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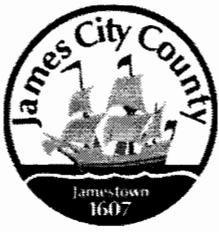
BMP NUMBER: PC117

DATE VERIFIED: November 2, 2012

QUALITY ASSURANCE TECHNICIAN: Leah Hardenbergh

Leah Hardenbergh

LOCATION: WILLIAMSBURG, VIRGINIA



Stormwater Division

MEMORANDUM

DATE: March 9, 2010
TO: Michael J. Gillis, Virginia Correctional Enterprises Document Management Services
FROM: Jo Anna Ripley, Stormwater
PO: 270712
RE: Files Approved for Scanning

General File ID or BMP ID: PC117

PIN: 3230200090

Subdivision, Tract, Business or Owner

Name (if known):

Seasons Trace

Property Description:

Common Area

Site Address:

(For internal use only)

Box 6

Drawer: 3

Agreements: (in file as of scan date)

N

Book or Doc#:

Page:

Comments

Wet pond



DEVELOPMENT MANAGEMENT

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COUNTY ENGINEER

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INTEGRATED PEST MANAGEMENT

(757) 253-2620

July 12, 2000

Ms. Sue Dugger
 Seasons Trace HOA
 709 Autumn Trace
 Williamsburg, Va. 23188

Re: Seasons Trace
 SR 612 Longhill Road
 Ponds 1, 2 and 3

Dear Ms. Dugger:

At your request, the Environmental Division is forwarding information relative to a meeting and general inspection held on Thursday June 8th 2000 for the above referenced wet pond facilities. The wet ponds included Pond 1 (Spring East), Pond 2 (Spring West) and Pond 3 (Season Trace North). In addition to specific comments as outlined below, the following additional information is also attached for your group's review and use:

- A 1 inch = 500 ft. scale map showing the General Location of Ponds 1, 2 and 3.
- A previous Inspection Report performed for Pond 3 dated January 27th 1998.
- A current Inspection Report performed for Pond 3 dated June 8th 2000.
- A Typical Maintenance Plan for Pond 3.
- General Landscaping Guidance (Tips). Applicable to all the ponds.
- Two (2) Informative Brochures published by the Association of State Dam Safety Officials - *Dam Ownership: Responsibility and Liability* and *Dam Ownership: Procuring the Services of a Professional Engineer*.

Please note that very little design or as-built (record) drawing information was found in our files for the facilities. Since there were no visible signs of a multi-stage riser structure for Ponds 1 and 2, it was difficult to assess (without further detailed investigation) the extent of stormwater quality or quantity control provided by these wet ponds.

Since Pond 3 is a structure with a large engineered embankment (fill) and a considerable normal pool area, a general Maintenance Plan was provided for this facility as a courtesy. The plan was prepared based on our general knowledge of maintenance required for these types of facilities. It is provided for information and guidance purposes when no other specifically approved maintenance plans are available for use. The plan is not meant to replace or supersede any specific recommendation offered by a qualified professional. The plan only addresses normal structural, stormwater runoff control and aesthetic activities related to safe function of the facility. Landscaping, cosmetic or ornamental features associated with facilities are usually left to the discretion of the owner, or its designated representative, unless these features deter from the structural integrity or the performance of water quality or quantity controls provided for the facility.

