system and Parkinson's like symptoms especially in children, seniors and pregnant mothers. In recent studies, children exposed to high levels of manganese have experienced learning difficulties including ADD, hyperactivity, and memory issues. It is true that there are currently no enforceable federal water standards for manganese. However, EPA has established a secondary standard of 0.05 mg/L to address aesthetics issues like discoloration, odor and taste. This Drinking Water Health Advisory does not mandate a standard for action, but rather it provides practical guidelines for addressing non-regulatory concentrations of the contaminant in water that are expected to be without adverse effects on both health and aesthetics.

<https://www.mass.gov/files/documents/2016/08/nr/mangorsg.pdf>

It is a disservice that our Municipal Services Director and consultants were not able to produce and provide the residents and taxpayers more information other than one reading taken on 8/15 during the discoloration period, which began in late June and lasted through mid-August, while not fully explaining manganese's associated health effects. We would like to request that all of their readings taken at the water treatment plant along with Town and School properties as pointed out at the meeting be made available on our website. Moreover, we advocate for robust testing going forward that will include resident participation, so we can better understand what is happening at our homes, particularly since the Municipal Services Director and the consultants stated that it would take as many as 20 years to fix it due to hundreds of miles of cast iron pipe that requires replacement or upgrade.

As we pointed out at the BOS meeting, the Town should further provide details and timelines on the 29 identified water projects mentioned in the following presentation that are critical to eliminating the discoloration and manganese problem across our Town, which will cost a projected \$35 million. This was part of the water tier rate discussions that occurred in 2016.

<https://andoverma.gov/DocumentCenter/View/855/Preliminary-Comprehensive-Water-and-Sewer-Rate-Evaluation-FY-2017---FY-2021-PDF?bidId=>

As Water Commissioners, the suggestion of installing a filtration system is simply not the answer as some residents in our community may not be able to afford it and, more importantly, the gold standard should be clear and clean water that does not smell or stains clothes. Residents should not have to buy bottled water to use when brushing their teeth or for regular consumption because it is discolored from the faucet.

We are happy to know that the readings taken at our kitchen faucet on 8/23/18 were below the secondary standards. Fortunately, the last time we saw or had brown water was the morning of 8/21 and we have not seen any discoloration since that time. However, it would have been nice to know what the levels were when the water actually looked like iced tea. We would like to continue to participate in the testing now that we have baseline readings for both iron and manganese. Managing safe levels of manganese in drinking water is important step in both preserving our water distribution system and proper water treatment, which is paramount.

Thank you for your attention to this matter.

Best,  
Stacey & Joe Albuquerque

**From:** Joe Albuquerque

**Date:** August 16, 2017 at 4:26:47 PM EDT

**To:** philip dipietro <[philip.dipietro@state.ma.us](mailto:philip.dipietro@state.ma.us)>, [philip.dipietro@massmail.state.ma.us](mailto:philip.dipietro@massmail.state.ma.us)

**Subject:** Ledge Road Landfill Request SOOC Additional Comments - DEP File #090-1281

Mr. Dipietro – First, thank you for the site visit on 08/03/17 and the opportunity for our 10 resident group to speak and discuss wetlands and storm water concerns related to the landfill appeal on order of conditions.

We feel it is very important that this landfill closure project and any post-closure use recommendations are done right from design to construction, which is why we felt obligated to appeal the Conservation Commission's decision. It is vital to protect the watershed and our Town's drinking water that serves a population of 48,000 including North Reading. In fact, in a recent Town survey conducted by the Conservation Commission, when it came to natural resources, residents' main concern was protecting water, especially the water overlay district (WPOD). Please note that the closure project at Ledge Road is located within the WPOD. Residents feel it should have even more protection. For more details, please click [here](#) for Andover Townsman Article published on 07/13/17.

This overlay district, defined in Section 8.1 of Andover's Zoning By-Law, was instituted "to preserve and protect surface and ground water resources in the Fish Brook/Haggetts Pond Watershed Protection Overlay District (WPOD) for the health, safety and welfare of its people", and "to protect the community from detrimental use and development of land and waters within the WPOD". The WPOD includes all the lands which create the catchment or drainage areas of Fish Brook or Haggetts Pond as part of their natural or man-made drainage system. The existing landfill is a large plateau extending north to south from Ledge Road to a wetland floodplain connected to Fish Brook. According to Town of Andover's response letter (click [here](#)) to Kinder Morgan's Tennessee Gas Pipeline, Fish Brook is a tributary to Haggetts Pond, the primary source of drinking water for Andover. Both water bodies are "Class A" drinking water sources.

Why would we not classify the proposed and permanent DPW materials handling facility area as detrimental use and a high impact development as it relates to surface and ground water resources within the WPOD as defined in our Town's By-Laws too? This new facility shall include excess materials such as asphalt, street sweepings and catch basin cleanings, occasional on-site fueling as well as potential snow removal and storage location, which are not permitted in the Town's WPOD, storage of seasonal equipment and supplies plus a staging area for Town projects.

We would be remiss if we did not pass along the following information and attached documents:

- Please click [here](#) to view (starts at to 2 hr, 5 min until 2 hr, 8 min using Internet Explorer and at 126:20 to 128:00 if Google Chrome) video that shows CDM declaring that there are no drums or industrial waste at the landfill during the 3/7 Conservation Commission. This is concerning as they have not addressed drums fully in their remediation plans during capping/closing of the landfill.
- The first document called Ledge Road Landfill highlights Greenwood drainage, existence of a drum in the vernal pool and flooding that occurred earlier this past April.
- The other attachment called Landfill Environmental Issues consists of several photos.

