COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF ENERGY & ENVIRONMENTAL AFFAIRS
DEPARTMENT OF ENVIRONMENTAL PROTECTION
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THE OFFICE OF APPEALS AND DISPUTE RESOLUTION

July 24, 2018

In the Matter of
Three Bays Preservation, Inc. and
Massachusetts Audubon Society

OADR Docket No. 2017-020
Osterville, MA

RECOMMENDED FINAL DECISION

INTRODUCTION

Warren L. Wheelwright and a Barnstable Citizen's Group (collectively, "Petitioners") initiated this appeal to challenge the Combined Permit concerning a project for the Cotuit Bay inlet and Dead Neck and Sampson's Island (collectively, the "Island"), in Osterville, Massachusetts, to conduct work under the Waterways Statute and Regulations (G.L. c. 91 and 310 CMR 9.00) and the 401 Water Quality Certification ("WQC") regulations, 314 CMR 9.00. The project involves maintenance dredging at the west end of the Island and using the dredged material as beach nourishment at the eastern end of the Island ("the Project"). The Combined Permit was issued by the Massachusetts Department of Environmental Protection ("DEP") to Three Bays Preservation, Inc. and Massachusetts Audubon Society (collectively, "Applicants"). The Applicants each own a portion of the Island, which at one time was two separate islands. The Town of Barnstable was a Participant in favor of the Project, pursuant to 310 CMR 1.01(7)(e).

After conducting an adjudicatory hearing and thoroughly reviewing the administrative record, I recommend that the DEP Commissioner issue a Final Decision affirming the Combined Permit. While the Petitioners survived motions to dismiss and for summary decision with respect to standing, their failure to comply with the regulatory requirement that they submit comments during the public comment period has proven in the end to be fatal to their standing. Although the Petitioners assert that they did not submit comments during the comment period because they detrimentally relied on DEP representations, a preponderance of the evidence shows that they may not assert estoppel against DEP to excuse their failure to file comments. With respect to the merits of the project, a preponderance of the evidence demonstrates that the Project satisfies all applicable performance standards and other requirements.

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EVIDENCE

Evidence was submitted in the form of pre-filed testimony and exhibits. The parties had the opportunity to cross examine witnesses in the two and one-half day adjudicatory hearing. Testimony was submitted from the following witnesses on behalf of the Applicants:

1. John S. Ramsey. Ramsey is a co-founder of and a Principal Coastal Engineer with Applied Coastal Research and Engineering, Inc., which provides research and consulting services for problems in the marine environment. Ramsey holds a B.S. degree in civil and environmental engineering and a M.C.E. in civil (coastal) engineering. He is a Registered Engineer (Civil) in Massachusetts. Ramsey has worked with the Applicants on the project since 2012. He has also participated in monitoring the Dead Neck beach nourishment program since 1992. Coastal Engineering has performed annual surveys associated with Dead Neck since 2002.

2. John C. O'Dea. O'Dea is owner and president of Sullivan Engineering and Consulting, Inc., which provides engineering and consulting services in land surveying, civil engineering, marine and coastal engineering, environmental permitting, and construction support. He received a B.S. in civil engineering. He is a Registered Professional Engineer, Certified Soil Evaluator, Massachusetts Certified Construction Supervisor, and a member of the ASCE (American Society of Civil Engineers). Sullivan Engineering began working on the prior island nourishment projects in 1998, and O'Dea began working on it in about 2000.

3. Lester B. Smith, Jr. Smith is a founding principal with Epsilon Associates, Inc., an environmental consulting firm that provides environmental engineering, science and consulting services, specializing in securing environmental approvals for real estate, energy, and infrastructure projects for public and private sector clients. Smith received a B.S. in geology and an M.S. in oceanography (geological), and he did doctoral studies in geography (coastal geomorphology). He is a coastal geologist with more than 40 years of experience, including work in government and private sectors.

4. Katherine C. Parsons. Parsons holds a Ph.D. in ecology. She has 35 years of experience in coastal waterbird research, management and policy in the northeast United States. Since 2011, she has directed Mass Audubon's Coastal Waterbird Program, which works with coastal communities throughout Massachusetts to protect rare birds and their habitats through research, management, and advocacy.

5. Pamela L. Neubert. Neubert is Associate Vice President and Director of Marine Science at AECOM. Neubert is a benthic marine ecologist and invertebrate taxonomist, with expertise in ecological impact assessment of marine nearshore and offshore environments. Neubert has over 20 years of experience designing and implementing field programs to determine how anthropogenic, environmental

influences such as dredging, contamination, wastewater, and shoreline development affect biodiversity including shellfish, benthic infauna, and submerged aquatic vegetation. She holds a B.A. in biology and secondary education and an M.S. and Ph.D. in marine science.

6. Zenas Crocker. Crocker is Executive Director of Three Bays Preservation, Inc. He holds a B.A. degree in an unspecified area of concentration. He worked for more than 30 years in the financial services industry in Boston specializing in institutional equities. He grew up in Barnstable and has been a lifelong fisherman and sailor on Nantucket Sound.

The Petitioners provided testimony from the following witnesses:

1. Stanley M. Humphries. Humphries is a Senior Coastal Geologist with LEC Environmental Consultants, Inc. His technical expertise is in the areas of coastal geomorphology and flood hazard mitigation. He received B.S. and M.S. degrees in geology, with a focus on coastal fluvial geomorphology. He has approximately 40 years of experience in coastal zone science, planning, and regulatory compliance. Humphries has performed a significant amount of work relative to barrier beaches, including the Island.

2. Duncan Fitzgerald. Fitzgerald has served as a professor in the Earth and Environmental Department at Boston University since 1977 and he also works as a consultant, specializing in sedimentology, marine geology, coastal processes, and geomorphology. He holds an M.S. degree in geological oceanography and a Ph.D in geology.

3. C. Diane Boretos. Boretos is a professional wetlands scientist, serving as the founder and principal wetland biologist for Call of the Wild Consulting and Environmental Services. She has been actively working in the field of wetland and wildlife biology since 1981, having previously served as a conservation commissioner of Falmouth. She previously worked for DEP from 1988 to 1994. She is a founding member of the Massachusetts Barrier Beach Task Force and a contributor to the report titled Guidelines for Barrier Beach Management in Massachusetts (1994). Boretos holds a B.S. in natural resource studies.

4. Warren L. Wheelwright, Jr. Wheelwright has been actively sailing, swimming, and bird watching on the Island and the surrounding area for over 70 years. As a child, his family owned property in Cotuit, and he has owned property in Cotuit for over 30 years. He holds a B.S. degree in biology.

DEP provided testimony from the following witnesses:

1. David E. Hill. Hill has been employed with DEP since 1998. He has worked primarily in the Waterways program, reviewing applications for G.L. c. 91 licenses.

He holds a B.S. degree in natural resource conservation. Before working with DEP, he worked for 18 years as a land surveyor and wetland scientist.

2. James Mahala. Mahala has been employed in the Wetlands Division of DEP since 1986, working as an environmental analyst. In 2015, he was appointed to serve as Section Chief of the Wetlands and Waterways Program in DEP's Southeast Regional Office. Mahala has substantial experience relative to coastal geology, especially with respect to Cape Cod. He holds a B.S. degree in geology and an M.S. degree in coastal geology.

3. Derek S. Standish. Standish has been employed by DEP as an Environmental Analyst II since August 1997, an Environmental Analyst III since March 2001, and as an Environmental Analyst IV since November 2005. His duties for the Department include the review of 401 Water Quality Certification applications and supporting materials for both dredge and fill projects. Standish holds a B.S. degree in biology.

4. Ken Chin. Chin was employed for many years with DEP, mostly recently as its 401 Dredging Permitter. No other information was provided concerning his background. He retired from his employment with DEP on December 8, 2017.

BACKGROUND

The Island. The Island is approximately 1.7 miles long, west to east. Its width ranges from about 1,000 feet at its center, to approximately 200 feet at each end. The western third of the Island is known as Sampson's Island, and it is owned by Mass Audubon, having received it as a donation in 1954. The remainder of the Island, known as Dead Neck, has been owned since 2004 by Three Bays.

The Island is uninhabited, and since 1954 it has been managed as a bird sanctuary. Mass Audubon has entered agreements with Three Bays to maintain and enhance bird habitat throughout the Island. Parsons PFT[1], p. 2. The Project includes provisions for the restoration and management of beach and dune areas to serve as habitat for bird species that are threatened or of special concern, including Piping Plovers, Least Terns, and Common Terns. Parsons PFT, p. 3.

[1] "PFT" is the acronym for pre-filed testimony.

The Island is a barrier island with a barrier beach along its entire length. Barrier beach is a protected Wetlands Resource Area; it is defined as "a low-lying strip of land generally consisting of coastal beaches and coastal dunes extending roughly parallel to the trend of the coast. It is separated from the mainland by a narrow body of fresh, brackish or saline water or a marsh system. A barrier beach may be joined to the mainland at one or both ends." 310 CMR 10.29(2). "Barrier beaches are significant to storm damage prevention and flood control and are likely to be significant to the protection of marine fisheries and wildlife habitat and, where there are shellfish, the protection of land containing shellfish. . . . Barrier beaches protect landward areas because they provide a buffer to storm waves and to sea levels elevated by storms. Barrier beaches protect from wave action such highly productive wetlands as salt marshes, estuaries, lagoons, salt ponds and fresh water marshes and ponds, which are in turn important to marine fisheries and protection of wildlife habitat." 310 CMR 10.29(1).

The Island serves as a barrier island to Osterville Grand Island to the north and the three contiguous bays that surround Osterville Grand Island on its west, north, and east flanks by Cotuit Bay, North Bay, and West Bay, respectively. To the immediate west of the island is a navigation channel, known as the Cotuit inlet, leading into Cotuit Bay between the Cotuit mainland to the west and the tip of Sampson's Island to the east. To the immediate east of the Island is a navigation channel armored by jetties that leads into West Bay, known as the Osterville inlet. To the immediate north between the Osterville Grand Island and the Island is the Seapuit River, which is approximately 300 feet wide, running between the Island and Osterville Grand Island.

Cotuit inlet and Osterville inlet are tidal inlets that form the west and east borders of the Island, and they connect Nantucket Sound to Cotuit Bay and West Bay, respectively. The rise

and fall of the tides at these inlets produce strong currents, which help to remove sand deposited into the inlets by wave-generated sediment transport along the adjacent beaches and by flood-tidal currents. Tidal exchange at Cotuit and Osterville inlets also helps to reduce nutrient build-up within the bays. Nutrient build up, otherwise known as eutrophication, generally involves increases in levels of nitrogen and phosphorous, which act like fertilizer causing excessive algae growth. That can lead to more serious problems such as low levels of oxygen dissolved in the water, less light for indigenous plant growth, and diminished aquatic animal populations.

The Island is one of the few true barrier islands in Massachusetts. Given the advent of accelerating sea-level rise and increased storm magnitude, preserving coastal barriers will become a dominant interest of coastal communities. Fitzgerald PFT, ¶ 6.

Accretion at the West End. The spit at the western end of the Island has a history of growing westward, pinching and reducing the size of the Cotuit inlet. Ramsey PFT, pp. 6-8, Ex. 5. Since the maintenance dredging in 1967 when the tip of the spit was removed, the spit elongated by approximately 500 feet, causing a 64% reduction in the channel width, as of 2011. Ramsey PFT, p. 6, Ex. 5. The average annual increase in the surface area of the accreting portion of the Island was approximately 4,100 square feet per year between 1989 and 2010 and approximately 6,900 square feet per year from 2010 to 2017. Ramsey PFT, p. 11. Surveys done in 2002 and 2008 demonstrated up to 8 feet of accretion along the western tip of the Island's spit. Ramsey PFT, p. 8, Ex. 6-7.

As the spit grows, the main channel of the Cotuit inlet has migrated west towards the Cotuit mainland shoreline. The narrowing of the inlet increases the tidal current velocity through the inlet. The movement of the channel and the consequential increased velocity of the current's erosional forces have scoured the Cotuit mainland opposite the spit. Ramsey PFT, p. 8, Ex. 6-7.

There has been approximately 5 feet of erosion along the section of the channel closest to the Cotuit mainland between 2002 and 2008. Ramsey PFT, p. 8, Ex. 6-7. That and the inlet migration to the west have caused the historically stable shoreline on the west side of the channel in the area south of Riley's Beach to erode between 2001 and 2011. Ramsey PFT, pp. 7, 8, Ex. 4, Figure 6; Ex. 8 & 9. The Cotuit mainland near the inlet experiences less coastal erosion when the distance between Sampson's Island and the mainland shoreline are the greatest. Id.

In addition to the narrowing of the Cotuit inlet causing erosion, it has also caused a decrease in tidal exchange for the Three Bays estuarine system through the inlet. Ramsey PFT, p. 7; Transcript 1[2], p. 207, 210. That may contribute to eutrophication, negatively impacting the water quality of Cotuit Bay. The Project will help to improve tidal exchange and improve water quality. Transcript 1, p. 207, 210.

There have been three major maintenance dredging events for the Cotuit inlet. Ramsey PFT, p. 7. The channel through the inlet was dredged more than a century ago and subsequent dredging was done in 1937, 1947, and 1967, pursuant to various permits authorizing such dredging. The Project's proposed dredging component involves approximately 3.3 acres of the Resource Area Land Under Ocean ("LUO"). See 310 CMR 10.25 (LUO performance standards). The proposed dredging footprint extends to the eastern limit of the navigation channel dredged in 1967 pursuant to DPW contract 2590. Ramsey PFT, p. 13, Ex. 14. The 1967 dredge included removal of a 260 foot long spit that had encroached into the navigation channel to form a land mass above mean high tide. Ramsey PFT, p. 14. Dredging portions of the Cotuit inlet occurred at least in 1934, 1936, 1947, 1954, 1967, 2000, 2006, and 2011. Ramsey PFT, p. 13.

[2] "Transcript" refers to the transcript of the adjudicatory hearing, followed by the number that corresponds to the 1st, 2nd, or 3rd day of the hearing.

The Applicants maintain that as the Cotuit inlet has narrowed, moved westward, and increased in velocity it has become dangerous to navigate. Three Bays contends the project is needed to reestablish safe navigation and recreation in the Cotuit Bay Inlet, in addition to the other stated purposes. Three Bays asserts that the boating regulations at 323 CMR 2.00 contain "limitations on proximity between boats and other users (swimmers) that have become impossible to meet with the channel being as narrow as it is now." Crocker PFT. Wheelwright contends that the channel is not unsafe and that there have been no swimmer or boating accidents in the last five years. Wheelwright Rebuttal PFT, p. 4.

Erosion Along the South and East End of The Island. The eastern end of the Island, known as Dead Neck, continues to erode and not gain sediment as a consequence of jetties that were constructed at the Osterville inlet when it was created in approximately 1900. Ramsey PFT, pp. 6, 12-13. The eastern end of the Island is thus deprived of a natural steady source of sediment necessary to maintain the barrier beach's southern and eastern shorelines. Id. The present condition of the beach is approaching the 1999 pre-nourishment conditions when emergency nourishment delivered by helicopter was required to prevent a permanent breach from forming through the barrier beach. Id. Major beach nourishment projects along the eastern end of the Island have been performed twice in the past 33 years. Ramsey PFT, p. 15.

In 1999-2000, the Applicants nourished Dead Neck with 212,400 cubic yards of material to restore bird habitat and stabilize that part of the barrier island system. Ramsey PFT, p. 6. Over time the nourished material eroded and was carried west via littoral transport to the west end of the Island, resulting in growth of the spit and shoaling of the Cotuit inlet. Ramsey PFT, p. 6.

Wildlife Habitat. The Coastal Waterbird Program was started by Mass Audubon in 1986, in response to declining populations of Piping Plovers and Terns in Massachusetts. The program is designed to protect and enhance nesting and foraging areas throughout the state. The program has "contributed to the increase of the number of Piping Plovers nesting in Massachusetts from 139 pairs in 1986 to 649 pairs in 2016. According to the U.S. Fish and Wildlife Service (USFWS), this is one-third of the federally-threatened Atlantic Coast population." Parsons PFT, p. 3. In 2017, the Coastal Waterbird Program protected threatened coastal birds and their habitats through management and education at 194 beaches statewide. Parsons PFT, p. 3, Ex. KP-2.

The primary wildlife conservation value of the Island is that it provides protection of wildlife habitat and nesting habitat for coastal water birds of high conservation priority as well as barrier beach habitat. Parsons PFT, p. 3. These include state-listed coastal water birds: Piping Plovers (Charadrius melodus), Least Terns (Sternula antillarum), Common Terns (Sterna hirundo), and American Oystercatchers (Haematopus palliates), with the last listed being listed as a Species of High Concern in the U.S. Shorebird Conservation Plan, and is identified as a Bird of Conservation Concern by the USFWS. Parsons PFT, p. 3.

In addition, in the past, the Island supported significant numbers of breeding Roseate Terns, which is a federally-listed endangered species (e.g., 27 nesting pairs in 1989). The number of Roseate Terns breeding in the southeastern coast of Massachusetts has begun to increase again. Mass Audubon projects that the restoration of beach habitat on the Island through this Project will increase the likelihood of Roseate Terns returning to the Island for breeding. Increasing breeding locations through restoration of former nesting sites is a high priority of the USFWS Recovery Plan for Roseate Tern. Parsons PFT, p. 4.

