



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

Charles D. Baker
GOVERNOR

Karyn E. Polito
LIEUTENANT GOVERNOR

Kathleen A. Theoharides
SECRETARY

Tel: (617) 626-1000
Fax: (617) 626-1181
<http://www.mass.gov/eea>

June 5, 2020

CERTIFICATE OF THE SECRETARY OF ENERGY AND ENVIRONMENTAL AFFAIRS
ON THE
ENVIRONMENTAL NOTIFICATION FORM

PROJECT NAME : Surfside Crossing
PROJECT MUNICIPALITY : Nantucket
PROJECT WATERSHED : Islands
EEA NUMBER : 16173
PROJECT PROPONENT : Surfside Crossing, LLC
DATE NOTICED IN MONITOR : March 25, 2020

Pursuant to the Massachusetts Environmental Policy Act (MEPA; M.G. L. c. 30, ss. 61-62I) and Section 11.06 of the MEPA regulations (301 CMR 11.00), I hereby determine that this project **does not require** an Environmental Impact Report (EIR).

While this project may now proceed to permitting and other approvals, I acknowledge the concerns expressed by the Town of Nantucket (Town), residents and community and environmental groups, about the scale and impacts of this project; these commenters have requested that the project be required to file an Environmental Impact Report (EIR). Based on a review of the Environmental Notification Form (ENF), consultation with State Agencies, and review of comment letters, I do not find that a discretionary EIR is warranted. While environmental impacts, including the water and wastewater issues discussed below, should continue to be considered in future approvals and permitting, including through the Department of Housing and Community Development's (DHCD) Housing Appeals Committee (HAC), none of these impacts exceed mandatory EIR thresholds and future permitting agencies have sufficient authority to resolve outstanding issues through their respective processes. I note that the ENF has been supplemented during the MEPA review with additional data and analyses produced by the Proponent, including materials previously submitted to the Town in connection with the Nantucket Zoning Board of Appeals' (ZBA) review of the project.

MEPA review is not a permitting process, nor does it serve as an appeal for local decisions. It does not pass judgment on whether a project is or is not beneficial, or whether a

project can or should receive a particular permit. Rather, the MEPA process requires public disclosure of a project's environmental impacts as well as the measures that the proponent will undertake to avoid, minimize and mitigate these impacts. MEPA review occurs before public agencies act to issue permits and approvals for a proposed project to ensure that those agencies are fully cognizant of the environmental consequences of their actions. I encourage concerned residents to continue to participate in the review of the project by HAC and other permitting agencies to ensure that appropriate mitigation measures, including those identified through the ENF filing, are incorporated into permits and approvals issued for the project.¹

Project Description

As described in the ENF², the project includes the construction of 18 residential buildings with a total of 156 condominium units (285 bedrooms) pursuant to M.G.L. chapter 40B (c.40B).³ Each of the buildings will have three floors, including the basement. Twelve of the residential buildings will have nine units and a gross floor area of approximately 11,235 square feet (sf). Six of the buildings will have eight units and a gross floor area of approximately 12,315 sf. The project also includes a 3,912-square foot (sf) community building with a swimming pool and recreational facilities, 299 parking spaces and roadways and associated infrastructure and utilities. The buildings will be a minimum of 25 ft from the adjacent property line and approximately 1.29 acres of vegetated area around the perimeter of the site will not be disturbed. Water for landscaping needs will be withdrawn from an irrigation well to be constructed at the site.

Project Site

The project site is comprised of four parcels with a combined area of 12.27 acres located in Central Nantucket. It is bordered by South Shore Road to the east and residential uses to the north, west and south. A 30-ft wide easement with two 20-inch sewer force mains runs through the site in a north-south direction. According to the ENF, except for a cleared path to the center of the site from South Shore Road, the site is entirely vegetated with a predominant mix of pitch pine, bayberry and scrub oak. The site is generally flat with a surface elevation of approximately 30 ft NAVD 88. A summary of soil logs included in the ENF indicated that surface soils are loamy sand, with progressively coarser sand with increasing depth. Most of the site is located within the Zone II Wellhead Protection Area of groundwater wells associated with the Town's public drinking water supply.

¹ The Town of Nantucket and other commenters assert that the ENF was not timely filed pursuant to 301 CMR 11.05(2) and should therefore be rejected or an EIR should be required. The purpose of the filing requirement is to ensure sufficient time to complete the MEPA process prior to the taking of State Agency Actions. Here, the HAC process is in the early stages and MEPA review will conclude well before HAC issues its decision.

