

## Hamilton County Storm Water District - MS4 Plan Review Checklist

### Hamilton County Planning & Development Post-Construction Activities Plan Review<sup>1,2</sup>

(Please read all notes and footnotes for important details.)

<b>Site/Project:</b>	<b>Owner/Developer:</b>	<b>Permit #:</b>
<b>Plan Type:</b> <sup>3</sup> <input type="checkbox"/> Commercial <input type="checkbox"/> Subdivision <input type="checkbox"/> Earthwork Only <input type="checkbox"/> Other (specify): _____		
<b>HP+D Plan Reviewer:</b>	<b>Date Plan Received:</b> <sup>4</sup> Click or tap to enter a date.	
	<b>Date Plan Reviewed:</b> Click or tap to enter a date.	
	<b>Date Plan Reviewed:</b> Click or tap to enter a date.	
	<b>Date Plan Reviewed:</b> Click or tap to enter a date.	
	<b>Date Plan Approved:</b> Click or tap to enter a date.	

Part III.G.1 - Site Description – Does the Plan...				
	Y <sup>5</sup>	N	N/A	Comments
Describe the nature and type of construction activity (e.g., low density residential, shopping mall, highway, etc.)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Describe the total area of the site that is expected to be disturbed (i.e., the area of grubbing, clearing, excavating, filling, or grading including off-site borrow areas)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Include a measure of the impervious area and percent imperviousness as a result of the construction activity?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Storm water calculations - these include volumetric runoff coefficients for both pre-and post-construction sites, resulting water quality volume, design details for post-construction storm water facilities and pretreatment practices <sup>6</sup> and if applicable, an explanation of the use of existing post-construction facilities.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Include any existing data describing the soil? <i>NOTE: If this data is not available, it does not need to be included.</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Provide any information on the quality of the storm water discharge from the construction site? <i>NOTE: If this data is not available, it does not need to be included.</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Include any information about prior land uses at the site (e.g., was the property used to manage solid or hazardous waste)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Describe the condition of on-site streams <sup>7</sup>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Include an implementation schedule which describes the sequence of major construction operations (i.e., grubbing, excavating, grading, utilities, infrastructure installation, and others) and the implementation of erosion, sediment and storm water management practices or facilities to be employed during each operation of the sequence?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

<sup>1</sup> A review by Hamilton County Soil and Water Conservation District/Earthworks is required for all MS4 plan reviews. A separate form exists for that purpose. Both plans will be combined and stored in an accessible location once a plan is approved by both agencies.

<sup>2</sup> There are designated areas for more lengthy notes on the final pages of this checklist.

<sup>3</sup> Use checkbox to identify plan type – e.g., Commercial, Subdivision, Earthwork Only, or Other \_\_\_\_\_. Note “Earthworks Only” plans will require submittal and approval of construction plans prior to beginning any additional site earth-disturbing activity.

<sup>4</sup> Click arrow to reveal calendar.

<sup>5</sup> Use checkbox to identify answer for each item. Note that these can be changed during further reviews.

<sup>6</sup> Design details include contributing drainage areas, capacities, elevations, outlet details and drain times shall be included in the SWP3; and if applicable, explanation of the use of existing post-construction facilities

<sup>7</sup> Examples: prior channelization, bed instability or headcuts, channels on public maintenance, or natural channels



<b>Part III.G.1 - Site Description – Does the Plan...</b>				
	<b>Y<sup>5</sup></b>	<b>N</b>	<b>N/A</b>	<b>Comments</b>
Include the name(s) or location(s) of the initial and subsequent surface water bodies receiving the storm water discharge?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Include the areal extent and description of the wetland or other special aquatic sites which will be disturbed and/or will receive the storm water discharges?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Include a detail drawing of a typical individual lot with shown sediment and erosion controls and stormwater control practices for construction sites with no centralized sediment controls (e.g., a sediment settling pond or inlet protection), which receives drainage from multiple lots?				
Include the location and description of storm water discharges associated with dedicated asphalt and/or concrete batch plants covered by the NPDES construction storm water general permit?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Include a cover page identifying the name and location of the site, the name and contact information for site operators and Plan authorization agents as well as preparation date, start date, and completion date?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Include a modification log documenting grading & stabilization activity as well as Plan amendments that occur after construction commencement to be updated in the field?				
<b>Site Map Requirements (III.G.1.n.)</b>				
Describe the limits of earth-disturbing activity of the site including associated off-site borrow or spoil areas that are not addressed by a separate NOI and associated Plan?				
Describe the soils types depicted for all areas of the site, including locations of unstable or highly erodible and/or known contaminated soils?				
Show existing and proposed contours to delineate drainage watersheds expected during and after major grading activities as well as the size of each drainage watershed, in acres?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Show location of any delineated boundary for required riparian setbacks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Conservation easements, open space areas, preserved vegetation, other protected areas, and temporary or permanent signage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Show surface water locations including springs, wetlands, streams, lakes, water wells, etc., on or within 200 feet of the site, including the boundaries of wetlands or stream channels and first subsequent named receiving water(s) the permittee intends to fill or relocate for which the permittee is seeking approval from the Army Corps of Engineers and/or Ohio EPA?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Include the location of existing and planned buildings, roads, parking facilities, and utilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Include the location of all erosion and sediment control practices, including the location of areas likely to require temporary stabilization during the course of site development?				
Include the location of sediment management traps and basins noting their sediment storage and dewatering and contributing drainage area? <sup>8</sup>				

