



FINAL PERFORMANCE REPORT
LUST Recovery Act Corrective Action
EPA/ODEQ Cooperative Agreement 2L-96089401-1

Reporting Period: May 1, 2009 to September 30, 2011

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INTRODUCTION

The American Recovery and Reinvestment Act of 2009 (Recovery Act) provided \$7.2 billion for programs administered by EPA to protect and promote both green jobs and a healthier environment including \$200 million for assessing and cleaning up petroleum leaks from underground storage tanks. Approximately \$51 million of the total Recovery Act funding dedicated for environmental priorities was administered by the Oregon Department of Environmental Quality (DEQ). On July 28, 2009, DEQ was awarded \$2,694,000 to protect human health and the environment by cleaning up petroleum leaks. Pre-award costs incurred from May 1, 2009 through the award date were included in the authorization.

The overall goal of the Recovery Act was to jumpstart the economy by creating and saving millions of jobs. The proposed outcome of Oregon's Leaking Underground Storage Tank (LUST) Recovery Act Corrective Act Project was two-fold: to perform site assessment and cleanup work at high priority LUST sites, thereby retaining or creating jobs to stimulate economic growth, and to increase the number of cleanups completed. DEQ's Cooperative Agreement set a target of retaining or creating approximately 26 jobs and completing cleanups on an estimated 8 sites.

Sites selected for corrective action work were high priority leaking underground storage tank sites that were part of Oregon's historic backlog of open LUST sites. Oregon has a number of ten to twenty year old sites that due to the inability of the owners to fund corrective actions continue to have soil and groundwater contamination. A key provision of the Recovery Act stipulated that funds could only be used to pay for cleanups where the responsible party was unknown, unwilling, or unable to pay, or if the cleanup was an emergency response. In order to ensure that Recovery Act funds were quickly invested in the economy, sites were required to be "shovel-ready". Thirteen eligible sites were initially selected for site assessment and/or cleanup work. The completion of several projects under budget allowed an additional five eligible sites to have work performed.

DEQ outlined the following goals and associated outputs for this project as part of the EPA Cooperative Agreement work plan.

Goal 1: Perform Site Assessments and Cleanup Work at Historic LUST Sites

Output 1: Perform site assessments and/or cleanup work at 13 sites;

Output 2: Issue eight potential no further action letters (NFAs); and

Output 3: Retain or create approximately 26 jobs.

Goal 2: Recovery Act Reports/Publicity

Output 4: Prepare performance measures results reports;

Output 5: Prepare Section 1512 Recovery Act Reports; and

Output 6: Issue a minimum of four news releases or project fact sheets.

DEQ successfully met or exceeded all of the outputs listed above. The goals and outputs are discussed in detail in the following sections.

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ACTIVITIES PERFORMED DURING THE REPORTING PERIOD

Site assessment and/or cleanup work was performed at 18 LUST sites throughout Oregon. The sites are all located in rural communities and are shown below on Figure 1.