² During the review period, the Proponent supplemented the ENF with additional analyses and documentation, including materials developed during the project's review by the ZBA. This information was distributed to State and local agencies, commenters and participants in the site visit and the comment period was extended by a total of six weeks. The ENF includes the original filing as supplemented with the additional information provided by the Proponent.

³ The ENF did not identify the proposed number of bedrooms; however based on the Proponent's estimate that the project will generate 31,330 gallons per day of wastewater at a rate of 110 gallons per bedroom per day, the project would have 285 bedrooms.

According to the Natural Heritage and Endangered Species Program (NHESP), the project site is within Priority Habitat of several state-listed species of Lepidoptera (moths and butterflies) as mapped in the Massachusetts Natural Heritage Atlas (14th edition). The NHESP has determined that the project will result in a Take of the Coastal Heathland Cutworm (*Abagrotis nefascia*), a moth listed as a Species of Special Concern. As described in more detail below, NHESP's determination has been appealed to state superior court.

Nantucket Island is a National Historic Landmark, is listed in the State and National Registers of Historic Places and is designated as the Nantucket Historic District (MHC # NAN.C/D). The ENF included a copy of a letter from the Massachusetts Historical Commission (MHC) dated August 23, 2018 in response to an archaeological survey of the site submitted by the Proponent. Based on the results of the survey, which identified limited archaeological resources at the site, MHC determined the project will have "no adverse effect" on the Nantucket Historic District.

Environmental Impacts and Mitigation

Potential environmental impacts of the project include alteration of approximately 12.27 acres of land, addition of 6.48 acres of impervious area, disturbance of approximately 12 acres of rare species habitat, generation of 1,142 average daily trips (adt), use of 31,330 gallons per day (gpd) of water and generation of 31,300 gpd of wastewater.

Measures to avoid, minimize, and mitigate environmental impacts identified in the ENF include protection of up to 20.34 acres of land containing Coastal Heathland Cutworm habitat and/or funding to support rare species protection; avoiding tree clearing during June and July of any year to minimize potential impacts to the Northern Long-eared Bat (*Myotis septentrionalis*); construction of a stormwater management system that will meet the requirements of the Massachusetts Stormwater Management Standards (SMS); implementation of a Stormwater Pollution Prevention Plan (SWPPP) to minimize water quality impacts during the construction period; and provision of pedestrian and bicycle facilities.

Permitting and Jurisdiction

This project is subject to MEPA review and preparation of an ENF because it requires a State Agency Action and meets or exceeds the following environmental review thresholds: 301 CME 11.03(1)(b)(2), creation of five or more acres of impervious area; 301 CMR 11.03(2)(b)(2), greater than two acres of disturbance of designated priority habitat that results in a take of a state-listed endangered or threatened species or species of special concern; and 301 CMR 11.03(6)(b)(14), generation of 1,000 or more New adt on roadways providing access to a single location and construction of 150 or more New parking spaces at a single location. The project requires a Conservation and Management Permit from NHESP pursuant to the Massachusetts Endangered Species Act (MESA) and a Comprehensive Permit from the HAC pursuant to c. 40B. It requires a National Pollutant Discharge Elimination System (NPDES) Construction General Permit from the U.S. Environmental Protection Agency (EPA).

MEPA jurisdiction extends to those aspects of the project that are within the subject matter of required or potentially required State Agency Actions and that may cause Damage to

the Environment as defined in the MEPA regulations. In this case, MEPA jurisdiction is functionally equivalent to broad, or full scope, jurisdiction pursuant to 301 CMR 11.01 (2)(a)(3) because of the broad subject matter of the HAC review and approval.⁴

Review of the ENF

The ENF included a description of existing and proposed conditions, including preliminary project plans, and an alternatives analysis. It identified the project's environmental impacts and proposed mitigation measures. It included a discussion of rare species impacts and mitigation, a traffic study and analyses of stormwater, water and sewer infrastructure. Much of the information was developed during the ZBA review of project designs proposed by the Proponent and reviewed by the Town's peer review consultants.

Alternatives Analysis

The ENF evaluated three alternatives to the Preferred Alternative, including No Build, Original 156-Unit, 100-Unit and 92-Unit alternatives. The No Build Alternative would not generate any impacts as it would maintain the existing undeveloped conditions of the site. According to the ENF and supplemental information provided by the Proponent, the No Build is not consistent with the project purpose of increasing the Town's supply of affordable housing, a need recognized by the Town in its comment letter.

