

Commonwealth of Massachusetts
 Executive Office of Energy and Environmental Affairs
 Massachusetts Environmental Policy Act (MEPA) Office

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MEPA

Environmental Notification Form

For Office Use Only

EEA#: 15815

MEPA Analyst: Erin Flaherty

The information requested on this form must be completed in order to submit a document electronically for review under the Massachusetts Environmental Policy Act, 301 CMR 11.00.

Project Name: New Water Supply Source – Holbrook Street, Norfolk		
Street Address: Off Holbrook Street		
Municipality: Norfolk	Watershed: Charles River	
Universal Transverse Mercator Coordinates: 19T 305360E, 4667563W	Latitude: 71° 21' 15.919" N	Longitude: 42° 8' 9.848" W
Estimated commencement date: 1/1/19	Estimated completion date: 12/31/19	
Project Type: New Water Supply	Status of project design: 30% complete	
Proponent: Town of Norfolk Water Division		
Street Address: 33 Medway Branch		
Municipality: Norfolk	State: MA	Zip Code: 02056
Name of Contact Person: Robert J. McGhee – Director of Public Works		
Firm/Agency: Norfolk DPW	Street Address: 33 Medway Branch	
Municipality: Norfolk	State: MA	Zip Code: 02056
Phone: (508) 528 - 4990	Fax: (508) 528 - 2773	E-mail: bmcghee@norfolk-ma.us

Does this project meet or exceed a mandatory EIR threshold (see 301 CMR 11.03)?

Yes No

If this is an Expanded Environmental Notification Form (ENF) (see 301 CMR 11.05(7)) or a Notice of Project Change (NPC), are you requesting:

a Single EIR? (see 301 CMR 11.06(8)) Yes No

a Special Review Procedure? (see 301CMR 11.09) Yes No

a Waiver of mandatory EIR? (see 301 CMR 11.11) Yes No

a Phase I Waiver? (see 301 CMR 11.11) Yes No

(Note: Greenhouse Gas Emissions analysis must be included in the Expanded ENF.)

Which MEPA review threshold(s) does the project meet or exceed (see 301 CMR 11.03)?

New withdrawal of 100,000 or more gpd from a water source that requires new construction for the withdrawal (301 CMR 11.03(4)(6)(1))

Which State Agency Permits will the project require?

DEP BRP WS19 Pumping Test Approval/BRP WS20 Approval to Construct Source, BRP WM02 DEP Management Act Program Permit Amendment Application

Identify any financial assistance or land transfer from an Agency of the Commonwealth, including the Agency name and the amount of funding or land area in acres:

N/A

1981
Erin Kennedy

Summary of Project Size & Environmental Impacts	Existing	Change	Total
LAND			
Total site acreage	26.45		
New acres of land altered		0.56	
Acres of impervious area	0	0.56	0.56
Square feet of new bordering vegetated wetlands alteration		0	
Square feet of new other wetland alteration		0	
Acres of new non-water dependent use of tidelands or waterways		0	
STRUCTURES			
Gross square footage			
Number of housing units			
Maximum height (feet)			
TRANSPORTATION			
Vehicle trips per day			
Parking spaces			
WASTEWATER			
Water Use (Gallons per day)			
Water withdrawal (GPD)	0	588,000	588,000
Wastewater generation/treatment (GPD)			
Length of water mains (miles)			
Length of sewer mains (miles)			
Has this project been filed with MEPA before? <input type="checkbox"/> Yes (EEA # _____) <input checked="" type="checkbox"/> No			
Has any project on this site been filed with MEPA before? <input type="checkbox"/> Yes (EEA # _____) <input checked="" type="checkbox"/> No			

GENERAL PROJECT INFORMATION – all proponents must fill out this section

PROJECT DESCRIPTION:

Describe the existing conditions and land uses on the project site:

The Holbrook Street site is comprised of a 18.76 acre parcel in Norfolk (#10-32-75) and a 7.69 acre parcel in Millis (#46-011) along the town boundaries. This land is undeveloped open space surrounded by wetlands and forest, and is currently used as a hayfield. The parcel located in the Town of Norfolk is designated as Chapter 61A land, used for field/crops. Once the Town purchases the property for water supply development, the property would be used for "natural resource" purposes, which is considered to be exempt.

Land uses within a half mile of the Holbrook Street site are predominantly forest, forest wetlands, low to very low density residential, cropland, a powerline utility easement, one multifamily residential property, and one small area of industrial property – Norfolk Ice Arena. The Site is located approximately 840 feet southeast of the Charles River. The Zone I, being land within a 250-ft radius from each well in the wellfield, is under the care and control of the Town of Norfolk and will be purchased by the Town from Mr. Leo Braun.

