



November 28, 2017

Steven V. King  
Executive Director and Secretary  
Washington Utilities & Transportation Commission  
PO Box 47250  
Olympia, WA 98504

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REGULATORY MANAGEMENT  
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STATE OF WASH  
UTILITIES AND  
TRANSPORTATION  
COMMISSION

**Subject: Docket UG-920781 (WNG)  
Docket UE-911476 (PSP&L)  
Docket UE-070724 (PSE)  
Docket UE-072060 (PSE)  
Docket UE-081016 (PSE)  
Environmental Report for the quarter ending September 30, 2017**

Pursuant to the WUTC Order entered on 10/8/08, PSE now operates both its electric and gas deferred environmental accounting programs with a blanket authorization, provided the requisite criteria is met. This Order was issued under the following Docket Numbers: UE-070724, UE-072060, and UE-081016.

PSE deferred accounting treatment matches the expenses of the remediation of these sites with the recovery of expenses from third parties. The costs for these sites currently exceed third party recoveries.

The attached spreadsheets represent a list of major sites PSE is currently investigating, monitoring and remediating and reflects actual costs at the end of Q2 2017. All additional information is redacted and considered confidential.

## **FORMER WNG SITES**

### **A. Tacoma Gas Company Site (Upland Source Control)**

An MGP operated at 22<sup>nd</sup> & A Street in Tacoma and after the plant was closed the site was used to store various products including gasoline, oil and creosote. Contamination at the site was identified during the late 1980s and various limited cleanup action have been taken since then. PSE continues to work with the Washington Department of Ecology (WDOE) on developing a comprehensive Remedial Investigation/Feasibility Study (RI/FS). A field well inventory was completed in January 2016 and a groundwater sampling and analysis plan was approved by Ecology in July 2016. Groundwater samples were obtained in July, December 2016, April and August 2017. The 2016 and 2017 results (through April) have been submitted to Ecology. The August 2017 results will be submitted in October 2017. It is anticipated that an additional sampling round will be completed in November or December of 2017. The purpose of the sampling is to update the conditions at the site for incorporation into the RI/FS.

A meeting was held with Ecology in November 2016 to discuss the results and path forward to achieve regulatory closure for the site. Participants at the meeting included Ecology, PSE, PacifiCorp, City of Tacoma and WSDOT. Ecology and the other participants are working on preparing a new Agreed Order (AO). The goal of the AO is to gain approval from Ecology of the RI/FS so that a final Cleanup Action Plan can be prepared to close out the site. Ecology has prepared the draft AO and its being circulated for participant review. Once consensus has been reached, the draft AO will be submitted for public review. It is anticipated the new AO will become effective during the 1<sup>st</sup> quarter of 2018.

### **B. Thea Foss Waterway**

The Thea Foss Waterway is part of the Commencement Bay Superfund site which is an EPA regulated cleanup site. PSE was involved as Potentially Responsible Party (PRP) due to its past ownership of a portion of the 22<sup>nd</sup> & A Street MGP, and is part of a Utilities PRP subgroup. The majority of cleanup activities have been completed. PSE received proceeds from the Settlement with WSDOT for their contribution to cleanup of the contamination of the Thea Foss.

PSE, as part of the Utilities group, is currently complying with an EPA approved Operation and Monitoring Plan (OMMP) to monitor the effectiveness of the cleanup remedy. In April and May 2014 (Year 10 OMMP) the Utilities completed required site inspections and sediment sampling near the head of the waterway. Visual surveys were completed in 2015, 2016, and recently in May 2017. During the recent visual survey, the Utilities met with the new EPA project manager to review the project history, remedy components and the primary recontamination source. The visual surveys and available analytical data continued to show that the Utilities' remedy is functioning as intended and that the recontamination source remains storm water. Based on 10 years of sampling, the project team submitted a proposed work program and sampling schedule for future monitoring to EPA. The Utilities are waiting for EPA to respond to the monitoring proposal.

The City of Tacoma is responsible for remediation of the most of the waterway. The City completed its Year 10 OMMP sampling in 2016. EPA has expressed a desire to coordinate the OMMP sampling activities of PSE and the City of Tacoma with the Superfund required 5-year periodic reviews. The next periodic review is scheduled for 2019. It is anticipated the next OMMP sampling round will be completed in the spring of 2018.

### **C. Everett, Washington**

PSE's predecessors operated an MGP at 3630 Railway Avenue east of downtown Everett and PSE currently uses the property for an operating base. Contamination was identified in the 1990s and removal actions, an RI/FS and remediation were completed. PSE implemented an interim remedy consisting of soil excavation, installation of a containment wall along with groundwater monitoring at both ends and at the centerline of the containment wall. PSE continues annual monitoring of the results of the remediation already performed. Annual groundwater sampling performed continues to show the remedy is containing contaminated groundwater. PSE has received partial reimbursement from an agreement entered into with another PRP for past costs relating to interim remedy completion.

### **D. Chehalis, Washington**

PSE's predecessor operated an MGP in Chehalis, WA. The property is still owned by PSE and currently vacant. PSE identified contamination in the 1990s, completed removal activities, an RI/FS and a final cleanup. On April 30<sup>th</sup>, 2015 PSE received from Ecology a No Further Action (NFA) letter confirming that PSE's remedy completed in October 2010 was successful. PSE continues to perform monitoring to show that the remedy is functioning as designed.

