CHAPTER 2

REGULATORY REQUIREMENTS

INTRODUCTION

Wastewater collection system planning includes an analysis of the District's ability to comply with the applicable regulatory requirements while providing a high level of service for existing and future customers. These requirements are outlined in federal, state, and local regulations that are monitored and enforced by a number of agencies. This chapter presents the various legislation, regulations, permits, agencies, and design standards that may affect District wastewater operations. The discussion presented here is general in nature; specific issues will be addressed as they occur within the context of the following chapters.

LEGISLATION, REGULATIONS, AND PERMITS

In this section, some of the various state and federal legislation that may affect District operations are discussed, as well as other relative permits, programs, and regulations.

CAPACITY, MANAGEMENT OPERATION AND MAINTENANCE

The Environmental Protection Agency (EPA) has drafted an amendment to the NPDES regulations to address Sanitary Sewer Overflows (SSOs). The legal basis for this Capacity, Management Operation and Maintenance (CMOM) regulation is that nearly all collection systems have unplanned releases at some time and that these releases must be regulated under the jurisdiction of the Clean Water Act. The schedule for final release of this regulation has not been set.

The draft collection system regulatory requirements are as follows:

1. Meet additional general sewer system performance standards including up-to-date system maps, information management systems, and odor-control requirements.

2. Maintain program documentation including the goals, organizational, and legal authority of the organization operating the collection system.

3. Develop an overflow response plan that can respond to releases in less than one hour and is demonstrated to have sufficient and adequate personnel and equipment, etc. Estimated volumes and duration of overflows must be measured and reported to the regulatory agency.

4. Plan for system maintenance and evaluation requirements that will mandate that the entire collection system be cleaned on a scheduled basis (for example, once every 5 years), be regularly inspected through TV work, and that a program for short- and long-term rehabilitation and replacement be generated. EPA has suggested a 1-1/2 to 2 percent system replacement rate, which implies that an entire collection system is replaced in a 50- to 70-year time period.

5. Develop a capacity assurance and management plan with flow meters to model infiltration and inflow (I/I) and system capacity. Ensure lift stations are properly metered, operated, and maintained.

6. Develop a self-audit program to evaluate and adjust performance.

7. Develop a program to communicate information on problems, costs, and improvements to the public and decision-makers.

This program will issue NPDES permits for tributary collection systems (owned and operated by local governments) that do not have NPDES permits for their own treatment plant(s). These requirements will likely be issued through a general NPDES permit instead of individual permits. Communities that have NPDES permits through their treatment plants will have these new CMOM requirements added to the existing permits.

There will be some relaxation of these requirements for small communities with design flows less than 1 mgd. However, it is uncertain exactly what streamlining will be applied, and the integrity of the collection system may be more important than size in determining which requirements will apply to a community. Because the underlying legal authority for this program is the Federal Clean Water Act, these regulatory requirements will also be subject to enforcement through citizen lawsuits.

An assessment of the District's operation and maintenance efforts relative to CMOM is provided in Chapter 8.

ENDANGERED SPECIES ACT

In 1999, the National Marine Fisheries Service (NMFS) listed the Puget Sound chinook as "threatened," and the United States Fish and Wildlife Service (USFWS) listed the bull trout as "threatened," under the Endangered Species Act (ESA). Lake Washington was designated as critical habitat for chinook salmon on September 2, 2005. Northlake tributaries were excluded from the designation. Lake Washington was also designated as critical habitat for Puget Sound bull trout on September 26, 2005; Sammamish River was excluded from this designation. ESA listings are expected to significantly impact activities that affect salmon and trout habitat, such as water use, land use, construction activities, and wastewater disposal. Impacts to the District may include longer timelines

for permit applications, and more stringent regulation of construction impacts and activities in riparian corridors.

