

# TOWN OF WINDSOR STORMWATER MANAGEMENT PLAN (SWMP) CONSTRUCTION ACTIVITIES

Name of Project:
Location of Project:
Owner Name:
Owner Address and Phone:
Operator Name:
Operator Address and Phone:
Responsible Party for SWMP (SWMP Administrator or Site Contact):
Responsible Party email address      Cell Phone:    Office Phone:
Town of Windsor GESCP Permit Number:
CDPHE Stormwater Permit Number:
NOTE: A WORKING COPY OF THIS SWMP MUST BE KEPT AT THE CONSTRUCTION SITE OR BE LOCALLY AVAILABLE FOR REVIEW BY the Town of Windsor.
A COPY OF CDPHE'S STORMWATER GENERAL PERMIT FOR THIS PROJECT MUST BE ATTACHED TO THIS SWMP.
GUIDANCE FOR SELECTING AND IMPLEMENTING CONTROL MEASURES (CMs) IS AVAILABLE IN THE CDPHE STORMWATER PERMIT REQUIREMENTS WEBSITE AND URBAN DRAINAGE AND FLOOD CONTROL DISTRICT DRAINAGE CRITERIA MANUAL, VOL. 3.

PLEASE NOTE, THIS TEMPLATE MAY NOT MEET ALL REQUIREMENTS OF THE CDPHE STORMWATER PERMIT AS PERMIT CONDITIONS ARE SUBJECT TO CHANGE. IT IS THE PERMIT HOLDER'S RESPONSIBILITY TO MAINTAIN THIS DOCUMENT AND ATTACHMENTS AND IMPLEMENT ANY CHANGES AS REQUIRED BY THE CDPHE. ATTACH ADDITIONAL PAGES WHEN NECESSARY TO PROVIDE THE REQUIRED INFORMATION. FILL IN THE PAGE NUMBERS IN THE FOLLOWING TABLE OF CONTENTS AS YOU COMPLETE THIS TEMPLATE.

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# **II. PROJECT DESCRIPTION**

Description of the Proposed Constru	ction Activity
(e.g., low density residential, shopping mall	, highway, etc.).
Intended Sequence of Major Soil Dist	urbing Activities
one time, including a schedule which inc excavating, grading, utilities and infrastr	tivities to minimize the amount of land disturbance at cludes the sequence of construction (i.e., grubbing, ructure installation) and the stormwater management ring each operation of the sequence. Include an d final stabilization date.
	Estimated Final Stabilization Date
Total Area of Site (acres)	Total Area to be Disturbed (acres)
Provide a description of the existing s	included with this project, if applicable
CM design. A description of existing	as used in development of the SWMP, such as for water bodies or adjacent waterways that may are NOT noted under receiving waters is also

Provide a description of the existing vegetation at the site, an estimate of the percentage of vegetative ground cover, and method used to determine the percentage.

<u>Receiving Water(s)</u>: Identify the name and location of the streams, rivers, ditches, drainages, lakes or wetlands (both perennial and intermittent) that will receive runoff from the construction site. If the site will drain to the municipal storm drain system, identify the receiving water to which the system discharges.

## III. SITE MAPS

Attach A. General Location Map and B. Detailed Site Map and C. Industrial Activity Map. Note: site maps must be updated as site conditions change and new CMs are added.

The Detailed Site Map must indicate the following (this is typically included in the construction drawings:

1. Construction site boundaries and Limits of Disturbance; details for all BMPs used onsite.

2. Existing and proposed topography and drainage patterns drawn to scale with north arrow.

3. Areas of soils that will be disturbed and areas that will not be disturbed.

4. Locations of structural and non-structural controls identified in SWMP (including individual lot controls when necessary)

5. The location and volume of temporary structural Control Measures (CMs), such as sediment ponds and future detention basins.

6. Areas of cut and fill.

7. Named Surface water locations including springs, wetlands, streams, lakes, water wells, etc., on or within 200 feet of the site.

