MARTHA'S VINEYARD COMMISSION

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REGIONAL PLANNING AGENCY OF DUKES COUNTY
SERVING: AQUINNAH, CHILMARK, EDGARTOWN, GOSNOLD, OAK BLUFFS TISBURY, & WEST TISBURY

Date: November 29, 2010

To: Grover Fugate, Executive Director
Rhode Island Coastal Resources Management Council
Stedman Government Center, Suite 3
4808 Town Hill Road
Wakefield, RI 02879-1900

From: Christina Brown, MVC Chairman, and Doug Sederholm, Chairman of the Wind Energy Plan for Dukes County Work Group on behalf of the Martha's Vineyard Commission

Re: **Rhode Island Ocean Special Area Management Plan**
Martha's Vineyard Commission Comments

The Martha's Vineyard Commission appreciates the opportunity to comment on the draft Rhode Island Ocean Special Area Management Plan and the fact that the comment period was extended to allow input from Massachusetts stakeholders. The following comments were prepared with input from the Wind Energy Plan for Dukes County Work Group, made up of representatives of all towns in Dukes County, though they do not necessarily represent the positions of any of the towns or their boards.

The Rhode Island Ocean SAMP is the model of the type of ocean planning process that the Martha's Vineyard Commission has been advocating for many years.

The MVC had criticized the Cape Wind process because adequate planning had not been carried out in advance of a developer staking out a claim for an area of the ocean. We called for a process in which the planning is done first, then sites for potential development are identified, then a developer is selected, and then the site-specific studies are carried out to refine the project.

While the Massachusetts Ocean Management Plan was a step in the right direction, the fact that it was done with such limited resources, in such a short period of time, and focused only on state waters meant that it did not produce the quality and scope of results that were warranted. The MVC and many entities on Martha's Vineyard criticized the Massachusetts Ocean Management Plan for its shortcomings. (We are enclosing the comment letter that the MVC submitted about the Massachusetts plan, since some of the comments are relevant to the Rhode Island Ocean SAMP.)

In contrast, the Rhode Island Ocean SAMP has taken the time and had the resources to prepare what appears to be an exhaustive and well thought out plan based on solid data.

The SAMP was developed by the State of Rhode Island in order to guide development in state waters and in federal waters adjacent to Rhode Island. The directly affected area was enlarged by about ten miles principally to provide a buffer for the primary area.

We welcome Massachusetts' decision to join with Rhode Island to work together in planning and guiding any wind energy development that might take place in the Area of Mutual Interest (AMI), as well as the idea of using the SAMP as the guiding planning document for development of this area.

The AMI's location at the eastern edge of the SAMP raises concerns about the completeness of the data and analysis in this area, as discussed below. We count on Massachusetts and federal officials to work closely with you to complete any data or analyses that might be missing to ensure that the information in the AMI is a complete as possible.

We have a few comments on the specifics of the plan, but are mostly concerned about the next steps, namely how missing data will be brought into the plan and how the plan will be used by all parties to move forward with wind energy development in the area.

1. Birds

The data collection and analysis of rare and endangered species and habitat appears to be well done, though the MVC does not have the expertise to comment in detail on this analysis. The research was well thought out and the results fit well with the understanding of our bird experts. The species most at risk would be appear to be the common ones – sea duck, gannets, possibly alcids. We count on additional studies being carried out to enrich the SAMP and in the context of individual projects. (We are enclosing the MVC's comments about the draft Massachusetts Ocean Management Plan which include information relevant to the Rhode Island Ocean SAMP.)

We continue to be concerned about the potential impact of a wind farm on migratory birds including migrant songbirds and falcons. The SAMP includes European research indicating that most migratory birds would likely avoid a wind farm in open water. There might be some issues related to nocturnal migrants being attracted to lights under foggy conditions, especially during peak migratory periods, and it might be desirable to have a protocol that would shut down the facility during these conditions.

However, our main concern is about the possible impact on avian flyways that are channeled along linear water bodies, such as Buzzards Bay and Vineyard Sound, or involve birds flying from one land area to another, such as between Aquinnah and Block Island. The fall migration is of particular concern, compared to the farther landward spring migration.

The northeast parts of the SAMP and Area of Mutual Interest appear to coincide with major flightlines that funnel down to Cuttyhunk, Aquinnah, and Nomans Land before heading to Block Island and the Rhode Island coast. This is a well-known path for the Peregrine Falcon which flies at the height of turbine blades. A related concern is nocturnal migrants that are funneled along Vineyard Sound and Buzzards Bay.

We are concerned that locating wind energy facilities to the west of the Vineyard might push the flightlines out to open ocean and thereby push the birds away from the Elizabeth Islands, Aquinnah, and Nomans Land, which are important stopover areas for migrating birds.

We recommend that additional research into this issue be a high priority and Vineyard birders look forward to contributing to this effort. Deepwater Wind currently has a radar unit on Cuttyhunk, and it is important to make sure that these data are made available. The fact that avian patterns will be monitored on Cuttyhunk for the next three years suggests that it would be very desirable to install radar units near the Gay Head Cliffs and on Nomans Land for the same time period. An array of these three radar units located as a cross section of the coastal flyway would provide invaluable information and at a cost much lower than trying to do this from ocean-based equipment.

Until this is done, we recommend that the northern part of the AMI be excluded from wind energy development. This would avoid the risk of a major disruption in avian movement down Vineyard Sound or along the south shore of the Vineyard. Excluding a relatively small portion of the AMI should get rid of a high percentage of the risks.

2. Marine Mammals

The plan has data about the location of various marine mammals. We appreciate the effort to address mitigation of impacts related to the construction process. However, we note that very little is known about operational impacts. Clarifying and mitigating these impacts is a high priority. *[Note: The discussion about the fin whale had been added by Jo-Ann, but was originally a critique of the MOMP. Upon further reflection, I don't think it belongs here. The SAMP already mentions the fin whale along with the Right and humpback. It also points out that there aren't many fin whales in the area.]*

3. Navigation and Boating

A fundamental concern underlying any discussion of fishing, boating, and navigation is the question of what access will be provided within the limits of a wind energy facility. The assumption has been that the Coast Guard will permit boating access between turbines. However, it is impossible to definitively predict how this issue will be dealt with in future decades and there is always the danger that wind energy facilities in the United States might end up being totally closed to any kind of boating access, as is the case of many offshore windfarms in Europe.

Therefore, we recommend that the SAMP call for the planning of any wind energy facility to incorporate a worst-case-scenario of possible elimination of boating access, and include measures to reduce the impact that this would pose to boating and fishing. This could include incorporating wider channels through the facility that could remain accessible even if the rest of the facility was closed off. Even if the whole facility remains accessible – and every effort should be made to ensure that this is the case – such channels could facilitate boating and navigation, especially in bad weather.

The mapping of navigation and boating activities indicates the high concentration of activity near Providence. It doesn't clearly show what would appear to be another important type of movement, namely shipping and boating that parallels the coast, heading for Buzzards Bay, Vineyard Sound, or the south shore of the Vineyard. These movements are likely more diffused and would not produce the high concentrations in a limited area that would have been captured with the methodology used in the SAMP. It would be desirable that any wind energy facility be located and designed to minimize the impact on the movement along the coast.

4. Fishing

At the meetings on Martha's Vineyard, SAMP representatives explained their extensive efforts deployed to get data from Rhode Island commercial fishermen. They described the efforts over a considerable period of time and with dozens of meetings, which ultimately succeeded in developing mutual trust and resulted in extensive data collection.

The SAMP data were gathered from fishermen based in Rhode Island, not from other states. It is quite possible that fishermen from New York and Massachusetts are active in the SAMP, especially close to their state waters. If this is true, then the data for parts of the SAMP located close to other states would be understating the actual usage in these areas.

Now that Massachusetts is joining with Rhode Island to use the SAMP to guide development in the AMI, it is necessary to gather information about fishing activity in the SAMP by fishermen based in other states, especially Massachusetts.

The exercise currently underway with New Bedford and Martha's Vineyard fishermen might address this to a limited extent. About a dozen commercial fishermen attended the work session held on October 28 and you received four charts representing seven fishermen. It is not clear whether you've received information from New Bedford fishermen. It would not be surprising that the extent of these data is not comparable to those collected from Rhode Island fishermen over the past two years.

We are anxious to work with you and Massachusetts officials to complete this data collection as soon as possible, and want to ensure that this effort will continue until we are assured that the level of information from Massachusetts fishermen is comparable to that from Rhode Island fishermen.

We appreciate the recognition by SAMP officials that any economic impact on commercial fisherman, or any economic activity for that matter, will need to be minimized and, if unavoidable, be adequately compensated.

A major concern of Vineyard fishermen with respect to Cape Wind has been the prospect that the Coast Guard will more strictly enforce the requirement to have an observer on board when navigating through a wind farm. The economic impact of this requirement on a small commercial fishing operation could be very significant, and undermine the viability of some operations.

The MVC appreciates that three seats on the Fishermen's Advisory Council have been reserved for Massachusetts and that Commonwealth representatives have suggested that one of these seats go to a representative of Martha's Vineyard. We encourage Rhode Island and Massachusetts officials to select the name that is being put forward by the Dukes County Martha's Vineyard Fishermen's Association. It would also be desirable that there be a second representative from the Martha's Vineyard recreation and/or charter sector. In addition, it would seem desirable to include a wildlife biologist, from either state, as an additional member.

5. Wampanoag Tribe

We understand that the Narragansett Tribe has been consulted in the preparation of the Rhode Island Ocean SAMP. Now that the SAMP will be used to guide development in all federal waters including those adjacent to Martha's Vineyard, it is important that the Wampanoag Tribe of Gay

Head (Aquinnah) also be directly involved in this process. The ocean waters in this area have great historic and cultural importance for the Tribe and its federally recognized status could give it legal standing in the approval and implementation of any projects. Preliminary discussions with the Tribe indicate that they have concerns about any development located within 21 miles of the coast of Martha's Vineyard.

6. Development Area

For the reasons discussed above related to concerns about migratory flyways and boating running parallel to and in proximity to the coast, we recommend that the northern part of the AMI be excluded from wind energy development. The northwest corner already appears to be an unlikely area for wind energy development because of navigational conflicts (namely blocks 6764, 6765, 6814, and 6815). The remaining northeast corner (blocks 6766, 6816, and 6817) is relatively small, would not be able to accommodate many turbines anyway, and presents potential conflicts for birds and boating. After considerable discussion with stakeholders, BOEM established a 12-nautical-mile setback from the coast for the upcoming Request for Interest in federal waters adjacent to Massachusetts. Eliminating the northern part of the AMI would provide a similar setback south of Rhode Island.

A related issue is the shape of an array of turbines in a wind energy facility. We understand that there are factors related to seabed, habitat, navigation, and other issues that will constrain the location of turbines. However, to the extent it is feasible, it would appear desirable to organize the array of turbines so that it is generally parallel rather than perpendicular to the coast, in order to minimize the impact on both boating and bird migration patterns, which tend to run parallel to the coast.