American Oystercatchers nested on the Island from 2007-2011, and a pair was present in 2014 but did not nest. According to Mass Audubon, the large renourishment project that took place on the Island from 1999-2000 produced new, suitable nesting habitat for Oystercatchers by the mid-2000s as had occurred for plovers. Suitable Oystercatcher nesting habitat eroded away a decade after renourishment, precluding nesting by this species. The statewide Oystercatcher population has been stable at approximately 180 pairs since 2003 despite conservation efforts by agencies and organizations to increase the population. The Project is expected to restore nesting habitat for American Oystercatchers, an important objective of the Applicants' conservation management of the Island. Parsons PFT, p. 4.

The Island also serves as a fall migration staging area for Piping Plovers, Least Terns, Common Terns and sometimes Roseate Terns (Sterna dougallii, federally-listed) as well as many other shorebird species. Its entire area is BioMAP Core Habitat, according to the Natural Heritage and Endangered Species Program of the Massachusetts Division of Fisheries and Wildlife ("NHESP" or "National Heritage"). The Island and surrounding waters are classified as priority habitat for rare and endangered species by NHESP. Parsons PFT, p. 5.

In the 1980s, the number of Plovers nesting on the Island was in the range of 1-3 pairs annually (average 1.5 pairs 1986-1992). The number increased during 1993-1998 (average 3.8 pairs) following a large renourishment project in 1985 and as the statewide population grew in response to increased management efforts. Following the major renourishment project completed by Mass Audubon and Three Bays in 1999, the Island developed one of the largest populations of nesting Piping Plovers of any property monitored by Mass Audubon's Coastal Waterbird Program. There were 26 pairs along 1.7 linear miles of beach at the Island. As erosion diminished the width and profile of these beaches, the number of nesting pairs dropped

significantly in recent years to about 6 nesting pairs. Parsons PFT, p. 5, Ex. KP-8. To remedy this habitat loss, the Project will require that nourishment be redistributed along the south and eastern end of the Island to reestablish suitable nesting and foraging habitat in that area. Parsons PFT, p. 5.

The Combined Permit. On March 20, 2015, the Applicants filed a combined permit application with DEP seeking a Dredging Permit under G.L. c. 91 and a Water Quality Certification under G.L. c. 21 § 27 and Section 401 of the Federal Clean Water Act. The application sought to: (1) dredge flowed tidelands of Cotuit Bay and Nantucket Sound and excavate areas of coastal beach and dune to restore the configuration of Cotuit inlet (last done in 1967); (2) use the dredged and excavated material on the eastern end of the Island for beach and dune nourishment to restore the habitat on the Island for endangered shore birds and prevent storm damage; and (3) implement a habitat and conservation management plan for the long term maintenance of the Island's restored shorebird habitat.

On August 7, 2015, public notice of the application was published in the Barnstable Patriot newspaper, providing the required regulatory notice that DEP was accepting public comments on the c. 91 part of the application until August 22, 2015 and the WQC portion until August 28, 2015. See 310 CMR 9.13(1)5 and 314 CMR 9.05(3)(e). No public comments were received during these periods.

On June 12, 2017, DEP issued a Combined Permit approving the project after finding that it complied with applicable laws. The Combined Permit authorizes: (1) maintenance dredging in flowed tidelands of Cotuit Bay and Nantucket Sound at the western most tip of the Island within the initial dredge area of Cotuit Bay navigation channel established in 1967; (2) using the dredged material for beach nourishment and dune nourishment along the south-facing shore of

the Island to the east end of the Island in order to (a) restore habitat for species of coastal water birds that are threatened or of high conservation priority, including Piping Plovers, Least Terns, Common Terns, and American Oystercatchers and to (b) restore the damage prevention function of the barrier beach at the eastern end of the Island; and (3) implementing long term conservation and management plan approved by NHESP to maintain the restored shorebird habitat areas across the Island.

In addition to the above, the Applicants have articulated the following objectives and benefits for the project: (a) restore navigational access and recreational safety in the entrance to Cotuit Bay between Sampson's Island and Bluff Point on the mainland; (b) provide compatible sand from within the barrier beach system for dune and beach nourishment along the south-facing shore and east end of the Island; (c) increase tidal flushing that will contribute to improvements in water quality and estuarine health in Cotuit Bay; and (d) establish a habitat conservation and management plan that will guide the Applicants' long-term maintenance of the Island's shorebird habitat. Ramsey PFT, p. 4.

The sand dredged from the maintenance dredging of the navigation channel at the Cotuit inlet will be used for nourishment at the eastern end and along the south shore of the Island, a concept known as "back-passing." Ramsey PFT, p. 4. The dredging component of the Project includes removing the tip of the spit that has accreted and encroached into the Cotuit inlet at the west end of the Island. Ramsey PFT, p. 5.

The Project is intended to provide a long-term management plan for sustaining the viability of the Island's barrier beach system that has been adversely affected by anthropogenic structural changes to adjacent shorelines dating back to circa 1900. Ramsey PFT, p. 5. The

anthropogenic changes include jetties at the Osterville inlet that deprive the eastern end of the Island of natural nourishment from littoral drift. Ramsey PFT, p. 13.

The type of proposed back-passing is a barrier island restoration and management technique that is intended to help sustain the barrier island complex without further choking the Cotuit inlet with sand from outside the littoral system. Ramsey PFT, p. 13. It also has the advantage of using compatible sands for nourishment at the eastern end and south facing shore of the Island. In fact, the sands that accreted at the western end of the Island to form the spit were derived primarily from erosion at the east end of the Island and the east-to-west littoral drift that transported these materials. Ramsey PFT, p. 14.

Ramsey testified that the Island is an "integrated barrier beach system of beaches and dunes. From a long-term management perspective, the evaluation of alternatives for maintaining the [Island's] barrier beach system emphasized the difference between introducing a substantial volume of nourishment material from external sources to the system vs. conducting a system-wide closed-loop "back-passing" approach that is critical to the long-term sustainability of this barrier beach resource and the Project objectives described above." Back-passing in this closed loop system is advantageous because it avoids introducing material from external sources that will exacerbate infilling of the Cotuit inlet. Ramsey PFT, p. 13.

The project has been approved under other regulatory regimes that have jurisdiction for other aspects of the project, including the Massachusetts Environmental Policy Act ("MEPA"), G.L. c. 30, §§ 61-62H; Massachusetts Wetlands Protection Act, G.L. c. 131 § 40; Massachusetts Endangered Species Act, G.L. c. 131A; the Massachusetts Office of Coastal Zone Management; and U.S. Army Corps of Engineers with respect to Section 10 of the Rivers and Harbors Act of 1899 and Section 404 of the Federal Clean Water Act.

ISSUES FOR RESOLUTION IN THE APPEAL

1. Whether Wheelwright is aggrieved for purposes of standing?

2. Whether Wheelwright's failure to file comments during the public comment periods should be remedied by estoppel, promissory estoppel, or another equitable doctrine?

3. Whether the project satisfies the standards and criteria set forth in 310 CMR 9.33(1)(b) and 9.33(3)?

4. Whether the project satisfies the standards and criteria set forth in 310 CMR 9.33(1)(c)?

5. Whether the project satisfies the standards and criteria set forth in 314 CMR 9.06(1)?

6. Whether the project satisfies the standards and criteria set forth in 314 CMR 9.06(2)?

7. Whether the project satisfies the standards and criteria set forth in 314 CMR 9.07(1)?

8. Whether the project satisfies the standards and criteria set forth in 314 CMR 9.07(6)?

REGULATORY FRAMEWORK

WQC Regulations. I have adopted the regulatory framework for the WQC component of the Combined Permit that was articulated in Matter of Tennessee Gas Pipeline Company, LLC, Docket No. 2016-020, Recommended Final Decision (March 22, 2017), adopted by Final Decision (March 27, 2017). Under the Massachusetts Clean Waters Act ("MCWA"), G.L. c. 21, §§ 26-53, the Department has the "duty and responsibility … to enhance the quality and value of water resources and to establish a program for prevention, control, and abatement of water pollution." Entergy Nuclear Generation Company v. Department of Environmental Protection, 459 Mass. 319, 323 (2011), citing, G.L.c. 21, § 27. The WQC Regulations at 314 CMR 9.00 "[were] adopted [by the Department] pursuant to … the [MCWA], … and establishes procedures and criteria for the administration of Section 401 of the federal Clean Water Act, 33 USC 1251,

for discharge of dredged or fill material, dredging, and dredged material disposal in waters of the United States within the Commonwealth ...." 314 CMR 9.01(1).

Specifically, the WQC Regulations were adopted by the Department "to carry out its statutory obligations to certify that proposed discharges of dredged or fill material, dredging, and dredged material disposal in waters of the United States within the Commonwealth will comply with the [SWQ Standards at 314 CMR 4.00] and other appropriate requirements of state law." 314 CMR 9.01(3). The WQC Regulations "implemen[t] and supplemen[t] [the SWQ Standards] and is a requirement of state law under [the federal Clean Water Act,] 33 USC 1251." Id. The WQC Regulations implement and supplement the SWQ Standards by:

> protecting the public health and restoring and maintaining the chemical, physical, and biological integrity of the water resources of the Commonwealth by establishing requirements, standards, and procedures for the following:
>
> 1. monitoring and control of activities involving discharges of dredged or fill material, dredging, and dredged material disposal or placement;
> 2. the evaluation of alternatives for dredging, discharges of dredged or fill material, and dredged material disposal or placement; and
> 3. public involvement regarding dredging, discharges of dredged or fill material, and dredged material placement, reuse or disposal.

314 CMR 9.01(3)(a). The WQC Regulations also implement and supplement the SWQ Standards by "establishing a certification program for the Department to persons seeking to discharge dredged or fill material, conduct dredging, and place, reuse or dispose of dredged material." 314 CMR 9.01(3)(b).

Waterways Laws. "Throughout history, the shores of the sea have been recognized as a special form of property of unusual value; and therefore subject to different legal rules from those which apply to inland property." Boston Waterfront Development Corporation v.

Commonwealth, 378 Mass. 629, 631 (1979). Since the Magna Carta, the land below the high water mark has been impressed with public rights designed to protect the free exercise of navigation, fishing, and fowling in tidal waters. Id. at 632; Arno v. Commonwealth, 457 Mass. 434, 449 (2010). Thus, "[a]t common law, private ownership in coastal land extended only as far as mean high water line. Beyond that, ownership was in the Crown [and eventually the Massachusetts Bay Colony, followed by the Commonwealth] but subject to the rights of the public to use the coastal waters for fishing and navigation." Opinion of the Justices, 365 Mass. 681, 684 (1974).

As discussed in great detail in Matter of Boston Boat Basin, the body of law that retains public access rights is generally known as the public trust doctrine. Matter of Boston Boat Basin, Docket No. 2012-008 and 009, Recommended Final Decision (October 18, 2013), Adopted by Final Decision (November 14, 2014). Under the public trust doctrine the Commonwealth holds tidelands in trust for public use. See Boston Waterfront, 378 Mass. at 629; Arno, 457 Mass. at 449. Tidelands generally include flowed tidelands below the high water mark and filled tidelands below the historic high water mark. See 310 CMR 9.02.[3] The traditional uses of tidelands, called water-dependent uses, include fishing, fowling, and navigation. Moot v. Department of Environmental Protection, 448 Mass. 340, 342 (2007); Fafard v. Conservation Comm'n of Barnstable, 432 Mass. 194, 198 (2000). The legislature delegated authority to DEP under Chapter 91 to "preserve and protect" the public's rights in tidelands by allowing only water-dependent uses or another proper public purpose. Moot, 448

[3] Chapter 91, § 1 defines tidelands to include present and former submerged lands and tidal flats lying below the mean high water mark. Flowed tidelands are "present submerged lands and tidal flats which are subject to tidal action." 310 CMR 9.02. Filled tidelands are "former submerged lands and tidal flats which are no longer subject to tidal action due to the presence of fill." 310 CMR 9.02.

Mass. at 342; G.L. c. 91, § 2. See Fafard, 432 Mass. at 200. DEP is not authorized, however, to relinquish public rights; only the legislature may do that, and only under prescribed circumstances in furtherance of its fiduciary role. Moot, 448 Mass. at 352; Opinion of the Justices, 383 Mass. at 905.

The Waterways Regulations (310 CMR 9.00) address tidelands jurisdiction and establish the standards through which DEP may determine that an activity meets the test of serving a proper public purpose. The regulations reflect DEP's interpretation of both Chapter 91 and court cases involving public trust rights. Activities subject to jurisdiction include the construction or placement of structures and the uses of those structures within any geographic areas subject to jurisdiction. See 310 CMR 9.05. Authorization from the DEP is required for these activities. See 310 CMR 9.03(1).[4]

Wetlands Laws. The purpose of the Wetlands Act and the Wetlands Regulations is to protect wetlands and to regulate activities affecting wetlands areas in a manner that promotes the following:

(1) protection of public and private water supply;

(2) protection of ground water supply;

(3) flood control;

(4) storm damage prevention;

(5) prevention of pollution;

(6) protection of land containing shellfish;

[4] 310 CMR 9.03(1) provides:

> Written authorization in the form of a license, permit, or amendment thereto must be obtained from the Department before the commencement of one or more activities specified in 310 CMR 9.03(2) and (3) or 310 CMR 9.05 and located in one or more geographic areas specified in 310 CMR 9.04 unless the legislature has specifically exempted such activities from Department jurisdiction under M.G.L. c. 91.

(7) protection of fisheries; and

(8) protection of wildlife habitat.

G.L. c. 131, § 40; 310 CMR 10.01(2).

The coastal wetlands regulations are "intended to ensure [among other things] that development along the coastline is located, designed, built and maintained in a manner that protects the public interests in the coastal resources listed in M.G.L. c. 131, § 40." 310 CMR 10.21. There are several coastal wetland resource areas at issue in this appeal, including coastal beach, land under ocean, and land containing shellfish. 310 CMR 10.25, 10.27, 10.34.

STANDARD OF REVIEW

The standard of review should begin with a recitation of the fundamental notions of fairness and due process that were recently articulated by the Massachusetts Court of Appeals in Doe, Sex Offender Registry Bd. No. 29481 v. Sex Offender Registry Bd., 84 Mass. App. Ct. 537, 541-542, 998 N.E.2d 793, 796, (2013). As it aptly explained, in reliance upon the Supreme Judicial Court, "hearing officers, like judges, are held to 'high standards [which] are reflective of the constitutional rights of litigants to a fair hearing, as established in art. 29 of the Declaration of Rights of the Constitution of this Commonwealth, viz.: '. . . It is the right of every citizen to be tried by judges as free, impartial and independent as the lot of humanity will admit.'" . . . . Moreover, as this court recently stated: "actual impartiality alone is not enough. Our decisions and those of the Supreme Judicial Court have commented often and in a variety of contexts on the importance of maintaining not only fairness but also the appearance of fairness in every judicial proceeding. In order to preserve and protect the integrity of the judiciary and the judicial process, and the necessary public confidence in both, even the appearance of partiality must be avoided.'" Id. (internal citations omitted).

OADR is a quasi-judicial office within DEP, which is responsible for advising DEP's Commissioner in resolving all administrative appeals of DEP permit decisions and enforcement orders in a neutral, fair, timely, and sound manner based on the governing law and the facts of the case. Matter of Tennessee Gas Pipeline Company, LLC, Docket No. 2016-020 ("TGP"), Recommended Final Decision (March 22, 2017), adopted as Final Decision (March 27, 2017), citing, 310 CMR 1.01(1)(a), 1.01(1)(b), 1.01(5)(a), 1.01(14)(a), 1.03(7). DEP's Commissioner is the final agency decision-maker in these appeals. Id. To ensure its objective review of DEP Permit decisions and enforcement orders, OADR reports directly to DEP's Commissioner and is separate and independent of DEP's program offices, Regional Offices, and Office of General Counsel ("OGC"). Id.

Every administrative appeal that I adjudicate as a Presiding Officer requires the careful balancing of a number of considerations. I am required to provide a "just," "efficient," and "speedy" adjudicatory appeal process and write a fair and impartial Recommended Final Decision, in accord with the Adjudicatory Proceeding Rules, 310 CMR 1.01(1)(b) and (5)(a). I must also afford all parties a reasonable opportunity for a fair hearing. 310 CMR 1.01.

Burden of Proof. As the party challenging DEP's issuance of the Combined Permit in this *de novo* appeal, the Petitioners have the burden of going forward by producing credible evidence from a competent source in support of their position. See Matter of Town of Freetown, Docket No. 91-103, Recommended Final Decision (February 14, 2001), adopted by Final Decision (February 26, 2001) ("the Department has consistently placed the burden of going forward in permit appeals on the parties opposing the Department's position."). So long as the initial burden of production or going forward is met, the ultimate resolution of factual disputes depends on where the preponderance of the evidence lies. Matter of Town of Hamilton, DEP

Docket Nos. 2003-065 and 068, Recommended Final Decision (January 19, 2006), adopted by Final Decision (March 27, 2006).

"A party in a civil case having the burden of proving a particular fact [by a preponderance of the evidence] does not have to establish the existence of that fact as an absolute certainty. . . . [I]t is sufficient if the party having the burden of proving a particular fact establishes the existence of that fact as the greater likelihood, the greater probability." Massachusetts Jury Instructions, Civil, 1.14(d).

The relevancy, admissibility, and weight of evidence that the parties sought to introduce in the Hearing were governed by G.L. c. 30A, § 11(2) and 310 CMR 1.01(13)(h)(1). Under G.L. c. 30A, § 11(2):

> [u]nless otherwise provided by any law, agencies need not observe the rules of evidence observed by courts, but shall observe the rules of privilege recognized by law. Evidence may be admitted and given probative effect only if it is the kind of evidence on which reasonable persons are accustomed to rely in the conduct of serious affairs. Agencies may exclude unduly repetitious evidence, whether offered on direct examination or cross-examination of witnesses.