### **E. Gas Works Park Site**

Gas Works Park is the site of a former MGP (operated by PSE's predecessor), a tar refinery and other industrial activities and is currently a City of Seattle park. On November 1, 2012, the *Settlement, Release and Cost Allocation Agreement* between the City of Seattle and PSE for the remediation of the combined Gas Works Park uplands as well as the Lake Union sediments became effective. As part of this agreement, PSE took the lead for completing the investigation and remediation of the combined uplands and sediment sites. Costs associated with the RI/FS as well as construction and long-term maintenance of the remedy will be shared between PSE and the City.

Work is being performed under an Agreed Order. WDOE approved modification of the Agreed Order on March 15, 2013 to expand the Site boundaries to include Gas Works Park, Seattle Harbor Patrol and the near shore sediments surrounding the Park and Harbor Patrol. This modification ensures that the impacts from uplands to the lake and near shore sediments are addressed. PSE submitted a complete agency review draft RI/FS report to WDOE in March 2016. PSE is engaging with WDOE to address their comments on the draft RI/FS report.

PSE completed installation of a injection system to reduce arsenic concentrations in groundwater in June 2017 prior to a Seattle Parks and Recreation renovation project. Public review of the Agreed Order amendment and work plan to operate the arsenic treatment system is in progress. PSE anticipates the first injection occurring in November of 2017.

### **F. Quendall Terminals**

EPA listed Quendall Terminals as a cleanup site on the National Priorities List (NPL) (i.e., a Superfund Site) on April 19, 2006 and has been leading an RI/FS effort since then. On March 6, 2014 PSE received a Notice of Potential Liability and Supplemental Request for Information from the EPA indicating that they believe PSE may be a PRP under CERCLA for costs associated with the cleanup of the site and requesting additional information pursuant to CERCLA Section 104(e). PSE reportedly sold tar from the MGP formerly located at Gas Work Park to the Quendall facility as a useful product, but did not transport the byproduct to the Quendall facility.

In a letter dated October 7, 2015, EPA invited PSE, along with the current PRPs and other potential PRPs, to perform a pre-remediation design study pursuant to a negotiated administrative settlement agreement and order on consent (ASAOC). On December 4, 2015 PSE counsel sent a letter to EPA declining to submit an offer to negotiate an ASAOC for the proposed pre-remedial design study. EPA has indicated that it is moving forward with finalizing the RI/FS and selecting a remedy without the pre-remedial design study. PSE has reviewed the draft RI/FS and provided comments to EPA in April 2016.

On May 31, 2016, Vertellus Specialties, Inc., successor in interest to Reilly Chemical Company, who operated at the site for decades, filed for bankruptcy for the purpose of facilitating a sale of all assets. The sale will be free and clear – no liabilities will follow the acquirer.

PSE met with EPA on October 19, 2016 to discuss its comments on the RI/FS. EPA is in the process of finalizing the FS.

### **G. Tacoma Tar Pits**

Tacoma Tar Pits is a site in Tacoma where an MGP was operated and coar tar wastes were deposited. The site was named to the federal Superfund list in 1980 and investigation and cleanup was completed by 1994. PSE continues to operate and monitor the groundwater pump and treat system at the Tacoma Tar Pits site. Maintenance of site facilities and monitoring of ground water quality continues.

EPA completed its most recent Superfund mandated five year review in December 2014 and concluded that the remedy is still protective and performing as designed. As part of this review, EPA recommended follow-up actions including optimizing the groundwater containment and monitoring system, evaluating whether groundwater restoration at this site is feasible, requiring the current property owner to comply with site institutional controls (primarily maintenance/protection of the site cap) and updating the existing Inspection and Maintenance Manual and groundwater monitoring program. The next five year review is to be completed in 2019.

In 2016, in consideration of EPA's recommendations, as well as, the age of the system, PSE decided to replace the existing groundwater treatment system. PSE subsequently prepared cost estimate and provided notice to EPA and City of Tacoma and met with EPA . A treatment plant design Engineering Report has been approved by the City of Tacoma and EPA. The new treatment system is scheduled to be installed in November 2017 with full operation is anticipated to begin in December 2017.

### **H. Swarr Station**

The SWARR Station is a liquefied propane storage facility designed to help meet customer needs during periods of peak demands. In 2003 a release was identified of ethylene glycol and lubricating oil. Lead and petroleum-contaminated soil was removed in 2003, however, arsenic-contaminated groundwater remains beneath the site. Groundwater was sampled in July 2016 to evaluate whether plume conditions substantially changed since 2011. The July 2016 analytical results look generally similar to the previous data and PSE is considering whether future actions are warranted.

### **I. Bay Station (Elliott Ave)**

PSE's predecessors owned and operated the Bay Station MGP in Seattle along the waterfront now known as Elliott Ave. In 2009, PSE was contacted by the then property owners regarding contamination in the subsurface at this location that appears to be associated with the former MGP.

On June 23, 2010 PSE purchased the property and is using the site as a material storage yard in support of PSE operations while PSE remediates the site. A preliminary site investigation was performed in August,

2010 and results of soil sampling confirmed the presence of soil contamination consistent with MGP releases.

