

STATE OF OREGON

DEPARTMENT OF ENVIRONMENTAL QUALITY

In the Matter of:
St. Johns Landfill

) DEQ NO. LQSW-NWR-02-14
)
) RI/FS Consent Order
)
)

Respondent

Pursuant to ORS 465.260(4) the Director, Oregon Department of Environmental Quality (DEQ), enters this Remedial Investigation /Feasibility (RI/FS) Cleanup Consent Order with Metro, a metropolitan service district. This Consent Order contains the following provisions:

Contents	Page
1. Purpose	
2. Stipulations	
3. Findings of Fact.....	
4. Conclusions of Law and Determinations	
5. Work to be Performed.....	
A. Remedial Investigation & Feasibility Study	
B. Additional Measures.....	
6. Public Participation	
7. General Provisions	
A. Qualifications of Personnel.....	
B. DEQ Access and Oversight	
C. Project Managers.....	
D. Notice and Samples.....	
E. Quality Assurance	
F. Records.....	
G. Progress Reports	
H. Other Applicable Laws.....	
I. Reimbursement of DEQ Oversight Costs	
J. Force Majeure.....	
K. DEQ Approvals	
L. Dispute Resolution.....	
M. Stipulated Penalties	
N. Enforcement of Agreement and Reservation Of Rights	
O. Indemnification	
P. Parties Bound	
Q. Modification	
R. Effective Date	
8. Duration	
9. Signatures.....	

1. **Purpose**

The mutual objective of DEQ and Metro is to determine the nature and extent of releases of hazardous substances at St. Johns Landfill and to develop, evaluate, and select appropriate removal and/or remedial measures in a manner that complies with the applicable provisions of ORS 465.200 through 465.420 and regulations promulgated thereto.

2. **Stipulations**

Metro consents and agrees:

- A. To issuance of this Consent Order;
- B. To perform and comply with all provisions of this Consent Order;
- C. To not challenge DEQ's jurisdiction to enter and enforce this Consent Order;
- D. To waive any right Metro might have, prior to commencement of action by DEQ to enforce this Consent Order, to seek judicial review or review by the Environmental Quality Commission of this Consent Order ;
- E. To not litigate, in any proceeding brought by DEQ to enforce this Consent Order or to assess penalties for noncompliance with this Consent Order, any issue other than Metro's compliance with this Consent Order;
- F. To not assert, in any proceeding brought by DEQ to enforce this Consent Order or to assess penalties for noncompliance with this Consent Order, that performance of any interim or removal measures or phase of work by Metro discharges Metro's duty to fully perform all remaining provisions of this Consent Order; and
- G. To waive any right Metro might have under ORS 465.260(7) to seek reimbursement from the Hazardous Substances Remedial Action Fund of costs incurred under this Consent Order.

3. **Findings of Fact**

DEQ makes the following findings without admission of any such facts by Metro:

A. Site owner is Metro, an Oregon Government

B. St. Johns Landfill, a closed 238-acre solid waste landfill, is located within the city of Portland in an area called the St. Johns/Rivergate industrial District. The site is in Section 26 of T 2N, R1W, W.M. The general location of St. Johns landfill is shown on Attachment A to this Consent Order. The landfill lies within the Columbia River floodplain near the confluence of the Columbia and Willamette Rivers. It is bounded by Columbia slough, the North Slough arm of Columbia Slough and Smith and Bybee lakes. Site access is from North Columbia Blvd. Originally the site was an unnamed, shallow lake, part of an extensive, interconnected network of lakes, marshes, wetlands and sloughs near the confluence of Columbia and Willamette Rivers. A well-developed system of natural levees bordered the individual waterways including the unnamed landfill-lake. Solid waste disposal at the site began in 1932 and continued until the landfill closed in 1991. The city of Portland was the landfill's original owner. Initially, solid waste was burned in an incinerator located south of Columbia Blvd. The ash was deposited on City of Portland property, in an area just southwest of Columbia Slough and the main landfill. In 1939 or 1940 a bridge was constructed over Columbia Slough and filling northeast of Columbia Slough began in 1940. Apparently, disposal activities began in dry areas and in seasonal wetlands adjacent to the shallow lake known as Landfill lake but soon spread to the lake bed itself. Early on the landfill received almost any type of waste that was discarded, including oil-based sludge, white goods, incinerator ash, household solid waste and commercial solid wastes. By the early 1960s, Landfill-lake had been completely filled. The incinerator was decommissioned in 1970. By the early 1970s, commercial and industrial development altered much of the original agricultural and residential land near the landfill, increasing amounts of commercial and industrial wastes were deposited in the landfill and "sanitary landfill" operational practices were adopted, including routine waste compaction and daily cover. Separate disposal areas were maintained for

commercial haulers and private vehicles. The landfill was developed in five distinct phases, referred to as subareas (see Attachment B, Site Plan). The original 183-acre landfill was filled to an average depth of about 40 feet by the late 1970s. A liquid waste pit was operated in the south portion of Subarea 2 from about 1948 through 1963. The final lateral expansion, a 55-acre sub-area constructed in 1980 and filled after 1984, incorporated an engineered perimeter-dike to provide more effective leachate containment. Expansion area operations began in 1985 and the landfill reached final capacity in 1991. Metro acquired the landfill site areas northeast of Columbia Slough in 1990.