According to the ENF, all of the development alternatives would include a stormwater management system designed to comply with the SMS. The Original 156-Unit Alternative was proposed to the ZBA in 2018. As described in the ENF, it would include 60 single-family residences and 96 condominium units in six buildings with a combined total of 389 bedrooms. The Original 156-Unit Alternative would alter 12.48 acres of land, add 6.05 acres of impervious area, generate 1,272 adt, construct 266 parking spaces, use 42,790 gpd of water and generate 42,790 gpd of wastewater. It would include 0.95 acres of open spaces, including a 10- to 30-ft wide buffer around the perimeter of the site totaling 0.72 acres.

The 100-Unit Alternative was proposed to the ZBA as a modification of the Original 156-Unit proposal and would include 40 single-family residences and 60 condominiums in five buildings. Impacts associated with this alternative include alteration of 11.92 acres, addition of 5.4 acres of impervious area, construction of 244 parking spaces, 31,350 gpd of water use and generation of 31,350 gpd of wastewater. It would generate fewer adt than the Original 156-Unit Alternative. Approximately 1.64 acres would remain undisturbed within expanded side and rear buffers. The alternative included a community center that would be open to the public.

The Proponent developed the 92-Unit Alternative to a conceptual level at workshop meetings conducted during the ZBA review process. It would include 44 single-family residences, 40 condominium units in five buildings and eight units in four duplex buildings.

⁴ Comments submitted on behalf of the Town assert that the project includes State Financial Assistance in the form of technical assistance provided by MassHousing, including the Project Eligibility Letter. The definition of Financial Assistance in the MEPA regulations does not include technical assistance provided by an Agency. However, given broad scope jurisdiction conferred on this project, the definition of Financial Assistance applied here did not affect the nature or scope of this review.

Eleven single-family residences, 10 condominium units and two duplex units would be designed as affordable units. This alternative would alter 11.41 acres of land, add 5.1 acres of impervious area, construct 230 parking spaces, use 31,020 gpd of water and generate 31,020 gpd of wastewater. Approximately 2.15 acres of the site would be undisturbed. According to the Proponent, the ZBA, after considering the 92-Unit proposal, instead approved a 60-unit development with what the Proponent deems to be economically infeasible conditions. Assuming that the same conditions would apply, the Proponent asserts that the 92-Unit Alternative would be equally infeasible.

According to the ENF, the Original 156-Unit, 100-Unit and 92-Unit alternatives were not permitted by the ZBA. The Preferred Alternative was developed since the ZBA's decision and is the project design included in the Proponent's application submitted to the HAC. According to the ENF, the Preferred Alternative has as many units as the Original 156-Unit Alternative, but it will have fewer bedrooms and therefore generate fewer trips, use less water and generate less wastewater. In addition, the Preferred Alternative will have a larger undisturbed buffer area around the perimeter of the site compared to the Original 156-Unit Alternative. As noted above, the impacts of the Preferred Alternative are similar to the 100-Unit and 92-Unit alternatives with respect to water use and wastewater generation; however, it will add over an acre more of impervious area and includes less undisturbed area (ranging from 0.35 to 0.84 acres) than the 100-Unit and 92-Unit alternatives.

The ZBA issued a Comprehensive Permit on June 13, 2019 that allowed 60 units with a maximum of 206 bedrooms. As noted, this alternative was not reviewed in the ENF as the Proponent believes it is economically infeasible, which is a claim that will be pursued during the HAC appeal process. According to the ENF, both the 100-Unit and 92-Unit alternatives have fewer environmental impacts than the Preferred Alternative, but these alternatives were dismissed based on economic infeasibility. The question of whether a particular density of affordable housing is economically feasible and whether a particular set of conditions would or would not render the development economically infeasible, are central issues to be resolved by HAC. While a lower density has environmental benefits generally, a further evaluation of economic feasibility through the MEPA process has little added value as this issue will be fully adjudicated before the HAC.

Rare Species

The site is mapped as Priority Habitat for several species of Lepidoptera and NHESP has determined that the project will result in a Take of the Coastal Heathland Cutworm. Issuance of a CMP requires that a project avoid and minimize impacts to state-listed species in accordance with the following performance standards: 1) assess alternatives that avoid or minimize temporary and permanent impacts to the state-listed species, (2) demonstrate that an insignificant portion of the local population will be impacted or that no viable alternative exists, and (3) develop and implement a conservation plan that provides a long-term net benefit to the conservation of the local population of the impacted species. The Proponent has proposed to protect up to 20.34 acres of land as open space and habitat for state-listed rare species and/or provide funding for habitat protection, habitat management, conservation research or planning to benefit Coastal Heathland Cutworm. According to NHESP, it is likely that the proposed mitigation will provide a suitable long-term benefit for this species. Additional on-site mitigation measures recommended by NHESP include a minimum 25-ft wide buffer of undisturbed natural

vegetation around the perimeter of the site and incorporation of “Dark Sky” design principles, such as limiting the use of exterior lighting.