8. Location of existing and planned buildings, roads, parking facilities, and utilities.

9. Location(s) of permanent CMs to be used to control pollutants in stormwater after construction has been completed.

10. Locations of areas designated for the storage or disposal of building materials, equipment, solid, sanitary, and toxic wastes (including dumpster areas), compounds such as fertilizers, lime, asphalt, or concrete and vehicle fueling, concrete truck washout, designated construction entrances, dedicated asphalt/concrete batch plants, in-stream activities including stream crossings.

The Industrial Activity Map must indicate the following (this is typically included in the construction drawings: 1. Location and description of any discharge(s) associated with Industrial Activity other than construction, including any stormwater discharges from dedicated asphalt or concrete plants covered under General Permit.

# **IV. STORMWATER MANAGEMENT CONTROLS**

### A. Identify Potential Pollutants and Activities

Below is a list of the potential pollutant sources associated with various construction activities, which may be reasonably expected to affect the quality of stormwater discharges from the construction site. Add rows if additional potential sources are not included.

Identify and list all potential sources of pollution, which may reasonably be expected to affect the quality of stormwater discharges from the construction site. Indicate potential pollutant sources applicable/not applicable to the construction site by clicking the appropriate radio button then type in the control measures to be used (ex silt fence, straw wattle, etc.).

Control measures must be properly selected, installed, and maintained in accordance with the manufacturer's specifications and good engineering practices. Controls must be inspected at least weekly and sediments must be removed from when the design capacity has been reduced to 50%, or per manufacturer's directions. Construction materials, chemicals, wastes, litter and debris must be prevented from becoming a stormwater pollutant source. Offsite material storage areas used solely by the permitted project must also be managed.

Potential Pollution Source	Potential on This Site?	Control Measures (Contractor to fill out measures for each pollution source identified as "Yes")	CM Implementation
All Disturbed and Stored Soils - grading - spoils - stockpiles - clearing - grubbing - haul roads - staging areas	Yes No		<ol> <li>Install CMs prior to major construction.</li> <li>Delineate protected areas prior to major construction.</li> <li>Material management effective once material arrives on site.</li> <li>Place trash receptacles on site prior to major construction.</li> <li>Implement spill response procedures as needed.</li> <li>Implement stockpile management controls as needed.</li> <li>Delineate vehicle travel areas prior to major construction, adjust as needed.</li> </ol>
Vehicle Tracking of Sediments - all permitted area vehicle traffic	Yes No		<ol> <li>Install BMPs prior to major construction.</li> <li>Delineate vehicle travel areas prior to major construction, adjust as needed.</li> <li>Install VTC BMP prior to construction.</li> <li>Implement street sweeping in conjunction with start of major construction and as needed.</li> </ol>

Potential Pollution Source	Potential on This Site?	Control Measures (Contractor to fill out measures for each pollution source identified as "Yes")	CM Implementation
Management of Contaminated Soils - fluid spills	Yes No		<ol> <li>Implement hazardous materials management as needed.</li> <li>Implement spill response procedures as needed.</li> <li>Implement stockpile management controls as needed.</li> </ol>
Loading and Unloading Activities - construction materials	Yes No		<ol> <li>Materials management effective once materials arrive on site and effective throughout the project.</li> <li>Delineate vehicle travel areas prior to major construction, adjust as needed.</li> </ol>
Outdoor storage activities - building materials - fertilizers - chemicals	Yes No		<ol> <li>Designate materials storage areas prior to the delivery of materials.</li> <li>Materials left outdoors must be covered if they can become a pollutant when mixed with water.</li> <li>Secondary containment must be used for hazardous materials.</li> </ol>
Vehicle equipment maintenance and fueling - gas - diesel - oil - lubricants - hydraulic fluids	Yes No		<ol> <li>Implement spill prevention controls as needed.</li> <li>Designate fuel storage area as needed.</li> <li>Implement spill response and notification procedures as needed.</li> </ol>
Dust Control - Wind Transport - Saw Cutting Activities	Yes No		<ol> <li>Implement dust control in conjunction with soil disturbing activities and as needed.</li> <li>Implement temporary soil stabilization measures as soon as practical.</li> <li>Implement street sweeping at the start of major construction and maintain as needed.</li> <li>Delineate protected areas prior to major construction.</li> </ol>
Routine maintenance activities - fertilizers - pesticides - detergents - fuels - solvents - oils, etc.	Yes No		<ol> <li>Designate materials storage areas prior to their arrival on site.</li> <li>Practice hazardous waste management procedures during the storage of such materials.</li> <li>Install sediment and erosion control CMs prior to conducting landscape activities.</li> </ol>