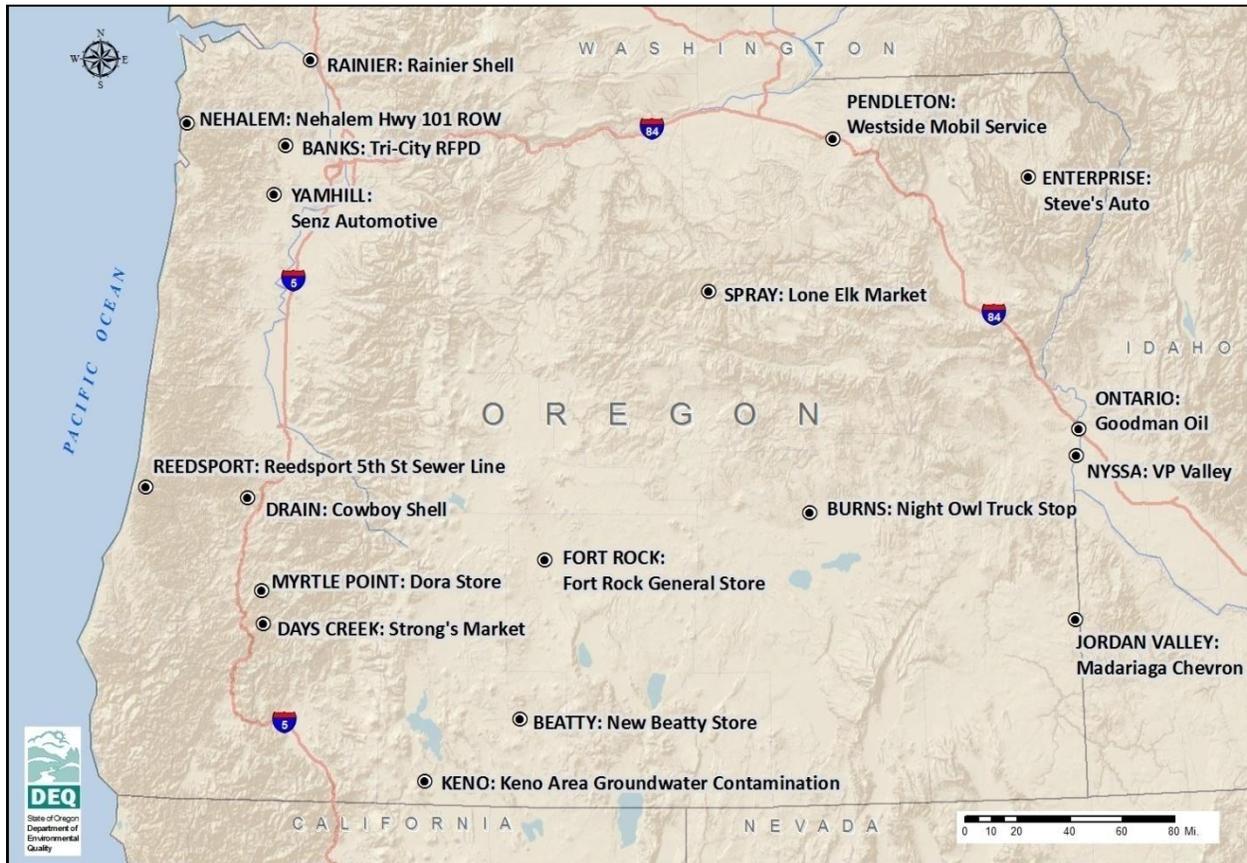


Figure 1 – Location of Project Sites

Goal 1: Perform Site Assessments and Cleanup Work at Historic LUST Sites

The goal of Oregon’s LUST Recovery Act Corrective Action project was to perform site assessments and cleanup work at high priority LUST sites that are part of the historic backlog of open sites. All site assessment and cleanup actions were primarily performed by three private environmental consulting firms under existing contracts with DEQ. Contracts renewable for up to five years were awarded to Ash Creek Associates, GeoEngineers, Inc., and Hart Crowser, Inc. in 2008 following a competitive procurement process. These existing contracts allowed DEQ to begin work immediately upon award of the cooperative agreement. These firms hired the necessary subcontractors to perform the various tasks associated with the site corrective action work. In addition, a construction contractor (Central Pipeline Inc.) was obtained through competitive procurement to complete public works improvements at one of the sites.

Output 1 – Perform Site Assessments and/or Cleanup Work at 13 Sites

DEQ originally proposed to complete work at 13 sites. Several of the original 13 projects were completed under budget allowing additional sites to be added to the list of projects. DEQ performed work at a total of 18 sites, thus exceeding the output measure. The work performed at the sites varied

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from small projects to large soil removal actions. A list of the 18 sites is provided on Table 1. A summary detailing each of the 18 sites and associated actions performed with Recovery Act funding is included in Attachment A.

Table 1: Project Sites

Site Name, City	
1. Cowboy Shell, Drain	10. Night Owl Truck Stop, Burns
2. Dora Store, Myrtle Point	11. Rainier Shell, Rainier
3. Fort Rock General Store, Fort Rock	12. Reedsport 5 th St Sewer Line, Reedsport
4. Goodman Oil, Ontario	13. Senz Automotive, Yamhill
5. Keno Groundwater Areawide, Keno	14. Steve's Auto, Enterprise
6. Lone Elk Market, Spray	15. Strong's Market, Days Creek
7. Madariaga Chevron, Jordan Valley	16. Tri-City Rural Fire Protection District, Banks
8. Nehalem Hwy 101 ROW, Nehalem	17. Westside Mobil Service, Pendleton
9. New Beatty Store, Beatty	18. VP Valley, Nyssa

The project sites were part of DEQ's historic backlog and all had initiated some site assessment and/or cleanup work previously. A total of 10 sites had assessment work completed and 9 sites had cleanup work completed.