Several commenters, including the Town, Nantucket Land Council (NLC) and Nantucket Tipping Point (NTP), assert that the site is likely to contain habitat for the Northern Long-eared Bat, which is categorized as an Endangered species under both MESA and the federal Endangered Species Act. This assertion is based on investigations of the Nantucket population of the species; according to NLC, the project site has not been surveyed because the Proponent has not permitted access to the site.⁵ The site is not mapped as Northern Long-eared Bat habitat by NHESP. The Town and NLC appealed NHESP’s determination that the project would result in a Take of only Coastal Heathland Cutworm, asserting that NHESP erroneously failed to consider impacts to Northern Long-eared Bat or the New England Blazing Star (*Liatris scariosa* var. *novae-angliae*), a plant listed as a Species of Special Concern. The NHESP determination was upheld in a Final Decision issued on December 5, 2019 by the Director of the Division of Fisheries and Wildlife. The Final Decision was appealed to state superior court by NLC on December 26, 2019. The Proponent has committed to avoiding tree clearing during the months of June and July, which is a mitigation measure identified in the federal rules regarding the protection of the Northern Long-eared Bat. Given the Director’s final ruling, which is definitive unless and until reversed by the court, any impacts to the Northern Long-eared Bat and the New England Blazing Star do not trigger the MEPA ENF threshold at 301 CMR 11.03(2)(b)(2), relating to greater than two acres of disturbance of designated priority habitat *that results in a take* of a state-listed endangered or threatened species or species of special concern.

Traffic and Transportation

The ENF included a transportation analysis prepared for the Comprehensive Permit application submitted to the ZBA. The analysis described existing and future transportation conditions in the vicinity of the project site. A multi-use path is located on the east side of South Shore Road and connects to paths along Surfside Road and Fairgrounds Road north of the site. Crosswalks are present at this intersection to facilitate crossing of the roads by pedestrians and bicyclists using the paths. Two bus routes operated by the Nantucket Regional Transit Authority have stops at the intersection of Surfside Road at South Shore Road and Fairgrounds Road. The bus routes provide service between Washington Street in downtown Nantucket and Surfside Beach on the south coast of the island.

The project’s trip generation was based on trip rates published in the Institute of Transportation Engineers’ (ITE) *Trip Generation Handbook, 10th Edition*. Based upon ITE land use code (LUC) 220 (Low-Rise Multifamily Housing), the project will generate 1,142 adt, including 72 trips in the weekday morning peak period and 87 trips in the weekday evening peak period. The unadjusted adt is under the MEPA ENF threshold of 2,000 adt at 301 CMR 11.03(6)(b)(13), but exceeds the ENF threshold of 1,000 adt with over 150 parking spaces at 301 CMR 11.03(6)(b)(14).

Traffic Operations

⁵ See Bat and Plant Study memo dated September 21, 2018 by Avalon Consulting. Accessed on June 2, 2020 on the Town’s web site at: <https://www.nantucket-ma.gov/DocumentCenter/View/22742/Bat-and-Plant-Study-of-Proposed-Surfside-Crossing-Development>

The ENF analyzed traffic operations at the unsignalized intersection Surfside Road at South Shore Road and Fairgrounds Road under 2018 Existing, 2025 No Build and 2025 Build conditions. According to the ENF, this intersection is the only one at which traffic volumes will increase by five percent or more as a result of project-generated trips; a five percent increase in traffic volume is the threshold at which intersections should be analyzed per the EEA/Massachusetts Department of Transportation (MassDOT) *Transportation Impact Assessment (TIA) Guidelines*.

Traffic volume data for the 2018 Existing condition was collected during the AM and PM peak periods on two weekdays in August 2018. According to the ENF, traffic volumes during the month of August are higher than average monthly volumes throughout the rest of the year. The 2025 No Build scenario incorporated a one percent annual growth rate in vehicle trips and additional trips generated by two development projects either planned or approved that may add traffic to the intersection. The 2025 Build condition includes the addition of project-generated trips to the 2025 No Build scenario.

