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CAPE COD
COMMISSION

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DEVELOPMENT OF REGIONAL IMPACT DECISION

PROJECT: EASTHAM WATER SUPPLY SYSTEM – PHASE 2, EASTHAM, MA
(CCC FILE NO. EIR18002)

TO: MARK WHITE, ENVIRONMENTAL PARTNERS GROUP
1900 CROWN COLONY DRIVE, SUITE 402, QUINCY, MA 02169

PROJECT APPLICANT: TOWN OF EASTHAM
C/O JACQUELINE BEEBE, TOWN ADMINISTRATOR
TOWN HALL
2500 STATE HIGHWAY
EASTHAM, MA 02642

PROJECT LOCATION: TOWN OF EASTHAM, MA

DATE: JULY 12, 2018

SUMMARY

The Cape Cod Commission (Commission) approves with conditions Phase 2 of Eastham's Water Supply System as a Development of Regional Impact (DRI) pursuant to Sections 12 and 13 of the Cape Cod Commission Act (Act). This decision is rendered pursuant to a vote of the Cape Cod Commission on July 12, 2018.

FINDINGS

The Cape Cod Commission hereby finds and determines as follows:

GF1. After many years of planning, the town of Eastham (Applicant) pursued permits in 2015 for a municipal water supply system to provide a high quality, reliable source of drinking water and improved fire protection throughout the town. On February 5, 2015, the Commission issued a DRI decision approving Phase 1 of the municipal water supply system, which included the construction of two (2) wellfields, a water storage tank, and 45 miles of distribution system

Town of Eastham Water Supply System – Phase 2, Eastham, MA
Development of Regional Impact Decision

pipings. One wellfield is located at Nauset Regional High School (NRHS), the other located at town-owned property identified as "District G"; the District G property also contains the water storage tank. The distribution system includes transmission mains located throughout the town to provide the backbone of the distribution system. Construction of Phase 1 is substantially complete and in operation.

GF2. At Eastham's May 2015 Annual Town Meeting, the town authorized funding for Phase 2 of the water system, which will expand Phase 1 into a town-wide system by installing laterals to the transmission mains which will provide service to the remaining two-thirds of the town's properties (approximately 4,600 parcels).

GF3. In February 2017 Eastham filed a second Notice of Project Change (NPC #2) with the Executive Office of Energy and Environmental Affairs (EEA), Massachusetts Environmental Policy Act (MEPA) office, for work associated with Phase 2 of the water system, as described further below. The Secretary of EEA issued a Certificate on NPC #2 requiring the town to prepare a Draft and Final Supplemental Environmental Impact Report (DSEIR/FSEIR) to further evaluate endangered species issues related to the presence of Eastern Spadefoot toad habitat at "District H", the proposed location of the Phase 2 wellfield and water storage tank.

GF4. Under MEPA, the town submitted a third NPC (NPC #3) and Phase 2A Waiver Request to allow the distribution system construction associated with Phase 2A to proceed, as the system demands of Phase 2A could be accommodated by the existing wellfields at District G and NRHS. In July 2017, the Secretary of EEA issued a Final Record of Decision granting the Waiver Request which allowed Phase 2A of the project to proceed as the DSEIR was being prepared.

GF5. In August 2017, the Commission issued a modification to the DRI decision for Phase 1 incorporating Phase 2A, allowing for the construction of an additional 21 miles of water main, where properties to be connected under Phase 2A could be supplied under the approved withdrawals from the Phase 1 wells.

GF6. In January 2018, the town submitted a DSEIR to the MEPA office, and subsequent FSEIR in March 2018, for work associated with the remaining sub-phases of the water system. The Secretary of EEA issued a Certificate on the FSEIR on April 27, 2018 stating that the FSEIR adequately and properly complied with MEPA and its implementing regulations, which allowed the town to proceed to project permitting.

GF7. The Project comes under the jurisdiction of the Commission pursuant to Section 2(d)(i) of the Commission's Chapter A Enabling Regulations Governing Review of Developments of Regional Impact (Enabling Regulations) (as revised), which requires proposed development for which an EIR is required to be prepared under the provisions of MEPA (MGL Chapter 30, Sections 61 to 62H, inclusive) to undergo DRI review.

GF8. In May 2018, the town filed a DRI application with the Commission for review of the remaining work associated with Phase 2. A public hearing on the DRI application was held by a subcommittee of the Commission in the town of Eastham on June 5, 2018, where the subcommittee voted to recommend a draft decision to the full Commission approving the

project, with conditions. The hearing was continued to the full Commission meeting on July 12, 2018.