In August 2013, PSE received a letter from WDOE stating that they had performed a Site Hazard Ranking Assessment and that they have ranked the site with a number 1 on a scale of 1 to 5 with the ranking of 1 having the highest potential risk. The demolition of the structures were completed in July of 2017 to provide access to fully investigate the site in anticipation of developing a remedy. de

In September 2016, PSE received a letter alleging that contamination encountered on adjacent properties is associated with the historical operation of a manufactured gas plant on PSE's property. PSE is researching the merit of these claims.

#### **J. Olympia (Columbia Street MGP)**

PSE's predecessors operated an MGP on Columbia Street in Olympia. In late 2006, PSE received a letter from a firm representing the owners at that time stating that contamination found in soil and groundwater was attributable to PSE's predecessors' ownership and operation on this site. In 2008, PSE conducted an initial investigation of environmental conditions beneath the property. Subsequent on- and off-property investigations were conducted between 2009 and 2011 under WDOE's Voluntary Cleanup Program. These studies identified the presence of MGP-related contamination beneath the property and extending onto adjacent properties. The full lateral extent of off-property impacts was not identified in these studies.

PSE designed and implemented a remedial action for the property and the construction work was completed in October 2012. In September 2015, PSE received a Property-specific No Further Action letter (NFA) from WDOE. Institutional controls and ongoing groundwater monitoring are required because some inaccessible contamination remains. Contamination that extends off the property will be addressed as a separate phase of the project in the future.

The property owner recently notified PSE of plans to construct a multi-story condominium structure on the Property. PSE is working with the owner to ensure that the NFA status of the site is not impacted and to help control construction costs associated with the contamination that remains onsite.

#### **K. Verbeek Autowrecking**

PSE was notified that fill from the Gas Works Park MGP site was deposited on the Verbeek Autowrecking site and contamination was present. Remediation of the Verbeek property was completed in 2010 and WDOE issued a property specific No Further Action letter. A small amount of GWP contaminated fill remains in place on an adjacent property that could not be removed due to a building constructed over the top of the fill.

#### **L. Downtowner Property**

On April 7, 2014, PSE received a notice letter under the Model Toxics Control Act (MTCA) Washington State's cleanup law similar to the federal cleanup law, CERCLA or Superfund, from a law firm representing a property owner alleging contamination discovered at a property in downtown Seattle during excavation for underground parking. The property owner claimed the contamination was connected to a MGP that was operated by PSE's predecessors. PSE researched the merit of this claim and monitored the remedial excavation at the site being led by the property owner.

On April, 2015, the property owner, GRE 4<sup>th</sup> Avenue South, LLC filed suit against PSE, seeking a declaratory judgment that PSE is liable for remedial action costs under MTCA and contribution for remedial action costs the property owner has expended and will incur. PSE settled this suit in September

2015. MGP-related contamination remains at depth beneath the building. PSE is responsible for future costs associated with the removal of DNAPL and soil vapor sampling.

## **FORMER PUGET POWER SITES**

### **A. White River/Buckley Phase II Burn Pile and Wood Debris**

White River Hydroelectric project was formerly owned and operated by PSE. During a flume maintenance project in 1988, construction debris was stockpiled on-site. An investigation of this stockpile discovered that wood treatment chemicals that were originally used to treat the timbers had migrated from the debris into the underlying soil and groundwater. Removal of the debris and impacted soil was completed in 2006, however, arsenic concentrations in groundwater continues to be above MTCA. Monitoring of the groundwater shows that the lateral extent of the groundwater plume does not appear to be expanding or approaching the White River

### **B. Lower Duwamish Waterway**

In December, 2005, PSE received a demand letter regarding the Malarkey Asphalt plant at Terminal 117 on the Duwamish waterway. Used transformer oil, containing PCBs, was burned by the operators as a boiler fuel. PSE has denied involvement at the site, and to date, no evidence linking PSE to the site has been discovered. Litigation involving other parties was resolved without PSE's involvement.

On November, 2012 PSE received a General Notice letter from EPA indicating that they believe PSE may be responsible under CERCLA for costs associated with the cleanup of the Lower Duwamish Waterway.

In August of 2014, PSE received notice from a neutral allocator inviting PSE to join an alternative dispute resolution (ADR) process to allocate liability for environmental remedial action at the site. PSE agreed on August 25, 2014 to participate in the ADR process, and since that time has been conducting research and preparing submittals about historical operations, including submitting questionnaire responses to the neutral allocator. PSE is currently preparing an expert report to submit to the allocator.

In February 2016, counsel for PSE received a Notice of Intent letter from the Elliott Bay Trustee Council indicating that PSE is a potentially liable party that has contributed to the release of hazardous substances that have injured natural resources. In March 2016, counsel for PSE submitted a letter to counsel for the Trustees denying liability for natural resource damages and declining to participate in the injury assessment.

### **C. Lower Baker Power Plant**

In 1965 a landslide destroyed PSE's Lower Baker Hydroelectric project powerhouse facility. A number of oil-containing devices are assumed to be buried beneath the slide. A petroleum-like sheen was discovered in water discharging from a metal pipe extending from the concrete wall of the former powerhouse that remains in place. PSE installed a water treatment system which eliminated the sheen. The specific source(s) and extent of contamination in the landslide area has not been identified.

