

Field Checklist

for

Dry Ponds, Wet Ponds, and Constructed Wetlands

Date(s) of Certification Assessment: _____

Assessing and Certifying NCPE: _____ Seal:

SCM Facility Name: _____

Access Address: _____

PIN/s of Parcel/s Where the Facility is Sited: _____

CHECKLIST

All items in this checklist must be compliant.

If an item is not applicable, write "N/A" next to the item.

If the engineer believes the non-compliant item still meets its intended purpose and is therefore acceptable, he/she must include both of the following in the "Additional Comments" box at the end of this form:

- A description of how the non-compliant item deviates from the standards and/or approved construction drawings.*
- An explanation of why this deviation is acceptable and how the deviation still meets the intended purpose behind the requirement.*

A. Open Space

- The SCM and access way(s) are located entirely on open space property (residential areas only). [Note: This restriction shall not apply to inlet pipes/channels.]

B. Drainage Area

- The drainage area to the facility is as per the design documents, or if there are deviations from the design drainage area, these deviations do not render the SCM undersized or result in insufficient on-site treatment to meet regulatory requirements.
- The drainage area to the facility is completely stabilized, and no excess sediment is discharging into the facility.

C. Easements and Accessibility

- The SCM access way as constructed matches what is shown on the recorded final plat and is fully contained in the SCM Access and Maintenance Easement.
- The SCM Access and Maintenance Easement is clear of obstructions and traversable by anticipated maintenance equipment.

- Unobstructed maintenance vehicle access has been provided to the control structure and all inlets, and access to the facility and top of the dam meets the following conditions per field observation and survey spot shot data:
 - It is a minimum of 10 feet wide.
 - It has a maximum centerline grade of fifteen percent (15%).
 - It has a maximum cross-slope of ten percent (10%).
- Unless it has been surfaced with gravel, asphalt, concrete, etc., in accordance with approved construction drawings, 85% of the SCM Access and Maintenance Easement has achieved a healthy stand of grass.

D. Inlets and Forebay

- Riprap energy dissipators and sediment forebays have been installed at the inlets in accordance with the construction drawings.
- All inlet pipes have been installed with appropriate end treatments and curtain walls in accordance with the construction drawings.
- All inlet pipes are well homed and securely attached/grouted to their headwalls/flared end sections. The joints are smoothly finished with no evidence of gaps, cracks, and spalling.
- All accumulated sediment and other debris in the sediment basins, riprap energy dissipators, and forebay/s has been removed.
- Forebay berm has been constructed in accordance the approved construction drawings, and top of berm is no deeper than one foot below permanent pool.

E. Impoundment Area

- The narrowest width of the aquatic shelf is _____.
- The positioning of the aquatic shelf is in accordance with the construction drawings.
- All accumulated sediment and other debris in the pond floor has been removed.
- 85% of the plants shown on the planting plan for the SCM are thriving.
- The SCM has a minimum length:width ratio of 1.5:1.

F. Dam Embankment

- The key trench has been installed per the approved construction drawings.
- All seepage control devices (anti-seep collars, concrete cradles, filter diaphragms, etc.) have been installed in accordance with the approved construction drawings.
- The narrowest top of dam width is _____.
- The steepest slope on the upstream face of the dam is _____.
- The steepest slope on the downstream face of the dam is _____.
- Based on manual rod probings of the dam, particularly in the zones over and around the principal spillway pipe, the dam appears to have been well compacted.
- The dam and dam foundation, groin, toe, and abutment areas are completely free of trees, landscaping, and other woody growth.

- The dam has been fine graded and is free of ruts, erosion, wood, construction debris, etc.
- 85% of the SCM slopes (cut slopes and dam embankment) and dam foundation, groin, toe, and abutment areas has achieved a healthy stand of grass. The dam is not overgrown and there is no undesirable vegetation.
- No evidence of seepage was noted on the downstream face of the dam.

G. Emergency Spillway

- The narrowest width of the control section is _____.
- The side slopes of the control section are [Left] _____ and [Right] _____.
- The size, shape, and alignment of the exit channel are in accordance with the construction drawings.
- Armoring has been installed in accordance with the construction drawings.
- The spillway has been fine graded and is free of ruts, erosion, etc.
- Excluding the hard-surfaced armored area, 85% of the spillway has achieved a healthy stand of grass. The spillway is not overgrown and there is no undesirable vegetation.

H. Riser/Control Structure

- The riser/control structure is reinforced concrete.
- The diameter or opening dimensions of the riser is/are _____.
- A top, peak-roofed trash rack has been provided and bolted down to the riser.
- A trash rack access hatch (minimum 2' x 3') and steps down the inside of the riser have been provided.
- At least one side of the riser is accessible by foot during permanent pool conditions and direct access from dam embankment is provided.
- A drawdown valve with an accessible operating mechanism has been provided in accordance with the approved construction drawings.
- The riser structure and all appurtenant devices (plug valve, etc.) appear to be sound.
- For precast structures, the barrel sections were installed with gasketed joints, adjacent riser barrel sections have been bolted together with stainless steel strapping, and there is no evidence of leakage at the joints.
- All orifices, siphons, ports, and weirs were installed in accordance with the construction drawings.
- The anti-flotation ballast has been provided in accordance with the construction drawings.
- A placed concrete invert to the invert out of the principal spillway pipe has been provided.
- The riser is free of debris or obstructions.

I. Principal Spillway Pipe

- The principal spillway pipe (PSP) is reinforced concrete.
- The diameter of the PSP is _____.
- The principal spillway pipe was wrapped with a layer of geotextile filter fabric on the outside of each pipe joint.

- Based on a visual inspection, it appears that the joints of the PSP were “homed” reasonably well, and it appears that no joints are leaking.
- No piping (loss of soil) is evident around the PSP.

J. Outfall Structure

- The outfall structure is per the approved construction drawings and there is no evidence of stability issues.
- The outfall structure has been constructed with a curtain wall, if required.
- The principal spillway pipe is securely attached/grouted to the headwall or downstream manhole, and this joint is smoothly finished with no evidence of gaps, cracks, or spalling.

K. Outfall Area

- If required, a level spreader-vegetated filter strip system or energy dissipator has been provided in accordance with the construction drawings.
- The outfall area and downstream channel(s)/receiving area appears stable (no evidence of erosion or head-cutting), and all accumulated silt and debris has been removed.

Additional Comments by Certifying Engineer: