

## Stormwater Wetland Operation and Maintenance Agreement

I will keep a maintenance record on this SCM. This maintenance record will be kept in a log in a known set location. Any deficient SCM elements noted in the inspection will be corrected, repaired or replaced immediately. These deficiencies can affect the integrity of structures, safety of the public, and the pollutant removal efficiency of the SCM.

Important maintenance procedures:

- Immediately following construction of the stormwater wetland, conduct bi-weekly inspections and water wetland plants bi-weekly until vegetation becomes established (commonly six weeks).
- Before and immediately after plant installation, monitor water level and adjust to ensure that plants are not completely inundated.
- No portion of the stormwater wetland will be fertilized after the first initial fertilization that is required to establish the wetland plants.
- Maintain stable groundcover in the drainage area to reduce the sediment load to the wetland.
- Inspect the embankment by a dam safety expert at least once annually. Any problems that are found shall be repaired immediately.

After the stormwater wetland is established, I will inspect it **monthly and within 24 hours after every storm event greater than 1.5 inches**. Records of operation and maintenance will be kept in a known set location and will be available upon request.

Inspection activities shall be performed as follows. Any problems that are found shall be repaired immediately.

SCM element:	Potential problem:	How to remediate the problem:
Entire SCM	Trash/debris is present.	Remove the trash/debris.
The perimeter of the SCM	Areas of bare soil and/or erosive gullies have formed.	Regrade the soil if necessary, to remove the gully, and then plant a ground cover and water until it is established. Provide lime and a one-time fertilizer application.
	Vegetation is too short or too long.	Maintain vegetation at a height of approximately six inches.

SCM element:	Potential problem:	How to remediate the problem:
Inlet device: pipe or swale	The pipe is clogged (if applicable).	Unclog the pipe. Dispose of the sediment offsite.
	The pipe is cracked or otherwise damaged (if applicable).	Replace the pipe.
	Erosion is occurring in the swale (if applicable).	Regrade the swale if necessary, to smooth it over and provide erosion control devices such as reinforced turf matting or riprap to avoid future problems with erosion.
	Stone verge is clogged or covered in sediment (if applicable).	Remove sediment and replace with clean stone.
Forebay	Sediment has accumulated in the forebay to a depth that inhibits the forebay from functioning well.	Search for the source of the sediment and remedy the problem if possible. Remove the sediment and dispose of it in a location where it will not cause impacts to streams or the SCM.
	Erosion has occurred.	Provide additional erosion protection such as reinforced turf matting or riprap if needed to prevent future erosion problems.
	Weeds are present.	Remove the weeds, preferably by hand. If a pesticide is used, wipe it on the plants rather than spraying.
Deep pool, shallow water and shallow land areas	Algal growth covers over 50% of the deep pool and shallow water areas.	Consult a professional to remove and control the algal growth.
	Cattails, phragmites or other invasive plants cover 50% of the deep pool and shallow water areas.	Remove invasives by physical removal or by wiping them with pesticide (do not spray) - consult a professional.
	Shallow land remains flooded more than 5 days after a storm event.	Unclog the outlet device immediately.
	Plants are dead, diseased or dying	Determine the source of the problem: soils, hydrology, disease, etc. remedy the problem and replace plants. Provide a one-time fertilizer application to establish the ground cover if necessary.
	Best professional practices show that pruning is needed to maintain optimal plant health.	Prune according to best professional practices.

SCM element:	Potential problem:	How to remediate the problem:
<b>Deep pool, shallow water and shallow land areas (continued)</b>	Sediment has accumulated and reduced the depth to 75% of the original design.	Search for the source of the sediment and remedy the problem if possible. Remove the sediment and dispose of it in a location where it will not cause impacts to streams or the SCM.
<b>Embankment</b>	A tree has started to grow on the embankment.	Consult a dam safety specialist to remove the tree.
	An annual inspection by appropriate professional shows that the embankment needs repair.	Make all needed repairs.
	Evidence of muskrat or beaver activity is present.	Consult a professional to remove muskrats or beavers.
<b>Micropool</b>	Sediment has accumulated and reduced the depth to 75% of the original design.	Search for the source of the sediment and remedy the problem if possible. Remove the sediment and dispose of it in a location where it will not cause impacts to streams or the SCM.
<b>The outlet device</b>	Clogging has occurred.	Clean out the outlet device. Dispose of the sediment offsite.
	The outlet device is damaged.	Repair or replace the outlet device.
<b>The receiving water</b>	Erosion or other signs of damage have occurred at the outlet.	Contact the local NC Department of Environment and Natural Resources Regional Office.

Permit Number: \_\_\_\_\_  
(to be provided by City of Wilmington)

I acknowledge and agree by my signature below that I am responsible for the performance of the maintenance procedures listed above. I agree to notify the City of Wilmington of any problems with the system or prior to any changes to the system or responsible party.

*Project name:* \_\_\_\_\_

*SCM drainage basin number:* \_\_\_\_\_

*Print name:* \_\_\_\_\_

*Title:* \_\_\_\_\_

*Address:* \_\_\_\_\_

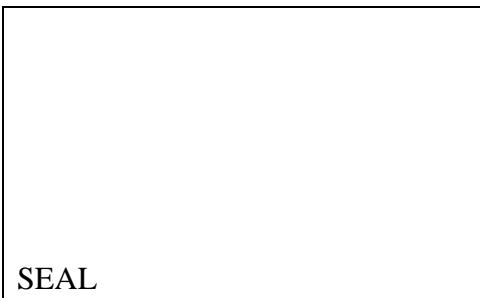
*Phone:* \_\_\_\_\_

*Signature:* \_\_\_\_\_

*Date:* \_\_\_\_\_

**Note:** The legally responsible party should not be a homeowners' association unless more than 50% of the lots have been sold and a resident of the subdivision has been named the president.

I, \_\_\_\_\_, a Notary Public for the State of \_\_\_\_\_, County of \_\_\_\_\_, do hereby certify that \_\_\_\_\_ personally appeared before me this \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_, and acknowledge the due execution of the forgoing stormwater wetland maintenance requirements. Witness my hand and official seal,



SEAL

My commission expires \_\_\_\_\_