

FINAL REPORT

**North Coast Seafoods Wind Turbine Feasibility Study
43 Blackmer Street (Lots 1B and 2)
New Bedford, Massachusetts**

Environmental and Permitting Issues

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Notice

This report was prepared by the Horsley Witten Group, Inc. for North Coast Seafoods and Cape & Islands Self Reliance in the course of performing work sponsored by the Renewable Energy Trust (RET), as administered by the Massachusetts Technology Collaborative (MTC), pursuant to Grant No. CII-FS-05-14. The opinions expressed in this report do not necessarily reflect those of MTC or the Commonwealth of Massachusetts, and reference to any specific product, service, process, or method does not constitute an implied or expressed recommendation or endorsement of it.

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FINAL REPORT

North Coast Seafoods Wind Turbine Feasibility Study 43 Blackmer Street (Lots 1B and 2) New Bedford, Massachusetts

Environmental and Permitting Issues

1. INTRODUCTION

This section of the Feasibility Study addresses potential environmental issues and identifies possible regulatory permitting needs. The environmental and regulatory reviews that may be considered include, but are not restricted to, the following:

- Local zoning, planning and building restrictions, including building height, setbacks, zoning, etc.
- Wetlands and coastal permitting (e.g., Wetlands Protection Act, local wetlands bylaw, Chapter 91, 401 Water Quality Certification, Army Corps of Engineers, federal consistency review by MA Coastal Zone Management (CZM), or others, as appropriate);
- Rare species permitting, if needed;
- Massachusetts DEP;
- Flight path restrictions – HW will request a determination from the Federal Aviation Administration, using Form 7460, as to whether the proposed Site and project are subject to height or other restrictions as a result of existing air traffic;
- Massachusetts Environmental Policy Act (MEPA) permitting (ENF, DEIR);
- County / regional regulations;
- Energy facility siting requirements and regulations;
- Review by other state agencies and Native American tribes.

Based on the findings of this evaluation, recommendations are provided concerning permitting options.

2. METHODOLOGY

HW collected and evaluated appropriate and available data concerning Site characteristics for the purpose of characterizing Site suitability for a wind turbine. Information goals include but are not limited to:

- Soils,
- Wetlands and coastal resource areas,
- Avian species and migration routes,
- Rare or endangered plants and animals,

- Groundwater and public water supply,
- Flood zones,
- Vegetative cover,
- Prior Site remediation and hazardous materials, and
- Other information concerning Site characteristics relevant to permitting and development.

The evaluation was based upon a review of available paper/digital resources and did not involve new site or fieldwork, as specified in the RFP. Resources that will be utilized may include, as appropriate, the following:

- MassGIS database (aerial photographs, Assessor's parcel information, soils, wetlands, rare species, water supply, FEMA flood zones, vegetative cover, wildlife habitat, prior site remediation if any, other natural resources, nearby structures and roads, and other potential constraints on development);
- Response Action Outcome Statement prepared by Clayton Group Services, Inc. dated September 26, 2003, which describes former site remediation activities and the outcome;
- Other resources concerning issues not addressed by the above-mentioned databases, such as Massachusetts Natural Heritage and Endangered Species Program (MNHESP) atlas, Biomap and Living Waters for southeastern Massachusetts, and other resources;
- Information from recent permit filings, if any, in the vicinity of the Site or obtained by the North Coast Seafood facility, provided they are available upon request; (Note: these were not available from the client, and it is anticipated that if such information is required, a request would have to be submitted to the local permitting authorities, such as the Building Commissioner, Planning Board and Conservation Commission);
- Other information sources (in-house literature, Internet data search, limited library reference search);
- Interviews with specific relevant experts and agency individuals to ascertain or obtain information not available through the above-mentioned procedures (e.g., Town of Bourne Conservation Commission, City of New Bedford Planning Department).

3. EXISTING CONDITIONS

3.1. Location

North Coast Seafoods (the Site) is located at 43 Blackmer Street, New Bedford, east of State Highway 18-S (aka JFK Memorial Highway). The area of the parcel is approximately 4.7 acres. The parcel is located on the north side and at the terminus of Blackmer Street, a dead-end street off of South Front Street. The coordinates of the site are latitude 41 degrees 37' 17.0" north, longitude 070 degrees 54' 59" west (corresponding to Universal Transverse Mercator (UTM Zone 19) coordinates: $x = 340240.674316$ meters and $y = 4609550.85577$ meters for a spot located in the center of the North Coast Seafoods parcel).

3.2. Topography

The Site is generally flat and low-lying, with no topographic features that would appear to pose any construction constraints (Figure 1). An aerial photograph of the Site taken before the present facility was built shows that adjacent structures include a radio tower to the north, an industrial facility to the south and west, and vacant land to the east, between the Acushnet River and the Site (Figure 2).

3.3. Geology and Soils

According to information from MassGIS, the Site is underlain by sand and gravel deposits (Figure 3). According to subsurface investigations conducted by Metcalf & Eddy, Inc. (M&E) in 1999 and Cygnus Group, Inc. in 2001-2002 and the Immediate Response Action (IRA) conducted by Clayton in 2003, a layer of fill was present throughout the Site and ranged in thickness from 3 to 6 feet, comprising fine to medium sands and silt with demolition debris. The native soil underlying the fill layer consists of fine to medium sands. The bottom of the sand layer extends beyond 17 feet below ground surface, well below the water table. A thin lens of peat, approximately 1 to 2 inches thick, was observed at the interface between the fill material and the underlying native soil. The underlying bedrock in the vicinity of the Site is Precambrian biotite gneiss of the Blackstone Group (Zen, 1983).

In 2003, as part of IRA activities (described further in the Section on Site Remediation and in Appendix 1), a total of approximately 38,000 cubic yards of surficial fill was excavated and removed from the Site, down to the underlying native sand layer. The fill removed apparently included the peat layer as well. The Site was backfilled to its present grade and elevation with clean soil obtained from an off-site source. There are no Activity and Use Limitations on the Site.

3.4. Hydrogeology, Water Resources and Water Supply

The nearest surface water body is the Acushnet River, located approximately 600 feet to the east, which flows south to New Bedford Inner Harbor (Figure 4). The Harbor is a designated Class SB surface water body with restricted shellfishing and is impacted by Combined Sewer Overflows (CSOs), according to the Massachusetts Surface Water Quality Standards. A Class SB surface water body is suitable as habitat for fish and other

aquatic life, and for primary and secondary contact recreation such as swimming and boating.

Other than the Acushnet River and New Bedford Harbor to the east, the parcel does not contain any bodies of open water. The parcel is not located within any water protection area district nor is it located within any wellhead protection area, Zone II or Interim Wellhead Protection Area, Zone A of a Class A surface drinking water source, or a Potentially Productive Aquifer.