### **D. Snoqualmie Hydro Generation (Power Plant)**

PSE began construction activities associated with the the redevelopment of the Snoqualmie Falls Hydroelectric project in the fall of 2009. Upgrades to electrical generating facilities at both power plants required the excavation of a significant quantity of soil and rock. During this process, contaminated soil was identified (likely from historic maintenance and storage practices) and removed from the Plant 1

construction footprint between 2010 and 2013. Residual contaminated soil remains at some locations outside of the Plant 1 construction footprint, in areas where access would have been difficult. The cleanup completion report was finalized and no further actions are planned.

#### **E. Bellingham South State Street (Boulevard Park MGP)**

PSE's predecessors owned and operated a MGP on Bellingham Bay. PSE sold the property to Cascade Natural Gas which dismantled the MGP and later sold the property to the City of Bellingham who developed the site as part of Boulevard Park. PSE was notified by the City of Bellingham of potential liability for contamination at the site. PSE entered into a cost-sharing agreement with the City of Bellingham to complete a RI/FS for the former MGP site under an Agreed Order with the City and WDOE. The Agreed Order was issued on April 30, 2010 by WDOE.

PSE and the City of Bellingham performed an upland and sediment investigation under the Agreed Order. The draft remedial investigation (RI) was led by the City. WDOE provided comments on the draft RI report and requested supplemental investigation. All supplemental investigations have been completed and the City submitted a revised RI report to WDOE in May 2017. PSE is leading the feasibility study (FS) and evaluating potential remedial alternatives for the site. The agency review draft of the FS is scheduled to be completed at the end of 2017.

To address beach erosion, the City is completing an interim remedial action concurrent with the FS process. The scope of the interim action is limited and is focused on repairing and protecting the beach face from erosion.

#### **F. Electron Flume**

PSE formerly owned the Electron Hydroelectric project which includes a wooden flume used to convey water from the diversion dam to the Electron Powerhouse. The flume is approximately 10 miles long and is located on the southwest slope of the Puyallup River valley. PSE historically replaced portions of the flume during routine maintenance and repair activities. The removed wood was typically placed on the ground surface at the location of the repair. This produced piles of wood debris that remained along the flume alignment. Based on historical information, some of this wood was treated with chemical preservatives.

In response to WDOE inquiries, PSE sent a letter in late 2006 committing to begin a project to remove the large debris immediately adjacent to the flume. Characterization has shown this debris to be a mix of both treated and untreated wood of similar properties to the debris piles formerly located at the Buckley Headwork's and qualifies for the arsenical-treated wood exclusion. At the direction of WDOE, all large piles of treated wood debris that could be addressed safely have been removed and sent off-site for proper disposal. The future cost estimate assumes that some previously unrecoverable treated wood will become assessable in the future as part of construction activities.

#### **G. Puyallup Garage**

During the early 90's, remediation was performed to remove the majority of accessible contaminated soil at PSE's Puyallup Service Center. Contaminated soil remains beneath the former garage building. PSE expects to perform remediation at this site in the future when the soil becomes accessible.

#### **H. Crystal Mountain Generator Station**

PSE operates a remote electric generating facility near Crystal Mountain Ski Resort at which a release of thousands of gallons of diesel fuel occurred in 2006. PSE conducted an emergency response and cleanup overseen by EPA and the Washington Department of Ecology. PSE has now settled all civil penalty

claims of the United States and WDOE as well as the natural resource damage claims of the Natural Resource Trustees originating from a diesel spill in 2006.

Final site restoration will be required after removing the trench and treatment system. Following the final restoration, groundwater monitoring will likely be necessary for a number of years to verify the success of the remediation.

#### **I. City of Olympia vs. PSE (Plum Street Substation)**

On March 7, 2012, the City of Olympia filed a lawsuit against PSE asserting that a predecessor of PSE owned and operated an MGP at an adjacent site and that PSE also is responsible as the current owner of the adjacent Plum Street Substation. During construction of the new City Hall, the City alleged that it had encountered contamination from past MGP operations. PSE is currently researching the merit of these allegations. PSE reached a settlement with the other defendants named in the lawsuit.

#### **J. Buckley Headworks**

PSE's past operation of a wood treatment facility located at the Buckley Headworks was found to have contaminated soil and groundwater. Remediation of this site was completed in 2002 in accordance with MTCA. WDOE provided a No Further Action Letter in 2003. Future costs shown are associated with monitoring and maintenance of the remedy necessary to ensure its effectiveness.

### **Electric Operations Remediation**

#### **K. Talbot Hill Substation and Switchyard**

During the investigation and remediation of a minor mineral oil release discovered in June 2009, contamination related to historic spills from electrical equipment was encountered at the site. Subsurface explorations identified contamination exceeding state cleanup levels beneath a portion of the site, including structural foundations supporting towers and electrical equipment. PSE completed an interim cleanup action that removed accessible contaminated soil from the site. Some contaminated soil remains beneath facility structures and will be addressed at a later date.

#### **L. Sammamish Substation**

On June 16, 2011, a failure of a large transformer at PSE's Sammamish Substation occurred causing a fire and release of non-PCB mineral oil. PSE has completed remediation of the majority of contaminated soil, but there is some limited contamination adjacent to energized control cables that will need to be addressed sometime in the future when it becomes accessible. On May 28, 2014, PSE received a letter from WDOE informing PSE that the site would now be listed as a known and confirmed contaminated site.