7. Use of the SAMP in Guiding Development in Federal Waters

The Martha's Vineyard Commission strongly supports having the Bureau of Ocean Energy Management, Regulation, and Enforcement use the Rhode Island Ocean SAMP as the main guiding document in selecting proposals for wind energy development located within the study area, as well as for ensuring that such projects are designed to minimize their impacts on the environment and on human uses.

We support Rhode Island's efforts to have the SAMP guide development in federal waters, namely: Rhode Island's request to NOAA for a geographical boundary expansion extending 30 miles offshore Rhode Island shores for federal consistency purposes; the filing of a comprehensive plan with the Federal Regulatory Commission (FERC), and submission of the SAMP to the Bureau of Ocean Energy Management. This would ensure greater state and local input into development in federal waters with respect to presumed impacts related to state waters and lands, and would provide a framework for gathering and analyzing additional data in a comprehensive way. We would likewise support a similar request from the Commonwealth of Massachusetts with respect to using the Rhode Island Ocean SAMP in the Area of Mutual Interest near Massachusetts.

Finally, notwithstanding the SAMP, we are concerned that once the BOEM process is underway, development might end up being located in areas that the SAMP describes as less suitable. If BOEM calls for Requests for Interest, we would propose to exclude the northern part of the AMI, as discussed in the previous section. Since we now know that BOEM has already received two

unsolicited bids, we are concerned about how this might play out in terms of the location and design of a proposal. Our concern is that, once a developer has selected certain blocks for development, it becomes increasingly difficult to relocate the project, especially as time moves on, the developer has invested considerable time and money in studies of the original blocks, and there are increased political and community expectations that the project will move ahead expeditiously.

In closing, we reiterate our appreciation of the SAMP process and document, and we look forward to working closely with you as we move forward.

cc. Massachusetts Executive Office of Energy and Environmental Affairs; BOEM; Wampanoag Tribe; County Commissioners; Aquinnah, Chilmark, Edgartown, Gosnold, Oak Bluffs, Tisbury, West Tisbury Boards of Selectmen and Planning Boards

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SERVING: AQUINNAH, CHILMARK, EDGARTOWN, GOSNOLD, OAK BLUFFS TISBURY, & WEST TISBURY

Date: October 2, 2009

To: EOEEA and Ocean Advisory Commission

From: Martha's Vineyard Commission

Re: **Ocean Management Plan (June 2009 Draft)**
Martha's Vineyard Commission Comments

The Martha's Vineyard Commission commends the Commonwealth for undertaking a comprehensive planning effort for the Commonwealth's ocean waters as a framework for future development. The MVC also commends the team that worked on the Plan for the high quality professional work in collecting and analyzing a tremendous amount of data in such a short period of time. In addition, the MVC expresses its appreciation to the Executive Office of Energy and Environmental Affairs for adding a public hearing on Martha's Vineyard.

It is important that the Commonwealth, its regions, and its towns work together to provide a framework allowing Massachusetts to move aggressively to increase the generation of ocean-based renewable energy and to manage other uses of the ocean that benefit the broader community. Developing these uses must be done in a way that not only respects ecological and functional concerns – generally dealt with effectively in the draft Ocean Plan – but also other important cultural, scenic, economic, and democratic values of Massachusetts communities. The Plan should more effectively integrate these other factors, including impacts on host communities. In prioritizing the locations for ocean development that have the best ratio of positive to negative impacts today, we should all recognize that long-term needs, especially for renewable energy, may later lead to development in other areas.

The MVC is concerned that a series of methodological choices – to concentrate almost exclusively on state waters, to narrowly define avian resources and exclude consideration of migratory birds, to exclude consideration of scenic values and protection of pristine areas, and to add a somewhat vague criterion about the cumulative impact of activities – led to placing the Ocean Plan's only two commercial Wind Energy Areas in two pristine, scenic areas with a high concentrations of migratory birds.

The MVC is aware that the Commonwealth is concurrently adopting a variety of measures to encourage energy efficiency, which is clearly the most effective way to reduce consumption of fossil fuels. We urge the Commonwealth to be as aggressive in legislation to reduce energy consumption as it is in fostering renewable ocean and land-based wind energy facilities.

The MVC's remarks are prefaced with information about the importance of preserving the unique character and environment of Martha's Vineyard and about the need to move forward with efforts to develop renewable energy in a way that is compatible with these values. Then we

outline a series of concerns about the draft Ocean Plan along with recommendations for how to deal with these concerns.

The MVC is confident that these concerns will be resolved in a manner satisfactory to the Commonwealth and to the people of Dukes County. We offer our collaboration in doing so. Please note that the Commission has not taken, and will not take, any position on any specific proposals, in that it may have to review them as Developments of Regional Impact in the future.

The Vineyard, the MVC and Renewable Energy

Martha's Vineyard is one of the most exceptional places in the United States. It is a sensitive and fragile environment, both on land and sea.

During the 1970s, inappropriate development was marring the unique character and environment of Martha's Vineyard. The federal government considered enacting legislation, the Kennedy Bill, which would have created a national park similar to the Cape Cod National Seashore on a considerable portion of the Island. The federal government, the Commonwealth, and the Island community concluded that the best way to manage the Island's unique character and environment was to have the local community do it by creating the Martha's Vineyard Commission.

When the Massachusetts Legislature adopted the Martha's Vineyard Commission Act (Regulating the Protection of the Land and Waters of the Island of Martha's Vineyard, Chapter 831 of the Acts of 1977 as amended), it included the following goals.

- *The island of Martha's Vineyard possesses unique natural, historical, ecological, scientific, cultural, and other values and there is a regional and statewide interest in preserving and enhancing these values.*
- *These values are being threatened and may be irreversibly damaged by uncoordinated or inappropriate uses of the land.*
- *The protection of the health, safety and general welfare of island residents and visitors requires the establishment of a regional commission whose purpose shall be to ensure that henceforth the land usages which will be permitted are those which will not be unduly detrimental to those values or to the economy of the island.*
- *The preserving and enhancing of these values requires the designation of districts of critical planning concern and the recognition of developments of regional impact, and the review thereof by the regional commission.*
- *Such a program can protect the natural character and beauty of Martha's Vineyard and can contribute to the maintenance of sound local economies and private property values.*

It is especially important that the two regional planning agencies with regulatory authority – the Martha's Vineyard Commission and the Cape Cod Commission – retain the role that the Legislature has given to them to play a key role in managing all development within the lands and waters encompassed by their jurisdiction in order to continue to protect these resources which are important not just to the Commonwealth but to the nation and the world.

At the same time, the MVC and the Vineyard community recognize that Martha's Vineyard has significant potential for the generation of renewable energy. We anticipate that we can find

a balanced way to take advantage of this, so that it benefits the people of the Vineyard and the Commonwealth as a whole.

In fact, there is a great deal of enthusiastic support for the development of renewable energy on Martha's Vineyard. Here are a few examples of community and MVC actions:

- In the past few years, Island towns passed resolutions supporting renewable energy and set up energy committees. Island-wide efforts are coordinated by the Martha's Vineyard Energy Alliance, supported by the MVC and Vineyard Energy Project.
- In the past two years, many small turbines have been installed and currently, several towns and public entities are working on proposals for more significant installations. (Note that the one project for a wind turbine reviewed by the MVC, the Martha's Vineyard Arena, ended up being approved at a height considerably greater than they originally applied for, since the MVC considered that this was an appropriate location for a wind turbine.)
- The Martha's Vineyard Commission is working with the Town of Aquinnah on a District of Critical Planning Concern that would permit well-planned renewable energy projects including utility-scale wind turbines.
- The Towns of Edgartown and Nantucket are working together on a proposed National Offshore Renewable Energy Innovation Zone (NOREIZ) planning area and the Town of Edgartown is working on the Muskeget Channel Tidal Energy Project.
- The MVC has undertaken preparation of the Dukes County Wind Energy Facilities Siting Standards and Plan, with the collaboration of all Island towns and the Wampanoag Tribe. The MVC is currently considering designating an Island-wide Wind Energy District of Critical Planning Concern to help regulate these projects.
- The Cape Light Compact has set up the Cape and Vineyard Energy Cooperative to develop renewable energy for municipalities and other public entities. The Vineyard Energy Project is setting up the Vineyard Energy Coop, and the VEP is working on creation of a renewable energy cooperative to erect 17 ocean-based wind turbines.
- The draft Island Plan, a comprehensive regional plan initiated by the MVC (now in its final public review period before adoption by the end of the year), outlines a series of goals, objectives, and strategies to transform Martha's Vineyard into a sustainable Island. It sets the following ambitious target for the Vineyard: cut projected energy use by half using efficiency measures for buildings and transportation and produce or offset the rest, mainly from community-owned, off-shore wind turbines.

While the MVC is committed to the development of renewable energy and the population is generally supportive of these efforts, we want to do it in a way that ensures community control over how it is done.

Concerns and Recommendations

The following comments highlight several main concerns about the draft Ocean Plan identified by the Martha's Vineyard Commission.

Concern 1: Limited Consideration of Federal Waters

Despite the Plan's stated intention to coordinate planning efforts with the federal government, the plan is focused almost exclusively on state waters, with only a few mentions of adjacent

federal waters. In contrast, Rhode Island's Ocean Special Area Management Plan (Ocean SAMP) takes a much more integrated look at state and federal waters. The narrow focus in the Massachusetts Ocean Plan is not problematic with respect to smaller-scale uses, such as sand and gravel mining or aquaculture. However, it is difficult to make a good decision on the location of commercial-scale wind farms without a comprehensive look at both state and federal waters, as federal waters generally have the greatest wind resources and don't pose the same potential conflicts with local communities as do projects closer to shore.

It may well be that, all things considered, the best place for large-scale wind projects would be beyond the state waters, but it is difficult to make an informed decision without a broader analysis. However, the Plan's focus on state waters sets up a false imperative: that someplace within the expanse of the Commonwealth's waters must be suitable for commercial wind. By restricting the extent of its geographic scope, the Plan needlessly forces compromises of competing resources and values – most notably, those related to scenic considerations – instead of examining whether there are locations that extend into federal waters that can better meet commercial wind goals without requiring the high compromises from using the waters within 3 miles of the coastline.

Also the State's efforts to link the two Wind Energy Areas in state waters with a large wind farm in immediately adjacent federal blocks could have the unfortunate impact of locating a massive wind farm in a joint location that may not be optimum and which would have the greatest negative impacts on Martha's Vineyard.

Recommendations:

1.1 There should be carefully coordinated planning between Massachusetts, Rhode Island and the federal government for ocean waters in the area.

1.2 In the coming year, undertake an intensive effort applying the methodology developed with the Massachusetts Ocean Plan to adjacent federal waters.