The State of Washington has been negotiating with NMFS to include model critical areas ordinances and stormwater management programs in the Section 4(d) rule as exempted activities. By adopting these model ordinances and complying with the Section 4(d) rule, local governments would be afforded some protection from the possibility of federal prosecution or civil suits under the ESA. District activities will need to comply with any future provisions of the Section 4(d) rule, as well as revised critical areas ordinances adopted by local governments served by the District.

FEDERAL CLEAN AIR ACT

The Federal Clean Air Act requires all wastewater facilities to plan to meet the air quality needs of the region. The permitting of facilities is based upon a mass balance being performed to review if a facility is required to seek an air permit from a federal and/or local permitting agency. At this time it is not anticipated that the current or future facilities would require a federal permit, since only large wastewater treatment facilities are required to have permits. Currently, the regional air quality authority (Puget Sound Clean Air Agency) does not require a permit for the construction and operation of collection system facilities.

FEDERAL CLEAN WATER ACT

The Federal Water Pollution Control Act is the principal law regulating the water quality of the nation's waterways. Although originally enacted in 1948, it was significantly revised in 1972 and 1977 when it was given the common title of the "Clean Water Act" (CWA). The CWA has been amended several times since 1977. The 1987 amendments replaced the Construction Grants program with the State Revolving Fund (SRF), which provides low-cost financing for a range of water quality infrastructure projects.

The National Pollutant Discharge Elimination System (NPDES) is established by Section 402 of the CWA and subsequent amendments. The Washington State Department of Ecology (Ecology) administers NPDES permits under the authority of the United States Environmental Protection Agency (EPA). Most NPDES permits are valid for five years and place limits on the quantity and quality of pollutants that may be discharged. NPDES permits granted under Phase I of the CWA regulate point source discharges including wastewater discharges to surface waters from municipal or industrial wastewater treatment facilities, stormwater discharges from industrial facilities, construction sites of more than five acres, and stormwater discharges from separate storm sewers serving populations of more than 100,000. Under Phase II rules promulgated by the EPA in March of 1999, NPDES permits are required for surface water discharges from construction sites greater than 1 acre, municipalities of 10,000 or more, and communities smaller than 10,000 with urban characteristics.

The 1985 enactment of the Revised Code of Washington (RCW) 90.48.480 and Washington State Administrative Code (WAC) 173-245 required all municipalities with combined sewer overflows (CSOs) to develop a plan to reduce annual CSOs to one per year. The National CSO Control Strategy (1989, Federal Register 37370) officially classified combined sewer overflows as point source discharges subject to regulation under the NPDES and CWA. In 1994, the EPA published a CSO Control Policy Strategy (Federal Register 18688) that limits CSOs to four to six events per year, depending on the sensitivity of the receiving water.

Section 307 of the CWA established the National Pretreatment Program. This program is designed to protect publicly owned treatment facilities and limits the amount of industrial or other non-residential pollutant discharged to municipal sewer systems.

Since the District does not discharge wastewater or stormwater, it is not required to obtain a NPDES permit under the CWA, with the possible exception of surface water discharges from District construction project sites greater than one acre. The District may also be affected by pretreatment requirements of King County Department of Natural Resources (KCDNR) NPDES permit, as well as increased costs associated with treatment requirements imposed by future permits.

A 401 Water Quality Certification is required under the CWA for any activity that may result in discharge to surface waters, including excavation activities that occur in streams, wetlands, or other waters of the nation. Figure 3-3 identifies the wetlands areas in and around the District.

Section 404 of the CWA regulates discharges of fill or dredged materials in wetlands, including any related draining, flooding, and excavation. Pipeline and lift station projects in wetlands (Figure 3-4) will require a Section 404 permit in addition to any related local permits. Activities that impacting more than 1/3 of an acre will also require a Section 401 Certification.