Specific Comments about the Facilities

Pond 1 (Spring East)

Although surface algae was present in trace amounts along the water's edge, the main concern for Pond 1 from our perspective was erosion of the shoreline fringe. This is the area of contact between the normal water surface (pool) of the pond and the soil slope. Shoreline erosion can be due to fluctuations in the pool level or wave action. A shallow water shelf exists on the outer fringe of the normal pool. Erosion of the soil slopes and subsequent sedimentation onto the shallow shelf may be a contributory factor in the presence of surface algae along the water's edge. Incorporation of native shallow water wetland-type plants along the shallow water shelf (0 to 1 foot deep areas) and shoreline fringe (0 to 2 feet above the average pool level) may help this condition. Some suggested plant species may include arrow arum, arrowhead, broomsedge, common three square, pickerelweed, sedges and soft-stem bulrush. Any local landscaper or nursery can be consulted for selection of wetland-type plants that are adaptable to the pond's specific soil, water, sun-shade and temperature conditions as well as positive or negative characteristics due to uses by wildlife. Other bare soil or eroded areas around the facility should be overseeded and mulched to allow vegetation to establish and reduce sedimentation to the pond.

Although cleaning of sediment from the bottom of the pond does not appear immediately necessary, it may be necessary sometime in the near future. Bottom sediments may be a contributory factor in the presence of surface algae and thicker vegetation in bottom of the pond. Chemical treatment, as currently being performed, should continue to help this condition on an interim basis. Leaves falling into the water from perimeter trees have introduced an moderate amount of organic material. Efforts should be continued to clean or prevent leaves from perimeter trees (organics) from falling into the water pool. Continued efforts should be performed to eliminate or reduce fertilizers and grass clippings from lots, and more importantly, common areas mowed adjacent to the pond. These materials directly find their way into the adjacent storm drain system and water pool. These materials add nutrients to the stormwater and sediments, which in turn may stimulate excessive growth of vegetation and aggravate the algae bloom condition at the pond. Aeration is also a positive option for the pond to minimize algae formation.

Pond 2 (Spring West)

Although surface algae was present in slight to moderate amounts along the water's edge, the main concern from our perspective was again erosion of the shoreline fringe and the presence of grass clippings from adjacent common area mowing being directed toward the water's surface. The small fish and frog population in the pond appeared healthy and in satisfactory condition. All recommendations presented above for Pond 1 also apply to Pond 2.

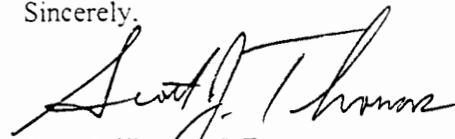
Pond 3 (Seasons Trace North)

Based on field observations, the main concerns for Pond 3 from our perspective was the presence of tree vegetation on and along the toe of the engineered fill embankment, shoreline erosion and maintenance needed at the two primary storm drain inflow locations. The pond's embankment is west of the water pool where the riser pipe is located. Several smaller trees were present along the upstream toe and heavy tree and ground vegetation covered most of the downstream embankment and lower portions of the emergency spillway. These trees should be removed. We recommend that the trees be cut to ground level and be maintained in that fashion as to not disturb root systems that may already be extensive. Efforts should be made to establish a good low-maintenance grass covering to replace the current tree covering. Vegetation and tree growth in other areas surrounding the normal water pool may be removed or left in place at the preference of the owner, depending on whether a dressed or natural look is preferred. Bare soil or eroded areas around the facility should be overseeded and mulched to allow vegetation to establish and reduce sedimentation to the pond. Recommendations to minimize shoreline erosion as presented above for Ponds 1 and 2 also apply to Pond 3.

The pond's two primary storm drain inflows, located along the north side of the water pool and near Season Trace (road) at the east side of the pool, are in need of immediate attention. At the north inflow the pipe end section needs repair, outlet riprap needs replaced and cleaning and removal of accumulated sediment is necessary. At the east inflow, the last inlet along the road needs cleaning, the adjacent roadway side slope needs seeding and mulching and sediment, which has accumulated just downstream of the pipe outfall, needs removed. It is highly suggested that a pretreatment sediment forebay be created at this location to force sediment to deposit at a easily accessible location for future cleanout purposes. (*Note: If pursued, review and approval of sediment forebay plans and details at this location may be necessary by the County and VDOT*). Although cleaning of sediment from the bottom of Pond 3 does not appear immediately necessary, it may be necessary sometime in the near future.