Potential Pollution Source	Potential on This Site?	Control Measures (Contractor to fill out measures for each pollution source identified as "Yes")	BMP Implementation
On-site waste management practices	Yes No		<ol> <li>Place trash receptacles on site prior to major construction.</li> <li>Place designated watertight receptacles or washout area(s) prior to proceeding with an activity that is known to produce liquid waste.</li> <li>Implement hazardous waste management procedures as needed.</li> </ol>
Concrete truck/equipment washing	Yes No		<ol> <li>Install designated concrete washout(s) prior to commencement of concrete activities.</li> </ol>
Dedicated asphalt and concrete batch plants	Yes No		<ol> <li>Install secondary containment CMs prior to using dedicated batch plants.</li> <li>Dedicated washout area must be established before construction begins.</li> <li>Trash receptacles on site prior to major construction activities.</li> <li>Material management effective once material arrives on site.</li> </ol>
Non-industrial waste sources – worker trash and portable toilets	Yes No		<ol> <li>Place temporary sanitary facilities on site as needed and protect from off-site discharge.</li> <li>Trash receptacles on site prior to major construction activities.</li> </ol>
Waste from geo- technical testing, potholing, saw cutting, and utility borings for locates	Yes No		<ol> <li>Implement dust control in conjunction with soil disturbing activities and as needed.</li> <li>Designate materials storage areas prior to their arrival on site.</li> <li>Trash receptacles on site prior to major construction activities.</li> </ol>
Fly Ash - concrete - flow fill	Yes No		<ol> <li>Install designated concrete washout(s) prior to commencement of flatwork activities.</li> <li>Implement hazardous waste management procedures as needed.</li> </ol>
Demolition of Structures - concrete - asphalt - steel	Yes No		<ol> <li>Implement dust control in conjunction with soil disturbing activities and as needed.</li> <li>Trash receptacles on site prior to major construction activities.</li> </ol>
Other areas or procedures where potential spills can occur	Yes No		<ol> <li>Implement hazardous waste management as needed.</li> <li>Implement spill response and notification procedures as necessary.</li> </ol>

Potential Pollution Source	Potential on This Site?	Control Measures (Contractor to fill out measures for each pollution source identified as "Yes")	BMP Implementation
Construction Dewatering	Yes No		* <b>Construction Dewatering water</b> can NOT be discharged to surface waters or to storm sewer systems without separate permit coverage. The discharge of Construction Dewatering water to the ground, under specific conditions, may be allowed by the Stormwater Construction Permit when appropriate CMs are implemented. Refer to the Stormwater Construction permit for more information.
Process water from power washing of buildings, streets, sidewalks, driveways, etc Insert any addition (add rows as nec		sources associated with cor	Process water should be redirected back onto disturbed or landscaped areas to the extent possible, and downstream control measures must be in place to prevent a discharge into the storm sewer system.

Potential On	Material/	Physical	, to stormwater runojj:	Levetien
This Site	Chemical	Description	Stormwater Pollutants	Location
	Fertilizer	Liquid or solid grains	Nitrogen, phosphorous	Newly seeded areas
	Cleaning solvents	Colorless, blue, or yellow-green liquid	Perchloroethylene, methylene chloride, trichloroethylene, petroleum distillates	Staging areas
	Asphalt	Black solid	Oil, petroleum distillates	Streets
	Concrete and Grout	White solid/grey liquid	Limestone, sand, pH, chromium	Curb and gutter, sidewalk, building construction
	Curing compounds	Creamy white liquid	Naphtha	Curb and gutter, sidewalk, driveways, concrete slabs
	Hydraulic oil/ fluids	Brown, oily petroleum hydrocarbon	Mineral oil	Leaks or broken hoses from equipment
	Gasoline	Colorless, pale brown or pink petroleum hydrocarbon	Benzene, ethyl benzene, toluene, xylene, MTBE	Secondary containment/staging area
	Antifreeze/ coolant	Clear green/yellow liquid	Ethylene glycol, propylene glycol, heavy metals (copper, lead, zinc)	Leaks or broken hoses from equipment or vehicles
	Sanitary toilets	Various colored liquid	Bacteria, parasites, and viruses	Staging areas
Insert any additional hazardous material/chemical pollutants that are not listed above here. (add rows as necessary)				