<sup>8</sup> Ohio EPA recommends using data sheets to provide data for all sediment traps and basins noting inputs to design and resulting parameters (e.g. contributing drainage areas, disturbed area, detention volume, sedimentation volume, practices surface area, dewatering time, outlet type and dimensions)

<b>Part III.G.1 - Site Description – Does the Plan...</b>				
	<b>Y<sup>5</sup></b>	<b>N</b>	<b>N/A</b>	<b>Comments</b>
Include the location of permanent storm water management practices (new and existing) including pre-treatment practices to be used to control pollutants in storm water after construction operations have been completed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Include location of existing and planned drainage features including catch basins, culverts, ditches, swales, surface inlets out outlet structures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Include areas designated for the storage or disposal of solid, sanitary, and toxic wastes (including dumpster areas), areas designated for cement truck washout, and areas for vehicle fueling?				
Include the location of designated construction entrances where the vehicles will access the construction site?				
Include location of proposed floodplain fill, flood plain excavation, stream restoration, or known temporary or permanent stream crossings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

<b>Part III.G.2 - Sediment &amp; Erosion Controls</b>				
	<b>Y</b>	<b>N</b>	<b>N/A</b>	<b>Comments</b>
<b>(a) Preservation Methods<sup>9</sup></b>				
Has every effort been made to preserve the natural riparian setback (vegetative buffer strip) adjacent to streams or other surface water bodies, existing soil profile and topsoil; and designating tree preservation areas or other protective clearing or grubbing practices?				
Have efforts been made to phase in construction activities in order to minimize the amount of land disturbance at one time?				
Will any portions of the site be left undisturbed (e.g., tree preservation areas, topsoil, soil profile)?				
<b>(b) Erosion Controls Practices</b>				
A description of the erosion control practices designed to re-establish vegetation or suitable cover on disturbed areas after grading.				
Does the Plan describe the control practices used to re-stabilize areas after grubbing or construction?				
Does the Plan specify the types of stabilization measures to be employed for any time of the year?				
<b>(b)(i) Stabilization</b>				
Are disturbed areas stabilized in accordance to Table 310-B (Permanent Stabilization) and Table 310-C (Temporary Stabilization)?				
<b>(b)(ii) Permanent Stabilization of conveyance channels</b>				
Are channels and outfalls stabilized and have measures been taken to prevent erosive flows?				
<b>(c) Runoff Control Practices</b>				
Does the Plan incorporate measures to reduce flow rates on disturbed areas (e.g., riprap, ditch check dams)?				
Does the Plan incorporate measures to divert concentrated flow (e.g., pipe slope drains)?				
Does the Plan incorporate measures to divert runoff from steep slopes.				