FLOODPLAIN DEVELOPMENT PERMIT

Local governments that are participating in the National Flood Insurance Program are required to review projects (including wastewater collection facilities) in a mapped flood plain and impose conditions to reduce potential flood damage from flood water. A Floodplain Development Permit is required prior to construction. Areas where a Floodplain Development Permit may be required include the flood hazard areas shown in Figure 3-3. Within the District service area boundary, these areas are primarily located adjacent to the Sammamish River and Lake Washington.

GROWTH MANAGEMENT ACT

The Washington State Growth Management Act (GMA) was enacted in 1990 and requires certain local governments to plan for the population growth that will occur over the next 20 years within an established Urban Growth Area. The GMA also requires cities to classify critical areas (wetlands, aquifer recharge areas, fish and wildlife habitat areas, geologically hazardous areas, and frequently flooded areas) and to establish development regulations to protect these areas.

The District is not required to plan under the GMA; however, the District's water and wastewater plans must be approved by Ecology. In addition, the GMA requires that the District's plans be consistent with planning efforts of local governments within the District's boundary.

HYDRAULIC PROJECT APPROVAL

In accordance with WAC 220-110, the Washington State Department of Fish and Wildlife requires a Hydraulic Project Approval (HPA) for activities that will "use, divert, obstruct, or change the natural flow or bed" of any waters of the state. For District activities such as pipeline crossings of streams, an HPA will be required and must include provisions necessary to minimize project specific and cumulative impacts to fish.

Because of ESA listings throughout Washington, the Washington State Department of Fish and Wildlife and NMFS are in the process of revising the Hydraulic Code to protect species listed as threatened or endangered. If NMFS determines that the revisions are sufficient to protect listed species, the State hopes the revised code will constitute an acceptable Habitat Conservation Plan under Section 10 of the ESA. If the acceptable Habitat Conservation Plan is approved, NMFS issues an Incidental Take Permit, allowing incidental take of a listed species if the permittee has complied with the Habitat Conservation Plan. This Incidental Take Permit expires after an agreed-upon period of time and may then be revised by NMFS.

LOCAL PERMITS

The District has agreements with King County and the cities within its service area to allow construction and maintenance of facilities in their respective right-of-ways. Under these agreements, a Right-of-Use Permit is issued that specifies construction standards such as traffic control, work hours, and safety issues, as well as design and restoration standards.

NATIONAL ENVIRONMENTAL POLICY ACT

The National Environmental Policy Act (NEPA) was established in 1969 and requires federal agencies to determine environmental impacts on all projects requiring federal

permits or funding. If the project is determined to be environmentally insignificant, a Finding of No Significant Impact is issued, otherwise an Environmental Impact Statement (EIS) is required. It is not anticipated that District activities will fall under the National Environmental Policy Act.

RECLAIMED WATER REGULATIONS AND STANDARDS

Reclaimed water is the effluent derived in any part from wastewater from a wastewater treatment system that has been adequately and reliably treated so that it is no longer considered wastewater and is suitable for a beneficial use or a controlled use that would not otherwise occur. Regulations governing the use of reclaimed water are outlined in RCW 90.46. DOH and the Department of Ecology (Ecology) have jointly issued standards for reclaimed water treatment and reuse in a document entitled "Water Reclamation and Reuse Standards." The legislature has declared that "the utilization of reclaimed water by local communities for domestic, agricultural, industrial, recreational, and fish and wildlife habitat creation and enhancement purposes (including wetland enhancement) will contribute to the peace, health, safety, and welfare of the people of the State of Washington." Reuse options for the District are addressed in Chapter 5.

SHORELINE MANAGEMENT ACT PERMIT

A Shoreline Permit is required on all projects of $2,500 or more that are located on the water or shoreline area. Shorelines are lakes or reservoirs of 20 acres or greater, streams with a mean annual flow of 20 cubic feet per second or greater, marine waters, and an area inland 200 feet from the ordinary high water mark. Based on this criteria, areas within the District that are classified as shoreline are those areas within 200 feet of Lake Washington, the Sammamish River, and Swamp and Juanita Creeks.