- The first 2 slides dated 02/27/16 shows a lack of any appropriate controls (i.e. hay bales) to prevent catch basin cleanings storage pile with its contaminants from running off into adjacent active soccer field last year after a rainstorm.
- Remaining slides dated 06/24/17 reveals DPW working in an approximate 8 foot hole at the former Ledge Road and Greenwood intersection, where they were pumping water from it into a trench that was flowing directly into the nearby wetlands at the landfill site near the easement. If this work was an emergency, there should still have been controls in place for this construction activity to be performed.

These photos and actions (or lack thereof) present a disregard for the health/safety/welfare of the residents, wetlands and WPOD. We hope you understand and share our concerns and reservations after reviewing these materials. This is why it is critical to have a detailed operations plan as well as addressing potential stormwater impacts for the DPW materials handling area now instead of at the time of the post-closure use permit and NPDES Phase II MS4 general permit for the Town of Andover, respectfully. For the purpose of 401a water quality review, we would like to submit the attached original appeal as well as recent comments from Mr. Saxon to CDM responses.

It is our understanding that the DPW is considered the designated responsible individual for operations at Ledge Road in accordance with the 1973 DPH ruling to officially close it as an active dump. We are apprehensive of this new facility area next to our drinking water as the DPW does not consistently follow applicable laws and implement environmental controls at the landfill within the WPOD. Furthermore, CDM has yet to perform a full review of project alternatives to reduce or eliminate this high development impact, especially now that a new Town Yard with storage materials bins will be built at Campanelli Drive, which is right off River Road exit on Route 93.

Thank you again for your time.

Sincerely,  
Joe Albuquerque  
*10 resident group representative*  
[staceyandjoe@comcast.net](mailto:staceyandjoe@comcast.net)



02/27/2016

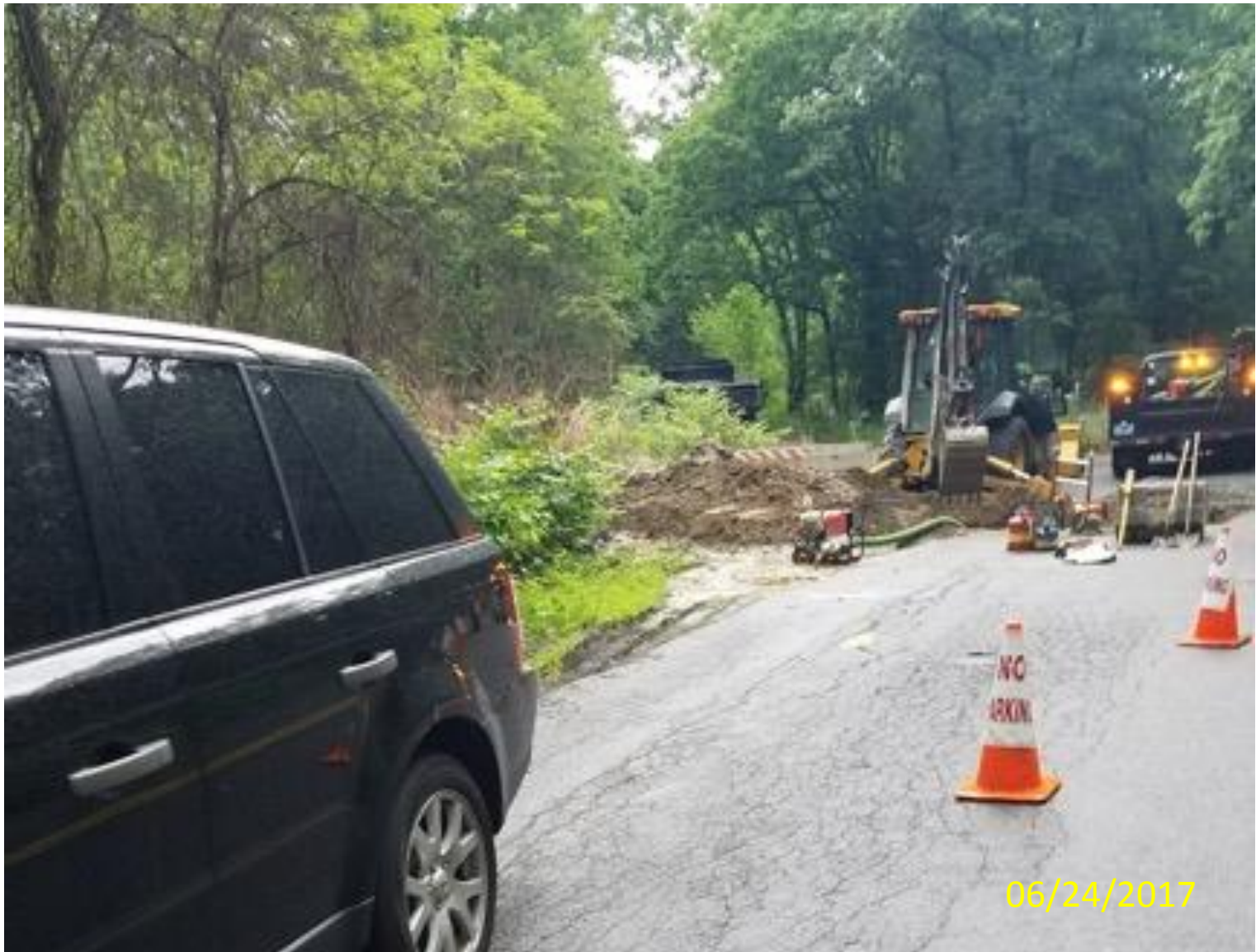


02/27/2016





06/24/2017



June 5, 2018

Ms. Rachel Freed, Deputy Regional Director  
Bureau of Water Resources  
Northeast Regional Office  
Massachusetts Department of Environmental Protection  
205B Lowell Street  
Wilmington, MA 01887

