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VIA ELECTRONIC FILING AND US MAIL

Public Utility Commission of Oregon
Attn: Filing Center
201 High Street SE, Suite 100
Post Office Box 1088
Salem, OR 97308-1088

**RE: UM 1732 - NW Natural's Site Remediation and Recovery Mechanism Schedule 183
2016 Annual Report**

In accordance with Rate Schedule 183 and the Commission's Order No. 12-137 in Docket UG 221, implementing NW Natural's Site Remediation and Recovery Mechanism (SRRM), NW Natural provides the following information, including Exhibit A and B, to allow the Commission, Staff, and any parties to review NW Natural's environmental remediation expenses incurred between January 1 of 2016 and December 31 of 2016. Exhibit C, data provided via compact disc, will be physically mailed following the electronic submission of this report.

Please feel free to call if you have any questions.

Sincerely,

/s/ Kyle Walker

Kyle Walker, CPA
Rates Analyst

Attachments: Report Narrative
Exhibit A
Exhibit B
Exhibit C (CD by U.S. mail)

NW NATURAL

**SCHEDULE 183 - 2016 ANNUAL REPORT
ENVIRONMENTAL SITE REMEDIATION AND RECOVERY MECHANISM (SRRM)**

JANUARY 1, 2016 – DECEMBER 31, 2016

In accordance with Rate Schedule 183 and the Public Utility Commission of Oregon (“Commission”) Order No. 12-137 in Docket UG 221, implementing Northwest Natural Gas Company’s (“NW Natural” or “Company”) Site Remediation and Recovery Mechanism (SRRM), NW Natural provides the following information to allow the Commission, Staff, and any parties to review for prudence NW Natural’s environmental remediation expenses incurred between January 1 of 2016 and December 31 of 2016. NW Natural submits this information so that review of the expenses can be conducted before they are included in the SRRM for rates effective November 1, 2017.

A. 2016 Remediation Activities

NW Natural has eight sites at which the Oregon Department of Environmental Quality (DEQ) or the Environmental Protection Agency (EPA) has required clean-up. These include: Portland Harbor, Portland Gas Manufacturing (PGM), Gasco, Siltronic, Central, Eugene Water Electric Board, French American International School, and Oregon Steel. NW Natural also incurred litigation costs related to recovery of insurance proceeds and minor litigation costs related to collections under the settlement agreements.

Total expenditures by site (or activity) for the period of January 1, 2016 through December 31, of 2016, are as follows:

<u>SITE</u>	<u>AMOUNT</u>
Gasco (1)	\$8,590,190
Siltronic	66,788
Harbor	1,427,661
PGM	331,022
Central	73,509
	<hr/>
	\$10,489,170

(1) Includes Gasco Uplands, Sediments,
and operation of Source Control.

These expenditures are further detailed in Exhibit A and B of this Report. Descriptions of the significant activities at these sites for this period are described below.

B. Portland Harbor

The Portland Harbor site is a stretch of approximately ten miles along the Willamette River that is listed as a Superfund site by the Environmental Protection Agency (EPA). Investigation of the site has been managed by a consortium of potentially responsible entities known as the Lower Willamette Group (LWG), under EPA's oversight. NW Natural is a member of the LWG and is co-funding the work performed with other members of the LWG. In 2016, EPA completed the feasibility study for the site and issued a proposed cleanup plan. EPA issued its final record of decision selecting the cleanup for the Portland Harbor site on January 6, 2017.

NW Natural also participates in the Portland Harbor Natural Resource Damage (NRD) cooperative assessment process. During the period of January through December 2016, the Company worked with the Natural Resource Trustees in the NRD cooperative process on pathways to reach settlement.

C. PGM

The PGM site covers approximately 3.7 upland acres and is located on the Willamette River near the Steel Bridge. The location of the former PGM is now a fully developed part of downtown Portland. NW Natural is managing this site as the PGM Project under DEQ's oversight. During the period of January through December 2016, NW finalized the Feasibility Study and DEQ issued a staff recommendation describing its proposed cleanup plan for the PGM site for public comment.

D. Gasco

The Gasco site covers approximately 45 acres and is located on the Willamette River between the St. Johns Bridge and the Railroad Bridge. The manufacturing facility is gone, and the site is currently occupied by the Company's Portland liquefied natural gas storage facility and two tenant facilities. Work at this site consists of various projects: the Uplands Project, the Sediments Project, and the Source Control Project. These projects are subject to EPA and DEQ oversight.

The Gasco Upland site is now in the feasibility study phase. In 2016, DEQ and NW Natural agreed to restructure the Gasco Upland and Siltronic (see below) projects to incorporate the adjacent portion of the Siltronic property previously owned by Portland Gas & Coke as part of the Gasco manufactured gas plant into the feasibility study. In 2016, then, NW Natural worked with DEQ to integrate data sets from the two parcels and develop an addendum to the Gasco risk assessment, as well as to complete additional tasks associated with development of the feasibility study. Other primary work activities conducted in 2016 included groundwater monitoring activities.

The Sediments site is still in the Engineering Evaluation/Cost Analysis (EE/CA) phase. In 2016, NW Natural continued to work with EPA on its regulatory requirements for the site. Although revision of the EE/CA has been delayed due to a delay in the release of the EPA Portland Harbor Superfund Site Feasibility Study, NW Natural continued to work with EPA to incorporate the results of the EE/CA into EPA's proposed plan for Portland Harbor. The Company also conducted monthly visual monitoring of the shoreline area in the direct vicinity of the pilot cap area.