STATE ENVIRONMENTAL POLICY ACT

The WAC 173-240-050 requires a statement in all wastewater comprehensive plans regarding proposed projects in compliance with the State Environmental Policy Act (SEPA), if applicable. The capital improvements proposed in this plan will fall under SEPA regulations. A non-project SEPA checklist is included in Appendix B of the Plan to comply with the requirements of SEPA. In most cases a Determination of Non-Significance is issued; however, if a project will have a probable significant adverse environmental impact, an Environmental Impact Statement will be required. Utility lines 8 inches and smaller in diameter are categorically exempted from SEPA review; however, the District may wish to prepare a SEPA review for construction projects in environmentally sensitive areas.

STATE WATER POLLUTION CONTROL ACT

The intent of the state Water Pollution Control Act is to "…maintain the highest possible control standards to ensure the purity of all waters of the state consistent with public health and the enjoyment…the propagation and protection of wildlife, birds, game, fish and other aquatic life, and the industrial development of the state." Under the RCW 90.48 and the WAC 173-240, Ecology issues permits for wastewater treatment facilities and also land application of wastewater under WAC 246-271.

REGULATORY AGENCIES

The above regulations, permits, and programs are administered by various local, state, and federal agencies. The history, purpose, and authority of these agencies are discussed below.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

The stated mission of the EPA is to protect human health and to safeguard the natural environment upon which life depends. The EPA's purpose includes protecting all Americans from significant human health risks, ensuring that national environmental efforts are based on the best available scientific information, ensuring that federal laws are enforced fairly, and that environmental protection contributes to making our communities and ecosystems diverse, sustainable, and economically productive. Ecology currently administers NPDES permits and SRF loans for the EPA.

UNITED STATES FISH AND WILDLIFE SERVICE

Under the ESA, USFWS is responsible for the protection of all non-marine life, such as bull trout. Although USFWS may choose to invoke the blanket prohibitions of Section 9, the "threatened" status of bull trout allows more flexibility to establish regulations designed to protect these species. These regulations, known collectively as a Section 4(d) rule, outline activities likely to result in a "take" of a threatened species, as well as exempted activities.

NATIONAL MARINE FISHERIES SERVICE

Under the ESA, NMFS is responsible for the protection of marine life, including anadromous salmon such as the Puget Sound chinook. When a species is listed as "endangered," the prohibitions against "take" of the species are immediate under Section 9 of the ESA of the Act. Although NMFS may choose to invoke the blanket prohibitions of Section 9, the "threatened" status of the Puget Sound chinook allows more flexibility to establish regulations designed to protect these species. These regulations, known collectively as a Section 4(d) rule, outline activities likely to result in a "take" of a threatened species, as well as exempted activities.

UNITED STATES ARMY CORPS OF ENGINEERS

Under the CWA, the US Army Corps of Engineers (Corps) is authorized to regulate discharge of fill and dredged material to waters of the United States, including wetlands. The Corps employs a system of General or Nationwide Permits for blanket authorization of activities such as utility lines that have minimal adverse impact on the environment. In situations where adverse impact is probable, the Corps may issue an Individual Permit after reviewing an alternative analysis. Enforcement actions may be brought by the Corps or the EPA. Dredge and fill permits issued under Section 404 of the CWA must generally be preceded by an approved HPA issued by the USFWS and successful completion of the SEPA/NEPA process.

WASHINGTON STATE DEPARTMENT OF HEALTH

The Washington State Department of Health (DOH) has three primary functions: to regularly assess the State's health needs and resources; to develop and implement sound public policy; and to ensure the capacity of public health agencies to manage daily operations and respond to public health emergencies. DOH issues Waste Discharge Permits for reclaimed water use in conjunction with Ecology and approves on-site wastewater disposal systems between 3,500 and 14,500 gpd.