Under 310 CMR 1.01(13)(h), "[t]he weight to be attached to any evidence in the record will rest within the sound discretion of the Presiding Officer. . . ."

DISCUSSION

I. There is a Sufficient Demonstration of Aggrievement for Standing

A. The Motion to Dismiss for Lack of Aggrievement Was Denied

At the outset of this appeal I denied DEP's and the Applicants' motions to dismiss arguing that there was insufficient evidence of aggrievement for standing. I found that Wheelwright had sufficiently demonstrated standing under c. 91 and the Waterways Regulations for purposes of defeating the motion to dismiss.

In denying the motion to dismiss I stated that the Petitioners' allegations must be assumed to be true. See 310 CMR 1.01(11)(d); Matter of Crumpin-Fox Club, Inc., Docket No. 2004-230, Recommended Final Decision (March 8, 2006) (comparing aggrievement analysis on a motion to dismiss to that on summary decision); Matter of Pamet Harbor Yacht Club, Inc., Docket No. 98-093, Decision and Order on Motion to Dismiss (January 29, 1999) (allegations of aggrievement found sufficient to survive dismissal in c. 91 case); Matter of Town of Hull, Docket No. 90-168, Final Decision (July 26, 1995).

The Waterways Regulations at 310 CMR 9.17(1) articulate the grounds for standing. They provide that "any person aggrieved by the decision of the Department to grant a license or permit who has submitted written comments within the public comment period" "shall have the right to an adjudicatory hearing concerning [the Department's] decision." A person aggrieved is one "who, because of a decision by the Department to grant a license or permit, may suffer an injury in fact, which is different in kind or magnitude, from that suffered by the general public and which is within the scope of the public interests protected M.G.L c. 91 and c. 21A." 310 CMR 9.02.

To show aggrievement, the petitioner must demonstrate a possibility of the alleged injury, which is different in kind or magnitude from the general public and which is within the scope of the regulatory interests at stake. The standard of review for standing is similar to the standard of review applicable to a motion to dismiss for failure to state a claim, whereby a petitioner's assertions are assumed to be true. See Matter of Crumpin-Fox Club, Inc., supra.; Matter of Pamet Harbor Yacht Club, Inc., supra.; Matter of Town of Hull, supra.

Reviewing Wheelwright's allegations in the light most favorable to him, as required, I found that Wheelwright had sufficiently pled an injury that distinguished himself from the

general public, *both* in kind and magnitude. Wheelwright alleged that he spent his entire life[5] engaging in activities that connected him to the Island and the waterways around the Island—sailing, swimming, birdwatching. Throughout his life, Wheelwright has frequently accessed these activities on the Island from sailboats at two nearby moorings. Wheelwright alleged that the two nearby moorings receive protection from the Island and will be allegedly negatively affected by the dredged waterway and diminished barrier Island. Wheelwright alleged that the dredged waterway and diminished barrier Island would result in less protection from storms and waves for him, his boats, and moorings in Cotuit Bay. The general public does not navigate these waterways to land on the Island in boats from the nearby moorings to observe birds nesting early in the season and migrating later in the summer. Wheelwright alleged that the proposed area to be dredged "is the best area of the two islands that are preferred by birds, for nesting, feeding and staging, and by recreational boaters, for swimming, sitting or landing. This loss is a net loss and is not replicated. . . . The east end of Dead Neck gains no more navigational or swimming resources [from nourishment]. This beach is not a functional human resource; and for the birds it has proven to fail, with coastal storms creating steep scarping of the abnormally high beach nourishment. " Petitioners' Opposition to the Motion to Dismiss, p. 16.

Wheelwright tied his allegations regarding the proposed dredging and excavation impacts on wildlife habitat and navigational issues (for swimming or boating) and thus sufficiently brought his standing claim within the scope of the protected interests, at least for the motion to dismiss threshold.[6] Contrary to the Applicants' claims, standing does not require that

[5] Wheelwright is 73 years old. Transcript 1, p. 18.

[6] See e.g. 310 CMR 9.05 (jurisdiction based upon dredging and nourishment); 310 CMR 9.02 ("project" means any work, action, conduct, alteration, change of use, or other activity subject to the jurisdiction . . . ."); 310 CMR 9.35(2)(a) ("The project shall not significantly interfere with public rights of navigation which exist in all waterways. Such rights include the right to conduct any activity which entails the movement of a boat, vessel, float, or other watercraft; the right to conduct any activity involving the transport or the loading/unloading of persons or

Wheelwright show "he is the only person" aggrieved in the manner alleged. He must only sufficiently allege how he is distinguishable from the general public in magnitude or kind to have a sufficiently particularized injury. He accomplished that for purposes of defeating the motions to dismiss.

B. The Motion for Summary Decision for Lack of Aggrievement Was Denied

After the Petitioners' pre-filed testimony had been filed, the Applicants and DEP moved for summary decision with respect to Issue 1—whether Wheelwright is aggrieved for purposes of standing. The Applicants argued that Wheelwright had not shown that he could possibly suffer an injury in fact which is different in kind or magnitude from that of the general public. They contended that "other members of the community and general public" are similarly situated. They argued that other members of the community own sailboats, moor them in the same area as Wheelwright, and engage in the same activities as wheelwright. They relied upon the affidavit of Zenas Crocker, who testified to his "understanding of the community's use of Cotuit Bay for moorings and sailing, and the use of [Sampson/Dead Neck Island] for recreation and birdwatching."

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objects to or from any such watercraft; and the natural derivatives thereof."); 310 CMR 9.35(2)(a) ("The project shall not significantly interfere with public rights of free passage over and through the water, which exist in all waterways. Such rights include the right to float on, swim in, or otherwise move freely within the water column without touching the bottom, and, in Commonwealth Tidelands and Great Ponds, to walk on the bottom."); 310 CMR 9.35(3)(a) ("The project shall not significantly interfere with public rights of fishing and fowling which exist in tidelands and Great Ponds. Such rights include the right to seek or take any fish, shellfish, fowl, or floating marine plants, by any legal means, from a vessel or on foot; the right to protect habitat and nutrient source areas in order to have fish, fowl, or marine plants available to be sought and taken; and the natural derivatives thereof."); 310 CMR 9.35(3)(a) (standards for dredging); 314 CMR 9.06(2) ("No discharge of dredged or fill material shall be permitted unless appropriate and practicable steps have been taken which will avoid and minimize potential adverse impacts to the bordering or isolated vegetated wetlands, land under water or ocean, or the intertidal zone. However, no such project may be permitted which will have any adverse effect on specified habitat sites of Rare Species."); 314 CMR 9.07(1) ("However, no such dredging may be permitted which will have any adverse effect on specified habitat sites of Rare Species unless the work is subject to a Conservation and Management Permit or Determination of No Take issued by the Division of Fisheries and Wildlife.").

For its part, DEP relied upon a generic statement of standing law and simply contended that Wheelwright had not shown a violation of a private right, legal interest, or property interest of his to support his aggrievement claim. Rather, DEP argued, the affected area is "open to the general public" for "boating and birding," and "recreational boating and mooring boats."[7] Thus, DEP concluded that Wheelwright had not shown an injury that is different in kind or magnitude from the general public.

The Petitioners opposed the motions for summary decision, arguing that Wheelwright is sufficiently aggrieved for purposes of standing. I found Wheelwright had shown that he is sufficiently aggrieved for purposes of standing, and thus DEP's and the Applicants' motions for summary decision were denied.[8]

To show aggrievement for purposes of standing, the possibility of injury must be more than an "allegation of abstract, conjectural, or hypothetical injury." Matter of Crane, Docket No. 2008-100, Recommended Final Decision, (March 30, 2009), adopted by Final Decision (April 18, 2009) (petitioners opposing draft license for applicant's proposed pier were granted standing based on allegation of injury to navigation and water-based activities). It is not, however, necessary to prove the claim of particularized injury by a preponderance of the evidence. Matter of Gordon, Docket WET No. 2009-048, Recommended Final Decision, (March 3, 2010), adopted by Final Decision (March 5, 2010). "Rather, the plaintiff must put forth credible evidence to substantiate his allegations. In this context, standing becomes, then, essentially a

[7] As discussed below, DEP's argument is undermined by a relatively long line of DEP adjudicatory decisions, not to mention the impracticality of the argument—simply because the area is open to the public, standing is not foreclosed.

[8] The Petitioners also filed a motion to supplement Wheelwright's testimony and a motion to strike documents filed with the Applicants' motion for summary decision. I allowed the Petitioners' motion to strike and motion to supplement Wheelwright's pre-filed testimony.

question of fact for the trial judge." Marashlian v. Zoning Bd. Of Appeals of Newburyport, 421 Mass. 719, 721, 660 N.E.2d 369 (1996).

In a summary judgment context, which is analogous to summary decision, a defendant is not required to present affirmative evidence that refutes a plaintiff's basis for standing. Standerwick v. Zoning Board of Appeals, 447 Mass. 20 (2006). It is enough that the moving party demonstrate, by reference to material described in Mass. R. Civ. P. 56 (c), unmet by countervailing materials, that the party opposing the motion has no reasonable expectation of proving a legally cognizable injury.. Id.

Prior DEP adjudicatory decisions have recognized that the waterways laws in G.L. c. 91 and the waterways regulations confer to private parties protectable rights and interests that are available to the public. Matter of Pamet Harbor Yacht Club, Inc., Docket No. 98-093, Decision and Order on Motion to Dismiss (January 29, 1999), Final Decision - Dismissal (June 2, 1999). As stated in a relatively recent decision under G.L. c. 91, petitioners who allege injury to public rights of navigation or passage through the water have been conferred standing when, by virtue of the proximity between a proposed project and the petitioner's activity that is a protectable interest, there exists the possibility for interference with such activity. See Matter of Legowski, Docket No. 2011-039, Recommended Final Decision (October 25, 2012), adopted by Final Decision (November 5, 2012.); see also Matter of Abdelnour, et al., Docket No. 88-138, Memorandum Decision and Order on Motion to Substitute Petitioners (November 21, 1991) (petitioners were aggrieved because they navigate in the area where a proposed pier would be and alleged that the pier would make navigation "impossible" due to site's geographical characteristics); Matter of Crane, supra. (petitioners were aggrieved because the proposed pier would "impinge" upon petitioners' alleged swimming and boating activities); Matter of Lipkin,

Docket No. 92-043, Final Decision (December 22, 1995) (petitioners were aggrieved by the potential proximity of a proposed pier to petitioners' use of their mooring location, a navigational interest); Matter of Oliveira, Docket No. 2010-017, Recommended Final Decision (January 7, 2011), adopted by Final Decision (January 7, 2011).

"In applying the 'unique injury' criterion to the public trust interests at issue in a c. 91 appeal, the cases establish that a party appealing a waterways license must have more than 'vague and transient interest in the matter', and that the aggrievement 'be high enough to assure that the appealing party will be a responsible representative of the public trust beneficiaries and a diligent advocate of significant public rights and interests it asserts.'" Matter of Old Salt Outfitters, Docket No. 2007-118, Recommended Final Decision (November 28, 2007), adopted by Final Decision (December 4, 2007) (emphasis added, citing Matter of Gloucester Redevelopment Authority, Docket No. 86-088, Decision and Order on Motion to Dismiss (Aug. 7, 1991) (fishers' association's interest in adequate vessel dockage and preventing displacement of the size and class of boats used by association members); Matter of Pamet Harbor Yacht Club, Inc., Docket No. 98-093, Decision and Order on Motion to Dismiss (Jan. 29, 1999) (abutting landowner's claim that proposed pier would interfere with its own navigation rights).

Prior DEP decisions have recognized that beneficiaries of a public trust right in c. 91 can assert that right as a protectable interest for purposes of standing. In Pamet Harbor, the Administrative Law Judge pointed out that the petitioners asserted no "individual injury." Instead, they asserted noncompliance with "standards intended to protect public rights, including navigation rights." They could "assert [that noncompliance] nonetheless as a unique injury supporting their standing to appeal as aggrieved persons." The Administrative Law Judge stated that the petitioners were "among those who can potentially appeal the waterways license as

beneficiaries of the public trust based upon an alleged injury to a public trust right . . . ." It was held that the petitioners had "more than a vague or transient interest in the matter," and their interest indicated "they will represent responsibly the interests of public trust beneficiaries and advocate diligently the public rights and interests they assert." This was based upon the petitioners' allegations that they own a boat and operate it in Pamet Harbor, where the project was to be located, i.e. their pier and the yacht club's proposed pier and floats are located in the same tidelands and the petitioners asserted that the proposed pier and floats will interfere with their navigation. The Administrative Law Judge therefore found that the petitioners were beneficiaries of the public trust in tidelands "whose rights and interests are directly at stake . . . ." The Administrative Law Judge also noted that the petitioners had "invested in this appeal an effort commensurate with what would be expected reasonably of public trust beneficiaries pursuing similar claims."

Here, Wheelwright has provided sworn testimony of a possible injury in fact that is protectable under c. 91 and is distinguishable from any injury to the general public in both magnitude and kind. See Wheelwright Pre-filed Testimony (November 2, 2017); Wheelwright Supplemental Pre-filed Testimony (January 5, 2017). Wheelwright's sworn testimony repeated, in part, what he alleged in his Notice of Claim, and bolstered his asserted aggrievement. He has been sailing, swimming, and bird watching on and around the Island his entire life, more than 70 years. His family previously owned shore front property in Cotuit Bay, and he has resided in the Village of Cotuit, where he owns a home, for more than 30 years. He holds a legal interest in two moorings in Cotuit Harbor for two uncommon wooden, antique sailing boats, known as Cotuit Skiffs. The skiffs have a combined replacement value of $50,000. Antique Cotuit Skiffs "are not found anywhere outside of the 3 bay area." Wheelwright Supplemental Pre-filed

Testimony, p. 1 (January 5, 2017). He has held the two legal mooring interests for 49 and 25 years. The moorings are protected by the Island, which is indisputably a barrier island. From June through September he and his family use the sailboats several times a week, on both recreational and competitive bases, in and around the bays and the Island.

Wheelwright stated, based upon his many years of experience, that the widening of the Cotuit inlet by 400 feet will increase wave action in the harbor, which will be detrimental to his skiffs and their use in the harbor, negatively affecting the amount of time that they can be used and increasing the chance that they capsize. The skiffs were designed for the protected three bays area. He stated that his navigation of the skiffs will be detrimentally affected by the higher winds and wave action that he believes, based upon his years of experience, will result from the Project. His interest in the mooring is also affected by the higher winds and wave action, which will increase the likelihood of damage or sinking at the moorings. It will also increase the likelihood that the boats will have to be removed during significant storms, which will come at "additional cost." Supplemental PFT, ¶ 4. The project will also lead to less area at the Island for navigation, dropping anchor, and landing, causing greater congestion at the Island and interference with navigation. He contended that removal of the end of the Island would detrimentally affect his use of that area for swimming, navigating, and birding. The area provides substantial habit to many birds that nest and feed there, including Piping Plovers and Least Turns. Two other area sailors with many years of local experience (Wheelwright's wife and son-in-law) corroborated Wheelwright's testimony. See Exhibit 2-3 to Wheelwright Supplemental PFT, Affidavit of Robert O. Johnson and Affidavit of Susannah Wheelwright.

In sum, I determined that Wheelwright had sufficiently presented evidence of a possible injury to his protected legal interests, which fall within the scope of c. 91 public trust rights:

navigation—boating, swimming, and mooring. He also has significant legal interests at stake, property interests in his boats which are legally moored (for approximately $1,180 per year) in an area that is protected by the barrier island and will (Wheelwright contends) suffer increased exposure to storms after the project is complete. See e.g. Matter of Old Salt Outfitters, Docket No. 2007-118, Recommended Final Decision (November 28, 2007), adopted by Final Decision (December 4, 2007) ("mooring is an aspect of the public's right to navigation protected by the regulations (310 CMR 9.35(2)(a))" but was not at stake because the petitioner had only filed a mooring application, apparently to suffer aggrievement for standing purposes); Matter of Lipkin, Docket No. 92-043, Final Decision (December 22, 1995) (injury in fact was alleged when close proximity of pier could possibly interfere with use of mooring; summary decision allowed as to claims because there were no supporting affidavits); Matter of Cambridge Research Park, LLP, Docket No. 2000-02, Decision and Order on Motion to Dismiss (June 13, 2000) (individuals in association who resided in Cambridge enjoy using the tidelands along the Charles River and Broad Canal for recreational purposes were sufficiently aggrieved for the group to have standing).

Wheelwright's possible injuries are different in kind and magnitude from the "general public." He has spent approximately 70 years of his life in and around the navigational area to be affected. He continues to use that area several days each week from June through September. He holds legal interests (moorings and boats) that are in danger of being adversely affected. Although there may be others in the Cotuit community, as the Applicants assert, who may be similarly affected, that is not the appropriate standard of review. Wheelwright does not have to show that he is the only person in the community who could possibly be harmed by the project. There may possibly be others in the community whose interests are similar to Wheelwright's, as

the Applicants assert, but that alone does not deprive Wheelwright of standing. He must only show that he has a personal stake that is different from the "general public." That he has done—he has shown that he has more than a "vague and transient interest in the matter" and his possible "aggrievement" is possibly serious enough to assure that he will "be a responsible representative of the public trust beneficiaries and a diligent advocate of significant public rights and interests it asserts.'" Matter of Old Salt Outfitters, Docket No. 2007-118, Recommended Final Decision (November 28, 2007), adopted by Final Decision (December 4, 2007).