GF9. Phase 2 of the town-wide water system will supplement the Phase 1 water system with one (1) additional wellfield and water storage tank at town-owned property identified as "District H" (located east of the intersection of Nauset Road and Schoolhouse Road), and approximately 82 miles of distribution piping ("Phase 2" or "Project"). The distribution system includes transmission mains located throughout the town that will connect to the mains constructed during Phase 1, which were sized to accommodate a town-wide system. Phase 2 will be constructed in a series of sub-phases (2A, 2B, 2C, 2D, and 2E). Phase 2A was incorporated into the DRI decision for Phase 1.

GF10. The water system will mostly be constructed on previously disturbed land and existing roadway areas and right-of-ways. The overall land area where construction activities will occur is estimated to be 42.1 acres, approximately 95% of which is associated with water main installations that will occur predominantly within existing roadway areas. The parcels that make up District H total 165.98 acres. The storage tank and wellfield at District H will be constructed in a largely undisturbed area approximately 0.46 acres in size. The total 'limit-of-work' area at District H is 2.3 acres, with 1.7 acres of permanent alteration.

GF11. New structures resulting from Phase 2 will be located at District H and consist of a pump house and water storage tank. The pump house will be approximately 30' x 20' (600 SF) with associated electric service. A propane generator will be provided for use during power outages. The water storage tank will be elevated, with a 750,000-gallon capacity. The supporting column will be concrete, and the bowl will be steel. The foundation will have a diameter of approximately 32 feet, the bowl will have a diameter of approximately 62 feet, and the height of the tower will be approximately 135-feet tall. Security fencing will be installed at the wellfield and pump house. Access to District H will be via a gated access road from Nauset Road.

GF12. For the distribution system, most of the water mains will be 8-inch diameter and generally located primarily within existing roadways. Approximately 60% of Phase 2 roadways where water mains will be installed are paved, the remaining 40% are dirt or gravel. Fire hydrants will be installed approximately every 500 feet. A curb box for service connections will be provided for each property at the edge of the roadway right-of way.

GF13. Two test wells and several monitoring wells were installed at District H in 2010 as part of the MA Department of Environmental Protection (DEP) Drinking Water Program new public water supply source investigations for the wellfield. These test wells will be converted into production wells by equipping them with submersible pumps.

GF14. Phase 2 has an estimated construction cost of \$85 million. The town has requested funding support for the Project from the State Drinking Water Revolving Fund and the USDA-Rural Development Program.

GF15. Section 7(c)(viii) of the Commission's Enabling Regulations contains the standards for DRI approval, which include consistency with the Cape Cod Commission Act, Cape Cod Regional Policy Plan (RPP), District of Critical Planning Concern (DCPC) implementing

regulations (as applicable), municipal development bylaws or ordinances, and applicable Local Comprehensive Plans (LCPs). The Commission must also find that the probable benefit from the proposed development is greater than the probable detriment.

GF16. The town adopted implementing regulations pursuant to the Cape-wide Fertilizer Management DCPC. However, these implementing regulations do not apply to the Project, as the Project does not propose any establishment of turf or propose use of any fertilizer or other nutrient containing material as a fertility source for turf. Portions of project are also located within the jurisdictional extent of the Eastham District of Critical Planning Concern, for which the town has adopted zoning-based implementing regulations. While the Project supports one of the purposes of the “Eastham Corridor Special District” (Eastham DCPC) with the ability to provide municipal water service to Eastham’s commercial areas, these implementing regulations do not apply to the project, as they deal primarily with site and building design standards.

GF17. The following local reviews, actions, permits, licenses and approvals are required for the Project:

- Zoning Board of Appeals Variance for the height of the tower;
- Eastham Conservation Commission Order of Conditions for work at District H; and,
- Local road opening permits.

The Project is consistent with municipal development ordinances, provided the town obtains all necessary local permits, licenses, and approvals.

GF18. The Project is consistent with the town’s LCP goal to “*Protect/improve water quality and supply.*” The municipal water supply is directly related to this goal, where private drinking water wells that have degraded water quality will be replaced with an adequate supply of high quality water.

