



City of Lorain, Ohio
Storm Water Pollution Prevention Plan Checklist for
Construction Activities
 For Compliance with Permit Number OHC000006

Facility Name:	Date Received:
SWP3 Reviewer:	Date Reviewed:

City of Lorain Comments:

Please address all comments below in red.

Please ensure rip-rap channel protection is installed at all inlets and drains entering the onsite basin. All rip-rap installation within dry basins is required to begin at the invert of the inlet and extend to the bottom elevation of the basin.

Please note that the elevation of all final storm water structures, including basin floor elevation, outlet structure orifice elevation, and discharge pipe elevations will be required on the final certified grade for the property. The elevations of these structures are required on the certified grade to ensure the basin and structures have been installed per plan and maintained appropriately through the construction phase.

Prior to approval, the City must receive evidence of a 1) a completed BMP Facilities Agreement, as well as 2) a post-construction long-term maintenance document.

Please note that all containers used onsite must be covered and leak-proof.

Please ensure PTI is submitted and approved prior to installation of water/sewer lines.

Please ensure that 7 day and rain event inspection occur and are tracked for the entirety of the project per standards noted on Page 11.

Part III.G.1 - Site Description

Does the SWP3 describe, show or include:	Y	N	N/A	Comments
(a) the nature and type of construction activity (e.g., low density residential, shopping mall, highway, etc.)?				
(b) the area of the site to be disturbed				
(c) the impervious area and percent imperviousness created by the construction activity?				
(d) storm water calculations, (pre and post-construction volumetric runoff coefficients and resulting water quality volume; design details for post-construction storm water facilities and pretreatment practices (e.g. drainage areas, capacities, elevations, outlet details and drain times) and if applicable, explanation of the use of existing post-construction facilities?				
(e) any existing data describing the soil?				
(f) any information on the quality of the storm water discharge from the construction site?				
(g) any information about prior land uses at the site (e.g., was the property used to manage solid or hazardous waste)?				
(h) a description of the condition of on-site streams (e.g. prior channelization, bed instability or headcuts, channels on public maintenance, or natural channels)?				

(i) 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?				
(j) the name(s) or location(s) of the initial and subsequent surface water bodies receiving the storm water discharge?				
(k) 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?				
(l) a detail drawing of a typical individual lot showing sediment and erosion controls or storm water control practices? (This does not remove responsibility to designate control practices in a SWP3 for critical areas such as steep slopes, stream banks, drainage ways & riparian zones.)				
(m) 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?				
(n) a cover page identifying the name and location of the site, the name and contact information for site operators and SWP3 authorization agents as well as preparation date, start date, and completion date?				
(o) a log documenting grading & stabilization activity as well as SWP3 amendments that occur after construction commencement?				

Part III.G.1.n - Site Map Requirements				
Does the SWP3 site map show:	Y	N	N/A	Comments
(i) 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 SWP3?				
(ii) soils types depicted for all areas of the site, including locations of unstable, highly erodible and/or known contaminated soils?				
(iii) 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?				
(iv) location of any delineated boundary for required riparian setbacks?				
(v) conservation easements for areas designated as open space, preserved vegetation or otherwise protected from earth disturbing activities with a description of any associated temporary or permanent fencing or signage?				
(vi) 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?				
(vii) the location of existing and planned buildings, roads, parking facilities, and utilities?				
(viii) include the location of all erosion and sediment control practices, including the location of areas likely to require temporary stabilization during site development?				
(ix) location of sediment traps and basins noting their sediment storage volume and dewatering (detention) volume and contributing drainage area?				
(x) location of permanent storm water management practices (new & existing) as well as pretreatment practices to be used to control pollutants in storm water after construction operations have been completed along with the location of existing and planned drainage features (e.g. catch basins, culverts, ditches, swales, surface inlets and outlet structures)?				
(xi) 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?				
(xii) location of designated construction entrances where the vehicles will access the construction site?				
(xiii) location of any areas of proposed floodplain fill, floodplain excavation, stream restoration or known temporary or permanent stream crossings?				

