

EXAMPLE OF DETENTION POND MAINTENANCE PLAN

Methodology:

We field verified the actual work which consisted mainly of removing silt to get each facility back to original grade or better. Also some grading was done to help create a more desirable low flow slope closer to 1%. The property is in soil group "D"- Houston Blackland Clays, etc.

With this improved as-built field work in hand we computed actual facility storage volumes. We then used Win TR-55 to compute land use curve numbers, time of concentrations and existing overall runoffs for various frequency storms. Existing runoff conditions were computed to achieve allowable discharges from the facilities. We compiled an average lot size for 1A from the final plat and then deducted impervious areas such as a typical house footprint, driveway, sidewalks, etc. We then factored in thoroughfares and open spaces, etc and compiled an average CN of 88 for Williamsburg developed single family land.

HEC-HMS was utilized to compute the required storage volumes, design high water surfaces, etc for the 100 year and if necessary the 50 and 25 year storms.

Hy-8 was also used to compute the capacities, tailwater, velocities, etc for the existing downstream culvert from the facility to verify releases could be handled. All downstream culverts have sufficient capacity to handle the allowed releases.

Observation and Maintenance Procedures:

Facility #2 and #5 are to be permanent, while #3 and #4 are to be upgraded with the future development of the adjacent properties.

These facilities are used primarily to reduce peak storm water runoff rates by providing temporary storage during larger storm events.

The current owner of these facilities is the Williamsburg Homeowner's Association (HOA). The City has the right, but not the obligation to enter these facilities to observe or maintain them and invoice the HOA for any work they may perform. Please find herein, a guideline checklist, for the observation and maintenance of these facilities to be adhered to by the HOA.

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CHECKLIST AND MAINTENANCE GUIDANCE

Location: _____ Owner Change since last inspection? Y N
 Owner Name, Address, Phone: _____
 Date: _____ Time: _____ Site conditions: _____

Inspection Items	Satisfactory (S) or Unsatisfactory (U)	Comments/Corrective Action
Embankment and Emergency Spillway		
Vegetation coverage adequate?		
Erosion on embankment?		
Animal burrows in embankment?		
Cracking, sliding, bulging of dam?		
Blocked or malfunctioning drains?		
Leaks or seeps on embankment?		
Obstructions of spillway(s)?		
Erosion in/around emergency spillway?		
Other (describe)?		
Inlet/Outlet Structures and Channels		
Clear of debris and functional?		
Trash rack clear of debris and functional?		
Sediment accumulation?		
Condition of concrete/masonry?		
Metal pipes in good condition?		
Control valve operational?		
Pond drain valve operational?		
Outfall channels function, not eroding?		
Other (describe)?		
Pond Bottom		
Vegetation adequate?		
Undesirable vegetation growth?		
Excessive sedimentation?		
Hazards		
Have there been complaints from residents?		
Public hazards noted?		

If any of the above inspection items are **UNSATISFACTORY**, list corrective actions and the corresponding completion dates below:

Corrective Action Needed	Due Date

Inspector Signature: _____ Inspector Name (printed): _____

MUST INCLUDE/ADD NOTARIZED SIGNATURE PAGE

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