



August 22, 2019

Martha's Vineyard Commission
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RE: DRI 682A Meeting House Place Re-Design

Dear Commissioners,

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 dedicated to the study and preservation of Edgartown Great Pond, a remarkable natural resource and an Island ecosystem treasured by many. For the last 21 years GPF, in conjunction with Town of Edgartown and the MVC, has invested immense resources in the study and restoration of the Great Pond ecosystem.

From 2008 to 2018, because of a concerted conservation and restoration efforts by our Foundation, the Town of Edgartown, the Martha's Vineyard Shellfish Group, other island non-profits, and numerous private citizens, the health of Edgartown Great Pond (EGP) has improved visually and quantifiably since the release of the [MEP report](#), as is noted in [GPF's water quality report](#) and in the *Water Quality Monitoring Assessment of the Martha's Vineyard Island-Wide Estuaries and Salt Ponds Summary 2017* submitted to the Martha's Vineyard Commission. The Town of Edgartown invested considerable resources in the upgrade of the Wastewater Treatment Plant to a tertiary system and through the sewerage of 300 additional homes. The Martha's Vineyard Shellfish Group is 12 years into its oyster restoration program and has dedicated countless hours and resources. Over this same period, GPF has invested 2 million dollars in the purchase and operation of a dredge in Edgartown Great Pond, to increase the efficiency of Pond openings. Maintaining this improved water quality and ecosystem health, and protecting the resources already invested, requires a dedication to the protection of this delicate ecosystem.

The MVC's 2017 Water Quality report and MVC data from 2018 indicate that Edgartown Great Pond continues to meet or surpass (lower than the limit) the 0.5 mg/L Total Nitrogen (TN) target for Edgartown Great Pond. Despite this fact, for the first time in a decade, there was a [widespread macro algal bloom](#) in Edgartown Great Pond. In 2019, we are seeing another algal bloom that began earlier in the season and is more widespread than in 2018. In addition, we are seeing low dissolved oxygen levels throughout the Pond. This is the first time in the last 4 years that we have seen evidence of hypoxia, or oxygen deficient areas of the Pond. This could be detrimental to the animals that live within the ecosystem.

July of 2019 is the hottest on record globally. Algae blooms when nutrients (nitrogen and phosphorus) are in excess and when the water gets hot. With climate change, global ocean



temperatures and coastal ponds are heating up. This is resulting in widespread algal blooms. Edgartown Great Pond exceeded the 85 °F threshold in August of 2018 and July of 2019. In the past, the Pond stayed below this target even during the hottest months. The increased heat is likely driving algal blooms within Edgartown Great Pond and many other local systems. This tells us that the 0.5 mg/L TN target is too high to support a healthy Edgartown Great Ecosystem. We cannot control the temperatures, but we can control the human-introduced nutrients.

Edgartown Great Pond is currently at a tipping point. Not only can the Pond ecosystem not tolerate the addition of large developments to the watershed, but we must also find ways to reduce the nutrients entering the Pond through currently existing human impacts within the watershed. It is possible to preserve Edgartown Great Pond and the incredible resources within its waters, but it is going to take a new level of management and restoration efforts in order to combat the impacts of climate change to this delicate system.

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