<sup>9</sup> Previous permit had “Non-Structural” Preservation Methods

<b>Part III.G.2 - Sediment &amp; Erosion Controls</b>				
	<b>Y</b>	<b>N</b>	<b>N/A</b>	<b>Comments</b>
<b>(d) Sediment Control Practices</b>				
Will sediment control devices be implemented for all areas remaining disturbed for over 14 days? <sup>10</sup>				
Are detail drawings of the sediment controls to be used included in the Plan?				
<b>(d)(i) Timing</b>				
Does the Plan specify that sediment controls will be installed or implemented within 7 days of the start of grubbing activities and prior to grading? <sup>11</sup>				
Does the Plan propose alternate sediment controls for the changing slopes and topography?				
<b>(d)(ii) Sediment Settling Ponds</b>				
Does the Plan include the installation and use of a sediment settling pond? <i>NOTE: Sediment settling ponds are required when there is concentrated or collected runoff (storm sewer or ditch), or when the design capacity of silt fence or inlet protection has been exceeded.</i> <sup>12</sup>				
For construction activities that require sediment settling pond(s), does the Plan propose to implement alternative controls to sediment settling ponds? <i>NOTE: Alternative controls must be equivalent in effectiveness to a sediment settling pond.</i>				
Is the dewatering volume of the sediment settling pond sized to receive at least 67 cubic yards (1800 cubic feet) of storm water per acre of total drainage area?				
Is the depth of the dewatering volume for each sediment settling pond less than or equal to 5 feet? <i>NOTE: The base of the dewatering volume is where the skimmer is connected to the outlet.</i>				
Will the dewatering volume drain down time meet at least at the minimum the minimum 48-hour requirement? <sup>13</sup>				
Is a skimmer specified in the Plan?				
Is the sediment storage zone volume of the pond at least 1000 cubic feet per disturbed acre (Method 1)?				
If not, was RUSLE method or a similar generally accepted erosion prediction model (Method 2) used to calculate the sediment storage zone volume?				
Is the length to width ratio of the sediment settling pond at least two units of length for every one unit of width (> 2:1 length to width)? <i>NOTE: The greater the distance from the storm water inlet into the pond to the storm water outlet, the greater likelihood of sediment settlement. This prevents short-circuiting of the pond.</i>				
Will the sediment storage zone of the pond be cleaned out when the sediment exceeds 50 percent of the minimum required sediment storage design capacity and prior to the post-construction practice unless suitable storage is demonstrated based upon over-design?				
Is the sediment settling pond designed to consider public (i.e., child) safety where site limitations preclude a safe design?				

<sup>10</sup> New permit substitutes term “sediment barriers” for “silt fences” as examples of sediment control practices.

<sup>11</sup> Added by author for clarification – phrase “the start of” is in both old and new permits

<sup>12</sup> New permit removes drainage area of 10 acres or greater of disturbed land criterion for sediment settling ponds

<sup>13</sup> New permit removes the qualifier “for sediment basins servicing a drainage area over 5 acres”

<b>Part III.G.2 - Sediment &amp; Erosion Controls</b>				
	<b>Y</b>	<b>N</b>	<b>N/A</b>	<b>Comments</b>
Has the use of multiple sediment and erosion control measures been considered and/or planned in order to maximize pollutant removal?				
<b>(d)(iii) Sediment Barriers and Diversions</b>				
Will sediment barriers or other diversions be used to control sheet flow?				
Will a 12-inch diameter sediment barrier be substituted for a standard silt fence?				
Will silt fence be used in areas of steep slopes or concentrated flow? <i>NOTE: Silt fence is not permitted to be used for controlling high velocity storm water flow (only sheet flow).</i>				

**Sediment Barrier Maximum Drainage Area Based on Slope**

<b>Maximum drainage area (in acres) to 100 linear feet of sediment barrier</b>	<b>Range of slope for a particular drainage area (in percent)</b>
0.5	< 2%
0.25	≥ 2% but < 20%
0.125	≥ 20% but < 50%

<b>(d)(iv) Inlet Protection</b>				
Will the field drain inlets and/or the street curb inlets drain into a sediment settling pond or directly to surface waters of the state? <i>NOTE: Inlet protection is mandatory.</i> <sup>14</sup>				
Do any inlets not connected to a sediment settling pond receive runoff from one or more acres?				
Does the inlet protection meet the standards of Ohio’s Rainwater and Land Development Manual?				
<b>(d)(v) Stream (Surface Waters of the State) Protection</b>				
Does the Plan propose to use any structural sediment controls in a stream? <i>NOTE: Use of structural sediment controls in-stream is prohibited in accordance with Part III.G.2.d.v.</i>				
For construction activities that are on the stream bank or will involve stream crossing, does the Plan include measures to minimize the number of stream crossings and/or the width of disturbance? <i>NOTE: If work along a stream bank is necessary, a non-erodible pad or non-erodible stream diversion dams (sand bags) must be installed. If stream crossings are necessary, a non-erodible stream crossing must be installed.</i>				

<b>Part III.G.2.e – Post-Construction Storm Water Management</b>				
	<b>Y</b>	<b>N</b>	<b>N/A</b>	<b>Comments</b>
Does the Plan include the installation of a structural post-construction best management practice (BMP) to manage storm water runoff once construction activities have been completed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Will the construction activity result in the installation of any impervious surface? <i>NOTE: Projects that do not result in the installation of impervious surface do not require the installation of post-construction BMPs.</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

<sup>14</sup> New permit removed qualifier that provided an exception for the use of inlet protection if a sediment settling pond was present.