Re: Ledge Rd Landfill – 10 Ledge Road – Andover MA  
Application Transmittal #X272333  
DEP Wetlands File #90-1281  
USACOE File #NAE-2016-02013

Dear Ms. Freed,

I am writing on behalf of myself, and the 10-citizen group, that submitted comments last August regarding the WQC. **We are desperate for your help and assistance in protecting our local environment, safe drinking water, and compliance with the environmental statutes & regulations we thought were in place to protect us.**

We would have liked to submit an appeal of this WQC based what we perceive to be noncompliance with the 314 CMR 9 requirements for ORW areas and meeting the Stormwater Standards. Nevermind, the definitions under said regulations for “Activity” (including future expansions-overflow-overtopping), “Discharge of Dredged Materials” (including runoff), “Illicit Discharge”, and “LHUPPL” -- all which we both know and can reasonably anticipate will occur with the new & expanded DPW yard given their historical operations. All while knowing that simple practicable alternatives exist to a DPW yard in our drinking water supply watershed which we thought was required to be identified and evaluated under 314 CMR 9.06.

Alas, we are simple residents, without the resources & time to prepare a detailed comprehensive response including certified mail et al to multiple parties, while knowing that the Town and its consultant are willing to spend any amount to say & do anything to counter our concerns versus actually addressing them. But most of all, it seems clear to us, that no matter how detailed, comprehensive, or warranted that our concerns are, that they won't be addressed by DEP staff as we have raised & submitted significant questions/points and did not ever receive a single response from DEP addressing them or even discussing them despite several attempts to communicate by phone or through email. Our last contact was in August 2017 all while DEP continued to meet with the Town & their consultants on an ongoing basis.

This is incredibly discouraging and why we are desperately asking for your help in any way you can.

We know from experience that we cannot count on or trust our own Town's environmental related staff (Conservation Commission or Board of Health) to help us when it comes to town operations, and thus why we need the DEP to step in & help us where they can. And yes we know that Mr. Fournier is a former DEP staff member, with many friends still within DEP, but the ongoing environmental & operational performance of the DPW is abysmal (see listings & photo's below) – which we cannot afford to have that in our drinking water supply watershed going forward.

Please help us. Please meet with us. Please explain or review why the detailed points/concerns we have raised for the 401WQC and SOC apparently have no merit. And at the very least please explain how this site will be independently verified and made to fully comply with the regulation to safeguard the environment.

Thank You,

A handwritten signature in cursive script that reads "Jose L. Albuquerque".

Jose L. Albuquerque (As Member & Representative of 10-citizen group)  
197 Greenwood Rd  
Andover, MA 01810  
(978) 470-8149  
[staceyandjoe@comcast.net](mailto:staceyandjoe@comcast.net)

2018 – Ongoing/Historically: DPW cannot manage the landfill site. The gate is almost always left open – resulting in uncontrolled dumping of materials.



2018 – Ongoing (and at least since 2015): Landfill site has contained floating drums and dozens of tires dumped in the wetland and land area within the fence of the Ledge Rd & Greenwood Rd intersection. Instead of removing these materials they have been left there despite numerous resident complaints, and instead the wetland has been treated with mosquito-cide.



6/24/2017 – Photo of Town DPW staff pumping “mud”/sediment laden water into the ORW wetlands downgradient of the Ledge Rd / Greenwood Road Intersection without any sedimentation control (“dirt bag”, settling tank, etc)