Hopefully, this material is helpful to your group to understand maintenance associated with the onsite wet ponds. Please review the information and contact us at 757-253-6639 or 757-253-6673, if you have any further questions or comments.

Sincerely,



Scott J. Thomas, P.E.
Civil Engineer
Environmental Division

Enclosures

G:/SWMProg/Edu/Subdiv/SeasonsTr..lett

Date Record Created:

Created By:

WS_BMPNO:

PC117

Print Record

PRINTED ON
Tuesday, March 09, 2010
10:12:21 AM

WATERSHED PC
 BMP ID NO 117
 PLAN NO Unknown
 TAX PARCEL
 PIN NO 3230200090
 CONSTRUCTION DATE
 PROJECT NAME Seasons Trace Wet Pond # 1
 FACILITY LOCATION Spring East
 CITY-STATE Williamsburg, Va. 23188
 CURRENT OWNER Seasons Trace HOA
 OWNER ADDRESS
 OWNER ADDRESS 2
 CITY-STATE-ZIP CODE Williamsburg, Va.
 OWNER PHONE
 MAINT AGREEMENT No
 EMERG ACTION PLAN No

MAINTENANCE PLAN No
 SITE AREA acre
 LAND USE SF Residential
 old BMP TYP Wet Pond
 JCC BMP CODE A1 Small Wet Pond
 POINT VALUE

SVC DRAIN AREA acres 18.2

SERVICE AREA DESCRI SF Residential & Roadway

IMPERV AREA acres
 RECV STREAM Longhill Swamp

EXT DET-WQ-CTRL No
 WTR QUAL VOL acre-ft 0
 CHAN PROT CTRL No
 CHAN PROT VOL acre-ft 0
 SW/FLOOD CONTROL Yes
 GEOTECH REPORT No

CTRL STRUC DESC
 CTRL STRUC SIZE inches
 OTLT BARRL DESC
 OTLT BARRL SIZE inch

EMERG SPILLWAY No
 DESIGN HW ELEV
 PERM POOL ELEV
 2-YR OUTFLOW cfs 0.00
 10-YR OUTFLOW cfs 0.00

REC DRAWING No

CONSTR CERTIF No

LAST INSP DATE 1/18/2002

Inspected by:

INTERNAL RATING 3

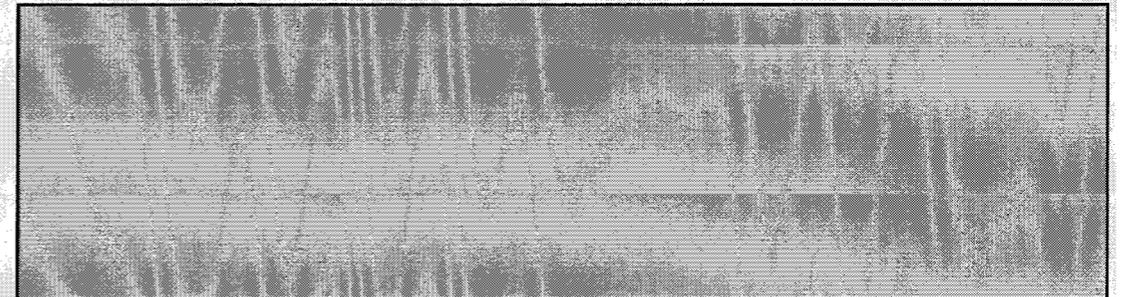
MISC/COMMENTS

Cosmetic pond entrance right. No plans or H&H. See PC 115 & 117.