GF19. Benefits of the Project are that it:

1. Allows the town to meet, in part, the first goal of its LCP;
2. Provides for a comprehensive, predictable, cost effective, and safe drinking water supply for current and future needs of the town;
3. Provides for a fast-track, permanent solution for safe drinking water to properties that have degraded water quality;
4. Provides fire protection coverage to the community;
5. Allows the town to take advantage of favorable funding opportunities that are being made available through the State Revolving Fund.

REGIONAL POLICY PLAN FINDINGS

GF20. The Commission reviewed the Project for consistency with relevant issue areas of the 2009 RPP, as amended August 2012.

LAND USE

LUF1. The Eastham Zoning By-law describes the Wellfield Protection District H zoning district, a combination of parcels owned by the town and the National Park Service, including the town-owned District H property, as “[a]n open space area designed to protect the public health by

preventing the contamination of the ground and surface water resources in a test wellfield area demonstrated to be capable of providing a portion of the potential public water supply for the Town of Eastham.”

LUF2. In 2005 the town considered a municipal water supply system near the landfill study area and conducted evaluations of alternative water supply sources that could potentially serve this system. Nine (9) locations within the town were evaluated in addition to a possible interconnection with Orleans. These sites were evaluated against the following criteria: ownership; yield; water quality; ability to accommodate DEP-required 400-foot Zone I protective radius around the wellhead; and, proximity to the water service area. Of the nine (9) sites, District G, NRHS, and District H met the criteria and were retained for further evaluation. District G and NRHS are the current locations of Phase 1 water sources.

LUF3. Several town-owned parcels within close proximity to potential water sources were considered for location of the water storage tank. District H was chosen as the preferred location because it met those criteria and has a larger setback from residential properties than the other alternative sites.

LUF4. Land Use Goal LU1 (Compact Growth and Resource Protection) in part seeks to minimize adverse impacts of development on the land by using land efficiently and protecting sensitive resources. Consistent with LU1, the water distribution system will be largely constructed in areas of existing disturbance and roadway right-of-ways. The District H storage tank and wellfield are located within an area mapped as Priority Habitat of Rare Species for the Eastern Box Turtle, Eastern Spadefoot toad, and several species of Lepidoptera, an order of insect that includes moths and butterflies. The District H parcel also has several mapped vernal pools (VPs) that have been identified as possible breeding habitat for the Eastern Spadefoot. The town will permanently restrict from development 21.8 acres of mapped rare species habitat under a conservation restriction and create 2.4 acres of early-successional habitat favored by the Eastern Spadefoot at District H.

LUF5. The Project is intended to support and serve existing and future water infrastructure needs, based on the town’s existing compact development patterns, consistent with Minimum Performance Standard (MPS) LU2.1 (Connections to Existing Infrastructure).

LUF6. The Project will utilize existing right-of-ways for additional water distribution system infrastructure, consistent with Best Development Practice (BDP) LU2.3 (Co-locate Public Infrastructure).

ECONOMIC DEVELOPMENT

EDF1. MPS ED4.1 (Demonstrated Need and Public Benefit) states that infrastructure projects “shall improve the availability, reliability, quality, and cost of services.” This Project will expand Phase 1 of the Eastham water system to areas without existing municipal water service, where drinking water wells in some parts of the town have been compromised, essential to ensure that safe drinking water is available throughout the town of Eastham to serve present and future needs.

WATER RESOURCES

WRF1. Water Resources Goal WR1 (General Aquifer Protection) aims to maintain the hydrogeologic balance and quality of Cape Cod's aquifer. The estimated water demand of the Phase I water system is 378,000 gallons per day (GPD), increasing to 415,000 GPD as vacant properties are built out. The water demand for Phase 2 of the system is 705,000 GPD, increasing to 748,000 GPD as vacant properties are connected. The total water demand for the Eastham water system is 1,083,000 GPD (1.083 MGD), increasing to 1,163,000 GPD (1.163 MGD) as vacant properties are connected. The water system will replace the use of private water supply wells for drinking water and incorporates projected future demand, therefore it is anticipated there will be no negative impact on the water withdrawal capacity of the aquifer. The town will request a modification to its DEP Water Withdrawal Permit to accommodate Phase 2 of the water system.

WRF2. The wellfield located at District H has been permitted by the DEP through the Drinking Water Program with New Water Supply Source Approval and authorizes a withdrawal of 1.31 MGD. The total water withdrawal capacity of the Eastham water system is 3.18 MGD. The water system demand is 36% of the total withdrawal capacity; however, the three wellfields are needed to meet the peak day water demand, fire flow demand, and provide redundancy among the wellfields.