WASHINGTON STATE DEPARTMENT OF ECOLOGY

The mission of Ecology's Water Quality Program is to protect, preserve, and enhance the state surface and ground water quality and to promote the wise management of water for the benefit of current and future generations. Ecology performs various functions under state and federal authority and has both local and regional offices. Ecology is also responsible for awarding low interest loans for pollution control projects through the SRF.

Ecology issues permits under the State Water Pollution Control Act, Section 401 Water Quality Certification, and NPDES permits in compliance with the CWA under EPA authority. Ecology also reviews and approves plans for on-site systems exceeding 14,500 gallons per day (gpd), all systems receiving state or federal construction grants under the CWA, and systems using mechanical treatment or lagoons with ultimate design flows above 3,500 gpd. Ecology regulates discharge of waste to the state's groundwater, discharge of industrial or commercial waste to sewers, and the use of reclaimed water through the State Waste Discharge permit program. Local Ecology offices issue Temporary Modification of Water Quality Criteria Permits for construction near or in water that might cause short-term water quality violations.

WASHINGTON STATE DEPARTMENT OF FISH AND WILDLIFE

Under WAC 220-110 and RCW 75.20, any form of work that uses, diverts, obstructs, or changes the natural flow or bed of any fresh water of the state requires hydraulic project approval from the Department of Fish and Wildlife. Approval would be required for all District construction projects that cross or otherwise take place in streams or shorelines.

LOCAL HEALTH DEPARTMENTS

The Seattle and King County Department of Health is the local health department governing the District. In general, local health departments may adopt and enforce local regulation when they are consistent with or more stringent than state regulations. The local health departments have approval authority for onsite systems with design flows of up to 3,500 gpd.

CITY AND COUNTY PLANNING POLICIES

District planning policies should be consistent with those of the affected cities and King County. Accordingly, adoption of this Plan will require approval by the cities, as well as King County. The District also needs to obtain local approvals such as building and right-of-way permits from the appropriate municipalities when required. Work performed within unincorporated King County shall comply with King County road standards.

DISTRICT POLICIES

Planning policies are important in guiding the development of a sanitary sewer system. The District has adopted many resolutions regarding sanitary sewer system planning that are included in the District Code. Table 2-1 lists various District policies and references where the policy is stated.

TABLE 2-1

District Policies

Policy Name	District Policy	Reference
Latecomer Agreements	Latecomer agreements may be granted when the cost of constructing wastewater main extensions identified in the Comprehensive Plan exceeds the System Development Charges to be collected from a plat.	Policy and Procedure Code No. ENG5
Developer Extensions/ Minimum Standards	Standards have been adopted that provide the minimum general standards required by the District for developer-constructed wastewater main extensions and improvements to be acquired by the District.	2006 Engineering Specifications Methods of Construction and Materials of Construction and Standard Sewer Details
Utility Rates and Charges	Utility service rates and charges have been adopted by the District, which outline the service rates and charges, billing, connection fees, and miscellaneous charges.	Resolution No. 2006-02-05

Table 2-2 lists other current policies and the date the policy was approved.

TABLE 2-2

Other District Policies

Policy Number	Policy Name	Date
Admin1	Policy and Procedures Guidelines	12/3/03
Admin2	Hiring Procedures and Employee Orientation	4/5/04
Admin3	Sexual and Other Harassment Policy	4/5/04
Admin4	Rules for Use of Exercise Equipment	7/12/04
Admin5	Misread Correction Guidelines	4/5/04
Admin6	Job Descriptions	6/2/03
Admin7	Employee Separation from Employment	4/5/04
Admin9	Alternative Work Schedules	4/5/04
Admin10	Transitional Work	10/6/04
Admin11	Authorized Travel	3/21/05
Admin13	Use of Meeting Rooms	4/25/05
Engineering1	Easements for Utility Infrastructure	11/3/03
Engineering2	Water and Sewer Line Extensions	2/6/06
Engineering5	Assessment and Administration of Connection Charges	1/26/04

