

FORMER WNG SITES

A. Tacoma Gas Company Site (Upland Source Control)

Beginning in 1884, a Manufactured Gas Plant (MGP) operated at 22nd & A Street in Tacoma and after the plant was closed in the early 1920's, the site was used to store various products including oil and creosote. Contamination at the site was identified during the late 1980s and various limited cleanup actions 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 new Agreed Order (AO) was negotiated with WDOE to complete the RI/FS and a draft Cleanup Action Plan (dCAP) that became effective on September 13, 2018. Signatories to the new AO are PSE, PacifiCorp, City of Tacoma and Washington State Department of Transportation. The goal of the AO is to gain approval from WDOE of the RI/FS so that a final CAP can be prepared to close out the site.

A groundwater sampling and analysis plan was submitted and approved by WDOE in July 2016. Addendums to the plan were submitted to identify and sample groundwater seeps. Groundwater samples were obtained in July and December 2016, April, August and December 2017, and April and July 2018. The purpose of the sampling is to update the conditions at the site for incorporation into the RI/FS.

A draft RI was submitted to WDOE in July 2018 and is being revised based on WDOE comments. Completion of the draft RI and progress on the FS and dCAP continued in 2021.

In 2020 PSE began working with a new WDOE site manager. Responses to questions from the new site manager are being prepared and PSE plans to begin work on the FS in 2022.

B. Thea Foss Waterway

The Thea Foss Waterway is part of the Commencement Bay Superfund site which is an Environmental Protection Agency (EPA) regulated cleanup site. PSE was involved as Potentially Responsible Party (PRP) due to its past ownership of a portion of the 22nd & A Street MGP that was located near the Waterway, and is part of a Utilities PRP subgroup. PSE and PacifiCorp (Utilities) are responsible for cleanup and monitoring of the south 1,000 feet of the waterway (Head of Thea Foss also known as the Utilities Work Area). The City of Tacoma is responsible for the rest of the waterway. Cleanup activities have been completed and the site is in the performance monitoring portion of the process. 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 the spring of 2018 (Year 14 since cleanup was accomplished) the Utilities completed required site inspections and sediment sampling near the head of the waterway. The work included a low tide visual survey, diver survey of a sheet pile wall, sediment coring and sampling/analysis of core samples. The surveys and available analytical data continued to show that the Utilities' remedy is functioning as intended and that the recontamination source (to surface sediments) remains storm water. The original OMMP covered Years 1 (2004) to 10 (2014). Based on data collected during these monitoring events, a new long-term plan was approved by EPA that generally includes visual/bathymetric surveys every 5 years, and diver surveys/sediment coring every ten years. The available information was used by EPA to complete their required 5-year periodic review scheduled for 2019. EPA is also compiling information for the administrative record to complete delisting of the Thea Foss, although monitoring will need to be continued. In 2019, a long-term monitoring plan for the site was agreed to by EPA and will extend to 2037.

C. Everett, Washington

PSE's predecessors operated an MGP 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 continues to receive 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 30th, 2015 PSE received from WDOE 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.

In 2019, WDOE performed a 5-year periodic review of the site. Following a WDOE review, a reduced compliance groundwater sampling schedule was adopted.

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 are shared between PSE and the City.

Work is being performed under a Model Toxics Control Act (MTCA) 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.

In Q4 of 2021, the full Draft RI/FS was submitted to WDOE for review. We are currently working through initial WDOE comments ahead of broader stakeholder review and engagement. We currently anticipate completion of the RI/FS in Q3 or Q4 of 2022.

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 April of 2020, PSE as well as other PRP's negotiated and signed an administrative settlement and order on consent (ASAOC) to investigate and develop a preremedial design study (PRDS). That work is ongoing.

EPA issued a Record of Decision in July of 2020. The Pre-Remedial Design Study is anticipated to be completed in 2022. Allocation discussions are also anticipated later this year.

G. Tacoma Tar Pits

Tacoma Tar Pits is a site in Tacoma where an MGP was operated. 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.

In 2019 EPA completed their required 5-year review of the THCGS remedy. EPA has not requested any significant changes to the overall operation of the site.

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 of ethylene glycol and lubricating oil was discovered. 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 analytical results appear generally similar to the previous data and PSE will address the residual contamination sometime in the future when the structures that are in place are removed.

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. The demolition of the structures was completed in July of 2017 to provide access to fully investigate the site in anticipation of developing a remedy. A remedial investigation as well as a focused feasibility study (FFS) was developed. PSE expects to begin construction to implement a remedy in 2022.