<b>Part III.G.2.e – Post-Construction Storm Water Management</b>				
	<b>Y</b>	<b>N</b>	<b>N/A</b>	<b>Comments</b>
Have detail drawings and a long-term maintenance plans been provided for all post-construction BMPs in the Plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the Plan contain a description of the post-construction BMPs and rationale for including them?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the long-term maintenance plan include the following? (Check all) <input type="checkbox"/> Responsible party for storm water inspection and maintenance tasks. <input type="checkbox"/> Record of routine and non-routine maintenance tasks to be completed. <input type="checkbox"/> Schedule for inspection and maintenance. <input type="checkbox"/> Necessary (legally binding) maintenance easements and agreements. <input type="checkbox"/> Construction drawings showing the facility plan view and profile, and outlet(s) details. <input type="checkbox"/> Map showing all access and maintenance easements. <input type="checkbox"/> Description of how pollutants will be removed and disposed of.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the Plan specify that the permittee is responsible for assuring all post-construction practices meeting plan specifications and intended post-construction conditions have been met before coverage under this permit is terminated? <sup>15</sup> <i>(Note: Permittee is not responsible under the permit for operation and maintenance of post-construction practices once the permit is terminated. The long-term maintenance agreement stipulates the responsible party.)</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the construction activity a linear project (e.g., pipeline or utility line installation) that does not result in the installation of impervious surface? <i>NOTE: Linear projects that don't result in the installation of impervious surface do not need the installation of structural post-construction BMPs. However, they do require minimizing the number of stream crossings.</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the Plan include structural post-construction BMP(s) selected from Table 4a or 4b? <sup>16</sup>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If not, have alternative BMP(s) been approved?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the Plan include a structural post-construction BMP with a specified volume and drain time?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If so, were Equations 1 and 2 in the CGP used to determine the water quality volume (WQv) and drain time?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If the formula described in the CGP was used to calculate the WQv, were the correct values used for:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
(a) volumetric runoff coefficient (Rv)? <sup>17</sup>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
(b) fraction of post-construction impervious surface (i)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
(c) precipitation depth (P = 0.90-inches)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

<sup>15</sup> Post-construction conditions include, but are not limited to, sediment removed from, and sediment storage restored to, permanent pools, sediment control outlets removed and replaced with permanent post-construction discharge structures, and all slopes and drainageways permanently stabilized.

<sup>16</sup> BMPs presented in Tables 4a and 4b are considered standard BMPs for general use. The identified BMPs have changed from the previous CGP and are broken into two types: Extended Detention (Table 4a) and Infiltration (Table 4b).

<sup>17</sup> The new permit replaces the use of runoff coefficient (C)

<b>Part III.G.2.e – Post-Construction Storm Water Management</b>				
	<b>Y</b>	<b>N</b>	<b>N/A</b>	<b>Comments</b>
(d) and the drainage area (A) to the BMP?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If the structural post-construction BMP will be used for sediment storage and/or has a reduced infiltration capacity, was the WQv increased by an additional 20 percent (“fudge factor”)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the drain time in the Plan for the proposed structural post-construction BMP match the drain time for the selected BMP in the Tables 4a and 4b below? <sup>18</sup>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are the post-construction practices sized to treat 100% of the WQv associated with their contributing drainage area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are existing post-construction BMPs being used to manage the WQv?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If so, do they treat runoff from the disturbed area(s) and meet post-construction requirements of the CGP? <i>Note: If the above criteria are met, no additional post-construction BMP(s) are required.</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is a regional storm water BMP being used to meet post-construction requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If so, are the following conditions met?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
(1) Does the BMP meet the design requirements for treating the WQv?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
(2) Has a legal agreement been established such that the regional BMP owner or operator agrees to provide this service in the long term?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the Plan contain design information for these facilities show contributing drainage areas, capacities, elevations, outlet details and drain times?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the outlet structure of the post-construction BMP allow the discharge of half of the WQv in less than 1/3 <sup>rd</sup> of the drain time?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