Potential hazardous material/chemical pollutants, to stormwater runoff:

## **B. Description of Best Management Practices**

Provide a description OR attach the Urban Drainage and Flood Control District (UDFCD) detail of the temporary structural control measures (e.g. temporary diversion dikes, silt fences, fiber rolls, check dams, sediment traps, storm drain inlet protection, etc.) that will be used during construction to divert or filter flows from exposed soils, reduce flow velocities or temporarily store flows and limit runoff from the exposed areas of the site. All sediment basins must be designed to meet the most recent update of UDFCD Manual specifications, or approved or referenced by the CDPHE. Include the Town of Windsor Portable Toilet Management specifications, if applicable.

Multiple structural CMs are used during each phase of construction to minimize erosion and the transport of sediment. Describe the CMs that will be implemented to control pollutants in stormwater discharges. For all control measure identified in Part A, complete the following OR attach the UDFCD detail:

- ✓ Clearly describe appropriate control measures.
- ✓ Describe the maintenance and inspection procedures that will be used for that specific CM.
- ✓ Include protocols, thresholds, and schedules for cleaning, repairing or replacing damaged or failing CMs.
- Included below is the *Expected Level of CM Information* that addresses the following:
  - ✓ What CMs will be installed?
  - ✓ When will the CMs be implemented and/or removed? (Phase of Implementation)
  - ✓ Where will the CMs be implemented?
  - ✓ How will the CMs be maintained?

#### Example:

1. CM: Silt Fence (SF)

**What:** A woven geotextile fabric attached to wooden posts and trenched into the ground. It is used to intercept sheet flow runoff from disturbed areas.(OR type in: "See UDFCD specifications included with this SWMP")

When/Installation Schedule: Silt fence shall be installed prior to all land disturbing activities. Where: Silt fence shall be installed at the locations identified on the accepted SWMP. It is typically installed along the contour of slopes.

**Installation, Inspection, and Maintenance:** Silt fence shall be installed per the silt fence detail provided on the plan. The Permittee shall inspect and maintain all silt fence throughout construction. Any section of silt fence that has a tear, hole, slumping, undercutting or has been bypassed should be replaced with a new section. Accumulated sediment should be removed before it reaches a depth of 50% the height of the silt fence. (OR type in: "See UDFCD specifications included with this SWMP")

2. CM :

#### What:

When/Installation Schedule:

Installation, Inspection, and Maintenance:

3. CM :

What:

When/Installation Schedule

Installation, Inspection, and Maintenance:

4. CM:

What:

When/Installation Schedule

Installation, Inspection, and Maintenance:

5. CM:

What:

When/Installation Schedule

Installation, Inspection, and Maintenance:

6. CM :

What:

When/Installation Schedule

Installation, Inspection, and Maintenance:

7. CM :

What:

When/Installation Schedule

Installation, Inspection, and Maintenance:

#### Attach additional sheets as necessary.

## C. Spill Prevention and Response

Describe the response measures that will be provided if a spill occurs- include emergency contacts and telephone numbers, and directions on how to properly dispose of toxic or hazardous wastes.

