



June 11, 2020

Martha's Vineyard Commission
P.O. Box 243
West Tisbury, MA 02575
morrison@mvcommission.org

RE: DRI 682B Meeting House Way 2nd Redesign

Dear Commissioners,

Clean, clear water, teeming with life, is a precious and rare resource that deserves protection. For many who have spent a day, or a lifetime on Edgartown Great Pond, the experience is sacred. I write to you today on behalf of Great Pond Foundation and our constituents, with deep concern for the long-term health of Edgartown Great Pond, and the threat posed by development within its watershed.

Great Pond Foundation (GPF) is a science-based conservation organization dedicated to the study and preservation of Edgartown Great Pond, a remarkable natural resource and an Island ecosystem treasured by many. Our scientific team has spent the last 4 years studying the water quality and ecological health of Edgartown Great Pond.

Although we applaud the applicant for their attention to nitrogen reduction, meeting the Martha's Vineyard Commission nitrogen policy requirements is not adequate to protect the fragile health of Edgartown Great Pond. The Pond cannot support additional wastewater input that would be generated by the proposed development, even with much of the nitrogen effluent downgraded by the wastewater treatment facility.

Current TMDL's are based on nitrogen limits that are too high for a healthy Edgartown Great Pond ecosystem. The nitrogen standards come from recommendations of the 2008 Massachusetts Estuaries Project (MEP) that assumed Edgartown Great Pond did not have historical eelgrass, nor could it support eelgrass in the future if restoration goals were met. For anyone who grew up on the Pond or currently spends time there now, it is clear that eelgrass is a vital component of the ecosystem.

Coastal ponds that contain eelgrass should have total nitrogen (TN) targets closer to 0.2-0.3 mg/L, not the TN=0.5 mg/L TN target that is currently in place for Edgartown Great Pond. The MEP recommendations were also made without accounting for future warming temperatures. *Heat + fertilizer (nitrogen/phosphorus) = algal blooms.*

Although the TN of EGP continues to decrease and was below the 0.5 mg/L target set by the MEP in both 2018 and 2019, after a decade without algal blooms, the Pond experienced widespread macro-algal blooms in both years. During the 2018 & 2019 summers, the water temperature reached an extreme above the 85°F target. July of 2019 represents the hottest July on record and



given future climate challenges and the likelihood that air and water temperatures will continue to increase, without further reduction of the nitrogen within EGP, macro-algal blooms will continue to occur. While we cannot control global temperatures, we can find ways to reduce the nitrogen load of EGP through a watershed-wide reduction of nitrogen. We are currently working with the EPA and the Martha's Vineyard Commission to identify nitrogen "hotspots" within the EGP watershed that could be potential targets for nitrogen reduction efforts.

Potential Impacts of Development on Edgartown Great Pond.

- Loss of intact natural habitat in watershed, capable of attenuating nitrogen.
- Influx of nitrogen into groundwater as a result of habitat alteration.
- Reversing the restoration and wasting investments of the last decade in the Pond.
- Increasing the cost of restoration in the long term. Restoring a mostly healthy system is much less expensive than restoring one that is impaired.
- Reduced water quality.
- Reduced property values around the Pond.
- Loss of eelgrass habitat, resulting in a release of carbon to the atmosphere.
- Loss of plants and animal diversity and abundance within the Pond.
- Loss of commercial shellfish resources.

Great Pond Foundations is an advocate for data-driven and scientifically informed management of coastal ponds. In order to mitigate the impacts of climate change, we need to not only plan for today, but for 50-100 years into the future. Current management plans need to be reviewed in light of potential for increased global temperatures, rising sea levels, and storms with increasing frequency and intensity. As an island, Martha's Vineyard is already seeing the impacts of these changes and has the potential to be a leader in planning and preparedness. We appreciate the care with which the Martha's Vineyard Commission conducts the DRI process, and we thank you for your time and consideration.

Respectfully yours,

A handwritten signature in black ink that reads "Emily Reddington".

Emily Reddington | Executive Director