The Holbrook Street wellfield site has a series of observation wells and test production wells that were installed in the process of the hydrogeologic investigations conducted as part of the Department of Environmental Protection (DEP) New Water Supply Source permitting program. The six test well couplets on site will become the operating production wells when the well field is fully permitted and constructed. The safe yield of the well field is 588,000 gpd.

Describe the proposed project and its programmatic and physical elements:

The project consists of permitting a new water supply well field that will serve the Town of Norfolk. The water system is owned and operated by the Town of Norfolk.

Currently the Town owns and operates two groundwater facilities (Gold Street and Spruce Street) that have a combined reliable capacity of 0.8 Million Gallons per Day (MGD). The average daily demand of the water system is 0.47 MGD, and the maximum day demand is 0.93 MGD. In order to meet these max day demands, Norfolk has had to purchase water from the Town of Wrentham. The Town also has an interconnection with the Town of Franklin as a back-up source in case of emergency.

The new water supply at Holbrook Street will therefore allow the system to meet their seasonal demands without relying on water from neighboring communities, and will also serve as a redundant supply to the other existing groundwater facilities.

The safe yield of the Holbrook Street Well Field of 588,000 gpd was determined on the basis of long-term pumping tests performed on each Test Production Well. Site specific hydrogeologic conditions determined through these tests were incorporated into a regional groundwater flow model developed by McLane Environmental that predicts the aquifer response to water withdrawals. The model demonstrates that sustained withdrawals of 588,000 gpd (daily withdrawal for greater than 100 years) will not have an adverse impact on the aquifer or water quality. When in operation, the actual daily withdrawals from the Holbrook Street Site will average approximately 588,000 gpd.

Permitting a new water supply involves a progressive, multi-step program with DEP. Norfolk has successfully completed the first two steps, the Request for Site Exam and the Pump Test Scope of Work. (BRP WS 17 and 18). The DEP permitting associated with this Environmental Notification Form is the Pump Test Report (BRP WS 19), which reports the results of the long term pumping tests performed on the six test production wells, identifies the approvable safe yield of the well field and describes the Zone I and Zone II protection areas. Subsequent DEP permitting steps to this Pump Test Approval consists of the permit for the design and construction of the well field

(BRP WS 20) and the Water Management Act Program Permit Amendment (BRP WM 02).

When constructed, the well field will consist of the six 8-inch production wells, a small (approximately 20' x 30') new chemical feed and control building, and associated driveway, and the 8-inch transmission main that connects the well field to the distribution system. The driveway to the Holbrook Street Site will come south off of Holbrook Street. The 8-inch water main will be located in the driveway and connect to the distribution system at the driveway entrance.

Describe the on-site project alternatives (and alternative off-site locations, if applicable), considered by the proponent, including at least one feasible alternative that is allowed under current zoning, and the reasons(s) that they were not selected as the preferred alternative:

As part of the DEP Request for Site Exam, Norfolk performed an Alternatives Analysis that evaluated four scenarios to achieve additional water supplies including a no-action alternative, increased conservation and demand management strategies, leak detection, and new source. All of these alternatives were evaluated with respect to the Town's primary goal of providing a redundant source for their existing groundwater facilities and meeting their peak demand periods.

The no action alternative consists of not developing any new water supplies in Norfolk. This was considered, but rejected because the Town currently does not have the redundancy to meet the maximum day water demands with their existing groundwater facilities capacities.

The Norfolk Water Department has implemented numerous conservation and demand management strategies, including the three strategies described in the USEPA Water Conservation Plan Guidelines, in an effort to reduce overall water demands and the need to minimize withdrawals from their existing water supplies. While these additional conservation measures may lead to more reduction in demands and withdrawals, this approach does not meet the Town's objective of enhancing the reliability, flexibility and redundancy of their existing well stations, eliminating the need for the Town to purchase water from neighboring communities in the summer due to capacity limitations; and ensuring water from the Town's current list of future potential new water connections and support additional growth. Although this alternative is being implemented by the Town, additional measures are needed to meet the Town's objectives.

The Town of Norfolk performs leak detection surveys twice per year as part of their Water Conservation Plan in order to identify sources of leaks within the system, and therefore reducing unaccounted-for water. The Town has since been able to reduce the UAW (unaccounted-for water) to approximately 10% over the past three years. The Town continues to work to reduce their UAW, however any further reduction would not significantly contribute toward meeting the Town's goal of being able to meet current and future water supply needs. For this reason, this alternative was rejected.