C. After the landfill ceased accepting solid waste in 1991, construction began on the final cover system, the gas control system, the storm water control system and the other permanent closure improvements. The final cover system consists of a multi-layered cap and drainage and topsoil layers. The cap has two barrier layers, an 18-inch-thick low-permeability soil layer and an overlying 40-mil geomembrane. The landfill gas control system consists of over 100 extraction wells, a site-wide network of gas collection and header pipes, a condensate collection system, a vacuum-motor-blower/flare complex and a compressor and transmission pipeline. Currently, most of the collected landfill gas is piped to Ashgrove Cement Company and burned as fuel. The storm water control system consists of a site-wide network of drainage ditches and sedimentation ponds. Collected surface water runoff is routed to 12 discharge points around the site perimeter.

D. The landfill bottom is unlined and intersects groundwater in most areas of the site. Consequently, groundwater intrusion is a significant component of leachate generation. The 55-acre expansion area has a leachate collection system consisting of a network of perforated underdrain pipes sloped to a perimeter wet-well and pump station. Collected leachate is pumped to the City sewer and treated at the Columbia Boulevard Wastewater Treatment Plant. Leachate levels within the landfill have been measured sporadically since the 1970s and regularly since 1992. Early monitoring

points included several shallow leachate wells. Now, six relatively deep leachate wells and over fifty gas recovery wells serve that purpose.

E. Metro has conducted a number of investigations to characterize the landfill site's environmental effects and hydrogeologic properties. The following discussion, including the findings discussed in subsections G, H, I, and J, summarizes the current understanding of the site characterization. The previous investigations have identified three, distinct, hydrostratigraphic units that exert strong influence on local and regional groundwater flow patterns and fate and transport of landfill contaminants. These units, from youngest to oldest, include: the overbank silts (OBS), the Columbia River sands (CRS) and the Pleistocene gravel (PG). The shallowest sediments, the OBS, are in direct contact with the landfill and exhibit low overall hydraulic conductivity that may retard or stop contaminant (leachate) migration. The OBS consists of silts, clays, and fine sands. Discrete sand lenses have been identified within the OBS, but their lateral extent and hydrologic significance are unknown. Sand content appears greatest toward the bottom of the OBS near the OBS/CRS contact. Near the landfill, OBS thickness varies considerably. West of the landfill, OBS deposits are about 200-ft thick, below Bybee lake they are only 2-5 ft thick. Directly under the landfill, OBS thickness varies from about 30-ft (North-Slough side) to about 150-ft (below landfill interior). The hydraulic conductivity (permeability) of the OBS has been estimated from slug tests and laboratory permeability tests. OBS horizontal-permeability values vary from about 1×10^{-6} cm/sec to 3×10^{-5} cm/sec. Vertical permeability values range from about 2×10^{-7} cm/sec to 5×10^{-7} cm/sec. Most of the site's monitoring wells (twenty-two) are screened in the OBS. The Columbia River Sands (CRS) underlie the OBS and consist of fine to coarse sand, locally containing minor amounts of silt. The CRS deposits are abundant beneath the Columbia and Willamette rivers, but thin out considerably near the landfill. Although laterally discontinuous and thin where present beneath the landfill, the CRS deposit is permeable and hydraulically connected to the Willamette and Columbia rivers. The permeability of

the CRS varies from about 1×10^{-4} cm/sec to 1×10^{-1} cm/sec. Three site groundwater monitoring wells are screened in the CRS. The Pleistocene gravels (PG) directly underlie the CRS. The gravel deposit is highly permeable and a productive aquifer in the region. The PG is mainly composed of sandy gravel and gravel. The PG's hydraulic conductivity varies from 5×10^{-2} cm/sec to 1×10^{-1} cm/sec. The PG deposit is characterized by a steep-sided, deep trough directly below the landfill and a prominent ridge to the north of the landfill that rises to within a few feet of the bottom of Bybee Lake. The gravel trough contains OBS deposits, the thickest OBS layer near the landfill. The gravel ridge coincides with the thinnest OBS deposits. This is where the PG aquifer is most vulnerable to near-surface contaminants. These gravel features exert a strong influence on regional and local groundwater-flow patterns and have important environmental implications. Five groundwater monitoring wells are screened in the PG.

F. Under contract with Metro, Portland State University (PSU) developed a three-dimensional numerical groundwater model of the landfill and the surrounding area. The model was intended to provide a more comprehensive understanding of the landfill's hydrogeologic characteristics and to predict contaminant migration pathways and future conditions. The model has five discrete components including a water balance model, leachate mound model, regional flow model, local flow model, and local solute transport model. The mound model simulated the leachate mound as a uniform saturated zone extending from landfill-base level to about 15 feet above natural groundwater elevations. Although the model predicted complete dissipation of the leachate mound fifteen years after landfill capping, leachate levels have not changed perceptively since closure. The leachate mound model assumed the existence of a continuous, site-wide, saturated zone within the refuse, with predictable responses to input and output fluxes (e.g., precipitation and groundwater inflow and outflow). The leachate level data suggest, however, that leachate-saturated zones within the landfill are hydraulically discontinuous, and compartmentalized. Consequently, the model may

Bybee

have overestimated the amount of leachate stored within the refuse and the hydraulic pressures exerted by leachate on the bottom of the landfill. The solute transport model predicted landfill-contaminant migration to the PG aquifer at one location, northeast of landfill Subarea 2. The area of predicted migration coincides with the gravel (PG) ridge and thinnest silt (OBS) deposits. The model concludes that leachate cannot penetrate the silts and reach the PG aquifer under most of the site because of large silt thickness and gradually declining (post-closure) leachate pressures. Groundwater monitoring results for wells near the area of predicted migration are inconclusive, but these wells monitor the OBS and CRS deposits, not the PG aquifer.

As previously mentioned St. Johns landfill is bordered on all sides by surface waters, Columbia Slough to the west and south, North Slough and Bybee Lake to the north, and Smith Lake to the east. For years, pollutants from many sources have entered these surface waters and accumulated in the sediments. Historically, significant quantities of landfill leachate, present in visible surface seeps and in shallow groundwater, have discharged to surrounding surface waters (Columbia Slough and North Slough). Water quality monitoring, however, does not show significant surface water impacts. The PSU contaminant transport model predicted total seepage of less than ten gallons per minute to the sloughs after cover-cap completion. Despite the cap and associated improvements, visible leachate seeps remain. Metro continues to monitor significant seepage zones and implement appropriate seep-control measures. In 1995, a clay cutoff wall was installed at the head of Blind Slough to reduce one of the most significant leachate-seep areas. In 2001, Metro installed a second cutoff wall along the North-Slough perimeter of Subarea 2 to improve leachate containment in that area. Near subarea 2, erosion has undercut a section of slough bank, compromising the natural silt dike that separates the landfill contents from North Slough. In 2000, Metro repaired 1000 lineal feet of bank along North Slough. The Department established Total Maximum Daily Loads (TMDLs) for Columbia Slough, including an annual load allocation

for dissolved lead at St. Johns Landfill. The annual allocation for lead is based on average lead concentrations detected in shallow groundwater monitoring wells located at the landfill perimeter. Metro conducts environmental monitoring to assess environmental quality near the landfill and to comply with the monitoring requirements established in the various permits for St. Johns Landfill. Metro conducts monitoring of surface water and sediments in the vicinity of the landfill on a voluntary basis to meet policy objectives of the Smith-Bybee Lakes Natural Resources Management Plan. DEQ permits include the solid-waste closure permit, water-quality storm water discharge permit (NPDES General Permit 1200-COLS), and a Title V air quality permit for the site. The Title V permit regulates site-wide landfill gas emissions and requires compliance monitoring. The landfill also is regulated under an Industrial Waste Water Discharge Permit for leachate disposal issued to Metro by The City of Portland's Bureau of Environmental Services.

Metro currently monitors twenty-nine (29) groundwater monitoring wells (many are nested multiple-depth wells), six (6) interior leachate-monitoring wells, one (1) leachate discharge monitoring station, nine (9) multi-depth piezometers, five (5) surface water monitoring stations, twelve (12) storm water monitoring stations and fourteen (14) sediment monitoring stations. Twenty-two (22) monitoring wells are screened at various levels within the Overbank Silts (OBS), the uppermost aquifer. Seven (7) monitoring wells are screened within the Pleistocene Gravels or the Columbia River Sands (a hydraulically connected unit) which underlie the OBS. The water quality monitoring data from perimeter wells indicate the presence of a leachate plume in the shallow OBS groundwater. This is evident from the high concentrations of leachate indicator parameters in the