Groundwater beneath the Site occurs at depths of between 3.5 to 8 feet below existing grade (as of 2002) and is tidally-influenced, according to the report by Briggs Engineering and Testing (Briggs Engineering & Testing, March 5, 2002). The proximity of the Site to the coast and the fact that the groundwater levels are tidally influenced indicates that the area is not suitable for providing drinking water supplies.

Utilities currently provided to the Site include electricity, electronic communications, natural gas, and municipal water and sewer. The source of drinking water for the City of New Bedford is Little Quittacas Pond in Rochester, Massachusetts, approximately 11.5 miles north of the Site. There are no known private drinking water wells within 500 feet of the Site.

3.5. Flood Zone

There is an elongated low-lying area in the southeastern quadrant that represents the most inland extension of an A-flood zone that covers an extensive area of New Bedford Harbor. This narrow fingerlike area of land is classified as a FEMA Flood Zone AE, which is an area inundated by the 100-year storm event. This narrow fingerlike area of A-flood zone runs in an east-west direction through the southern third of the parcel (see Figure 5). The portion of the Site outside of this elongated low-lying area is elevated above the 100-year floodplain.

In 1963, the U.S. Army Corps of Engineers (USACE) used the property as a staging area for construction of the nearby hurricane barrier in the Acushnet River; this hurricane barrier is intended to protect this area from hurricane wave action and tides.

3.6. Wetlands and Coastal Resource Areas

The Site does not contain any coastal or freshwater wetlands, nor is it located within the jurisdictional 100-foot buffer zone to any wetland or coastal resource area as defined by the Wetlands Protection Act at M.G.L. Ch. 131, S. 40 and implementing regulations at 310 CMR 10.00 (Figure 6). However, under the Wetlands Protection Regulations, an A-flood zone constitutes a coastal resource area known as Land Subject to Coastal Storm Flowage, albeit there are no performance standards or 100-foot buffer zone for this resource area. The Site does contain a narrow strip of A-flood zone, but because there are no performance standards for the A-zone under the act, it is unlikely that this would constitute a significant wetlands permitting hurdle.

Most of the remainder of the parcel is outside the 100-year floodplain and is mapped as Flood Zone X500; that is, the 500-year flood event would inundate the area. Land that is outside the 100-year floodplain is not regulated under the Wetlands Protection Act.

The Site does not contain any Estimated Habitat of Rare Wildlife nor Priority Habitat of Rare Species, as defined by the Massachusetts Natural Heritage and Endangered Species Program (NHESP) (Figure 7). However, there is both Estimated Habitat and Priority Habitat mapped throughout most of the Acushnet River/New Bedford Harbor area (Figure 7). This is discussed below in the section on “Rare Species”.

Outside the Site, the area adjacent to New Bedford Harbor contains riparian corridor associated with the Acushnet River (i.e., Riverfront Area), a coastal dune, and a coastal beach (Figure 8). These riparian and coastal resource areas would be regulated under the Massachusetts Rivers Act and Wetlands Protection Act, respectively. The 100-foot buffer zone to the coastal dune and coastal beach would also be regulated under the Wetlands Protection Act. However, since the parcel is located well outside these areas, it does not come within the jurisdiction of the Wetlands Protection Act or the Rivers Act (with the exception of the narrow finger of A-flood zone described above).

3.7. Prior Site Remediation

Existing sites that are listed with the Massachusetts Department of Environmental Protection as MGL Chapter 21E hazardous material sites or sites with Activity and Use Limitations are shown in Figure 9. The nearest listed site is located across Blackmer Street to the south. The Site of the present North Coast Seafoods facility is part of the former Standard Times Field property which has been successfully remediated. The present North Coast Seafood Processing Facility thus represents a brownfield redevelopment project. Because it has been remediated, it is no longer listed with the DEP and does not appear as a listed site in Figure 9. A brief history of the remediation follows.

On September 23, 2003, the Clayton Group (Clayton) completed a Response Action Outcome (RAO) Statement and an Immediate Response Action (IRA) Outcome Statement on behalf of Mr. Scott Alfonse at the New Bedford Department of Public Works on September 23, 2003. The RAO was specifically prepared for the entire site as defined by the Massachusetts Department of Environmental Protection (DEP) Release Tracking Number (RTN) 4-17027. The Site is identified as Lots 1B and 2 of the former Standard Times Field property at Blackmer Street in New Bedford.

In January 2000, Metcalf and Eddy, Inc. (ME) prepared a Brownfields Targeted Site Assessment report for the Standard Times Field property. Soil and groundwater samples were collected and analyzed from Lots 1B and 2. The soil and groundwater samples were analyzed for volatile petroleum hydrocarbons (VPH) with target compounds, extractable petroleum hydrocarbons (EPH) with target polycyclic aromatic hydrocarbons (PAH), semi-volatile organic compounds, polychlorinated biphenyls (PCB), pesticides,

and 13 priority pollutant metals. Results indicated the presence of cyanide and several SVOCs. ME concluded that these contaminants were associated with coal and were therefore considered exempt from reporting to DEP.

Cygnus Group also performed a subsurface investigation in November 2001, which focused on Lots 1B and 2. A total of three groundwater monitoring wells were installed and 19 soil samples were collected. There appears to have been a layer of fill material across the site to a depth varying from four to six feet below the ground surface. The fill layer is underlain by native sands and gravels. This study resulted in the discovery of lead in shallow soil (i.e., in the fill) at concentrations greater than applicable DEP reportable concentrations. The condition was reported to DEP and Immediate Response Actions (IRAs) were undertaken, including excavation and removal of the surficial fill. A total of approximately 38,000 cubic yards of fill was removed from the site. The fill was removed down to a depth at which the native sands and gravels was reached. An organic-rich peat layer was removed as well.

Samples of the remaining native soil were then collected and analyzed. Laboratory results indicated the presence of lead at concentrations less than applicable DEP standards. It appears that the remedial action has reduced the concentrations of contaminants to levels acceptable to the use of the property but not to background. Lead was detected in the native soil at concentrations ranging from 2.2 milligrams per kilogram (mg/kg) to 290 mg/kg, less than the DEP's most stringent soil standard of 300 mg/kg. The site was then backfilled with clean soil from an off-site location. The existing Facility was constructed on the remediated site. It is not known whether building foundations are placed on the underlying native soil or within the surficial layer of clean fill.

Recommendations concerning developing a Soil Management Plan are provided in Section 7.