#### **M. Shuffleton Facility**

During PSE's environmental assessment of the Shuffleton property, vinyl chloride was detected in groundwater at concentrations greater than the cleanup level near the northwestern property boundary. Additional investigations are being completed to evaluate the source and extent of the vinyl chloride, and cleanup options are being evaluated.

#### **N. Central Waterfront (NEW SITE)**

On August 15, 2017 PSE received a notice from WDOE indicating that they believed PSE is a Potentially Responsible Party for the Central Waterfront Site located in Bellingham. The Central Waterfront site



includes a former landfill on the property currently owned by PSE. Ecology has suggested that the landfill operation caused contamination of the area. PSE has a small substation located onsite. PSE's initial evaluation of the available data suggests that the substation site is not a contributor to the Central Waterfront Site.

**O. Underground Storage Tanks Status**

Please see the attached spreadsheet. This provides a summary of our ongoing efforts associated with the investigation, remediation, and/or removal of underground storage tanks (UST).

Sincerely,

A handwritten signature in black ink, appearing to read "John Rork". The signature is written in a cursive style with a large initial "J" and a long, sweeping underline.

John Rork  
Manager - Environmental Services

cc: Daniel Doyle  
Kathie Barnard  
Lorna Luebbe  
Matt Marcellia  
Theresa Huizi  
Alborada Mata-Cazares  
Susan Free  
Eric Englert  
Julie Yount  
Jeff Thomas

**PUGET SOUND ENERGY, INC.**  
**Deferred Environmental Cost Summary Electric**  
**September 30, 2017**

September 2000 - forward AP Order	Liability Account	SAP Account	Site Description	SAP Account Balance 6/30/2017 (a)	Quarterly Activity (b)	SAP Account Balance 9/30/2017 (c) = (a) + (b)	Actual Costs Through 9/30/2017 (d)	Future Cost Estimates (e)	Total Cost Estimates (f) = (d) + (e)	Recoveries Through 9/30/2017 (g)
	22840351	18231241	Env Rem - White River/Buckley Phase I Headworks (Future Cost Est.)							
18230010		18231251	Env Rem - White River/Buckley Phase I Headworks (Remediation Cost)	31,456.19	-	31,456.19	31,456.19	-		
			Subtotal White River/Buckley Phase I Headworks Site	31,456.19	-	31,456.19	31,456.19	-		
18230009	22840021	18232221	Env Rem - White River/Buckley Phase II Burn Pile and Wood Debris (Future Cost Est.)							
		18232251	Env Rem - White River/Buckley Phase II Burn Pile and Wood Debris (Remediation Cost)	2,167,207.20	-	2,167,207.20	2,167,207.20			
			Subtotal White River/Buckley Phase II Burn Pile and Wood Debris Site	2,167,207.20	-	2,167,207.20	2,167,207.20			
			<b>REDACTED</b>							
18230021	22840221	18232261	Env Rem - Lower Duwamish Waterway (Future Cost Est.)							
		18232271	Env Rem - Lower Duwamish Waterway (Remediation Cost)	769,549.93	71,194.40	840,744.33	840,744.33	-		
			Subtotal Lower Duwamish Waterway Site	769,549.93	-	840,744.33	686,357.77	-		
18230021		18232271	Env Rem - Lower Duwamish Waterway (Insurance Recoveries)	(71,171.44)	(83,215.12)	(154,386.56)	(154,386.56)			
			<b>(B)</b>							
	22840051	18230311	Env Rem - Whidbey Service Center UST (Future Cost Est.)							
			<b>REDACTED</b>							
	22840111	18233061	Env Rem - Poulsbo Service Center UST (Future Cost)							
			Env Rem - Poulsbo Service Center UST (Remediation)	-	-	-	-	-		
			Subtotal Poulsbo Service Center UST	-	-	-	-	-		
18230041	22840061	18230321	Env Rem - Tenino Service Center UST (Future Cost Est.)							
		18233091	Env Rem - Tenino Service Center UST (Remediation)	198,092.16	-	198,092.16	198,092.16			
			Subtotal Tenino Service Center UST	198,092.16	-	198,092.16	198,092.16			
			<b>Subtotal 182.3</b>	<b>3,095,134.04</b>	<b>-</b>	<b>3,083,113.32</b>	<b>3,083,113.32</b>	<b>-</b>	<b>-</b>	<b>-</b>
18601120	22840161	18608011	Env Rem - Lower Baker Power Plant (Future Cost Est.)							
		18608001	Env Rem - Lower Baker Power Plant (Remediation Cost)	446,845.94	-	446,845.94	446,845.94			
			Subtotal Lower Baker Power Plant Site	446,845.94	-	446,845.94	446,845.94			
18601121	22840171	18608031	Env Rem - Snoqualmie Hydro Generation (Power Plant) Future Cost Est.)							
		18608021	Env Rem - Snoqualmie Hydro Generation (Remediation Cost)	2,254,508.17	-	2,254,508.17	2,254,508.17			
			Subtotal Snoqualmie Hydro Generation Site	2,304,508.17	-	2,254,508.17	2,254,508.17			
18601122	22840181	18608051	Env Rem - Bellingham South State Street MGP (former Blvd Park) (Future Cost Est.)							
		18608041	Env Rem - Bellingham South State Street MGP (Remediation)	2,722,669.86	83,271.46	2,805,941.32	2,805,941.32			
			Subtotal Bellingham South State Street MGP (former Blvd Park) Site	2,722,669.86	-	2,805,941.32	2,143,387.45			
18601119	22840191	18608041	Env Rem - Bellingham South State Street MGP (Insurance Recovery)	(662,553.87)	(3,948.00)	(666,501.87)	(662,553.87)			
		18608111	Env Rem - Electron Plume (Future Cost Est.)							
		18608081	Env Rem - Electron Plume (Remediation Cost)	669,654.71	-	669,654.71	669,654.71			
			Subtotal Electron Plume Site	669,654.71	-	669,654.71	669,654.71			
18601125	22840231	18608151	Env Rem - Talbot Hill Substation and Switchyard (Future Cost Est.)							
		18608141	Env Rem - Talbot Hill Substation and Switchyard (Remediation Cost)	224,879.76	-	224,879.76	224,879.76			
			Subtotal Talbot Hill Substation & Switchyard Site	224,879.76	-	224,879.76	224,879.76			
			<b>REDACTED</b>							
18601130	22840281	18608181	Env Rem - Sammamish Substation (Future Cost Est.)							
		18608191	Env Rem - Sammamish Substation (Remediation Cost)	400,495.47	-	400,495.47	400,495.47			
			Subtotal Sammamish Substation Site	400,495.47	-	400,495.47	400,495.47			
			<b>REDACTED</b>							
	22840301	18608221	Env Rem - City of Olympia v PSE Plumb Street Station (Future Cost Est.)							