Corrective Action Plans, Work Plans, Sampling & Analysis Plans, Health & Safety Plans

The 18 project sites were all at different stages in the assessment or cleanup process. Plans prepared were specific to the needs of each individual site. Corrective action plans (CAPs) were prepared for three sites. Site specific work plans detailing planned work such as the installation of monitoring wells, soil excavation, tank removal, remedial system installation, and other actions were prepared for each phase of work. A few of the sites had existing work plans previously prepared with alternative funding. Several of the projects required the preparation of multiple work plans that detailed planned actions for distinct phases of the project. Documents generated for each site during this project are listed on the site specific summaries presented in Attachment A.

All sampling activities were performed in accordance with DEQ's *Quality Management Plan* updated March 26, 2004 and October 15, 2009, DEQ's *Underground Storage Tank (UST) Program Quality Assurance Project Plan (QAPP)* dated January 2002, and the site specific Sampling and Analysis Plan (SAPs) developed as part of each work plan. The UST Program QAPP was updated on September 8, 2010 and SAPs used this updated version after the issuance date. A health and safety plan was also prepared and included as an attachment to each work plan. Access agreements were completed by DEQ with all property owners prior to the start of any field work.

Cultural Resource and Endangered Species Consultations

Most of the assessment and cleanup work performed at the project sites included ground disturbing actions (i.e. drilling, excavation, trenching). These actions required consulting with the State Historic Preservation Office (SHPO) and tribal entities in accordance with Section 106 of the National Historic Preservation Act. DEQ completed initial consultations on behalf of EPA.

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As a result of consultations, one project (Keno Groundwater Areawide) required the presence of a cultural resource monitor during the trenching portion of the project. Approximately 500 historic artifacts were encountered during one segment of the trenching near the historic stage coach stop. The artifacts were cataloged as required by SHPO and returned to the property owner. Some pre-historic material consisting of a light lithic scatter of obsidian flakes was also encountered during the trenching.

DEQ or our contractors obtained information on threatened and endangered species and habitat from the Oregon Biodiversity Information Center and other sources as appropriate for all sites. The information was submitted to the EPA Project Officer for a determination of “No Effect” in accordance with the Endangered Species Act.

Procurement

Procurement efforts were performed by our prime contractors, Ash Creek Associates, GeoEngineers, and Hart Crowser, to obtain the necessary subcontractors to implement the scopes of work at each site. DEQ, through the Oregon Department of Administrative Services, also procured a construction contractor to expand the community water system for the Keno Groundwater Areawide project. A list of contractors, both prime and their first tier sub-contractors, is provided on Table 2.

Table 2: List of Contractors. Prime Contractors are bolded.

Analytical Laboratories		
Apex Laboratories	Columbia Analytical Services	ESC Lab Sciences
Specialty Analytical	Test America	Umpqua Research
Construction, Excavation, or Treatment System Contractors		
Anderson Environmental Contracting	Central Pipeline, Inc.	Cherokee Constructions Services
Clearwater Environmental Services	Terra Hydr	Xavier Environmental
Drilling Contractors		
Boart Longyear	Cascade Drilling	Environmental West Explorations
ESN Northwest	Geodyne, Inc.	Hiddleston Drilling
Major Drilling	Maphet Drilling	Pacific Soil & Water
Stratus Corporation		
Engineering, Environmental, or Hydrogeologic Contractors		
Adkins Consulting Engineering	Ash Creek Associates, Inc	GeoEngineers, Inc.
GSI Water Solutions, Inc.	Hart Crowser, Inc.	
Miscellaneous Contractors		
COAT Flagging - Traffic Control	Earth Dynamics – Surveying	EcoWater - Water Filter System
Harney County Plumbing	HLB Otak – Surveying	Howard Company - Tree Replacement
K&D Services - Traffic Control	Native-X – Cultural Resources	Specialty Construction Supply
Tru-Line Surveying – Surveying		
Utility Survey or Locating Contractors		
All County Locates	Applied Professional Services	Bravo Environmental
Geopotential	Locates Down Under	Magic Valley Locates
Waste Disposal Contractors		
NRC Environmental	ORRCO	Philip Services Corp.
SafetyKleen	S&S Disposal	WasteXpress

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Minority business enterprises (MBE) and woman business enterprises (WBE) contractors were tracked for federal reporting purposes. In addition, several of the projects triggered federal Davis Bacon wage and/or state prevailing wage, Bureau of Labor and Industries (BOLI), regulations. The contractors with MBE and/or WBE status as well as sites where prevailing wages were paid are listed on Table 3.

