

Synopsis of Mims Community Group Meeting on January 15, 2019

For those of you who were able to attend this month's meet, thank you. For those who couldn't attend, this synopsis should let you know what you missed.

We were pleased to have Matt Culver from Brevard County Natural Resources Department as our speaker. In his excellent slide show presentation, he explained the importance of the dredging of the Indian River Lagoon and the need for septic tank rules changes.

Dredging the Indian River Lagoon

Matt Reviewed the reasons for the dredging, the terrible effects that muck has on the Lagoon, and the seven dredging projects. High levels of nutrients (primarily nitrogen and phosphorus) spawn algae blooms, which deplete the oxygen in the water causing marine life to die. He noted that muck is about 42% of the total Nitrogen loading of the Lagoon. He noted that muck: 1) increases turbidity and inhibits seagrass growth; 2) depletes oxygen in sediment and water; 3) covers the natural bottom and destroys natural biological habitats; 4) accumulates potential pollutants; and 5) stores & releases nutrients. This last item is the critical reason for removing muck – even if all sources of nutrients were to be prevented from entering the Lagoon, the muck would continue to release nutrients for many years to come. This muck has been built up over many decades and the cleanup and restoration will take a concerted effort over many years.

The dredging site that concerns North Brevard residents is the Mims Boat Launch site, located at the end of Jones Road in

Mims. This project is the smallest of the seven Brevard County muck removal sites – 31, 000 cubic yards of muck. The other muck removal sites are in central and south Brevard and total over 2 million Cubic yards of muck. The actual process involves a hydraulic dredge on a barge to suck up the muck from the Lagoon, a pump to push the muck through a pipeline to a spoil site, a collection pond with an impenetrable liner to collect and dry the muck, and trucks to haul the dried muck to a permanent disposal site located inland away from the Lagoon. The Mims spoil site is located on Cuyler Street in Mims. This 100 acre site is actually owned by the Florida Inland Navigation District (FIND), who gave the county permission to use a portion of the acreage as a collection pond. The actual dredging is complete and the muck in the pond is drying. Matt said he believes that the dried muck will be removed to the permanent disposal site after April. Then, the county will clean up the site, so that it can be used by FIND.

Note that FIND is responsible for keeping the boat traffic channel in the Intercoastal Waterway clear and deep enough for boat traffic that uses the Intercoastal Waterway. Their terminology for a spoil site is a Dredged Material Management Area (DMMA). Their plan is that every ten years they will dredge the Intercoastal Waterway and use their spoil sites to dry the material removed from the river bottom. FIND has two spoil sites in North Brevard: one at the east end of Aurantia Road and the one on Cuyler Street. In 2017 FIND personnel gave a presentation to the Mims Community Group – that presentation is available on FIND's website at: http://www.aicw.org/studies_and_information/BV-4B/BV-4B%20Mims%20Homeowners%20Group%20Presentation%20final%201-17-17.pdf

One interesting note about muck and the river bottom is that muck accumulates in the lowest parts of the river bottom. Once these

lower parts have filled, then the muck slowly begins to spread across the rest of the river bottom. As you know, when many places close to the Lagoon were developed, soil was removed from the river bottom and used to build up the property being developed. This resulted in deep holes in the river where muck could accumulate and not spread to the rest of the river for a time. An analysis of the various muck removal sites shows that in some places the muck is as much as 10 feet deep. By concentrating muck removal on areas such as these, Brevard County is able to use the muck removal funds allocated by the State of Florida and by the voters of Brevard in the most effective manner.

In addition, Matt reviewed other dredging activity in central and south Brevard. He pointed out that canals are a location for lots of muck, due to grass clippings and fertilizer runoff from homes that were built on the canals. Furthermore, he pointed out that the reclaimed water used in some cities, such as Titusville, was high in nitrogen and so homes using reclaimed water should not use fertilizer on their yards, because doing so results in the excess Nitrogen being carried to the Lagoon.

Matt noted that he is working with Brevard County Parks & Rec to dredge the channel at Scottsmoor landing. They need to get permits and select a contractor. With luck this project will be done by the end of year. This project is not specifically a muck removal project and it will improve the access to the river from Scottsmoor.

Matt said that they are evaluating other potential dredging sites, such as a marina in Titusville.

Septic Tank Rules Changes

Septic tanks and their drain fields remove less than 30% of the Nitrogen that is introduced into them, thus allowing 70% of the Nitrogen to go into the ground surrounding them. If the tank and drain field are close to the Lagoon or a canal, that nitrogen flows into the Lagoon. When the sources of Nitrogen being added to the Lagoon were analyzed, it was determined that septic tanks contributed 33% of that. For that reason, Brevard County has instituted new rules for septic tanks.

A study showed that for septic tanks located 55 yards or less from the river, each septic system added 27 pounds per year of Nitrogen to the river. Tanks 56 to 219 yards from the river added an average of 7 pounds and tanks greater than 219 yards averaged .0005 pounds.

To help save our Lagoon, Brevard County has instituted a new ordinance that requires new septic tanks within 50 meters of the Lagoon or a canal to have a septic system that allows no more than 35% of the Nitrogen to be released into the ground. This requirement can be met with the new Aerobic Treatment Unit. These units also require bi-annual inspections by a certified inspector.

Another option to meet Brevard County septic rules will be to have a drain field that uses In-Ground Nitrogen-Reducing Biofilters. Currently, the technology for this option uses wood chips in a saturated drain field, but Department of Health rules do not allow a saturated drain field. So, other biofilters that work without being in a saturated drain field are being tested.

Each of these options will be thousands of dollars more expensive than today's standard septic system but will help save the Lagoon and marine life from dying. As part of the Save Our Lagoon initiative, Brevard County allocated some money to assist

homeowners in upgrading or replacing old tanks that contribute significantly to the pollution of the Lagoon. Whether your septic system contributes significantly depends on how close to the Lagoon you are and the type of soil you have.

If you have more questions about septic system replacement or are interested in applying for funds to assist in septic replacement, contact is Anthony Gubler at 321-633-2016 or by email at Anthony.Gubler@brevardfl.gov.

Regards,
Ron Bartcher
President, Mims Community Group