



March 9, 2016

Cape Cod Commission  
PO Box 226  
Barnstable, MA 02630

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Attention: Jeffrey Ribeiro

**RE: Northbridge Assisted Living at Mashpee Commons Development of Regional Impact**

Dear Members of the Cape Cod Commission:

The Association to Preserve Cape Cod (APCC), the Cape's leading nonprofit environmental advocacy and education organization, has reviewed the Northbridge Assisted Living Development of Regional Impact (DRI) application to the Cape Cod Commission and the Commission's staff report dated March 9 and offers the following comments.

The proposed project is located in a Marine Recharge Area for the Mashpee River, which has been identified as a nitrogen-impaired estuary by the Massachusetts Estuaries Project. According to information provided in the DRI application and the Commission staff report, the project will exceed its calculated fair share nitrogen load for the Mashpee River watershed, even after treatment through the Mashpee Commons wastewater treatment facility.

APCC strongly urges the Commission and the project applicant to work together to achieve actual reductions in the nitrogen load to this highly sensitive watershed, rather than relying on a cash payment as mitigation. At a minimum, the project applicant should commit to a fertilizer-free landscaping plan, as well as incorporating biofiltration pretreatment of stormwater in the project's stormwater management plan, in order to reduce the project's nitrogen load.

It is to be assumed that, as an assisted living/memory care facility for the elderly, many if not most of the residents will be under medical care. Because of this, APCC is particularly concerned about the potential for larger than normal concentrations of pharmaceuticals and other medical-related contaminants impacting groundwater and Mashpee River/Popponesset Bay water quality, both from discarded pharmaceutical and medical wastes and from the presence of those contaminants in wastewater after human ingestion.

Recent studies on Cape Cod by the Silent Spring Institute and other groups have confirmed the presence of pharmaceuticals and other substances in private wells and in water samples from coastal waters. Many of these contaminants have been linked to disruption of human hormone systems and certain types of cancers. Hormone and growth impacts associated with these forms of contaminants have been found in fish, amphibians, shellfish and other organisms living in ponds and rivers in studies conducted in other parts of the country.

Potential contamination of water resources from pharmaceuticals is a subject that is receiving increasing attention nation-wide, and is an issue of growing concern on the Cape. Because of the Cape's porous soils and the current absence of wastewater treatment methods that can remove pharmaceuticals and other substances, the Cape appears especially vulnerable to this emerging group of contaminants.

The nature of the proposed Northbridge assisted living facility project and the intensity of use on the project site could create impacts to water quality that are not usually considered in normal residential or commercial development. Wastewater treatment facilities are used on Cape Cod for the purpose of removing nutrients and pathogens. However, only certain types of aerobic treatment systems are capable of partially removing some— but not all— pharmaceuticals and contaminants.

APCC notes that Mashpee's proposed Comprehensive Wastewater Management Plan relies heavily on aquaculture to address Popponesset Bay's water quality issues. A water quality monitoring plan to test for likely pharmaceuticals and other contaminants is recommended as a means to detect if contaminants are leaching into groundwater or are reaching Popponesset Bay and aquaculture sites.

The issue of pharmaceuticals and other emerging contaminants should not be focused exclusively on the Northbridge Assisted Living project; greater attention from the Commission should be given to addressing the potential environmental and human health impacts of pharmaceuticals in our groundwater, particularly from sources that are likely to produce larger concentrations of contaminants.

Thank you for this opportunity to provide comments.

Sincerely,



Ed DeWitt  
Executive Director



Don Keeran  
Assistant Director