1.3 Re-evaluate the recommendations on commercial wind on the basis of this analysis, using the results to make decisions on all commercial Wind Energy Areas (which we recommend below include the two areas in Dukes County as well as other potential areas), and being prepared to revise the Ocean Plan in 2010 if needed.

Concern 2: Data Analysis - Scenic Values

The lack of consideration of scenic values and their related economic impacts, especially in relation to commercial wind projects, is a major omission in the Plan that if uncorrected could lead to projects in inappropriate locations in all coastal regions of the Commonwealth.

Several elements in the Oceans Act require, or at least permit, consideration of scenic values. [emphasis added]

- The Ocean Sanctuaries Act public criteria to determine whether a proposal is *"necessary to the public interest"* includes *"whether the proposed facility or use will seriously alter or otherwise endanger the ecology or appearance of the ocean",*
- The fifteen directives for plan development include:
    2. *Adhere to sound management practices, taking into account the existing natural, social, cultural, historic, and economic characteristics of the planning areas.*
    3. *Preserve and protect the public trust.*

10. *Foster sustainable uses that capitalize on economic opportunity without significant detriment to the ecology or natural beauty of the ocean.*
11. *Preserve and enhance public access.*

- The use of the term *"appropriately-scaled"* renewable energy facilities.
- The Plan indicates that by far the most economically important sector of the marine economy is coastal tourism and recreation ($8.7 billion annually) and that the second most important activity, after swimming, is "ocean viewing".
- The appendix refers to various techniques for identifying visual resources of high value and the use of GIS tools to model and assign values to viewsheds.

Despite all of these references, protection of scenic values is inexplicably omitted from the Ocean Plan's final methodology for siting wind turbines.

As a result, there is no way to differentiate between a proposal that could have an extremely detrimental scenic impact on a coastal community, say a major wind farm just one mile from a major public open space on shore in a pristine area, and one located several miles away at the outer limits of State waters and facing an industrialized waterfront. The designation of the Plan's only two priority commercial Wind Energy Areas apparently take scenic values into account to some extent, but since the Plan cites the basis for these locations as "stakeholder comment" and not as a result of the basic methodology, there is no assurance that scenic values will be considered for future Wind Energy Areas.

Scenic values are of great importance to all areas along the Massachusetts coast, and is critical to areas such as the Cape and Islands where the economy is driven by the vacation industry. For Martha's Vineyard alone, this represents a gross domestic product of about $800 million a year and property values of about $18 billion. Extensive public input in the regional Island Plan indicates that protecting the Vineyard's scenic character and pristine natural beauty are very high priorities among residents and visitors.

The Gay Head Cliffs, designated a National Natural Landmark in 1965, are central to the culture of the Island's native Wampanoag Tribe of Gay Head (Aquinnah), is one of the main attractions of Martha's Vineyard, and is arguably one of the most important scenic vistas on the east coast of the United States. The people who choose to live or visit here consider scenic values to be very important. It is unacceptable that the Ocean Plan virtually ignores scenic values.

Of concern is not only the impact during the day, but also the fact that after sunset, the darkness of the ocean will be replaced by what will look like the skyline of a major city, with flashing lights from the 166 turbines the height of fifty-story buildings.

This doesn't mean that mere visibility of installations is itself a reason to exclude turbines from an area; however, it does mean that scenic values must be thoughtfully considered and impacts minimized, as with the other criteria in the Ocean Plan. The Rhode Island Ocean SAMP deals with scenic values and looks at buffers of between 8 and 20 km from adjacent shores, including the Cape and Islands.

The solution is to outline a clear, objective methodology and predictable criteria for dealing with scenic values.

Recommendations:

2.1 Add a section on scenic values to the Plan that includes the following.

- A map and criterion prioritizing locations farther off the coast of inhabited areas and, making the desirable height a function of the distance from the shore.
- Identification of shoreline land uses (open space, level of public access, residential density, commercial, industrial, etc.) as well as viewsheds and open vistas from the main public places, such as major town beaches, parks, and public waterfronts and waterfront roadways. A criterion to prioritize locations for wind turbines minimizing the visual impacts on these resources.
- Identification of pristine natural areas and a criterion to minimize impacts to these areas. (An Australian study of public perception of the impact of wind farms on scenic values indicated that the most important factor in determining whether people considered the wind farms to be an improvement or a degradation was the original scenic importance of the site);
- A criterion promoting the clustering of turbines to minimize the extent of the viewshed that is altered.
- Criteria to minimize the visual impact of projects including color, lighting, pole design, etc.

Concern 3: Data Analysis - Birds

Concern has been raised on Martha's Vineyard about several aspects of the methodology and data dealing with birds in the draft Ocean Plan. The Martha's Vineyard Commission has asked a panel of three bird experts on the Island to review this material and they have discussed it with CZM staff working on the Ocean Plan. The following are the main concerns identified so far.

- There is some concern about the adequacy of data, even for the limited number of bird species that were addressed in the plan. The Plan relied heavily upon data from Mass Audubon and Bird Observer for input concerning avian activity in and over state waters, but for various reasons Vineyard birders rarely submit observations to these organizations. Thus, the data appear to significantly under-represent the actual presence of birds on or migrating past the Vineyard.
- The draft Plan doesn't appear to adequately consider the National Wildlife Refuge status of Noman's Land. Development is prohibited from the entire coast of the Cape Cod National Seashore, yet there is a commercial Wind Energy Area that extends almost to the shores of Noman's Land. The impacts of noise and lights on the Refuge must be ascertained before considering locating a wind farm in the vicinity. This island is one of two known nesting areas in Massachusetts for Leach's Storm Petrel, a nocturnal species whose habits and potential response to wind developments are not well known. It is also a well-known stopover for migrating songbirds and the falcons which gather to feed on them, all of which could be vulnerable to collision with wind energy facilities, particularly in bad weather when they may be expected to fly low to the water.
- It is not clear that the Plan adequately considers and plans for the natural changes that take place in habitats and areas of concentration of various species. For example, tern nesting colonies can be expected to change location with time. (The displacement of many terns from a traditional colony on Monomoy to the opening in Norton Point Beach this past summer is a good illustration of this aspect of tern natural history.) It might it be better to extend some protection to historical colony sites, or the best potential nest sites, as well

as existing colonies, in order to ensure that terns will have adequate ability to respond to shifts in food resources, impacts to existing colonies, or other factors prompting the relocation of colonies.

- The methodology focused too narrowly on a few rare species and doesn't adequately deal with the large number of species that make an important contribution to the avian biomass, especially the large numbers of sea ducks wintering off the western end of Martha's Vineyard.
- There is little or no discussion of bird migration, and especially the critical role that Noman's Land, the Elizabeth Islands, and Martha's Vineyard (especially the western part and Wasque) play in the Great Atlantic Flyway, the main migratory route of eastern North America.
- It is also noted that bird watching is an economic resource, an activity providing economic benefits to the local economy.

At this point, it is unclear whether the concerns are limited enough to be dealt with in the context of the data collection and mitigation accompanying a specific project as it goes ahead, or whether the concerns are significant enough to require a modification of the Plan, especially the location and/or configuration of the Wind Energy Areas.

The MVC will await the results of the discussion between the Vineyard bird experts and those who worked on the plan before formulating a recommendation about the avian data and analysis.

Concern 4: Commercial Wind Energy Areas - Designation

The Plan does not make clear why the only two designated Wind Energy Areas in Massachusetts are the two located in Dukes County. After extensive discussion of the scientific methodology and the analysis of each of the criteria, the final selection of these areas is barely explained with a rather vague paragraph on page 4-4, including the somewhat cryptic sentence "After screening to identify potential sites using the exclusionary criteria, EEA considered the overall weight of existing information (including qualitative data, data used in the compatibility assessment, and stakeholder input and public comment)."

The Plan's incomplete explanation of the final decision-making process resulted in the impression that the choice was more political than scientific. Some Vineyard public officials have expressed serious concerns, including that that most of Massachusetts has effectively said "not in my back yard" by locating these wind farms as far from the majority of the Massachusetts population and as close to the Rhode Island border as possible, and putting them in two towns with populations too small to effectively protest. It has been suggested that the people of the Vineyard are prepared to bear their share of the load associated with developing more renewable energy along with everyone else; but that doesn't seem to be what is happening. Concern has been expressed that virtually all the industrial-scale wind development has been concentrated on both sides of Martha's Vineyard, and that adding the 166 turbines of the Ocean Plan to the 130 turbines of Cape Wind would transform what is now one of the most special places on the east coast, a beautiful island surrounded by a pristine ocean.

The MVC appreciates the brief explanation of the selection process for Renewable Energy Areas that was given at the September 23 public hearing on the Vineyard. However, this process

should be revised and more thoroughly explained in the Plan, including an analysis of each potential area.

- There should be a clear identification of all locations that meet three basic criteria – best wind resources, absence of constraints in the Compatibility Assessment: Commercial Wind map, and optimum water depth. This analysis should also include a fourth criterion, namely including only those areas more than three miles, or at least two miles, off inhabited coasts (but still within state waters).
- We question the elimination of several potential areas based on using professional judgment to make a qualitative assessment of the cumulative effect of factors. Unless there is some specific conflict, it would seem better to put commercial wind in locations which already have other non-conflicting activities rather than in pristine areas.
- Also, since technology is changing so rapidly, we question eliminating areas on the basis of technical feasibility unless there is absolutely overwhelming evidence that these areas will not be feasible in the foreseeable future. All areas will present technical challenges, and it is best to leave it up to future bidders to make the judgment as to what is feasible.

The result of this review will likely be to identify other areas that are equally suitable for commercial scale Wind Energy Areas in addition to the two identified in the draft Plan. This poses a dilemma, namely adding these areas to the final Plan without having raised this possibility in the draft, thereby depriving the public of an opportunity to react.

At the same time, it would appear to be impossible to resolve by the end of this year all the significant concerns raised in reaction to the proposed Noman's and Cuttyhunk areas as should be done before officially designating them. Indeed, it would be prudent to identify these two areas also as "provisional", in that they have particular issues that must be addressed – as the draft Plan mentions for the other provisional areas.

Recommendation:

4.1 Revise the analysis of potential Wind Energy Areas, adding a meaningful buffer for scenic values and eliminating the factors of cumulative impact and technical feasibility.

4.2 Designate all the areas that are identified in the revised analysis, including the Noman's and Cuttyhunk sites, as Provisional Areas.

4.3 Outline a process for additional technical analysis and public input over the coming year to make a determination as to which Provisional Areas would proceed.

Concern 5: Community Wind

The principle is sound of allowing for modest wind facilities throughout most of Massachusetts coastal waters provided they are supported by the boards of selectmen of the towns in which they are located and by the RPA with regulatory authority and provided they meet Ocean Plan criteria for Special, Sensitive, and Unique areas.