**Table 4a Extended Detention Post- Construction Practices with Minimum Drain Times**

<b>Extended Detention Practices</b>	<b>Minimum Drain Time of WQv</b>
Wet Extended Detention Basin <sup>1,2</sup>	24 hours
Constructed Extended Detention Wetland <sup>1,2</sup>	24 hours
Dry Extended Detention Basin <sup>1,3</sup>	48 hours
Permeable Pavement- Extended Detention <sup>1</sup>	24 hours
Underground Storage- Extended Detention <sup>1,4</sup>	24 hours
Sand & Other Media Filtration- Extended Detention <sup>1</sup>	24 hours

Notes for Table 4a:

1. The outlet structure shall not discharge more than the first half of the WQv in less than one-third of the drain time
2. Provide a permanent pool with a minimum volume equal to the WQv and an extended detention volume above the permanent pool equal to 1.0 x WQv
3. Dry basins must include a forebay and micropool each sized at a minimum of 0.1 x WQv and protected outlet, or include acceptable pretreatment and protected outlet.
4. Underground storage must have pretreatment for removal of suspended sediments included in the design and documented in the Plan. This pretreatment shall concentrate sediment in a location where it can be readily removed. For non-infiltrating, underground extended detention systems, pretreatment shall be 50% effective at capturing total suspended solids according to the testing protocol established in the Alternative Post-Construction BMP Testing Protocol.
5. The WQv ponding area shall completely empty between 24 and 72 hours.

<sup>18</sup> Tables 4a and 4b replace the former Table 2



**Table 4b Infiltration Post-Construction Practices with Maximum Drainage Time**

Infiltration Practices	Maximum Drain Time of WQv
Bioretention Area/Cell <sup>1,2</sup>	24 hours
Infiltration Basin	24 hours
Infiltration Trench <sup>2</sup>	48 hours
Permeable Pavement- Infiltration <sup>3</sup>	48 hours
Underground Storage- Infiltration <sup>3,4</sup>	48 hours

Notes for Table 4b:

1. Bioretention soil media shall have a permeability of approximately 1-4in/hr. Meeting the soil media specifications in the Rainwater and Land Development manual is considered compliant with this requirement. Bioretention cells must have underdrains unless in-situ conditions allow for the WQv (surface ponding) plus the bioretention soil (to a depth of 24 inches) to drain completely within 48 hours.
2. Infiltration practices with the WQv stored aboveground (bioretention, infiltration basin) shall fully drain the WQv within 24 hours to minimize nuisance effects of standing water and to promote vigorous communities of appropriate vegetation.
3. Subsurface practices designed to fully infiltration the WQv (infiltration trench, permeable pavement with infiltration, underground storage with infiltration) shall empty within 48 hours to recover storage for subsequent storm events.
4. Underground storage systems with infiltration must have adequate pretreatment of suspended sediments included in the design and documented in the Plan in order to minimize clogging of the infiltrating surface. Pretreatment shall concentrate sediment in a location where it can be readily removed. Examples include media filters situated upstream of the storage or other suitable alternative approved by the Ohio EPA. For infiltrating underground systems, pretreatment shall be 80% effective at capturing total suspended solids according to the testing protocol established in the Alternative Post-Construction BMP Testing Protocol.

Part III.G.2.e – Post-Construction Storm Water Management (cont.)				
	Y	N	N/A	Comments
<b>Pre-Existing Drainage Basin</b>				
Is there a pre-existing drainage basin or other BMP that will receive the storm water drainage from the construction site, is it sized appropriately to treat the WQv?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Public Road Construction</b>				
For public road construction activities, are the post-construction BMPs designed consistent with the Ohio Department of Transportation’s “Location and Design Manual, Volume Two?”	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Offsite Mitigation</b>				
For construction activities where a post-construction BMP cannot be placed onsite and will require an offsite post-construction BMP, has the <b>offsite mitigation proposal</b> been authorized by Ohio EPA? <i>NOTE: Offsite BMPs must have a long-term maintenance agreement, be within the same HUC-12, and be at least 1.5 times the size of an onsite BMP.</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Small Construction Activities (&lt; 2 Acres)</b>				
Does the Plan include a structural post-construction BMP? <i>NOTE: A structural post-construction BMP is required for small construction activities, but the CGP does not include design standards recognizing the potential for site limitations. A description of BMP technical basis is required. Where alternatives other than those in Tables 4a and 4b are proposed, their use must be approved by the local MS4.)</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	