Table 3: MBE/WBE Contractors and Prevailing Wage Sites

Minority Business Enterprises (MBE) and Woman Business Enterprises (WBE)		
Apex Laboratories (WBE prior to 12/31/2010)	Xavier Environmental (MBE/WBE)	Ash Creek Associates, Inc (WBE)
COAT Flagging (MBE/WBE)	K&D Services (WBE)	

Prevailing Wage (Davis Bacon and/or BOLI) Projects, Contractor		
Fort Rock Store, Ash Creek Associates	Keno Groundwater Areawide, Hart Crowser	Madariaga Chevron, GeoEngineers
Keno Groundwater Areawide, Central Pipeline	Lone Elk Market, Ash Creek Associates	Senz Automotive, GeoEngineers

Implementation of the Work Plans

The implementation of the site specific work plans included the completion of site specific sampling activities, installation of soil borings or groundwater monitoring wells, submittal of samples to an analytical laboratory, removal and disposal of investigation derived waste (IDW), surveying of monitoring wells, groundwater monitoring, soil gas and ambient air sampling, and other actions outlined in the work plans. Actions at 12 of the 18 sites included delineation of contamination on and/or off site.

Approximately 60 percent of the project funding was used to address corrective actions at three sites: Keno Groundwater Areawide, Lone Elk Market, and Senz Automotive. The corrective actions performed at these sites are summarized in Table 4.

Table 4: General Summary of Corrective Actions

Keno Groundwater Areawide	Lone Elk Market	Senz Automotive
<ul style="list-style-type: none"> • Install off site monitoring wells. • Sample bi-monthly and maintain five active carbon filtration treatment systems on water well heads. • Geophysical survey to identify and map fracture zones. • Groundwater monitoring. • Extend the community water system to provide a permanent source of clean water to impacted properties. 	<ul style="list-style-type: none"> • Modify the existing soil vapor extraction (SVE) system to remove vapors from beneath the USTs and the building. • Restore & modify operation of the groundwater extraction system. • Drill three angled SVE wells beneath the building. • Drill combined SVE and groundwater extraction well. • Groundwater monitoring. • Monthly treatment system monitoring and effluent sampling. • Monthly to quarterly operation and maintenance of remedial systems. 	<ul style="list-style-type: none"> • Site investigation (on & off site). • Install off site monitoring wells. • Sample soil gas and ambient air. • Groundwater monitoring. • Demolish building to access contamination. • Abandonment of a hand dug well. • Removal & off-site disposal of 3,258 tons of petroleum contaminated soil. • Dismantle groundwater treatment system. • Camera survey of storm water line. • Re-route subsurface storm water drain line. • Well abandonment.

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Reporting

The environmental contractors prepared reports documenting each phase of work at the project sites. The reports were submitted to the DEQ project manager assigned to each site. The type of reports prepared included, but were not limited to, site investigation reports, quarterly groundwater monitoring reports, interim removal action reports, contaminated media management plans and well abandonment reports. In addition to the reports prepared to document corrective actions other documents were prepared by DEQ project managers as part of site regulatory closure actions. These documents included, but were not limited to, decision documents, notices of environmental contamination, easement and equitable servitude documents, and no further action determination letters. Documents generated for each site during this project are listed on the site specific summaries presented in Attachment A. Procurement documents were prepared on a project by project basis. Procurement documents are not included in the document lists in Attachment A.

Output 2: Issue Eight Potential No Further Action Letters (NFAs)

Regulatory closure in the form of a NFA determination was issued at nine sites exceeding the output measure. The sites that were issued NFAs are listed on Table 5.

