



## Federal Regulatory Drivers

**CWA: Clean Water Act.** The goal of the CWA is "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters." The 1972 amendments gave EPA the authority to implement pollution control programs; maintained existing requirements to set water quality standards for all contaminants in surface waters; made it unlawful to discharge any pollutant from a point source into navigable waters without a permit; funded the construction of sewage treatment plants under the construction grants program; and recognized the need for addressing nonpoint source pollution. Revisions in 1987 phased out the construction grants program, replacing it with the State Water Pollution Control Revolving Fund, which addressed water quality needs by building on EPA-state partnerships.

**SDWA: Safe Drinking Water Act.** Congress passed the SDWA in 1974 to protect the quality of drinking water in the US. This law focuses on all waters actually or potentially designed for drinking use, both surface and groundwater sources. The SDWA authorizes EPA to establish minimum standards to protect tap water, and required the development minimum UIC requirements and other safeguards to prevent injection wells from contaminating underground sources of drinking water to protect public health.

**NPDES Program: National Pollutant Discharge Elimination System Program.** The NPDES program is the structure established under the CWA to reduce both point and nonpoint sources of pollutants. The CWA made it unlawful to discharge any pollutant from a point source into navigable waters, unless a permit was obtained. In Oregon EPA has authorized DEQ to administer the NPDES program.

**UIC Program: Underground Injection Control Program.** The SDWA and the federal UIC program regulates the injection of fluids through 6 categories of UIC. In 1984 EPA delegated the UIC program in Oregon to the DEQ. Accordingly, DEQ issued rules for the construction and operation of UICs. The program requires the registration of UICs and either authorize the use by rule or permit to protect the beneficial uses of groundwater. The state of Oregon considers the beneficial use for all groundwater as a potential drinking water source.

## City Permits (This is not a complete list of City permits)

**ACDP: Air Contaminant Discharge Permit.** The City currently has 2 ACDPs to meet POTW emissions limitations under the Clean Air Act.

**MS4: Municipal Separated Storm Sewer System Permit.** The City's MS4 system collects stormwater runoff from impervious areas (e.g., streets, sidewalks, rooftops, parking lots) from approximately 15,464 acres within the City's urban growth boundary and is discharged to urban streams and rivers.

Stormwater discharges from MS4s are regulated through the NPDES permits. The City was issued its current NPDES permit in 2011 (currently administratively extended).

**NPDES Permit.** The NPDES permit is the mechanism to control discharges from point sources to surface waters. It is typically a license for a facility to discharge a specified amount of a pollutant into a receiving water under certain conditions, and contains monitoring and reporting requirements and other provisions to protect water quality and human health. In essence, the permit translates general requirements of the Clean Water Act into specific provisions tailored to the facility discharging pollutants.

- NPDES MS4 Permit: The City has been issued an NPDES MS4 permit for its stormwater discharges to surface waters. MEP is the specified amount of pollutant allowed in MS4 permits. It is achieved through the implementation of BMPs.
- NPDES WW Permit: The City has been issued 2 NPDES Wastewater permits for its treated wastewater discharges from CBWTP and TCWTP to the Columbia and Willamette Rivers, respectively. Through wastewater treatment processes, the effluent must meet specific technology based and water quality based limits.

**NPDES 1200 Z/COLS: Industrial Stormwater Permit specific to discharges into Columbia Slough.** The CBWTP has been issued the 1200 COLS for industrial stormwater discharging from the facility. To mitigate Phosphorus exceedances and satisfy NPDES 1200 permit requirements, the City installed a pump station in 2016 to capture industrial stormwater runoff from the site and pump it back to the treatment works rather than allowing it to discharge to the Slough.

**Solid Waste Disposal Site Closure Permit for CBWTP Lagoon Solids Monofill.** Permit authorizes BES to accept only lagoon solids removed from the CBWTP Lagoon during the construction relining project, and to provide post-closure maintenance and monitoring of the monofill. Biosolids disposed of in the monofill are not suitable for the City's biosolids recycling program. The monofill will be filled to capacity (99,600 cubic yards) and permanently closed by installing an engineered cover (cap) and leachate collection system. Future care requires groundwater monitoring, and monofill and leachate collection system operation & maintenance.

**TMDL: Total Maximum Daily Load.** Section 303(d) of the CWA requires states, territories and authorized tribes to develop lists of impaired waters, and establish priority rankings for the listed waters, and develop TMDLs for these waters. A TMDL is the calculation of the maximum amount of a pollutant allowed to enter a waterbody so that the waterbody will meet and continue to meet water quality standards for that particular pollutant to meet beneficial uses such as aquatic life, fisheries, drinking water, recreation, industry, or agriculture.

**TMDL IP: Total Maximum Daily Load Implementation Plan.** TMDL regulations require municipalities with discharges to receiving waters with an established TMDL parameter(s) to develop a TMDL Implementation Plan. The City's plan identifies management strategies that will be used to reduce TMDL pollutants from nonpoint sources in order to restore and protect water quality in the Willamette River and tributaries.