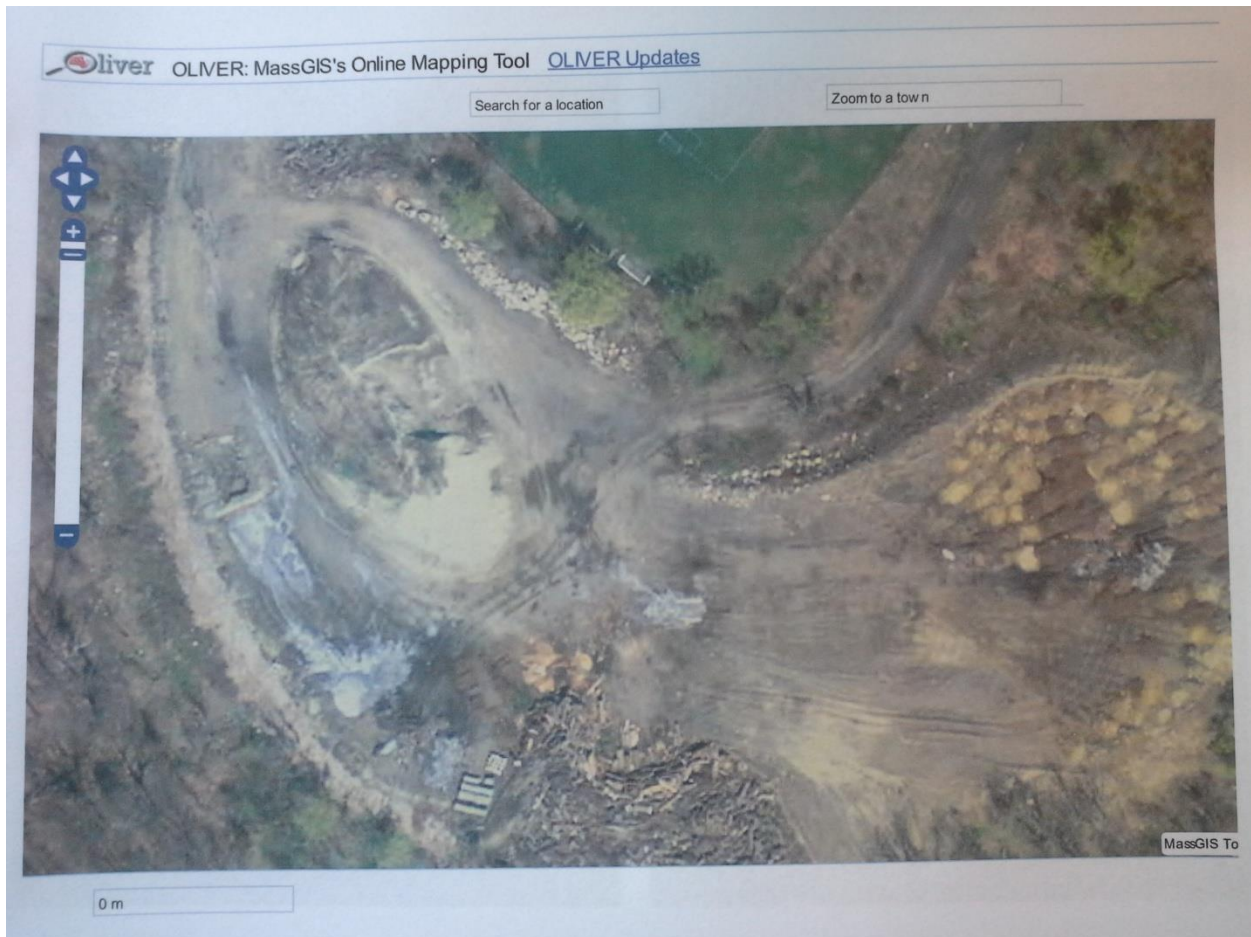


2010-Ongoing: A dumping ground and/or landfill is known to exist in the West Fire Station parcel (between Chandler, Ledge, & Greenwood). DPW has done some limited excavation of extent. This is just east of Ledge Rd landfill. However, this site has not been placed within DEP’s solid waste or MCP review process for closeout/cleanup. Residents reported this to DEP’s John Morey at least 2 if not 3-yrs ago but no action taken at all (due to friendship with Marc Fournier?).

2008 – 2017: DPW claims and reports to DEP every six months that they removed bridges to limit access to landfill site arsenic as required under MCP IRA. Truth however is that one bridge was never removed at all, while the other was simple broken up & dumped directly into Fish Brook our ORW drinking water supply.



2013/2014 – Aerial Photo of Ledge Rd Landfill showing illicit discharges of ?? to landfill and downstream ORW wetlands. Was this catch basin cleanings(CBC), street sweeping(SS), water tank sludges residues? All to be dumped again on top of landfill and with gravel base – liquids will continue to drain into downstream ORW wetlands or vernal pool. Mr. Fournier publicly discussed on 5/30/18 at our library how CBC and SS contain significant trash, oil, and organic debris which will all be brought to the landfill site and its drainage.



2010 – Water Tank Cleaning – Video. Heavy metal containing drinking water sludges cleaned out from water tank are dumped to storm drain & downstream wetland. Same 401WQC consulting firms call this a one-time inadvertent incident, when in fact it happened for three straight days here, and at the other water tanks in town. Results in MCP site on Bancroft Road. NOA results in NON where DEP requests records on where this sludge was disposed. Town DPW never provides information and the Town is never fined from EPA, DEP, or local Conservation Commission for this incident. At least some of this heavy metal laden sludge was dumped at Ledge Rd landfill per MCP records for this release.

<https://www.youtube.com/watch?v=4qudUn-RTM8>

Wetland Dirty Water Andover

December 11, 2018

Secretary Matthew Beaton  
Executive Office of Environmental Affairs  
Attn: MEPA Office  
Erin Flaherty, EEA#14975  
100 Cambridge Street  
Suite 900  
Boston, MA 02114

RE: NPC North Reading Water Supply Plan – EOEEA #14975

Dear Secretary Beaton,

I appreciate the opportunity to provide comments on this important water supply planning for North Reading (ENF# 14975). The project change to 100% long-term supply from Andover versus the MWRA is significant as well as removal of the wastewater planning component. I am very concerned that the FEIR needs to adequately address the impacts of this change within Andover as the much of the details are still yet to be determined as described in the Notice of Project Change.

Thus I have the following comments, points-of-information, and suggestions for how these can be addressed in the FEIR.

#### **CAPACITY/CAPABILITY OF ANDOVER WATER SYSTEM TO SERVE NORTH READING**

The purpose of NPC Attachment 6 – Hydraulic Analysis Memo is to analyze the ability & capacity of the Andover water system to provide the needed water for North Reading which the NPC states is feasible. There are, however, both unknowns that are stated or that are simply missing in the analysis that create some questions as to the systems true capability but more importantly the environmental impacts of any necessary upgrades within Andover need to be addressed in the FEIR.

- a) Fish Brook/Merrimack River Water Intake: Item DPW-29 in Andover's most recent Capital Improvement Program (CIP) indicates the need for a new \$15mm pump station intake to be constructed in fiscal year 2022. The published justification for this project is that "*the current intake will not meet future water demand*". This is not mentioned at all in the attached analysis memo. Certainly this is a project that is required due to the addition of 3.0 mgd for North Reading, and given its location at the confluence of Fish Brook and the Merrimack River, will have significant potential environmental impacts to wetland resource areas that needs to be included in the FEIR.
- b) Bancroft Pump Station – Capacity/Size/# of Pumps?: The Wright-Pierce analysis describes a conflict (2800 vs 3500 gpm; 1 or 2 pumps?) between the design capacity and hydraulic model provided by Andover's consultant Woodard & Curran. More importantly even the largest capacity of 5 mgd has been determined to "not have adequate capacity" to meet future demand with North Reading. There are currently no listed projects in Andover's 5-yr CIP to increase the capacity of this pump station. Certainly if such a project is required to serve North Reading then it should be included in the FEIR with a review of environmental impacts. Further the FEIR should not be completed until answers to the basic question of the capacities of the pump(s) at

this pump station and whether in fact there are 1 or 2 operational pumps in place can be provided.