<b>Part III.G.2.e – Post-Construction Storm Water Management (cont.)</b>				
	<b>Y</b>	<b>N</b>	<b>N/A</b>	<b>Comments</b>
If so,				
(i) Does the Plan explain the technical basis used to select the BMPs chosen where flows exceed pre-development levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
(ii) Does the Plan include the installation of velocity dissipation devices at discharge locations and outfall channels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Has green infrastructure been utilized?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the alternative BMP acceptable to the local MS4 or jurisdiction?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Previously Developed Areas</b>				
Will the site be redeveloped from a previously graded, paved, or built upon area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Will the area have a 20% net reduction of the site’s volumetric runoff coefficient through impervious area reduction or treat 20% of the WQv for the previously developed area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Will there be a combination of redeveloped and newly developed areas? If so, has the weighted approach for calculating the WQv (equation 3) been used?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Runoff Reduction Practices</b>				
Will runoff reduction practices be implemented?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Have the runoff reduction practices been calculated and documented in accordance with the Rainwater and Land Development Manual?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If the Plan proposes to use acceptable runoff reduction practices to reduce the WQv or size of post-construction practices? If so, are they being used with appropriate credit? (Check if applicable) <input type="checkbox"/> Green roofs <input type="checkbox"/> Impervious surface disconnections <input type="checkbox"/> Rainwater harvesting <input type="checkbox"/> Bioretention area/cells <input type="checkbox"/> Infiltration basins or trenches <input type="checkbox"/> Permeable pavements (infiltration) <input type="checkbox"/> Underground storage (infiltration) <input type="checkbox"/> Grass swales <input type="checkbox"/> Sheet flow to filter strips or conservation areas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is any runoff reduction practice used meet post-construction requirement for areas that cannot drain to a structural practice (e.g., backyards of residential lots) shown in calculations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Use of Alternative Post-Construction BMPs</b>				
Will alternative post-construction BMPs be used and has approval been granted by the Ohio EPA?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If located within a MS4 community, has the alternative BMP been pre-approved by the MS4?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Has it been demonstrated that a BMP listed in tables 4a and 4b cannot be used?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Will the proposed alternative BMP meet the requirements listed in III.G.2.e. “Use of Alternative Post-Construction BMPs”?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

<b>Part III.G.2.e – Post-Construction Storm Water Management (cont.)</b>				
	<b>Y</b>	<b>N</b>	<b>N/A</b>	<b>Comments</b>
Does the alternative BMP meet the sediment removal and discharge rate criteria?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Alternative Post-Construction BMP Testing Protocol</b>				
Does the alternative post-construction BMP treat and remove at the minimum 80% of the TSS for influent concentrations equal to or greater than 100mg/L TSS? If concentrations are less than 100mg/L TSS than does the BMP achieve a concentration of TSS less than or equal to 20mg/L?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the alternative BMP utilize treatment processes such as filtering or centrifugal separation? If so, can the BMP ensure treatment of 90% of the average annual runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Has effectiveness of the proposed alternative post-construction BMP been demonstrated by testing of a similar BMP through the Washington State TARP or New Jersey Department of Environmental Protection Manufactured Treatment Device programs?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

<b>Part III.G.2.f - Surface Water Protection</b>				
	<b>Y</b>	<b>N</b>	<b>N/A</b>	<b>Comments</b>
Does the construction site contain any streams, rivers, lakes, or wetlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If so, has the U.S. Army Corps of Engineers been contacted for a determination of impacts requiring Clean Water Act 401 or 404 permitting?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
For storm water discharges from BMPs into wetlands, have BMPs (e.g., level spreaders, buffers, or infiltration basins) been proposed to diffuse the concentrated flow into non-erosive flow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

<b>Part III.G.2.g - Other Controls</b>				
	<b>Y</b>	<b>N</b>	<b>N/A</b>	<b>Comments</b>
<b>Handling of Toxic or Hazardous Materials</b>				
(1) Does the Plan provide directions on how to dispose toxic or hazardous wastes properly?				
(2) Does the Plan provide areas for recycling of used or unused hazardous materials? <i>NOTE: No toxic or hazardous wastes shall be disposed into storm drains, septic tanks, or by burying, burning, or mixing the wastes.</i>				
The Plan addresses the need and methods to exclude waste materials or wastewater (e.g. from washout) from storm water or waters of the state? and of responding to chemical spills and leaks (e.g. directs to onsite Spill Prevention Control and Countermeasure (SPCC) plan).				
(3) The Plan addresses potential materials and responses to chemical spills and leaks (e.g. directs to onsite Spill Prevention Control and Countermeasure (SPCC) plan).				
<b>Waste Disposal</b>				
Will containers (e.g., dumpsters, drums) be available for disposal of debris, trash, hazardous or petroleum wastes? <i>NOTE: All containers must be covered and leak-proof.</i>				