With a new water supply source in the Town of Norfolk, the Town would be able to replace an existing source should one go off-line due to an emergency condition, replace the diminishing well capacity at the existing water supply sources, eliminate the need for the Town to purchase water from neighboring towns, and meet future maximum day water demands of the system.

The Holbrook Street Site was selected as the preferred location for this new water supply because it was identified as having the most potential for a water supply site of all five sites (Holbrook Street, Stop River Site, Campbell Forest, Grove Street, Apple Saint Forest) at which groundwater exploration activities were performed. This alternative offered the highest reliability, flexibility and redundancy of all four alternatives presented.

Summarize the mitigation measures proposed to offset the impacts of the preferred alternative:
Groundwater monitoring will be performed as part of the Holbrook Street well field operations that will monitor groundwater elevations and water quality in wells. The monitoring will be used to establish trends of these aquifer conditions and will be periodically used to confirm that these trends are consistent with those predicted in the groundwater model. The monitoring will be initiated prior to pumping operations to determine background (pre-pumping) conditions, and will be performed monthly between June and October and quarterly during the rest of the year.

If the project is proposed to be constructed in phases, please describe each phase:

As described above, Norfolk has completed the first two steps of the multi-step DEP New Water Supply permitting program. The DEP permit associated with this Environmental Notification Form is the Pump Test Report. Subsequent DEP permitting steps are the Approval to Construct the Source (BRP WS 20), following which the well field is constructed, and the Water Management Act Program Permit Amendment Application approval (BRP WM 02).

The well field design will be completed during late 2018 – early 2019, the well field construction is scheduled to start during the Spring of 2019 and the well field is to become operational in early 2020.

AREAS OF CRITICAL ENVIRONMENTAL CONCERN:

Is the project within or adjacent to an Area of Critical Environmental Concern?

Yes (Specify _____)

No

If yes, does the ACEC have an approved Resource Management Plan? ___ Yes No;
If yes, describe how the project complies with this plan.

Will there be stormwater runoff or discharge to the designated ACEC? ___ Yes No;

If yes, describe and assess the potential impacts of such stormwater runoff/discharge to the designated ACEC.

RARE SPECIES:

Does the project site include Estimated and/or Priority Habitat of State-Listed Rare Species? (see http://www.mass.gov/dfwele/dfw/nhesp/regulatory_review/priority_habitat/priority_habitat_home.htm)

Yes (Specify: *Priority & Estimated Habitat of Eastern Box Turtle*) No

HISTORICAL /ARCHAEOLOGICAL RESOURCES:

Does the project site include any structure, site or district listed in the State Register of Historic Place or the inventory of Historic and Archaeological Assets of the Commonwealth?

Yes (Specify _____) No

If yes, does the project involve any demolition or destruction of any listed or inventoried historic or archaeological resources? Yes (Specify _____) No

WATER RESOURCES:

Is there an Outstanding Resource Water (ORW) on or within a half-mile radius of the project site? Yes ___ No;
If yes, identify the ORW and its location. Mill River, approximately 0.45 miles Southwest of the Holbrook Street Site

(NOTE: Outstanding Resource Waters include Class A public water supplies, their tributaries, and bordering wetlands; active and inactive reservoirs approved by MassDEP; certain waters within Areas of Critical Environmental Concern, and certified vernal pools. Outstanding resource waters are listed in the Surface Water Quality Standards, 314 CMR 4.00.)

Are there any impaired water bodies on or within a half-mile radius of the project site? Yes ___ No; if yes, identify the water body and pollutant(s) causing the impairment: *The Charles River, segment MA72-05, is a Category 5 impaired water with a TMDL required for Non-native Aquatic Plants, Aquatic Macroinvertebrate Bioassessments, Chlordane in Fish Tissue, DDT in Fish Tissue, Dissolved Oxygen Saturation, Excess Algal Growth, Mercury in Fish Tissue, Nutrient/Eutrophication Biological Indicators, Dissolved Oxygen, Total Phosphorous and Turbidity.*

Is the project within a medium or high stress basin, as established by the Massachusetts Water Resources Commission? Yes ___ No

STORMWATER MANAGEMENT:

Generally describe the project's stormwater impacts and measures that the project will take to comply with the standards found in MassDEP's Stormwater Management Regulations:

All stormwater at the Holbrook Street site will be recharged through a swale to onsite wetlands and managed in accordance with the DEP Stormwater Management Regulations.