- c) Transmission Mains Between WTP & Bancroft Pump Station: The analysis indicates that Andover is currently evaluating possible upgrades to the existing transmission mains to increase capacity in the system and that the hydraulic model will be updated when this information is available. Given how crucial the hydraulic model is to determining the actual feasibility of the selected option & needed infrastructure improvements, the FEIR should not be completed until this evaluation & updated information is provided. Much like the previously proposed water main upgrades in Reading under the DEIR, any needed water main improvements in Andover should be analyzed for environmental impacts in the FEIR.
- d) Prospect Hill Storage Tank Upgrade: The analysis indicates that if the 3.0 MG Prospect Hill Tank #2 is taken out-of-service there would be an inadequate volume to serve North Reading under typical operating conditions. It goes on to recommend a new larger tank to eliminate the deficiency. A new storage tank is not included in the CIP. Please note that this storage tank was out-of-service for cleaning in both 2010 and 2014, and AWWA recommends inspection every 5-years with cleaning as needed. So this tank will be out of service in future. Thus the FEIR should address whether this deficiency affects feasibility and any necessary upgrades from a needed new tank need to be evaluated for environmental impacts.
- e) Average Daily Demand / Max Daily Demand: The analysis indicates that 2016 Andover data was used to determine the current and future values. 2016 Andover ADD is listed as 7.07 mgd. This figure does not match that provided to DEP in the 2017 WMA permit renewal application of 7.28 mgd. Even if the WMA figures are inflated to include water ultimately discharged back to Haggetts Pond or to the sewer (unknown if it does), the data indicate that 2016 was the second lowest of the past five years where ADD ranged from 7.02 to 7.77 mgd, with an average of 7.43 mgd. The analysis and the FEIR should use at least the average, if not the maximum ADD over the past five years for a better reflection of actual data, and thus more conservative analysis.

## **BROWN WATER / WATER QUALITY**

The public health and safety needs of ALL consumers of the Andover Public Water Supply are critical, really the whole point of providing a public water supply. In 2018, however, the Andover residents have been plagued with excessive and recurring water quality issues from “Brown Water” attributed primarily to increased pipe velocities. There have been literally hundreds of posts to social media of complaints including many with photos. More importantly many residents have reported ongoing and multiple incidents of “brown water” (40+ days, every single morning, etc) to the point where they cannot use the water for dishwashing, clotheswashing, brushing their teeth, and certainly not consumption. North Reading’s Water Superintendent even has attributed the source of some its “brown water” issues to the supply from Andover. See link below to article in Eagle Tribune this August where Andover DPW Director Chris Cronin places the cause of these issues on increased velocities due to summertime demand.

[https://www.eagletribune.com/news/merrimack\\_valley/andover-says-brown-tap-water-is-nothing-to-worry-about/article\\_26a5cb49-0a4f-56ab-850c-bd483090670a.html](https://www.eagletribune.com/news/merrimack_valley/andover-says-brown-tap-water-is-nothing-to-worry-about/article_26a5cb49-0a4f-56ab-850c-bd483090670a.html)

- a) **Increased Pipe Velocities:** The analysis indicated for the most likely scenario (i.e. utilization of two existing connections) that pipe velocities greater than 5-fps would be observed in Lowell Street to Greenwood Road and Woburn Street to Abbott Street segments where they haven't been seen before. Further the analyses indicate many other areas of 2-5 fps velocities. It needs to be demonstrated in the FEIR that the increased volume & velocities will not create a situation where the water quality for Andover and All Consumers is inadequate, substandard, and unavailable for consumption for significant portions of time.



#### **IBTA & OTHER PERMITTING CONCERNS**

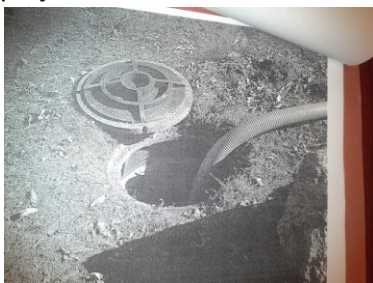
The FEIR should address the following permitting concerns to ensure that the Andover System can reliably provide the 3.0mgd to North Reading as well as make sure that any environmental impacts are identified and mitigated/minimized.

- a) The IMA attached to the NPC indicates that North Reading can purchase 2.4 mgd through 6/30/19 and then 2.6 mgd through 6/30/25. It then goes on to note state that the 2.6 mgd is dependent on the WMA and IBTA permits being amended. North Reading is currently only allowed 1.5 mgd. Given that the attached timeline for the amending the IBTA is basically at 6/30/19, why have this in there? Why is the last statement indicate only 2.6 mgd. The FEIR should make clear that North Reading did not violate the 1.5 mgd limit.
- b) **WMA Permit for Andover:** The WMA application in November 2017 did not include the population of North Reading being served by this source. The FEIR should document the need to amend this.