**WPCF Permit: Water Pollution Control Facility Permit.** The WPCF permit is the mechanism that DEQ uses to permit stormwater discharges to UICs that cannot be authorized by rule. The City has been issued a WPCF UIC permit to cover ~9,000 Class V UICs that collect stormwater for discharge to the subsurface. The majority of the City's UICs are located east of the Willamette River where soils and terrain accommodate infiltration. Unlike the NPDES MS4 permit that relies on best practice methods, the WPCF UIC permit includes discharge limits to meet water quality standards developed under the SDWA.

## **Programs/Practices/Terms Used in Permits**

**BOD<sub>5</sub>: Five-day Biological Oxygen Demand.** A conventional pollutant which requires daily effluent monitoring under our NPDES wastewater permits.

**BMP: Best Management Practices.** Measures to control pollution. Within the NPDES MS4 Stormwater Permit, BMPs are specific approaches to keep pollutants out of stormwater (e.g., education programs, erosion control, street sweeping), as well as treatment facilities (e.g., grassy swales, and oil/water separators).

**CMOM: Capacity, Management, Operations, and Management.** A flexible, dynamic framework for municipalities to identify and incorporate industry practices to better manage, operate and maintain collection systems and respond to sanitary sewer and combined sewer overflows.

**CSS/O: Combined Sewer System/Overflows.** Requires additional controls, monitoring, and permit reporting requirements. Capital improvements and system upgrades were implemented from 1990 – 2011 to keep stormwater from flowing to the combined sewer with ultimate goal of improving water quality.

**DMR: Discharge Monitoring Report.** Monthly reporting requirement for NPDES wastewater program. Documents permit compliance with effluent limitations.

**FOG: Fats, Oils, & Grease.** Pollutants generated as a result of food waste, most often associated with discharges from food service establishments. FOG solidifies and causes blockages in sewer lines, which may result in sewer backups and sanitary sewer overflows.

**IDDE: Illicit Discharge Detection & Elimination.** A requirement of the NPDES MS4 permit to identify, investigate, control, and/or eliminate illicit discharges (illicit connections, illegal dumping, and spills) to the MS4. Evaluate and, if appropriate, control non-stormwater discharges to the municipal separate storm sewer system.

**MEP: Maximum Extent Practicable.** Is a water quality standard used by the federal government and incorporated into NPDES MS4 permits to reduce pollutants transported by stormwater to receiving waters through the implementation of BMPs.

**Monofill.** Landfill designed to accept only one type of waste, in this case, biosolids.

**NFAA: No Feasible Alternatives Analysis.** Evaluation required for CSSs which "bypass" secondary treatment during wet weather events.

**POTW: Publicly Owned Treatment Works.** Facility owned by a state or municipality which treats domestic and/or industrial wastewater.

**SWMP: Stormwater Management Plan.** The NPDES MS4 permit requires a permittee to develop a SWMP for its area of responsibility. The SWMP identifies the BMPs to be implemented throughout the permit term to reduce the discharge of pollutants to the MEP, protect water quality, and satisfy requirements of the Clean Water Act.

**SSO: Sanitary Sewer Overflow.** A sanitary discharge from the collection system at an unpermitted location. SSOs often occur as a result of a blockage (e.g. FOG, roots, debris) in the sewer line.

**TBEL: Technology-Based Effluent Limit.** One of the two effluent guidelines required for evaluation under NPDES wastewater permits. Intended to represent greatest pollutant reductions economically achievable.

**TSS: Total Suspended Solids.** A conventional pollutant (as designated by the CWA) which requires daily effluent monitoring under our NPDES wastewater permits.

**UIC: Underground Injection Control.** A UIC is a structure intended to infiltrate fluids below the ground surface. EPA and DEQ categorize UICs on the basis of the type of fluid that is discharged. The City owns and operates approximately 9,000 Class V UICs used to collect stormwater from public rights-of way and city-owned properties. Additionally, there are many privately-owned UICs within the City boundary that collect stormwater from private properties.

**UICMP: UIC Management Plan.** The WPCF UIC permit requires a permittee to develop a management plan that will be used throughout its WPCF permit term. The UICMP identifies management strategies used to prevent and reduce pollutants from entering City-owned UICs in order to protect beneficial uses of groundwater, meet WPCF permit requirements, and satisfy requirements of the SDWA and state UIC rules and requirements.

**WET: Whole Effluent Toxicity.** Tests which measure the degree of response of exposed aquatic test organisms to an effluent. Protects receiving water quality from aggregate toxic effect of pollutants in the effluent.

**WQBEL: Water-quality Based Effluent Limit.** One of the two effluent guidelines required for evaluation under NPDES wastewater permits. Designed to protect the quality of the receiving water by ensuring State Water Quality Standards are met.

**WQS: Water Quality Standards.** Water quality standards should (1) include provisions for restoring and maintaining the chemical, physical, and biological integrity of State waters, (2) provide, wherever attainable, water quality for the protection and propagation of fish, shellfish, and wildlife and recreation in and on the water (“fishable/swimmable”), and (3) consider the use and value of State waters for public water supplies, propagation of fish and wildlife, recreation, agriculture and industrial purposes, and navigation