The premise that each region should have the same allocation of turbines is never explained in the Plan. It probably makes more sense to allow regional variation in the number of turbines (based on population, length of coastline, quality of wind resources, number of towns, etc.) provided that town and RPA approvals are required. However, eliminating regional limits altogether could undermine the effort to direct large-scale projects into the unconstrained

commercial Wind Energy Areas, as developers could propose relatively large scale commercial projects in less desirable parts of the Multi-Use Area, and still get those projects approved.

The Plan gives the responsibility of allocating the ten turbines within each region to the regional planning agencies. Presumably this will be based on a combination of the absence of constraints as outlined in the Ocean Plan and interest on the part of towns to host these facilities.

Recommendations:

5.1 The Plan should remove the uniform number of community wind turbines for each region.

5.2 The coastal RPAs should work in concert with EEA over the next two months to determine the need for a cap and, if so, to develop a basis for determining the desirable number of turbines within each region and for allocating them among the regions' towns.

Concern 6: Relation between Town, RPA and Commonwealth Approval Processes

The people of Dukes County need to play a central role in the decision making process related to development in the area's lands and waters. A large number of individuals and organizations have been fighting for decades to protect the unique natural and cultural resources of Martha's Vineyard from inappropriate development; many have serious concerns about the proposed development that is proposed in the Ocean Plan. It is essential that the community have a real voice, a real seat at the table in determining what happens here.

Recent discussions about what approvals should and should not be required for projects in the ocean (as well as similar discussions on land with the Wind Energy Facilities Siting Reform Act) highlight the need for a clear review and approval process, spelled out in the Plan, which acknowledges the Commonwealth's concern that not all projects are denied and the towns' concerns that projects not be imposed irrespective of local concerns. This process should make clear to potential developers that both Commonwealth concerns and local concerns are actively considered in all stages of review.

It would be preferable to have a cooperative process between the Commonwealth, municipalities and Tribes for meaningful and early collaboration on planning for renewable energy, and on managing development projects.

Recommendations:

6.1 The Plan should clearly state that all developments in the ocean, including commercial wind, are subject to the normal review and permitting procedures of towns and regional planning agencies with regulatory authority, in conformance with the RPA's enabling legislation.

6.2 The requirement should remain in the Ocean Plan that town boards of selectmen must endorse community wind projects and that they are subject to the approval of regional planning agencies with regulatory authority and clarify that conditions and denials are not appealable to the EFSB.

6.3 Any appeal of town or RPA decisions to the EFSB for renewable energy projects exceeding the threshold for EFSB review – other than community wind which according to the Plan would be exempt from EFSB review – should be structured in a way that legitimate local and regional concerns are not summarily dismissed. The level of review of RPA decisions should be very high, and not overturned without substantial reason.

6.4 The Plan should make direct reference to the goals and purpose of the enabling legislation of RPA so that, if EFSB reviews proposals, consistency with Ocean Plan would include consistency with the goals and purpose of RPAs.

6.5 The Plan should outline the basic principles of the process going from a Plan to actual projects. This should include an open, competitive bidding process for leases, to be based not only on financial considerations but also on other concerns such as minimizing environmental impact and maximizing local benefit.

6.6 It is proposed that representatives of RPAs, especially those with regulatory authority, representatives of towns likely to host commercial wind projects, the Wampanoag Tribe, and Ocean Plan representatives work over the next eight weeks on a protocol which allows for meaningful involvement of all these entities at all stages of the project planning and approval process. This would include early collaboration on future development projects between the town, RPA, and the Commonwealth (both EOEEA and whatever entity will be responsible for calling for and reviewing developer proposals in state waters) in all stages between the completion of the Ocean Plan and completion of projects, including the pre-planning stages to set the parameters of any RFP and then working with developers to outline studies and shape the project. The aim is to avoid a situation where a developer has invested significantly in preparing a proposal before it is submitted for town or RPA consideration. This should include phased approvals by all parties so that we can close in on the optimum project design in mutually agreed steps. This would reduce the cost and delay for the developer.

With respect to the approval process, this should involve a provision involving the Regional Planning Agencies with regulatory authority (i.e. CCC and MVC) in the definition of "appropriate scale". It is proposed that in Chapter 4, on page 4-12, the following be inserted after subparagraph 7: *Within state waters which are also within the jurisdiction of a regional planning agency, the appropriate scale of tidal, wave and wind projects shall also be defined by regulations adopted by the respective regional planning agencies which shall supplement the criteria for appropriate scale adopted by the secretary of EEA and the Department of Environmental Protection.*

It is also recommended that in Chapter 4, pages 4-20, "Relationship with State, Regional, Local Regulation Jurisdiction", the following third paragraph be added: *The Secretary shall consult with regional planning agencies which have adopted regional plans, and with municipalities which have adopted local comprehensive plans or master plans, to ensure the maximum feasible consistency between such plans and all revisions and amendments to the ocean plan. Regional planning agencies shall ensure consistency between their regional plans and their regulations governing the appropriate scale of tidal, wave and wind projects.*

Finally, the Plan should say that if an RPA has adopted a District of Critical Planning Concern incorporating a siting plan and standards consistent with their enabling legislation (the MVC Act, c.831 of the Acts of 1997 and the CCC Act, c 716 of the Acts of 1989), the Plan should specify that any project must comply with this plan and these standards.

Concern 7: Local Benefit and Mitigation

The Plan states that community and commercial wind energy projects should provide direct economic benefit to the community in which they are located. While commercial scale projects will provide the greatest general benefits, they will also have the greatest impact on their host communities and it is appropriate that developments mitigate these direct and indirect impacts by providing direct benefits to host communities and to the Commonwealth.

The fact that community wind projects need support from the Board of Selectmen and the RPA gives these organizations the ability to negotiate acceptable local benefit. However, since it is not clear that these entities will have the same absolute decision-making authority, it is probably desirable that the requirement for local benefit and its scale and nature be spelled out in more detail in the Plan.

It is important to differentiate between three different types of fee.

- Mitigation fees should be assessed for direct impacts to the resources protected by the Ocean Sanctuary Act and there should be a direct nexus and proportionality between the impact and the mitigation charged. These fees should be paid into the Mitigation Trust Fund and used exclusively to mitigate impacts in the same geographic area as generated.
- Royalties or user fees are essentially rent for use of public waters. They should be assessed for the use of public property and to mitigate the indirect impacts relative to the public trust doctrine that protects the public's rights to a pristine resource. The royalties should not be held to the same nexus criteria. They should be shared between the Commonwealth and host communities, possibly 50% each, or using the formula used by the federal government (Minerals Management Service) which requires that 27% of the royalties go to the local share.
- A fund or bonding to address decommissioning, environmental disasters, and impacts not predicted at permitting stage such as by requiring the posting of bonds.

The compensation to host communities should take into account the other offsetting benefits. For example, since commercial windfarms in the proposed locations would likely provide significant economic and employment benefits to New Bedford such as assembling and shipping, and would have only minimal impact involving connecting an underwater cable to an existing substation, there would not appear to be any reason that it should receive any mitigation or royalties.

There is confusion in the use of the term "community" as used in the Plan, which sometimes is used in the broader sense and sometimes to mean a town. For Martha's Vineyard, while the host towns will have the greatest impacts, the whole Island will be impacted, and it is appropriate that local benefits be for a combination of the town and the region.

Recommendations:

7.1 The Plan should clearly require that both community wind and commercial wind projects provide direct economic and other benefits to their host communities (town(s) and, where appropriate, region). For community wind projects, the fact that the Board of Selectmen and the RPA must approve the project gives them the ability to negotiate appropriate mitigation and royalties. However, for commercial projects, EEA and potential host communities should, before the Plan is finalized, consider of whether the "community benefit" requirement should remain open-ended as in the draft or whether the Plan should

require, or allow towns and RPAs to require, one or a combination of mitigating actions of commercial projects such as the following.

- Requiring or facilitating that a portion of a private project be locally owned.
- Including a fixed rate for royalties and a fixed percentage of these royalties that are directed to local communities.
- Allowing for royalties to offset general impacts on the community such as mitigating impacts on scenic values by scenic improvements on land in host communities, such as landscaping public areas and burial of electric wires.
- Requiring that most or all of the royalties be directed to achieving sustainability objectives, especially related to energy. This could be part of a partnership between the Commonwealth and the local communities to transform Martha's Vineyard and Gosnold into model prototype "sustainable islands", with efforts such as funding energy-efficiency programs in host communities, connecting Gosnold to the electric grid so power is no longer generated from diesel generators, setting up prototype projects for energy-efficient transportation, etc.

7.2 The process for meaningful and early collaboration on future development projects between towns, RPAs, and the Commonwealth described above should integrate local benefit in the pre-planning stages setting the parameters of any RFP and in the project selection process. There should be an open, competitive bidding process to select project developers. This should include a methodology similar to that used by the MMS whereby, in the leasing process for commercial wind, proposals which offer direct local benefit have priority over other equivalent commercial projects. The project selection process should include provisions favoring local preference and local benefits such as:

- Having a time period when adjacent town or a rate-payers cooperative could propose a project, before an RFP is issued;
- Having a right of first refusal for municipalities or local cooperative projects, as the MMS does; this would allow the local community to partner with a developer and incorporate community concerns directly in the partnership agreement;
- Including community benefit in project selection criteria as does MMS.

7.3 The Plan should use the term "municipality" instead of "community" when that is the intended meaning.

Concern 8: Management of Special, Sensitive, and Unique Areas

The MVC shares the concern expressed by others about the definition of SSUs, and that the proposed new MEPA standard is vague and doesn't clearly provide additional protection for SSU's compared to other locations. The data collection appears to be generally good, however, the extents of the SSUs appear to be very narrowly defined, and the number of SSUs that would have to be considered for siting each type of proposed use is quite limited. Also, the standard appears to be inadequate, placing a vague burden on the Commonwealth to demonstrate that there is no practicable alternative, and not requiring mitigation if a project should go ahead in an SSU.

The MVC notes that the Conservation Law Foundation has proposed a three-step test: 1) a clear legal presumption, rebuttable only by convincing evidence, that less damaging practical

alternatives exist outside SSUs; 2) development in an SSU provides public benefits that outweigh the negative impacts to SSU resources and habitats; and 3) the developer must design the project in such a manner that it does not cause a significant adverse impact on the resource and habitat values that the SSUs are intended to protect.

The Precautionary Principle states that if an action or policy might cause severe or irreversible harm to the public or to the environment, in the absence of a scientific consensus that harm would not ensue, the burden of proof falls on those who would advocate taking the action

Recommendations

8.2 Review the delineation of SSUs and the identification of which SSUs must be protected for each type of project to ensure that there is adequate protection of these resources.

