

# **Quarry CDD Newsletter**

## **2023 4<sup>th</sup> Quarter**

### **Introduction**

Welcome to the first issue of the Quarry CDD Newsletter. This newsletter will be published on a quarterly basis going forward to keep Quarry residents better informed on the operations and activities of the Quarry CDD (QCDD). In this first issue, we will focus on explaining why the QCDD exists, the function it performs, how it is organized, and some insight into work that has been completed to address pond and lake bank erosion. For more information on the QCDD, visit our website at: <https://www.quarrycdd.org/>

### **South Florida Water Management District (SFWMD)**

The SFWMD was established by the Florida Legislature to manage and protect water resources in our region. Key areas of their focus include flood control, water supply, water quality, and protecting the South Florida ecosystems. Developers who want to build new communities in south Florida are required to obtain a permit from the SFWMD. The permit which applies to the Quarry, #11-02234-P, required the construction, operation and maintenance of a surface water management system, to control the quantity and quality of water that flows from the Corkscrew Regional System Watershed, located north of the Quarry into the Cocohatchee canal. This permit also requires us to maintain the habitat of endangered, threatened, and special concern species in the wetland and upland preservation areas. Furthermore, we are obligated to remove exotic vegetation from those same conservation areas.

### **QCDD Role and Responsibility**

Community Development Districts (CDDs) are specifically authorized by Florida Statute 190 to finance, fund, plan, establish, acquire, construct or reconstruct, enlarge or extend, equip, operate and maintain systems, facilities and basic infrastructures. The QCDD has constructed and/or acquired, certain surface water management facilities, including lakes, ponds (including seawall & rip-rap shoreline protection), storm inlets, drains, pipes, water quality swales, weirs, and other water control structures, lake interconnect piping, littoral plantings and natural wetlands (collectively the “Master Surface Water Management System”). The QCDD is obligated to operate and maintain these assets for the purpose of satisfying South Florida Water Management District (“SFWMD”) permitting requirements, and satisfying obligations under the QCDD’s bond indentures to reasonably maintain assets funded with tax-exempt bond proceeds. (Note: Collier County, not the QCDD, is responsible for the infrastructure related to drinking water and sewage treatment. Also, the QCA, not the QCDD, is responsible for the use of the lakes and ponds for recreation purposes, including all operations and maintenance related to such use.)

### **QCDD Structure and Personnel**

The Quarry CDD is composed of a five-member board known as the Board of Supervisors. The Board sets the policy in accordance with Florida law. Operations are carried out by the staff, which consists of a District Administrator, District Counsel, and District Engineer. District

Website: <https://www.quarrycdd.org/>

Contacts: <https://www.quarrycdd.org/contacts>

Schedule & Details of Meetings: <https://www.quarrycdd.org/meetings>

## **Quarry CDD Newsletter**

### **2023 4<sup>th</sup> Quarter**

Administration staff and the District Attorney administer the operations of the CDD and implement the Board's policies and contracts. Listed below are the current members of the QCDD Board of Supervisors:

- Timothy B. Cantwell, Chairman  
[tcantwell@quarrycdd.org](mailto:tcantwell@quarrycdd.org)
- Dean Britt, Vice Chairman  
[dbritt@quarrycdd.org](mailto:dbritt@quarrycdd.org)
- Mel Stuckey, Assistant Secretary  
[mstuckey@quarrycdd.org](mailto:mstuckey@quarrycdd.org)
- Rick Fingeret, Assistant Secretary  
[rfingeret@quarrycdd.org](mailto:rfingeret@quarrycdd.org)
- Larry Patrick, Assistant Secretary  
[lpatrick@quarrycdd.org](mailto:lpatrick@quarrycdd.org)

#### **Bank Erosion**

Bank erosion is a natural phenomenon that causes sediment to wash into the lakes and ponds. However, when the erosion is excessive, the sediment can significantly impact the ecosystem, including a loss of wildlife habitat, higher levels of nutrients, and clouding of the water. The causes of accelerated bank erosion include: loss of vegetation, concentrated runoff, boat wakes, and foot traffic. Some of the steps that can be taken to prevent this include:

1. Planting littorals on the banks
2. Installation of riprap (hard armoring) on the banks
3. Installation of erosion-control geotextile fabric on the banks in conjunction with either littorals or riprap
4. Pipe large concentrations of runoff directly into the lakes and ponds below the water surface, instead of having it flow over the banks
5. Reduce the slope of the banks

#### **Littorals vs. Riprap**

Benefits of Littorals:

1. Provides bank stabilization via their deep root systems
2. Filters pesticides, fertilizers and other pollutants from surface runoff
3. Traps and hold sediments and debris, which assists in replenishing soils and actually rebuilding banks and shorelines
4. Supplies aquatic nutrients
5. Provides shade, shelter, and food for shallow-water fish and other aquatic life.
6. Furnishes a habitat for wildlife, including invertebrates, amphibians, reptiles, birds, and mammals.

