DPD SPU	Joint Ruling DPD Director's Rule 3-2004 SPU Director's Rule 02-04		
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CITY OF SEATTLE Department of Planning a	and	1 of 12	NA
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Seattle Public Utilities		11/4/04	1/1/05
Subject: Side Sewer Permit for		Code and Section Reference:	
		SMC Chapter 21.16	
		Type of Rule:	
Temporary Dewatering		Code Interpretation Ordinance Authority:	
		SMC 3.06.040	
		Approved	Date
		(signature on file) Chuck Clarke, Director, SPI	<u>12/3/04</u>
Index:		Approved	Date
Side Sewer Code		(signature on file) Diane M. Sugimura, Directo	11/24/04 or, DPD

A. Background

Seattle Municipal Code (SMC) 21.16.350 authorizes Seattle Public Utilities (SPU) and Department of Construction and Land Use (DCLU), now known as Department of Planning and Development (DPD), to make rules and regulations and amend and/or clarify these rules and regulations in order to carry out the provisions of SMC 21.16, Side Sewers.

• The purpose of this Director's Rule is to outline the City's requirements for dewatering requirements and temporary dewatering connections at construction sites.

SMC 21.16.110, Permit for temporary connection, states the following:

The Director of Seattle Public Utilities may, upon receiving an application containing such information as is required by this chapter, issue a permit for a temporary connection to a combined sewer, sanitary sewer, side sewer, storm drain, or natural outlet, and may include as a condition to the issuance of a permit, a requirement to connect to another combined sewer, sanitary sewer, side sewer, storm drain, or natural outlet at a later date.

B. Effective Date

January 1, 2005

C. Existing Standards

1) Intent of Side Sewer and Drainage Codes

The intent of SMC 21.16, Side Sewer Code, and SMC 22.800, Stormwater, Grading and Drainage Control Code, is to allow the City to regulate dewatering discharges, including the requirement for protection of water quality, to the following discharge point:

- A public pipe storm drain; or
- A natural or constructed drainage location, such as a designated receiving water, or an existing stream, lake, river, ditch, or culvert system; or
- A public combined sewer

Existing definitions and code sections clearly state that subsurface water and stormwater shall be discharged to available drainage control systems. Exceptions are made for instances such as contaminated drainage water that cannot reasonably be controlled or treated to applicable standards.

2) Relevant Side Sewer (SMC 21.16) and Drainage Code (SMC 22.800) Sections and Existing Definitions

Section	Title
SMC 21.16.110	Permit for Temporary Connection
SMC 21.16.340	Right of Entry for Inspection
SMC 21.16.350	Authority to make Rules and Regulations.
SMC 22.801.050	Definitions, e.g. "Drainage Water" & "Stormwater"

SMC 22.802.012A	Stormwater Discharges to Sanitary and Combined Sewer
SMC 22.802.012D	Permissible Discharges
SMC 22.802.012F	Testing for Illicit Discharges
SMC 22.802.015A	Compliance Required
SMC 22.802.015B	Approval or Exceptions Required
SMC 22.802.015C3	Construction Stormwater Control
SMC 22.802.016B	Requirements
SMC 22.802.020B.1.b	Construction Stormwater Control Plan
SMC 25.09	Regulations for Environmentally Critical Areas
DCLU DR 1-2003/SPU DR 02-03 Section III	Definitions
DCLU DR 17-2000	Volume 1: Source Control Technical Requirements Manual
DCLU DR 16-2000	Volume 2: Construction Stormwater Control Technical Requirements Manual
DCLU DR 26-2000	Volume 3: Flow Control Technical Requirements Manual
DCLU DR 27-2000	Volume 4: Stormwater Treatment Technical Requirements Manual
DPD DR 1-2003/SPU DR 02-03	Requirements for Design and Construction of Side Sewers

D. Definitions

Words and phrases used in this Rule, unless contrary to or inconsistent with the context, shall be given the same meaning as in SMC 21.16 and SMC 22.801, or as defined below. Unless otherwise defined, all technical and material terminology used in this Rule is to be given meaning as commonly accepted in the sewer and drainage trade.

- "Certified TESC Representative" means an individual who is approved by the Department of Ecology (DOE) on erosion and sediment control (ESC) as a Certified Erosion and Sediment Control Lead (CESCL) from an accredited DOE ESC course. This requirement applies when specialized skills are required including but not limited to temporary erosion control, water quality testing and analysis, and monitoring at a site during construction.
- 2) **"Construction Stormwater Control Plan"** means a plan that consists of temporary and permanent controls to be used in construction to prevent

erosion or transport of sediment or other pollutants from the site and shall include a Temporary Dewatering Plan if temporary surface and/or subsurface dewatering measures are to be part of the construction activities at the site.