The following information specific to the Town of Windsor should be included: **Reporting Spills** 

Any spill or discharge of any pollutant, including but not limited to oil, paints, fuels, hazardous liquids, sediment, or super-chlorinated water that reaches storm drains or enters "Waters of the State" must be reported to the CDPHE Emergency Spill Reporting line at 1-877-518-5608. If a spill or leak is of a hazardous substance that exceeds 1 pint or is of an unknown substance of any amount, call 911 and notify the Colorado Department Public Health and Environment (CDPHE) 24-hour emergency spill notification hotline at 1-877-518-5608, immediately. If the spill is more than 25 gallons of a petroleum product from a regulated storage tank or delivery truck or any amount that causes a sheen on nearby surface water, it must be reported to the Division of Oil and Public Safety at the Colorado Department of Labor and Employment within 24 hours at (303) 318-8547 or to CDPHE Emergency Spill Reporting line at 1-877-518-5608 – if after normal business hours. If cleanup cannot be accomplished within 24 hours, the Division of Oil and Public Safety must be notified immediately.

For non-emergency spills, call 970-674-2490.

Report spills to the Site Supervisor (Name):

Phone (\_\_\_\_)\_\_\_\_

Report spills that reach storm drains or waterways to Windsor's Stormwater Coordinator: Janine Hegeman (970) 674-2490. Indicate the onsite location of the Spill Prevention and Response Plan, or location in this SWMP:

## V. Final Stabilization and Long-term Stormwater Management

### A. Final Stabilization and Long-term Stormwater Management

Describe the permanent stabilization (e.g., permanent re-vegetation and/or equivalent permanent physical erosion reduction methods)provided on disturbed portions of the site where construction activities have permanently ceased. Final stabilization with vegetation must achieve a uniform cover with a minimum density of 70% of the desirable vegetation that was on the site prior to commencement of

construction activities. Permanent stabilization must be achieved prior to CDPHE issuing an INACTIVATION NOTICE for the CDPHE permit and prior to the Town of Windsor closing the GESCP permit.

Include a description of the practices that will be used to achieve final stabilization of all disturbed areas at the site, including, but not limited to:

- Seed mix selection and methods of seed application
- Soil preparation and amendments
- Straw, hydromulch, rolled erosion control products
- Sediment control CMs to be maintained until final stabilization is achieved

Describe stabilization measures to be taken:

# VI. INSPECTION/MAINTENANCE PROCEDURES

The contractor or his qualified agent listed on Page 1 is required to inspect all disturbed areas, areas used for storage of materials and equipment that are exposed to precipitation, including vehicle entrance and exit locations, and all erosion and sediment control CMs at on and offsite areas.

A. Inspection and Maintenance of Stabilization and Structural Practices

Provide a description of the practices that will be used to inspect and maintain all Temporary and Permanent Stabilization Practices described in Section IV. Stormwater Management Controls. List the inspection frequency chosen (as detailed in the CDPS Stormwater Construction Permit).

# VII. CERTIFICATION OF COMPLIANCE

A.	This SWMP must be certified that it is consistent with Town of Windsor regulations, and all other applicable approved site plans or permits. It is recommended that this SWMP isprepared in accordance with the CDPHE Stormwater Management Plan regulations and requirements. This SWMP must be updated as necessary to remain consistent with changes in other site plans that effect soil disturbing activities, site drainage patterns or any other activity that may impact stormwater runoff quality.
B.	Minor modifications to SWMP: Based on inspections performed by the owner or their designee(s) or by Town personnel, modifications to the SWMP will be necessary if at any time the specified CMs do not meet the objectives of this SWMP, or equivalent or better CMs are implemented. All minor modifications shall be implemented immediately and shall be recorded on the owner's copy of the SWMP which shall be located on site (or other approved location) at all times.
С.	Major modifications to SWMP: Whenever there is a significant change in design, construction, operation, or maintenance, which has a significant effect on the hydrology or potential for discharge of pollutants to the MS4 or receiving waters, a revised SWMP shall be submitted to the Town for review and approval.

### **OWNER/OPERATOR CERTIFICATION STATEMENT**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Certification:

Print Name	Title
Signature	Date
Print Name	Title
Signature	Date

# VIII. Copy of the State CDPS Construction Stormwater Permit

Attach a copy of the most recent version

# IX. Additional Documentation