8.3 Adopt clearer MEPA standards for review which more strongly protect SSUs.

8.2 Apply the Precautionary Principle when data is incomplete.

Concern 9: Wampanoag Tribe

The ocean waters in this area have great historic and cultural importance for the Wampanoag Tribe of Gay Head (Aquinnah). The Tribe's federally recognized status could give it legal standing in the approval and implementation of any projects.

Recommendation:

9.1 The Wampanoag Tribe of Gay Head (Aquinnah) should be integrated directly into this process now and in the future.

Conclusion

The formal consultation process involves EEA holding public hearings and receiving public testimony until November 23, 2009, and then issuing a final Plan on December 31, 2009. This process doesn't allow for the dialogue and collaboration that will be needed to satisfactorily resolve all the outstanding issues. The MVC offers to work with EEA to help facilitate efforts both with respect to the communities of Dukes County and, through other regional planning agencies, with communities throughout Massachusetts.

We would appreciate receiving information about how EEA plans to respond to our comments well before the November 23 deadline for public comments, so we have the opportunity to react and EEA can make final adjustments.

cc. Wampanoag Tribe, County Commissioners, Boards of Selectmen, Planning Boards

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REGIONAL PLANNING AGENCY OF DUKES COUNTY
SERVING: AQUINNAH, CHILMARK, EDGARTOWN, GOSNOLD, OAK BLUFFS TISBURY, & WEST TISBURY

Date: October 16, 2009

To: EOEEA and Ocean Advisory Commission

From: Mark London, Executive Director, MVC

Re: **Draft Ocean Management Plan - Avian Resource Comments**

The Commonwealth should be commended for undertaking a comprehensive planning effort for use as a framework for future development. It is clear that the team working on the Plan achieved high quality professional work on collecting and analyzing a huge amount of data in such a short time.

However, concern has been raised on Martha's Vineyard about several aspects of the methodology and data dealing with birds in the draft Ocean Plan. The Martha's Vineyard Commission asked a panel of three highly respected bird experts on the Island to review this material, namely:

- Susan B. Whiting – Vineyard Gazette Bird News columnist for thirty years and co-author of "Vineyard Birds" and "Vineyard Birds II: Where and What to See on Martha's Vineyard", Owner operator of Osprey Tours leading birding tours on Martha's Vineyard and Latin America for twenty five years. Past vice president of the Florida Ornithological Society and monthly bird columnist for Martin County Audubon.
- Allan R. Keith – leading birder; several times past President/CEO of the American Birding Association and noted avian author; co-author of "Island Life: A Catalog of the Biodiversity On and Around Martha's Vineyard", co-author of a large volume on the birds of the West Indies; author of works on the birds of Saint Lucia, the Dominican Republic and Haiti; presently writing on the birds of New Hampshire
- Matt Pelikan – former editor of "Bird Observer" and "Winging It," the newsletter of the American Birding Association; a lifelong birder and year-round Vineyard resident since 1997; currently the Islands Program Director for the Massachusetts chapter of The Nature Conservancy.

The group met on several occasions, participated in drafting the following comments, had a preliminary discussion with CZM staff working on the Ocean Plan, and worked on the mapping included in the appendix.

Note that the following comments were prepared by the Vineyard bird experts with support from MVC staff. They have not been reviewed by the full Commission.

The following are the main concerns identified so far.

1. Designation of a Wind Energy Area just off Nomans Land

The proposal to designate a commercial Wind Energy Area immediately to the south of Nomans Land raises a number of concerns. It is questionable whether an industrial-scale wind farm is consistent with the level of protection Nomans merits as a National Wildlife Refuge, namely*". . . for use as an inviolate sanctuary, or for any other management purpose, for migratory birds"*?

Specifically, it is not clear that sufficient attention was paid to the importance of Nomans for certain bird species.

- It is one of the two nesting sites in the Commonwealth for Leach's Storm-Petrel, and the sensitivity of this enigmatic, largely nocturnal species to the impacts of constructing, operating, and maintaining an industrial-scale wind farm is not well known.
- Nomans is reported to be a significant (for its size) stopover site for migrant songbirds (like the nearby Vineyard). It is easy to imagine a high-mortality event if a flock of migrants, leaving Nomans or trying to return to land after overshooting the coast, encountered heavy fog while passing through or over a wind farm.
- Likewise, Peregrine Falcons use Nomans and the Gay Head Cliffs in substantial numbers, could be vulnerable to mortality under low-visibility conditions, or while distracted chasing prey in proximity to turbines.

Development is prohibited from the entire coast of the Cape Cod National Seashore, yet the commercial Wind Energy Area extends almost to the shores of Nomans Land. The impacts of noise and lights on the Refuge must be ascertained before considering locating a wind farm in the vicinity. Given the island's special status as a refuge and its disproportionate use by various kinds of birds, designation of a Wind Energy Zone so near its shore seems premature and possibly imprudent. A buffer of at least one nautical mile should separate the shores of Nomans from designation as a Wind Energy Area. A mile is the approximate distance that a peregrine falcon might be expected to chase a songbird, for example. A mile would also allow ample room for migrating flocks using Nomans to make their ascents or descents to and from higher elevations.

2. Adequate protection for tern nesting colonies

It is not clear that the Plan adequately considers and plans for the natural changes that take place in habitats and areas of concentration of various tern species. Of particular concern is that tern nesting colonies can be expected to change location with time.

The Draft Report of the Habitat Work Group remarks that: *"Nesting and staging areas are well known for all tern species; foraging areas are used in different densities at different times of year. The mapping of foraging areas does not depict all areas used by terns for foraging but rather areas of higher importance. Terrestrial nesting areas were buffered 0.3 nautical miles to maintain consistency with ocean planning mainland buffer (p. 9)."*

The approach of buffering known, current sites used by these birds makes sense given the data available to the Habitat Workgroup. But the current locations of nesting and staging areas may be of only provisional value given the life-histories of these species, which respond to their

dynamic environment by moving freely when conditions require it. In June 2009, for example, an unseasonable coastal storm severely impacted the traditional tern colony on Monomoy. Many or most of those birds, including Roseate Terns, protected as Endangered under both the federal and state endangered species acts, re-nested on Norton Point Beach, on the shore of Martha's Vineyard, in a location where tern nesting had been spotty or nonexistent in the past.

In addition to natural movement of colonies as beach conditions change, there is the potential for new colonies to be created, or small existing populations to be expanded, in the future through restoration measures.

The Ocean Plan should assign some measure of priority to sites with the greatest potential for future occupation (or, more likely, re-occupation) by nesting terns, such as historical colony sites and small islands or peninsulas with narrow connections to the mainland. Failing that, it certainly seems necessary to include some sort of process for assessing and, if necessary, updating the Habitat report on a regular basis. Coastlines are by their nature dynamic, and it would be disastrous to make future management decisions based on data that will eventually become, and maybe already are, obsolete.

3. Insufficient emphasis given to the importance of the waters off the western end of Martha's Vineyard as avian habitat for large numbers of resident and migratory birds and ducks.

The Habitat Work Group correctly considered the huge rafts of Long-tailed Ducks that traditionally winter on the Nantucket Shoals. There can be no question that this aggregation is at least hemispherically significant, a resource worthy of a high degree of protection.

But waterfowl aggregations around the western end of Martha's Vineyard receive no special attention in the Habitat report, despite numbers that are nearly as impressive (especially if one looks at subspecies or populations instead of just full species). The Sea Duck Joint Venture (http://www.seaduckjv.org) estimates the total population of the American race of Common Eider (*Somateria mollissima dresseri*) at about 280,000, with about 57,000 of these breeding in the United States. The Martha's Vineyard Christmas Bird Count (CBC) tallied 49,000 Common Eider in 2002/2003; 45,000 the following year; and 52,000 in 2008/2009 (data from the National Audubon Society website). Eider occur all around the Vineyard, but the vast majority of these birds were members of flocks around Gay Head and Squibnocket Point. While the phenomenon is less well studied by Vineyard birders, huge numbers of migrant ducks pass down the eastern shore of Chappaquiddick and along the southern shoreline of the Vineyard in the fall; the waters off Wasque Point, in other words, are traversed by a high percentage of the hundreds of thousands of ducks that winter to the south of Massachusetts waters.

While their use of these waters is less consistent, a variety of other water birds make heavy use of the ocean off Gay Head: migrating terns, gannets, and razorbills, for example, sometimes occur here by the hundreds or thousands as they move up Vineyard Sound.

Allan Keith's personal records yield these highlights.

- Sea duck concentrations off Gay Head and Squibnocket Point:
    - 35,000 on 4 Nov 2004,
    - 15,000-20,000 on 22 Nov 2003,
    - 50,000 on 24 Oct 2002,

- 32,500 on 19 Nov 2002,
- 150,000 on 26 Oct 2000.

- 5,000-8,000 Gannets off Gay Head on 2 Dec 2001 moving south.
- 100+ Common Loons flying west in less than an hour past Squibnocket Point on 19 Nov 2002.
- The highest duck numbers reflect mainly birds staging before continuing further south along the Atlantic Coast. In most instances they pass directly through the area projected for a wind farm just west of Nomans on their route southwest. Wintering scoter and eider off Gay Head/Squibnocket typically number roughly 10,000 to 15,000, with much larger numbers present some years.
- In spring, very large numbers of sea ducks, Gannets, and loons pass north both just north and south of Nomans Land on their way north along the coast. The sites from which the passage of these birds are highly visible include Gay Head cliffs, Squibnocket Point and Wasque Point. A smaller passage of spring birds is visible from the tip of West Chop passing northeast up Vineyard Sound.

Finally, the Habitat Committee paid little or no attention to use that land birds may make of the Ocean Planning Area. The Massachusetts islands, Martha's Vineyard in particular, are an important staging area for migrant songbirds, particular in the fall, and the falcons which come to feed on them. Flocks of Tree Swallows numbering many thousands routinely move along the south shore of the Vineyard, and similar numbers may pass over Nomans. All of these birds necessary arrive and depart by flying over state waters. Development such as large wind turbines may pose significant threats, especially under low-visibility conditions such as fog, a common phenomenon in these waters.

Nomans Land, the Elizabeth Islands, and Martha's Vineyard (especially the western part and Wasque) play a critical role in the Great Atlantic Flyway, the main migratory route of eastern North America. This has essentially been ignored in the Ocean Plan. You will find attached a series of maps (in the appendix) showing the main routes of some of the main migratory species flying in high concentrations in the region, in the spring and especially in the fall. They demonstrate that there are a variety of routes fanning out over the Cape and Islands that then come together in the very area where the Ocean Plan proposes to locate the two state commercial wind farms. Concerns about bird mortality in relation to wind farms may sometimes be exaggerated, but even wind energy proponents recommend against siting turbines in heavily used flyways. Is this not the case here?