- 3) "Contaminated Drainage Water" means that the water quality parameters (as dictated and/or directed by appropriate agencies such as Washington State Department of Ecology (DOE), U.S. Environmental Protection Agency (EPA), King County Industrial Waste or City of Seattle Departments including Seattle Public Utilities) are exceeded at the point of discharge.
- 4) "**Dewatering**" means the removal and appropriate discharge and release of surface water and subsurface water.
- 5) "Drainage Water" as defined in SMC 22.801.050 "D" and DR 1-2003 also means temporary surface water and temporary subsurface water if it drains or is collected from the construction site during the development of a building, structure, edifice, facility, feature or grading element.
- 6) "Environmentally Critical Area" means land that has been designated and protected as required by the Washington State Growth Management Act (GMA). The GMA requires the City to consider the "best available science" in developing codes and policies. It also requires cities to give special consideration to the habitat requirements of anadromous fish, such as salmon.
- 7) "NTU" means Nephelometric Turbidity Units, which is a measure of the clarity of water. Turbidity is measured with an instrument called a nephelometer (or turbidimeter) that measures the intensity of light scattered by suspended matter in the water. Turbidity of approximately 50 NTU is visible to the naked eye.
- 8) **"Owner"** means the individual or firm who is the owner of the subject property and has the sole responsibility for compliance with the side sewer permit for temporary dewatering including payment of fees and charges.
- 9) "pH", which is an abbreviation of "pondus hydrogenii", means a measure of the negative base 10 logarithm of the hydrogen ion concentration and is commonly referred to as "acidity" or "alkalinity."
- 10) "**Permit Period for SSPTD**" means the construction period identified in the Temporary Dewatering Plan vs. the standard 90 day side sewer permit period.
- 11) "Phase I Environmental Site Assessment" means review and evaluation of existing, available, and relevant background data on the property concerning the potential or documented use, storage, treatment, discharge, disposal, or release of hazardous substances. This phase includes a site walk-through

inspection, a reconnaissance of neighboring properties, a review of site history (including historical aerial photographs), a review of regulatory records and other pertinent public documents pertaining to the site, and interviews with persons who have knowledge of the site. Also included in this phase is a limited review of adjacent properties, to the extent that data are available, to assess whether hazardous substances originating at these properties may have adversely affected soil or groundwater quality at the subject site. Agency inquiries are made regarding possible known pollution cases in the immediate vicinity of the subject site to assess the likelihood of the possible migration of pollutants onto the property being assessed. Background information on local geology, hydrogeology, and water use also is collected during the Phase I investigation.

- 12) "Phase II Assessment" means a focused soil, soil-gas, and/or groundwater sampling and analysis program. Consultant selects sampling techniques and chemical analysis methods based on information obtained through the Phase I assessment (site geology, hydrogeology, and the nature of the suspected concern) and on the client's particular objectives and needs.
- 13) "**Point of Discharge**" means the location that the discharge of the surface and/or subsurface water collected during construction may occur.
- 14) "Reasonable Treatment" means to remove pollutants or sediment contaminants that are above natural background levels when referring to temporary surface water and temporary subsurface water draining or being collected from the construction site during the development of a building or structure or grading.
- 15) "Seattle Department of Planning and Development" and "DPD" means the City department responsible for the developing, administering and enforcing standards of the building code and applicable regulations/ordinances.
- 16) "Seattle Department of Transportation" and "SDOT" means the City department responsible for the developing, administering and enforcing standards of the public works code for construction within the Public Place and applicable regulations and ordinances.
- 17) "Seattle Public Utilities" and "SPU" mean the City department responsible for the developing, administering and enforcing standards of the public works code for the construction of public sewers and storm mains and applicable regulations and ordinances.
- 18) "**Short-term Connection**" means the time period covering the construction of a project and the use of a temporary connection for dewatering discharge.
- 19) **"Side Sewer Permit for Temporary Dewatering**" and **"SSPTD**" means a permit that allows for discharge of on-site flows for temporary surface and

temporary subsurface water flows to existing drainage facilities, whether private or public.