The analysis concluded that under the 2025 Build condition, turning movements at the intersection will experience increased delays but queuing will not increase significantly compared to the 2025 No Build condition. The intersection will continue to operate at a level of service (LOS) of D or better under all scenarios. The LOS reflects the overall peak period operations of an intersection, including traffic speed, delay, and capacity; LOS D reflects an acceptable level of operations. According to the Proponent, a peer review consultant hired by the Town generally concurred with the methods and conclusions of a previous version of the traffic analysis; according to the Proponent, the analysis submitted for MEPA review was updated to incorporate issues identified by the peer review consultant.⁶

According to the Town, a separate transportation study of the Original 156-Unit Alternative was conducted on behalf of the Town that examined the project's impacts on a larger study area with 12 intersections.⁷ The Town's analysis found that under 2025 Build conditions, at least one turning movement operated at LOS E or F at ten intersections in the AM peak period and nine intersections in the PM peak period. However, nearly all of these intersections were also found to operate at LOS E or F under 2025 No Build conditions, indicating the project-generated traffic was not causing a significant change in operations at these intersections. The traffic analysis provided in the ENF included a memo dated November 7, 2018 that indicated the general agreement among traffic engineers representing the Proponent and the Town that project-generated trips are most likely to affect the intersections of Surfside Road at South Shore Road and Fairgrounds Road and Surfside Road at Miacomet Road and Miacomet Drive. The memo outlined a method for determining the proportional impact of the Original 156-Unit Alternative and appropriate mitigation. According to the ENF, the Preferred Alternative will generate fewer trips than the Original 156-Unit Alternative because it has approximately 100 fewer bedrooms and the Proponent does not believe any roadway mitigation is necessary.

⁶ Traffic Peer Review memo dated August 17, 2018 by Tetra Tech. Accessed on June 2, 2020 from the Town's web site at <https://www.nantucket-ma.gov/DocumentCenter/View/22585/Peer-Review-Reports-for-ZBA-PDF>

⁷ Traffic Impact and Access Study dated September 2018 by BETA Group, Inc. Accessed on June 2, 2020 from the Town's web site at <https://www.nantucket-ma.gov/DocumentCenter/View/22750/Traffic-Impact-and-Access-Study-Report>

Transportation Demand Management

According to the ENF, the Proponent will encourage alternate modes of travel by providing pedestrian and bicycle amenities, including a sidewalk on the west side of South Shore Road from the site driveway to Surfside Road, a crosswalk across South Shore Road to the multi-use path and on-site sidewalks and bicycle racks. The sidewalk to Surfside Road will facilitate access to the bus stops at the Surfside Road at Fairgrounds Road intersection and the multi-use path along Surfside Road. I recommend that electric vehicle (EV) charging stations be installed at a minimum of 10 percent of the parking spaces.

According to the Town, zoning requires a minimum of 312 parking spaces for this project. I recommend that the project minimize the number of parking spaces as a means of encouraging the use of alternate modes of travel. Rather than construct all spaces at once, the Proponent should reserve an area that could be paved and converted into parking spaces if necessary.

Wastewater

According to the ENF, the project will generate 31,330 gpd of wastewater based on the Title 5 maximum daily design criteria of 110 gpd per bedroom. Wastewater from the site will be conveyed by the proposed collection system, including a new pump station, to a 12-inch diameter municipal force main in South Shore Road.

The 12-inch force main conveys flow from other parts of the Town to the Surfside Wastewater Treatment Facility (WWTF) via two municipal pump stations. The Town and its peer review consultant have indicated that the additional flow from the project may impact the hydraulic capacity of the two off-site pump stations and force mains; consistent with the Town's 2014 Comprehensive Wastewater Management Plan (CWMP), they recommend that a gravity sewer main be installed in South Shore Road to convey flow to the WWTF.⁸ The construction of the gravity main was a condition of the Comprehensive Permit issued by the ZBA. According to the ENF, construction of the gravity main would be cost-prohibitive for the project. The Proponent has proposed to incorporate measures into the design of the project's wastewater system to minimize impacts to off-site pump stations. These measures include the capacity to store sewage on-site for 24 hours (so that the proposed on-site pump station can convey wastewater to the 12-inch force main during off-peak flow periods) and the use of a pressure gauge and flow meter to monitor flow in the 12-inch force main and inactivate the on-site pump station when other pump stations are operating. The peer review memo indicated, however, that the proposed on-site wastewater system may not mitigate flows to the municipal sewer system as anticipated and identified additional information necessary to evaluate the design of the system.