shallow groundwater, including chloride, specific conductance, ammonia, chemical oxygen demand (COD), dissolved iron and dissolved manganese and the similar chemical signatures of leachate and OBS ground water. Based on the current monitoring well network, it is not clear

how deep the plume penetrates into the OBS deposits or how extensive the plume is directly beneath the landfill footprint. As previously mentioned, the solute transport model predicted total penetration of the silts in one localized area where the silts are thinnest (i.e., near MW G-4A, MW G-4B). Nevertheless, water quality data from two deep OBS wells (e.g., MW D-1B, MW D-1C), where the silts are quite thick, indicate that the contaminant plume may extend deeper into the silts than the model predicted. Several hazardous substances have been detected in the site monitoring wells completed in the OBS deposits, including but not limited to the following:

Contaminant	Concentration (mg/l)	Ambient Surface Water Quality Criteria	
		SLV (Aquatic)	Background (Fresh water)
Arsenic	0.42 mg/L	0.15 mg/l	0.002
Lead	0.094 mg/L	0.0025 mg/l	0.013
Benzene	0.007 mg/L	0.13 mg/l	
Chromium	0.14 mg/L	0.74 mg/l	0.001

Although the PG aquifer is contaminated with low levels of VOCs in the vicinity of the landfill, the source of these contaminants is unclear. Available data suggest the VOCs may have originated from other regional sources unrelated to the landfill.

4. Conclusions of Law and Determinations

Based on the above findings of fact and the administrative record, DEQ determines, without admission of any such determinations by Metro, that:

- A. Metro is a "person" within the meaning of ORS 465.200(20).
- B. The chemicals described in Subsection 3.F. are "hazardous substances" within the meaning of ORS 465.200(15).

- C. The presence of hazardous substances in groundwater at the site constitutes a "release" into the environment within the meaning of ORS 465.200(21).
- D. The site described in Subsection 3.B. is a "facility" within the meaning of ORS 465.200(12).
- E. The activities required by this Consent Order are necessary to protect public health, safety, and welfare and the environment.

Based upon the above Stipulations, Findings of Fact, and Conclusions of Law and Determinations, DEQ ORDERS:

5. Work to be Performed

A. Remedial Investigation and Feasibility Study

Metro shall perform a remedial investigation and feasibility study (RI/FS) including a Risk Assessment (RA) satisfying OAR Chapter 340 Division 122, the terms and schedules set forth in the Scope of Work (SOW) contained in Attachment C to this Consent Order, and the terms and schedules set forth in any DEQ-approved work plan. Once approved by DEQ, a work plan is deemed to be incorporated into and made a fully enforceable part of this Consent Order.

B. Additional Measures

(1) Metro may elect at any time during the term of this Consent Order to undertake measures, beyond those required under this Consent Order and the SOW, necessary to address the release or threatened release of hazardous substances at the facility. Such additional measures (including but not limited to engineering or institutional controls and other removal or remedial measures) are subject to prior approval by DEQ, which approval shall be granted if DEQ determines that the additional measures will not compromise the validity of the RI/FS or threaten human health or the environment and will comply with applicable laws.

(2) DEQ may determine that, in addition to work specified in the SOW or an approved work plan, additional work is necessary to complete the RI/FS in satisfaction of the SOW and OAR Chapter 340 Division 122, or is necessary to address unanticipated threats to human health or the environment. DEQ may require that such additional work be incorporated into the applicable work plan by modification and/or be performed in accordance with a DEQ-specified schedule. Metro shall modify the work plan and/or implement the additional work in accordance with DEQ's directions and schedule, or invoke dispute resolution under Subsection 7.L. within 14 days of receipt of DEQ's directions.

6. Public Participation

Upon issuance of this Consent Order, DEQ will provide public notice of this Consent Order through issuance of a press release describing the measures required under this Consent Order. Copies of the Consent Order will be made available to the public. DEQ shall provide Metro a draft of such press release and consider any comments by Metro on the draft press release, before publication.

7. General Provisions

A. Qualifications of Personnel

(1) All work required by this Consent Order must be performed under the supervision of a qualified environmental professional experienced in hazardous substance investigation or remediation. Within 30 days of the effective date of this Consent Order, Metro shall start the procurement process to select contractors and subcontractors to be used in performance of the work. Within 90 days of the start of the procurement process, Metro shall select said contractors and subcontractors and provide DEQ, in writing, the name, title, and qualifications of supervising personnel who will be responsible for performance of

the work. The qualifications of such personnel shall be subject to DEQ review and, at DEQ's election, DEQ approval or disapproval. If DEQ disapproves in writing the qualifications of any personnel, Metro shall provide DEQ in writing the name, title, and qualifications of replacement personnel, subject to DEQ's review and approval as described above. If DEQ subsequently disapproves the replacement personnel, DEQ reserves its right under ORS 465.260 to perform the RI/FS work, to terminate this Consent Order, and to seek reimbursement of costs from Metro.