- c) NPDES WTP Discharge Permit: The Andover WTP already greatly exceeds EPA's proposed Aluminum discharge limit for the discharge of its filter backwash to Haggetts Pond. It is not likely that it would be able to meet the General WTP Permit discharge requirements and thus needs an individual permit. The FEIR should address whether Andover can obtain approval for this discharge (and thus be able to meet North Readings needs) as well as the environmental impacts of increasing this discharge via increased production to meet North Readings needs. There already exists a large underwater mound of aluminum containing solids in the pond.
- d) NPDES Storage Tank Overflow / Drains: None of Andover's water storage tanks have are permitted for their overflow drains direct to wetland resource areas and stormwater systems. This was identified in CWA suit 1:12-CV-10247-RBC Berberian vs Town-of-Andover and has not been addressed. Further EPA in its recent MS4 guidance indicated that such discharges require approval. The FEIR needs to confirm that Andover can legally provide water to North Reading and address the environmental impacts of presumed increased discharges from the increase in flows.
- e) Solids Discharge to GLSD: The Andover WTP discharges the solids removed from the flocculation & settling tanks to GLSD. More treated water means more solids generated. It is unclear whether the Andover WTP has or can get the approval to increase the discharge of these solids to GLSD or if the WWTP has the capacity to treat it. Again the FEIR needs to address the feasibility of this increased discharge & the additional downstream environmental impact.

#### MISCELLANEOUS POINTS

- a) The NPC indicates a \$3mm MassWorks Grant for the project: The FEIR scope thus should be broad based.
- b) Hazardous Materials Impacts – Andover Storage Tanks & WTP Sludges: RTN 3-30229 was issued to Andover Water Department for its discharge of heavy metal containing tanks solids to a downstream wetland during the removal of solids from the Bancroft Storage Tank in 2010. Andover's Chris Cronin indicated under Affidavit in Document #7 of the CWA suit 1:12-CV-10247-RBC Berberian vs Town-of-Andover, that any future tank cleaning would plan to utilize tight tanks to collect solids to prevent a reoccurrence of the a release to wetlands, however, to the best of my knowledge this did not happen when the Prospect Hill Tanks were cleaned in 2014 & 2016. Further the given the high levels of arsenic & other metals in the tank bottom solids at Bancroft, it is quite likely that tank bottom solids contaminated areas are present downstream of or in the vicinity of the Prospect Hill Tank, Bancroft Tank & Pump Station, and WTP. The FEIR should address the hazardous materials impacts to wetlands & soils from both the increased need to clean the tanks from increased flows for North Reading, and for any project related construction activities and/or upgrades are required in these locations.



<https://www.youtube.com/watch?v=4qudUn-RTM8>

Link to Video Bancroft Tank Cleanout

- c) Unbilled Andover Public Facilities Water Use: WRC water management guidelines indicate that Public Facilities water usage should be tracked closely to help facilitate water conservation. Currently the water consumed by Andover's Public Building are not billed. These costs, for the 5-7% of Andover's water consumption, are simply absorbed into the overall Water Enterprise Cost. It does not seem appropriate for North Reading water users to in essence to subsidize by 33% this consumption from Andover's Public Facilities. The FEIR should address the environmental impacts of this as well as the feasibility of a Water Enterprise Fund to charge other users for someone else's consumption.

I can be reached directly at 781-454-5330 or at [ksaxon@aol.com](mailto:ksaxon@aol.com) if you have any questions and/or need additional information regarding my comments.

Thank You,

Keith Saxon

15 Wethersfield Drive

Andover, MA 01810



Commonwealth of Massachusetts  
Executive Office of Energy & Environmental Affairs

## Department of Environmental Protection

Northeast Regional Office • 205B Lowell Street, Wilmington MA 01887 • 978-694-3200

Charles D. Baker  
Governor

Karyn E. Polito  
Lieutenant Governor

Matthew A. Beaton  
Secretary

Martin Suuberg  
Commissioner

December 11, 2018

Matthew A. Beaton, Secretary  
Executive Office of  
Energy & Environmental Affairs  
100 Cambridge Street  
Boston MA, 02114

RE: North Reading  
New Water and Sewer Solutions  
Entire Town  
EEA # 14975

Attn: MEPA Unit

Dear Secretary Beaton:

The Massachusetts Department of Environmental Protection (MassDEP) has reviewed the Notice of Project Change (NPC) submitted by the Town of North Reading to change the Town's water supply sources. MassDEP provides the following comments.

In the DEIR, the Town of North Reading was proposing to change its water supply sources from municipal wells and the Town of Andover to the Massachusetts Water Resources Authority (MWRA) through a new connection in the Town of Reading. The NPC now proposes that instead of connecting to the MWRA water supply, North Reading will purchase all of its water from the Town of Andover. The NPC will eliminate the need for water improvements in Reading to allow the MWRA water to be "wheeled" through the Reading municipal water system to the North Reading border. North Reading is now proposing to postpone the wastewater improvements that were included in the project. At some point in the future when the wastewater plans are more fully defined, the Town will submit a Supplemental FEIR that addresses them.

## Drinking Water

According to the NPC, North Reading originally proposed to obtain its water from MWRA rather than Andover because it had been told by Andover that Andover would not be able to supply North Reading's maximum day demand of 2.5 million gallons per day (MGD) over the 20-year planning period, and that Andover could not provide a permanent water supply solution to North Reading's water needs. The Town of Andover provided comments on the DEIR that stated that Andover did in fact have sufficient treatment and distribution system capacity to meet North Reading's water needs. Given that Andover already provided from 61 to 78 percent of North Reading's annual water supply from 2009 to 2017 (based on data in North Reading's Annual Statistical Reports submitted to MassDEP), the infrastructure improvements needed for North Reading to purchase all its water from Andover are less than those that would be needed to obtain its water from MWRA. North Reading and Andover entered into a 99-year Inter-municipal Water Supply and Purchase Agreement in June 2018.

The NPC proposes that North Reading will implement booster chlorination at its two interconnections with Andover, in order to maintain an adequate chlorine residual throughout the Town. The chlorination will likely be done using hypochlorite, which is presently used at North Reading's municipal wells. A chlorination feed will be installed at the location of the existing Central Street pump station. A new chlorine feed station will be built adjacent to the Main Street interconnection, with the exact location yet to be determined. As noted in the NPC, a MassDEP BRPWS29 permit (Chemical Addition Retrofit for System Serving More Than 3,300 People) will be required for construction of the chlorine feed stations; the design for both stations may be combined into a single permit application.

