

Stormwater Pond & Estuary FAQ

2/25/25

What is the Pond & Estuary Project?

Our GHCA covenant and state authorities require the association to maintain the original function and condition of all our ponds and the mangrove conservation easement (estuary) within the Grand Harbor/Oak Harbor footprint. These bodies of water require restoration to bring them back to their original state. Some work has begun, but we have a significant amount of work ahead of us to complete the project.

Why is this work so important?

Now, 40 years old, Grand Harbor has an extensive, but deteriorating infrastructure of 28 stormwater retention ponds, grassy swales, littoral vegetation, culverts and water control structures. These ponds range in size from 0.24 acres to 13.88 acres. Total water storage volume of our ponds has been reduced from 552.3 acre-feet to 415.4 acre-feet (43 million gallon loss), which represents a 25% loss in holding capacity from the original design that was intended to handle a 25-year storm event (9" of rain in 24 hours). Seven ponds have lost over 40% water storage capacity, and two have lost more than 60% increasing risk of neighborhood flooding during rain storm events. The latter was sorely tested during the recent October hurricanes. In addition, reduction in flow through our stormwater system (ponds and estuary) increases risk of flooding and creates stagnation that increases the mosquito population, creates foul odors, and lessens the quality of the water.

Our stormwater infrastructure system ultimately directs stormwater to our mangrove estuary and then the Indian River Lagoon (IRL). The IRL is one of 28 estuaries in the country that have been designated by the USEPA as an estuary of national significance. These estuaries are part of the National Estuary Program, a federal program to protect and restore the water quality and ecological integrity of estuaries of national significance.

There is extensive degradation around the ponds, which has not only increased siltation, but also reduced the size of the planted littoral zones (shallow shelves). These plantings are critical for cleansing the pond water of contaminants found in stormwater runoff. The loss of littoral zone vegetation has been estimated to be on the order of 12.1 acres, a more than 50% loss when compared to the original permitted design.

Muck build-up in the estuary impedes flow to the IRL. Engineering studies performed on behalf of GHCA report 74% of estuary waterways need remediation. That amounts to 23,633 linear feet of waterway (4.5 miles). Engineers also reported 17 of 21 estuary culverts are blocked or partially blocked. Few of us probably know that our estuary is Grand Harbor's mosquito control

system, and if we don't maintain it, Indian River County has the right to maintain it and assess us for their expense.

The developers of Grand Harbor neglected the ponds for more than 30 years. When the community was turned over to the homeowners in 2021, GHCA began a multi-year program to restore the ponds and the estuary to their original permitted design. As of January 2025, two ponds have been fully restored and one pond partially remediated. No work has been done in the estuary.

How much will all this cost and how will we pay for it?

Since residents took control of the GHCA, engineers have been hired to assess all the issues with the ponds and estuaries. The GHCA completed work on 2 ponds to understand the costs and benefits of performing the work. Current estimates indicate the project to restore the ponds and estuary will cost \$12+ million. The current plan is to raise our current GHCA monthly assessment by \$65 per month per door, for the life of the project. This equates to an annual assessment of \$780 per door for the life of the project, which is estimated to require 5-6 years. Once completed, a pond and estuary maintenance program will become part of our ongoing operating expense so we don't create the problem we currently have in the future.

Why will this work take so long?

Our 5–6-year timeline is predicated on the following: 1) funding, 2) capacity to perform work in a restricted timeframe, and 3) disruption to our community. GHCA would like to perform the work as quickly as possible within our ability to fund the work, perform the work, and minimize disruption to the community during the prime season. We want to be respectful of residents who enjoy Living Grand and to the Golf Club that plays a large part of the enjoyment of the community for many residents. Our focus will be to perform as much work as possible from May to November.

How is the work being prioritized?

Again, the Engineers we hired did a study of the water capacity, water flow and plantings around each body of water. Prioritization is about working first on the areas having the highest benefits where the bodies of water have the greatest reduction in holding capacity, obstructed water flow, muck build up, and littoral vegetation loss. Also factored into the equation was the inter-relationships between various water bodies. Some aesthetic considerations played a role as well to ensure that we maximize the beauty and visual impact of certain high traffic areas.

What will actually be happening with each body of water?

Most bodies of water will need to be dredged in order to restore the proper stormwater holding capacity. The pipes that connect one body of water to the next also need to be cleared out. Fabric tubes will be installed on the banks of each pond to both stabilize the banks, but also to serve as a receptacle for the dredged spoils. These tubes will be covered with sod and the proper plantings in order to create a beautiful, visually appealing pond after work completion.

Additional spoils may be dredged and spread along pond slopes and in some cases transported to other areas in our community. With completion of the restoration of the two ponds on either side of the 2nd hole fairway on the River course, you can notice these improvements, including the increased presence of waterfowl.

Why don't we just borrow the Money?

The GHCA is currently carrying \$3M of debt to pay for the Bridge repairs and Retention Pond by the Harbor 15th hole. The service of that debt is already costing hundreds of thousands of dollars. Since we will spread the work over 5-6 years, we don't need all the money up front so we don't want to incur additional interest expenses. We looked into a government low interest loan, but were turned down as they won't lend to private entities. We will pursue grant money, but the available amounts are small given the size and scope of this project.

With Insurance costs, HOA fees and GHCA assessments rising, won't we risk people moving out or not wanting to live here?

There are increasing financial risks associated with living in Florida. The GHCA Board has an obligation to ensure the safety and security of its residents. Storms and other weather-related events are a reality throughout Florida, and they are getting more severe and more frequent. We really have no choice but to complete this work as soon as possible. Grand/Oak Harbor is a premiere property in a wonderful town that will continue to attract home buyers. Home values continue to steadily increase. We are asking each home to contribute ~\$4-5k over a 5–6-year period to ensure the safety and beauty of this community. We believe it is a fair price to pay. We also believe the current assessment of \$300/year is artificially low, because previous assessments did not set aside reserves needed to maintain the stormwater infrastructure.

Do we have to complete 100% of this work?

The short answer is yes. The way our stormwater management system works is that every body of water is connected to the next, creating a flow from beginning to end, with the end point being the IRL. Not completing all of the work detracts from the overall goal and leaves certain neighborhood areas at risk. What can be done, however, is vary the amount of material that is dredged from each pond depending upon a variety of cost-benefit factors. We do not have to bring every body of water up to their original design specifications. Where to deposit the dredge spoils is a major constraint as we have very little vacant land in Grand Harbor. If we had to haul the dredge spoils to an off-site commercial disposal facility, our project costs would dramatically increase.

Don't we have reserves built up for things like this?

No. The previous developer was not setting aside reserves properly and when residents took over, we had several emergency projects to complete (the Bridge, Retention Pond, Sidewalks, etc.) Therefore, no specific reserve dollars are set aside for this project. To date, we have been

increasing assessments to pay for this work, but we are now faced with a much larger project, which calls for the actions noted in this document.

How will a project of this size be managed?

The contractors will have offices set up on campus and the Board will have a specific team of residents managing the contractors on a day-to-day basis. We will collaborate carefully with the club and each residential area to set expectations, keep residents informed and provide contacts if they have problems or questions.

Do Residents or HOA Presidents need to vote to make this happen?

No. The GHCA Board will put forth a budget that accounts for all this work. If the budget is passed by the Board the work will commence.