Table 5: No Further Action Letters

Site Name, Date NFA Issued	
1. VP Valley, March 23, 2010	6. Dora Store, April 28, 2011
2. Steve's Auto, June 8, 2010	7. Westside Mobil Service, August 2, 2011
3. Rainier Shell, September 29, 2010	8. Night Owl Truck Stop, September 14, 2011
4. Nehalem Hwy 101 ROW, December 15, 2010	9. Tri-City RFPD, September 15, 2011
5. New Beatty Store, December 29, 2010	

Output 3: Retain or create approximately 26 jobs

The total number of jobs retained during this cooperative agreement project period is 36.56 of which 9.14 full time employees (FTE) are DEQ staff and 27.42 FTE are contractor staff. DEQ jobs retained included contract administration, project management and grant management staff. Contractor jobs created or retained included professional and administrative environmental contractor staff, civil engineering staff, cultural resource monitoring staff, geologists, drillers, laborers, truck drivers and equipment operators. See Table 2 for a list of all contractors including both prime contractors and their first tier sub-contractors.

Goal 2: Recovery Act Reports/Publicity

The purpose of this goal was to meet all EPA Region 10 and Recovery Act reporting requirements and to perform administrative tasks required to manage the cooperative agreement. The goal also includes public relations actions such as issuing news releases or project fact sheets.

Output 4: Prepare Performance Measures Results Reports

The LUST Recovery Act Program Performance Measures reports were submitted to EPA using the EPA Portal within 10 days after the end of each quarter. Narrative reports were also submitted quarterly to EPA Region 10. This report is the final performance report.

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Output 5: Prepare Section 1512 Recovery Act Reports

OMB reporting was coordinated through the Governor's Economic Recovery Executive Team (ERET) as part of *The OREGON Way*, former Governor Ted Kulongowski's initiative to accelerate the state's economic recovery by creating jobs and economic stability for communities throughout the state. Quarterly financial and job-related measures as outlined in OMB regulations at 2 CFR Part 176.50, commonly referred to as Section 1512 reports, were submitted electronically to OMB by ERET on DEQ's behalf.

Additionally, ERET required all state agencies receiving Recovery Act funds to submit status reports to them. Reports were initially required weekly. The reporting schedule was relaxed to bi-weekly in the fall of 2010 and monthly in the fall of 2011.

Output 6: Issue a Minimum of Four News Releases or Project Fact Sheets

DEQ issued four news releases and two fact sheets. Two public notices were also placed in the local newspapers. In addition, DEQ also sent direct notifications to appropriate property owners on several projects. The news releases, fact sheets, and public notices are summarized below.

News Releases

- *DEQ Plans Cleanup of Petroleum Contamination at Yamhill Station* issued November 24, 2009.
- *DEQ Plans Cleanup of Petroleum Contamination at Fort Rock General Store* issued December 30, 2009.
- *DEQ Plans Cleanup of Petroleum Contamination in Keno* issued December 30, 2009.
- *DEQ Plans Cleanup of Petroleum Contamination in Spray* issued January 4, 2010.

Fact Sheets

- *Yamhill Station Cleanup Begins* dated September 29, 2009.
- *Yamhill Station Contamination* dated May 21, 2010.

Public Notices

- *Proposed No Further Action, Steve's Auto Repair & Service* issued in Secretary of State's Bulletin on May 1, 2010 and in the Wallowa County Chieftain newspaper on May 6, 2010.
- *Proposed Conditional No Further Action, Madariaga Chevron Service Station* issued in Argus Observer newspaper and Secretary of State's Bulletin on August 1, 2010.

FINANCIAL SUMMARY

DEQ was awarded \$2,694,000 to perform Recovery Act work. DEQ expended \$2,694,000. The amount spent on each project, excluding administrative costs is included in the project summaries in Attachment A.

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RESULTS

DEQ successfully completed cleanups at nine LUST sites. Site assessments were completed at ten LUST sites. DEQ met or exceeded all outputs and goals set for this project. While addressing issues related to petroleum releases was the primary goal, work performed at these sites had additional benefits.

A permanent source of safe clean drinking water was provided to rural properties in Keno, Oregon. These properties have endured water wells that have been impacted by petroleum releases from regulated USTs for over 15 years. The extension of the local water system has been constructed to allow additional properties to be connected to the system in the future in the event contaminated groundwater impacts additional water wells.

Recovery Act funding facilitated the resolution of long standing petroleum contamination on adjacent properties impacted by releases from regulated USTs in Yamhill, Oregon. A barrier to the expansion of the local fire station facilities has been removed by addressing the petroleum contamination.

