

To	C. Elizabeth Gibson, Town Manager	Date	29 March, 2016
From	Richard F. Webb	Project No.	15126
Subject	Site Evaluation Commentary	Project Name	Our Island Home Feasibility Study Part 2

Libby:

The following is a summary of our recommendations regarding the comparative assessment of the existing Our Island Home [OIH] site and the proposed site located adjacent to the existing Sherburne Commons [SC] facility. At our presentation to the Board of Selectmen, the recommendation was made to locate the new facility at the Sherburne Commons site. Several key factors were considered in making this recommendation.

STORM SURGE:

At the March 23 BOS presentation, the SMRT/SK Advisors team presented images depicting storm surge impacts of Category 3-4 hurricanes as part of the discussion assessing the vulnerability of the existing OIH site. The team prepared these graphics in response to the March 5 Public Input session, where questions were raised regarding quantifying the impacts of Category 4 and 5 hurricanes on the existing OIH site. Category 5 hurricane storm surge inundation data is not available for Nantucket as a hurricane of that magnitude has not struck the island during recorded history. The graphics presented were based on the SLOSH (Sea, Lake, and Overland Surges from Hurricanes) model output available on the National Oceanic and Atmospheric Administration (NOAA) webpage. The SLOSH model is a numerical model used by the National Weather Service to compute storm surge. Storm surge is defined as the abnormal rise of water generated by a storm, over and above the predicted astronomical tides. Flooding from storm surge depends on many factors, such as the track, intensity, size, and forward speed of the hurricane and the characteristics of the coastline where it comes ashore or passes nearby. Importantly, the SLOSH model does not account for levels of future sea level rise.

At the following day's Public Input session, a second image was presented by one member of the public. This second image is an output from the Nantucket GIS system which depicts hurricane inundation data. This data layer is taken directly from the statewide GIS system (Oliver), and according to the OLIVER metadata, this data set was developed by the ACOE New England Division and is based on the NOAA storm surge inundation (SLOSH) model.

There is an apparent discrepancy between the OLIVER data and the data available directly from NOAA; generally, the NOAA data appears to indicate a greater depth of potential storm surge inundation at the OIH site. This discrepancy appears to be the result of OLIVER and NOAA SLOSH hurricane inundation outputs utilizing different topographic data. It was felt most responsible to present the storm surge data available directly from NOAA, particularly because the OLIVER/ Nantucket GIS storm surge information purports to be based on that same SLOSH model data.

Both the NOAA SLOSH and OLIVER output depictions illustrate zero potential surge impacts from storm surge at the SC site, as the site is approximately 15' higher in elevation.

In summary, while the NOAA SLOSH and OLIVER output depictions may vary slightly with specific degrees of storm surge impact, the OIH site is more vulnerable to a Category 4 or 5 hurricane as compared to the SC site.



SITE CAPACITY

The existing OIH site totals 2.57 acres, with existing facility located in central portion of the site. As the development of a new Our Island Home facility on the existing site was evaluated, two implementation scenarios were considered.

First, relocation of the residents, demolition of the existing facility, and construction of a new facility. Critical in the evaluation of this option is the understanding that any relocation of residents must be approved by the Massachusetts Department of Public Health, and said relocations must be made to another licensed skilled nursing facility. The existing SC facility is not a licensed skilled nursing facility.

To the extent that relocation were considered, it is important to note that it would be impossible to transfer all of the existing residents of OIH to one facility. This would mean many residents would find themselves in unfamiliar surroundings and without familiar faces of other residents they know. It is also highly unlikely that all of the residents would be transferred within close proximity to Hyannis, making it more difficult for family members to visit their loved ones frequently. Another consideration that is taken into consideration by the Massachusetts Department of Public Health when considering a relocation plan is the potential for the residents being moved to experience “relocation stress” or “transfer trauma”. This condition occurs when a resident is forced to move from one environment to another. Studies have shown that the transfer for frail elderly can create significant stress on those being moved, with the increased potential for deterioration in their health status. Outcomes for the elderly being moved can include weight-loss, increased falls, lowered cognitive and physical functioning, and even death. Overall, it is difficult to envision a scenario whereby any plan to replace OIH that includes the relocation of residents would be acceptable to the state regulatory authorities.

The second scenario proposes to construct in the corners of the existing site, around the existing facility, maintaining the existing facility until the new facility is completed. In addition to maintaining the existing facility, the requisite fire/emergency access around the perimeter must be maintained. This typically represents a 20-30' wide unencumbered area. The site is simply not large enough to accommodate maintaining the existing facility and construction of a new facility concurrently.

In comparison, the existing SC property, including the adjoining Land Bank property totals approximately 6 acres, allowing adequate area to construct a new facility.

SUMMARY: Throughout the study, a key project tenet has been to eliminate the risk of danger and to minimize impacts to the Our Island Home residents. For the reasons noted above, the Sherburne Commons site is the recommended site for the construction of a new Our Island Home facility.