Construction of the Source Control wells was completed in October 2013. DEQ-required testing of the source control system was ongoing throughout 2016. The Company will continue to incur costs associated with operating the wells and environmental regulatory oversight.

E. Siltronic

The Siltronic site is adjacent to the Gasco site. The land is now owned by Siltronic Corporation (“Siltronic”), but approximately 38.5 acres of it was previously owned by NW Natural’s predecessor company, Portland Gas & Coke (PG&C). Some of the contamination at the site resulted from PG&C’s use of approximately 400 feet of the property adjacent to the Gasco site for storage and management of MGP residuals. Subsequent owners of the Siltronic site placed a significant amount of fill on the property and redistributed MGP material across the property. Other contaminants from different sources, including Siltronic’s own operations, also exist at the site. The Siltronic site is managed by Siltronic and NW Natural under DEQ’s oversight. The Siltronic Project consists of all of NW Natural’s work on the site that is not covered by the other two Gasco site projects.

As described above, DEQ restructured this project in 2016. The restructuring requires NW Natural to complete its source control evaluation at Siltronic, but NW Natural no longer has responsibility for investigating portions of the Siltronic property not previously owned by Portland Gas & Coke. Field work for the source control evaluation was completed in 2016, and NW Natural expects to submit the source control evaluation report in 2017.

F. Central

The Central Service Center is the former site for company operations including as a gas holder site and other activities. At the end of 2006, the Central Service Center site was identified by DEQ for cleanup and ranked as a high priority site.

During the period of January 2016 through December 2016, the Company completed the following tasks:

- 1) Submitted final reporting in regard to decommissioning work for all remaining Underground Injection Control (UIC) well locations, and received confirmation from the Oregon DEQ UIC Program that each has been reclassified as “closed” and requires no additional work (this closure is specific to the site UICs and does not apply to the site as a whole).
- 2) Received comments from the Oregon DEQ Cleanup Program in regard to the 2015 Remedial Investigation and Risk Assessment (RI/RA) report submittal. Subsequent to the receipt of these comments a scope of work was developed to address each comment and research/field activities were implemented, including:
 - The completion of an additional round of groundwater monitoring and sampling to further characterized the groundwater conditions below the site.

- The completion of a stormwater discharge determination to address the potential risk pathway associated with off site migration via stormwater.
- Confirming the location of two historical industrial water wells.
- Confirming the construction of one of the historical industrial water wells, and assessing the feasibility issues involved with abandoning the well in accordance with current standards.

G. Major Reports and Communications with Environmental Regulators

To assist the Commission, Staff, and any parties in reviewing NW Natural's costs for the January 1 2016 to December 31 2016 period, the Company is providing the major reports and communications with environmental regulators related to the activities described above, found in Exhibit C. A small number of documents from December 2015 were inadvertently not provided with the Company's 2016 submission and are also included in Exhibit C.

NW Natural
UM 1732 - Exhibit A
Deferred Environmental Remediation Costs and Insurance Proceeds
 For the period of January 1, 2016 through December 31, 2016

1 Refer to Exhibit B for the deferred costs for each site broken out by work tasks

2	3	4								TOTAL	
5	6	7	8	9	10	11	12	13	14	15	16
Month/Year	GASCO (1)	HARBOR	SILTRONIC	FRONT (PGM)	CENTRAL	REMEDIATION SPEND	INSURANCE & 3RD PARTY RECOVERY				
(a)	(b)	(c)	(d)	(e)	(f)	(g) = sum (b)-(f)	(h)				
Jan-16	608,933	545,834	20,894	73,431	7,024	1,256,116	-				
Feb-16	609,270	98,796	5,089	5,827	6,428	725,409	-				
Mar-16	564,151	109,451	11,247	4,727	6,534	696,109	(12,824)				
Apr-16	1,263,025	64,157	9,216	26,319	10,734	1,373,450	-				
May-16	497,590	74,035	4,064	23,271	2,549	601,509	-				
Jun-16	762,183	98,655		29,269	3,002	893,109	(7,157)				
Jul-16	400,420	87,568	3,675	8,189	648	500,499	-				
Aug-16	1,204,075	62,836	8,735	69,165	3,005	1,347,815	-				
Sep-16	837,010	84,183	670	(13,598)		908,265	-				
Oct-16	863,628	93,335	2,062	21,905	9,378	990,309	-				
Nov-16	608,339	47,408	578	78,053		734,378	-				
Dec-16	371,567	61,403	560	4,464	24,208	462,202	(38)				
	8,590,190	1,427,661	66,788	331,022	73,509	10,489,170	(20,019)				

Notes:

(1) Includes the operating costs of Gasco Source Control.

Sum of Amount Row Labels	Column Labels												Grand Total
	2016 Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16	
Design											576.25		576.25
PGM Total	73,431	5,827	4,727	26,319	23,271	29,269	8,189	69,165	(13,598)	21,905	78,053	4,464	331,022
Siltronic													
DEQ	3,192	280		9,216	4,064		3,675	8,735		2,732		560	32,454
Meetings, Budget, Schedule	2,646	1,739	48										4,433
RI Investigations/Reporting	3,183	3,070	2,363										8,615
Risk Assessment	11,936		8,836										20,772
Legal - PLG - Gasco Siltronic MGP RI//FS	(63)	-	-						670	(670)	578	-	515
Siltronic Total	20,894	5,089	11,247	9,216	4,064	3,675	3,675	8,735	670	2,062	578	560	66,788
Grand Total	1,256,116	725,409	696,109	1,373,450	601,509	893,109	500,499	1,347,815	908,265	990,309	734,378	462,202	10,489,170