

# ENF Environmental Notification Form

*For Office Use Only*  
 Executive Office of Environmental Affairs

EOEA No.: *13039*  
 MEPA Analyst: *Arthur Pugsley*  
 Phone: 617-626-*1029*

The information requested on this form must be completed to begin MEPA Review in accordance with the provisions of the Massachusetts Environmental Policy Act, 301 CMR 11.00.

Project Name: <i>Increase Approved Pump Withdrawal Rate of Jacques Wells #1 and #2</i>		
Street: <i>Off North Main Street</i>		
Municipality: <i>Millbury</i>	Watershed: <i>Blackstone</i>	
Universal Transverse Mercator Coordinates: <i>19 02 71 007 E, 46 75 342N</i>	Latitude: <i>42° 11' 55.13" N</i>	Longitude: <i>71° 46' 24.53" W</i>
Estimated commencement date: <i>3/03</i>	Estimated completion date: <i>4/03</i>	
Approximate cost: <i>\$30,000</i>	Status of project design: <i>N/A</i>	%complete
Proponent: <i>Aquarion Water Company of Massachusetts—Keith Bossung, Vice President</i>		
Street: <i>200 Cordwainer Drive, Suite 200</i>		
Municipality: <i>Norwell</i>	State: <i>MA</i>	Zip Code: <i>02062</i>
Name of Contact Person From Whom Copies of this ENF May Be Obtained: <i>David F. Edson, P.E.</i>		
Firm/Agency: <i>Prism Environmental, Inc.</i>	Street: <i>18 Lyman Street, Suite Q</i>	
Municipality: <i>Westborough</i>	State: <i>MA</i>	Zip Code: <i>01581</i>
Phone: <i>508-366-0772, ext. 11</i>	Fax: <i>508-366-1807</i>	E-mail: <i>dedson@prism-env.com</i>

- Does this project meet or exceed a mandatory EIR threshold (see 301 CMR 11.03)?  
 Yes  No
- Has this project been filed with MEPA before?  
 Yes (EOEA No. \_\_\_\_\_)  No
- Has any project on this site been filed with MEPA before?  
 Yes (EOEA No. )  No
- Is this an Expanded ENF (see 301 CMR 11.05(7)) 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

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): **Not applicable**

Are you requesting coordinated review with any other federal, state, regional, or local agency?  
 Yes (Specify \_\_\_\_\_)  No

List Local or Federal Permits and Approvals:

**None**

Which ENF or EIR review threshold(s) does the project meet or exceed (see 301 CMR 11.03):

- |   |                                       |  |
|---|---------------------------------------|--|
| <input type="checkbox"/> Land             | <input type="checkbox"/> Rare Species | <input type="checkbox"/> Wetlands, Waterways, & Tidelands      |
| <input checked="" type="checkbox"/> Water | <input type="checkbox"/> Wastewater   | <input type="checkbox"/> Transportation                        |
| <input type="checkbox"/> Energy           | <input type="checkbox"/> Air          | <input type="checkbox"/> Solid & Hazardous Waste               |
| <input type="checkbox"/> ACEC             | <input type="checkbox"/> Regulations  | <input type="checkbox"/> Historical & Archaeological Resources |

Summary of Project Size & Environmental Impacts	Existing	Change	Total	State Permits & Approvals
<b>LAND</b>				<input type="checkbox"/> Order of Conditions <input type="checkbox"/> Superseding Order of Conditions <input type="checkbox"/> Chapter 91 License <input type="checkbox"/> 401 Water Quality Certification <input type="checkbox"/> MHD or MDC Access Permit <input checked="" type="checkbox"/> Water Management Act Permit <i>Amendment</i> <input checked="" type="checkbox"/> New Source Approval* <input type="checkbox"/> DEP or MWRA Sewer Connection/ Extension Permit <input type="checkbox"/> Other Permits (including Legislative Approvals) – Specify:  * For increase to current approved withdrawal rate
Total site acreage	14.36			
New acres of land altered		0		
Acres of impervious area	0	0	0	
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		
<b>STRUCTURES</b>				
Gross square footage	1,800 sf	0	1,800 sf	
Number of housing units	Not Applicable	Not Applicable	Not Applicable	
Maximum height (in feet)	10 ft	0	10 ft	
<b>TRANSPORTATION</b>				
Vehicle trips per day	1	0	1	
Parking spaces	1	0	1	
<b>WATER/WASTEWATER</b>				
Gallons/day (GPD) of water use	Not Applicable	Not Applicable	Not Applicable	
GPD water withdrawal	1,368,000	648,000	2,016,000	
GPD wastewater generation/ treatment	Not Applicable	Not Applicable	Not Applicable	
Length of water/sewer mains (in miles)	Not Applicable	Not Applicable	Not Applicable	

**CONSERVATION LAND:** Will the project involve the conversion of public parkland or other Article 97 public natural resources to any purpose not in accordance with Article 97?