The NPC states that "a storage analysis was conducted to determine if the tanks in the Andover system contain adequate storage volume over the next 20-year period to serve both Andover and North Reading's needs." If North Reading plans to eliminate some or all of its own water storage facilities, this will require a BRPWS32 permit from MassDEP (Distribution System Modification for System Serving More Than 3,300 People).

The NPC proposes that once Andover is providing all of North Reading's water supply, North Reading's municipal wells will be downgraded from "Active" to "Emergency" status. The water treatment plants will remain operational for at least one year before the Town begins the process of decommissioning them. Emergency sources may only be used with MassDEP approval during a declared State of Water Supply Emergency. Water quality monitoring of emergency sources is not required until such time as their use is proposed to alleviate an emergency. MassDEP recommends that the pumps and valves of emergency wells be exercised on a regular basis to help ensure that the wells will be operational if an emergency arises. If the wells are to be downgraded to emergency status rather than formally abandoned, the proposed BRPWS36 permit (Abandonment of Water Source) will not be necessary.

MassDEP will require North Reading to evaluate whether the changeover from a blend of Andover water and well water to full use of Andover water will require corrosion control treatment for North Reading to remain in compliance with the Lead and Copper Rule. This evaluation must be submitted to MassDEP for review prior to implementation of the full

changeover. North Reading is currently required to conduct lead and copper monitoring once every three years. A revised Lead and Copper Sampling Plan must be submitted to MassDEP for review and approval prior to the changeover. MassDEP will require at least semi-annual (twice per year) lead and copper monitoring during the 12 months after the changeover occurs, and may require annual monitoring after that.

## **Water Management Act**

The Water Management Program finds that this NPC shifting North Reading's water demand to the Andover water supply system will result in reducing water withdrawals in the head waters of the Ipswich River Basin, which has been classified as a Groundwater Withdrawal Category 5, our most impacted category. The project proposes shifting North Reading's demand to surface water sources including the Merrimack River, which is far less hydrologically stressed and much better able to support North Reading's water demand.

Andover is currently authorized to withdraw 8.51 MGD from the Merrimack River Basin in accordance with its Water Management Act (WMA) registration and permit. Compliance with this volume is based on the average day withdrawal over a year. Since 1990, the highest average day demand for Andover, subtracting out water sold to North Reading and much smaller amounts sold to other water systems, was 6.22 MGD in 2013. The highest average day demand for North Reading since 1990 was 1.59 MGD in 2016. Therefore, Andover's currently authorized volume appears to be sufficient to supply North Reading's water needs and remain in compliance with the WMA.

However, WMA permits in the Merrimack River Basin are scheduled to be renewed in 2022. The renewed permit volumes will be based on water needs forecasts prepared by the Department of Conservation and Recreation Office of Water Resources (DCR) for the upcoming permit period through 2034. Andover will need to request an updated water needs forecast for their renewed WMA permit that includes both Andover and North Reading's water use to ensure that Andover's renewed permit authorization will be enough to supply North Reading.

Both Andover and North Reading currently have unaccounted-for-water rates that are substantially above the 10% performance standard outlined in the Massachusetts Water Conservation Standards of July 2018 (<https://www.mass.gov/files/documents/2018/09/11/ma-water-conservation-standards-2018.pdf>), which might make it difficult for DCR to develop reliable water needs projections at this time. Both communities will need to develop plans to reduce their unaccounted-for-water rates toward the 10% performance standard. If reliable water needs forecasts cannot be developed prior to Andover's WMA permit renewal, a permit can be issued with an interim authorization pending better data and demand forecasts.

All WMA permit renewals may include revised or new permit conditions as outlined in the WMA regulations (310 CMR 36.00).

The DEIR had stated that the maximum daily flow that North Reading would be seeking to meet future demand would be 2.6 MGD. In the NPC, this has been increased to 3.0 MGD.

The Intermunicipal Water Supply and Purchase Agreement between Andover and North Reading states that after June 30, 2025 (at which time any necessary infrastructure upgrades will have been made), Andover will supply North Reading up to a maximum daily volume of 3.0 MGD.

The NCP says that North Reading's wells will be maintained as emergency backup supply sources and will be operated and maintained in accordance with the MassDEP guidelines. North Reading intends to maintain these sources and the two water treatment plants in full operational capacity for a minimum of one year following the transition to Andover water. Once the Town is satisfied that water quality has stabilized and operations are stable, North Reading will begin de-commissioning the existing water treatment plants and converting the wells to emergency sources.

This appears to be a change from the original plan to join the MWRA. In the original plan, it appeared that North Reading intended to abandon its wells and retire the Water Management Act registration. The proponent should clarify whether this NPC implies a change in the future plans for North Reading's existing wells and the associated Water Management Act registration.

This project will need a new Interbasin Transfer permit (IBT) to increase the amount of water transferred across a river basin boundary (Merrimack to Ipswich) and a town boundary (Andover to North Reading). The IBT review process will include reviewing North Reading's compliance with the Massachusetts Water Conservation Standards, including the performance standards for unaccounted-for water (no more than 10% of the water that enters the distribution system should be unaccounted for) and residential per capita day water use of no more than 65 gallons per person.

The MassDEP appreciates the opportunity to comment on this proposed project. Please contact [Duane.LeVangie@state.ma.us](mailto:Duane.LeVangie@state.ma.us), at (617) 292- 5706 for guidance on Water Management Act issues, and [James.Persky@state.ma.us](mailto:James.Persky@state.ma.us) , at (978) 694-3227 for information on drinking water issues. If you have any general questions regarding these comments, please contact me at [John.D.Viola@mass.gov](mailto:John.D.Viola@mass.gov) or at (978) 694-3304.