- 20) "**Special Inspector, Non-Registered**", means the person or firm upon approval by SPU/DPD is capable of providing the required Plan, inspections, reports, notifications and testing for dewatering projects. This requirement applies when specialized skills are required such as temporary erosion control, water quality analysis and monitoring at a site during construction.
- 21) "**Subsurface Water**" means all subsurface flows, including confined and unconfined aquifers a.k.a. ground water, which may be encountered during grading.
- 22) "**Surface Water**" means water originating from rainfall, other precipitation that is collected at the construction project, off-site flows to be collected upslope from the construction project and bypassed around the site.
- 23) "Technical qualifications for the individual or firm preparing the Temporary Dewatering Plan and its Associated Requirements" means a responsible person or firm who is currently engaged in the field of temporary dewatering, erosion and sediment control during construction, and who has demonstrated their ability to prepare a Temporary Dewatering Plan and supervise specific quality control functions on a given project to the satisfaction of SPU/DPD. This individual and/or firm shall inform the owner of all issues, including fees and charges, and pursue corrective actions with the owner's approval. The individual and/or firm also is responsible to ensure that there is compliance with the requirements of the Temporary Dewatering Plan, including the required reports being submitted to SPU/DPD/King County.

Temporary Dewatering Plans that include chemical treatment of construction site runoff must be prepared by a firm with a minimum of three years recent experience in applying chemical treatment in Western Washington. Firms that can provide documentation of having written at least five recent chemical treatment plans may also be considered. The five plans must be thorough including a comprehensive Operations and Maintenance section and detailed explanation covering how system components were selected and sized. The three years experience or having written at least five chemical treatment plans requirements may be waived if the Temporary Dewatering Plan has been completed by a licensed Professional Engineer (PE).

The Washington State Department of Ecology designates chemical treatment methods as approved for pilot level, conditional use, and general use level. Refer to the Department of Ecology website "Evaluation of Emerging Stormwater Treatment Technologies" for specific plan preparation requirements listed by chemical treatment type. Responsible person or firm must meet the requirements listed for the specific technology selected.

- 24) "Temporary" means a period that serves for a limited time.
- 25) **"Temporary Dewatering"** means collection of surface and/or subsurface water encountered during construction and appropriate discharge and release of surface water and subsurface water to existing facilities.
- 26) "Temporary Dewatering Plan" means a plan that contains a dewatering report, testing and inspection requirements for surface water and temporary subsurface water collected during construction including discharge point, drainage volumes, time schedule for temporary dewatering activities, water quality provisions, maintenance, monitoring, reporting, and making application to other agencies for utilization of their facilities during the construction period that temporary dewatering is utilized. The Plan may be included as part of the Construction Stormwater Control Plan or be submitted as part of the Side Sewer Permit for Temporary Dewatering.
- 27) **"Temporary Pumping"** means pumping of on-site flows through a short-term connection to existing facilities.
- 28) **"Turbidity**" means the condition of water wherein the clarity is decreased due to the presence of suspended particles.
- 29) "**U.S. Environmental Protection Agency**" means the United States agency established to protect human health and the environment. Duties include development and enforcement of regulations that will implement environmental laws enacted by Congress.
- 30) "Washington State Department of Ecology" means the state's principal environmental management agency. Their mission is to protect, preserve and enhance Washington's environment, and promote the wise management of the state's air, land and water. Their goals are to prevent pollution, clean up pollution and support sustainable communities and natural resources.

E. Permit Requirements for Temporary Dewatering

- 1) <u>Dewatering Permit Requirements</u> A Side Sewer Permit for Temporary Dewatering will be required for any of the following types of projects:
 - a) deep excavations (greater than 12 feet from existing grade);
 - b) one (1) acre or more of land disturbing activity;
 - c) encountering surface and/or subsurface water during construction activity;
 - d) working in an Environmental Critical Area (ECA);
 - e) disposal of <u>contaminated</u> surface and/or subsurface water being collected during construction that was not originally expected to occur;

- being advised by SPU/DPD that a Side Sewer Permit for Temporary Dewatering needs to be obtained from DPD because of known surface or subsurface water concerns of the neighborhood.
- 2) <u>Submittal Requirements/Special Inspections</u> The submittal for a Side Sewer Permit for Temporary Dewatering shall include the following items:
 - a) Geotechnical Report for E.1a, b and d and if available for E.1c or e;
 - b) Phase I and/or II Environmental Site Assessment (if available);
 - c) Temporary Dewatering Plan; and
 - d) Evidence that a <u>Construction Stormwater Permit</u> was obtained from Department of Ecology (DOE) for construction sites greater than one acre in size.
- <u>Temporary Dewatering Plan (Plan) requirements</u> For projects requiring a Side Sewer Permit for Temporary Dewatering, the applicant will be required to submit a Plan containing information about groundwater and soil conditions on the site.