Significant efforts continue to be made to protect the City of Spray's community water system from historic releases of petroleum products from the local gas station. Recovery Act funding allowed DEQ to rehabilitate and modify the remedial systems to address petroleum source areas previously not accessible.

The Recovery Act funding has allowed the regulatory closure of nine historic releases from regulated USTs, thereby protecting human health and the environment as well as assisting the properties in any future redevelopment efforts.

ATTACHMENTS

Attachment A – Project Specific Descriptions

ATTACHMENT A
PROJECT DESCRIPTIONS

Site Name, City	
1. Cowboy Shell, Drain	10. Night Owl Truck Stop, Burns
2. Dora Store, Myrtle Point	11. Rainier Shell, Rainier
3. Fort Rock General Store, Fort Rock	12. Reedsport 5 th St Sewer Line, Reedsport
4. Goodman Oil, Ontario	13. Senz Automotive, Yamhill
5. Keno Groundwater Areawide, Keno	14. Steve's Auto, Enterprise
6. Lone Elk Market, Spray	15. Strong's Market, Days Creek
7. Madariaga Chevron, Jordan Valley	16. Tri-City Rural Fire Protection District, Banks
8. Nehalem Hwy 101 ROW, Nehalem	17. Westside Mobil Service, Pendleton
9. New Beatty Store, Beatty	18. VP Valley, Nyssa

COWBOY SHELL DRAIN, OREGON

The Cowboy Shell site is located at 107 W “B” Street in Drain, Douglas County, Oregon. This site had been the location of a service station since at least 1931, with the last configuration likely constructed in the 1960s.

Petroleum soil and groundwater contamination was discovered during utility work conducted along W “B” St. adjacent to the site in 1989.

The Department of Environmental Quality (DEQ) removed residual petroleum from the underground storage tanks (USTs) and conducted a limited site assessment in February 2002. DEQ decommissioned by removal seven USTs in October 2003. Extensive petroleum contamination of soil and groundwater was documented during the assessment and removal actions.



Removal of an underground storage tank in October 2003

Recovery Act Site Assessment

Recovery Act funding was used to determine the nature and extent of petroleum contamination. A total of 22 soil borings were advanced in December 2009. Eleven of the soil borings were completed as groundwater monitoring wells. Soil, soil gas, and groundwater samples were collected during this event. Two additional quarterly groundwater monitoring events were performed.

Recovery Act Project Results

The assessment documented the extent of residual petroleum concentrations in soil and groundwater.

Recovery Act Funding and Cost Recovery

A total of \$85,418 of Recovery Act funding was used to complete the assessment actions described above. The current property owner has been determined to have no ability to pay for assessment and cleanup actions at the site.

The previous owner has been determined to have the ability to pay. This responsible party has taken over performance of assessment and corrective actions at the site. DEQ is currently in negotiations with the responsible party to address payment of past LUST Cooperative Agreement and stimulus funded activities.



Advancement of a soil boring in December 2009

Cowboy Shell (continued)

Recovery Act Document Summary

The site documents prepared with Recovery Act funding are summarized below.

Prepared by DEQ
• <i>Tribal and SHPO Consultation letters, 9/25/09</i>
Prepared by Hart Crowser
• <i>Site Investigation Work Plan, 10/22/09</i>
• <i>Threatened and Endangered Species Survey, 10/29/09</i>
• <i>Site Investigation Report, 3/3/10</i>
• <i>Quarterly Groundwater Monitoring Report – March 2010, 4/14/10</i>
• <i>Quarterly Groundwater Monitoring Report – June 2010, 7/29/10</i>

DORA STORE MYRTLE POINT, OREGON

The Dora Store site is located at 15217 Sitkum Lane in Myrtle Point, Coos County, Oregon. The site was formerly operated as a country store with a gasoline underground storage tank (UST). After the store closed, the store building was incorporated as part of the attached residence. The site remains an occupied residence.



Advancement of a soil boring in December 2009

In 1996, petroleum hydrocarbon contamination was discovered during the decommissioning by removal of a 1,000-gallon UST. Petroleum contaminated soil was encountered and approximately 30 tons of soil was removed and treated off site. No petroleum hydrocarbons were detected in the confirmation soil samples submitted to the laboratory. A new 1,000-gallon UST was installed in the excavation, replacing the original UST. The site was issued a No Further Action determination in 1997.