(2) If Metro changes supervisory or key contractor personnel during the course of work under this Consent Order, the qualifications of the personnel shall be subject to review and approval in accordance with Paragraph (1) above.

B. DEQ Access and Oversight

(1) Metro shall allow DEQ to enter and move freely about portions of the facility within its possession or control at all reasonable times for the purposes, among others of: inspecting records relating to work under this Consent Order; observing Metro's progress in implementing this Consent Order; conducting such tests and taking such samples as DEQ deems necessary; verifying data submitted to DEQ by Metro; and, using camera, sound recording, or other recording equipment.

(2) Metro shall also seek to obtain access to property not owned or controlled by Metro as necessary to perform the work required in this Consent Order, including access by DEQ for purposes described in Paragraph 7.B.(1). DEQ shall use its statutory authority to obtain access to property on behalf of Metro if DEQ determines that access is necessary and that Metro has exhausted all good faith efforts to obtain access.

(3) Metro shall permit DEQ to inspect and copy all records, files, photographs, documents, and data relating to work under this Consent Order, except that Metro may not be required

to permit DEQ inspection or copying of items subject to attorney-client or attorney work product privilege.

(4) Metro shall identify to DEQ any document, record, or item withheld from DEQ on the basis of attorney-client or attorney work product privilege. Attorney-client and work product privileges may not be asserted with respect to any records required to be submitted under Paragraph 7.F.(1). DEQ reserves its rights under law to obtain documents DEQ asserts are improperly withheld by Metro.

C. Project Managers

(1) To the extent possible, all reports, notices, and other communications required under or relating to this Consent Order shall be directed to:

DEQ's	Respondent's
<u>Project Manager:</u>	<u>Project Manager:</u>
Tim Spencer	Dennis O'Neil
DEQ Northwest Region	Metro 600 Northeast Grand
2020 SW Fourth Avenue,	Avenue Portland, OR
Suite 400	97232-2736
Portland, Oregon 97201-4987	(503) 797-1697
(503) 229-5826	

(2) The Project Managers shall be available and have the authority to make day-to-day decisions necessary to implement the work plan. The Project Managers also may modify, by mutual agreement in writing, the SOW and work plans as necessary to complete the RI/FS in satisfaction of OAR Chapter 340 Division 122 or as necessary to address unanticipated threats to human health or the environment.

D. Notice and Samples

(1) Metro shall make every reasonable effort to notify DEQ of any excavation, drilling, sampling, or other fieldwork to be conducted under this Consent Order at least five

working days before such activity, but in no event less than 24 hours before such activity.

Upon DEQ's verbal request, Metro shall make every reasonable effort to provide a split or duplicate sample to DEQ or allow DEQ and/or its authorized representative to take a split or duplicate of any sample taken by Metro while performing work under this Consent Order.

(2) In the event DEQ conducts any sampling or analysis in connection with this Consent Order, DEQ shall make every reasonable effort to notify Metro of any excavation, drilling, or sampling at least five working days before such activity, but in no event less than 24 hours before such activity. Upon Metro's verbal request, DEQ shall make every reasonable effort to provide a split or duplicate sample to Metro or allow Metro to take a split or duplicate of any sample taken by DEQ.

E. Quality Assurance

(1) Metro shall conduct all sampling, sample transport, and sample analysis in accordance with the Quality Assurance/Quality Control (QA/QC) provisions approved by DEQ as part of the work plan. All plans prepared and work conducted as part of this Consent Order must be approved by DEQ. Metro shall make all reasonable efforts to require that each laboratory used by Metro for analysis performs such analyses in accordance with such provisions. Metro shall also make all reasonable efforts to require that laboratories and personnel used by Metro for sample analysis allow DEQ and its authorized representatives access for audit purposes at reasonable times.

(2) In the event that DEQ conducts sampling or analysis in connection with this Consent Order, DEQ shall conduct sampling, sample transport, and sample analysis in accordance with the QA/QC provisions of the DEQ-approved work plan. Upon written request,

DEQ shall provide Metro with DEQ records regarding such sampling, transport, and analysis.

F. Records

(1) In addition to those reports and documents specifically required under this Consent Order, Metro shall provide to DEQ within 10 days of DEQ's written request copies of QA/QC memoranda and audits, raw data, draft and final plans, reports, task memoranda, field notes, and laboratory analytical reports.