The Plan must provide the minimum information including:

- a) Project information, location of the point of discharge and schedule of duration of construction;
- b) Contact information for the preparation of the Plan;
- c) Background and information available on the existing site conditions and proposed construction activities;
- d) Contact information for the implementation of the Plan;
- e) Water quantity (if applicable) and discharge volume monitoring plan;
- f) Impacts of temporary dewatering activities to adjacent Public Places;
- g) Water quality treatment system design and operation (if applicable);
- h) Dewatering Suspension Plan to secure the site if both water quality and/or quantity requirements are not being met. This suspension plan requires the contractor to focus efforts on TESC and dewatering treatment for the site. For sites discharging sub-surface flows, DPD will require that the site cease these operations as part of the suspension plan. Whether discharges are controlled or uncontrolled, all discharges from dewatering treatment systems must meet water quality requirements;

- i) Emergency termination of dewatering discharges if any of the water quality and/or quantity treatment requirements are not being met. Routing flows to the sewer system is a last-resort option that must receive DPD, SPU, and King County consent prior to instigation. All reasonable treatment options (as determined by DPD) must be exhausted before this is allowed; and
- j) Other information deemed necessary to temporary dewatering activities during the review of the Plan and/or during construction.
- 4) <u>Point of Discharge (POD)</u> Project sites that have access to a public storm drainage system (PSD) will be required to treat and discharge all on-site water from dewatering activities to the PSD unless proposed methods for drainage water control and treatment are determined by the City to be unreasonable or infeasible. In this case, the City may allow connection to a public combined or sanitary sewer.

Project sites that have access to a public combined or public sewer system will be required to obtain a Discharge Authorization Letter from King County Industrial Waste. King County Industrial Waste's "Discharge Authorization Letter" may accept contaminated stormwater into their sanitary sewer system under certain conditions and criteria.

 Water Quality and Treatment Requirements – Discharge requirements will be based upon local, state and federal water quality regulations to minimize impacts to receiving water quality and/or the wastewater treatment plant, depending on the POD.

Discharge limits:

Discharge limits are the maximum allowable concentrations of a pollutant that can be discharged off site from temporary dewatering operations. Discharge limits apply at the point of discharge from the project. Limits are defined separately for discharges to storm drain/receiving water bodies and sanitary/combined sewer system as defined in the following sections. Project specific discharge limits will be defined in the SSPTD.

a) Discharge to Storm Drain and/or Receiving Water Body – Water quality requirements for construction dewatering activities that discharge to area receiving water bodies either directly or via the PSD, are based on applicable Washington State Water Quality Standards (WAC 173-201A).

If the limits stated in the following cannot be met with the treatment method(s) outlined in the temporary dewatering plan, the discharge will cease until additional and adequate treatment is provided. The revised temporary dewatering plan must be reviewed and approved by SPU before the discharge may continue.

i. *Turbidity* – Turbidity shall be less than 5 NTU above background if the

background turbidity is less than 50 NTU or shall be less than 10 percent above background if the background turbidity is greater than 50 NTU. Background conditions shall be measured at a maintenance hole in the PSD immediately upstream of the project. If there is insufficient flow in the PSD to establish background conditions, the background turbidity small be measured in the receiving water body in the vicinity of the PSD outfall. In the absence of site-specific data, a turbidity of 10 NTU shall be assumed.

- ii. pH Elevated pH levels (greater than 7) may occur if runoff or dewatering water comes in contact with caustic substances such as lime, plaster, and/or cement. The pH in the discharge shall be between 6.5 and 8.5 pH units.
- iii. Metals and Other Pollutants The concentration of metals and other pollutants at the point of discharge shall meet state water quality standards. If no water quality standards exist, discharge limits shall be based on other appropriate and relevant water quality criteria (e.g. MTCA Method A, U.S. EPA national recommended water quality criteria).
- b) Discharge to Sanitary and/or Combined Sewer All discharges to the sanitary and/or combined sewer shall be approved by King County Industrial Waste and meet King County discharge limits. Applicants must provide proof of discharge authorization/permit prior to initiating dewatering activities.