3.8. Zoning

The Site is located in an area zoned as "WI", or "Working Waterfront Overlay District" and "Industrial B", as designated by the City of New Bedford zoning code (Chapter 9 of the New Bedford Code). Fish processing facilities are allowed only within the "WI" zone. The "Working Waterfront Overlay District" is intended for use of marine-related industrial activities (e.g., fish processing or related activities). Within the WI / Industrial B zone, the height of structures and accessory structures is limited to 100 feet. Procedures for requesting a variance, however, are described in the Code.

Figure 10 shows the relationship of this coastal industrial zone (shown as "general industrial") to areas located across the JFK Memorial Highway which are designated as mixed use. Note that the DEP-listed site to the south of Blackmer Street is designated as open space (Figure 9) and contains a baseball field (Figures 1, 2).

3.9. Other Features

Shellfishing and fishing: The Acushnet River is closed to shellfishing and fishing under a management closure, due to sediment contamination (Figure 11).

Hurricane barrier: The Army Corps of Engineers constructed a hurricane barrier, or seawall, that extends across the mouth of the Acushnet River, several hundred yards south of the site. This hurricane barrier is intended to prevent or minimize storm surge flooding of areas along the Acushnet River.

4. POTENTIAL RARE SPECIES AND AVIAN ISSUES

4.1. Evaluation of Issues

This section examines in detail some potential avian and rare species issues that may arise during the permitting of a proposed land-based wind turbine at the North Coast Seafoods facility. Since the site is not located on the shore, is already developed and is separated from the coastal beach by an undeveloped lot, it is unlikely that the rare avian species discussed below utilize the site itself as habitat (that is, as feeding, resting, nesting, or breeding habitat). However, it is possible that birds will pass through or over the site during their migrations to and from other areas of Buzzards Bay.

Rare species regulations include the Massachusetts Endangered Species Act (MESA) and the federal Endangered Species Act (ESA). MESA is administered by the Massachusetts Division of Fisheries and Wildlife, Natural Heritage and Endangered Species Program (NHESP). The ESA is administered by the U.S. Fish and Wildlife Service where terrestrial and avian species are concerned. Both MESA and ESA protect rare species and their habitat from takings (i.e., any impact on the organisms themselves or their habitat).

We examined information concerning rare species and in particular avians that is easily obtainable from state and federal agency websites and other credible sources. While HW has not sent a formal request to NHESP for information on the State-protected species and their habitats (i.e., a MESA Information Request Form; see below), we have been able to utilize data from other sources to evaluate the potential rare species issues that may arise from this designation. These sources include MassGIS, the NHESP website and other sources (see References). We compared information on rare avian species for towns along the north shore of Buzzards Bay in order to determine where the highest probability for encountering rare avian species may occur.

Based on available information and our best professional opinion, we have developed a permitting analysis and recommendations based on a worst-case scenario (i.e., that rare species may be in this area, even if this is only transitory)

4.2. Site is Outside NHESP Priority Habitat and Estimated Habitat

An area of New Bedford Harbor is mapped by NHESP as both *Priority Habitat of Rare Species* (PH 1483) and *Estimated Habitat of Rare Wildlife and Certified Vernal Pools* (WH 2086), based upon the updated MassGIS data source (July 2005). The *Priority Habitat* and *Estimated Habitat* cover most of the area within New Bedford Harbor (aka Acushnet River) and extend south into Buzzards Bay. They encompass a large area of Buzzards Bay, extending eastward toward the shoreline surrounding Woods Hole (Falmouth), Massachusetts. These same NHESP-designated *Priority Habitat* and *Estimated Habitat* are shown on several adjacent USGS quadrangle maps, including the Marion, Sciticut Neck, Onset, Cuttyhunk, Naushon Island, and Woods Hole Quadrangles. The USGS Quadrangles cover several other municipalities with shorelines along Buzzards Bay, including Fairhaven, Marion, Mattapoisett, Wareham, Bourne, Falmouth, and Gosnold.

However, it is important to note that the property at 43 Blackmer Street and other adjacent coastal parcels are not located within either *Estimated Habitat* or *Priority Habitat*. In addition, the area has historically been used for industrial purposes and is significantly altered. Nevertheless, both MESA and the federal ESA protect rare species and their habitat wherever these occur and whether they are mapped or not. With respect to the proposed wind turbine project, the fact that the site is located outside of mapped *Priority Habitat* is most significant, since no alterations are proposed within wetlands and alterations will occur in only a minimal portion of LSCSF as protected and regulated under the Massachusetts *Wetlands Protection Act* (M.G.L. Ch. 131 § 40), its implementing Regulations (310 CMR 10.00), and any local wetlands bylaw or regulations, if available.

4.3. Rare Species in New Bedford and Adjacent Buzzards Bay Communities

Although the site is not mapped as either *Estimated Habitat* or *Priority Habitat*, Buzzards Bay is generally known as an important estuary for rare avian habitat. Important breeding and nesting grounds for rare shorebirds are found along the coast and on offshore islands. Also, wind turbine projects have historically raised concerns regarding potential impacts on birds. To evaluate the risk, HW collected information on the state-listed avian species in each of the towns along the northern shore of Buzzards Bay, including New Bedford, Acushnet, Agawam, Fall River, Fairhaven, Marion, Mattapoisett, Bourne, and Wareham.

Table 1. State- and Federally-Listed Avian Species in Municipalities Along North Shore of Buzzards Bay. Following New Bedford, municipalities are listed in order of increasing numbers of listed avian species. From NHESP website at <http://www.mass.gov/dfwele/dfw/nhesp/nhtown.htm>.

Abbreviations: E = Endangered; T = Threatened; R = Rare; SC = Species of Special Concern; PS = Partial status (i.e., listed only in a portion of the species' range); LE = Listed Endangered (same as E = Endangered); LT = Listed Threatened (same as T = Threatened).