(2) Metro shall preserve all records and documents in its possession or control or in the possession or control of its employees, agents, or contractors relating in any way to activities under this Consent Order, for at least 10 years after termination under Section 8 of this Consent Order. Upon DEQ's request, subject to claim of privilege or confidentiality under Paragraphs 7.B.(3) or 7.F.(3), Respondent shall provide copies of such records to DEQ.

(3) Metro may assert a claim of confidentiality regarding any documents or records submitted to or copied by DEQ pursuant to this Consent Order, except that attorney-client and work product privileges may not be asserted with respect to any records required to be provided under Paragraph 7.F.1. DEQ shall treat documents and records for which a claim of confidentiality has been made in accordance with ORS 192.410 through 192.505. If Metro does not make a claim of confidentiality at the time the documents or records are submitted to or copied by DEQ, the documents or records may be made available to the public without notice to Metro.

G. Progress Reports

During each quarter of this Consent Order, Metro shall deliver to DEQ on or before the tenth day of each quarter two copies of a progress report containing:

(1) Actions taken under this Consent Order during the previous quarter;

- (2) Actions scheduled to be taken in the next quarter;
- (3) A summary of sampling, test results, and any other data generated or received during the previous quarter; and
- (4) A description of any problems experienced during the previous quarter and actions taken to resolve them.

H. Other Applicable Laws

Subject to ORS 465.315(3), all activities under this Consent Order shall be performed in accordance with applicable federal, state, and local laws and regulations.

I. Reimbursement of DEQ Oversight Costs

(1) DEQ will submit to Metro a monthly invoice of costs actually and reasonably incurred by DEQ on or after the effective date of this Consent Order in connection with any activities related to the facility or oversight of Metro's implementation of this Consent Order. A sample invoice is attached to this Consent Order as Attachment C. DEQ shall maintain work logs, payroll records, receipts, and other records to document work performed and expenses incurred under this Consent Order and, upon request, shall make such records available to Metro for its inspection during the term of this Consent Order and for at least one year thereafter.

(2) DEQ oversight costs payable by Metro will include direct and indirect costs. Direct costs include site-specific expenses, DEQ contractor costs, and DEQ legal costs. Indirect costs include general management and support costs of DEQ and of the Land Quality Division allocable to DEQ oversight of this Consent Order and not charged as direct, site-specific costs. Indirect costs will be based on a percentage of direct personal services costs.

(3) Within 30 days of receipt of a DEQ invoice, Metro either shall pay the amount of costs invoiced, by check made payable to the "State of Oregon, Hazardous Substance Remedial

Action Fund", or invoke dispute resolution under Subsection 7.L. Metro shall pay simple interest of 9% per annum on the unpaid balance of any oversight costs, which interest shall begin to accrue at the end of the 30-day payment period unless dispute resolution has been invoked. Any unpaid amounts that are not the subject of pending dispute resolution, or that have been determined owing after dispute resolution, become a liquidated debt collectible under ORS 293.250 and other applicable law.

J. Force Majeure

(1) If any event occurs that is beyond Metro's reasonable control and that causes or might cause a delay or deviation in performance of the requirements of this Consent Order despite Metro's due diligence (force majeure), Metro shall promptly notify DEQ's Project Manager verbally of the cause of the delay or deviation and its anticipated duration, the measures that have been or will be taken to prevent or minimize the delay or deviation, and the timetable by which Metro proposes to carry out such measures. Metro shall confirm in writing this information within five working days of the verbal notification. Failure to comply with these notice requirements precludes Metro from asserting force majeure for the event and for any additional delay caused by the event.

(2) If Metro demonstrates to DEQ's satisfaction that the delay or deviation is due to force majeure, DEQ shall extend times for performance of related activities under this Consent Order as appropriate. Circumstances or events constituting force majeure might include but not be limited to acts of God, unforeseen strikes or work stoppages, fire, explosion, riot, sabotage, or war. Economic hardship, normal inclement weather, and increased costs of performance shall not be considered force majeure.

K. DEQ Approvals

(1) Where DEQ review and approval is required for any plan or activity under this Consent Order, Metro may not proceed to implement the plan or activity until DEQ approval is received. Any DEQ delay in granting or denying approval correspondingly extends the time for completion by Metro. For purposes of this Consent Order, "day" means calendar day unless otherwise specified.

(2) After review of any plan, report, or other item required to be submitted for DEQ approval under this Consent Order, DEQ shall:

- a) Approve the deliverable in whole or in part; or
- b) Disapprove the deliverable in whole or in part and notify Metro of deficiencies and/or request modifications to cure the deficiencies.

