



NEIGHBORHOOD INFORMATION

Neighborhood Environmental Project Case Study Form

Neighborhood/Community Name Maple Leaf Golf and Country Club

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PROJECT INFORMATION: *Track 2 Water -Trace Metal Analyses of Pond Sediments-Part 2.*

Please provide an overview of the project. Why did you choose it? What were the conditions like before and after implementing the project?

The principal source of water to Maple Leaf Golf and Country Club (MLG&CC) ponds (surface area of 29 acres) is storm water runoff from an inflow located on the northern property line adjacent to Rampart Avenue. MLG&CC has a history of water quality complaints with Charlotte County and Southwest Florida Water Management District over the impairment of storm water discharged into park ponds. The NRC is involved in long term planning on flooding issues related to the projected rise in Florida sea levels and more recent observations of increased rainfall over shorter time periods. The Committee is researching methods to reduce local flooding. Studies are being done to characterize storm water impact on pond water quality and to establish baseline data for future assessments. A nutrient study was performed in 2015 followed by a 2017 trace metal study on sediment from the first inflow pond. The trace metal part 2 Project is a continuation of this program by measuring trace metal content in five of the other major ponds. The data can be used to differentiate between external and internal inputs as well as determine the extent of expected future incidences of impairment.

Please list your goals for this project:

- Collect 5 sediment samples
- Analyze for (50) trace metals
- Review data, form an opinion and produce a report
- Establish a baseline data set
- Inform Corporate Board
- Place report on NRC website
- Present data at homeowner meeting

What specific steps did you take to implement your project? What kind of ongoing maintenance will it require? (Please give sufficient detail so that someone interested in duplicating this project could do so.)

- Attended local meetings and meet with staff from Environmental agencies
- Paid a snorkeler to obtain samples
- Prepared and delivered samples for analysis.
- Review data.
- Prepare report
- Advise NRC Committee on further actions

Describe the results you achieved. What were the environmental benefits? Please be as specific as possible about any tangible results (i.e., numbers of acres naturalized, new species observed, or number of fledglings).

MLG&CC is a certified Audubon golf sanctuary and a member of Audubon International Green Neighborhoods. It has recorded 93 different bird species and provides habitat for a variety of mammals, fish and reptiles. The viability of this habitat relies on the water quality of the watershed within Park boundaries. The results indicate our efforts to improve water quality are working. In addition to chemical measurements, the Corporation has constructed seawalls, introduced aquatic plants in the littoral zones, maintained flow weirs, increased habitat and reduced oil and debris inputs. In 2017 we had fledglings for limpkin, sandhill crane, blue heron, gallinule, mottled duck, killdeer and purple martins.

How did people respond to the project? How did you communicate your actions and results?

There has been significant community support for water quality improvement. The Corporation provided funding for the nutrient study. The Corporation Board through the General Manager has had multiple contact with local environmental agencies regarding impairment issues. We will communicate our results through a report, posting information and newsletters on our NRC website and by presentation at one of our homeowner meetings.

What, if anything, would you do differently if you were to do the project again? What would you recommend to others implementing this project?

We intended to hire a scuba diver to take sediment samples from the deepest part of the basins. This was not possible due to the number of alligator/diver accidents in 2018. Instead we used a local snorkeler to take near shore samples. Properly obtained core samples, rather than grab samples would have helped in determining the actual period of deposition. The nearshore samples may also be subject to more mixing and have lower concentrations. This project is part of a larger effort to define our watershed. Effecting change through federal, state and local agencies is a long-term process. Petitioning and meeting with elected officials is a necessary part of the process.

How much did it cost to implement this project?

The sample collection required staff time of approximately 3 hours. Sample preparation and delivery required 5 volunteer hours. The analytical testing will be donated and costed at \$750. Data interpretation, review and reporting will require 10 hours of volunteer time. Reporting and distributing the data will likely take a further 5-8 volunteer hours.

What are your anticipated or actual financial savings?

The estimated overall savings based on volunteer hours and analyses would be in the order of \$4000 if these tasks were contracted out.