WORKSHOP REPORT
Grand Haven Development District

Meeting Date 08/25/09 Start 10:05 a.m. End 12:05p.m.

ATTENDEES: Present
Pete Chiodo, Charles Trautwein, Steve Davidson, Sam Halley
S. Davidson Absent-Dennis Cross
Barry Kloptosky/OM .

BUSINESS ITEMS:

1)Role/function and formation of GHCDD Ad Hoc Fact finding groups
Supervisor Davidson presented recommendations for rules governing Ad Hoc groups.
Suggestions for modifying proposals discussed. Waiting on Counsel's review.
Supervisor Halley will work on mission statement for Ad Hoc.

Proposal to seek various landscaping companies to help with a general plan for Grand Haven. Discussion followed.(Suggest use of Ad Hoc Fact Finding Group)

II)Community Erosion Issues
Barry Kloptosky listed issues requiring estimates for repair as well as Engineer look see.
1) Osprey Circle Sink Hole/Mail Box
2) N. Front Street Intracoastal entrance-
3) Jasmine- Erosion at entrance to Boardwalk/esplanade
4) Southlake-mited end section of the conduit. Erosion spreading to private property
5) Wild Oaks Spillway Phase 2-erosion of walking path by pump station

III) Pond Issues-
Presentation by Supervisor Davidson
Analysis of Mtce Controls to improve the Ponds-See handout
Supervisor Davidson explained the Palm Coast City's program to improve their Stormwater and Retention Ponds system.
Grand Haven is an independent entity. The City of Palm Coast does not provide Stormwater management services to Grand Haven. The CDD should get a higher percentage of return on the fee currently paid to the city.
Suggestion: We should keep a running total of CDD costs of Stormwater management to justify a higher dollar return from the city.-This should be done by the District's Management Company.

Report issued by Vice Chairman- Charles Trautwein 8/25/09

ASSISTANT SECRETARY

Vice Chair

Missing on page
Please Attach to
Minutes of Workshop
8/25/09 -
C Trautwein.

POND PROJECT UPDATE
COMMENTS FROM DR. MARK CLARK
8.24.09

"The algae and SAV in the ponds is not the problem, it is a symptom of the problem. The problem is elevated nutrient levels that are coming from nutrients in runoff from the watershed (lawn fertilizer, reclaimed water, additives to irrigation water, leaching of fill soil, etc) or flux from underlying soil geology that was exposed when ponds were excavated. Killing the algae and SAV using herbicides temporarily gets rid of the symptom, but does not fix the problem and instead likely sends the problem further downstream where the symptom (algal bloom) will now express itself in the natural environment.

The alternative treatments being proposed seek to allow the symptom of the problem to be part of the solution to prevent excess nutrients from moving further downstream, but the degree to which their effectiveness can be balanced with acceptable conditions within the ponds will be influenced by the degree to which the sources of nutrients can be reduced.

Even though I realize that phosphorus leaching from fill soils and/or the pond bottom may be significant, nutrient loads are additive and reducing inputs associated with reclaimed water and fertilizer practices within the community can only help to reduce the amount of nutrients available to fuel algae growth either in ponds or downstream in the environment.

I should have water sample data from last sampling back from the lab in about a week and I have requested that Jim send survey forms and memory stick with photos so that I can have a student start processing."

GRAND HAVEN COST- BENEFIT ANALYSIS STORMWATER DETENTION POND MAINTENANCE CONTROLS DEMONSTRATION PROJECT

UPDATE 8/09

In cooperation with GHMA, published rules for New Plantings and Ground Cover for Detention Pond Banks

Analyzed results of 168 soil sampling sites: 77% of soils had high to very high levels of available phosphorus indicating no need for phosphorus fertilization in most areas. Elevated phosphorus in fill soils of undeveloped lost suggest elevated levels of phosphorus in native soils under ponds- core sampling of pond bottoms recommended.

Supporting scientific/technical information regarding Littoral Shelf Plan submitted to SJRWMD. Permitting approved. LSP installed ponds #6, 7, 17.

Aeration treatments designed (equipment specification, sizing and placement) and installed by Keeton Industries ponds #2, 19, 20.. Microbes later added to treatment modality.

No carp/SAV treatment implemented by non restocking of older carp in ponds #1,3,4.

Copper Sulfate/ no aquatic herbicide control instituted ponds #5, 8, 37.

Volunteer Pond Observer/Monitor Training completed, monitoring program instituted.

Monthly Lakewatch sampling ponds #1,5,37,28,W6

GHCDD Website Pond Observer Survey developed, posted to website, active.

Preliminary assessment of irrigation rates in common areas indicates almost three times more irrigation volume is being applied than UF/IFAS suggest is necessary for a healthy landscape. Since this water is reclaimed water coming from a treatment plant with only secondary levels of treatment there is also a large amount of nutrient being applied (nearly 2 lbs of nitrogen and 1 lb of phosphorus per 1000 sq ft). Reducing irrigation rates will reduce irrigation cost as well as nutrient loads to ponds.

N-control added to reclaimed water as well as rid-o-rust and other anti stain additives to irrigation water are likely contributing additional nitrogen and phosphorous loads to stormwater ponds.

First volunteer sampling of ponds with water quality sampling conducted August 13

Field observations 8/09:

LSP Ponds 7, 17 ok, some algae noted 6. Continue protocol.

SAV overgrowth unacceptable ponds 1, 3, ok 4. Ponds 1, 3 to be treated in stages with herbicide, algaecide, carp to be restocked.

Aeration/microbes: pond 2: UF water quality sampling 8/13, results t.b.d., SAV overgrowth to be treated with herbicide.
pond 19: UF water sampling 8/13, no other tx rx'd,
pond 20: UF water sampling 8/13, no other tx rx'd
Keeton Industries requested to assume further implementation of modality, water quality sampling and labor no additional charge, microbes at reduced cost

Other treatment modalities under consideration:
Triploid Carp to be restocked all ponds prn
Aquatic weed harvesting
Algae harvesting
Replacement of Copper Sulfate with H2O2 as algaecide
Core sampling all pond bottoms
Bathymetric survey of all ponds (CPCSD)
Grants for water quality studies
Continued discussions with other CDDs re aquatic txs:
Clear Water - Sea Colony
Lake Masters- Bonita Springs (150 ponds, $300K/yr. maint.)