(3) DEQ approvals, rejections, modifications, or identification of deficiencies shall be given as soon as practicable in writing and state DEQ's reasons with reasonable specificity.

(4) In the event of DEQ disapproval or request for modification, Metro shall correct the deficiencies and resubmit the revised report or other item for approval within 30 days of receipt of the DEQ notice or within such other time as specified in the DEQ notice.

(5) In the event a deficiency identified by DEQ is not addressed by Metro in good faith in the revised deliverable, DEQ may modify the deliverable to cure the deficiency.

(6) In the event of approval or modification of the deliverable by DEQ, Metro shall implement the action required by the plan, report, or other item, as so approved or modified, or, as to any DEQ modifications, invoke dispute resolution under Subsection 7.L.

L. Dispute Resolution

(1) Any disputes concerning the activities or deliverables required under this Order may be resolved as follows: Metro shall notify DEQ in writing of its objection, within fourteen (14) days of receipt of notice from DEQ of the activity, deliverable or

requirement to which Metro objects. Metro's written objections shall define the dispute, state the basis of its objections, and be sent to DEQ via certified mail, return receipt requested. DEQ and Metro shall then have an additional fourteen (14) days from the date DEQ receives the written objection of Metro to reach agreement. If an agreement is not reached within fourteen (14) days, Metro may request a determination by the applicable DEQ Region's Cleanup Manager. Thereafter, if Metro disagrees with DEQ's position in any dispute concerning activities or deliverables required under this order, Metro may elect, within fourteen (14) days of receipt of DEQ's position from the Cleanup Manager, either to seek independent review as provided in 7.L (2) and to proceed under the terms of that provision or to provide Metro's final position and rationale in writing to the DEQ Regional Administrator. The Regional Administrator may discuss the disputed matter with Metro and shall provide Metro with DEQ's final position in writing as soon as practicable after receipt of Metro's written position, or if independent review is sought, after the Regional Administrator's receipt of the independent reviewer's advisory report as provided for under 7.L(2). DEQ's final position regarding the disputed matter is enforceable under this Consent Order.

(2) Prior to requesting a determination by the DEQ Regional Administrator, Metro may request, at its expense, an independent review of any dispute by a qualified, mutually acceptable, and neutral party (the "independent reviewer"). Within fourteen (14) days after selection of the independent reviewer, Metro and DEQ shall provide the independent reviewer with a statement of the nature of the dispute. Within the same fourteen (14) day period, Metro and DEQ shall provide the independent reviewer and each other with their respective positions regarding the dispute and the rationale, information, and documents supporting such position. Within thirty (30) days

of the parties' submissions to the independent reviewer, or within such other time period as agreed to by the parties and the independent reviewer, the independent reviewer shall provide Metro and the DEQ Regional Administrator with a written advisory report setting forth the independent reviewer's determination regarding the dispute. The DEQ Regional Administrator shall consider the advisory report of the independent reviewer in making a final decision regarding the disputed matter. The advisory report of the independent reviewer shall not be binding on the Regional Administrator or on DEQ; provided, the advisory report shall be admissible in any action commenced by DEQ to enforce this Consent Order or to assess penalties regarding the disputed matter. DEQ's final decision shall be an enforceable part of this Consent Order.

(3) The dispute resolution provisions of Paragraphs 7.L.(1) and (2) above shall not apply to solid waste permit decisions by DEQ subject to contested case appeal under ORS Chapter 459.

(4) Metro's invocation of dispute resolution under paragraph (1) of this subsection shall not excuse or delay Metro's performance of work unrelated to the disputed matter.

M. Stipulated Penalties

(1) Subject to Subsections 7.J. and 7.L., upon any violation by Metro of any requirement of this Consent Order, and upon Metro's receipt from DEQ of written notice of violation, Metro shall pay the stipulated penalties set forth in the following schedule:

(a) Up to \$5,000 for the first week of violation or delay and up to \$ 2,500 per day of violation or delay thereafter, for failure to provide access or records in accordance with Subsection 7.B. or 7.F.

(b) Up to \$ 2,500 for the first week of violation or delay and up to \$ 1,000 per day of violation or delay thereafter, for:

- (i) failure to submit a final work plan, addressing in good faith DEQ's comments on the draft work plan or incorporating DEQ modifications to the work plan, in accordance with the SOW's schedule and terms;
- (ii) failure to perform work in accordance with an approved work plan's schedule and terms;
- (iii) failure to perform additional work required by DEQ under Subsection 5.B.; or
- (iv) failure to submit a final report, addressing in good faith DEQ's comments on the draft report or incorporating DEQ modifications to the report, in accordance with an approved work plan's schedule and terms.