Sincerely,

This final document copy is being provided to you electronically by the Department of Environmental Protection. A signed copy of this document is on file at the DEP office listed on the letterhead.

John D. Viola  
Deputy Regional Director

cc: Brona Simon, Massachusetts Historical Commission  
Eric Worrall, Rachel Freed, Tom Mahin, Jim Persky, MassDEP-NERO  
Duane LeVangie, MassDEP-Boston



MASSWILDLIFE

# DIVISION OF FISHERIES & WILDLIFE

1 Rabbit Hill Road, Westborough, MA 01581  
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MASS.GOV/MASSWILDLIFE

December 17, 2018

Matthew A. Beaton, Secretary  
Executive Office of Energy and Environmental Affairs  
Attention: MEPA Office  
Erin Flaherty, EEA No. 14975  
100 Cambridge Street  
Boston, Massachusetts 02114

*Project Name:* New Water and Wastewater Solutions – North Reading  
*Proponent:* Town of North Reading  
*Location:* Interbasin Transfer – Haggerts Pond (Andover); Wastewater – townwide (North Reading)  
*Document Reviewed:* Notice of Project Change  
*EEA No.:* 14975  
*NHESP No.:* 18-38264

Dear Secretary Beaton:

The Natural Heritage & Endangered Species Program of the Massachusetts Division of Fisheries & Wildlife (the “Division”) has received and reviewed the *Notice of Project Change* (NPC) for the proposed *New Water and Wastewater Solutions – North Reading* Project (the Project) and would like to offer the following comments regarding state-listed species and their habitats.

The current NPC request that the inter-basin transfer from Andover to North Reading be separated from the wastewater treatment aspect that was previously subject to a single draft Environmental Impact Report. The Division has no objection should MEPA elect to allow this request.

**INTERBASIN TRANSFER**

The water source for the transfer is Haggerts Pond, which sources water from the Fish Brook and the Merrimack River. The Merrimack River is mapped the following state-listed rare species have been found in the vicinity of the site:

<i>Scientific Name</i>	<i>Common Name</i>	<i>Taxonomic Group</i>	<i>State Status</i>
<i>Haliaeetus leucocephalus</i>	Bald Eagle	Vertebrate: Bird	Threatened
<i>Acipenser oxyrinchus</i>	Atlantic Sturgeon	Vertebrate: Fish	Endangered*
<i>Acipenser brevirostrum</i>	Shortnose Sturgeon	Vertebrate: Fish	Endangered*

The species listed above are protected under the Massachusetts Endangered Species Act (MESA) (M.G.L. c. 131A) and its implementing regulations (321 CMR 10.00). State-listed wildlife are also protected under the state’s Wetlands Protection Act (WPA) (M.G.L. c. 131, s. 40) and its implementing regulations (310 CMR 10.00). Fact sheets for most state-listed rare species can be found on our website ([www.mass.gov/nhesp](http://www.mass.gov/nhesp)).

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\*The Shortnose and Atlantic Sturgeon are federally listed and protected pursuant to the U.S. Endangered Species Act (ESA, 50 CFR 17.11) implemented by the National Marine Fisheries Service.

Based on our current understanding of these species and their ecology, the inter-basin transfer should not result in impacts to state-listed species.

WASTEWATER CHANGES IN NORTH READING

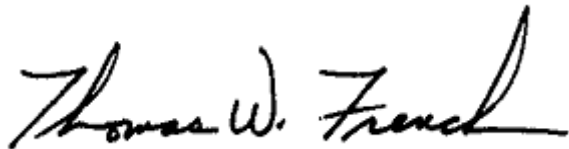
Portion of the town of North Reading are mapped as *Priority* and *Estimated* Habitat in the *Massachusetts Natural Heritage Atlas*. These species and habitats are protected pursuant to the Massachusetts Endangered Species Act (MGL c.131A) and its implementing regulations (MESA; 321 CMR 10.00).

All projects or activities proposed within *Priority Habitat*, which are not otherwise exempt pursuant to 321 CMR 10.14, require review through a direct filing with the Division for compliance with the MESA (321 CMR 10.18). At present, the materials provided are not of sufficient detail to allow for site-specific review of the proposed work. Any work located within existing paved roads is likely exempt pursuant to the MESA (321 CMR 10.14). However, other aspects of the *Wastewater Changes*, including but not limited to cross-country segments and work more than 10 feet from a paved road, would not be MESA-exempt and will likely require a MESA Checklist filing pursuant to 321 CMR 10.18. Therefore, we are unable to determine if any specific portion of the project will have state-listed species impacts sufficient to require a MESA Conservation & Management Permit pursuant to 321 CMR 10.23.

As project elements move forward to preliminary design, we recommend that the Proponents are in direct contact with the Division to address state-listed species concerns, as avoidance and minimization of impacts to state-listed species and their habitats is likely to expedite endangered species regulatory review. We also note that field surveys for state-listed species may be part of our review of impacts and such field surveys may be time-sensitive relative to the annual cycle of the target species.

The Division will not render a final until all required application materials have been submitted to the Division. If you have any questions about this letter, please contact Misty-Anne Marold, Senior Endangered Species Review Biologist, at (508) 389-6356 or [misty-anne.marold@state.ma.us](mailto:misty-anne.marold@state.ma.us). We appreciate the opportunity to comment on this project.

Sincerely,

A handwritten signature in black ink that reads "Thomas W. French". The signature is written in a cursive, flowing style.

Thomas W. French, Ph.D.  
Assistant Director

cc: Town of North Reading Select Board  
Town of North Reading Planning Board  
Town of North Reading Conservation Commission