According to the Proponent, the proposed wastewater collection system and pump station would be owned and maintained by the Town, which will be required to submit an application to

⁸ Surfside Crossing Development Peer Review: Wastewater and Sewer memo dated April 11, 2019 by Weston & Sampson. Accessed on June 2, 2020 from the Town's web site at: <https://www.nantucket-ma.gov/DocumentCenter/View/24247/Wastewater-and-Sewer-Peer-Review-by-Weston-and-Sampson-April-11-2019>

MassDEP for plan approval of these modifications to the municipal wastewater treatment system. The application would need to include information to be prepared by the Proponent, including the detailed plans of the proposed on-site infrastructure and analyses of its potential effects on the rest of the Town's wastewater system as discussed in the peer review consultant's memo. According to MassDEP, the application will be required to address the hydraulic capacity concerns identified by the Town's peer review consultant. The Proponent should ensure that the design of the project and construction practices will not impact the force mains located within the easement on the site such that the lines could rupture and cause surface and groundwater quality impacts. The specific designs of on-site mitigation measures should be further described and analyzed during the MassDEP approval process, and considered during the HAC adjudication regarding the reasonableness of conditions to be imposed on this affordable housing development.

According to the Proponent, the WWTF has adequate capacity to treat wastewater flows from the project because the groundwater discharge permit limit is 4.0 million gpd (mgd) and the average daily flow during the summer months does not exceed 2.4 mgd. The conclusions of one of the Town's peer review consultants appears to support this conclusion.⁹ However, comments from MassDEP indicate that some of the available capacity of the WWTF may be committed to anticipated flow from future connections to currently unsewered areas that are necessary for the Town to comply with the Total Maximum Daily Loads (TMDLs) established for Nitrogen; the use of capacity at the WWTF to accommodate new development on Nantucket could require the Town to implement other measures to address water quality issues. Any additional flow proposed to be directed to the WWTF, including wastewater generated by this project, should be evaluated in the context of water quality goals established by the Town and MassDEP. This issue should continue to be considered as part of future permitting and approvals for this project.

Water Supply

According to the ENF, the project will use 31,330 gpd of water that will be supplied by the Wannacomet Water Company (WWC). Comments from MassDEP indicate that the WWC has exceeded its permitted water withdrawal volume of 1.68 mgd over the last few years. The WWC has submitted an application for a new Water Management Act (WMA) permit to increase the withdrawal to up to 2.31 mgd that is under review by MassDEP. According to the Town's peer review consultant, the WWC's capacity to reliably meet peak day demand across its entire system in the future may require supply capacity improvements based on the continued development of Nantucket.¹⁰ However, the analysis indicated that the proposed increase in withdrawal permit limits will accommodate the project and other development in the Town. Several commenters noted that the capacity of the drinking water system has decreased since the issue was analyzed during the ZBA process. Future permitting and approvals should consider the status of the WWC's capacity to accommodate this project and other development on Nantucket.

⁹ Hydrogeologic Assessment of Proposed Surfside Crossing Development dated September 19, 2018 by Bristol Engineering Advisors, Inc. Accessed on June 2, 2020 from the Town's web site at: <https://www.nantucket-ma.gov/DocumentCenter/View/22738/Hydrogeologic-Assessment-of-Proposed-Surfside-Crossing-Development>

¹⁰ "Surfside Crossing" Peer Review of Water Supply Issues memo dated August 20, 2018 by Haley and Ward, Inc. Accessed on June 2, 2020 from the Town's web site at: <https://www.nantucket-ma.gov/DocumentCenter/View/22585/Peer-Review-Reports-for-ZBA-PDF>

The project includes installation of a well for irrigation. If the well is constructed and operated, its use should be restricted when the WWC's nonessential water use restriction is triggered. I encourage the Proponent to meet its irrigation needs through the use of rainwater or graywater rather than a new well. The Proponent should also implement water conservation measures, such as using drought-resistant, native plants for landscaping and installing low-flow plumbing fixtures in the residential units.

Several commenters noted that the location of the site within a Zone II could result in impacts to the drinking water aquifer. MassDEP's Drinking Water regulations identify prohibited uses within a Zone II at 310 CMR 22.21(2)(a) and (b). Examples of prohibited uses include landfills, junkyards, petroleum bulk stations and terminals and generators of hazardous waste. Other uses, such as housing, are allowed but must conform to performance standards intended to protect groundwater quality. The performance standards address the storage of septage and other materials that could affect groundwater; prohibit excavation within the Zone II to a depth such that there would be less than four feet of soil above the historical high groundwater table elevation unless the material is redeposited within 45 days; and require projects adding significant impervious area to recharge groundwater in a manner that will not result in degradation of groundwater. The ENF did not address the project's compliance with these standards. During future permitting and approval processes, the Proponent should commit to designing any wastewater storage facilities in accordance with the Drinking Water regulations. The ENF plans included soil logs that indicated that groundwater was encountered at a depth of 15.3 ft. Any excavation of the site must maintain a cover of at least four feet over the historical high groundwater elevation or achieve that amount of cover within 45 days. As discussed below, the Proponent has asserted that the proposed stormwater management system will achieve SMS requirements for projects in a Zone II; this should be confirmed during the permitting process.