| Town | Common name and scientific name | State Status | Federal Status | Year Last Seen |
|--------------|--|--------------|----------------|----------------|
| New Bedford | Least Tern (<i>Sterna antillarum</i>) | SC | PS / LE | 1931 |
| | Arctic Tern (<i>Sterna paradisaea</i>) | SC | | 1897 |
| Acushnet | No listed birds | | | |
| Fall River | Peregrine Falcon (<i>Falco peregrinus</i>) | E | PS: LE | 2004 |
| Marion | Roseate Tern (<i>Sterna dougallii</i>) | E | PS: LE, LT | 2003 |
| | Common Tern (<i>Sterna hirundo</i>) | SC | | 2003 |
| Fairhaven | American Bittern (<i>Botaurus lentiginosus</i>) | E | | 1993 |
| | Piping Plover (<i>Charadrius melodus</i>) | T | LE, LT | 1996 |
| | Least Tern (<i>Sterna antillarum</i>) | SC | PS: LE | 2001 |
| | Common Tern (<i>Sterna hirundo</i>) | SC | | 1995 |
| Mattapoisett | Piping Plover (<i>Charadrius melodus</i>) | T | LE, LT | 1998 |
| | Least Tern (<i>Sterna antillarum</i>) | SC | PS, LE | 2000 |
| | Roseate Tern (<i>Sterna dougallii</i>) | E | E (PS, LE, LT) | 2003 |
| | Common Tern (<i>Sterna hirundo</i>) | SC | | 2003 |
| Wareham | Sharp-shinned Hawk (<i>Accipiter striatus</i>) | SC | PS | 1988 |
| | Piping Plover (<i>Charadrius melodus</i>) | T | T (LE, LT) | 2002 |
| | Northern Parula (<i>Parula americana</i>) | T | | 1889 |
| | Roseate Tern (<i>Sterna dougallii</i>) | E | PS: LE, LT | 1990 |
| Agawam | Grasshopper Sparrow (<i>Ammodramus savannarum</i>) | T | PS | 1993 |
| | Upland Sandpiper (<i>Bartramia longicauda</i>) | E | | 1967 |
| | Bald Eagle (<i>Haliaeetus leucocephalus</i>) | E | PS; LT. PDL | 2005 |
| | Vesper Sparrow (<i>Pooecetes gramineus</i>) | T | | 1993 |
| Bourne | Sharp-shinned Hawk (<i>Accipiter striatus</i>) | SC | PS | 2001 |
| | Grasshopper Sparrow (<i>Ammodramus savannarum</i>) | T | PS | 2005 |
| | Piping Plover (<i>Charadrius melodus</i>) | T | LE, LT | 1996 |
| | Northern Harrier (<i>Circus cyaneus</i>) | T | | 1997 |
| | Roseate Tern (<i>Sterna dougallii</i>) | E | PS: LE, LT | 1990 |
| | Barn Owl (<i>Tyto alba</i>) | SC | | 1974 |

The information presented above indicates that New Bedford only contains two listed avian species: Least tern and Arctic tern, and that greater numbers of listed avian species tend to occur in the towns of Bourne, Fairhaven, Mattapoisett, Agawam and Wareham. New Bedford, Acushnet, Marion and Fall River have anywhere from zero to two listed avian species. The Least Tern, Common Tern, and Roseate Tern are also found in the adjacent *Priority Habitat of Rare Species* and *Estimated Habitat of Rare Wildlife and Certified Vernal Pools* located within Nantucket Sound.

The proposed Cape Wind Farm project proposed within Nantucket Sound has received considerable scrutiny, in part due to the potential adverse impacts on migratory birds and State- and Federally-protected bird species, since the Cape Wind Farm project is located within Federal waters (i.e., more than 3 miles offshore and thereby outside of State waters). Because the avian species travel between Nantucket Sound and Buzzards Bay, relevant information from the Cape Wind project and other sources are reviewed below.

4.4. Studies of Potential Avian Impacts of the Cape Wind Project

To help evaluate the potential avian issues that may be associated with any wind turbine project located in Buzzards Bay, HW assembled and evaluated the studies described below.

1) Press Release, Massachusetts Audubon Society, March 28, 2006. Mass Audubon Challenges State, Feds and Cape Wind to Get it Right. Press release available at: <http://www.massaudubon.org/news/index.php?id=318&type=press> . This press release represents the most current position statement from Mass Audubon regarding possible avian impacts of the proposed Cape Wind project in Nantucket Sound. MassAudubon stated that they will support the Cape Wind project if comprehensive and rigorous monitoring and mitigation conditions are applied that reduce the risk to birds and other wildlife, if significant data gaps are filled and if the project poses “no significant threat to living resources” (which “does not mean zero impact on those resources, because the production of energy always entails some level of environmental impact.”). The data gaps that need to be addressed include:

- *“Nighttime distribution and behavior of hundreds of thousands of long-tailed ducks in and around Horseshoe Shoal;*
- *Movement of endangered roseate terns and threatened piping plovers during the late summer to early fall migration; and*
- *Abundance and distribution of migrating songbirds.”*

MassAudubon would require that these data gaps be addressed with a finding of no significant threat. MassAudubon also would require the following monitoring, mitigation and management measures:

- *“Adoption of an Adaptive Management Plan, which includes a rigorous three-year monitoring program beginning at the construction phase;*

- *Mitigation measures in the event that the project results in unanticipated and significant adverse environmental impacts;*
- *Compensation for the use of public lands and waters;*
- *Enforceable procedures for decommissioning any abandoned turbines;*
- *A comprehensive post-construction monitoring program modeled on programs for similar offshore wind farms in Denmark;*
- *Creation of an independent panel responsible for collecting and analyzing data collected during monitoring and preparing reports for peer review and dissemination to relevant agencies, Cape Wind and the public; and*
- *Establishment of a mitigation fund administered by an independent third party for conservation of bird habitat in and around Nantucket Sound, which would be funded by Cape Wind with contributions from independent institutions and government agencies as appropriate.”*

MassAudubon states that *“The consequences of climate warming compel us to increase energy conservation as a first priority. To continue to supply our energy needs, wind should be tapped as the most successful and readily available of all renewable energy technologies. The benefits and detriments of the Cape Wind project must be balanced against the significant threats to Nantucket Sound posed by fossil-fuel use and rapid climate change.”*

2) Massachusetts Audubon Society (or MassAudubon). February 23, 2005. Comments on the DEIS sent to Army Corps of Engineers (ACOE) regarding the Cape Wind Energy Project.

In this earlier study, MassAudubon concluded that there were significant data gaps in the information presented by the Army Corps of Engineers in the Draft EIS/EIR/DRI (see below). MassAudubon therefore recommended that the proponents gather and analyze additional data on terns, specifically regarding: *“1) collision mortality; 2) disturbance, displacement or exclusion from the project site and/or surrounding areas, including barriers to movement; and 3) loss of, or damage to, habitat resulting from wind turbines and associated infrastructure and use.”* MassAudubon stated that the estimate of bird deaths per year due to collisions (reported at 364) was vastly underestimated, possibly by as much as 10-20 times (2,300 to 6,600 bird mortalities per year) based upon their analyses from the data provided in the Draft EIS/EIR/DRI report. A need for additional data collection and a reevaluation of existing data were emphasized in their comments in the Certificate of the Secretary of Environmental Affairs on the Draft Environmental Impact Report.

