City of Tacoma
Public Works Department

Memorandum

To: Public Works Division Managers, Surface Water Management Staff and City of Tacoma Website

From: Richard E. McKinley, Public Works Director
Steve Marek, TPCHD Division Director, Environmental Health

Subject: Implementation of Stormwater Infiltration for Pollution Generating Surfaces in the South Tacoma Groundwater Protection District

Date: January 21, 2011

The City of Tacoma Public Works Department and Tacoma-Pierce County Health Department (TPCHD) have developed this guidance document to clarify the requirements of TMC Section 13.09 pertaining to the South Tacoma Groundwater Protection District (STGPD), specifically Section 13.09.070 Stormwater Infiltration. The clarified requirements are contained in Table 1 (attached).

Background: Tacoma Municipal Code, as it is currently written, prohibits infiltration of pollution generating surfaces in the STGPD except where the Public Works Department and the TPCHD allow an exemption. Table 1 provides the circumstances and requirements for the approval of infiltration facilities for managing pollution generating stormwater runoff in the STGPD.

Definition: Per the definition in TMC 13.09.040.KK, a "stormwater infiltration unit" is an impoundment, typically a basin, trench, or bio-infiltration swale whose underlying soil removes pollutants from stormwater. This definition will be interpreted in a broader sense to include pervious pavement and dispersion systems. It is the intent of TMC 13.09.070 to regulate all infiltration facilities in the STGPD.

Non-Pollution Generating Surfaces: Infiltration of runoff from non-pollution generating impervious or pervious surfaces is not restricted in the STGPD and will continue to be regulated per the requirements of the Surface Water Management Manual.

Operation and Maintenance: It is vital that stormwater treatment facilities be properly maintained and provide appropriate treatment of stormwater prior to infiltration, especially in the STGPD.

Ongoing public education to promote best management practices and required maintenance will be provided to owners of infiltration facilities within the STGPD. Public education will be provided by the TPCHD through their STGPD permit inspections and City of Tacoma Environmental Services through their facility inspections. Coordination for public outreach will be provided with Tacoma Water and Environmental Services customer outreach activities. Ongoing maintenance activities for each facility shall be outlined in the Operation and Maintenance (O&M) Manuals and performed by the owners of the facility.

In addition, each facility will be required to have a Covenant and Easement (C&E) agreement with the City of Tacoma, which will be recorded to the title of the parcel through the Pierce County auditor. The C&E agreement outlines that a facility is present, that the owner is responsible to maintain the facility and that the City of Tacoma may enter the parcel to inspect, and if necessary, maintain the system.

Application: Permit applicants who wish to install stormwater infiltration facilities in the STGPD shall provide design submittals, O&M manuals, Monitoring Plans with associated Quality Assurance Project Plans and C&E agreements for review and approval as outlined in Table 1.

Infiltration within the area of influence of underground contamination or cleanup sites regulated by EPA or another agency shall only be allowed with the approval of the agency with jurisdiction.