WRF3. District H contains several mapped vernal pools, which are essential breeding habitat for many species and provide other wildlife habitat functions during non-breeding season for a variety of amphibian and other wildlife species. Consistent with MPS WR1.3 (Groundwater Study Requirement), a hydrogeologic investigation was conducted at the District H wellfield as part of the DEP New Source Approval process to evaluate the potential effect of water withdrawals on groundwater levels that support vernal pool habitat. Prior to the commencement of construction at District H, the town shall prepare and submit to Commission staff for approval a final water-level monitoring plan incorporating details and provisions from the following documents:

- The Groundwater Monitoring Program (April 2013 MADEP Pumping Test Report, Well Field Protection Zoning District H – Eastham, MA, Sec. 12), The May 15, 2018 Environmental Partners Group Memorandum addressed to Michele White, Subject: Eastham Water System – Phase 2, District H Water Supply Well Field – Monitoring Program, and
- The Conservation and Management Permit, to include water-level monitoring plan recommendations formulated in consultation with the Mass. Division of Fish and Wildlife and the Cape Cod Commission.

WRF4. Four (4) aquifer zones are present at District H, identified as Zones A, B, C, and D. Zone A is not considered a potential source for public water supply due to the presence of ponds and vernal pools located within this shallow aquifer zone. Zone D is also not considered a potential source for public water supply because of the potential for saltwater intrusion that could result from groundwater withdrawals. Zones B and C have been identified as potential public water supply sources; a production well will be located within each of these Zones.

WRF5. The water monitoring program includes long-term water level monitoring in aquifer Zones A, B, C and D aquifers, and water quality monitoring in aquifer Zones C and D. Baseline water level monitoring will begin, at a minimum, two (2) quarters before operation of the wellfield and will incorporate supplemental monitoring data back to 2010. Water withdrawals will be managed to ensure maintenance of the hydrologic balance of the aquifer as required by MPS WR1.3 (Groundwater Study Requirement).

WRF6. The Project is consistent with BDP WR1.6 (Management of Water Withdrawals/Wastewater Discharges) as the town will use stream flow and water-level monitoring data to manage withdrawal rates from District G, NRHS, and District H wellfields to minimize impacts to habitat. During the initial two-year period of pumping, the town proposes to limit District H pumping to 100,000 GPD (0.10 MGD) from April to September (the Eastern Spadefoot breeding season), and 200,000 GPD (0.20 MGD) for the remainder of the year. Following the initial two-year period of pumping and following joint evaluation of water level monitoring data with the Cape Cod Commission and the Mass. Division of Fish and Wildlife, average annual pumping may be increased if it is determined and agreed that Phase 2 activities have not detrimentally impacted, and will not detrimentally impact, the vernal pool systems.

WRF7. Similar to Phase 1 and its associated project elements, the town will implement in Phase 2 water conservation measures such as establishing a drought management plan, emergency management plan, annual leak detection surveys, metering of all connections, use of water efficient fixtures, and public education, consistent with BDP WR1.7 (Use of Water-conservation Technologies).

WRF8. Water quality monitoring conducted twice a year in sentinel wells located at the western perimeter of the District H property will provide an early assessment of water quality conditions upgradient of the production wells. Water quality parameters at the public supply wells such as nitrate, volatile organic compounds and 1,4 dioxane, together with standard field parameters of pH, specific conductivity, and temperature will be monitored in aquifer Zones B, C, and D, consistent with Water Resources Goal WR2 (Drinking Water Quality and Quantity).

WRF9. Similar to Phase 1 and its associated project elements, Project plans show the use of propane for emergency power generators at District H, consistent with MPS WR2.2 (Prohibition on Hazardous Materials/Wastes). Any release of propane gas will not impair the quality of groundwater; the use of generator fuel at District H shall be limited to propane or natural gas.

WRF10. Uses prohibited in Wellhead Protection Areas (Zone IIs) by state regulations are not proposed at District H, consistent with MPS WR2.4 (Prohibited Uses under State Regulations).

WRF11. Similar to Phase 1 and its associated project elements, the Project will incorporate Construction Best Management Practices (Construction BMPs), including for erosion and sedimentation control, to prevent erosion, control sediment movement, and stabilize exposed soils. As required under MPS WR7.9 (Best Management Practices During Construction), the town shall provide to Commission staff for review and approval, prior to construction, final construction plans for Phase 2 showing that Construction BMPs for erosion and sedimentation control have been incorporated into such plans.

