## Commonwealth of Massachusetts Executive Office of Environmental Affairs ■ MEPA Office



Project Name: Onset Fire District Well and Pump Station #7

For Office Use Only
Executive Office of Environmental Affairs
EOEA No.: 14393 .
MEPA Analyst Holly Johnson
Phone: 617-626-1/12 3

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.

Street: Off Sand Pond Road								
Municipality: Wareham (Onset)	Watershed: Buzzards Bay							
Universal Tranverse Mercator Coord	Latitude: N 41° 45' 49.1"							
19 363218E 4624834N	Longitude: W 70° 38' 42.2"							
Estimated commencement date: 200	Estimated completion date: 2010							
Approximate cost: \$1.5 Million	Status of project design: 20 %complete							
Proponent: Onset Fire District Water Department								
Street: 15 Sand Pond Road								
Municipality: Wareham (Onset)	State: MA	Zip Code: 02558						
Name of Contact Person From Whom Copies of this ENF May Be Obtained: Robert Pickering, P.E.								
Firm/Agency: Haley and Ward, Inc.		Street: 25 Fox F	Road					
Municipality: Waltham		State: MA	Zip Code: 024	Zip Code: 02451				
Phone: (781) 890-3980	Fax: (78	1) 890-1491	E-mail:					
			rpickering@haleyward.com					
Does this project meet or exceed a mark Has this project been filed with MEPA b  Yes (EOEA No Has any project on this site been filed w  Yes (EOEA No Is this an Expanded ENF (see 301 CMR 11.0 a Single EIR? (see 301 CMR 11.06(8)) a Special Review Procedure? (see 301 CMR a Waiver of mandatory EIR? (see 301 CMR 11.11) Identify any financial assistance or land the agency name and the amount of fur	vith MEPA 9287  05(7)) reque R 11.09) R 11.11) Y transfer finding or la	es No  No before? No esting:  Ses No	the Commonweal					
Are you requesting coordinated review with any other federal, state, regional, or local agency?  ⊠Yes (Specify <u>Mass DEP</u> ) □No								
List Local or Federal Permits and Approvals: New source approval, Water Management Act								
amendment, and Order of Conditions.								

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

☐ Land 〔	Rare Speci Wastewate		Wetlands, V Transportat	Vaterways, & Tidelands tion		
Energy [	Air		Solid & Hazardous Waste			
☐ ACEC [	Regulations	;	Historical & Archaeological			
Summary of Project Size	Existing	Change	Resources Total	State Permits &		
& Environmental Impacts		• • • • • • • • • • • • • • • • • • • •		Approvals		
<u> </u>	_AND	-		Order of Conditions		
Total site acreage	±360			☐ Superseding Order of Conditions		
New acres of land altered		± 1.7		☐ Chapter 91 License		
Acres of impervious area	0.6	0.1	0.7	☐ 401 Water Quality Certification		
Square feet of new bordering vegetated wetlands alteration		0		☐ MHD or MDC Access Permit		
Square feet of new other wetland alteration		0		⊠ Water Management Act Permit		
Acres of new non-water dependent use of tidelands or waterways		0	-	⊠ New Source Approval		
STRU	JCTURES			☐ DEP or MWRA Sewer Connection/ Extension Permit		
Gross square footage	10,600	900	11,500			
Number of housing units	0	0	0	] "		
Maximum height (in feet)	± 40	0	± 40	Ī		
TRANS	PORTATION			NHESP MESA Review		
Vehicle trips per day	± 20	0	± 20			
Parking spaces	20	2	22			
WAS	TEWATER					
Gallons/day (GPD) of water use	± 300	0	± 300			
GPD water withdrawal	2.24 MGD Max Capacity	756,000 GPD Max Capacity	3.0 MGD Max Capacity			
GPD wastewater generation/ treatment	± 250	0	± 250			
Length of water sewer mains (in miles)	1.02	0.39	1.41			
CONSERVATION LAND: Will the proresources to any purpose not in according Yes (Specify  Will it involve the release of any conserestriction, or watershed preservation	rdance with Artic	cle 97? ) on, preservati	⊠No on restriction,	·		
☐Yes (Specify		)	⊠No			