3) Army Corps of Engineers. August 4, 2004. Biological Review of the Common Tern for the Cape Wind Energy Project, Nantucket Sound submitted to the MEPA Office as Appendix 5.7-I of the Draft EIS/EIR/DRI).

This study concluded that Common Terns would not be adversely impacted by the construction, operation/maintenance, and/or decommissioning of the Cape Wind project, and that turbine collisions would be negligible because their studied flight patterns would

not intercept the turbine rotary sweep. The Cape Wind Farm turbines are reported to be single pole turbines, 75 m (246 feet) tall with a rotary sweep from 23 to 127 m (75 to 417 feet), with turbine rotations of 8.5 to 15.3 rpm.

Note that other studies were included as separate Appendices within the above-mentioned report, and a Biological Assessment of the threatened Piping Plover and the endangered Roseate Tern (prepared for the NEPA submission) may also be available, data which may be important to review at a later time should rare species become an issue for this project.

4) U.S. Fish and Wildlife Significant Coastal Habitats Study, Northeast Coastal Areas, Site 34 (MA) Buzzards Bay Colonial Bird Nesting and Feeding Areas

This study was conducted by the U.S. Fish and Wildlife Service exclusively for Bird Island and Ram Island in the Towns of Marion and Mattapoisett, Massachusetts, located east of the site. The study area is considered important as a general feeding area for individual [shore]birds. Of particular interest is that the study area is important for Roseate Terns (State and Federally Endangered), because the single largest breeding colony of this species (comprising approximately half of the known breeding population in the United States) occurs in Buzzards Bay. This study also cited the importance of Buzzards Bay to the State-protected Common Tern. These two species nest primarily on Bird Island and Ram Island, respectively. Buzzards Bay also provides important habitat for breeding and nesting Piping Plovers, a State-and Federally-Threatened species.

This study notes that historical threats to the two tern species include a reduction of breeding colonies attributed to displacement of nesting sites by gulls, perhaps to less favorable sites closer to the shore “*rendering them more susceptible to predation from main-land based predators.*” And also that “*chemical contaminants, including PCBs and organochlorines, are of major concern in parts of Buzzards Bay, particularly around New Bedford Harbor.*”

In this study, conservation considerations include recovery efforts for Roseate Terns such as aggressive gull removal programs. Efforts to protect nesting Piping Plovers include protective fencing, beach closures, predator removal, and warden patrols. Additional considerations identified in this study for these species include habitat restoration and enhancements.

Extrapolating from this study, the existing threats to these two protected rare terns could potentially be exacerbated by a proposed land-based wind turbine; however, the site itself does not offer suitable nesting habitat and has already been highly altered by past development, site remediation activities, and redevelopment, so that there is probably very little area that has not been previously altered.

5) Potential Impacts of Buzzards Bay Wind Farms.

Source: <http://www.buzzardsbay.org/windfarms.htm>

The information provided in this web article posted on the Buzzards Bay Project's website reports that only one wind farm project has been proposed in Buzzards Bay (in 2002) off the coast of Falmouth, Massachusetts. This proposed project was later withdrawn in 2003, due to lack of local and State support for such a project that would have been built entirely within State coastal waters (which are actually within municipal corporate boundaries), unlike the Cape Wind project, which is proposed within Federal waters in Nantucket Sound.

On this website, there is an additional editorial by New Bedford Mayor Frederick M. Kalisz regarding wind farms in New Bedford. In this editorial, the Mayor expresses his opposition to the proposed wind farm that had been proposed at Fort Tabor, citing the community's health and well-being. While that proposal was withdrawn, and the proposed single wind turbine at the North Coast Seafoods facility is different both in scope and location, the statement made by the Mayor, regarding the aesthetics of New Bedford's recreational space, may be worth considering: "*any decision that could effectively reduce our waterfront open recreational space or the aesthetics of that space must be critically examined.*" [From article published in *The Standards Times*, www.SouthCoastToday.com, February 16, 2004.]

6) Environmental Impacts of Wind, by the Massachusetts Technology

Collaborative (Source: <http://www.mtpc.org/cleanenergy/wind/impactenv.htm>).

This study cites both benefits and barriers to the use of renewable wind energy and offers solutions. Among the barriers are:

- 1) Siting. "*Ideally, sites should be located in areas where environmental or aesthetic concerns can be mitigated or avoided.*"
- 2) Wildlife and Habitat. "*wind facilities can degrade and fragment wildlife habitat because towers and foundations, spinning blades, lighting systems, power lines, and access roads alter natural landscapes.*"
- 3) Birds and Bats. "*birds...that collide with spinning blades or stationary towers may be killed*". The article cautions that proponents should "*avoid locating [wind turbine] projects in areas used by rare or endangered species, where the dislocation or death of a few individuals could have population-level impacts.*"

Recommendations for siting of wind turbine are echoed in the Memorandum from the U.S. Department of the Interior, Fish and Wildlife Service "Service Interim Guidance on Avoiding and Minimizing Impacts from Wind Turbines" (May 13, 2003). While intended for terrestrial applications only, this memorandum stresses the importance of locating turbines and associated structures outside of "*documented locations of any species of wildlife, fish, or plant protected under the Federal Endangered Species Act,*" and avoiding "*locating turbines in known local bird migration pathways or in areas where birds are concentrated, unless mortality risk is low (e.g., birds present rarely enter*

the rotor-swept area.” These comments are based upon two primary Federal laws, including the Migratory Bird Treaty Act and the Federal Endangered Species Act.

4.5. Potential Rare Species Permitting

The proposed wind turbine would occur in part within Land Subject to Coastal Storm Flowage (LSCSF). LSCSF in and of itself, does not have any associated performance standards under Massachusetts *Wetlands Protection Act* (M.G.L. Ch. 131 § 40) and its implementing Regulations (310 CMR 10.00).

The proposed project location is adjacent to, but not within, *Estimated Habitat of Rare Wildlife* and *Priority Habitat of Rare Species*. However, should the project require review under Massachusetts Environmental Policy Act (MEPA), it is likely that the NHESP will comment upon potential adverse impacts to these State-protected species. MEPA review could occur if one of the MEPA review thresholds is triggered by the project (see Appendix 2) and the project either receives State funding, requires a State Permit or other State action, or if there is a discretionary referral, and MEPA determines that the project is within its scope.

Review by the NHESP could potentially result in additional permitting for this project under the Massachusetts *Endangered Species Act* (M.G.L. Ch. 131A), or MESA. We have provided a summary of the MESA review process as it may relate to the proposed project at the referenced property.