Cons of Littorals:

1. Requires additional time for the root system to be fully established

Website: <https://www.quarrycdd.org/>

Contacts: <https://www.quarrycdd.org/contacts>

Schedule & Details of Meetings: <https://www.quarrycdd.org/meetings>

## Quarry CDD Newsletter

### 2023 4<sup>th</sup> Quarter

2. Is less durable to wave action

#### Benefits of Riprap:

1. Provides bank stabilization
2. Is particularly durable to wave action
3. Is quicker to complete
4. Requires less maintenance going forward

#### Cons of Riprap

1. Doesn't prevent pesticides, fertilizers and other pollutants from entering the water
2. Doesn't benefit the aquatic life
3. Doesn't provide a habitat for wildlife

### **Bank Stabilization Project**

As a result of hurricane Irma, and subsequent natural and man-made events, many of our pond and lake banks were damaged, and were eroding at an accelerated rate. This put us at risk of being out of compliance with our SFWMD permit. As a result, the QCDD undertook a major project to evaluate, repair and stabilize the banks. Surveys and field observations were conducted to identify the areas of greatest erosion, their causes, and contributing factors. Identified culprits included increased runoff caused by construction of additional impervious surfaces such as pools, lanais, and walkways, pool backwashing and draining activities, clogged stormwater drains, downspouts that caused large concentrated volumes of water flow over a nearby bank, etc. Engineering principles were then applied to identify the best solution for each identified area of erosion. Where downspout runoff was the main problem, the chosen solution involved the installation of underground pipes and clean out collection boxes that would enable the water to flow under the bank instead of over it. Where the slope of the bank was too steep, the solution chosen was to add additional fill material to reduce the slope. Where the bank soil was found to be loose, compaction of the soil followed by the installation of geotextile fabric and littorals was chosen as the approach. Where wave action is likely, either from boat traffic or tropical/hurricane force winds blowing over large expanses of water, riprap was the chosen solution. Additional situations where riprap was also determined to be the best approach included:

1. Where bank slope exceeds a 4 to 1 ratio, could not be reduced, and significant runoff was present.
2. Where the runoff flow volume and/or rate was too high to permit new vegetation from being able to colonize and establish a significant root system.

Once the solutioning was determined for each section of pond or lake, then the next step was to put together a formal project plan. The result of that revealed that the amount of work to be performed exceeded what could be accomplished within the window of time available in the spring/early summer, when the water level in the ponds and lakes is low. As a result, it was decided to split the execution into two phases, the first began in the spring of 2022, and the second in the spring of 2023. Both phases were completed as scheduled.

Website: <https://www.quarrycdd.org/>

Contacts: <https://www.quarrycdd.org/contacts>

Schedule & Details of Meetings: <https://www.quarrycdd.org/meetings>

# **Quarry CDD Newsletter**

## **2023 4<sup>th</sup> Quarter**

### **Topics to be covered in the next newsletter**

1. Future project and maintenance work
2. Funding
3. Bond repayment
4. Easements & swales
5. QCDD & QCA coordination

### **Closing**

We welcome attendance and questions at our meetings which are usually held on the second Monday of each month. For the remainder of 2023 the meetings will continue to take place at the Quarry Golf Club. Starting in January of 2024, we hope to be able to move the meetings back to the Beach Club. Please check our website to verify the exact date, time, and location of each meeting. We are your neighbors and work hard at managing our obligations, assets and budgets. Feel free to contact any of the Supervisors (whose email addresses can be found on the CDD website) or the District Manager with any questions or concerns. When composing your email, keep in mind that Florida has a very broad public records law. Most written communications to or from CDDs regarding business are public records available to the public and media upon request. Your email communications may therefore be subject to public disclosure.