<b>Part III.G.2.g - Other Controls</b>				
	<b>Y</b>	<b>N</b>	<b>N/A</b>	<b>Comments</b>
As applicable, the Plan states that all waste will comply with applicable state or local waste disposal requirements and provisions address issues such as open burning, sanitary wastes and construction and demolition debris?				
<b>Clean Hard Fill</b>				
Are bricks, hardened concrete, and soil waste free from contamination which may leach constituents to waters of the state?				
If clean construction wastes will be disposed into the property, are there any local prohibitions from this type of disposal?				
<b>Construction &amp; Demolition Debris</b>				
Does the Plan state that all construction & demolition debris (C&DD) waste will be disposed of in an Ohio EPA approved C&DD landfill as required by Ohio Revised Code (ORC) 3714? <i>NOTE: Construction debris may be disposed of on-site, but demolition debris must be disposed in an Ohio EPA approved landfill. Materials which contain asbestos must comply with air pollution regulations (see Ohio Administrative Code 3745-20).</i>				
<b>Construction Chemical Compounds</b>				
Does the Plan designate areas used for mixing or storage of compounds such as fertilizers, lime, asphalt, or concrete?				
If so, are these areas located away from watercourses, drainage ditches, field drains, or other storm water drainage areas?				
<b>Equipment Fueling &amp; Maintenance</b>				
Does the Plan designate areas used for fueling or performing vehicle maintenance?				
If so, are these areas located away from watercourses, drainage ditches, field drains, or other storm water drainage areas?				
Has a spill prevention control and countermeasures (SPCC) plan been developed? <sup>19</sup>				
<b>Concrete Wash Waters</b>				
Does the Plan designate areas used for receiving concrete chute or other concrete wash waters?				
If so, are these areas located away from watercourses, drainage ditches, field drains, or other drainage areas?				
<b>Trench &amp; Ground Water Control</b>				
Does the construction site have an onsite trench or pond that must be dewatered?				
If so, does the Plan call for the discharge of potentially turbid water through a filter bag, sump pit, or other sediment removal device?				
<b>Contaminated Soils</b>				
Does the Plan address proper handling and disposal of soils contaminated by petroleum or other chemical spills? <sup>20</sup>				

<sup>19</sup> NOTE: A SPCC plan must be developed for sites with one above ground storage tank (AST) of 660 gallons or more, total above ground tank storage of 1330 gallons, below ground storage of 42,000 gallons of fuel and oil/fuel storage capacity of more than 1,320 gallons in all aboveground containers 55-gallons or greater in volume

<sup>20</sup> NOTE: All contaminated soils must be treated and/or disposed in Ohio EPA approved solid waste management facilities or hazardous waste treatment, storage, or disposal facilities (TSDFs).

<b>Part III.G.2.g - Other Controls</b>				
	<b>Y</b>	<b>N</b>	<b>N/A</b>	<b>Comments</b>
If the facility contains contaminated soil, which of the following practices will be used to prevent contamination from being released?				
(1) The use of berms, trenches, and pits to collect contaminated runoff and prevent discharges				
(2) Pumping runoff into a sanitary sewer (with prior approval of the sanitary sewer operator) or into a container for transport to an appropriate treatment/disposal facility				
(3) Covering areas of contamination with tarps or other methods that prevent storm water from coming into contact with the material				
<b>Spill Reporting Requirements</b>				
Does the Plan describe what to do in the event of a small release (less than 25 gallons) of petroleum waste? <i>NOTE: Petroleum based and concrete curing compounds must have special handling procedures.</i>				
Does the Plan describe what to do in the event of a larger release (25 or more gallons) of petroleum waste? <sup>21</sup>				
<b>Open Burning</b>				
Is open burning performed in a restricted area (as defined in OAC 3745-19)? <i>NOTE: Open burning is permitted in restricted areas for barbeques, heating, and certain occupational purposes.</i>				
Is open burning performed in a non-restricted area, but within 1,000 feet of an inhabited building away from the property? <i>NOTE: Open burning in an unrestricted area is limited to scrap lumber, wooden fence posts, agricultural, land-clearing, or landscape wastes.</i>				
<b>Dust Controls/Suppressants</b>				
Are dust suppressants proposed to be used in the Plan?				
If so, are the areas which the dust suppressant will be applied located near catch basins for storm sewers or other drainage ways? <i>NOTE: Used oil may not be used as a dust suppressant.</i>				
<b>Air Permitting Requirements</b>				
Have appropriate measures been taken to ensure that all air pollution permits have been obtained? <i>NOTE: Air pollution permits may be required for activities including, but not limited to, mobile concrete batch plants, mobile asphalt plants, concrete crushers, and large generators.</i>				
For restoration or demolition projects, will a notification be submitted to Ohio EPA, Division of Air Pollution Control to determine if asbestos corrective actions are required?				
<b>Process Wastewater/Leachate Management</b>				
Will all process wastewaters (e.g., equipment washing, leachate associated with on-site waste disposal, and concrete wash-outs) be collected and disposed of properly (e.g., to a publicly-owned treatment works)?				