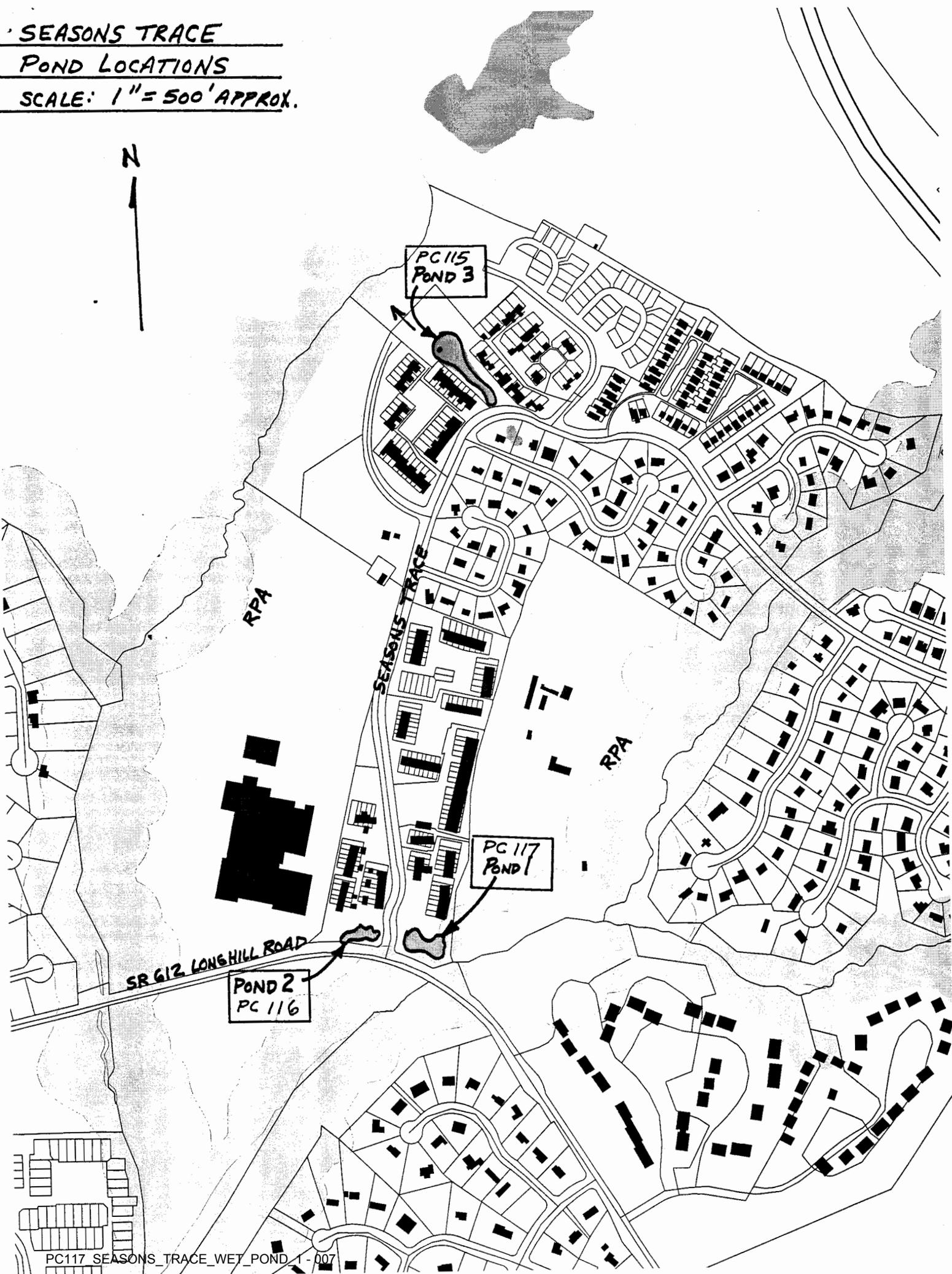
Get Last BMP No

Return to Menu

Additional Comments:



SEASONS TRACE
POND LOCATIONS
SCALE: 1" = 500' APPROX.





POND 2
(SPRING WEST)

POND 1
(SPRING EAST)

SEASONS
TRACE

SR-612 LONGHILL RD.

SCALE = 1" = 60'