4.6. Massachusetts Endangered Species Act (MESA)

As of July 1, 2005, the State has promulgated new Regulations under the Massachusetts *Endangered Species Act* (MESA), governing activities within these habitats. The Regulations at 321 CMR 10.00 prohibit the “Take” of any plant or animal listed as Endangered, Threatened, or Species of Special Concern (collectively “rare species”) by the Massachusetts Division of Fisheries and Wildlife, Natural Heritage and Endangered Species Program (Division). These Regulations provide specific guidelines and processes to determine which species are located within the designated habitats, and provide a review process for the Division to determine if a Take is imminent, and if so, provides guidance on obtaining a permit to allow for the Take.

Below is an overview of the MESA regulatory process as it may relate to the proposed project.

The MESA Regulations provide specific guidelines and processes to determine which species are located within the designated habitats, provide a review process for the Division to determine if a Take is imminent, and if a Take is imminent, provide guidance on obtaining a permit to allow for the Take. There are four (4) types of filings:

1. MESA Information Request Form
2. MESA Project Review

3. Application for a Conservation and Management Permit
4. Projects Qualifying for MESA Exemption

These are described separately below.

MESA Information Request Form

The MESA Information Request involves the filing of a standard form (copy attached for reference) with the Division along with current USGS map and fee. This step is primarily used as a planning tool and is not required by the Division. However, since the information could be important for project planning, this step is highly recommended. In response, the Division will provide a list of the rare species identified within that specific *Priority Habitat*. Note that the *Priority Habitat* may include a much larger region which encompasses multiple habitat types, not all of which are necessarily found within a specific location.

- Cost: \$50.00
- Turnaround Time (for the Division): 30 days

As we do not yet have the most up-to-date information regarding the protected species and their habitats within this particular area, we have only been able to make an informed guess on which avian species may be located in the adjacent area, as described above. Should this project move forward, we would strongly recommend that this preliminary step be taken to obtain this information, in order to find out whether there are any rare species issues to consider.

MESA Project Review

If there are rare species at the site and/or the project is located in *Priority Habitat*, a MESA Project Review should be requested once project plans are scoped. This process allows NHESP (the Division) to provide comments upon the project within a specific timeframe. A MESA Project Review also involves the filing of a standard form (copy attached) along with a fee and additional, sufficient information for Division to render a decision as to whether or not the project would result in a Take. The Division determines whether the information is sufficient. The MESA Project Review process is required for all projects located within *Priority Habitat*, unless the project qualifies for an exemption (this project would not qualify for an exemption), again, noting that this site is not mapped within actual *Priority Habitat*.

- Cost¹: \$300, \$1,800 or \$4,000;

¹ Reviews are categorized by size of project impact area. A Simple project involves the disturbance of **less than 5 acres of disturbance**; an Intermediate Project constitutes one that involves **5 to 20 acres of disturbance**; a Complex Project constitutes one that involves **More than 20 acres of disturbance**; disturbance means direct physical disturbance of the land surface, soil, and/or vegetation. The cost for a review is based upon the size of the proposed project.

- Turnaround Time (for the Division): 60 days from the date that the Division determines the filing is complete. The Division will notify applicants within 30 days as to whether the file is complete (and issue a file number) or else request any additional information² (i.e., total turnaround time is a minimum of 60 days from date of filing). Note also that the Division Director has the discretion to extend time frames under certain exceptional circumstances.

Based upon the information submitted under a MESA Project Review, the Division will determine either that:

- a) the project will avoid a Take (as proposed or with conditions) and may proceed without further review; or
- b) the project will result in a Take and cannot proceed as proposed, i.e., a Denial (for which there is an appeal process). However, there is an opportunity to request a consultation with the Division that may allow for pursuing a **Conservation and Management Permit** to address a potential denial (see 3 below).

Again, while we do not have the species information, we referenced the potential for the presence of several State-listed shorebirds) that have been documented in the City of New Bedford and/or in nearby municipalities that are all located in the same *Priority Habitat* and *Estimated Habitat* designated by NHESP.

MESA Conservation and Management Permit

If the Division determines, through a MESA Project Review, that a Take of a rare species could be involved, then the final step in the MESA review and permitting process involves applying for and obtaining approval of a Conservation and Management Permit. Projects resulting in an imminent Take of State-listed rare species may be eligible for a Conservation and Management Permit. If approved, this would allow a project within Priority Habitat to move forward so long as there is a net benefit to the rare species involved. This permit application is required if a Take is imminent, as determined through the MESA Project Review. Again, the Division determines whether sufficient information is provided when an application for a Conservation and Management Permit is under review, and may request additional information. A copy of the Application Guidelines for MESA Conservation and Management Permit is attached, which describes the information required.

- Cost (see categories above): \$600, \$4,000, \$6,000;
- Turnaround Time (For the Division): **60 days** from date the Division determines filing is complete (see caveats above)

Projects Eligible for a MESA Exemption

² The Division may request (i.e., require) survey(s) for rare species or habitat, or other information such as wetland reports, soil maps and reports, and stormwater management reports for inclusion within the project review.

Certain activities and minor projects located within *Priority Habitat* may be eligible for an exemption from the MESA review process. However, these exemptions generally involve maintenance, repair, replacement, or expansions of existing structures or facilities that also occur “*within existing paved areas and lawfully developed and maintained lawns or landscaped areas.*” We have attached a complete list of these exemptions available from the Division website for reference. It is not clear whether a wind turbine located on an already-disturbed portion of the site would qualify for an exemption or not.

4.7. Rare Species under the Massachusetts Wetlands Protection Act

Any project proposed within a wetland resource area or within the 100-foot buffer zone to certain resource areas will also be reviewed by NHESP under the Massachusetts *Wetlands Protection Act*. If a Notice of Intent (NOI) filing is required by the Conservation Commission, an applicant must forward a copy of the NOI application to the Division for review under the Regulations at 310 CMR 10.59.

The only wetland jurisdictional area located within the parcel or within 100 feet is a narrow finger of Land Subject to Coastal Storm Flowage (FEMA Flood Zone A). It is not clear that a Notice of Intent filing is required for proposed work within this narrow sliver of A-flood zone; this should be determined by the applicant in consultation with the City of New Bedford Conservation Commission staff.

If the project requires a wetlands permit under the Massachusetts Wetlands Protection Act or City of New Bedford wetlands bylaw or ordinance, then the Conservation Commission generally must incorporate any requirements or recommendations received from NHESP regarding the proposed project’s impacts on wetland rare species.

The performance standard under the regulations at 310 CMR 10.59 mandate that any “*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.*” The Division (NHESP) will make a determination as to whether the proposed project would occur within State-listed species habitat. In making such a determination, the Division will provide guidance to applicants to assist them in determining whether the project can be designed to meet the performance standard.