- Yes (Specify \_\_\_\_\_)  No

Will it involve the release of any conservation restriction, preservation restriction, agricultural preservation restriction, or watershed preservation restriction?

- Yes (Specify \_\_\_\_\_)  No

**RARE SPECIES:** Does the project site include Estimated Habitat of Rare Species, Vernal Pools, Priority Sites of Rare Species, or Exemplary Natural Communities?

Yes (Specify: **Pending Determination**)  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 **Pending Determination** )  No

If yes, does the project involve any demolition or destruction of any listed or inventoried historic or archaeological resources?

Yes (Specify \_\_\_\_\_ )  No

**AREAS OF CRITICAL ENVIRONMENTAL CONCERN:** Is the project in or adjacent to an Area of Critical Environmental Concern?

Yes (Specify \_\_\_\_\_ )  No

**PROJECT DESCRIPTION:** The project description should include (a) a description of the project site, (b) a description of both on-site and off-site alternatives and the impacts associated with each alternative, and (c) potential on-site and off-site mitigation measures for each alternative (*You may attach one additional page, if necessary.*)

Aquarion's Jacques Wellfield, consisting of Wells #1 and #2 (source ID #03G and #04G), is located in the flood plain of the Blackstone River in Millbury. These wells and the Millbury Avenue and Oak Pond wells comprise the total Millbury source of supply. The current Water Management Act permit for Aquarion in Millbury stipulates a current total system average annual withdrawal limit of 1.96 mgd, and approved daily pumping rates for Jacques Wells #1 and #2 of 600 gpm (0.86 mgd) and 350 gpm (0.50 mgd), respectively.

An analysis of Millbury operating data during an extended drought period in 2001 indicates that the wellfield is capable of sustained pumping at rates greater than those currently permitted. An increase would greatly aid Aquarion's ability to meet system demands. A pump test proposal under DEP's new source approval process (BRP WS18) has been submitted to DEP. DEP has responded with written conditions for performing the test.

The Jacques wellfield is situated in an unconfined, overburden aquifer in the flood plain of the Blackstone River. Recharge from the river likely occurs during periods of heavy pumping. The aquifer materials are reasonably permeable consisting primarily of sand and gravel with a saturated thickness in the vicinity of the wellfield of 35 to 45 feet. Based on previous pumping tests, the aquifer transmissivity ( $T$ ) is estimated to be 80,000 gpd/ft. yielding a permeability ( $m$ ) of about 2,000 gpd/sf. This permeability is indicative of the sand and gravel prevalent in test and production well logs for the wellfield. As would be expected in a buried valley aquifer, the aquifer thickness appears to feather out with distance from the river.

Given the extensive and rigorous new source approval process stipulated by the Massachusetts Department of Environmental Protection for any new surface or well public water supply, the first alternative for increasing supply is generally to expand existing, approved sources or seek to purchase from other, neighboring systems. Of the four existing, approved sources in Millbury, only the Jacques Wellfield has the potential for expansion. After years of test drilling, no other significant, new site for source development has been identified. Aquarion has an existing water purchase agreement with the City of Worcester. However, the cost of City of Worcester water is much greater than the current, approved water rates in Millbury. Past negotiations between Aquarion and the City of Worcester have not been fruitful in reducing the Worcester's out-of-city rate to Aquarion. Aquarion can also purchase water from the Grafton Water District. However, the water qualities are not compatible and generate significant customer complaints when the connection is used. For these reasons, an increase to the permitted withdrawal rate at the Jacques Wellfield is being pursued.

If the withdrawal rate increase is obtained, no new wells or structures at the wellfield would be needed. The existing wells are capable of providing the additional supply with only upgrades to the pumping and electrical equipment within the existing pumping station structures.