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SWM/BMP Facility Site Photographs

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Wetland Studies and Solutions, Inc.

Occoquan Watershed - Study of Four Subsheds



1. Facility 19. Looking upstream at stream and ponding area in facility.



2. Facility 19. Existing riser is clogged with sediment and debris.



3. Facility 19. Looking downstream of facility at the receiving channel that runs through the existing utility easement. Spot erosion is evident, but overall the channel is stable.



4. Facility 489. Looking north at the facility located within in the existing utility easement.



5. Facility 489. Looking upstream at channel and backwater area within facility (headwall for culvert in foreground). Some indications of ponding in overbank area, but entire facility is not being utilized.



6. Facility 489. Facility outlet is a culvert with headwall. The culvert is clogged with sediment and debris.



7. Facility 489. Looking immediately downstream of facility at receiving channel which is stable, but full of debris and litter.



8. Facility 63. Looking upstream from riser with anti-vortex plate at channel and ponding area within existing power utility easement. Ponding area was wet with signs of recent inundation.



9. Facility 63. Trash rack covering low flow orifice at base of riser was covered with sediment and debris, but orifice was still draining as shown.



10. Facility 632. Looking at riser with debris on top of flat grated trash rack.



11. Facility 632. Looking at low flow orifice. Holes in headwall indicate a BMP plate or other protective plate was likely removed.



12. Facility. 632. The ponding area was wet.



13. Facility 28. Perforated corrugated metal riser was clogged with trash, leaf litter, and other organic material. A foul odor was coming from the riser structure. The emergency spillway and dam are shown in the background.



14. Facility 28. Looking at channel and limited ponding area within facility. Bedrock was evident through the facility. There is room for a sediment forebay, but bedrock may restrict excavation.



15. Facility 28. Looking at grouted natural boulder in emergency spillway.



16. Facility 28. Looking at stable receiving channel where facility and emergency spillway drain.



17. Facility 481. Looking at square concrete riser with angled trash rack. Wood perimeter fence is shown background.



18. Facility 481. Looking in riser at low flow orifice.



19. Facility 481. Looking upstream at channel flowing through ponding area. Drain tile flush with ground is in foreground (See next photo)



20. Facility 481. Looking at drain tile, which is partially blocked with sediment and debris.



21. Facility 5147. Looking at pipe that drains parking lot runoff into facility.



22. Facility 5147. Looking at perforated corrugated metal pipe with flat grate trash rack on top. Concrete trickle ditch runs through bottom of facility and drains into yard inlet at base of riser.



23. Facility 5147. Looking immediately downstream of facility outlet as it drains into receiving channel which is stable.



24. Facility 5255. Looking at riser and perimeter fence.



25. Facility 5255. Looking at naturalized ponding area.



26. Facility 9026. Looking at riser in background with stagnant water in upstream channel and ponding area.



27. Facility 9026. Looking upstream from riser. Water in channel is stagnant with signs of recent inundation in overbank areas. There is no perimeter fence, and there are large trees within the facility.



28. Facility 9026. Looking at inlet that drains parking lot runoff into facility.



29. Facility 9026. Looking downstream at eroding channel that drains into the facility.



30. Facility 92. Looking at facility from channel inlet.



31. Facility 92. Looking at weir outlet structure. Water was overtopping weir.



32. Facility 92. Looking at outlet which is draining to double box culvert under Interstate I-95.



33. Facility 163. Looking at riser and ponding area. Ponding area is full of litter and fine sediment.



34. Facility 163. Looking in riser at maintenance valve and low flow orifice.



35. Facility 163. Looking at ponding area from riser.



36. Facility 163. Looking at upstream channel. The channel shows some incision and bank instability.



37. Facility 163. Looking at stable receiving channel immediately downstream of facility.



38. Facility 201. Weir wall upstream of two large concrete pipes under Abner Avenue. Sediment accumulation is evident upstream of facility.



39. Facility 201. Looking at maintenance valve in weir wall currently covered in debris. The low flow orifice is an approximate 2" diameter pipe with the cut in concrete at the bottom corner. Water was draining through the low flow orifice and overtopping weir wall.



40. Facility 201. Looking upstream at backwater area in existing channel within facility. There were no signs of recent inundation in the overbank areas.



41. Facility 200. Looking downstream at weir wall and double round culverts. Sediment accumulation is evident upstream of facility.



42. Facility 200. Looking at maintenance valve in weir wall. Water was draining over weir wall and through low flow orifice (approx. 2" diameter pipe through wall).



43. Facility 200. Looking at both channels that flow through facility. Sediment has accumulated in overbank areas creating delta shown in photo. The overbank areas which show little sign of recent inundation.



44. Facility 200. Double culverts under Abner Avenue that drain directly from Facility 201.



45. Facility 200. Looking immediately downstream of facility at stable receiving channel.



46. Facility 454. Looking at riser structure from the emergency spillway.



47. Facility 454. Looking at riprap along emergency spillway and small trees on dam.



48. Facility 454. Receiving channel immediately downstream of the facility is stable with naturalized large rock.



49. Facility 457. This is not a facility. This culvert drains under Rolling Brook Drive into Facility 5047. There are no signs of inundation in the immediate upstream area.



50. Facility 457. Stable channel upstream of culvert under Rolling Brook Drive. No signs of inundation in overbank area.



51. Facility 465. Looking at inlet into square concrete riser.



52. Facility 465. Looking upstream at stable channel and adjacent overbank areas within facility.



53. Facility 465. Looking downstream at incised channel showing active signs of erosion. Notice proximity of adjacent residences.



54. Facility 691. Looking at riser with anti-vortex plate and BMP orifice with extended trash rack.



55. Facility 691. Looking at emergency spillway as it ties into stable, existing channel.



56. Facility 694. Looking at riser with anti-vortex plate and BMP orifice protected by a trash rack. Facility treats church parking lot behind the facility.



57. Facility 694. Inlets into the facility include the culvert draining from parking lot in foreground and small PVC pipe in background. Ponding area was wet and there were no signs of short-circuiting.



58. Facility 694. Receiving channel immediately downstream of emergency spillway outlet. Channel has been recently stabilized with riprap. Channel is incised with some areas of raw, eroded banks, but appears to be stabilizing beyond immediate area of outlet.



59. Facility 5047. This may not be a facility. There is no riser structure and there were no signs of inundation in area identified as facility.



60. Facility 5047. Receiving channel downstream of facility is incised with vertical eroding banks.



61. Facility 5047. Looking at overbank areas adjacent to the channel that runs through the area identified as the facility.



62. Facility 5153. Looking at concrete riser. Facility treats school lot, including buildings, parking lot, playground, and turf grass.



63. Facility 5153. Looking at stable inlet from school buildings.



64. Facility 5153. Looking at pond area with dense vegetation. PVC pipe drains near playground.



65. Facility 5153. Emergency spillway drains to existing asphalt channel.



66. Facility. 5400. Looking at riser and wet ponding area.



67. Facility 5400. Trash rack on low flow orifice was covered in sediment and debris, but was draining through riser structure.



68. Facility 5400. This pond was not identified on the list, but is located immediately upstream of Facility 5400. The top of the riser was bent, and the perforations were sealed (indication facility is operating as a sediment basin).



69. Facility 5707. This may not be a facility as there is no riser structure, and the outlet is a large culvert that runs under an existing dirt road.



70. Facility 5707. Temporary repair of repair with riprap at dam and road failure immediately upstream of facility. Riprap is not flush with ground, and is impassable.



71. Facility 5707. Looking upstream at channel that runs through area identified as a facility. No signs of recent inundation in overbank areas.