Part III.G.2 - Sediment & Erosion Controls				
(a) Preservation Methods	Y	N	N/A	Comments
(1) Has every effort been made to preserve the natural riparian setback adjacent to streams or other surface water bodies? (E.g. preserving existing vegetation, vegetative buffer strips, and existing soil profile and topsoil; and designating tree preservation areas or other protective clearing or grubbing practices.				
(2) Have efforts been made to phase in construction activities to minimize the amount of land disturbance at one time?				
(3) Will any portions of the site be left undisturbed (e.g., tree preservation areas)?				
(b) Erosion Control Practices	Y	N	N/A	Comments
(1) Does the SWP3 include erosion controls to provide cover over disturbed soils?				
(2) Does the SWP3 describe the control practices used to re-establish suitable cover (e.g. vegetation) on disturbed areas after grading?				
(3) Does the SWP3 specify the types of stabilization measures to be employed for any time of the year?				
(b)(i) & Part II.B (Table 2): Temporary Stabilization	Y	N	N/A	Comments
For disturbed areas within 50 feet of a stream remaining dormant for over 14 days, will temporary erosion controls be applied within 2 days?				
For disturbed areas over 50 feet away from a stream remaining dormant for over 14 days, will temporary erosion controls be applied within 7 days?				
For disturbed areas that will be left idle over winter, will temporary erosion controls be applied prior to onset of winter weather?				
(b)(i) & Part II.B (Table 1): Permanent Stabilization	Y	N	N/A	Comments
For disturbed areas within 50 feet of a stream at final grade, will permanent erosion controls be applied within 2 days of reaching final grade?				
For disturbed areas remaining dormant for over 1 year or at final grade, will permanent erosion controls be applied within 7 days of the most recent disturbance?				
(b)(ii) Permanent Stabilization of Conveyance Channels				
Will operators undertake special measures to stabilize channels and outfalls and prevent erosive flows?				
(c) Runoff Control Practices - Does the SWP3 incorporate	Y	N	N/A	Comments
(1) measures to reduce flow rates on disturbed areas (e.g., riprap, rock check dams, & pipe slope drains)?				
(2) measures to divert runoff from disturbed areas and steep slopes?				
(d) Sediment Control Practices	Y	N	N/A	Comments
(1) Will sediment control devices be implemented for all areas remaining disturbed for over 14 days?				
(2) Are detail drawings of the sediment controls to be used included in the SWP3?				

(d)(i) Timing of Installing Sediment Controls.	Y	N	N/A	Comments
Does the SWP3 specify that sediment controls will be implemented prior to grading and within 7 days of grubbing?				
Does the SWP3 require additional sediment controls or modifications for changing slopes and topography?				
(d)(ii) Sediment Settling Ponds	Y	N	N/A	Comments
Does the SWP3 include the use of a sediment settling pond? <i>NOTE: This is required for areas with concentrated runoff or when the capacity of sediment barriers or inlet protection has been exceeded.</i>				
Are alternatives proposed in lieu of a required settling pond? These must be equivalent to a sediment settling pond effectiveness.				
Is the dewatering volume appropriately sized (67 yd ³ or 1800 ft ³ per acre of drainage area)?				
Is the depth of the dewatering volume for each sediment settling pond ≤5 feet?				
Will the dewatering volume drain in 48 hours to 72 hours?				
Is a skimmer specified in the SWP3?				
Has a sediment storage zone volume been provided (≥ 1000 ft ³ per disturbed acre or based on RUSLE calculations)?				
Is the length to width ratio of the settling pond ≥ 2:1? <i>NOTE: Greater distances from storm water inlet of the pond to the outlet increase effectiveness of sediment settlement.</i>				
Is clean-out of the sediment storage zone specified in the SWP3? (E.g. when sediment occupies 50 percent of the sediment storage zone and prior to conversion to a post-construction BMP.)				
Have public safety concerns been considered in pond design and alternative sediment controls?				
(d)(iii) Sediment Barriers & Diversions	Y	N	N/A	Comments
Are sediment barriers or diversions used to intercept sheet flow? <i>NOTE: Sediment barriers are suitable for sheet flow and not for concentrated storm water flow.</i>				
Are alternative sediment barriers, used in lieu of silt fence, at least 12-inches in diameter?				
Are diversions used to keep runoff away from steep slopes or concentrated flow?				
Do sediment barriers meet the maximum drainage area limits of table 3 or the Rainwater and Land Development manual?				
(d)(iv) Inlet Protection	Y	N	N/A	Comments
Do drain inlets and curb inlets drain into a sediment settling pond?				
Inlets not connected to a sediment settling pond are limited to runoff from ≤ one acres?				
Does inlet protection meet acceptable standards?				
(d)(v) Stream Protection	Y	N	N/A	Comments
No structural sediment controls are proposed for use in streams.				
Have efforts been made to limit construction disturbance or activities on stream banks, and the width or number of stream crossings? <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>				