Treatment

If necessary, dewatering water shall be treated prior to discharge. Treatment process and operating protocols shall be described in the dewatering plan. The appropriate local authority (SPU for discharges to storm/surface water and King County Industrial Waste for discharges to sanitary/combined sewer) shall review and approve treatment plans.

Some treatment systems (e.g. polymer treatment) require Department of Ecology (DOE) review and approval. The applicant is responsible for obtaining all necessary approvals/permits for these systems. Documentation of DOE approval shall be provided to DPD prior to operating the treatment process.

Compliance Monitoring

It is the applicant's responsibility to meet all discharge requirements specified in the Side Sewer Permit for Temporary Dewatering. Should discharge limits be exceeded, the discharge will cease until additional and adequate treatment is provided. Monitoring frequency will be stipulated in the Side Sewer Permit for Dewatering. All sampling shall be conducted in accordance with standard EPA and DOE protocols.

6) <u>Volume and Discharge Rates</u> - Volume restrictions shall be determined by the SPU/DPD/King Co Industrial Waste based on POD (sewer or storm), capacity restrictions, project size, and receiving water body, if applicable. For approved discharges to the combined or sanitary sewer system, release rates will be restricted to a maximum of 0.15 cfs/acre that includes both surface and subsurface water flows.

For discharges to the Public Storm Drain (PSD) that discharges to a designated receiving water body, release rates will be a maximum of 10% of the theoretical capacity of the portion of the PSD where the site's side sewer connects, unless otherwise approved by SPU/DPD.

For discharges to Class A or B riparian corridors or to a PSD that discharges to such corridors, release rates will be restricted to a maximum of 0.15 cfs/acre that includes both surface and subsurface water flows. Details regarding such a discharge system must be described in the Plan, including flow analysis during discharge, additional WQ monitoring plans for creek flows at discharge. Emergency measures should also be outlined in the Plan to account for any system failure or unforeseen circumstances.

For discharges to the sewer system, King County Industrial Waste will set limits for specific water quality parameters through their Discharge Authorization Letter. Reporting requirements for water quality sampling and testing will be coordinated with King County Industrial Waste as well.

F. Roles and Responsibilities

- SPU SPU will provide review and inspection for receiving water quality sampling and testing reports and reviewing results for issued SSPTD. If violations are detected, SPU will contact the Applicant/Contractor, Certified TESC representative, Special Inspector and DPD and work with them to resolve any problems. Normally involvement by SPU will be limited to special cases and complex issues arising during permitting or construction. This would include reviewing and researching existing utility systems in the project area, evaluating the Plan, checking public system capacity, investigating complaints with SPU Surface Water Quality and/or DPD, coordinating with King County Industrial Waste staff, and responding to conflicts and complaints as received by SPU. SPU will define and oversee an exception process for dewatering permits.
- 2) DPD perform Pre Application Site Visits (PASV), identify key issues related to dewatering, review building submittals during permitting relating to the SSPTD, coordinate and/or review the Plan and supporting materials with SPU and/or SDOT, collect fees, issue SSPTD, conduct site inspections during construction, final the SSPTD, and coordinate actions with SPU and/or King County Industrial Waste related to complaints or

violations of the conditions set in the SSPTD. If DPD detects violations at a construction site, they will contact SPU staff and together work with the contractor to resolve the problem(s).

 SDOT – verify connections with street ROW requirements, review proposed dewatering procedures to ensure that there is no detriment to the Public Place, and issue utility or street-use permits for dewatering discharges that are permitted by DPD to be connected to facilities located in the Public Place.

G. Enforcement

In the case of treatment system failure, or if violations of the temporary dewatering permit are detected, DPD will work with the Applicant/Contractor, Certified TESC representative, Special Inspector and SPU to correct deficiencies, non compliance and/or complications in treatment systems or BMP applications. A Notice of Violation (NOV) or Stop Work Order may be issued if compliance is not achieved or if clear actions are not taken to achieve compliance with the Side Sewer Permit for Temporary Dewatering. A revocation of the SSPTD may also occur if deemed necessary by the DPD.

If King County Industrial Waste determines that discharges to the sewer system are not in compliance with their regulations, enforcement measures may be taken by King County Industrial Waste at their discretion.

H. Hourly Rates

Review time for the Side Sewer Permit for Temporary Dewatering will be charged at the current hourly fee as established by the applicable Department of Planning and Development Director's Rule. Inspection time in excess of the Side Sewer Permit for Temporary Dewatering will be charged at the current hourly fee as established by the applicable Department of Planning and Development Director's Rule.