Stormwater

According to the ENF, the project will include the construction of a stormwater management system that meets the SMS. The design of the stormwater management system includes Best Management Practices (BMPs) such as deep-sump, hooded catch basins, water quality chambers and nine subsurface infiltration systems. Roof runoff will be directed to separate infiltration systems. The ENF included plans showing the location and details of the drainage system and tables listing dimensions and elevations of system components, but did not provide supporting calculations. The SMS specify additional water quality requirements for stormwater management systems in a Zone II. In addition to removing 80 percent of the Total Suspended Solids (TSS) in runoff prior to discharge, the system must be designed to treat a water quality volume equal to one inch times the impervious area and include BMPs to remove 44 percent of TSS in runoff prior to discharge into the infiltration system. During future permitting and approval processes, the Proponent should demonstrate, with supporting calculations and other data, that the stormwater management system will meet SMS requirements.

Climate Change

Governor Baker's Executive Order 569: Establishing an Integrated Climate Change Strategy for the Commonwealth (EO 569; the Order) was issued on September 16, 2016. The

Order recognizes the serious threat presented by climate change and directs Executive Branch agencies to develop and implement an integrated strategy that leverages state resources to combat climate change and prepare for its impacts. The Order seeks to ensure that Massachusetts will meet greenhouse gas (GHG) emissions reduction limits established under the Global Warming Solution Act of 2008 (GWSA) and will work to prepare state government and cities and towns for the impacts of climate change. I note that the MEPA statute directs all State Agencies to consider reasonably foreseeable climate change impacts, including additional greenhouse gas emissions, and effects, such as predicted sea level rise, when issuing permits, licenses and other administrative approvals and decisions. M.G.L. c. 30, § 61.

Adaptation and Resiliency

I encourage the Proponent to consider the reasonably foreseeable climate change impacts affecting the site and incorporate measures into the design of the project to increase its resiliency.

The region's climate is expected to experience higher temperatures and more frequent and intense storms. The Northeast Climate Science Center at the University of Massachusetts at Amherst has developed projections of changes in temperature, precipitation and sea level rise for Massachusetts. This data is available through the Climate Change Clearinghouse for the Commonwealth at www.resilientMA.org. By the end of the century, the average annual temperature on Nantucket is projected to rise by 3.2 to 9.2 degrees Fahrenheit (F), including an increase in the number of days with temperatures over 90 F from 1 to up to 17 days compared to the 1971-2000 baseline period. During the same time span, the average annual precipitation is projected to increase by 0.1 to 5.8 inches.

I encourage the Proponent to consult the data available on the [resilientMA.org](http://www.resilientMA.org) website to develop climate change scenarios for the site and identify potential adaptation measures. EEA's *Climate Change Adaptation Report*¹¹ (September 2011) and the Town's *Natural Hazard Mitigation Plan*¹² (adopted March 8, 2019) provide additional resources to assist in this analysis. The Town is a participant in the Commonwealth's Municipal Vulnerability Preparedness (MVP) program. The MVP program is a community-driven process to define natural and climate-related hazards, identify existing and future vulnerabilities and strengths of infrastructure, environmental resources and vulnerable populations, and develop, prioritize and implement specific actions the Town can take to reduce risk and build resilience. The Proponent should consult with the Town regarding the findings of its community resilience workshops, including priority hazards, vulnerabilities, strengths, and actions.

Site elements that could be designed to minimize impacts associated more frequent and intense storms and extreme heat waves include:

- Ecosystem-based adaptation measures to reduce heat island effect and mitigate stormwater runoff, such as integration of tree canopy cover, rain gardens, and low impact development (LID) stormwater management techniques;

¹¹ Available online at <http://www.mass.gov/eea/docs/eea/energy/cca/eea-climate-adaptation-report.pdf>

¹² Available online at <https://nantucket-ma.gov/DocumentCenter/View/29051/Town-of-Nantucket-Natural-Hazard-Mitigation-Plan>

- Stormwater management system design that will accommodate rainfall under projected climate conditions;
- Use of on-site renewable energy systems may provide added resiliency during periods of power loss during storms;
- Protection of emergency generator fuel supplies from effects of extreme weather and flood proofing;
- Expansion of the size of emergency generators to allow for select common areas and other emergency and life safety systems to remain operational for a period of time beyond code requirements, specifically in residential buildings; and
- Construction of residential buildings to Passivehouse standards.