Clearly the nature of the Ocean Plan process made it necessary for the Habitat Workgroup to narrow their focus in order to complete their work within the legislatively mandated time frame. And by directing their attention to state or federally listed species, plus a species of duck that relies on Massachusetts waters to an exceptional degree for wintering habitat, the committee did succeed in focusing on high-value resources. But other species habitually use state waters in very important numbers, and the exclusion of these species from consideration in the planning process seems arbitrary, aimed more at meeting a schedule than accurately reflecting avian use of habitat. And the very limited number of species considered results in a severe under-representation of the importance of state waters to bird life generally. It would appear that the Habitat Workgroup took an excessively narrow look at one of the three "tracks" the workgroup

set out to consider: *"(Track 2) Habitat critical to or providing specific life stage support for important species (or group of species, such as guilds or assemblages) (p. 10)."* It should have more completely considered the other two tracks, namely *(Track 1) Mapped areas/resources reference with special legal protection* and *(Track 3) Unique and/or sensitive habitats as indicated by abiotic parameters*.

4. Bias in data sources

The Habitat Workgroup obviously worked hard to seek out and evaluate available data. However, for various reasons, the very active Vineyard birding community is not closely connected to the birding community on the mainland, and few if any Vineyard birders regularly submit sightings to *Bird Observer* and Mass. Audubon Society.

Also, Mass. Audubon has had a long-standing relationship with Nantucket including many research projects and work by interns. As a result, it is not surprising that the Society's data for the area around Nantucket are quite extensive.

As a result of these cultural factors, Martha's Vineyard sightings are underrepresented in this database, and this fact seems to have led the committee to overlook some significant avian phenomena in Vineyard waters. Vineyard birders are very interested in providing EEA with the maximum information at our disposal.

5. Bird watching as a cultural and economic resource

Bird watching is one of the Vineyard's drawing points. People from near and far come to see the Vineyard's sea ducks and in particular the Harlequin Ducks that spend their winters off the Gay Head Cliffs and Squibnocket. Birders also come to watch migratory flocks of birds staging in Aquinnah at the Gay Head Cliffs and especially so if there is a rarity. Between 1982-1983 and 1997, the number of birders soared from 21 million to 63 million people, according to the U.S.E.P.A. Birding festivals have grown in the last decade to a multi-million dollar business and U.S.E.P.A. estimates that Americans spend over $20 billion per year on bird-related materials and activities, from seeds and feeders to bird-watching excursions in exotic lands. Development should not jeopardize the Vineyard's potential for gleaning some of this income. Bird watchers from off-Island bring groups in the fall from Massachusetts Audubon, Brookline Bird Club and Connecticut Audubon, to name a few, to observe the migration at Aquinnah and other parts of the Vineyard.

Conclusion

The Martha's Vineyard Commission's advisors from the Vineyard birding community feel strongly that, because of limitations in the time and data it had available, the Habitat Workgroup (despite its admirable efforts) has overlooked or undervalued important avian resources in the vicinity of Martha's Vineyard. The results show a real need for further understanding of the bird movements and populations on and around Martha's Vineyard, Nomans Land and surrounding waters.

It is possible that some of these concerns can be adequately dealt with in the context of the data collection and mitigation accompanying specific projects proposed in the future. However, some of these concerns appear to be significant enough to require a modification of the Plan,

especially the location and/or configuration of the Special, Sensitive and Unique areas and of the Wind Energy Areas. Measures to begin dealing with the concerns mentioned above could include, as a minimum:

- Adjusting the proposed Wind Energy Area to provide a buffer of at least one nautical mile between the proposed Wind Energy Area and the shore of Nomans Land;
- Providing SSU protection for an avian resource area, possibly of three miles or more, around the western end of Martha's Vineyard from Dogfish Bar, Aquinnah to Squibnocket Point and at the southeastern corner of the Island from Cape Pogue Lighthouse on Chappaquiddick to the western edge of Katama Bay.

In addition, a vigorous data collection program will be required as a basis for sound decision making on a project review basis to ensure proper protection of avian resources.

Please accept the comments of the Vineyard bird experts to add to EOEEA's knowledge of the region. It is hoped that their input will receive careful attention both before the Plan is finalized, and in future deliberations over specific project proposals. The Vineyard bird experts would welcome any opportunity to work with planners to add to existing data or otherwise build on the important work that has already been done.

These comments have focused mainly on avian activity in and around Martha's Vineyard. Data about avian activity in the vicinity of the Elizabeth Islands (including the Wind Energy Area proposed for south of Cuttyhunk Island) are even more sparse. Many of the concerns cited for Vineyard waters apply to the southern portion of the Elizabeth Islands, as well. As with the Vineyard waters, the paucity of data should not be interpreted to mean that there is a paucity of birds.

Sincerely,

Mark London

Appendix - Mapping of Avian Resources in the Area Surrounding Dukes County

While avian activity on and around Martha's Vineyard has not been studied as thoroughly as it has in some other parts of Massachusetts, the Vineyard has had a large, active, and capable birding community for many decades. Several books have been dedicated, wholly or in part, to the subject of Vineyard birds (most recently, Susan Whiting and Barbara Pesch published *Vineyard Birds II*, a comprehensive annotated checklist for the Island, while *Vineyard Life*, by Allan Keith and Stephen Spongberg, devotes an extensive chapter to the status and trends of Vineyard bird populations). The accumulated experience of generations of Vineyard birders adds up to a significant body of knowledge.

To facilitate incorporation of this knowledge acquired by informal means into the Ocean Planning process, we have compiled the accompanying set of maps, which portray our best understanding of the migratory movements of birds through the Islands Region. The maps are primarily the work of Allan Keith, who has decades of intensive experience observing birds on Martha's Vineyard, assisted by Chris Seidel, the GIS specialist at the Martha's Vineyard Commission. Additional input into the maps came from Susan Whiting and Matt Pelikan.

The maps necessarily vary in level of detail and the "hardness" of the data from which they are derived. However, the maps all contribute to a single, overarching point, which constitutes the essence of what we want to bring to the Habitat Work Group's attention. Migration of birds through the region, especially in the fall, is largely a coastal phenomenon. Many land birds follow shorelines, presumably to facilitate navigation and make use of the resources (berries, late-season insects, etc.) found in coastal thickets and woodland. Many water birds likewise follow shorelines or aggregate in inshore waters, taking the shortest distance between points or taking advantage of water shallow enough to forage in. Many raptors follow shorelines because their prey species do.

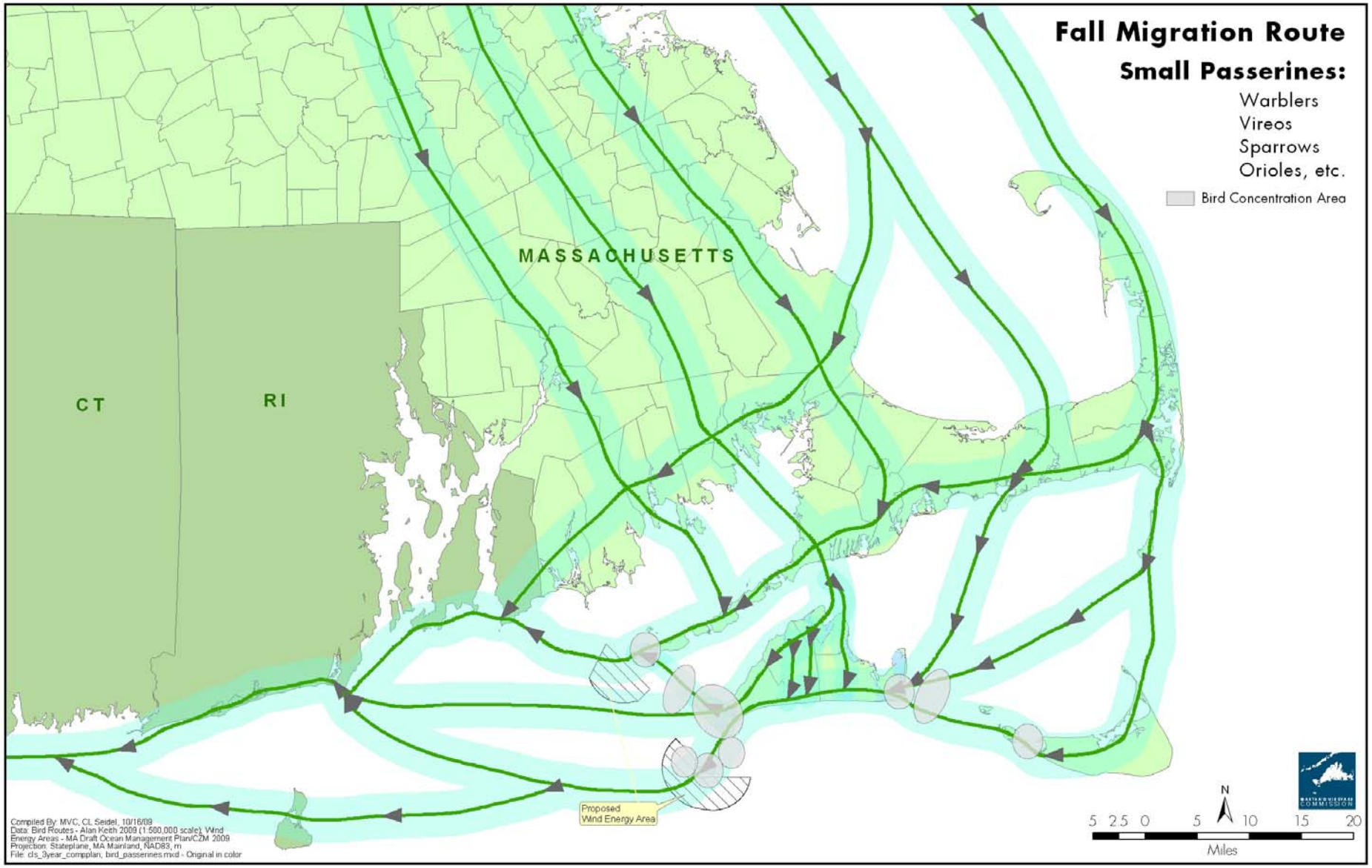
Because of the geographical configuration of the Cape and Islands, birds moving south along the coast inevitably concentrate at the western end of Martha's Vineyard, on nearby islands including Nomans and Cuttyhunk, or in adjacent waters.

In essence, this area represents a funnel or bottleneck through which large numbers of birds necessarily pass. We believe this phenomenon is of a highly significant magnitude, but that limited data availability and decisions made in the course of the Ocean Planning process prevented these bird concentrations from being adequately considered by planners.

1. Fall Migration Route: Small Passerines

Indicated routes are approximations, inferred from what is known about where migrant songbirds are found in largest numbers. Moreover, passerine migration in the Islands Region is a highly variable process across multiple time scales.