Part III.G.2.e – Post-Construction Storm Water Management				
	Y	N	N/A	Comments
Does the SWP3 include the installation of a structural post-construction BMP. <i>NOTE: Projects that do not significantly grade or impact pervious areas or install impervious surface such as park lands do not require the installation of post-construction BMPs.</i>				
Is the construction activity a linear project (e.g., pipeline or utility line installation) that does not result in the installation of additional impervious surface? <i>NOTE: If yes, then the installation of structural post-construction BMPs is not required.</i>				
Maintenance Plans	Y	N	N/A	Comments
Has a long-term maintenance plan been developed or included in the SWP3 for maintenance of the structural post-construction BMP? <i>NOTE: The long-term maintenance plan must be developed and provided to the post-construction site operator.</i>				
Does the long-term maintenance plan include the following?				
(1) an entity designated for storm water inspection and maintenance responsibilities?				
(2) the routine and non-routine maintenance tasks to be undertaken?				
(3) a schedule for inspection and maintenance?				
(4) any necessary legally binding maintenance easements and agreements?				
(5) construction drawings or excerpts showing the facility plan view and profile, as well as details of the outlet(s)?				
(6) a map showing all access and maintenance easements?				
(7) a description of how pollutants will be removed and disposed of?				
Does the SWP3 include a structural post-construction BMP designed to release the water quality volume over a 24-hour to 48-hour time period?				
Calculation of Water Quality Volume (WQv)	Y	N	N/A	Comments
Is the calculation of the WQv shown? With correct values used for the following:				
(a) runoff coefficient (Rv), where $Rv = 0.05 + 0.9i$ i = ratio of impervious surface				
(b) precipitation depth (P = 0.9 inches)?				
(c) and the drainage area (A) to the BMP?				
If the structural post-construction BMP will be used for sediment storage, does it include a sediment accumulation volume of at least 20% of the WQv?				
If a regional storm water BMP will be used to meet the post-construction requirements, does it:				
(1) meet the design requirement for treating the WQv?				
(2) have a legal agreement established with the BMP owner for long-term maintenance?				
Table 4a Do extended detention practices show an appropriate minimum drain time that shall not discharge more than the first half of the WQv in less than one-third of the drain time? <i>NOTE: Dry = 48 hr; Wet, wetland, permeable pavement, underground storage, and sand/media filtration min. 24, <72 hr.</i>				

Table 4a Do extended detention practices show appropriate design features? <ul style="list-style-type: none"> Wetland and wet basins: permanent pool = 1WQv Dry, wet and wetland: sediment storage = 0.2WQv Dry: forebay and micro-pool or acceptable pretreatment and a protected outlet. Underground storage: acceptable pretreatment capable of $\geq 50\%$ TSS.				
Table 4b Do planned infiltrating practices show an appropriate maximum drain time? Note: Bioretention and infiltration basin ≤ 24 ; infiltration trench, permeable pavement and underground storage ≤ 48 hours.				
Table 4b Do planned infiltrating underground storage practices (for credit) show acceptable of pretreatment of $\geq 80\%$ TSS.				
Small Construction Activities ≤ 2 Acres If the SWP3 proposes to use an alternative BMP instead of a Table 4a or 4b practice,	Y	N	N/A	Comments
(1) does the SWP3 provide justification on why a standard BMP is infeasible and their use would prevent the project?				
(2) Is the alternative BMP acceptable to the local MS4 or jurisdiction?				
Transportation Projects	Y	N	N/A	Comments
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?"				
Offsite Mitigation of Post-Construction If the SWP3 is proposing to use an offsite post-construction BMP, then does the SWP3 include:	Y	N	N/A	Comments
(1) a maintenance agreement or policy is established to ensure operations and treatment long-term?				
(2) the offsite location discharges to the same HUC-12 watershed unit?				
(3) the mitigation ratio of the WQv is 1.5 to 1 or the WQv at the point of retrofit, whichever is greater?				
Previously Developed Areas (Redevelopment)	Y	N	N/A	Comments
For construction of a previously developed area, was one of the following options used to as a post-construction practice:				
(a) 20% net reduction in the site's volumetric runoff coefficient?				
(b) a BMP sized to treat 20% of the WQv for the previously developed area using a standard BMP from Tables 4a or 4b?				
For construction involving both previously developed and undeveloped land, was equation 3 shown to calculate the WQv? $WQv = 0.9\text{inches} * A * [(Rv_1 * 0.2) + (Rv_2 - Rv_1)]/12$				
Runoff Reduction Practices:	Y	N	N/A	Comments
If the SWP3 proposes to use runoff reduction methods to reduce the WQv or size of post-construction practices, are one of the following acceptable practices being used with appropriate credit? <ul style="list-style-type: none"> Green Roof Impervious Surface Disconnection Rainwater Harvesting Bioretention Area/Cell 				