The only known example of a land-based wind turbine that has required such wetlands permitting is the land-based wind turbine at the Massachusetts Maritime Academy in Buzzards Bay (Town of Bourne). The Conservation Commission required the following Special Condition in the Order of Conditions (DEP SE 7-1581) issued November 21, 2005:

“Special Condition ASC-1) The Bourne Conservation Commission recommends that Mass Maritime Academy consider, although does not require that Mass Maritime Academy adheres to the letters from US Fish and Wildlife Service dated

11/1/05 and 7/22/05, as well as the letters from NHESP dated 9/22/05 and 7/20/05 and finally a letter from MassAudubon dated 11/9/05.”

A copy of this Order of Conditions and the cited documents are included in Appendix 3.

4.8. Federal Review of Rare Species

Two avian species that may be found in Buzzards Bay are federally-listed: the Roseate Tern (*Sterna dougallii*) listed as Endangered, and the Piping Plover (*Charadrius melodus*), a federally Threatened species. The taking of a federally-listed species or any impact on the habitat of a federally-listed species is prohibited and projects involving a “take” (i.e., impact) on a federally-listed species must go through a federal review and permitting process, generally beginning with the filing of a federal Environmental Assessment (EA) or Draft Environmental Impact Statement (DEIS) under the National Environmental Policy Act, or NEPA. The filing of an EA or DEIS is done by the federal agency that is proposing to issue a permit allowing a take of a rare species, in this case, the U.S. Fish and Wildlife Service.

4.9. Summary of Rare Species / Avian Issues

Potential avian impacts may pose the most significant environmental issue facing the proposed project. While we do not have verification of the rare species potentially affected by the installation of the proposed wind turbine, there may be several State- and/or Federally-protected rare bird species utilizing the waters in and around the site, within New Bedford Harbor and Buzzards Bay. Should the project require review under MEPA or involve any impacts on rare species or their habitat, the project will likely trigger a required review under MESA. Similarly, if the project would involve a “take” of a federally-listed species, the U.S. Fish and Wildlife Service would be required to file under the National Environmental Policy Act. In addition, the recent March 2006 position statement by MassAudubon, described in their press release, specifies a number of conditions and criteria for the proposed Cape Wind Farm which, if met, would enable MassAudubon to support the offshore wind farm.

Recommendations for addressing potential avian and/or rare species issues are provided in Section 7.

5. POTENTIAL FLIGHT PATH IMPACTS

Any construction project involving construction of a building or tower extending 200 feet or higher above the natural terrain or located within 5 miles of an airport requires filing of a notice with the Federal Aviation Administration (FAA). To determine whether the proposed Site and project are subject to height or other restrictions as a result of existing air traffic, a written request should be submitted to the FAA, using FAA Form 7460-1, at least 30 days before a proposed construction project is to begin or 30 days before the date

the application for a construction permit is to be filed, whichever is earlier. **Appendix 4** contains instructions for completing FAA Form 7460-1 and the form itself. Note that the timeframe for receiving a response may vary from one to several months.

Since the proposed wind turbine will be higher than 200 feet, including the height of vertically-extended wind turbine blades, Form 7460 should be filled out and submitted as soon as wind turbine design is finalized and plans are available.

A number of tall structures exist nearby, including the adjacent radio tower more than 500' in height and other industrial towers (see Figure 13 from Falmouth Wind Feasibility Study). Given that these structures already exist, the likelihood of obtaining approval from the FAA (possibly with conditions, such as lighting or other conditions) seems high.

6. OTHER PERMITTING

This section describes the permits that will be required, permits that may be required, and permits that do not appear to be required, based upon present and existing information described in this report.

Preliminary design plans for the land-based wind turbine indicate that for a 2-megawatt facility, the tower may be between 100 and 120 meters (i.e., 300 to 360 feet) in height. Blade length may be on the order of 30 to 34 meters (i.e., 90 to 102 feet), depending on the final design. A spread pad foundation may be needed to distribute the mass since the water table is relatively close to the surface. Possible locations for the turbine include the vacant area between Blackmer Street and the existing building, and the area east of the parking lot between the existing building and a vacant lot to the east of the site. Further details will be available in the design phase of the project.

6.1. Required Permits

The following permits would be required:

- Building permit for construction, Building Inspector; and
- Request for zoning variance for height and setbacks, Planning Board

The parcel is zoned as “Industrial B” (general industrial use; see Figure __ “Zoning”) and is also located within the “Working Waterfront Overlay District” (WI) as designated by the City of New Bedford Code (Chapter 9, “Comprehensive Zoning”), and based on a discussion with the City Planner and review of the City of New Bedford zoning regulations. On the west side of the JFK Memorial Highway (Route 18), mixed use zoning prevails.

Within the WI / Industrial B zone, zoning requirements for structures and accessory structures within the WI / Industrial B zone include a height restriction of 100 feet. Therefore, the project would need approval from the Planning Board for a variance

request (dimensional variance) for zoning relief from the 100-foot height limit. The request for a variance may be based on economic hardship based on the fact that having to meet the 100-foot limit would not generate enough wind to justify placement of a wind turbine.

Required setbacks for structures and accessory structures proposed within the WI zone include the side setback (10 feet), rear setback (10 feet for 1-2 story buildings, 20' for 3 or more stories feet), and front setback (10 feet). The lot coverage limitation for buildings in the WI zone is 50%. Green space must account for at least 20% of the lot in the WI zone. If the structure is proposed within the required front setback, side setback, and/or rear setback distances from the lot lines, additional variance requests may need to be filed with and approved by the Planning Board.

Building permit: A building permit from the City of New Bedford will be required for the construction of the structure. This will require preparation of plans for approval and, following construction, as-built plans demonstrating that construction was conducted in compliance with the Building permit.

6.2. Permits That May Be Required

Request for Determination of Applicability (RDA) with the local Conservation Commission, to determine if a Notice of Intent is required. Since the Site is not located within any wetland resource area other than Land Subject to Coastal Storm Flowage (LSCSF) nor within 100 feet of any wetland resource area, we anticipate that no wetland permit filing (i.e., Notice of Intent filing resulting in an Order of Conditions being issued) will be required. However, the City of New Bedford Conservation Commission may require a Request for Determination of Applicability for the portion of the project that is located within LSCSF. If an RDA filing is required, the permitting authority may likely issue a Negative Determination (i.e., no Notice of Intent filing is required). To confirm whether an RDA filing will be needed, a pre-application meeting with the Conservation Administrator or Agent would be advisable, where conceptual plans or site plans can be discussed. The Conservation Administrator or Agent should be able to advise as to whether an RDA filing is necessary or not.