**PUGET SOUND ENERGY, INC.**  
**Deferred Environmental Cost Summary Electric**  
**September 30, 2017**

AP Order	September 2000 - forward Liability Account	SAP Account	Site Description	SAP Account Balance 6/30/2017 (a)	Quarterly Activity (b)	SAP Account Balance 9/30/2017 (c) = (a) + (b)	Actual Costs Through 9/30/2017 (d)	Future Cost Estimates (e)	Total Cost Estimates (f) = (d) + (e)	Recoveries Through 9/30/2017 (g)
18601161		18608231	Env Rem - City of Olympia v PSE Plum Street Station (Remediation)	231,698.24	-	231,698.24	231,698.24	-	-	-
18601162		18608271	Subtotal City of Olympia v PSE Plum Street Station	231,698.24	-	231,698.24	231,698.24	-	-	-
			(B) Env Rem - City of Olympia v PSE Plum Street Station (Insurance Recovery)	(105,008.20)	-	(105,008.20)	(105,008.20)	-	-	-
18601163	22840371	18608291	Env Rem - Shuffleton (Future Cost Est.)	56,229.11	14,219.29	72,448.40	72,448.40	-	-	-
		18608281	Env Rem - Shuffleton (Remediation Cost)	56,229.11	-	56,229.11	56,229.11	-	-	-
			Subtotal Shuffleton Site			72,448.40	72,448.40			
18601152	22840361	18608451	Env Rem - Central Waterfront (Future Cost Est.)	-	-	-	-	-	-	-
		18608441	Env Rem - Central Waterfront (Remediation Cost)	-	-	-	-	-	-	-
			Subtotal Shuffleton Site			-	-			
<b>lec. UNDERGROUND STORAGE TANKS AND OTHER SITES</b>										
18601171	22840311	18608241	Env Rem - Whitehorn UST Remediation (Future Cost Est.)	695.75	-	695.75	695.75	-	-	-
		18608251	Env Rem - Whitehorn UST (Remediation)	695.75	-	695.75	695.75	-	-	-
			Subtotal Whitehorn UST			695.75	695.75			
18601129		18608171	Project completed - Not included on Qtrly Memo							
18601129		18608171	Env Rem - Everett Asarco	212,588.68	-	212,588.68	212,588.68	-	-	-
			Subtotal Everett Asarco Site	212,588.68	-	212,588.68	212,588.68	-	-	-
18601151		18608211	Env Rem - Pt. Robinson Cable Station	111,880.23	-	111,880.23	111,880.23	-	-	-
			Subtotal Pt. Robinson Cable Station	111,880.23	-	111,880.23	111,880.23	-	-	-
			Subtotal 186	6,963,116.05	-	6,660,126.60	6,696,634.40	-	-	-
			Total Asset	10,056,250.09	-	9,743,239.92	9,779,747.72	-	-	-
22840081	22840081	22840081	Env Rem - Puyallup Garage Site							
			Subtotal Puyallup Garage Site							
22840131	22840131	22840131	Env Rem - Crystal Mountain Generator Station Site (Future Cost)							
			Env Rem - Crystal Mountain Generator Station Site Remediation							
			Subtotal Olympia Service Center UST							
22840031	22840031	22840031	Env Rem - Olympia Service Center UST							
		22841001	Accum Misc Oper Provi - Unallocated Def Elec Env Rem Recoveries	(4,610,484.08)	-	(4,610,484.08)	-	-	-	-
			Total Liabilities	(4,610,484.08)	-	(4,610,484.08)	-	-	-	-
			Grand Total	5,447,766.01	-	5,132,755.84	9,779,747.72	-	-	-

**REDACTED**

octnotes:

1) The total estimated costs for the Crystal Mountain Site of \$15,083,472.66 include PSE Insurance Recoveries of \$11,938,563, Future Cost Estimate of \$600,000 and Expensed amount of \$2,644,909.68 (Actual Costs less Recoveries) through report date.

