# INSPECTION AND MAINTENANCE REQUIREMENTS:

## I. DURING CONSTRUCTION (BY PERMITEE HOLDER(S))

**MAINTENANCE**

ALL TEMPORARY AND PERMANENT CONTROL PRACTICES SHALL BE MAINTAINED AND REPAIRED AS NEEDED TO ENSURE CONTINUED PERFORMANCE OF THEIR INTENDED FUNCTION. ALL SEDIMENT CONTROL PRACTICES MUST BE MAINTAINED UNTIL ALL UP SLOPE AREAS THEY CONTROL ARE PERMANENTLY STABILIZED. THE CONTRACTOR SHALL COMPLY WITH THE MAINTENANCE REQUIREMENTS FOR THE PROPOSED EROSION CONTROLS. A WRITTEN DOCUMENT CONTAINING THE SIGNATURES OF ALL CONTRACTORS AND SUB–CONTRACTORS INVOLVED IN THE IMPLEMENTATION OF THE BMPS MUST BE MAINTAINED AS PROOF ACKNOWLEDGING THAT THEY REVIEWED AND UNDERSTAND THE CONDITIONS AND RESPONSIBILITIES OF THE SWPPP.

**INSPECTION**

TEMPORARY AND PERMANENT SEDIMENTATION AND EROSION CONTROL MEASURES MUST BE INSPECTED WEEKLY AND WITHIN 24 HOURS OF EACH RAIN STORM EVENT THAT PRODUCES 0.5 INCHES OR MORE OF RAIN OVER THE PRECEDING 24 HOUR PERIOD AND LOGGED BY THE OWNER AND CONTRACTOR FOR THE OHIO EPA.

A WRITTEN RECORD DOCUMENTING THE RESULTS OF THESE INSPECTIONS MUST BE MAINTAINED WITH THE SWPPP. DISTURBED AREAS AND AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION SHALL BE INSPECTED FOR EVIDENCE OF OR THE POTENTIAL FOR, POLLUTANTS ENTERING THE EROSION AND SEDIMENT CONTROL MEASURES IDENTIFIED IN THE SWPPP. FURTHERMORE, THE CONTRACTOR SHALL ENSURE THAT THE MEASURES ARE OPERATING CORRECTLY. DISCHARGE LOCATIONS SHALL BE INSPECTED TO ASCERTAIN WHETHER EROSION AND SEDIMENT CONTROL MEASURES ARE EFFECTIVE IN PREVENTING SIGNIFICANT IMPACTS TO THE RECEIVING WATERS. LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE SHALL BE INSPECTED FOR EVIDENCE OF OFF–SITE VEHICLE TRACKING.

A. WHEN PRACTICES REQUIRE REPAIR OR MAINTENANCE:
IF THE INSPECTION REVEALS THAT A CONTROL PRACTICE IS IN NEED OF REPAIR OR MAINTENANCE, WITH EXCEPTION OF A SEDIMENT SETTLING POND, IT MUST BE REPAIRED OR MAINTAINED WITHIN THREE DAYS OF INSPECTION. SEDIMENT SETTLING PONDS MUST BE REPAIRED OR MAINTAINED WITHIN 10 DAYS OF THE INSPECTION.

B. WHEN PRACTICES FAIL TO PROVIDE THEIR INTENDED FUNCTION:
IF THE INSPECTION REVEALS THAT A CONTROL PRACTICE FAILS TO PERFORM ITS INTENDED FUNCTION AND THAT ANOTHER, MORE APPROPRIATE CONTROL PRACTICE IS REQUIRED, THE SWP3, MUST BE AMENDED AND THE NEW CONTROL PRACTICE MUST BE INSTALLED WITHIN 10 DAYS OF INSPECTION.

C. WHEN PRACTICES DEPICTED ON THE SWP3 ARE NOT INSTALLED:
IF THE INSPECTION REVEALS THAT A CONTROL PRACTICE HAS NOT BEEN IMPLEMENTED IN ACCORDANCE WITH THE SWP3, THE SWP3 MUST BE AMENDED AND THE NEW CONTROL PRACTICE MUST BE INSTALLED WITHIN 10 DAYS OF THE INSPECTION. IF THE INSPECTION REVEALS THAT THE PLANNED CONTROL PRACTICE IS NOT NEEDED, THE RECORD MUST CONTAIN A STATEMENT OF EXPLANATION AS TO WHY THE CONTROL PRACTICE IS NOT NEEDED.