Notice of Intent under the Massachusetts Wetlands Protection Act and City of New Bedford Wetland Regulations (if an RDA filing with the local Conservation Commission results in issuance of a Positive Determination requiring filing of a Notice of Intent).

Natural Heritage and Endangered Species Program (NHESP) Project Review. The proposed project lies outside both Estimated Habitat and Priority Habitat for state-listed and federally-listed avian species. There does not appear to be any local, state or federal review or permit requirement that would trigger NHESP review. No MEPA filing will be required if the project scope remains below MEPA review thresholds. However, the Massachusetts Endangered Species Act (MESA) protects state-listed species and their habitat under all circumstances, whether there are other permits that trigger NHESP

review or not. There is a possibility that NHESP project review may be needed or required.

Other Permits That May be Required

Permits that may be needed include the following (KEMA (2005)):

- Wide Load Permit from the Massachusetts Department of Highways, needed for transportation of turbine components, construction materials and equipment on state roads;
- General Access Permit, Massachusetts Department of Highways, needed if alterations are made to state roads (KEMA, 2005).
- Approval from the Massachusetts Historical Commission (MHC). A project notification and description of the proposed project and any impact on historic or archeological properties is sent to MHC for review and approval.
- Approval under the Noise Control Policy, Massachusetts Department of Environmental Protection (MA DEP). MA DEP policy discourages a broad-band noise level in excess of 10 dbA above ambient, or pure tone noise (KEMA, 2005).

6.3. Permits That Are Unlikely To Be Required

Massachusetts Environmental Policy Act, or MEPA. The project as currently conceptualized does not appear to require a MEPA filing, provided the wind turbine project does not exceed any MEPA review thresholds listed in Appendix 2 (MEPA Review Thresholds). Key review thresholds to consider here fall under the category of energy, and include the following:

- Construction of a new electric generating facility with a capacity of 25 or more MW;
- Expansion of an existing electric generating facility by 25 or more MW;
- Construction of a new fuel pipeline 5 or more miles in length; or
- Construction of electric transmission lines with a capacity of 69 or more kv, provided the transmission lines are 1 or more miles in length along new, unused or abandoned right of way.

Other MEPA review thresholds listed in Appendix 2 do not appear to apply to the proposed project. Also note that according to personal communication with a MEPA analyst, Ms. Briony Angus, on December 12, 2005, if a project receives state funding but does not exceed any MEPA review thresholds, then a MEPA review is not required (i.e., a MEPA filing is required only when some state action or funding or permit is needed and a MEPA review threshold is met or exceeded by the proposed project).

Army Corps of Engineers, New England District. No work in tidelands, wetlands or water bodies is proposed and therefore a permit filing does not appear to be required.

Coastal Zone Management (CZM) Federal Consistency Review. Provided the project does not involve any federal permit, CZM Federal Consistency Review does not appear to be required.

EOEA Article 97 Policy and M.G.L. Chapter 61, Massachusetts Executive Office of Environmental Affairs, governing the use and transfer of protected land from a municipality to another entity (KEMA, 2005). The parcel is not protected land and is not proposed to be transferred to another entity.

Massachusetts Clean Waters Act, Massachusetts Department of Environmental Protection (DEP), for projects that alter wetlands, including dredging and filling. (KEMA, 2005). No work in wetlands is proposed.

Energy Facility Siting Board Review, regulating plants of 100 MW or more, but may have jurisdiction over a community wind project if a new transmission line is more than 1 mile long or over 69 kilovolts. (KEMA, 2005). The project is below this size threshold.

Federal Non Point Discharge Elimination System (NPDES). Provided that the proposed project does not alter 1 acre or more of land, filing of a NPDES Phase I or Phase II general construction permit for stormwater management would not be required.

Chapter 91 License, Department of Environmental Protection (DEP). A Chapter 91 license is not required because the project does not involve the placement of fill in, or removal of fill from, flowed tidelands, nor does it involve any work within jurisdiction of the Massachusetts Wetlands Protection Act.

401 Water Quality Certification, DEP. A 401 Water Quality Certificate is not required because the project does not involve placement of fill in, nor dredging, in any wetland or Outstanding Resource Water or other areas subject to jurisdiction under the state and federal Clean Water Acts.

7. RECOMMENDATIONS

Based on the above information, the following recommendations for applying for permits are provided:

- Remedial actions at the site have resulted in a reduction of contaminant concentrations to below applicable DEP standards. However, some contamination remains in the underlying native soil. Although there are no Activity and Use Limitations on the Site, it is recommended that a Soil Management Plan (SMP) be completed prior to construction that would involve any excavation at the site. An SMP would direct construction supervisors and workers on the steps to take in the event that any debris or obviously contaminated soil is encountered.

- Wetlands: Request a pre-application meeting with the Conservation Agent to confirm whether any filing under the Wetlands Protection Act or local wetland bylaw will be required by the Conservation Commission. Concept plans and the existing site plan may be sufficient for this meeting.
- Building and Zoning: Request a pre-application meeting with the Building Commissioner to review proposed plans and obtain input on specific building and construction issues.
- Request a Pre-Application Permitting Meeting with the City of New Bedford Planning, Building, Conservation and Mayor's offices: As an alternative to requesting two separate meetings with the above groups, it is highly advisable to request a pre-application meeting with the City of New Bedford mayor and staff to describe the project, get input on the permitting of the project, and identify any potential issues. Such a pre-application meeting to solicit input and suggestions is commonly done as part of the permitting procedure, and it can be extremely useful in avoiding unforeseen issues and in building municipal support for the project before it gets too far down road in terms of engineering design. The Building Inspector, Planner, Zoning Board, Conservation staff, Engineer, and other officials who issue development permits should be requested to attend to provide input.
- Regarding potential rare species and/or avian issues, the proponent should undertake proactive information collection and discussions with MassAudubon, U.S. Fish and Wildlife Service and the Massachusetts Natural Heritage and Endangered Species Program. This will identify any potential rare species or avian issues early in the planning process, and will facilitate the entire regulatory process. HW recommends that the conditions and criteria presented in the MassAudubon March 2006 press release should be discussed with MassAudubon officials before the North Coast Seafoods project design is finalized. This discussion should focus on identifying potential avian issues and determining whether the conditions and criteria presented in the March 2006 position would be applicable to the proposed North Coast Seafoods wind turbine or not. Following the discussion with MassAudubon (above), that the project proponent contact NHESP through a MESA Information Request to determine if rare species are present and if so, whether a MESA Project Review filing will be needed. Concurrently, the same request in letter form should be sent to the U.S. Fish and Wildlife Service to request their input and opinion regarding potential rare species issues at the project site.

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