3) Represents allocated proceeds from the Insurance Reimbursements and 3rd Party Recoveries.

**PUGET SOUND ENERGY, INC.**  
**Deferred Environmental Cost Summary Electric**  
**September 30, 2017**

September 2000 - forward SAP Order Liability Account	SAP Account	Site Description	SAP Account Balance 6/30/2017	Quarterly Activity	SAP Account Balance 9/30/2017	Actual Costs Through 9/30/2017	Future Cost Estimates	Total Cost Estimates	Recoveries Through 9/30/2017
			(a)	(b)	(c) = (a) + (b)	(d)	(e)	(f) = (d) + (e)	(g)
		Env Rem - White River/Buckley Phase   Headworks (Future Cost Est.)							
	22840351								
18230010	18231241	Env Rem - White River/Buckley Phase   Headworks (Remediation Cost)	31,456.19	-	31,456.19	31,456.19	-	-	
	18231251	Subtotal White River/Buckley Phase   Headworks Site	31,456.19	-	31,456.19	31,456.19	-	-	
		Env Rem - White River/Buckley Phase   Burn Pile and Wood Debris (Future Cost Est.)							
	22840021								
18230009	18232221	Env Rem - White River/Buckley Phase   Burn Pile and Wood Debris (Remediation Cost)	2,167,207.20	-	2,167,207.20	2,167,207.20			
	18232251	Subtotal White River/Buckley Phase II Burn Pile and Wood Debris Site	2,167,207.20	-	2,167,207.20	2,167,207.20			
		Env Rem - Lower Duwamish Waterway (Future Cost Est.)							
	22840221								
18230021	18232261	Env Rem - Lower Duwamish Waterway (Remediation Cost)	769,549.93	71,194.40	840,744.33	840,744.33	-	-	
	18232271	Subtotal Lower Duwamish Waterway Site	769,549.93	-	840,744.33	686,357.77	-	-	
18230021	18232271	Env Rem - Lower Duwamish Waterway (Insurance Recoveries)	(71,171.44)	(63,215.12)	(154,386.56)	(154,386.56)			
		Env Rem - Whidbey Service Center UST (Future Cost Est.)							
	22840051								
18601119	18230311	Env Rem - Poulisbo Service Center UST (Future Cost Est.)	-	-	-	-	-	-	
	22840111								
18601120	18233061	Env Rem - Poulisbo Service Center UST (Remediation)	-	-	-	-	-	-	
		Subtotal Poulisbo Service Center UST	-	-	-	-	-	-	
		Env Rem - Tenino Service Center UST (Future Cost Est.)							
	22840061								
18230041	18230321	Env Rem - Tenino Service Center UST (Future Cost Est.)	-	-	-	-	-	-	
	18233091	Env Rem - Tenino Service Center UST (Remediation)	198,092.16	-	198,092.16	198,092.16	-	-	
		Subtotal Tenino Service Center UST	198,092.16	-	198,092.16	198,092.16	-	-	
		Subtotal 182.3	3,095,134.04	-	3,083,113.32	3,083,113.32	-	-	
		Env Rem - Lower Baker Power Plant (Future Cost Est.)							
	22840161								
18601120	18608011	Env Rem - Lower Baker Power Plant (Remediation Cost)	446,845.94	-	446,845.94	446,845.94	-	-	
	18608001	Subtotal Lower Baker Power Plant Site	793,378.14	-	446,845.94	446,845.94	-	-	
		Env Rem - Snoqualmie Hydro Generation (Power Plant) (Future Cost Est.)							
	22840171								
18601121	18608031	Env Rem - Snoqualmie Hydro Generation (Remediation Cost)	2,254,508.17	-	2,254,508.17	2,254,508.17	-	-	
	18608021	Subtotal Snoqualmie Hydro Generation Site	2,304,508.17	-	2,254,508.17	2,254,508.17	-	-	
		Env Rem - Bellingham South State Street MGP (former Blvd Park) (Future Cost Est.)							
	22840181								
18601122	18608051	Env Rem - Bellingham South State Street MGP (Remediation)	2,722,669.86	83,271.46	2,805,941.32	2,805,941.32	-	-	
	18608041	Subtotal Bellingham South State Street MGP (former Blvd Park) Site	2,722,669.86	-	2,805,941.32	2,143,387.45	-	-	
		Env Rem - Bellingham South State Street MGP (Insurance Recovery)	(662,553.87)	(3,948.00)	(666,501.87)	(662,553.87)			
	18601119	Env Rem - Electron Flume (Future Cost Est.)							
	22840191								
18601125	18608041	Env Rem - Electron Flume (Remediation Cost)	669,654.71	-	669,654.71	669,654.71	-	-	
	18608081	Subtotal Electron Flume Site	669,654.71	-	669,654.71	669,654.71	-	-	
		Env Rem - Talbot Hill Substation and Switchyard (Future Cost Est.)							
	22840231								
18601128	18608151	Env Rem - Talbot Hill Substation and Switchyard (Remediation Cost)	224,879.76	-	224,879.76	224,879.76	-	-	
	18608141	Subtotal Talbot Hill Substation & Switchyard Site	224,879.76	-	224,879.76	224,879.76	-	-	
		Env Rem - Sammamish Substation (Future Cost Est.)							
	22840281								
18601130	18608181	Env Rem - Sammamish Substation (Remediation Cost)	400,495.47	-	400,495.47	400,495.47	-	-	
	18608191	Subtotal Sammamish Substation Site	400,495.47	-	400,495.47	400,495.47	-	-	
		Env Rem - City of Olympia v PSE Pilum Street Station (Future Cost Est.)							
	22840301								
18601128	18608221	Env Rem - City of Olympia v PSE Pilum Street Station (Future Cost Est.)							