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 worked with the owner of that property to develop agreement on an investigation and remedy. PSE performed a site investigation pursuant to that agreement with the adjacent property owner and developed an FFS. In 2020 the FFS was completed and approved by the adjacent property owner. The Cleanup Action Plan was finalized in 2021. Remediation of the property to the north was completed in late 2021 and construction on

the remaining portions of the Site will continue in 2022-23. Groundwater monitoring will also continue in 2022.

J. Olympia (Columbia Street MGP)

PSE's predecessors operated an MGP on Columbia Street in the City of 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 continues to work with the property 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 MTCA notice letter 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 4th 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 costs associated with the removal of DNAPL and groundwater sampling.

M. Wenatchee (Worthern MGP)

PSE received a PLP notice letter from WDOE in March 2019 regarding a former MGP facility in Wenatchee. PSE has begun discussions with the property owners on developing a path forward to address the site.

In 2021, PSE conducted soil sampling to characterize the site. Groundwater sampling will be done in 2022.

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 continue to exceed the MTCA cleanup level. 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.

In 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. Since that time PSE has conducted research and submitted documents about historical operations to the neutral allocator, including an expert report and rebuttal expert report. PSE is currently preparing a position paper that argues for a preferred allocation methodology and proposes a specific cost allocation for PSE. After an associated rebuttal process, the allocator will consider the position papers submitted by all parties to develop a preliminary allocation.

In regard to natural resource damage at the site, 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.

In 2019, PSE and several other parties involved with the site proposed allocated shares for each potentially responsible part, including PSE. A final non-binding decision from the Site allocator is expected by mid 2022.

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 and continues to operate 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 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 remedial investigation (RI) was led by the City and the feasibility study (FS) was led by PSE. The draft RI/FS has been accepted by WDOE and it is currently progressing through the public comment process. The RI/FS report will likely be finalized during the first quarter of 2019 after all public comments have been addressed. Subsequent actions in 2019 will likely involve preparation of a cleanup action plan and negotiation of an administrative agreement for future permitting, remedial design and implementation.

PSE and the City of Bellingham finalized the RI/FS in 2019 under the Agreed Order. Preparation of a dCAP and Pre-Remedial Design Investigation (PRDI) began in the fourth quarter of 2019.

In 2020, PSE and the City finalized the Cleanup Action Plan (CAP) and prepared the Pre-remedial Design Investigation (PRDI) Work Plan. PRDI field activities were conducted in 2021. Additional work on defining the extent of impacts in sediment will be conducted in 2022.

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. If the current owner of the Electron plant is able to remove remnant wood debris in the future, PSE would be responsible for its disposal as well as other contamination considered to be "pre-existing" based on an agreement with the owner.

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 completed remedial activities to address the remaining contaminated soil beneath the former garage in 2019. Additional groundwater monitoring will likely be required to achieve regulatory closure.

H. Crystal Mountain Generator Station

PSE operates a remote electric generating facility near Crystal Mountain Ski Resort at which a release of diesel fuel occurred in 2006. PSE conducted an emergency response and cleanup overseen by EPA and WDOE. 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.

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. PSE is conducting monitoring and maintenance of the remedy to ensure its effectiveness.

ELECTRIC OPERATIONS REMEDIATION

A. Talbot Hill Substation and Switchyard

During the investigation and remediation of a 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.

B. 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.

C. 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. An in-situ treatment system was installed to address the vinyl chloride and monitoring was performed. The results of that monitoring show that the remedy was successful in reducing the vinyl chloride to below cleanup levels. PSE believes no further action is necessary

D. Central Waterfront

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 operated by other PRPs prior to PSE purchasing the property in the 1970's for the location of a substation. WDOE has suggested that the landfill operation caused contamination of the area. PSE's initial evaluation of the available data suggests that the substation site is not a contributor to the Central Waterfront Site. PSE continues to monitor development at the site.

E. Factoria Service Center USTs

Two 10,000 gallon underground storage tanks (USTs) are located at the Factoria Service Center. PSE completed site assessment activities in September 2019 by performing subsurface soil and groundwater samples between and around the sites USTs. Soil and groundwater impacts from the tanks were identified. The USTs were successfully removed in November 2019 and contaminated soil was successfully removed. Post groundwater samples were obtained in November 2019 and will determine if further groundwater monitoring will be required.

In 2020, it was determined that groundwater at the site is impacted with constituents related to the former USTs. PSE received a letter from the WDOE indicating that the site will be listed as a known or suspected contaminated site (CSID 15259). Compliance groundwater monitoring will be required in the future to assess the remaining impacts to groundwater.

F. 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).