<sup>21</sup> NOTE: Ohio EPA (at 1-800-282-9378), the local fire department, and the local emergency planning committee (LEPC) must be contacted within 30 minutes of a spill of 25 or more gallons.

<b>Part III.G.2.g - Other Controls</b>				
	<b>Y</b>	<b>N</b>	<b>N/A</b>	<b>Comments</b>
<b>Additional Concerns</b>				
For construction activities involving the installation and/or replacement of a centralized sanitary system, (including sewer extensions) or a sewerage system (except those serving one, two, and three family dwellings) and potable water lines, was a PTI application submitted to Ohio EPA? <sup>22</sup>				
Does the Plan include measures for implementing good housekeeping practices?				
Does the Plan promote the use of protected storage areas for industrial or construction materials to minimize exposure of such materials to storm water?				

<b>Part III.G.2.i - Inspections</b>				
	<b>Y</b>	<b>N</b>	<b>N/A</b>	<b>Comments</b>
Does the Plan require weekly inspections of BMPs and an inspection by the end of the next calendar day (excluding weekends and holidays) after every rain event of 0.5 inches within a 24-hour period?				
If the site will be dormant for a long period, it's stabilized, and less frequent inspections are desired, does the Plan call for a waiver request to be submitted to OEPA for a reduction to monthly inspections?				
Does the Plan state that only "qualified inspection personnel" will perform the inspections?				
Does the Plan state that an inspection checklist will be completed and signed by the inspector after every inspection?				
Does the inspection checklist include the following information (check for all): <input type="checkbox"/> the inspection date; <input type="checkbox"/> names, titles, and qualifications of inspectors; <input type="checkbox"/> weather for the period since the last inspection (e.g., beginning, duration, & rainfall amount of each storm event and whether a discharge occurred); <input type="checkbox"/> weather and a description of any discharges occurring at the time of the inspection; <input type="checkbox"/> location(s) of discharges of sediment or other pollutants from the site; <input type="checkbox"/> location(s) of BMPs that need to be maintained; <input type="checkbox"/> location(s) of BMPs that failed to operate as designed or proved inadequate for a particular location; <input type="checkbox"/> location(s) where additional BMPs are needed that did not exist at the time of inspection; and <input type="checkbox"/> corrective action required including any changes to the Plan necessary and implementation dates				
The Plan details the areas to inspect (disturbed areas; material storage areas; erosion and sediment controls; discharge locations; and vehicle entrance/exit locations)?				
Does the Plan state that inspection records will be kept for 3 years after termination of construction activities?				

<sup>22</sup> Coverage under the NPDES construction storm water general permit does not alone authorize the installation of such sanitary sewerage systems or potable water lines.

This checklist reflects requirements within the 2018 OHC000005 CGP and the Ohio EPA checklist. The checklist is subject to changes in future CGP or MS4 General Permits. Last edited 12/23/2020

For BMPS that require repair or maintenance, does the Plan specify non-sediment pond BMPs to be repaired within 3 days of inspection and sediment ponds to be repaired or cleaned out within 10 days of inspection?				
For BMPs not meeting the intended function, does the Plan state that a new BMP will be installed within 10 days of the inspection?				
For missing BMPs required for installation by the Plan, does the Plan state that the missing BMPs will be installed within 10 days of the inspection?				



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NOTES: