Chilmark Conservation Commission Questions January 12, 2016

Questions for Reid:

- 1. How many feet of parking lot revetment are being removed? Approx. 470 ft. Once the parking lot revetment is removed, how many feet westward does the remaining revetment extend? Approx. 35' of blue granite and a total of approx. 140' of stone will remain in place. Please indicate both the removed and remaining revetment on a map. See attached plan
- 2. What impacts, if any, can be expected to occur at or around the end of the remaining revetment? Erosion will continue northward along the newly restored barrier beach. Some wave refraction may occur during storm events around the end of the remaining revetment, however refraction could be minimized by maintaining a broken rip-rap stone face as opposed to a fitted revetment face.
- 3. What would the impacts be, if any, on the coastal dune when a portion of the dune is converted to BVW (as part of the replication)? The "coastal dune" within the restoration area consists primarily of woody vegetation that will be replaced with similar woody wetland vegetation. There will be no measurable impacts on the functioning of this section of dune.
- 4. Were alternative sites for the replication area considered? If so, which ones and why were they considered inferior? Yes, alternative sites were considered but were found inferior (see attached sketch). Alt. 1 was rejected due to added disruption to an area outside of the project limits. Alt. 2 was rejected due to the dis-similar wetland types. Most of the displaced wetland borders a freshwater spring adjacent to Squibnocket Road. Alt. 2 is a low lying area adjacent to the pond consisting primarily of marsh grasses and fringe marsh vegetation. The proposed replication area was chosen to limit disturbance to an area within the project boundary and to provide similar wetland species and characteristics to those that are being displaced.
- 5. In terms of protecting wetland resource interests, is there a material difference between a paved or a gravel parking lot? For this particular project site, it is my opinion that protection of the wetland resource interests could be accomplished with the use of either bituminous concrete (asphalt) or gravel. There are advantages and disadvantages with both materials. The advantages of gravel include the ease of removal, reduction in point source drainage structures, and lower cost. Disadvantages include higher maintenance costs and less control of storm-water drainage treatment. The advantages of asphalt would be greater control of storm-water drainage and reduced maintenance. Disadvantages of asphalt would be greater costs to install and remove when necessary; and the placement of point source drainage structures. Which option would be better for the resource areas in a planned retreat? It is my opinion that either material could be incorporated into the design to equally protect the wetland resources, however gravel accomplishes more of project goals and provides a better drainage system than asphalt.
- 6. Please provide an exit plan that outlines when and how the parking lot will be removed as the shoreline and mean high tide continues to migrate to the north. This plan should specify how close mean high tide will be to the parking lot and turnaround to trigger the development and submission of a plan for further managed retreat. This trigger should be done such that there

will be sufficient land area for the required equipment to perform the work. As the shoreline migrates inland there will be a time at which an evaluation of alternatives will need to occur. The evaluation will need to occur before the parking area components, including the retaining wall are in imminent danger from erosion. We propose that this moment be defined as the point at which the parking lot retaining wall is within 40 ft of the mean high water line of the ocean. When this condition occurs, the town will investigate options for removal and replacement of portions of the parking area that are in jeopardy. When portions of the parking lot and retaining wall need to be removed or relocated, all work could be done by machine from the landward side of the wall.

- 7. Presuming that there will be some gas powered tools or machines on site, what are the plans in how to use gas on site and plans to avoid any contamination of the resource area with gas or oil. The greatest risk for contamination arises from refueling of equipment and machinery. It is proposed that all refueling of equipment and machinery occur in the northernmost portion of the new parking lot. This will reduce the potential of contamination reaching the resource from a possible spill.
- 8. Please compare the impacts to the resource areas if the skiff launch area is developed as proposed vs laying gravel on top of the existing surface area. The impact resulting from the placement of gravel and cobble directly onto unstable organic and fine material will be greater than the impact resulting from removal of organics and fine material and placement of gravel on a stable base. Placement of gravel on the existing organic material will displace sediment and organic material into the adjacent wetland and pond. As vehicles and trailers pass over the surface, rutting will develop as the material is compacted and displaced. More short-term maintenance will be required to maintain an even surface. Removal of the organics and fine material will minimize the amount of disruption to the adjacent land and the amount of short and long-term maintenance of the area.
- 9. Please provide the most currently available data for mean high tide at Squibnocket Beach. Attached is a copy of the 2014 Eldridge tidal station data for Squibnocket Point. The published tidal range for Squibnocket Point is 2.9'. Assuming elevation Zero (0) of our survey datum (NAVD) equates to Mean Sea Level the resulting Mean High Water would be elevation 1.4. Our survey plan identified MHW = 2.1 based upon local observations.