WETLAND RESOURCES

WETF1. The RPP allows for utility work within wetland buffer zones so long as impacts are minimized and there are no other feasible alternatives. To minimize new disturbance and to take advantage of areas in which the town has rights to locate utilities, components of the water distribution system will be installed within existing roadways and right-of-ways, some of which are adjacent to coastal and inland wetlands. Construction BMPs will be used during construction to protect inland and coastal wetlands and their buffers, consistent with Goal CR3 (Coastal Water Quality and Habitat) and Goal WET1 (Wetlands Protection). The town shall provide to Commission staff for review and approval, prior to construction, final construction plans for Phase 2 showing that Construction BMPs protect inland and coastal wetlands and their buffers.

WILDLIFE AND PLANT HABITAT

WPHF1. Massachusetts Division of Fisheries & Wildlife Natural Heritage and Endangered Species Program (NHESP) mapping of Priority Habitat of Rare Species and Estimated Habitat of Rare Wildlife within Eastham generally occurs along the east side of the town and includes mapped areas in the northwest corner of town and the southern area of the town. In a letter to the town dated March 10, 2017, NHESP confirmed that water main installations within paved roadway areas and within 10-feet of those paved surfaces are exempt from Massachusetts Endangered Species Act (MESA) review. NHESP also concluded that water main installations on unpaved roads would not result in a prohibited “take” of state-listed rare species.

WPHF2. The District H storage tank and wellfield are located within an area mapped as Priority Habitat of Rare Species for the Eastern Box Turtle, Eastern Spadefoot Toad, and several invertebrate species of Lepidoptera, an order of insect that includes moths and butterflies. District H also contains several mapped Certified vernal pools (VPs) that have been identified as possible breeding habitat for the Eastern Spadefoot.

WPHF3. NHESP has required the town to prepare a construction management plan prior to construction at District H to protect the Eastern Box Turtle, but otherwise does not anticipate long-term adverse impacts to the box turtle. Additionally, NHESP does not anticipate long-term adverse impacts to the invertebrate species.

WPHF4. During MA Endangered Species Act (MESA) review, NHESP found that construction of the water tank and wellfield at District H may result in a “take” of Eastern Spadefoot, a burrowing toad species formerly widespread in Massachusetts which breeds in VPs and other ephemeral wetlands. NHESP required the town to prepare a habitat assessment for Eastern Spadefoot, where, in addition to habitat loss resulting from construction at District H, NHESP was also concerned about the potential effects of water withdrawals on VPs and other potential Eastern Spadefoot breeding habitats in the vicinity of the water tank and wellfield. The town submitted an Eastern Spadefoot habitat assessment of the vicinity of District H where water supply facilities are planned, consistent with MPS WPH1.1 (Natural Resources Inventory), which documents possible breeding habitat for the Eastern Spadefoot in several of the VPs in the vicinity of the site.

WPHF5. Vernal pool habitats within and adjacent to District H were monitored from 2009-2012 before, during, and after hydrogeological investigations using the two test production wells at District H. Aquifer test data were analyzed to investigate the potential effects of future pumping at District H on water levels in the vernal pools. Data from the aquifer test and previous investigations at District H were used to form a predictive model of the VP behavior in response to changes in groundwater levels that might be associated with water withdrawals from the District H wells.

WPHF6. Two (2) vernal pools within 1,000 feet of the District H wellfield (identified as VP E-01 and VP E-09) exhibited no apparent response during the District H aquifer tests.

WPHF7. Pump test results and modeling of aquifer response to well pumping showed that pumping at a rate of 250,000 GPD (the anticipated average pumping rate from this wellfield at complete system buildout) in Zone B would decrease the water surface elevation of a third vernal pool within 1,000 feet of the wellfield (identified as VP E-11) by 1.4 – 3 inches when groundwater is at the vernal pool stage, but not when groundwater elevations are below the bottom of the vernal pool. Long-term groundwater elevation modeling and the vernal pool model showed that the VPs are predominantly recharged by precipitation and likely not replenished by groundwater. Water level monitoring within and beneath VPs within 1,000-feet of the District H wellfield confirmed that effects of production well pumping on the VP water levels are consistent with those predicted in the VP model.

WPHF8. In response to concerns of NHESP and Commission staff on the potential drawdown of VP E-11, given the ephemeral nature of VPs, their natural shallowness, and the potential significance of these pools for Eastern Spadefoot breeding, the town has proposed a two (2) year water level monitoring program to establish baseline water levels in VP E-11, and to track water levels after pumping begins in 2020. The town has proposed a reduced pumping regimen during spring and summer (Eastern Spadefoot breeding season) for the first two (2) years after the well comes online, increasing pumping rates thereafter contingent upon seeing no adverse effect in VP E-11 water levels. Through coordination with NHESP, the town focused on operational alternatives to minimize water level drawdown at VP E-11, particularly during the breeding season, to reduce withdrawals at District H and rely more on District G and NRHS, at a ratio of District G 25% – NRHS 50% – District H 25%, during the initial years of operation for District H while collecting surface and groundwater data to assess the effect of water withdrawals on the VP stage, where the withdrawal rate at District H would be a phased increase over a period of years. The town has also agreed to pump from Zone C more than Zone B and will schedule maintenance outside of the Eastern Spadefoot breeding season.

WPHF9. Clearing and grading at District H associated with the construction of the site access road, wellfield pump house, and water storage tank has been minimized by utilizing existing well areas and restricting the limit-of-work to the area immediately surrounding site development, consistent with MPS WPH1.2 (Clearing and Grading).

WPHF10. The RPP generally prohibits development within 350-feet of VPs [MPS WPH1.5 (Vernal Pools)]; however, the access road and water tower will be located within this buffer area to two (2) of the VPs on-site as there is no other alternative feasible siting. The site of the water tower on the District H property was considered in an area on the property where the town

could utilize an existing path to access the tower, thereby reducing the amount of clearing associated with site development. However, the existing path is along the alignment of an existing fire road that is popularly used for passive recreation, the water tower would have greater visibility from the path than the proposed location, and would require crossing parcels within the Wellfield Protection District H zoning district under the ownership of the National Park Service. Therefore, the water tank was sited in its currently proposed location, requiring the installation of a new access road. Given the desire of the town to limit construction and operational access along a popular walking path, the patchwork of town-owned and federal government-owned properties around the wellfield, and limited routes for locating the site driveway, the proposed configuration minimizes adverse impacts to VP buffer areas, consistent with Goal WPH1 (Prevent Loss, Minimize Adverse Impact, and Maintain Diversity).

WPHF11. In order to mitigate the impacts to upland habitat of the Eastern Spadefoot associated with the development of the site driveway, pump house, and water tower at District H, the town is proposing to permanently protect through a MGL Ch. 184, Secs. 31-33 Conservation Restriction 21.8 acres of upland and portions of two (2) VPs on-site. The protection of this habitat area should benefit not only the Eastern Spadefoot, but the upland habitat needs of other vernal pool species, thus also mitigating development within the 350-foot buffer discussed above. The town will also manage 2.4 acres of the site to promote early-successional habitat, which is not currently abundant on-site and is preferred by the Eastern Spadefoot, consistent with BDP WPH1.7 (Habitat Restoration).

WPHF12. NHESP is requiring that the town prepare a conservation and management plan for the protection of the Eastern Spadefoot, a draft of which was provided in the FSEIR during MEPA review and details the vernal pool monitoring and pumping protocols for the first several years of well operation (including collection of baseline data before the well comes online); discusses the Conservation Restriction on 21.8 acres of upland and vernal pool habitat; discusses restoration of the 2.4-acres of the site to an early-successional habitat to benefit Eastern Spadefoots; and references dedicated funding by the town for management of this early-successional habitat area. A Conservation and Management Permit (CMP) from NHESP will be required to avoid a “take” of the species. Separately, NHESP is also requiring the preparation of a turtle protection plan to be submitted for review and approval by NHESP prior to construction to ensure that Eastern Box Turtles are protected during construction at District H. These mitigation measures will ensure protection of the state-listed species at District H.

HISTORIC PRESERVATION/COMMUNITY CHARACTER

HPCCF1. The town has identified local historic districts, National Register Districts, and National Register of Historic Places within the town, relative to Phase 2. Water mains associated with the water system will be placed within paved roadway areas within the Old Towne Historic District, Eastham Historic District, and the Fort Hill Rural Historic District. The District H wellfield and storage tank are not located within or adjacent to any historic districts or structures.