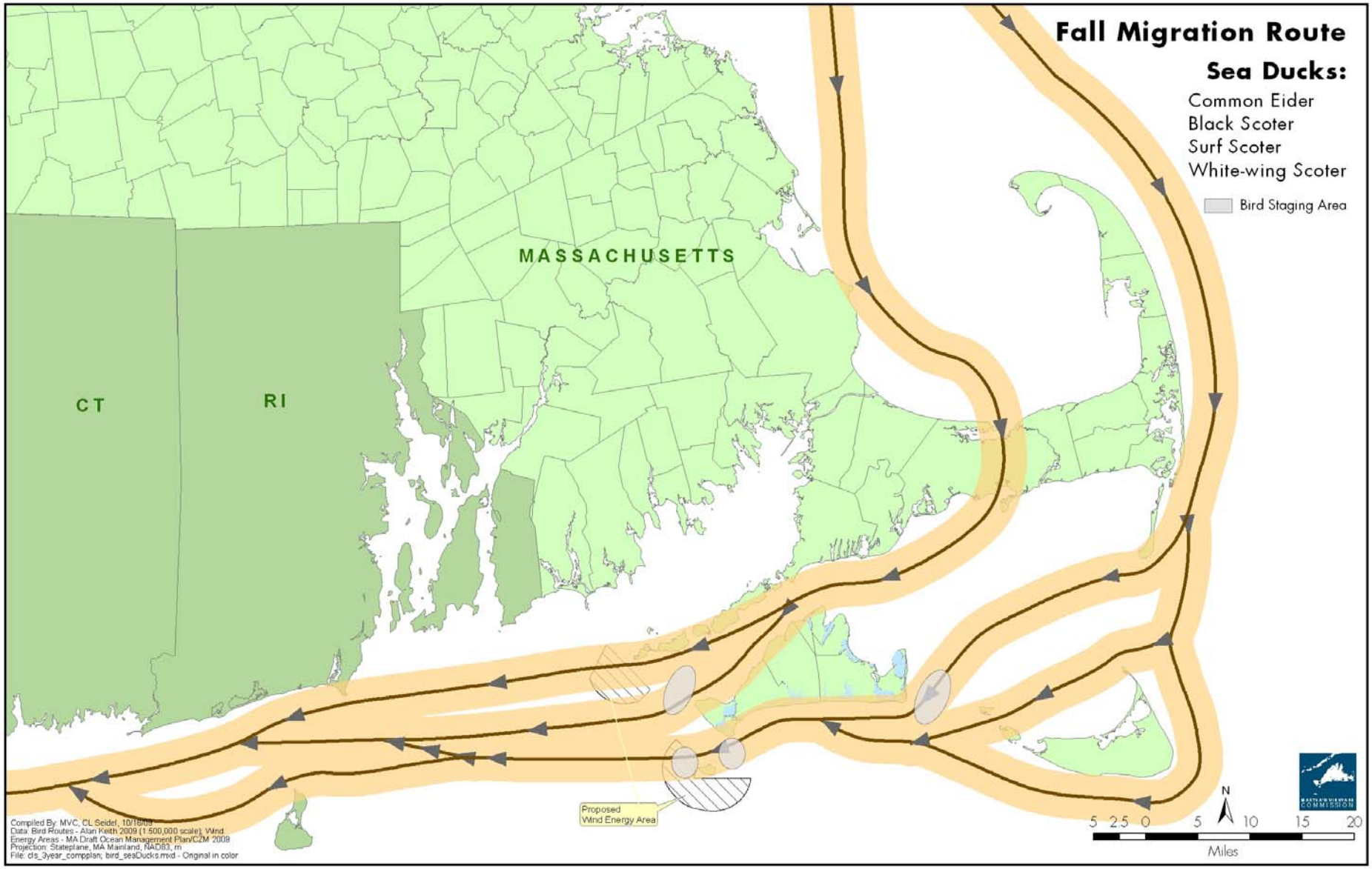
Among the specific, fairly predictable phenomena the map incorporates are the movement of large flocks of several common species (notably Tree Swallows and Yellow-rumped Warblers) along the south shore of the Vineyard, variable but sometimes large concentrations of a wide range of passerine species near the Vineyard's western end, "arrival sites" such as East and West Chops and Chappaquiddick, at which mixed flocks can sometimes be found or birds can be observed arriving over the water, and the movement of small flocks of migrants moving westward through morainal woodland, on the northwestern side of Martha's Vineyard, toward Gay Head. All of these birds necessarily arrive on the Vineyard from Cape Cod, the mainland or Nantucket, by traversing state waters; and they depart, for Nomans, the Elizabeth Islands, Block Island, or perhaps more distant destinations in the same way.


Fall Migration Route
Small Passerines:
Warblers
Vireos
Sparrows
Orioles, etc.
Bird Concentration Area
MASSACHUSETTS
CT
RI
Proposed
Wind Energy Area
Compiled By: MVC, CL Seidel, 10/16/09
Data: Bird Routes - Alan Keith 2009 (1:500,000 scale); Wind
Energy Areas - MA Draft Ocean Management Plan/CZM 2009
Projection: Stateplane, MA Mainland, NAD83, m
File: cls_3year_compplan; bird_passerines.mxd - Original in color
N
5 2.5 0 5 10 15 20
Miles

2.

2. Fall Migration Route: Sea Ducks

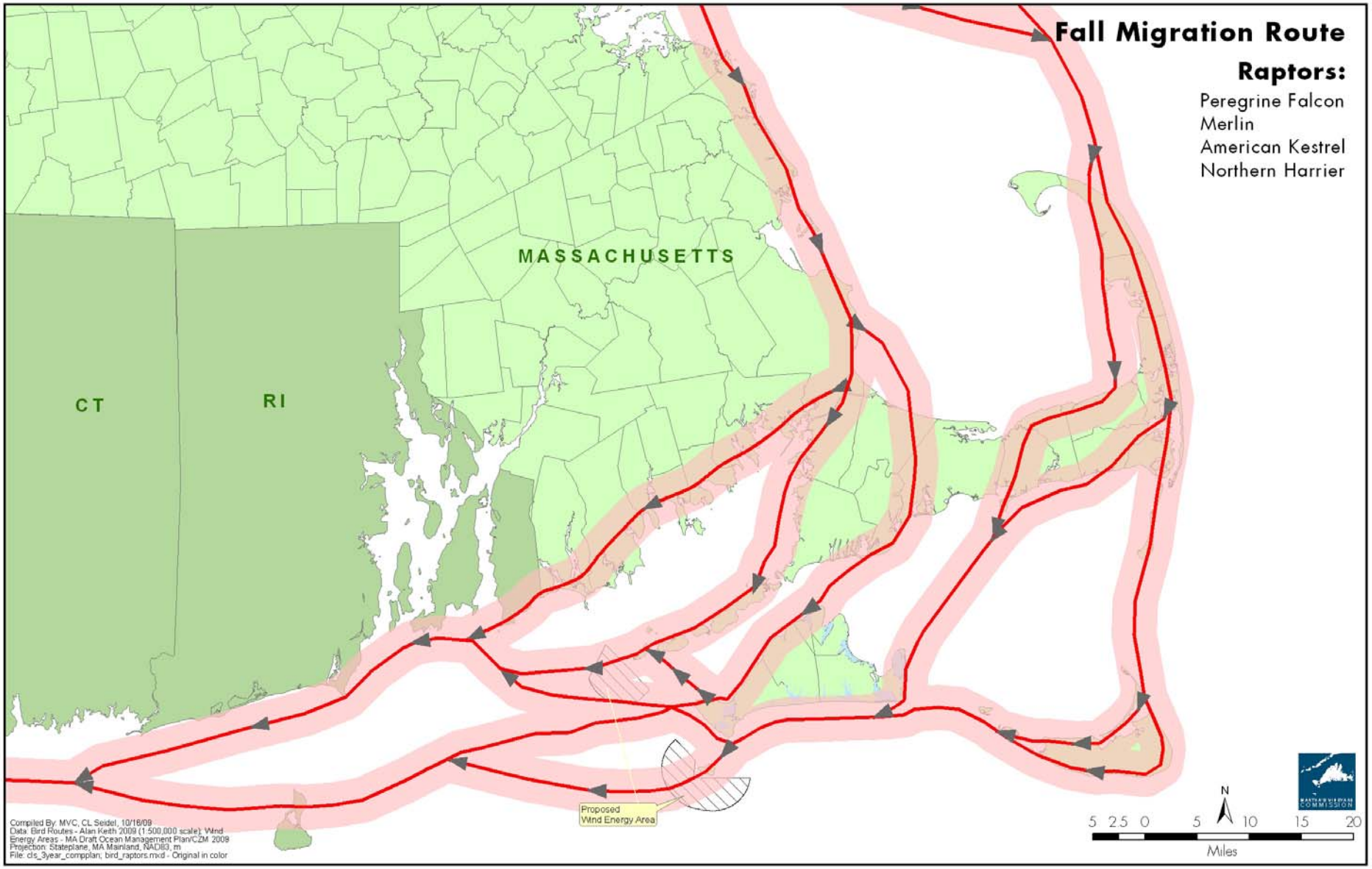
As noted in the accompanying document, large numbers of sea ducks, primarily Common Eider and all three species of scoters, pass through the Vineyard's inshore waters. Massive staging aggregations vary in size but can be observed annually around the western end of the Vineyard. Many birds (typically in the tens of thousands) winter in these parts. No formal sea watch has ever, to our knowledge, been conducted from Wasque Point, at the southeastern apex of Chappaquiddick. But shorter, informal observation by local birders routinely shows hundreds of ducks an hour passing down the Muskeget Channel and turning west to follow the Vineyard's south shore.


Fall Migration Route
Sea Ducks:
Common Eider
Black Scoter
Surf Scoter
White-wing Scoter
Bird Staging Area
MASSACHUSETTS
CT
RI
Proposed
Wind Energy Area
Compiled By: MVC, CL Seidel, 10/16/09
Data: Bird Routes - Alan Keith 2009 (1:500,000 scale); Wind
Energy Areas - MA Draft Ocean Management Plan/CZM 2009
Projection: Stateplane, MA Mainland, NAD83, m
File: cls_3year_compplan; bird_seaDucks.mxd - Original in color
5 2.5 0 5 10 15 20
Miles
N

3. Fall Migration Route: Raptors

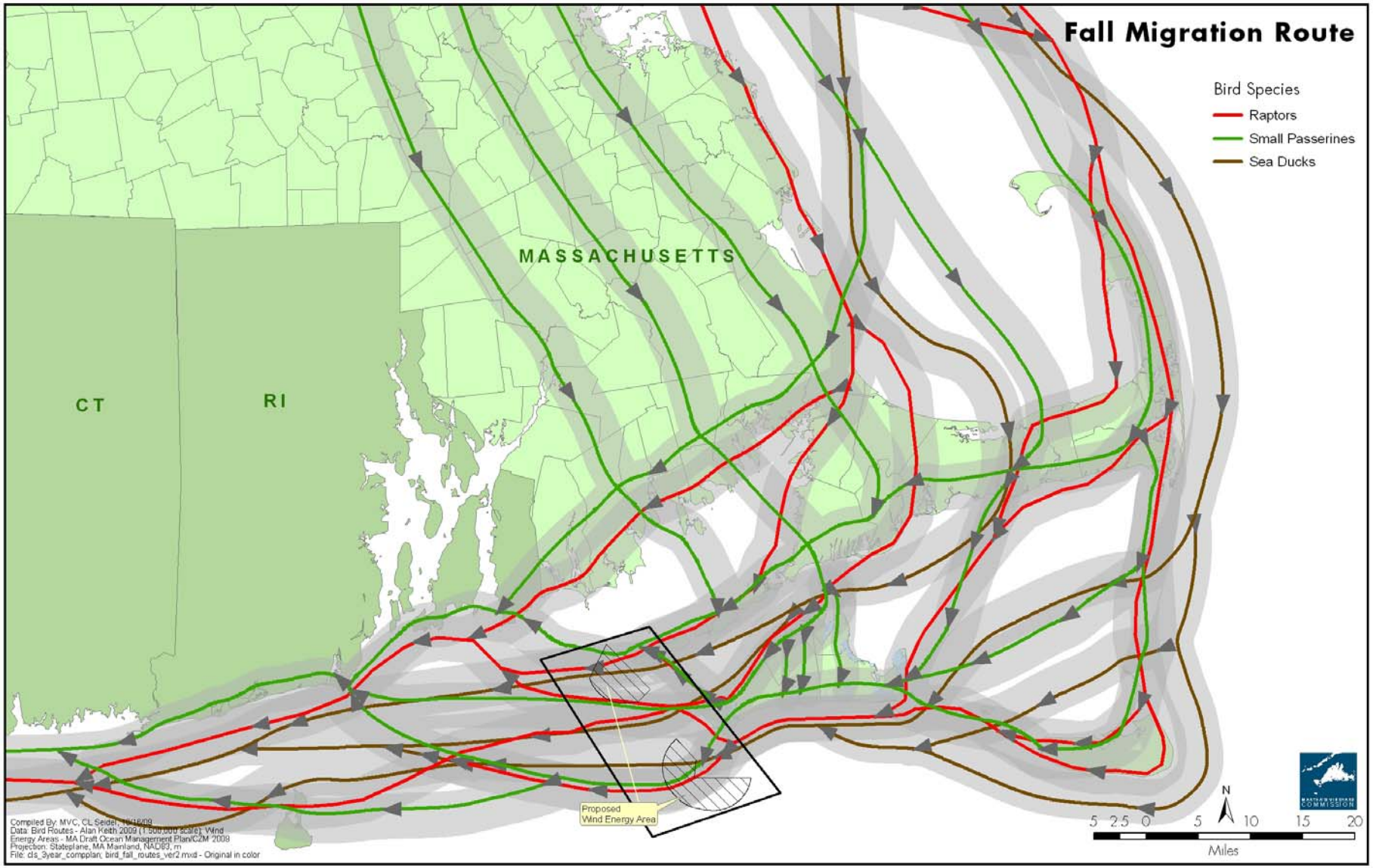
Peregrine Falcons, Merlins, Cooper's Hawks, and Sharp-shinned Hawks are common migrants across the Vineyard in the fall. (Buteos, averse to crossing large bodies of water, are conspicuously absent from the Vineyard's mix of migrant raptors.) In late September and through much of October, personal records show, all of these species are readily found on the Vineyard, and at least a few individuals of each species can be counted on in the area around the Gay Head Cliffs, at the Island's western end. The phenomenon has been insufficiently studied for us to provide hard figures for the numbers of individuals using the Island, either on typical day or during the course of a season. But encountering a half-dozen of any of these species in a day comes as no surprise to a Vineyard birder at the peak of fall migration, and given the relatively small populations of raptors generally, we believe the flow of raptors across the Vineyard is a phenomenon of regional significance.

As is the case with passerines, all of these birds necessarily traverse state waters arriving and leaving the island, and in the case of the falcons, their pursuit of prey often takes from out to sea even when they are "in residence" here. Again, routes indicated on the map are inferred from areas known to be heavily used by raptors. But it seems reasonable to assume that these strong-flying birds generally take the shortest distance between points. Accipiters and falcons departing Gay Head for Nomans or points west are a routine site.


Fall Migration Route
Raptors:
Peregrine Falcon
Merlin
American Kestrel
Northern Harrier
MASSACHUSETTS
CT
RI
Proposed
Wind Energy Area
Compiled By: MVC, CL Seidel, 10/16/09
Data: Bird Routes - Alan Keith 2009 (1:500,000 scale); Wind
Energy Areas - MA Draft Ocean Management Plan/CZM 2009
Projection: Stateplane, MA Mainland, NAD83, m
File: cls_3year_comprplan; bird_raptors.mxd - Original in color
N
5 2.5 0 5 10 15 20
Miles

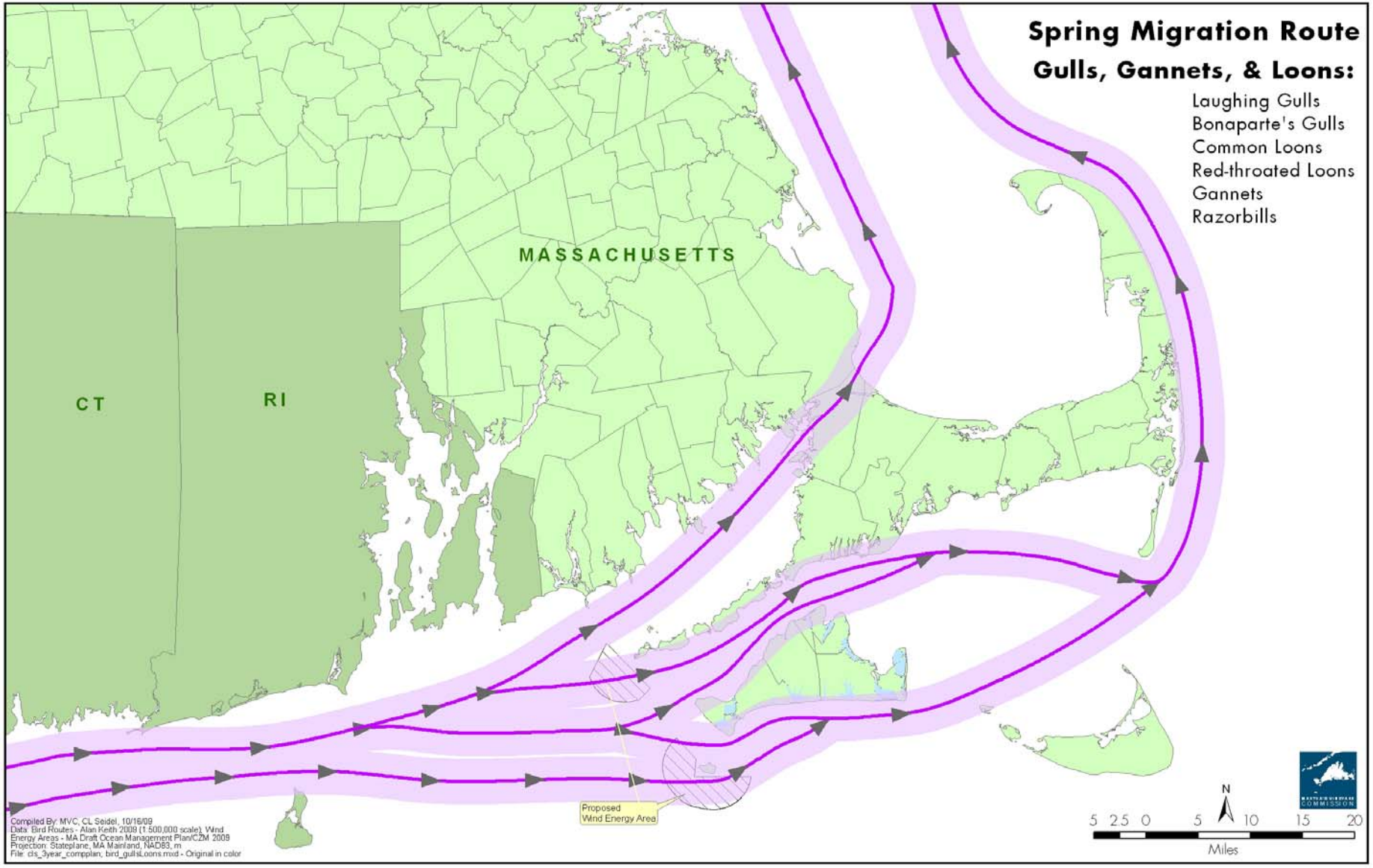
4. Fall Migration Routes: Combined Map

This map shows the funneling of the routes of the various species into the same area where the proposed Wind Energy Areas are located.


Fall Migration Route
Bird Species
Raptors
Small Passerines
Sea Ducks
MASSACHUSETTS
CT
RI
Proposed
Wind Energy Area
N
5 2.5 0 5 10 15 20
Miles
Compiled By: MVC, CL Seidel
Data: Bird Routes - Alan Keith 2009
Energy Areas - MA Draft Ocean Management Plan/CZM 2009
Projection: Stateplane, MA Mainland, NAD83, m
File: cls_9year_compplan; bird_fall_routes_ver2.mxd - Original in color

5. Spring Migration Route: Gulls, Gannets, Loons, and Razorbills

Large numbers of water birds use Vineyard Sound as part of their migration route north in the spring. Smaller but still significant numbers follow the south shore (Northern Gannets particular favor this route, and a tendency for Bonaparte's Gulls to stage at the southern end of Katama Bay may suggest that this species also favors the south shore. Numbers vary unpredictably from day to day, year to year, and species to species; little formal study has been done to determine total numbers, but personal records of local birders are replete with notable counts of such migrants. Assuming that northbound migrants generally take the shortest route they can find, it is clear that most northbound seabirds passing through Massachusetts waters inevitably traverse Buzzard's Bay, Vineyard Sound, or inshore waters along the Vineyard's south shore.


Spring Migration Route
Gulls, Gannets, & Loons:
Laughing Gulls
Bonaparte's Gulls
Common Loons
Red-throated Loons
Gannets
Razorbills
MASSACHUSETTS
CT
RI
Proposed
Wind Energy Area
N
5 2.5 0 5 10 15 20
Miles
Compiled By: MVC, CL Seidel, 10/16/09
Data: Bird Routes - Alan Keith 2009 (1:500,000 scale), Wind
Energy Areas - MA Draft Ocean Management Plan/CZM 2009
Projection: Stateplane, MA Mainland, NAD83, m
File: cls_9year_compplan; bird_gullsLoons.mxd - Original in color

MARTHA'S VINEYARD
COMMISSION