Greenhouse Gas Emissions (GHG)

While this project does not exceed the thresholds for application of MEPA's Greenhouse Gas (GHG) Policy and Protocol, it does represent a new residential development that will add to GHG emissions from the building sector. I strongly encourage the Proponent to voluntarily undertake measures to minimize the GHG emissions of the project by incorporating energy conservation measures into the project design. Energy efficiency measures may also reduce the heating and cooling costs for the future residents of the homes. Measures that may be suitable for the project include:

- Designing residential buildings to achieve Passivehouse standards;
- Roof and wall insulation with high R-values and energy efficient windows;
- Electrification of space and water heating, including the use of air-source or ground source heat pumps;
- Use of energy efficient appliances (i.e., Energy Star);
- Installation of low-flow plumbing fixtures;
- Use of LED lighting; and,
- Rooftop solar photovoltaic (PV) systems.

I encourage the Proponent to consult the comment letter from the Department of Energy Resources (DOER), which provides details on recommended designs, potential reductions in in GHG emissions, Building Code requirements and Alternative Energy Credits (AEC) and other financial incentives that may be available to implement energy-efficiency measures and installation of solar PV systems.

Construction Period

All construction and demolition activities should be managed in accordance with applicable MassDEP's regulations regarding Air Pollution Control (310 CMR 7.01, 7.09-7.10), and Solid Waste Facilities (310 CMR 16.00 and 310 CMR 19.00, including the waste ban provision at 310 CMR 19.017). The project should include measures to reduce construction period impacts (e.g., noise, dust, odor, solid waste management) and emissions of air pollutants from equipment, including anti-idling measures in accordance with the Air Quality regulations (310 CMR 7.11). I encourage the Proponent to require that its contractors use construction equipment with engines manufactured to Tier 4 federal emission standards, or select project contractors that have installed retrofit emissions control devices or vehicles that use alternative

fuels to reduce emissions of volatile organic compounds (VOCs), carbon monoxide (CO) and particulate matter (PM) from diesel-powered equipment. Off-road vehicles are required to use ultra-low sulfur diesel fuel (ULSD). If oil and/or hazardous materials are found during construction, the Proponent should notify MassDEP in accordance with the Massachusetts Contingency Plan (310 CMR 40.00). All construction activities should be undertaken in compliance with the conditions of all State and local permits. I encourage the Proponent to reuse or recycle construction and demolition (C&D) debris to the maximum extent.

Conclusion

The ENF has adequately described and analyzed the project and its alternatives, and assessed its potential environmental impacts and mitigation measures. Based on review of the ENF and comments received on it, and in consultation with State Agencies, I have determined that an EIR is not required. Outstanding issues may be addressed during permitting and approvals, including the HAC process. If the project undergoes material revisions during the permitting process, the Proponent should consult with the MEPA office to determine whether any additional MEPA review is required.



June 5, 2020

Date

Kathleen A. Theoharides

Comments received:

04/05/2020	Charles and Maria Davis
04/07/2020	Bruce W. Perry
04/13/2020	Nantucket Land Council
04/20/2020	Tamara Grenier
04/26/2020	Gregg Bell
04/29/2020	Gretchen Gigi Callahan
04/20/2020	Jane Schnitzer
05/05/2020	Town of Nantucket
05/11/2020	Michele Perry
05/11/2020	Linda DeRensis
05/11/2020	Massachusetts Department of Environmental Protection (MassDEP)/Southeast Regional Office (SERO)
05/11/2020	Nantucket Tipping Point with 32 comment letters appended
05/12/2020	Tucker Holland, Town of Nantucket
05/12/2020	Natural Heritage and Endangered Species Program (NHESP)
05/12/2020	Bruce Perry
05/12/2020	Surfside Crossing, LLC
05/13/2020	Lucy Leske
05/13/2020	Jim Barros
05/13/2020	Meghan Perry

05/15/2020 Bruce Perry
05/18/2020 Robert S. Tulloch
05/18/2020 Carlos and Fulya Castrello
05/19/2020 Tamara Grenier
05/19/2020 Judson Henderson
05/19/2020 Carolyn Walsh
05/19/2020 Alexander Boyce
05/19/2020 Linda DeRensis
05/19/2020 Nancy Gillespie
05/19/2020 Joseph T. Grause, Jr.
05/19/2020 Beth Ann Meehan
05/24/2020 Virna Gonzalez
05/25/2020 Michele Perry
05/26/2020 Nantucket Tipping Point
05/26/2020 Sachem's Path Homeowners
05/27/2020 Tamara Grenier
06/04/2020 Department of Energy Resources (DOER)

KAT/AJS/ajs