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

The proposed well site is located on an undeveloped portion of the Onset Fire District's (OFD) ±360 acre property located off Sand Pond Rd. The OFD property consists primarily of densely forested woodland, a ±13 acre pond (Sand Pond), and several former cranberry bogs that have not been in use for over 20 years. The eastern boundary of the property also abuts Red Brook. Developed portions of the site include the OFD's existing four water supply wells, and their office/fire station at the southern most portion of the property, at the end of Sand Pond Rd. The topography of the site is undulating, with upland elevations generally between 20 and 50 ft. In the areas bordering Sand Pond and Red Brook elevations are generally between 10 and 20 ft.

The project consists of the development and construction of one gravel-pack well and associated  $\pm 700$  sf pump station with chemical feed (sodium hydroxide) for corrosion control, and system controls. The pump station proposed would be similar to those already existing on the property. Approximately 2,000 linear feet of new water main and underground electric will be installed along an existing unpaved roadway to connect the well to the system. Please refer to the enclosed site plan for the locations of existing site features and the proposed locations of the pump station and water main/electric service.

The OFD is proposing the development of this site as a means of supplementing its current supply wells primarily to meet the system's peak summer demands. During periods of peak summer demand all four of the OFD's existing wells are generally required to keep up with the demand, not allowing sufficient periods of rest for each well. The OFD would like to be able to provide the necessary rest to the pumping systems in an effort to extend their useful life and minimize O&M needs and costs of well rehabilitations and pump replacements. An ongoing concern remains that, at the present time, with the largest supply (Well 6) off-line the system would not be able to meet their peak day demand. An additional supply well will supplement the OFD's existing sources, increase the reliability of the system, allow for increased flexibility in water management and aid in meeting present and future peak water demands.

It is not the intent of the OFD to increase their overall permitted withdrawal volume authorized by the Water Management Act. The amendment to their current Water Management Act Permit would be for the addition of a new withdrawal location only.

The majority of the OFD property is located within areas identified by the Natural Heritage and Endangered Species Program (NHESP) as both Priority Habitat of Rare Species and Estimated Habitat for state-listed animal species, necessitating filings with the NHESP and the local Conservation Commission. The required filing with NHESP under the Massachusetts Endangered Species Act is scheduled to be made very shortly. Approximately 700 linear feet of the proposed water main/electric service installation will occur within the 100-ft. buffer zone to Sand Pond and will thus be under the jurisdiction of the local Conservation Commission.

No long term impacts associated with the construction of the project or operation of the well are anticipated. Alterations to the property will be limited to slightly less than 2 acres, located primarily within or along existing clearings and/or unpaved roadways. A pump test was performed at the site in February 2008 and the Pump Test Report for the site is currently being prepared and will be submitted to MassDEP for review and approval shortly.

## PROJECT DESCRIPTION (continued)

## Alternatives Analysis

Alternatives to the proposed project were considered during the preparation of the Site Exam Request/Pump Test Proposal, in accordance with the MassDEP Water Management Program's requirements for New Source Approvals. Alternatives considered included interconnections with neighboring water systems, desalination, surface water supply, leak detection and conservation/demand management, other groundwater withdrawal points, and a no action alternative.

The ability to construct a groundwater supply in this area has been demonstrated several times, as the OFD has four other wells in this area. The underlying geologic formations are capable of yielding large quantities of fresh water with high water quality. Treatment requirements on these groundwater sources have generally been limited to pH adjustment for corrosion control purposes. The capital cost and operation and maintenance costs for a groundwater well and pump station compared favorably to the other options considered, making the development of a new groundwater source the most viable of the options considered.