## II. AFTER CONSTRUCTION (BY OWNER)

THE OWNER SHALL BE RESPONSIBLE TO INSPECT AND MAINTAIN THE UNDERGROUND DETENTION STORMWATER SYSTEM, BIOSWALE AND VORTSENTRY WATER QUALITY UNIT.

THE OWNER SHALL BE RESPONSIBLE FOR PROVIDING INSPECTION RECORDS BY A QUALIFIED PERSON(S) TO THE CITY FOR THE PREVIOUS YEAR'S ROUTINE MAINTENANCE BY EVERY MAY 1ST (ONCE CONSTRUCTION IS COMPLETE). THE CITY MAY REQUEST INSPECTION AND MAINTENANCE RECORDS AT ANY TIME DURING THE YEAR.

IT IS RECOMMENDED THAT THE FOLLOWING ITEMS BE INCLUDED ON THE STORMWATER SITE INSPECTION FORMS:

1.) THE INSPECTION FOR SHALL NOTE THAT THE REVIEW IS FOR EITHER THE DETENTION SYSTEM, BIORETENTION AREA OR THE WATER QUALITY UNIT (VORTSENTRY).
2.) PROJECT NAME AND LOCATION
3.) DATE OF INSPECTION, INSPECTOR'S NAME, AFFILIATION, CONTACT INFORMATION AND QUALIFICATIONS
4.) WEATHER INFORMATION AT TIME OF INSPECTION INCLUDING PRECIPITAION, TEMPERATURE, ETC.
5.) IS THERE DEBRIS IN THIS AREA
6.) ARE THE PIPES, INLETS AND YARD DRAINS FREE OF DEBRIS
7.) DO THE PLANTS APPEAR HEALTHY
8.) ARE LAWN AREAS BEING MAINTAINED
9.) IS MULCH IN GOOD STANDING, DOES IT NEED REDRESSED
10.) ARE UPSTREAM DRAINAGE WAYS IN GOOD STANDING AND FREE OF DEBRIS
11.) IS MAINTENANCE REQUIRED
12.) DATE AND DETAILS OF MAINTENANCE PERFORMED

**A. DETENTION SYSTEM:**

INSPECTION SHOULD BE PERFORMED AT A MINIMUM OF ONCE PER YEAR. MAINTENANCE SHALL BE PERFORMED BY A QUALIFIED PROFESSIONAL AND IF POSSIBLE DURING THE DRY SEASON. EACH ACCESS POINT SHALL BE INSPECTED FOR BUILDUP OF DEBRIS AND OBSTRUCTIONS. CHECK FOR DAMAGE TO PIPE, MANIFOLDS AND LATERALS. REMOVE ALL DEBRIS AND OBSTRUCTIONS. A MEASURING DEVICE SHALL BE USED AT SEVERAL OF THE ACCESS POINTS TO OBTAIN DEPTH OF SEDIMENT BUILDUP. IN NO CASE SHALL SEDIMENT BUILDUP BE MORE THAN 20% OF PIPE DIAMETER. IMMEDIATE MAINTENANCE SHALL BE SCHEDULED AS SOON AS POSSIBLE. IN THIS SYSTEM IT IS EXPECTED THAT SEDIMENT WILL BUILDUP THE QUICKEST AT THE DOWNSTREAM END OF THE SYSTEM (NEAR NORTH PROFESSOR ST). ANY RUNS THAT HAVE A BUILDUP OF GREATER THAN 5% OF PIPE DIAMETER SHOULD BE CONSIDERED FOR MAINTENANCE. A THOROUGH CLEANING OF THE SYSTEM INCLUDING MANIFOLDS AND LATERALS (AS NECESSARY) SHALL BE PERFORMED BY MANUAL METHODS OR BY A VACUUM TRUCK. NO SEDIMENT SHALL BE ALLOWED TO DISCHARGE INTO PUBLIC STORM SEWER SYSTEM DURING MAINTENANCE OPERATIONS.