The Applicants' attempt to show that Wheelwright's possible injury is not different in kind and magnitude from the public not only suffers from a misapplication of the law it also suffers from a fatal evidentiary flaw. The Affidavit of Zenas Crocker, in which Crocker purports to testify to his understanding of the community's use of the area for mooring and sailing is based upon hearsay statements from community members, namely unauthenticated and unsworn written statements that are purportedly from members of the community and unauthenticated and undated images of the mooring field. Crocker Affidavit, p. 3 ("These letters show that the general community . . ."). This is in noncompliance with (1) the evidentiary standards required for summary decision and (2) generally applicable evidentiary standards because there is no indicia of reliability for the hearsay (assuming that standard applied, which it does not). As a consequence, the Petitioners' Motion to Strike, which was filed as part of their opposition to summary decision (January 5, 2017), was allowed. See Matter of Primavera, Docket No. 06-954, Recommended Final Decision (July 27, 2007), adopted by Final Decision (October 16, 2007) (discussing evidentiary standard applicable to summary decision motion).

C. Wheelwright Made a Sufficient Showing of Aggrievement at the Adjudicatory Hearing

After unsuccessfully challenging standing with a motion to dismiss and a motion for summary decision, the Applicants have now asserted after the adjudicatory hearing that the evidence shows Wheelwright "failed to prove that he will suffer *in fact* any of the injuries he alleged with regard to the Ch. 91 Permit." Applicants' Closing Brief, p. 7. They argue that the weight and reliability of the substantial credible evidence Wheelwright previously put forward was undermined by testimony that they elicited on cross examination. As a consequence, they argue that he was not "in fact" aggrieved. This standing challenge goes too far, applying the incorrect standard of review, and thus should be denied.

To show the possibility of an injury in fact at this stage, "the plaintiff must put forth credible evidence to substantiate his allegations. In this context, standing becomes, then, essentially a question of fact for the trial judge." Marashlian v. Zoning Bd. Of Appeals of Newburyport, 421 Mass. 719, 721, 660 N.E.2d 369 (1996). Because it is a question of fact for the trial judge, "a judge's finding that a person is or is not aggrieved will not be set aside unless the finding is clearly erroneous." Butler v. City of Waltham, 827 N.E.2d 216, 221, 63 Mass. App. Ct. 435, 440 (2005).

"The 'findings of fact' a judge is required to make when standing is at issue, however, differ from the 'findings of fact' the judge must make in connection with a trial on the merits. Standing is the gateway through which one must pass en route to an inquiry on the merits. When the factual inquiry focuses on standing, therefore, a plaintiff is not required to prove by a preponderance of the evidence that his or her claims of particularized or special injury are true. 'Rather, the plaintiff must put forth credible evidence to substantiate his allegations. . . ." Butler, supra. at p. 221-22 (citing Marashlian, supra.).

"A review of standing based on 'all the evidence' [at trial] does not require that the factfinder ultimately find a plaintiff's allegations meritorious. To do so would be to deny standing, after the fact, to any unsuccessful plaintiff. Rather, the plaintiff must put forth credible evidence to substantiate his allegations." Marashlian, 660 N.E.2d at 372 (citing Bedford, supra at 377 (abutter's concerns of increased pedestrian and vehicular traffic, loss of parking, and potential threats to pedestrian safety were sufficient to uphold abutter's standing even in the face of evidence that "proposed construction would have no adverse impact on the plaintiff"); Paulding v. Bruins, 18 Mass. App. Ct. 707, 709, 470 N.E.2d 398 (1984), quoting Rafferty v. Sancta Maria Hosp., 5 Mass. App. Ct. 624, 629, 367 N.E.2d 856 (1977) (determination of "aggrieved" matter of degree calling for discretion rather than inflexible rule). Thus, there is a distinct difference between "a finding [that] goes to the plaintiffs' success on the merits" versus a finding for standing that relates only "to the [plaintiff's] ability to [pursue their claims]." Marashlian, 660 N.E.2d at 373.

The Applicants' most recent standing argument is incorrectly focused on whether Wheelwright should succeed on the merits, as opposed to being able to have standing to pursue his claims to a final resolution. Wheelwright put forth credible evidence to substantiate his allegations, as I found when I denied the Applicants' and DEP's motions for summary decision. Further, the sworn testimony that Wheelwright provided based upon his life-long experience extensively navigating in the area was bolstered at the adjudicatory hearing by his experts' testimony, both of whom testified to the importance of the barrier island in protecting the bay from storms and wave action that would purportedly cause the injuries articulated by Wheelwright. The experts generally testified that the proposed project would diminish that protection, leading to increased wave action, storm damage, changes in navigation, and changes

in tidal flow patterns. Humphries PFT, ¶ 20 ("[A] primary function of the barrier island is to protect properties along the Cotuit Highlands north to Handy Point in Cotuit Bay, and along the River shoreline of Osterville Grand Island, as well as protect navigation in each of the Bays."); Humphries PFT, ¶ 27 ("A critical function of the west tip of DNSI is to protect Cotuit Bay and the surrounding uplands from storm-induced velocity wave action during all storms."); Humphries Rebuttal PFT, ¶ 21 (the coastal dune that will be excavated "plays a role in providing flood control and storm damage prevention . . . ."); Fitzgerald Rebuttal PFT, ¶ 5, p. 2 ("Excavating the spit end of [the barrier island, as proposed] will . . . [ultimately] cause an overall shoaling of the channel, which will diminish navigation access.); Fitzgerald Rebuttal PFT, ¶ 8, p. 4 (widening the inlet will increase wave energy); Fitzgerald PFT, ¶ 13 ("A wider opening of Cotuit Inlet promotes the propagation of larger waves through the Inlet and into the backbarrier bay. Removing the western end of Sampson's Island will widen the Cotuit Inlet resulting in the expenditure of greater wave energy and possible erosion and structural damage along the bay shoreline, particularly during large magnitude storms.").

The decision in Butler, supra., is instructive on the issue of what constitutes supporting credible evidence for purposes of standing. In Butler the plaintiffs objected to the installation of new traffic lights, arguing that the lights would result in congestion that blocked access to their driveway. The appeals court decided that the plaintiffs' expert testimony did not provide credible support for their standing because even if it were assumed to be true, it was undisputed that the asserted congestion that would result from the proposed new traffic signals would not extend far enough to affect the plaintiffs' driveway access; in fact, there would be less interference than at present. As the appeals court explained in a subsequent decision, the evidence provided by the plaintiffs' expert "was not credible because it failed, *on its face*, to

support their claim that the new traffic signals adversely would affect" the plaintiffs' driveway access. Cent. St., LLC v. Zoning Bd. of Appeals, 868 N.E.2d 1245, 1251, 69 Mass. App. Ct. 487, 493 (2007) (emphasis added; appeals court reversed trial judge's finding that there was no standing because the plaintiff's evidence was credible on its face, regardless whether there was other evidence that detracted from its weight).

In contrast to Butler, Wheelwright's evidence, *on its face*, supports his claim of a possible injury as a consequence of the Project. Therefore, Wheelwright has sufficiently shown aggrievement for purposes of standing.

II. The Failure to File Timely Public Comments is Ultimately Fatal to the Petitioners' Standing

A. The Motion to Dismiss for Failing to File Timely Public Comments Was Denied

At the outset of the appeal, DEP and the Applicants filed a motion to dismiss for lack of standing because the Petitioners failed to file comments during the public comment period. DEP and the Applicants correctly pointed out that the timely submission of comments is a requirement under both the c. 91 regulations and the WQC regulations for a party to have standing as an aggrieved party or as a residents group. The c. 91 regulations at 310 CMR 9.17(1), provide in pertinent part the following:

> **(1)** The following persons shall have the right to an adjudicatory hearing concerning a decision by the Department to grant or deny a license or permit:
>
> **(a)** an applicant who has demonstrated property rights in the lands in question, or which is a public agency;
> **(b)** any person aggrieved by the decision of the Department to grant a license or permit who has submitted written comments within the public comment period;
> **(c)** ten residents of the Commonwealth, pursuant to M.G.L. c. 30A, § 10A, who have submitted comments within the public comment period; at least five of the ten residents shall reside in the municipality(s) in which the

> license or permitted activity is located. The appeal shall clearly and specifically state the facts and grounds for the appeal and the relief sought, and each appealing resident shall file an affidavit stating the intent to be part of the group and to be represented by its authorized representative. . . . (emphasis added)

These c. 91 regulations include a requirement that the public notice of the permit proceeding state that "a municipality, ten citizen group or any aggrieved person that has submitted written comments before the close of the public comment period may appeal and that failure to submit written comments will result in the waiver of any right to an adjudicatory hearing." 310 CMR 9.13(1)(c)7. The notice in this case included this provision.

Like the above c. 91 regulations, the WQC regulations provide in relevant part the following requirements for aggrieved persons or resident groups to have standing:

> (1) Right to Appeal. Certain persons shall have a right to request an adjudicatory hearing concerning certifications by the Department when an application is required:
> (a) the applicant or property owner;
> (b) any person aggrieved by the decision who has submitted written comments during the public comment period;
> (c) any ten persons of the Commonwealth pursuant to M.G.L. c. 30A where a group member has submitted written comments during the public comment period . . . .

314 CMR 9.10(1) (emphasis added).[9]

Also, similar to the c. 91 public notice, the WQC public notice included the required statement that "any ten persons of the Commonwealth, any aggrieved person, or any governmental body or private organization with a mandate to protect the environment that has

[9] The regulations at 314 CMR 9.10 also provide the following exception to the public comment requirement: "Any person aggrieved, any ten persons of the Commonwealth, or a governmental body or private organization with a mandate to protect the environment may appeal without having submitted written comments during the public comment period only when the claim is based on new substantive issues arising from material changes to the scope or impact of the activity and not apparent at the time of public notice." (emphasis added) There is no argument or allegation that this provision is applicable in this case.

submitted written comments may also appeal the Department's Certification and that failure to submit comments before the end of the public comment period may result in the waiver of any right to an adjudicatory hearing." 314 CMR 9.05(3)(g) (emphasis added).

For the Combined Permit application, the notification of the public comment period was published in the Barnstable Patriot on August 7, 2015. The public comment period for the c. 91 component of the Permit was 15 days, ending on August 22, 2015. The public comment period for the 401 WQC was 21 days, ending on August 28, 2015. None of the Petitioners filed public comments during the comment periods. DEP testified that it did not extend the public comment period. Hill PFT, p. 5.

DEP recently affirmed the importance of meeting requirements to submit comments during the comment period in order to have standing. In Matter of Tennessee Gas Pipeline Company, LLC, the citizen group was denied standing to challenge the WQC permit when there was insufficient evidence to show that comments had been submitted during the public comment period. Matter of Tennessee Gas Pipeline Company, LLC, Docket No. 2016-020, Recommended Final Decision (March 22, 2017), adopted by Final Decision (March 27, 2017). Likewise, in that case, an allegedly aggrieved petitioner was denied standing because there was insufficient evidence that she had submitted comments during the public comment period. The remaining petitioners were permitted to proceed with the appeal because they had timely submitted comments and met all other necessary criteria.

Ordinarily the failure to file comments during the public comment period would be the death knell to standing for a WQC or c. 91 permit appeal. But this appeal is not ordinary, and instead presents unusual circumstances that warranted denying the motion to dismiss.

The Petitioners generally alleged in their Notice of Claim and in response to the motions to dismiss, with supporting documentary evidence (emails), that: (1) prior to the public comment period and after numerous communications with Mahala, Wheelwright, based upon Mahala's advice, contacted the appropriate DEP staffers (Hill and Chin) to find out whether the Combined Permit application had been filed; (2) Wheelwright informed DEP in writing that he wanted to know when the application was filed because then he would begin looking for the public notice of the public comment period so that he could submit comments during the comment period; (3) DEP responded in writing unequivocally and without a disclaimer on more than one occasion, but inaccurately, that the application had not yet been filed with DEP; (4) DEP's representations that the application had not been filed turned out to be false (the application was on file at the time that it was represented it had not been filed); (5) DEP represented to Wheelwright in *writing* that it would inform him when the application was actually filed, but DEP did not follow through on that commitment; (6) Wheelwright alleged that he reasonably relied upon these representations by not searching for the public comment period notice until after he learned that the application had been filed, but by then the comment period had expired; and (7) Wheelwright filed comments within the 15 and 21 day comment periods, running from when he learned that the comment period had expired.

More specifically, the emails that were exchanged and attached to the Notice of Claim disclose the following communications between Wheelwright and DEP: On July 24, 2014, Wheelwright emailed Mahala, thanking him for speaking with him about the wetlands review process and Mahala's "willingness to entertain comments regarding Dead Neck/Sampson's Island Beach Nourishment project . . . and the wetland impacts." Wheelwright stated that "[a]ccordingly" he had attached comments that he had submitted to MEPA.

On September 25, 2014, Wheelwright emailed Mahala for information regarding the Project that could help Wheelwright with the ongoing Commission proceedings. Mahala responded the next day with updated information concerning DEP's review while the project was pending before the Commission. There were other exchanges of information between Mahala and Wheelwright in September 2014.

On December 17, 2014, Wheelwright emailed Mahala, inquiring about the status of the Project after the Commission's review had terminated. Mahala emailed back on December 22, 2014, stating DEP still needed to issue permits for c. 91 and 401 Water Quality Certification, and he provided the contact information for Wheelwright to follow up with Hill and Chin, the two DEP staffers responsible for the permits, respectively.

On January 8, 2015, Mahala emailed back to Wheelwright after having a telephone conversation with him. He copied Hill, and stated: "Following our conversation yesterday, Dave Hill (DEP's Chapter 91 Licensing Program) informed me that he does not yet have a Ch. 91 license or permit application for [the island]. Feel free to inquire in the future with me or Dave. Thanks."

On Saturday, January 10, 2015, Wheelwright emailed Chin, stating Mahala "directed me to you to find out the status of the 3Bays/Audubon application for the 401 Water Quality Permit for excavating Dead Neck/Sampsons Island. He indicated you were the lead analyst for the project . . . . Have you received the application? If so, is the comment period still open? If so, can you send me a copy of the application and do I direct comments to you? . . . And if no application has yet been received, would you let me know when it arrives, so I can comment? (emphasis added)

On Monday, January 12, 2015, Chin responded: "Hi Warren, I have not yet received the 401 application from 3 Bays/Audubon. I will email you when the 401 application is submitted. Regards, Ken Chin." (emphasis added)

On April 15, 2015, Wheelwright emailed Hill, stating: "Dave, Have you yet received an application for the Ch. 91permit for 3Bays/Audubon excavation of 5 acres of core habitat on Sampson's Island in Cotuit . . . .? Hill responded that same day: "No, we have not seen this application. Dave."

On June 17, 2015, Wheelwright emailed Chin, asking if the application for dredging for 3Bays/Audubon had "been filed with DEP . . . . Just checking. Let me know." Chin responded that same day: "Hi Warren, Still have not seen any application on 3 Bays/Sampson's Island. . . ."

Also on June 17, 2015, Wheelwright emailed Hill, asking him the same question he asked Chin, and Hill responded: "No, still have not seen an application for this project. Dave"

On November 24, 2015, Wheelwright emailed Hill, stating: "David, It is now November 24th . . . . Has the dredge permit been submitted to MA DEP?

The next day, November 25, 2015, Hill responded, stating: "Warren, In July, 3-Bays did submit a combined Chapter 91 and 401 Water Quality Certification for the dredging. Ken Chin is the project reviewer. . . . Dave"

On December 2, 2015, Wheelwright emailed Chin, stating: "I understand from Dave Hill that you are the project reviewer for the 3Bays Ch 91 and 401 dredge permits. Can you tell me where you are in the process, if you are taking comments, and where we can access the 3Bays submission?"

On December 11, 2015, Wheelwright wrote to Chin after a telephone conversation, thanking him for his "time updating [him] on the status of the 3Bays combined application . . . .

Per conversation, attached find the Barnstable Shellfish Committee . . . that you should have as input to your review of the project . . . ." Thanks again for consideration of all input."

On December 21, 2015, Wheelwright emailed Chin, stating: "I want to submit the following comments with regard to . . . the 3Bays/Audubon excavation of Sampson's Island."

On June 12, 2017, DEP issued its approval of the Combined Permit.

Despite the correspondence above, it was also alleged (and not disputed) that the Combined Application had actually been filed with DEP on March 20, 2015. Thus, the Petitioners argued that if DEP had "replied accurately on either April 15, 2015 or June 17, 2015, that the Combined Permit in fact had been filed in March 2015, Mr. Wheelwright and the [Residents Group] would have been closely monitoring the weekly paper and had an opportunity to comment during the 21 day window when notice was published on August 7, 2015." Petitioners' Opposition to Applicant's Motion to Dismiss, p. 6. The Petitioners also alleged that Wheelwright's December 11, 2015, email evidences that DEP extended the comment period and accepted Wheelwright's comments.

Given the above allegations, particularly that they were confirmed by writings, I denied the motions to dismiss. I stated that the circumstances were "sufficient to give rise to a claim for estoppel or promissory estoppel under the *narrow exception* to the general rule that estoppel may not be asserted against the government." See Sullivan v. Chief Justice for Admin. & Mgmt. of the Trial Court, 448 Mass. 15, 24-36, 858 N.E. 2d 699 (2006) (emphasis added); see also Moran v. Mashpee, 17 Mass. App. Ct. 679 (1984) (plaintiff's estoppel claim against town survived summary judgment when town official's representations arguably led plaintiff to believe that compliance with strict presentment requirements was not necessary and had been waived);

compare Mailloux v. Town of Littleton, 473 F.Supp.2d 177, 188 (D. Mass. 2007) (distinguishing Sullivan).