(c) Up to \$500 for the first week of violation or delay and up to \$500 per day of violation or delay thereafter, for:

- (i) failure to submit a good faith draft work plan in accordance with the SOW's schedule and terms;
- (ii) failure to submit progress reports in accordance with Subsection 7.G.; or
- (iii) any other violation of the Consent Order, SOW, or an approved work plan.

(2) Within 30 days of receipt of DEQ's written notice of violation, Metro either shall pay the amount of such stipulated penalty assessed, by check made payable to the "State of

Oregon, Hazardous Substance Remedial Action Fund", or request a contested case regarding the penalty assessment in accordance with Subsection 7.M.(3). Metro shall pay simple interest of 9% per annum on the unpaid balance of any stipulated penalties, which interest shall begin to accrue at the end of the 30-day payment period. Any unpaid amounts that are not the subject of a pending contested case, or that have been determined owing after a contested case, are a liquidated debt collectible under ORS 293.250 and other applicable law.

(3) In assessing a penalty under this subsection, the Director may consider the factors set forth in OAR 340-12-045. Metro may request a contested case hearing regarding the penalty assessment in accordance with OAR Chapter 340 Division 11. The scope of any such hearing must be consistent with the stipulations set forth in Section 2 of this Consent Order; must be limited to the occurrence or non-occurrence of the alleged violation; and may not review the amount of the penalty assessed. Penalties may not accrue pending any contested case regarding the alleged violation. Violations arising out of the same facts or circumstances or based on the same deadline are considered as one violation per day.

N. Enforcement of Consent Order and Reservation of Rights

(1) In lieu of stipulated penalties under Subsection 7.M., DEQ may assess civil penalties under ORS 465.900 for Metro's failure to comply with this Consent Order. Penalties may not accrue pending any contested case regarding the alleged violation. In addition to penalties, DEQ may seek any other available remedy for failure by Metro to comply with any requirement of this Consent Order, including but not limited to termination of this Consent Order or court enforcement of this Consent Order.

(2) Subject to Section 2, Metro does not admit any liability, violation of law, or factual or legal findings, conclusions, or determinations made by DEQ under this Consent Order.

(3) Subject to Subsection 2.G., nothing in this Consent Order prevents Metro from exercising any rights of contribution or indemnification Metro might have against any person regarding activities under this Consent Order.

O. Indemnification

(1) Metro shall save and hold harmless the State of Oregon and its commissions, agencies, officers, employees, contractors, and agents, and indemnify the foregoing from and against any and all claims arising from acts or omissions related to this Consent Order by Metro or its officers, employees, contractors, agents, receivers, trustees, or assigns. DEQ shall not be considered a party to any contract made by Metro or its agents in carrying out activities under this Consent Order.

(2) To the extent permitted by Article XI Section 7 of the Oregon Constitution and by the Oregon Tort Claims Act, the State of Oregon shall save and hold harmless Metro and their officers, employees, contractors, and agents, and indemnify the foregoing, from and against all claims arising from acts or omissions related to this Consent Order of the State of Oregon or its commissions, agencies, officers, employees, contractors, or authorized representatives (excepting acts or omissions constituting DEQ approval of Metro's activities under this Consent Order). Metro shall not be considered a party to any contract made by DEQ or its authorized representatives in carrying out activities under this Consent Order.

P. Parties Bound

This Consent Order is binding on the parties and their respective successors, agents, and assigns. The undersigned representative of each party certifies that he or she is fully authorized to execute and bind such party to this Consent Order. No change in ownership or corporate or partnership status relating to the facility shall in any way alter Metro's obligations under this Consent Order, unless otherwise approved in writing by DEQ.

Metro shall notify and provide a copy of this Consent Order to any prospective successor, purchaser, lessee, assignee, or mortgagee of the facility during the term of this Consent Order.

Q. Modification

DEQ and Metro may modify this Consent Order by written agreement.

R. Effective Date

The effective date of this Consent Order shall be the date of signature by the DEQ [Region] Administrator.

8. Duration

This Consent Order is deemed satisfied upon completion of work required under this Consent Order and payment by Metro of any outstanding oversight costs and penalties. DEQ shall determine whether work under this Consent Order is satisfactorily completed and the Consent Order terminated, by letter issued within 60 days of receipt of the last deliverable required from Metro under this Consent Order, or as soon thereafter as reasonably practicable.

9. Signatures

STIPULATED, AGREED, and APPROVED for issuance:

Metro

By: _____ Date: _____
(Signature)

(Name)

(Title)

STIPULATED, AGREED, and so ORDERED:

State of Oregon
Department of Environmental Quality

By: _____
(Signature)

Date: _____

[Name]

[Region] Administrator