**B. VORTSENTRY HS SYSTEMS (MANUFACTURED BY CONTECH):**

THE CONTRACTOR IS RESPONSIBLE TO SUPPLY THE OWNER WITH AN OPERATION & MAINTENANCE MANUAL SUPPLIED BY THE MANUFACTURE UPON COMPLETION OF THE STRUCTURE INSTALLATION AND ACCEPTANCE BY THE OWNER.

THE OWNER SHALL VISUALLY INSPECT THE UNIT ON A QUARTERLY BASIS. IT IS RECOMMENDED TO RECORD INSPECTIONS.

1. THIS UNIT SHALL BE CLEANED WHEN THE SEDIMENT HAS ACCUMULATED TO A DEPTH OF TWO FEET IN THE TREATMENT CHAMBER. TO DETERMINE SEDIMENT STORAGE:
   - USING A STADIA ROD OR SIMILAR MEASURING DEVICE, MEASURE THE DISTANCE FROM THE MANHOLE OPENING TO THE TOP OF THE SEDIMENT PILE (CAREFULLY).
   - WITH THE SAME DEVICE, MEASURE THE DISTANCE FROM THE MANHOLE OPENING TO THE WATER SURFACE.
   - IF THE DIFFERENCE BETWEEN THESE MEASUREMENTS IS LESS THAN 7.2 FEET, THIS UNIT WILL NEED TO BE CLEANED.
2. CLEANOUTS SHOULD BE DONE DURING DRY WEATHER & SEDIMENT REMOVAL SHALL BE DONE BY A VACUUM TRUCK.
3. IF AN APPRECIABLE AMOUNT OF OIL HAS ACCUMULATED AT WATER'S SURFACE, ABSORBENT PADS IS THE PREFERABLE METHOD OF REMOVAL. LARGE PETROLEUM SPILLS SHALL BE CLEANED OUT IMMEDIATELY AND WITH THE MOST EFFECTIVE MEANS APPROPRIATE.

**C. BIORETENTION AREA**

THE RECOMMENDED MAINTENANCE SCHEDULE IS LISTED BELOW. IT IS RECOMMENDED THAT A QUALIFIED LANDSCAPER BE CONTRACTED TO PERFORM THE MAINTENANCE FOR THESE AREAS.

OVER TIME (2–10 YEARS); CLOGGING OF THE PLANTING SOIL OR FILTER LAYER WITH FINE PARTICLES MAY OCCUR. THIS IS EXPECTED AND CAN BE CORRECTED BY REPLACING A PORTION OF THE PLANTING SOIL OR REPLACING ALL THE PLANTING SOIL AND THE FILTER LAYER UNTIL BETTER PERMEABILITY IS ACHIEVED. TO AID IN PREVENTING CLOGGING DO NOT PILE SNOW IN THE BIORETENTION AREAS. THE FOLLOWING TABLE IS THE SUGGESTED MAINTENANCE SCHEDULE:

| ACTIVITY | SCHEDULE |
|---|---|
| WATER PLANTS** | AS NECESSARY DURING FIRST GROWING SEASON |
| PRUNE AND WEED PLANTS FOR APPEARANCE | AS NEEDED |
| INSPECT AND REPLACE POORLY SUITED OR DISEASED PLANTS | AS NEEDED |
| CHECK FOR EROSION OR DEPOSITION IN PRETREATMENT AREAS; CLEAN OUT AND REPAIR DAMAGED AREAS | SEMI–ANNUALLY |
| INSPECT FACILITY FOR SALT DAMAGES | MONTHLY |
| REMOVE LITTER AND DEBRIS | MONTHLY |
| ADD ADDITIONAL MULCH | ANNUALLY |
| TEST SOIL AND ADJUST AS NECESSARY TO MAINTAIN IN 5.2–7.0 pH RANGE | BIANNUALLY |
| CHECK PLANTING SOIL AND FILTER LAYER FOR CLOGGING, REPLACING PORTIONS NECESSARY | 2 – 10 YEARS |

**LANDSCAPING IN THE BIORETENTION AREA IS ESSENTIAL TO THE FUNCTION OF THE SYSTEM AND SHOULD BE MAINTAINED.

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