The elements of estoppel are: "(1) a representation intended to induce reliance on the part of a person to whom the representation is made; (2) an act or omission by that person in reasonable reliance on the representation; and (3) detriment as a consequence of the act or omission." Sullivan, 448 Mass. at 27-28. "[U]nder a theory of equitable estoppel, there must be reliance on a misrepresentation of past or present facts, while a theory of promissory estoppel permits reliance on a misrepresentation of future intent." Id. at n. 9.

Courts have traditionally been "reluctant to apply principles of estoppel to public entities where to do so would negate requirements of law intended to protect the public interest." Phipps Prods. Corp. v. Massachusetts Bay Transp. Authy., 387 Mass. 687, 693, 443 N.E.2d 115 (1982); see LaBarge v. Chief Admin. Justice of the Trial Ct., 402 Mass. 462, 468, 524 N.E.2d 59 (1988); see also Sullivan, 448 Mass. at 30-31.

"A common thread underlying our reluctance to apply principles of estoppel to public entities has been the idea that deference to legislative policy should trump individual acts or statements of a government official that may be contrary to such policy". Sullivan, 448 Mass. at 30-31. "This traditional reluctance had been justified by the need to protect the public from improper collusion by public officials, deference to legislative policy, concern about the public fisc, and administrative efficiency." Morton St. LLC v. Sheriff of Suffolk County, 453 Mass. 485, 492, 903 N.E.2d 194 (2009); see McAndrew v. School Comm. of Cambridge, 20 Mass. App. Ct. 356, 360-361, 480 N.E.2d 327 (1985). We have also traditionally rejected the application of estoppel to the government "where a government official acts, or makes representations, contrary to a statute or regulation designed to . . . ensure some other legislative

purpose." Morton St. LLC v. Sheriff of Suffolk County, supra (quoting from McAndrew v. School Comm. of Cambridge, supra at 361).

The rule against applying estoppel to the government has generally been upheld "where a government official acts, or makes representations, contrary to a statute or regulation designed to prevent favoritism, secure honest bidding, or ensure some other legislative purpose." McAndrew, 20 Mass. App. Ct. at 361. Consequently, when a public authority failed to follow statutory bidding procedures, the court "allowed the public authority to renege on an agreement to sell public property, even while recognizing that the public authority's conduct 'would hardly qualify it for a 'sportsmanship' award,' that the private party reasonably may conclude 'that it was treated most unfairly,' and that we 'would extend little sympathy to a private citizen who acted similarly in a private transaction.'" Morton St. LLC, 453 Mass. at 492 (citing and quoting Phipps Prods. Corp. v. Massachusetts Bay Transp. Auth., supra at 693, 694).

Here, there were two alleged misrepresentations (both in writing) upon which Wheelwright allegedly detrimentally relied: one was that the application had not yet been filed (when in fact it had) and the other was that DEP would contact Wheelwright when it was filed (but DEP failed to follow through on that assurance). Both representations were made while allegedly knowing from Wheelwright's email that he was relying upon DEP to let him know when the application was filed so that he could begin looking for the public notice of the comment period. DEP never indicated to Wheelwright in any way that its statements should not be relied upon. Viewed in the light most favorable to Wheelwright, it could be inferred from the allegations that DEP intended to induce Wheelwright's reliance when Wheelwright wrote "would you let me know when it arrives, so I can comment?" and DEP responded "I will email you when the 401 application is submitted. Regards, Ken Chin." (emphasis added)

In denying the motion to dismiss I found that these circumstances were comparable to the representation in Sullivan where there were bare factual representations that certain actions would be undertaken by the Chief Justice for Administration and Management of the Trial Court ("CJAM"). Sullivan, 448 Mass. at 24. There, the court carved a narrow exception to the long-held general rule that estoppel may not be asserted against the government. The court rejected the argument that application of estoppel would undermine the statutory and public interest in (1) establishing immunity for suit under sovereign immunity principles and (2) having management of the court facilities be under the central direction of the CJAM. Id. at 30. As a consequence, the Court held that the Petitioners had sufficiently alleged estoppel, and reversed the allowance of the motion to dismiss.

Here, in denying the motion to dismiss, there were three overarching considerations that allowed this appeal to squeeze through the narrow exception to the general rule against government estoppel claims. First, estoppel was being employed to further important public participation and potential due process rights past the initial pleading stage. At the motion to dismiss phase the Petitioners' allegations were sufficient, particularly viewed in the light most favorable to them. Second, the material communications and representations between Wheelwright and DEP were in writing and the Applicants had not commenced the Project. See Mailloux,, 473 F. Supp. 2d at 188 ("[A]n estoppel claim against the government cannot be erected on the basis of *oral* representations by a government agent because reliance on such representations is not reasonable or appropriate." (emphasis added; citation omitted)).

Third, the DEP representations upon which Wheelwright relied were bare statements of fact. They were not the type of statements for which the general prohibition against government estoppel was designed, i.e. statements representing the law or legal requirements. Indeed, DEP's

simple factual representations upon which Wheelwright allegedly relied are not the type for which the general prohibition against estoppel was created: the "sort [of representations] that negated requirements of law intended to protect the public interest"; instead, DEP's representations concerned the status of the DEP records and an unequivocal promise to provide future notice when the application arrived, knowing, allegedly, that Wheelwright was relying upon that to trigger his search for the public notice. See Sullivan, 448 Mass. at 24-36; compare Mailloux, 473 F.Supp.2d at 188 (distinguishing Sullivan).

The Massachusetts Appeals Court recently reversed a Massachusetts Land Court decision that dismissed a complaint under circumstances similar to those here. In an unpublished decision, the Appeals Court relied on the narrow Sullivan exception to allow an estoppel claim to proceed against the Town of Braintree. See McIntyre v. Zoning Bd. of Appeals of Braintree, 89 Mass. App. Ct. 1119 (2016). In that case, the pro se plaintiffs desired to appeal the town's issuance of a building permit. The plaintiffs had met with the town solicitor who incorrectly represented to the plaintiffs that the appeal deadline was September 27. That incorrect date was later confirmed by the mayor and memorialized by the town solicitor in writing. The plaintiffs delayed filing an appeal in reliance upon those misrepresentations. The town subsequently denied the appeal on the grounds that it was untimely. On appeal, the Appeals Court reversed the Land Court's finding that estoppel could not be asserted because reliance on the town solicitor was unreasonable as a matter of law. In reversing, the court stated:

> While we agree with the judge that courts have been reluctant to apply the principles of estoppel to public entities, . . . it is well settled that the doctrine may be applied "when to refuse it would be inequitable," . . . . The alleged statements by the town solicitor and the mayor in this case "were not the sort that negated the requirements of law intended to protect the public interest such that the plaintiffs should be precluded from asserting a claim from estoppel," Sullivan v. Chief Justice for Admin. & Mgmt. of the

> Trial Ct., supra at 31, and, we conclude, the plaintiffs should have been allowed to expand the record through discovery in order to further their claim.

McIntyre, 89 Mass. App. Ct. 1119; see also Mailloux, supra. (summary judgment denied and estoppel claim allowed to proceed on official's promise to recommend plaintiff to the board because it did not impinge upon board's hiring authority); compare Harrington v. Fall River Housing Authority, 27 Mass. App. Ct. 301, (1989) (agency officials misrepresented certain legal requirements and thus estoppel did *not* apply).

On remand to the Land Court, the parties conducted discovery and the court entered summary judgment for the town, finding that there was insufficient evidence of intent to induce and reasonable reliance. See McIntyre v. Karll, Docket No. 14 Misc 481417, Memorandum and Order on Cross Motions for Summary Judgment (May 4, 2017).

Here, as a consequence of all the above, I denied the motion to dismiss, stating: "These circumstances warrant a finding at the *pleading stage* that DEP intended that its factual representations could be relied upon and that Wheelwright's reliance was reasonable."[10] The Court in Sullivan reached the same conclusion, stating: "At this juncture, we are only deciding whether the plaintiffs have alleged sufficient facts in support of their estoppel claim to withstand a motion to dismiss." Sullivan, 448 Mass. at 36. The Court in Sullivan also pointed out that application of estoppel furthered the public interest by enforcing the CJAM's assurances that were in furtherance of protecting the public interest. Likewise, in this case, there is a comparable objective in furthering the public interest and potential due process rights in commenting on and

[10] Ruling and Order Denying Applicants' Motion for Rescission of the Ruling and Order Reversing and Vacating Prior Ruling and Order Allowing Applicants' Motion to Dismiss for Lack of Standing, p. 2 (emphasis in original).

challenging the permit to protect the environment instead of undermining that because DEP did not fulfill its statement that it would inform Wheelwright when the application was received.[11]

It is true that there is an important public interest at stake in implementing regulatory appeals procedures designed to be applied uniformly to uphold the timely processing and filing of public comments and appeals. But it is equally true that in this case there is a conflicting public interest in allowing Petitioners an opportunity to further develop an estoppel claim to preserve important public interests of providing public comment rights and potential due process rights when unrepresented lay members of the public were allegedly misled by bare factual representations as to the status of agency records or promises to perform that alter a member of the public's stance. This is not the more commonplace situation in which a public official misrepresents the law or makes representations that circumvent the law. Instead, at the heart of this issue is the public interest in ensuring the integrity of simple agency communications and rights of public participation.[12]

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[11] I take administrative notice of the fact that in at least one other context when a DEP official fails to follow through on a representation to provide notice that compromises appellate rights of interested nonparties DEP has implemented the practice of tolling the limitations period until actual or constructive notice. This is true even if the intended recipient was not entitled to receive notice pursuant to any applicable law. Indeed, in the applicable cases the regulations do not state who is entitled to receive notice of an SOC. Even though the interested nonparty could have found out about the SOC by checking the DEP file or calling DEP, it has been the practice to allow tolling where DEP represents that an interested nonparty will receive the triggering document, but never does. As stated by Administrative Law Judge Rooney, DEP adjudicatory decisions have "tolled the deadline for filing a request for an adjudicatory hearing when an interested person or group has asked to be sent a copy of the superseding order by [DEP]." Matter of 29 Hancock Street, LLC, Docket No. 2001-030, Recommended Final Decision (November 15, 2001), adopted by Final Decision (December 11, 2001) (citing Matter of Donald Bianco, Docket No. 93-063, Decision on Department's Motion to Dismiss, 2 DEPR 227 (November 7, 1995) (abutter request for superseding order) and Matter of Bay Park Development Trust, Docket No. 88-291, Final Decision - Order of Dismissal, 7 MELR 1255 (March 31, 1989)(citizens group request for superseding order). The situation here is arguably distinguishable because despite the DEP representation to him, Wheelwright had other means to preserve standing by searching for public notices and then filing timely comments.

[12] The Applicants' reliance on Matter of N&C Realty Trust, Final Decision – Order of Dismissal, Docket No. 94-025 (November 23, 1994), is misplaced. The Applicants argue that it is similar because the petitioners claimed that they relied on DEP oral representations, which the Applicants believe were incorrect, in deciding how to appeal. The facts in that case, however, bear little resemblance to the present one, other than the fact that the petitioners failed to file timely comments. The representations allegedly relied upon in N&C were representations of regulatory requirements for filing a timely appeal. In other words, they were precisely the type of statement or representation

In light of the all the above, Wheelwright sufficiently alleged circumstances warranting the invocation of estoppel to allow him to proceed past the motion to dismiss phase. In addition, Wheelwright's submission of comments as a member of the group, who is also the group representative, invokes standing for the group to challenge the WQC permit. 314 CMR 9.10(1); see Matter of Tennessee Gas Pipeline Company, LLC, Docket No. 2016-020, Recommended Final Decision (March 22, 2017), adopted by Final Decision (March 22, 2017).

In contrast, there has been an insufficient showing for group standing under 310 CMR 9.17(1)(c), primarily because there has been no showing that anyone other than Wheelwright could assert estoppel. See Matter of Entergy Nuclear Operations, Inc. and Entergy Nuclear Generation Co., Docket No. 2015-009, Recommended Final Decision (February 5, 2016), adopted by Final Decision (February 25, 2016); Sullivan, supra. at n. 9.[13]

B. A Preponderance of the Evidence Demonstrates that Estoppel Should Not Remedy the Failure to File Timely Public Comments

Having survived the motions to dismiss, it was incumbent upon Wheelwright to prove his estoppel claim by a preponderance of the evidence, but he failed to do that.

"All of the elements of estoppel must be present and the party asserting the estoppel theory 'has a heavy burden to prove that all [three] elements are present.'" Clickner v. Lowell,

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concerning the law and what it requires for which estoppel is routinely barred from being asserted. That is dissimilar from the bare factual representations and promise to perform an act that occurred in this case.

[13] It is also worth emphasizing that according to my research to date the numerous cases that preceded and followed Sullivan upholding the general legal principle barring reliance on government officials and barring estoppel against the government all involved representations that were based upon legal interpretations or representations of the law, not plain, statements of fact that were relied upon in the context of a permit proceeding. See e.g. Cameron Painting, Inc. v. Univ. of Mass., 83 Mass. App. Ct. 345 (2013); Morton St. LLC v. Sheriff of Suffolk County, 453 Mass. 485 (2009); Dagastino v. Commissioner of Correction, 52 Mass. App. Ct. 456 (2001); Harrington v. Fall River Housing Authority, 27 Mass. App. Ct. 301 (1989); Mailloux v. Town of Littleton, 473 F.Supp.2d 177, 188 (D. Mass. 2007). My research has not yet disclosed any cases where a plaintiff was barred from asserting estoppel against the government under similar circumstances, i.e. reliance upon a plain statement of fact concerning agency records in a permitting proceeding.

422 Mass. 539, 544, 663 N.E.2d 852 (1996), quoting Harrington v. Fall River Hous. Auth., 27 Mass. App. Ct. 301, 309, 538 N.E.2d 24 (1989).

Wheelwright testified that he had ongoing conversations back to 2014 with Mahala and provided Mahala with numerous comments back to that time. Wheelwright PFT, ¶¶ 24-36. Wheelwright added that: "The explicit purpose of my requesting notice when MassDEP received applications was clearly to know when to look for the public notice of the permit so that I, and the Barnstable Citizen's Group, could review their proposal and submit our comments and make sure that all the comments submitted in advance would be included in the formal review of the application. I relied on MassDEP's promise that they would tell me when they received the application." Wheelwright PFT, ¶ 30 When Wheelwright learned that the application had been filed on March 20, 2015, he "was shocked." Wheelwright PFT, ¶ 34. It was Wheelwright's understanding from a telephone conversation with Chin in December 2015 that he would still accept the comments and Wheelwright submitted them shortly afterwards, by December 21, 2015. Wheelwright PFT, ¶¶ 34-41.

Hill testified that his first contact with Wheelwright was when he received an email from him on April 15, 2015, asking whether he "yet received an application for the Ch 91 permit for the 3Bays/Audubon excavation..." Hill testified that he "checked the incoming files in our office and the Waterways database and found no application for the Project. I responded on April 15, 2015 by e-mail to Mr. Wheelwright answering: "No, we have not seen this application." Hill PFT, ¶ 6. A similar exchange occurred on June 17, 2015, with a similar follow-up and response from Hill.

When Hill responded to Wheelwright, he was unaware the Applicants' consultant had mailed the Combined Permit application to DEP employee Ben Lynch in the Department's

Boston office on March 20, 2015. Hill first saw the Application on July 8, 2015, when John O'Dea, an engineer representing the Applicants, sent him an e-mail with a link to the Three Bay Preservation website where the application was posted. Hill PFT, p. 4.

Hill's next communication with Wheelwright was a November 24, 2015 email from Wheelwright asking: "Has the dredge permit been submitted to MassDEP". Hill PFT, p. 4. Hill checked the Waterways database and found that a combined "c.91/WQC application for Three Bays Preservation had been entered with an official start date of July 14, 2015 and was assigned Waterways Application No. W15-4466." On November 25, 2015, Hill responded to Mr. Wheelwright by e-mail stating: "In July, 3-Bays did submit a combined Ch. 91 and 401 Water Quality Certification for the dredging. Ken Chin is the project reviewer." Hill testified that he was still unaware at the time that the application had been previously mailed into Ben Lynch on March 20, 2015. Hill PFT, p. 4.

Chin did not personally know Wheelwright before receiving the emails from him on January 10, 2015 and June 17, 2015. Chin testified that he indicated that he would provide the application as a courtesy, but he did not believe that Wheelwright was relying solely upon him. Transcript 2, pp. 26-28, 31. Chin's next involvement was on July 7, 2015, when the Applicants' counsel had inquired about the status of the application. After it was learned that it was not yet being processed by Chin or Hill, they were told by the Applicants' attorney that the fastest way to receive it would be to download the application from the Applicants' website. Chin downloaded the application and began working on it. However, Chin testified that he did not "send Mr. Wheelwright a copy of the Application because [he] had forgotten about the email exchange [he] had five months earlier with Mr. Wheelwright." Chin PFT, ¶ 6. That was the January 12, 2015, email in which Chin stated that he would "email [Wheelwright] when the 401

application is submitted." On June 17, 2015, Chin had responded to a Wheelwright's more recent inquiry, letting him know that "he still had not seen any application" concerning the Project. Chin testified that he did not try to deceive Wheelwright or shirk his responsibilities. Transcript 2, p. 33. Chin testified that Wheelwright did not submit comments during the public comment period and DEP did not extend the comment period for the project.

There is not a preponderance of the evidence demonstrating that when DEP made the preceding representations to Wheelwright it intended to induce Wheelwright's reliance on those representations or that Wheelwrights reliance was reasonable.

Intended Inducement. For this element it was incumbent upon the Petitioners to introduce evidence showing that Hill and Chin *intended* to induce Wheelwright's reliance on their statements. They failed to do that. There is no evidence showing that Hill or Chin made their statements with intent to induce Wheelwright to rely solely on them to determine when to review public notices for the comment period. This is particularly true given the relatively small number of communications and the absence of a definitive statement by Wheelwright to Hill and Chin that he was relying solely upon them. There is also no evidence that either Hill or Chin actively dissuaded Wheelwright from reviewing the public notices for public comment. Likewise, there is no evidence that Wheelwright was told not to examine the newspaper for the notice of public comment period.

The evidence from Hill and Chin fails to show intent to induce. Hill testified that: "Mr. Wheelwright did not ask me to provide him with the date the Application was filed or of any public comment period. I did not intend to mislead Mr. Wheelwright or cause him to act or refrain from acting in any way. I was simply telling him that at the time of th[e] e-mail, I had not seen the application for the Project." Hill PFT, p. 4.

Chin testified that he responded to Wheelwright because he was "trying to be helpful and courteous to a citizen interested in the project." Chin PFT, ¶ 4. Chin added that it was "never [his] intent to cause Mr. Wheelwright to rely upon my email and cause him to miss the public comment period on this Project. [His] sole intent was to try and be helpful to an interested member of the public." Chin PFT, ¶ 4. Chin testified that he did not "intend to mislead Mr. Wheelwright to act or refrain from acting in any way." He testified that because he is so busy he did not remember his first email to Wheelwright in which he stated: "I will email you when the 401 application is submitted."

Reliance. There is also not a preponderance of the evidence showing that Wheelwright's reliance was reasonable under the circumstances. There is no evidence to show why Wheelwright did not contact Hill and Chin more often with clearer information concerning his intentions to rely solely upon them to determine when to review the local paper for the public notice of comment period. There is also no evidence explaining why Wheelwright could not have independently reviewed the notices for public comment period while also continuously checking in with and waiting to hear back from Chin. Given the importance of knowing when the public comment period would occur it was incumbent upon Wheelwright to act diligently and clearly in his communications with DEP and in his own independent research. He did not do that, as evidenced by the failure to communicate more often with DEP and the failure to perform his own independent research for the notice of public comment period. Ultimately, the notice of comment period was published in the Barnstable Patriot newspaper, a weekly newspaper. Given the circumstances, it was unreasonable for Wheelwright not to have simply checked the paper at least once a week for the notice of public comment period. While there is evidence that Chin stated he would let Wheelwright know when the applications was filed, there is no evidence that

DEP ever indicated to Wheelwright in any way that he would be excused from the independent obligation to review public notices for the comment period. Under these circumstances, there is not a preponderance of the evidence showing that Wheelwright reasonably relied upon the representations to avoid independently reviewing public notices for the comment period. See O'Blenes v. Zoning Bd. of Appeals, 397 Mass. 555, 558, 492 N.E.2d 354, 356 (1986) (summary judgement appropriate when uncontroverted affidavits demonstrated it was not reasonable for counsel to rely on the statement of a clerk of the board for a determination of the last day for completing the procedural requirements for initiating an appeal); Calnan v. Planning Bd. of Lynn, 63 Mass. App. Ct. 384, 387-388, 826 N.E.2d 258 (2005) (summary judgment upheld when undisputed facts demonstrated clerk erroneously informed the plaintiff that nothing had been filed, although in fact the planning board had filed a "vote to approve"; the court found that the plaintiff's reliance was unreasonable because there were numerous other facts that put the plaintiff on notice that in fact an appeal had been filed.).

For all the above reasons, the Petitioners' failure to file comments during the public comment period deprives them of standing, a jurisdictional prerequisite to pursuing their claims. On this ground alone, the Combined Permit should be affirmed. Nevertheless, because the adjudicatory hearing has occurred and this decision may be appealed, it is prudent and in the interest of judicial economy to proceed to the merits, as I do below.

III. The Project Satisfies the Standards and Criteria Set Forth in 310 CMR 9.33(1)(b) and 9.33(3)

The Petitioners raise several issues of noncompliance with the Wetlands Regulations. There is, however, no independent jurisdiction under the Wetlands Act or Regulations in this appeal to adjudicate wetlands issues. That is because the Commission issued an Order of

Conditions ("OOC") finding the project, as conditioned, complied with applicable wetlands laws. That OOC became final after it was not appealed.

Despite the OOC's finality, the Petitioners have invoked limited jurisdiction to review certain wetlands issues by way of the Waterways statute and regulations; the scope of wetlands review, however, is limited to that authorized by c. 91 and 310 CMR 9.00.[14] Specifically, the provisions in 310 CMR 9.33(1)(b) and 9.33(3) require that the project approved under c. 91 must meet certain thresholds of compliance in the Wetlands Regulations and Wetlands Act. Specifically, 310 CMR 9.33(3) provides the following:

> With respect to M.G.L. c. 131, § 40 and 310 CMR 10.00: Wetlands Protection, if the Department has issued a final order of conditions the project shall be presumed to comply with the statute and the final order shall be deemed to be incorporated in the terms of the license or permit, with no additional wetland conditions imposed. If an order of conditions has been issued by the conservation commission and the Department has not taken jurisdiction, the Department shall presume the project complies with state wetland standards, except upon a clear showing of substantial non-compliance with such standards. In that event, the Department shall impose such additional conditions in the license or permit as will make the project substantially comply with state wetlands standards. (emphasis added)

Jurisdiction. Given the limited nature of this wetlands review, jurisdiction in this forum has two constraints. First, as provided by the preceding provision (310 CMR 9.33(3)), review is limited to determining whether the Petitioners have overcome the presumption of compliance with the Wetlands Regulations and Act by making a "clear showing" of "substantial noncompliance" with those laws. This standard exists to preclude collateral attacks on an unappealed order of conditions but also to require some level of meaningful review for clear

[14] In order to directly appeal and challenge compliance with 310 CMR 10.00, the Wetlands Regulations, the Petitioners would have had to appeal the Order of Conditions issued by the Barnstable Conservation Commission approving the Notice of Intent. That order, however, was not appealed by any party, and thus it remains final.

issues of substantial noncompliance with wetlands laws. The standard therefore creates a significantly increased level of deference (or lower level of scrutiny) to reviewing the project's compliance with wetlands laws. Instead of applying the preponderance of the evidence standard to determine whether there is compliance (as in a direct wetlands appeal), I must determine whether the Petitioners have provided *clear* proof of *substantial* noncompliance with wetlands laws.[15] If the Petitioners reach that threshold, the remedy is to impose "such additional conditions in the license or permit as will make the project substantially comply with state wetlands standards." 310 CMR 9.33(3)

Second, review is necessarily limited to those wetlands resource areas that also fall within c. 91 jurisdiction (the regulatory regime providing jurisdiction). For coastal areas, the Waterways jurisdiction under c. 91 is generally limited to tidelands: "present and former submerged lands and tidal flats lying between the present or historic high water mark, whichever is farther landward, and the seaward limit of state jurisdiction. Tidelands include both flowed and filled tidelands, as defined herein." 310 CMR 9.04; see G.L. c. 91 §§ 1, 2; 310 CMR 9.02-9.05; Moot v. Department of Environmental Protection, 448 Mass. 340, 342-43 (2007). The high water mark is the present mean high tide line. 310 CMR 9.02 (high water mark); see also Hill PFT, ¶¶ 15-16.

To remain within c. 91 jurisdiction and in the interest of judicial economy, prior to the commencement of the adjudicatory hearing I allowed the Applicants' motion in limine that the scope of review for wetlands issues in this appeal be limited to wetland resource areas within c. 91 jurisdiction, i.e. below or seaward of the mean high tide line. Here, those resource areas

[15] The Petitioners repeatedly and incorrectly assert that the standard of review is to determine whether the Commission and the Order of Conditions it imposed is substantially noncompliant. See e.g. Petitioners' Rebuttal Brief, p. 4. That is an incorrect standard because the preceding regulations specifically focus review on the project, which is consistent with the de novo nature of this appeal.

include Coastal Beach, 310 CMR 10.27, Land Under the Ocean, 310 CMR 10.25, Land Containing Shell Fish, 310 CMR 10.34, and Estimated Areas of Rare Wildlife, 310 CMR 10.37. The two activities approved under the Combined Permit that will affect these resource areas include beach nourishment and maintenance dredging pursuant to c. 91. The mean high tide line is identified on the Project Plan "Dead Neck Sampson's Island Dredging and Nourishment Plan," dated October 14, 2014, and depicted as M.H.W. (EL. 1.4). Hill PFT, ¶ 16.

This jurisdictional limitation is consistent with DEP practice. Hill testified that it has been his "understanding and interpretation of 9.33(3) that it only applies to standards for wetland resource areas that are within c.91 jurisdiction." He is "not aware of any c.91 project where the Waterways Program has imposed conditions for upland structures or activities that are not within c.91 jurisdiction in order to make the project comply with state wetland standards." Hill PFT, ¶¶ 15-16.

Dredging and Alternatives. Related to the above jurisdictional issue is the Petitioners' characterization of the dredging component of the Project. The Petitioners assert that some of the authorized maintenance dredging activity is not actually dredging because it will involve the removal of a portion of the accreted spit that is above the mean high tide line. They contend that any dredging activity above mean high tide line is not dredging, as defined by the regulations, and thus it cannot be authorized as dredging. The Petitioners' position is not persuasive.

Dredging "means the removal of materials including, but not limited to, rocks, bottom sediments, debris, sand, refuse, plant or animal matter, in any excavating, cleaning, deepening, widening or lengthening, either permanently or temporarily, of any flowed tidelands, rivers, streams, ponds or other waters of the Commonwealth. Dredging shall include improvement

dredging, maintenance dredging, excavating and backfilling or other dredging and subsequent refilling." 310 CMR 9.02 (emphasis added).

Maintenance dredging "means dredging in accordance with a license or permit in any previously authorized dredged area which does not extend the originally dredged depth, width, or length." 310 CMR 9.02.

The Petitioners argue that because the definition of dredging under c. 91 is limited to jurisdiction for the identified water bodies—flowed tidelands, rivers, streams, ponds or other waters of the Commonwealth—any dredging activity above the mean high tide line is not dredging because it is outside c. 91 jurisdiction, and thus is not authorized under the regulations. I disagree with this interpretation.

The Petitioners argument demonstrates that the regulations are conflicting and ambiguous with respect to this issue. On the one hand, c. 91 jurisdiction is limited to tidelands, defined as: "present and former submerged lands and tidal flats lying between the present [as defined by the mean high water mark] or historic high water mark, whichever is farther landward, and the seaward limit of state jurisdiction. Tidelands include both flowed and filled tidelands, as defined herein."[16] On the other hand, maintenance dredging "means dredging in accordance with a license or permit in any previously authorized dredged area which does not extend the originally dredged depth, width, or length." 310 CMR 9.02 (emphasis added). The ambiguity and conflict arise here because the previously dredged area now includes fill that is above the mean high tide line in the previously dredged area.

I disagree with the Petitioners' interpretation for three reasons, and interpret the ambiguity in the regulations to allow the project. First, maintenance dredging is defined without

[16] There is no evidence in the administrative record concerning the "historic high water mark" for the Project area, and thus I rely upon the present high water mark.

limitation to include the previously dredged area, regardless of how that previously dredged areas has changed. Second, allowing the dredging of naturally accreted fill that now happens to be above mean high tide in a previously dredged area coincides with the purpose of maintenance dredging—to perpetuate and sustain the dredging of a previously dredged area for the intended purpose, generally navigation. Third, maintenance dredging is a more specific form of dredging, and thus it supersedes the more general dredging provision. Plainville Asphalt Corp. v. Town of Plainville, 83 Mass. App. Ct. 710, 713, 989 N.E.2d 526 (2013).

This interpretation is consistent with DEP's practice. Hill testified that "it is not unusual for the Waterways Program to review projects that involve dredging in areas determined to be Coastal Beach." He added that many coastal beaches are subject to "constant change and as sand or sediments shift or are over-washed into navigational channels the dredging/excavation required to restore the limits of the channel may impact wetland resource areas that" are naturally deposited and lie above the mean high water line. Hill PFT, ¶¶ 17-18.

A. Land Under the Ocean

Land under the ocean, or LUO, is the "land extending from the mean low water line seaward to the boundary of the municipality's jurisdiction and includes land under estuaries." 310 CMR 10.25. When, as here, a proposed project involves the dredging, removing, filling or altering of a nearshore area of land under the ocean, the issuing authority shall presume that the area is significant to the protection of marine fisheries and, where there are shellfish, to protection of land containing shellfish, storm damage prevention, flood control, and protection of wildlife habitat. 310 CMR 10.25. Under these circumstances, the following LUO performance standard applies for maintenance dredging apply in this appeal:

> (4) Maintenance dredging for navigational purposes affecting land under the ocean shall be designed and carried out using the best

> available measures so as to minimize adverse effects on such interests caused by changes in marine productivity which will result from the suspension or transport of pollutants, increases in turbidity, the smothering of bottom organisms, the accumulation of pollutants by organisms, or the destruction of marine fisheries habitat or wildlife habitat.

310 CMR 10.25(4).

The Applicants provided testimony concerning how they intend to utilize the best available measures to minimize adverse effects on the identified interests. Approximately 3.3 acres of LUO west of and adjacent to the spit at the west end of the Island will be affected by the Project's maintenance dredging. This work has been designed to use the best available measures to "prevent and minimize: (1) suspension or transport of pollutants, (2) increases in turbidity, (3) smothering of bottom organisms, (4) accumulation of pollutants by organisms, or (5) destruction of marine fisheries habitat or wildlife habitat." Smith PFT, p. 4.

The Applicants' evidence also added that the materials proposed for maintenance dredging are predominantly sand originally from, and compatible with, the eastern portion of the Island. Smith PFT, p. 5. Sediments of this nature do not pose risks for turbidity or re-suspension during dredging due to their coarse grain size. The beach sand to be dredged also does not contain pollutants. Smith PFT, p. 5.

Smith added that the dredging contractor will be required to have siltation curtains available and deployed as needed for all dredging operations, which will control any potential release of turbidity to adjacent waters. The contractor will also be required to provide protection against spills from refueling, or other operations. The only non-sand material that might be encountered is a small deposit of silt/clay located along a portion of the Nantucket Sound shoreline. A plan is in place for this material to be mechanically dredged, offloaded to the mainland, and transported to a suitable upland location. Smith PFT, p. 5.

The Petitioners' wetlands expert, Boretos, asserted that there is eelgrass in "close proximity" to the spit and the Applicants did "not meet the burden of proof of documenting that eel grass beds are not within the standard for Land under the Ocean 10.35(3), (c) and as a result the Order of Conditions is in substantial noncompliance with this regulatory standard." Boretos PFT, p. 5; Transcript 1, pp. 84-85. Eelgrass is generally considered to provide important wildlife habitat.

Boretos' testimony, however, was wholly undermined by the Applicants' more extensive eelgrass investigation. In particular, DEP eelgrass mapping figures showed there was no eelgrass present in the proposed Project's dredging and renourishment areas. Neubert PFT, Ex. PN-2, Figure 2. This was verified by the Applicants' own on-site study, which relied upon observations from a boat and walking the shoreline to a depth of 3 feet. Neubert PFT, p. 6.

The Applicants also provided evidence from their research of organisms that live in the sediment of the proposed dredged area, also known as benthic infaunal organisms. The results were consistent with prior scientific studies: there is "low diversity and abundances of benthic infaunal organisms. The organisms found were considered 'opportunistic' species that rapidly recolonize habitat that is anthropogenically disturbed, particularly organically enriched sediment." Neubert PFT, p. 9. Neubert testified that instead of harming these organisms, the proposed dredging "will provide improved water flow within the impaired Three Bays ecosystem and oxygenate water, which will improve sediment quality conditions, having a positive effect on the benthic infaunal communities, which will provide a more abundant and diverse food source for higher trophic level species (e.g. fish and birds)." Neubert PFT, p. 9.

Given the above testimony and the absence of any other relevant evidence from the Petitioners, I conclude that they have not made a clear showing of substantial noncompliance with 310 CMR 10.25(4).

B. Land Containing Shellfish

The Petitioners assert that the Project fails to meet the requirement that there be no adverse impact on the wetlands resource area of land containing shellfish. See 310 CMR 10.34. They assert that the Order of Conditions concludes that there will be alterations of 386,000 square feet of land containing shellfish. They add that the Order of Conditions is flawed because there are no findings regarding this resource area despite concerns expressed by the shellfish committee (citing Humphries PFT, Ex. 2) and despite the shellfish grants in the area. They conclude that "given the lack of findings, the Commission cannot have concluded that the project will have no adverse effect on this resource." Petitioners' Closing Brief, p. 16.

The Petitioners argument is without merit for a number of reasons. First, the Petitioners' arguments wrongly implicate review of the Commission's work, instead of attempting to make a clear showing in this de novo appeal that the Project, as conditioned, is in substantial noncompliance with the performance standards governing land containing shellfish. Second, the performance standards for land containing shellfish are inapplicable because no part of the project area has been identified and mapped as land containing shellfish. Smith PFT, p. 8.

The Applicants' own independent analysis corroborated the absence of land containing shellfish. The Town of Barnstable performed shellfish surveys in the area of the proposed dredging and found no shellfish to be present and characterized the area as not significant for shellfish. Neubert PFT, Ex. PN-3. The Town's results were consistent with Neubert's findings of no shellfish within the proposed renourishment area or the west end of Sampson's Island.

Neubert PFT, Ex. PN-2, Figures 6 and 7. Neubert's survey and the Town of Barnstable's survey indicate the dredging and renourishment areas are suboptimal shellfish habitat. Neubert PFT, p. 7.