Source of stormwater runoff (by Use Intensity)	Permitting and Construction Requirements for Water Quality Treatment	Required Submittal Documents	Operation and Maintenance Responsibility	Monitoring Requirements	Ongoing Inspection Responsibility
Low Intensity					
Residential Street Improvements or residential developments	1. Basic Treatment will be required for all pollution generating surfaces that are infiltrated regardless of: • the size of the facility, • the area contributing to the facility, • or if the thresholds of the SWMM are triggered. 2. Stormwater features shall be designed per the requirements in the SWMM. Infiltration facilities shall be reviewed and approved by Environmental Services prior to construction.	1. Construction Permit documents for review 2. Covenant and Easement Agreement 3. Operations and Maintenance Manual for stormwater facilities	Operation and Maintenance by Owner per requirements listed in the SWMM and O&M Manual.	Monitoring not required.	Inspection by Environmental Services.
Medium Intensity					
Industrial Sites Commercial Sites Multi-family sites High AADT roads (private), or as identified in Step 5 of the Treatment Facility Selection Process for Enhanced Treatment, Chapter 1 of Volume 5, SWMM.	1. Basic and Enhanced Treatment will be required for all pollution generating surfaces that are infiltrated regardless of: • the size of the facility, • the area contributing to the facility, • or if the thresholds of the SWMM are triggered. 2. Oil Control will be required for sites meeting the thresholds of the SWMM. 3. Monitoring ports shall be installed. 4. Health Department to review the overview of the process and site plan. 5. When a STGPD Permit is required, the application shall be submitted prior to COT permit issuance. 6. A public road would not require a STGPD permit. 7. Stormwater features shall be designed per the requirements in the Surface Water Management Manual (SWMM).	1. Overview of process with a site plan to show stormwater features. 2. Construction Permit documents for review 3. Covenant and Easement Agreement 4. Operations and Maintenance Manual for stormwater facilities	Maintenance by Owner per SWMM, O&M Manual and as reviewed and approved by Environmental Services and TPCHD.	Monitoring not required unless specifically requested by TPCHD.	Inspection by Environmental Services and TPCHD, if a STGPD permit is required.
Public Arterial Streets and High public AADT roads	1. Basic Treatment will be required for all pollution generating surfaces that are infiltrated regardless of: • the size of the facility, • the area contributing to the facility, • or if the thresholds of the SWMM are triggered. 2. Oil Removal will be required for sites meeting the thresholds of the SWMM. 3. Enhanced Treatment will be required for pollution generating surfaces that are infiltrated when the thresholds of the	1. Operation and Maintenance Manual for stormwater facilities. This information shall be included in the City's Stormwater Detention and Treatment Facility O&M Manual. 2. Overview of process with a site plan to show stormwater	Maintenance by Sewer Transmission per the City's Stormwater Detention and Treatment Facility O&M Manual.	Monitoring not required unless specifically requested by TPCHD.	Inspection by Environmental Services. TPCHD to receive notification of new installations to determine possible need for monitoring.

Source of stormwater runoff (by Use Intensity)	Permitting and Construction Requirements for Water Quality Treatment	Required Submittal Documents	Operation and Maintenance Responsibility	Monitoring Requirements	Ongoing Inspection Responsibility
	SWMM are triggered. 4. Health Department to review the overview of the process and site plan. 5. Monitoring ports shall be installed. 6. Stormwater features shall be designed per the requirements in the Surface Water Management Manual (SWMM).	features.			
High Intensity					
Commercial/Industrial Businesses handling, storing, disposing or generating hazardous materials in amounts exceeding the exempted limits identified in TMC 13.09.090. Not including the prohibited uses per TMC 13.09.060.	1. Basic Treatment, Enhanced Treatment and Oil Removal will be required for all pollution generating surfaces that are infiltrated regardless of: • the size of the facility, • the area contributing to the facility, • or if the thresholds of the SWMM are triggered. 2. Monitoring ports shall be installed. 3. Health Department to review the overview of the process and site plan. 4. STGPD Permit required. 5. Stormwater features shall be designed per the requirements in the Surface Water Management Manual (SWMM).	1. Overview of process with a site plan to show stormwater features. 2. Construction Permit documents for review 3. Covenant and Easement Agreement 4. Operations and Maintenance Manual for stormwater facilities 5. Quality Assurance Project Plan (QAPP)	Maintenance by Owner per O&M Manual with STGPD permit and TPCHD review required at permitting phase.	Monitoring by Owner and submitted to the TPCHD and Environmental Services. 1. May require installation of on-site groundwater monitoring wells with a report of the results from the first storm prior to final certificate of occupancy, or as approved by Environmental Services. 2. Will require quarterly monitoring and reporting of stormwater features for the first year. 3. May require monitoring and reporting for the life of the project.	Inspection by Environmental Services and TPCHD. STGPD Permit required.