<ul style="list-style-type: none"> • Infiltration Basin • Infiltration Trench • Permeable Pavement (Infiltration) • Underground Storage (Infiltration) • Grass Swale • Sheet Flow to Filter Strip 				
Sheet Flow to Conservation Area				
Do practices meet Ohio EPA's Rainwater and Land Development Manual specifications?				
Is any runoff reduction practice(s) used to meet the groundwater recharge requirements for the Big Darby Creek Watershed shown in recharge calculations?				
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?				
Alternative Post-Construction BMPs	Y	N	N/A	Comments
If the SWP3 proposes to use alternative post-construction BMPs to those of Tables 4a and 4b practices, has approval been obtained from Ohio EPA? (Attach correspondence & Alt. Practice Form)				

Part III.G.2.f - Surface Water Protection	Y	N	N/A	Comments
Does the site contain any streams, rivers, lakes, or wetlands?				
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? (Attach any reference numbers)				
For storm water discharges from BMPs into wetlands, have appropriate BMPs been proposed to treat and diffuse flows?				

Part III.G.2.g - Other Controls				
(Non-sediment pollutant controls, tracking, dust, wastes, dewatering, and contaminated sediments)				
Handling of Toxic or Hazardous Materials	Y	N	N/A	Comments
(1) The SWP3 considers and addresses potential toxic or hazardous wastes and their proper disposal?				
(2) The SWP3 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 SWPPP addresses potential materials and responses to chemical spills and leaks (e.g. directs to onsite Spill Prevention Control and Countermeasure (SPCC) plan).				
Waste Disposal	Y	N	N/A	Comments
Covered and leak-proof containers are planned for disposal of debris, trash, hazardous or petroleum wastes?				
As applicable, the SWP3 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?				

Clean Hard Fill	Y	N	N/A	Comments
(1) If disposal of bricks, hardened concrete, and/or soil is planned, are these materials required to be free from contamination that may leach to waters of the state?				
(2) If clean construction wastes will be disposed into the property, are there any local prohibitions from this type of disposal?				
Construction Chemical Compounds	Y	N	N/A	Comments
(1) Does the SWP3 designate areas used for mixing or storage of compounds such as fertilizers, lime, asphalt, or concrete?				
(2) If so, are these areas located away from watercourses, drainage ditches, field drains, or other storm water drainage areas?				
Equipment Fueling & Maintenance	Y	N	N/A	Comments
(1) Does the SWP3 designate areas used for fueling or performing vehicle maintenance that provide separation from watercourses, drainage ditches, field drains, or other storm water drainage areas?				
(2) If applicable, has a spill prevention control and countermeasures (SPCC) plan been developed? <i>NOTE: An SPCC plan is required for sites which have the following:</i> <ul style="list-style-type: none"> Aboveground oil/fuel storage capacity of more than 1,320 gallons in all containers 55 gallons or greater in volume, or Underground oil/fuel storage capacity of more than 42,000 gallons. 				
Concrete Wash Waters	Y	N	N/A	Comments
(1) Does the SWP3 designate areas used for concrete chute cleaning or other concrete wash waters that are these areas located away from watercourses, drainage ditches, field drains, or other drainage areas?				
Trench & Ground Water Control	Y	N	N/A	Comments
Does the construction site have an onsite trench or pond that must be dewatered?				
If so, does the SWP3 call for the discharge of potentially turbid water through a filter bag, sump pit, or other sediment removal device?				
Contaminated Soils	Y	N	N/A	Comments
If applicable, does the SWP3 address proper handling and disposal of soils contaminated by petroleum or other chemical spills? <i>NOTE: Contaminated soils must be treated and/or disposed in Ohio EPA approved solid waste management facilities or hazardous waste treatment, storage or disposal facilities.</i>				
If the facility contains contaminated soil, which of the following practices will be used to prevent contamination from being released?				
(1) Berms, trenches, and pits used to collect contaminated runoff and prevent discharges;				
(2) Runoff is planned to be pumped into a sanitary sewer (requires prior approval of the sanitary sewer operator) or into a container for transport to an appropriate treatment/disposal facility;				
(3) Areas of contamination are planned for covering with tarps or other methods that prevent storm water from coming into contact with the material.				