HPCCF2. As required under MPS HPCC1.2 (Cultural Landscapes) and MPS HPCC1.3 (Archaeological Sites), the town shall provide to Commission staff for review and approval, prior to construction, final construction plans for Phase 2 with sufficient detail to assess how

sensitive archaeological and historic resources that may be encountered during construction are to be appropriately accommodated, including work in areas adjacent to road layouts and the installation of hydrants within historic districts, work adjacent to individual National Register or National Register eligible properties, water pipes that will be located above the road surface, or water service extended to the Coast Guard Station or other scenic locations.

HPCCF3. Similar to Phase 1, and consistent with MPS HPCC1.3 (Archeological Sites), a preliminary archeological sensitivity assessment of Phase 2 Project elements was completed by The Public Archeological Laboratory, Inc. (PAL) in 2017, which was designed to supplement the 2015 Phase 1 technical report and address ongoing Massachusetts Historical Commission (MHC) and National Park Service review and comment. The objective of the assessment was to collect updated information about previously identified archeological resources, document previous disturbance and existing conditions in each of the Phase 2 areas, and develop conclusions and recommendations for additional archeological investigations.

HPCC4. Similar to Phase 1, Project elements of Phase 2 located in the proximity of recorded archeological sites or areas identified as having moderate to high archeological sensitivity will be subject to intensive (locational) survey testing and/or archeological monitoring during construction, as recommended by PAL. Post-Review Discoveries Plan (developed by PAL) and contractor training for construction supervisors will be employed in Phase 2 as they were in Phase 1. The town shall provide to Commission staff, when and as received, copies of any documentation from MHC that archaeologically sensitive sites have been identified and reviewed by MHC.

HPCCF5. The photo renderings of the proposed District H storage tank in the town's Project application provide views from several locations. The photo renderings show that the water tank will not be significantly visible in key vistas or scenic areas. The siting and design of the water tower is unlikely to have an adverse visual impact on scenic resources, consistent with MPS HPCC2.3 (Avoid Adverse Visual Impacts).

CONCLUSION

Based on the Findings above, the Commission hereby concludes, determines, and finds further that:

1. Subject to and upon satisfaction of the conditions identified in this decision, the Project is consistent with the Cape Cod Commission Act and the 2009 RPP (as amended).
2. The Project is consistent with Eastham's Local Comprehensive Plan.
3. The Project is consistent with municipal development by-laws, subject to the Applicant obtaining all required local approvals, licenses, and permits for the Project.
4. Implementing regulations adopted pursuant to the Cape-wide Fertilizer Management DCPC and the Eastham DCPC are not applicable to the Project.
5. The probable benefit of the Project is greater than its probable detriment.

The Commission hereby grants DRI approval to the town of Eastham for Phase 2 of its town-wide water system, subject to the following conditions:

CONDITIONS

C1. When final, this decision shall be valid and in effect for a period of seven (7) years, and local development permits may be issued pursuant hereto for a period of seven (7) years from the date of this written decision. No development work, as the term "*development*" is defined or referred to in the Cape Cod Commission Act, and as approved herein, shall be undertaken until this decision is final. This decision shall be final when the appeal period set out in Section 17 of the Cape Cod Commission Act has elapsed without appeal (or if such an appeal has been filed, when the appeal has been finally settled, dismissed, adjudicated, or otherwise disposed of in favor of the Applicants), and a copy of this decision has been recorded with the Barnstable County Registry of Deeds, and registered with the Barnstable Land Court, as applicable.

C2. Failure to comply, and remain in compliance, with all findings and conditions stated herein, and with all related Commission laws and regulations, shall be deemed cause to revoke or modify this decision.

C3. Prior to undertaking any development as approved herein, the Applicant shall obtain a Certificate of Compliance from the Commission that evidences that all conditions in this decision required to have been satisfied prior to the issuance of a Certificate of Compliance have been satisfied, and that the Project is in compliance with this decision. The Commission may issue multiple Certificates of Compliance if the Applicant proceeds to develop the Project in segments or phases, and in this event, Commission staff will establish a schedule in which outstanding Conditions must be satisfied prior to issuance of any subsequent Certificates of Compliance.

C4. Commission staff will undertake a review of the Project's compliance with this decision, including the applicable conditions hereof, upon the Applicant's request to the Commission for issuance of a Certificate of Compliance. At the time the Applicant requests such a Certificate, it shall provide Commission staff a list of key Project contact(s), along with their telephone numbers, mailing addresses, and email addresses, in the event questions arise during the Commission's compliance review. As part of its compliance review, Commission staff may make, and the Applicant hereby authorizes, site inspections upon reasonable notice to the Applicant, as such visits are needed. Upon review, the Commission shall either prepare and issue the requested Certificate or inform the Applicant in writing of any compliance deficiencies and the remedial action required for the issuance of the requested Certificate.