TABLE 2-2 – (continued)

Other District Policies

Policy Number	Policy Name	Date
Operations1	Crossed Customer Service Lines	4/5/04
Finance1	Accounts Payable Procedures	4/5/04
Finance3	District Credit Card Usage	1/24/04
Finance4	Installment Contracts	4/5/04
Finance7	Financial Policy	4/5/04

DESIGN, CONSTRUCTION, OPERATION, AND MAINTENANCE STANDARDS

Ecology has published its *Criteria for Wastewater Works Design* (1998) that serves as a guide for the design of wastewater collection, treatment, and reclamation systems. The goals of the criteria are to provide a basis for the design of collection and treatment systems, as well as to aid regulating agencies in their determination of whether an approval, permit, or certificate should be issued.

All wastewater facilities must meet Ecology, local, and District design standards. The District has adopted updated design standards in November 2005. The standards are included in Appendix C.

PRETREATMENT REQUIREMENTS

Publicly owned treatment works are subject to local and national pretreatment standards (40 Code of Federal Register, Part 403). The required pretreatment within the District will be a function of the level of pretreatment required by the KCDNR NPDES permit and the reclamation options that may be implemented in the future. District planning should be coordinated with KCDNR to incorporate any pretreatment that may be required. District clients that discharge wastewater with excessive levels of biological oxygen demand; total suspended solids; or fats, oils, and greases may be required to implement pretreatment if it is determined by KCDNR that such discharges adversely affect proper handling and treatment.

GRAVITY SYSTEM

Ecology design criteria require that gravity systems be designed large enough to carry peak hourly flows, as well as steep enough to provide a minimum scouring velocity of two feet per second when flowing full. The District also has minimum standards for manhole construction and details specifying trench configuration, depth of cover, bedding

materials, and road overlays that meet or exceed Ecology standards. The current District design standards for gravity systems are consistent with those of Ecology.

LIFT STATIONS

Lift stations and force mains must also be designed according to Ecology guidelines. The District has design standards that meet current Ecology standards. District standards currently specify below-ground structures and wet well/dry well configurations on all stations. The District also has standards for pump controls and telemetry. The current District design standards for lift stations are consistent with those of Ecology.

GRINDER PUMP SYSTEMS

In some cases it is not feasible to construct conventional gravity systems. Alternative systems should then be considered in order to avoid risks to human health and degradation of the natural environment. Ecology has criteria for design of several alternative systems; however, the District currently only allows grinder pump systems in areas that cannot efficiently be served by gravity. If more than one connection is made to a grinder pump, the District purchases, installs, and maintains the system. Systems serving only one residence are the responsibility of the property owner. The District has design standards for grinder pump systems that meet current Ecology standards.

The District provides emergency generator power for the grinder pumps owned by the District.

ON-SITE SEPTIC SYSTEMS

In some cases wastewater may be treated and disposed of on site either by individual septic systems or community on-site systems. The *1994 King County Comprehensive Plan* states that existing septic systems should be prioritized for sewer service by the District and KCDNR based on the risk of potential failure of the septic system. Cities are required under the GMA to eventually provide wastewater collection services to all residents of the Urban Growth Area that are currently not connected. Special purpose Districts do not have the same requirements under GMA; however, the District has adopted a policy of providing sewer service to all areas within its sewer service area. Currently, there are approximately 600 parcels that do not have access to the sewer system out of *over* 22,000 lots within the District sewer area.

The on-site septic systems need to be designed to state and local health department and Ecology design standards. Approval of new systems will be made either by Seattle and King County Department of Public Health for systems under 3,500 gpd, Washington State Department of Health for systems with design flows less than 14,500 gpd but greater than 3,500 gpd, or Ecology for systems that have design flows greater than

14,500 gpd. The statute that provides the authority for Washington State Department of Health to adopt rules for wastewater is found in RCW 43.20.