Spill Reporting Requirements	Y	N	N/A	Comments
(1) The SWP3 describes procedures 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>				
(2) The SWP3 describe what to do in the event of a larger release (25 or more gallons) of petroleum waste? <i>NOTE: Ohio EPA (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.</i>				
Open Burning	Y	N	N/A	Comments
(1) If applicable, does the SWPPP restrict open burning to legal limits (as defined in OAC 3745-19)?				
Dust Controls/Suppressants	Y	N	N/A	Comments
(1) If dust suppressants are proposed in the SWP3, are application areas away from catch basins for storm sewers or other drainage ways? <i>NOTE: Used oil may not be used as a dust suppressant</i>				
Air Permitting Requirements	Y	N	N/A	Comments
(1) If applicable (e.g. <i>mobile concrete batch plants, mobile asphalt plants, concrete crushers, and large generators</i>) have appropriate measures been taken to ensure that all air pollution permits have been obtained?				
(2) In the case of applicable restoration or demolition projects, a notification will be submitted to Ohio EPA, Division of Air Pollution Control to determine if asbestos corrective actions are required?				
Process Wastewater/Leachate Management	Y	N	N/A	Comments
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)? <i>NOTE: The NPDES construction storm water general permit only authorizes the discharge of storm water and certain uncontaminated non-storm waters. The discharge of non-storm waters to waters of the state may be in violation of local, state, and federal laws or regulations.</i>				
Additional Concerns	Y	N	N/A	Comments
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, a PTI application was submitted to Ohio EPA? <i>NOTE: Coverage under the NPDES construction storm water general permit does not alone authorize the installation of such sanitary sewerage systems or potable water lines.</i>				
Does the SWP3 include measures for implementing good housekeeping practices?				
Does the SWP3 promote the use of protected storage areas for industrial or construction materials to minimize exposure of such materials to storm water?				

Part III.G.2.h - Maintenance				
	Y	N	N/A	Comments
The SWPPP describes adequate repair and maintenance procedures for each temporary and permanent control practice planned in order to ensure continued function.				

Part III.G.2.i - Inspections				
	Y	N	N/A	Comments
The SWP3 states that only “qualified inspection personnel” will perform the inspections?				
The SWP3 requires construction site inspections to be performed once every 7 calendar days; and after every rain event ≥ 0.5 -inch in a 24-hour period by the end of next calendar day (excluding non-working weekends & holidays)?				
The SWP3 states that the inspection frequency may be reduced to monthly for dormant sites if:				
<ul style="list-style-type: none"> the entire site is temporarily stabilized or 				
<ul style="list-style-type: none"> runoff is unlikely due to weather conditions for extended periods of time (e.g., frozen ground)? 				
<p>Does the SWP3 include an inspection checklist (to be completed and signed after every inspection) that includes:</p> <ul style="list-style-type: none"> the inspection date; names, titles, and qualifications of inspectors; weather for the period since the last inspection (e.g., beginning, duration, & rainfall amount of each storm event and whether a discharge occurred); weather and a description of any discharges occurring at the time of the inspection; location(s) of discharges of sediment or other pollutants from the site; location(s) of BMPs that need to be maintained; location(s) of BMPs that failed to operate as designed or proved inadequate for a particular location; location(s) where additional BMPs are needed that did not exist at the time of inspection; and corrective action required including any changes to the SWP3 necessary and implementation dates 				
The SWP3 details the areas to inspect (disturbed areas; material storage areas; erosion and sediment controls; discharge locations; and vehicle entrance/exit locations)?				
Does the SWP3 state that inspection records will be kept for 3 years after termination of construction activities?				
Does the SWP3 specify the time within which BMPS must be repaired, maintained or a new functional BMP installed? (Within 3 days of inspection for non-sediment pond BMPs, and within 10 days of inspection for sediment ponds to be repaired or cleaned out and replacing a BMP not meeting the intended function or missing from the site.)				