C5. Prior to the issuance of a Certificate of Compliance, the Applicant shall have obtained all necessary federal, state, and municipal permits, licenses, and approvals for the Project, and provide copies of the same to the Commission.

C5(a). The Project's consistency with municipal development by-laws, regulations or ordinances shall be evidenced and confirmed by the Applicant obtaining all said necessary municipal permits, licenses and approvals.

C6. Phase 2 shall be undertaken consistent with the plans and other information contained in the following documents, approved, referenced, and incorporated herein:

- "Eastham Water System: Phase 2 FSEIR", dated January 2018, prepared by Environmental Partners Group, and its supporting documents;

- The Groundwater Monitoring Program (April 2013 MADEP Pumping Test Report, Well Field Protection Zoning District H – Eastham, MA, Sec. 12);
- Environmental Partners Group Memorandum addressed to Michele White, dated May 15, 2018, Subject: Eastham Water System – Phase 2, District H Water Supply Well Field – Monitoring Program.

Changes to this decision or to the Project shall require that the Applicant seek a modification to this decision in accordance with the "Modification" section of the Commission's Enabling Regulations Governing Review of Developments of Regional Impact.

C6(a). Prior to issuance of a Certificate of Compliance, the Applicant shall provide final construction level plans for Phase 2 to Commission staff for review and approval, which plans shall include: Construction BMPs for erosion and sedimentation control and wetland protection; sufficient detail to determine that construction activities minimize or avoid adverse effects on scenic, historic or archaeological resource areas.

C7. All plans and documents required to be submitted as conditions of this decision shall hereby be incorporated into this decision as and when received, reviewed, and approved by Commission staff.

C8. Prior to the issuance of any Certificate of Compliance, the Applicant shall obtain, and provide evidence to the Commission of the same, any licenses, consents, easements or other property rights necessary to construct the Project, including from private property owners, and the Cape Cod National Seashore.

C9. The Applicant shall provide copies to Commission staff of regular water supply reporting filed with DEP including Annual Statistic Reports and consumer confidence reports.

C10. Prior to issuance of a Certificate of Compliance authorizing the commencement of work at District H, the Applicant shall provide Commission staff a copy of the Conservation and Management Permit issued by NHESP, which CMP is to include a final water level monitoring/water withdrawal plan.

C11. The town may not increase pumping rates at District H prior to joint evaluation of water level monitoring data with the Cape Cod Commission and the Mass. Division of Fish and Wildlife, where average annual pumping may be increased if it is determined and agreed that Phase 2 activities have not detrimentally impacted, and will not detrimentally impact, the vernal pool systems.

C12. Prior to issuance of any Certificate of Compliance, the Applicant shall provide Commission staff a copy of any documentation from MHC that archaeologically sensitive sites have been reviewed by MHC and no further survey work is required. If further survey work is required, the Applicant shall provide Commission staff documentation from MHC that such work has been completed and the design has been revised to limit impacts on archaeological resources.

C13. Only propane or similar natural gas shall be used to fuel the proposed emergency power generator at District H.

SEE NEXT PAGE FOR SIGNATURES

SIGNATURES

Executed this 12th day of July 2018.

Harold W Mitchell
Signature

Harold W Mitchell - Chair CC Commission
Print Name and Title

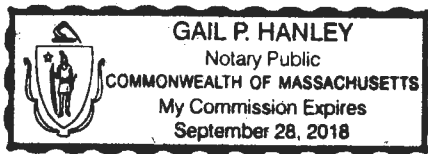
COMMONWEALTH OF MASSACHUSETTS

Barnstable, ss

July 12, 2018

Before me, the undersigned notary public, personally appeared Harold W Mitchell,

in his/her capacity as Chairman of the Cape Cod Commission, whose name is signed on the preceding document, and such person acknowledged to me that he/she signed such document voluntarily for its stated purpose. The identity of such person was proved to me through satisfactory evidence of identification, which was [] photographic identification with signature issued by a federal or state governmental agency, [] oath or affirmation of a credible witness, or [] personal knowledge of the undersigned.



Gail P. Hanley
Notary Public

My Commission Expires: 9-28-18