Project completed - Not included on Qtrly Memo

**PUGET SOUND ENERGY, INC.**  
**Deferred Environmental Cost Summary Electric**  
**September 30, 2017**

SAP Order	September 2000 - forward Liability Account	SAP Account	Site Description	SAP Account Balance 6/30/2017 (a)	Quarterly Activity (b)	SAP Account Balance 9/30/2017 (c) = (a) + (b)	Actual Costs Through 9/30/2017 (d)	Future Cost Estimates (e)	Total Cost Estimates (f) = (d) + (e)	Recoveries Through 9/30/2017 (g)
18601161		18608231	Env Rem - City of Olympia v PSE Plum Street Station (Remediation)	231,698.24	-	231,698.24	231,698.24	-	-	-
			Subtotal City of Olympia v PSE Plum Street Station	231,698.24	-	231,698.24	231,698.24	-	-	-
18601162		18608271	(B) Env Rem - City of Olympia v PSE Plum Street Station (Insurance Recovery)	(105,008.20)	-	(105,008.20)	(105,008.20)	-	-	-
			Env Rem - Shuffleton (Future Cost Est.)							
18601163	22840371	18608291	Env Rem - Shuffleton (Remediation Cost)	58,229.11	14,219.29	72,448.40	72,448.40	-	-	-
			Subtotal Shuffleton Site	58,229.11	-	72,448.40	72,448.40	-	-	-
			Env Rem - Central Waterfront (Future Cost Est.)							
18601152	22840361	18608451	Env Rem - Central Waterfront (Remediation Cost)	-	-	-	-	-	-	-
			Subtotal Shuffleton Site	-	-	-	-	-	-	-
<b>Elec. UNDERGROUND STORAGE TANKS AND OTHER SITES</b>										
			Env Rem - Whitehorn UST Remediation (Future Cost Est.)							
18601171	22840311	18608241	Env Rem - Whitehorn UST (Remediation)	695.75	-	695.75	695.75	-	-	-
			Subtotal Whitehorn UST	695.75	-	695.75	695.75	-	-	-
			<b>Project completed - Not included on Qtrly Memo</b>							
18601129		18608171	Env Rem - Everett Asarco	212,588.68	-	212,588.68	212,588.68	-	-	-
			Subtotal Everett Asarco Site	212,588.68	-	212,588.68	212,588.68	-	-	-
			Env Rem - Pt. Robinson Cable Station	111,880.23	-	111,880.23	111,880.23	-	-	-
			Subtotal Pt. Robinson Cable Station	111,880.23	-	111,880.23	111,880.23	-	-	-
			<b>Subtotal 186</b>	<b>6,963,116.05</b>	<b>-</b>	<b>6,660,126.60</b>	<b>6,696,634.40</b>	<b>-</b>	<b>-</b>	<b>-</b>
			<b>Total Asset</b>	<b>10,058,250.09</b>	<b>-</b>	<b>9,743,239.92</b>	<b>9,779,747.72</b>	<b>-</b>	<b>-</b>	<b>-</b>
22840081	22840081	22840081	Env Rem - Puyallup Garage Site							
			Subtotal Puyallup Garage Site							
			Env Rem - Olympia Service Center UST							
22840131	22840131	22840131	(A) Env Rem - Crystal Mountain Generator Station Site (Future Cost)							
			Env Rem - Crystal Mountain Generator Station Site Remediation							
			Env Rem - Olympia Service Center UST							
22840031	22840031	22840031	Accum Misc Oper Provi - Unallocated Def Elec Env Rem Recoveries	(4,610,484.08)	-	(4,610,484.08)	-	-	-	-
			<b>Total Liabilities</b>	<b>(4,610,484.08)</b>	<b>-</b>	<b>(4,610,484.08)</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
			<b>Grand Total</b>	<b>5,447,766.01</b>	<b>-</b>	<b>5,132,755.84</b>	<b>9,779,747.72</b>	<b>-</b>	<b>-</b>	<b>-</b>

**REDACTED**

Footnotes:

A) The total estimated costs for the Crystal Mountain Site of \$15,063,472.68 include PSE Insurance Recoveries of \$11,938,563. Future Cost Estimate of \$500,000 and Expensed amount of \$2,644,909.68 (Actual Costs less Recoveries) through report date.  
B) Represents allocated proceeds from the Insurance Reimbursements and 3rd Party Recoveries.