For the above reasons, the Petitioners have not made a clear showing of substantial noncompliance with 310 CMR 10.34.

C. Coastal Beach

Coastal Beach is defined in relevant part as:

> Coastal Beach means unconsolidated sediment subject to wave, tidal and coastal storm action which forms the gently sloping shore of a body of salt water and includes tidal flats. Coastal beaches extend from the mean low water line landward to the dune line, coastal bankline or the seaward edge of existing human-made structures, when these structures replace one of the above lines, whichever is closest to the ocean.

Because this issue arises under c. 91 jurisdiction, review is limited to those resource areas that lie below the mean high tide line (as discussed previously). As a consequence, the only coastal beach area that is subject to review in this appeal is the area of coastal beach that lies between the mean low water line and the mean high tide line. Thus, the coastal beach area on the western end of the Island that is subject to review is the narrow u-shaped area that lies between the mean low water line and the mean high water line. See Project Plan "Dead Neck Sampson's Island Dredging and Nourishment Plan," dated October 14, 2014, and depicted as M.H.W. (EL. 1.4).

The Petitioners assert that the Project fails to comply with the coastal beach performance standard in 310 CMR 10.27(3). The performance standard in 310 CMR 10.27(3) provides:

> (3) Any project on a coastal beach, except any project permitted under 310 CMR 10.30(3)(a), shall not have an adverse effect by increasing erosion, decreasing the volume or changing the form of any such coastal beach or an adjacent or downdrift coastal beach.

There are several reasons why the Petitioners have not made a clear showing of substantial noncompliance with 310 CMR 10.27(3).

The Petitioners argue that the Project will result in increased erosion. Fitzgerald and Humphries testified generally, without any quantification or supporting models of their own, that removing part of the spit will increase wave energy and possible erosion in areas purportedly protected by the spit.[17] Fitzgerald PFT, ¶ 13. They rely upon Ramsey's assessment that the Cotuit mainland shoreline will experience higher storm wave energy during the 25, 50, and 100 year storm events following the removal of the dune and deepening of the inlet throat. As a consequence, they argue this amounts to an adverse impact on storm damage prevention and flood control. Petitioners' Closing Brief, p. 18. The Petitioners also argue that the Applicants did not evaluate flood control and storm damage values for smaller and more frequent storms than the 50 year storm. They contend that without the spit, wave heights will be larger and the "western shoreline will erode . . . ." Transcript 1, p. 109 (Humphries testimony).

The Petitioners' arguments that the Project will result in increased erosion are not persuasive for a number of reasons. First, their arguments are supported primarily by conclusory testimony from their experts, and unsupported by actual analysis and data. In contrast, Ramsey, the Applicants' expert, testified, based upon a modeling analysis, that removing the tip of the spit will not have an adverse effect on the ability of the barrier island to provide storm damage prevention and flood control to landward areas. Ramsey PFT, p. 15, 34. His models demonstrated that during storm events with a recurrence interval of 50 or more years the entire

[17] In fact, much of Fitzgerald's and Humphries' testimony consists of theoretical statements unsupported by an adequate evidentiary foundation, in contrast to the Applicants' testimony, particularly Ramsey's. This distinction leads me to add significantly less weight to the Petitioners' testimony, in addition to the other factors mentioned throughout this decision.

area of the spit that is to be excavated is completely inundated and provides no flood control or storm damage protection to landward areas. Ramsey PFT, p. 15, Ex. JR-4 and JR-21. In fact, the elevation of the spit area that has accreted since 1967 lies only about .8 feet above mean high water. Ramsey PFT, p. 16, 17. Contrary to the Petitioners' assertions, Ramsey did assess the impact of smaller, more frequent storms. He testified that "[m]ore frequent storms (i.e., storms that are expected to occur more frequently than once every 50 years) in this area are typically associated with easterly waves (moving from west to east); therefore, it is extremely rare for open Nantucket Sound waves to propagate into Cotuit Bay during these storm events." Ramsey PFT, p. 15, 17.

In fact, instead of the Project increasing erosion, there is persuasive evidence that currently the spit itself is causing substantial erosion to the shoreline opposite the spit. The spit's growth has narrowed the Cotuit channel, causing the channel to migrate closer to the mainland; that results in higher and swifter tidal currents closer to the mainland, increasing the potential for storm damage and flooding. Ramsey PFT, p. 15, 17; Hill PFT, pp. 10-11. As a consequence, the historically stable shoreline approximately 500 feet south of Riley's Beach has become erosional during the period of 2001 to 2011. Ramsey PFT, p. 27; Smith PFT, p. 10. To address that problem, the project will widen the channel and thus reduce tidal velocities through the channel, decreasing erosion. Ramsey PFT, p. 15, 17, 27, 34. In fact, Ramsey persuasively testified that the project will enhance storm damage prevention and flood control because the amount of reduced erosion of the mainland will be significantly more than the possibility of any increased erosion. Ramsey PFT,p.34.

Further, Ramsey's wave analysis demonstrates that the project will not significantly alter waves in the Cotuit Bay for either severe wave conditions or the high annual wind condition

events. Ramsey PFT, p. 37, Ex. JR-27, JR-28, JR-29. There may be increased wave action during severe storms (50 or 100 year) but it is limited to the region between Cross Street and the next groin to the northeast, which is in the throat of the Cotuit Bay entrance. Ramsey PFT, p. 38. In furtherance of ensuring that erosion is not increased by the Project, Special Condition 21 of the Order of Conditions includes a Cotuit Shoreline Monitoring and Mitigation Plan. Ramsey PFT, p. 17, Ex. JR-23. It will monitor any changes in the shoreline on the western side of the Cotuit inlet, and provide mitigation in the event any unexpected changes occur. Id. Ramsey also testified that down-drift coastal beaches will not be affected because this area is at the end of the littoral drift system. Ramsey PFT, p. 16.

The Petitioners' next argument is that the project will have an adverse effect because it will decrease the volume of the coastal beach so much so that it "will completely eliminate the Coastal Beach" at the western end of the Island. Petitioners' Closing Brief, p. 18; Humphries PFT, ¶ 37. This position was persuasively rebutted by the Applicants. The Applicants' expert Smith testified that the project will in fact change the form and volume of the coastal beaches at both ends of the Island. Smith PFT, p. 10. At the west end of the Island, coastal beach on the tip of the accreted spit will be removed to re-establish the navigation channel to the configuration that was last maintained by dredging in 1967. Importantly, that lost volume of coastal beach is authorized by the more specific maintenance dredging regulation, as discussed previously, because it is naturally accreted material in the previously dredged area. See supra. at pp. 55-58. The east end of the Island's coastal beach will increase in volume from nourishment to that area, which will have a beneficial effect on the beach. It will not have an adverse effect on wetland interests, and it will restore storm damage prevention, flood control, and protection of wildlife habitat at the east end of the Island. Smith PFT, p. 10.

Further, although the volume of each end of the barrier beach will change, the backpassing of the dredged material to the east end of the Island means that the overall volume of the barrier beach will be maintained, which is consistent with the performance standards. For all the above reasons, there is no unauthorized adverse change in the sand volume or the beach form.

Humphries assertions are also misplaced because the vast majority of his testimony concerns areas outside the project area and outside the jurisdiction of this appeal, the coastal beach area lying between mean high water and mean low water. See e.g. Humphries Rebuttal PFT, p. 7.

For the above reasons, the Petitioners have not made a clear showing of substantial noncompliance with 310 CMR 10.27(3).

D. Coastal Beach and Wildlife Habitat

The Coastal Beach performance standard at 310 CMR 10.27(7) specifies the following with respect to wildlife habitat:

> (7) Notwithstanding the provisions of 310 CMR 10.27(3) through (6), no project may be permitted which will have any adverse effect on specified habitat sites or rare vertebrate or invertebrate species, as identified by procedures established under 310 CMR 10.37.

The regulations in 310 CMR 10.37 complement 310 CMR 10.27(7) with the following provision:

> Notwithstanding 310 CMR 10.24(7) and 10.25 and 10.27 through 10.35, if a proposed project is found by the issuing authority to alter a resource area which is part of the habitat of a state-listed species, such project shall not be permitted to have any short or long term adverse effects on the habitat of the local population of that species. A determination of whether or not a proposed project will have such an adverse effect shall be made by the issuing authority. However, a written opinion of the [Natural Heritage and

> Endangered Species Program] on whether or not a proposed project will have such an adverse effect shall be presumed by the issuing authority to be correct. This presumption is rebuttable and may be overcome upon a clear showing to the contrary.

310 CMR 10.37 (Estimated Habitats of Rare Wildlife (for Coastal Wetlands)).

Here, the last two sentences in the preceding provision are controlling. Natural Heritage issued a take permit and did not conclude there was any short term adverse impact. Parsons PFT, Ex. 7. Pursuant to Wetlands Policy: Coordinated Review Relating to Endangered Species (BRP/DWM/WWP 06-1), and as provided in 310 CMR 10.37 and 10.59, when a "project is proposed in estimated habitat, [DEP] relies on the Natural Heritage Program's opinion as to whether a proposed project has any short or long-term effect on the habitat of the local population of any state-listed wildlife species. Accordingly, when the Natural Heritage Program makes a determination pursuant to 321 CMR 10.23, that a project may proceed pursuant to a conservation and management permit, this determination shall be presumed to satisfy the standard for no short or long-term adverse effect pursuant to the wetlands regulations (310 CMR 10.37 and 10.59.)."

Here, Natural Heritage determined that the project may proceed with a Massachusetts Endangered Species Act Conservation and Management Permit. Parsons PFT, Ex. 7. Natural Heritage exercised its authority under 321 CMR 10.23 to permit a Take of Piping Plover at the western end of the Island. That was based upon Natural Heritage's finding that the take could be permitted for conservation and management purposes because there is a long term net benefit to the conservation of the impacted species, the Piping Plover. Parsons PFT, Ex. 7. Natural Heritage's permit included 13 general conditions and 13 special conditions. Id.

The Combined Permit includes a detailed Conservation and Management Plan that Natural Heritage concluded would provide a long-term Net Benefit to the conservation of the

Piping Plover. Elements of that plan include (a) a predator management plan; (b) a landscape management plan; (c) a beach management plan; and (d) a state-listed species monitoring plan.

The presumption that there is not a short or long-term adverse effect pursuant to the wetlands regulations may be overcome upon a clear showing of substantial noncompliance. 310 CMR 10.37; 310 CMR 9.33(3). The Petitioners failed to meet that evidentiary threshold, particularly given the relatively limited area of coastal beach that is within the jurisdiction of this appeal under 310 CMR 9.33(3). Their wetlands expert, Boretos, testified to what she believes is current habitat but she failed to provide any evidence in rebuttal to Natural Heritage's finding that the Project will result in a long term net benefit to the conservation of the impacted species, and specifically the Piping Plover. Boretos PFT, p. 4. Indeed, Boretos did not include any long-term analysis or discussion of the details of the Project, and her testimony was substantially undermined by the Applicants' expert, Parsons. Moreover, much of her testimony pertained to areas outside of the c. 91 jurisdiction in this appeal. Transcript 1, pp. 65-75.

In contrast, as Parsons explained, based upon more detailed facts and research, the western end of the Island is suboptimal habitat and the Project will "replicate more than four acres of beach with high quality habitat for rare bird species, which will develop tidal features and normal feeding habitat as evidenced by the expansion of nesting and foraging that resulted when the island was renourished in 1999-2000." Parsons PFT, p. 19; see also Parsons PFT, pp. 6-20.[18] Parsons testified that instead of the removal of sediment from the spit resulting in

[18]Mahala opined that "under the current Wetlands Regulations, [not those that existed when the application was filed] the proposed project could be permitted as an Ecological Restoration Project (ERP), as defined at 310 CMR 10.04." Mahala PFT, ¶ 10. ERP "means a project whose primary purpose is to restore or otherwise improve the natural capacity of a Resource Area(s) to protect and sustain the interests identified in M.G.L. c. 131, s 40, when such interests have been degraded or destroyed by anthropogenic influences." Alternatively, the proposed project could have also been "permitted as Ecological Restoration Limited Project (ERLP), as defined at 310 CMR 10.04. An ERLP "means an Ecological Restoration Project that meets the eligibility criteria set forth at 310 CMR 10.24(8)

adverse impacts, the back-passing of sediment to the south and east of the Island will draw the Plovers away from the tip, where access by coyotes and disturbance by humans (and domestic dogs) are highest, and provide wider beaches and suitable habitat along the south shore of the Island. The Project will have a long-term net benefit to the conservation of the Piping Plover, Least Tern and other special status coastal birds. Id.

For the above reasons, the Petitioners have not made a clear showing of substantial noncompliance with 310 CMR 10.27(7).

IV. The Project Satisfies the Standards and Criteria Set Forth in 310 CMR 9.33(1)(c)

The Waterways regulation at 310 CMR 9.33(1)(c) provides that the Project must comply with wetlands restriction orders recorded pursuant to Wetlands Restriction Acts, M.G.L. c. 130, § 105 and c. 131, § 40A, and 310 CMR 12.00: Adopting Coastal Wetlands Orders and 310 CMR 13.00: Adopting Inland Wetlands Orders.

Here, there is a wetland restriction issued under G.L. c. 130, § 105, by the Department of Environmental Management on October 7, 1980, which is recorded in the Barnstable Registry of Deeds at Book 3355, Page 213 (the "Order").

Section 3 of the Order lists thirteen categories of activities and uses, designated as (A) through (M), that are *allowed* on the land and waters affected by the Order, if the work is approved in an Order of Conditions issued under G.L. c. 131, § 40. The Order specifically allows beach nourishment and maintenance dredging under paragraphs G and H if the work was approved in an order of conditions issued under G.L. c. 131, § 40. Here, the work was approved in the unappealed order of conditions issued by the Commission.

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or 10.53(4)." Types of ERLP are listed at 310 CMR 10.24(8)(e) and include the restoration, enhancement, or management of Rare Species habitat. Mahala PFT, ¶ 11.

Section 4 of the Order lists five categories of activities and uses, designated as (A) through (E), that are *prohibited* on land and waters affected by the Order, except those activities or uses needed to accomplish the activities and uses permitted in Section 3. All of the work proposed by the Applicants is expressly permitted under Section 3 of the Order. The placement of dredged material on coastal wetlands and the dredging and excavation of coastal wetlands are needed to accomplish the activities and uses permitted under Sections 3(G) and 3(H). Smith PFT, p. 15; Hill PFT, pp. 12-13. Therefore, they are not prohibited by Section 4.

Despite the Order's express authorization of the work at issue, the Petitioners' have lodged a two prong attack with respect to this issue, but both arguments lack merit. First, much of their argument pertains to areas outside c. 91 jurisdiction, which, as noted above, is not permissible. Humphries PFT, ¶¶41-48. Second, they argue that the intent of the order was to protect the "wetland resources as they existed at the time and as they naturally change into the future." Humphries PFT, ¶ 42. They argue that because the maintenance dredge seeks to reestablish a channel dredged in 1967 that existed before the 1980 Order, such dredging is prohibited. There is, however, no support for this position in the Order itself or in the Wetlands Regulations. In fact, as discussed, the Order specifically exempts the proposed work, including "maintenance dredging of existing channels."[19] Order, ¶ H.

For the preceding reasons, a preponderance of the evidence shows that the Project complies with 310 CMR 9.33(1)(c).

V. The Project Satisfies the Standards and Criteria Set Forth in 314 CMR 9.06(1)

The regulation at 314 CMR 9.06(1), which is titled "Criteria for the Evaluation of Applications for Discharge of Dredged or Fill Material, provides: "No discharge of dredged or

[19] Humphries PFT, Ex. 3. It should be noted that Humphries PFT incorrectly identifies the order as Exhibit 7 to his testimony, not the correct identification as Exhibit 3.

fill material shall be permitted if there is a practicable alternative to the proposed discharge that would have less adverse impact on the aquatic ecosystem, so long as the alternative does not have other significant adverse environmental consequences."

"Practicable" is defined at 314 CMR 9.02 as "available and capable of being done after taking into consideration costs, existing technology, proposed use, logistics and potential consequences (e.g., degradation of Rare Species Habitat, increased flood impacts to the built environment) in light of the overall project purposes and is permittable under existing federal and state statutes and regulations."

Here, the discharge component of the Project is for beach nourishment. This satisfies 314 CMR 9.06(1) for a number of reasons. First, the regulations at 314 CMR 9.03(2) specifically exempt beach nourishment activities with a final order of conditions issued under G.L. c. 131, § 40. The discharge is therefore exempt because it is a nourishment project with a final order of conditions. Standish PFT, pp. 3-4.

Second, the Applicants provided testimony, as discussed above and below, that there would not be an adverse impact on the aquatic environment and there was was no practicable alternative that would have less adverse impact on the aquatic environment. Smith PFT, p. 16; supra. at pp. 58-67; infra. at pp. 75-80.

Third, the Combined Permit is conditioned to protect the adjacent marine waters during nourishment activity, and ensure that the work will not cause any significant adverse environmental impacts. Smith PFT, p. 16. The nourishment is designed to provide maintenance of the nourishment work that was performed under prior permits, and it will not exceed the previously-approved height, width, length, or side slopes. Ramsey PFT, p. 19. The Applicants provided unrebutted testimony that placement of beach compatible nourishment material along

the severely eroded southern and eastern shores of the Island is the only practicable alternative to maintain the integrity of the barrier beach system. Ramsey PFT, p. 19. The nourishment will stabilize the barrier beach and prevent breaching of the eastern portion of the Island and the potential adverse effects that would flow to the aquatic environment from that breach. Ramsey PFT, p. 19.

Humphries asserted that he believes there is a discharge alternative with less potential for adverse environmental effects. He disagrees with the approach to pump the dredged material into settling basins on the dune at the western end of the Island. Instead, he asserts that the standard practice is to pump the dredged material directly to the area to be nourished, and thus avoid the temporary alteration to the dune to create the basins. Humphries PFT, ¶ 50. Ramsey disagreed, pointing out that the employment of settling basins is a common best practice to further minimize any potential turbidity. Ramsey PFT, p.35. The project will provide for the complete restoration of the dunes where the dewatering will occur, eliminating any adverse effect. Id. I find Ramsey's testimony more persuasive because his approach avoids turbidity but also requires that the dune be fully restored. In contrast, Humphries did not explain how any harmful turbidity could be avoided under his preferred approach.

For the preceding reasons, a preponderance of the evidence shows that the Project complies with 314 CMR 9.06(1).

VI. The Project Satisfies the Standards and Criteria Set Forth in 314 CMR 9.06(2)

The regulation at 314 CMR 9.06(2), which is titled "Criteria for the Evaluation of Applications for Discharge of Dredged or Fill Material, provides: "No discharge of dredged or fill material shall be permitted unless appropriate and practicable steps have been taken which will avoid and minimize potential adverse impacts to the bordering or isolated vegetated

wetlands, land under water or ocean, or the intertidal zone. However, no such project may be permitted which will have any adverse effect on specified habitat sites of Rare Species." Here, there are no bordering or isolated vegetated wetlands, only land under ocean and intertidal zone.

There are several reasons why the Project satisfies 314 CMR 9.06(2). First, Standish testified persuasively that, similar to 314 CMR 9.06(1), this regulation, 314 CMR 9.06(2), is not applicable to the Project's jurisdictional activity since it involves beach nourishment and has a valid final order of conditions from the Commission. Standish testified that "beach nourishment activities with a Final Order of Conditions issued under M.G.L. c. 131, s. 40," do not require a 401 WQC application. Standish PFT, pp. 4-5.

Moreover, even if there were no exemption, a preponderance of the evidence demonstrates that the Project will have a beneficial effect on the habitat site of rare species, as found by Natural Heritage and unrebutted by the Petitioners. See supra. at pp. 66-69. From the nourishment, the Island will provide island nesting habitat, which is considered preferable to mainland nesting habitat. Island habitat is very rare in the region with only 10% of active plover nesting sites on islands. The Project will provide a near-term and long-term net benefit to the conservation of the Piping Plover, and State-listed Least Tern, Common Tern; other breeding and non-breeding shorebirds and seabirds will also see a net benefit from the Project. Parsons PFT, p. 9.

The Applicants demonstrated, based on data that the Coastal Waterbird Program has collected on the island over many years, that renourishment of the east end of the Island and selected locations on the south shore of the Island will substantially increase the availability of high quality shorebird nesting and foraging habitat on the Island. The plan for Mass Audubon and Three Bays Preservation to conduct periodic back-passing of dredged material from the

Cotuit Bay entrance channel to the Island's east end will enable the Applicants to maintain the restored beach habitat consistently over the long term, which is critical to sustaining broader access for nesting and foraging by the Plovers and Terns at the Island. Parsons PFT, p. 9.

The placement of dredged and excavated materials for beach and dune nourishment along the southern shore of the Island and at its eastern end is important and necessary to reestablish the important habitat for Rare Species that has been lost due to erosion and the lack of new sediment supply. The lack of sediment supply results from the jetties at the Osterville inlet interrupting the littoral drift of material that is necessary to sustain the Island's east end and southern shore. Without the nourishment provided by prior nourishment projects the southern shoreline would not have been able to support these species. Parsons PFT, p. 9. The data obtained by Mass Audubon over the past 15 years show that the ability of bird species to nest and thrive on the Island has been maximized through periodic nourishment. Parsons PFT, p. 9, Ex. KP-6.

In addition, over time, littoral drift westward from the Island's east-end renourishment sites will result in the creation of additional habitat along the entire south side of the Island. The widening of the nesting beaches will likely reduce predator impacts because there will be greater area to elude predators. Further, wider nesting beaches reduce the risk of nests being overwashed during high tides and storms. Predation and beach overwash are the two most significant factors resulting in plover nest failure on the Island. Parsons PFT, Ex. KP-3. Research demonstrates that the proposed renourishment of the island and restoration of habitat is expected to result in both an increase in abundance and productivity of nesting plovers and terns. Parsons PFT, p. 9, Ex. KP-4.

Similarly, renourishment will be beneficial because it will create new habitat for the prey upon which the birds rely. Wrack invertebrates are a primary food source for plovers. Presently there is relatively poor foraging conditions at the east end of the Island, and thus a lack of birds presently foraging there. Parsons PFT, p. 9.

For the preceding reasons, a preponderance of the evidence shows that the Project complies with 314 CMR 9.06(2).

VII. The Project Satisfies the Standards and Criteria Set Forth in 314 CMR 9.07(1)(a)

The regulation at 314 CMR 9.07(1), which is titled "Criteria for the Evaluation of Applications for Dredging and Dredged Material Management" provides in relevant part the following: "(a) No dredging shall be permitted unless appropriate and practicable steps have been taken which will first avoid, and if avoidance is not possible then minimize, or if neither avoidance or minimization are possible, then mitigate, potential adverse impacts to land under water or ocean, intertidal zone and special aquatic sites. No dredging shall be permitted if there is a practicable alternative that would have less impact on the aquatic ecosystem. . . ."

There are several reasons why a preponderance of the evidence shows that the Project satisfies 314 CMR 9.07(1)(a). First, the Applicants performed a detailed and persuasive alternatives analysis as part of the Expanded ENF during the MEPA process, including an evaluation of alternative sources of beach-compatible material for the needed nourishment along the eastern end of the Island. The alternative sources that were evaluated included maintenance dredging of the full Cotuit Bay entrance channel as a closed-loop program of back-passing within the DNSI system; periodic maintenance dredging of the existing channel centers ("fairways"); off-shore sand mining; and on-shore sources of sand.

The preferred alternative was the project as now proposed. The ENF states: MassDEP indicates that in this particular instance the concept of back-passing from an accretion area to an erosive area appears to be a reasonable way of balancing the protection of the various natural resources around [the island]." ENF, p. 7. It concludes: "The Proponent has presented sufficient information regarding potential project alternatives . . . ." Id. at p. 12; see Matter of Tennessee Gas, supra. (DEP may rely upon an alternatives analysis presented during the MEPA process in making its own permitting decisions).

A convincing analysis of the alternatives demonstrated that the proposed maintenance dredging of the Cotuit Bay inlet as a closed-loop program of back-passing within the barrier island system was the only practicable alternative. Ramsey PFT, p. 21. The project design includes necessary steps to minimize potential impacts associated with dredging within LUO and the intertidal zone. And strict time-of-year restrictions are in place to prevent potential impacts to marine fisheries and other resource interests. Ramsey PFT, p. 21.

Recent joint guidelines developed by DEP and CZM, entitled Applying the Massachusetts Coastal Wetlands Regulations (2017), indicate that sediment back passing is permissible if sediment transport studies demonstrate that the excavation will not deprive downdrift areas of sediment moving alongshore and the excavation will not increase storm damage or flooding to landward areas. As discussed previously, the proposed spit excavation and dredging will not increase storm damage or flooding, and will not deprive downdrift areas of sediment moving alongshore. See Ramsey PFT, Ex. JR-4 and JR-21.

For the Petitioners, Humphries testified that adverse impacts to the intertidal zone (i.e., Coastal Beach) could be avoided by dredging in the nearshore area within 1,500 linear feet of mean low water. Humphries PFT, ¶ 52, Ex. 9. He asserted that this would be considered

improvement dredging (310 CMR 9.02), not offshore sand mining and would not require project review by the Cape Cod Commission under the Ocean Management Act. He testified that "other issues such as the location of shellfish grants, eelgrass and peat layers would have to be examined before a specific dredging location is selected/proposed, however the ocean floor (land under ocean) in these areas tend not to support substantial aquatic ecosystems because they are very dynamic and are quickly replenished by tidal flows." Humphries PFT, ¶ 52. He asserts the project would be beneficial because it would avoid the impacts on storm damage prevention and flood control, it would serve the interests of navigation, and it meets the desire for back-passing. Humphries PFT, ¶ 53.

Smith and Ramsey testified persuasively that the alternative recommended by Humphries of incorporating sand from other locations into the system for nourishment would further choke the Cotuit inlet, and could result in a complete closure of that channel. Smith PFT, p. 23; Ramsey PFT, p. 28. That is because the Cotuit channel is presently at the end of the littoral drift system for the area. Closing the Cotuit channel would have significant negative impacts on the wetlands interests of the coastal estuary. Id. In addition, the requisite volume of material to restore the eastern end of the Island and southern shore is not available from the other locations identified by Humphries. Ramsey PFT, pp. 28, 29, 32, 35, 36. Ramsey estimated those other locations would produce 22,000 cubic yards, which is not close to the necessary 133,600 cubic yards needed. Id. Ramsey also opined that the sand mining and dredging project proposed by Humphries would be a difficult project to permit when one considers the shellfish grants, eelgrass, and peat layers that would have to be compromised. Ramsey PFT, p. 36.

Further, the areas of proposed maintenance dredging for this Project were previously authorized in 1934, 1947 and 1967 under DPW contracts 397, 975, and 2590. Humphries failed

to show that these previous dredging projects had any measurable adverse effect on the public interests of storm damage prevention and flood control. Smith PFT, p. 23. And, as discussed above, there will not be an adverse impact on storm damage prevention and flood control.

Humphries responded to Ramsey by asserting that there is an equilibrium at the Cotuit channel that will prevent sediment from accumulating and closing the channel. Humphries Rebuttal PFT, pp. 2-3, p. 7. He believes that there is a stable inlet that would not close up with the introduction of sand from the offshore shoals because tidal flows through the channel would keep it open. Id.

Humphries' and Fitzgerald's equilibrium argument is not persuasive. Their underlying premise that the channel width has remained relatively stable over the last several years is problematic. It suffers from imprecision because it is based solely upon review of Google Earth photographic estimates and because it is based upon a relatively narrow time frame. Ramsey PFT, p. 26. In comparison, Ramsey performed a longer term and more precise analysis of the spit's evolution, using digitized shorelines from geo-referenced aerial photography or NOAA T-Sheets. Ramsey PFT, p. 6. Ramsey's more precise analysis demonstrates that since the maintenance dredging in 1967 the western extent of the spit had elongated by nearly 500 feet as of 2011. Ramsey PFT, p. 6. Since 2009, the accretion of material to the spit has occurred in the form of a secondary feature south of the spit that had been accreting after 1967. Ramsey PFT, p. 10. "Since 2012, this secondary feature has migrated to the west at an average rate of 38 feet per year (Exhibit JR-11), and as of September 2017 it was encroaching on the inlet channel in a similar manner as the more northerly pre-2009 spit. By September 2017, the distance between the high water line associated with the secondary feature and the Cotuit mainland shoreline was 355 feet (Exhibit JR-11). The average annual increase in surface area of the accreting portion of

spit (west of the dashed line shown in Exhibit JR-21) was approximately 4,100 square feet per year between 1989 and 2010. This average annual change in surface area increased to approximately 6,900 square feet per year from 2010 to 2017, an increase in spit growth of nearly 70% compared to the previous period." Ramsey PFT, p. 10. Based on these circumstances, Ramsey persuasively opined that due to the inability of the Cotuit mainland shoreline to migrate as a result of the existing coastal armoring, combined with the ongoing large-scale accretion at the western tip of Sampson's Island, the continued growth of the Sampson's Island spit could eventually close the existing Cotuit Bay inlet. Even without complete closure of the inlet, significant shoaling will continue and adversely impact water quality and the associated marine fisheries habitat in Cotuit Bay, as well as navigation. Ramsey PFT, pp. 10, 26; see also Transcript 2, pp. 206-210. As present, the inlet is unnaturally narrow and probably on a "path to closure." Id.

Ramsey also explained that because the Cotuit inlet and the Osterville inlet are armored, the inlet does not follow general models associated with natural unarmored tidal inlets that may generally reach an equilibrium and remain open. Ramsey PFT, p. 25. Thus, the long-term trend demonstrates that without maintenance dredging the spit will continue to grow, there will be continued narrowing of the channel, continued movement of the channel to towards the mainland with consequential erosion, and the distinct possibility of closure from continued shoaling around the spit. The result is a channel that is in need of maintenance, in order to prevent closure and increase navigational safety.

The last alternative reason why the dredging project should be approved under 314 CMR 9.07(1)(a) is that it is exempt as a maintenance dredging project. Standish testified that pursuant to 314 CMR 9.07(1)(b), "all applications, *except for maintenance projects*, shall include a

comprehensive analysis of practicable alternatives as defined in 314 CMR 9.07(1)(a)." (emphasis added). Standish PFT, p. 7.

For the preceding reasons, a preponderance of the evidence shows that the Project complies with 314 CMR 9.07(1)(a).

VIII. The Project Satisfies the Standards and Criteria Set Forth in 314 CMR 9.07(6)

The regulation at 314 CMR 9.07(6), which is titled "Criteria for the Evaluation of Applications for Dredging and Dredged Material Management" provides in relevant part the following: "Beach Nourishment. All projects designed to nourish beach, dune or near-shore areas of land under ocean, utilizing dredged-sediment as source material, shall be carried out in accordance with the Best Management Procedures for Beach or Dune Nourishment and any procedures developed by the Massachusetts Office of Coastal Zone Management and in accordance with M.G.L. c. 131, § 40 (the Wetland Protection Act) and relevant portions of 310 CMR 10.00: Wetlands Protection and M.G.L. c. 91 and 310 CMR 9.00: Waterways and M.G.L. c. 132A and 302 CMR 5.00: Ocean Sanctuaries. . . ."

Ramsey provided unrebutted testimony that the project was designed in consideration of the Best Management Procedures for Beach or Dune Nourishment (MassDEP, 2007). In addition, regular monitoring of the two previous large-scale nourishment projects along the Dead Neck shoreline (1985 and 1999-2000) have provided helpful information to ensure the proposed nourishment performs as designed. Ramsey PFT, p. 22. The beach slope has been designed based upon experiences with the prior nourishment projects to be appropriately sloped to avoid rapid loss of beach sediment (see Exhibit JR-2 and JR-17 for examples). The Project also satisfies the Massachusetts Office of Coastal Zone Management requirement that beach

nourishment sediment be of a compatible grain size with the receiving beach area. Ramsey PFT, p. 22.

The project complies with G.L. c. 132A and 302 CMR 5.00 (Ocean Sanctuaries). An "Allowed Activity" under 302 CMR 5.08 is: (8) "The extraction of sand and gravel from the seabed and subsoil of any ocean sanctuary shall be allowed if such sand and gravel is to be used for shore protection or beach restoration project, but such project must be approved by the Department of Environmental Quality Engineering. In the case of a shore protection project, it must, in addition, be found to be of public necessity and convenience by the Department of Environmental Quality Engineering and any other state agency from which a permit is required."

"Public necessity and convenience" includes projects that "serve the public interest" and which do not "...seriously alter or otherwise endanger the ecology or appearance of the ocean ..." Ramsey testified that the project meets these requirements because it has been designed to provide nourishment to restore and stabilize the beach and dune and the south-facing shore of the Island's east end. The ultimate purposes are to restore habitat for endangered shorebirds; stabilize barrier beach functions; restore the historic navigation channel at the entrance to Cotuit Bay to further navigational access and safety; and increase tidal flushing that will contribute to improvements in water quality and estuarine health in Cotuit Bay. Ramsey PFT, p. 24, Transcript 2, p. 204..

As discussed previously, the project complies with G.L. c. 131, § 40 and 310 CMR 10.00 and G.L. c. 91 and 310 CMR 9.00.

For the preceding reasons, a preponderance of the evidence shows that the Project complies with 314 CMR 9.07(6).

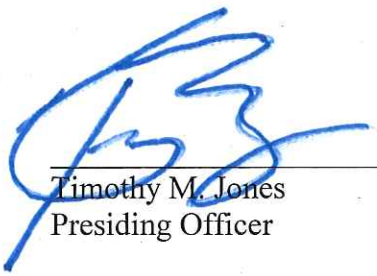
CONCLUSION

Although the Petitioners prevailed in defeating motions to dismiss and for summary decision with respect to standing, their failure to submit comments during the public comment period on the Combined Permit has proven in the end to be fatal to standing. While the Petitioners asserted that they did not submit comments during the public comment period because they detrimentally relied on DEP representations, a preponderance of the evidence shows that they may not assert estoppel against DEP to excuse their failure to file comments. With respect to the merits of the Project, a preponderance of the evidence demonstrates that the Project satisfies all applicable performance standards.

NOTICE- RECOMMENDED FINAL DECISION

This decision is a Recommended Final Decision of the Presiding Officer. It has been transmitted to the Commissioner for his Final Decision in this matter. This decision is therefore not a Final Decision subject to reconsideration under 310 CMR 1.01(14)(d), and may not be appealed to Superior Court pursuant to M.G.L. c. 30A. The Commissioner's Final Decision is subject to rights of reconsideration and court appeal and will contain a notice to that effect.

Because this matter has now been transmitted to the Commissioner, no party shall file a motion to renew or reargue this Recommended Final Decision or any part of it, and no party shall communicate with the Commissioner's office regarding this decision unless the Commissioner, in his sole discretion, directs otherwise.



Timothy M. Jones
Presiding Officer