In 2002, the Dora Store ceased their retail fueling operations. Three soil borings were advanced by a contractor to bring the site into compliance with temporary closure regulations. The contractor verbally reported encountering petroleum contaminated soil and groundwater, but did not submit any samples for laboratory analysis to confirm the reported contamination.

Recovery Act Site Assessment

Recovery Act funding was used at this site to confirm and delineate the full extent of petroleum contamination. Nine soil borings were advanced in December 2009. Three of the soil borings were completed as groundwater monitoring wells. Soil and groundwater samples were collected during this event. Three additional quarterly groundwater monitoring events were performed. Ambient air samples were collected during two events to assess risk of exposure to vapors within the residence. The wells were abandoned once they were no longer needed. Property use restrictions referred to as institutional controls were implemented in the form of an easement and equitable servitude agreement recorded on the property deed. The institutional controls included restrictions on the location of future wells, structures, and the required maintenance of a vapor barrier in the crawlspace.



Groundwater sampling from a temporary well in December 2009

Recovery Act Project Results

The assessment documented residual petroleum concentrations in soil and groundwater. The residual petroleum contamination was determined not to be a risk to human health and the environment as long as the institutional controls are maintained. A conditional no further action determination was issued by DEQ on April 28, 2011.

Dora Store (continued)

Recovery Act Funding and Cost Recovery

A total of \$78,946 of Recovery Act funding was used to complete the assessment actions described above. DEQ and the responsible party negotiated a settlement agreement that included the responsible party decommissioning the UST. No further cost recovery actions are planned.

Recovery Act Document Summary

The site documents prepared with Recovery Act funding are summarized below.

Prepared by DEQ
<ul style="list-style-type: none">• <i>Tribal and SHPO Consultation letters</i>, 9/25/09• <i>Easement and Equitable Servitude</i>, 1/31/11• <i>[Settlement] Agreement</i>, 2/9/11• <i>No Further Action</i>, 4/28/11
Prepared by Hart Crowser
<ul style="list-style-type: none">• <i>Site Investigation Work Plan</i>, 10/23/09• <i>Threatened and Endangered Species Survey</i>, 10/30/09• <i>Site Investigation Report</i>, 2/12/10• <i>Quarterly Groundwater Monitoring Report – March 2010</i>, 4/12/10• <i>Quarterly Groundwater Monitoring Report – June 2010</i>, 7/21/10• <i>Quarterly Groundwater Monitoring Report – September 2010</i>, 10/19/10• <i>Work Plan for Well Abandonment</i>, 2/11/11• <i>Monitoring Well Abandonment</i>, 4/14/11

FORT ROCK STORE FORT ROCK, OREGON

The Fort Rock General Store is located at 64608 Fort Rock Road in Fort Rock, Lake County, Oregon. The site is a rural store that has dispensed petroleum products from underground storage tanks (USTs) for over 40 years.

A release of petroleum product from a leaking UST was reported to DEQ in September 1991. Free product and dissolved contaminants were identified in an on-site water well that has since been abandoned. Petroleum contamination was also detected in off-site water wells. Groundwater is the sole source of potable water in the area.



Advancement of a soil boring in February 2010

The leaking USTs were decommissioned in 1992 and petroleum contaminated soil (PCS) was removed from the excavation area. The leaking USTs were replaced by new USTs. Additional assessments in 1994 and 1995 included construction of on-site monitoring/remediation wells. Adjacent residential drinking water wells were abandoned and new wells were installed in a deeper basalt aquifer in 1997. All three of these deep water wells still contained benzene, although at lower concentrations than was present in the shallow aquifer.

In July 2006, DEQ sampled three existing drinking water wells using LUST Cooperative Agreement funding from EPA. Sampling results for benzene, toluene, ethylbenzene, and xylenes were below levels recorded in the 1990s. However, levels of 1,2-dichloroethane (EDC), a common “lead scavenger” in petroleum, remained above DEQ risk-based concentrations for the drinking water pathway in two drinking water wells.

Recovery Act Corrective Action Plan

Recovery Act funding was used to complete several phases of work at this site. A corrective action plan was prepared to evaluate site conditions, potential risk to human health and the environment, and to select a corrective action to address contamination.

The recommended corrective action for the site consisted of two parts; implementation of a soil vapor extraction system with enhanced bioremediation in the shallow source area, and replacement of impacted water



Installation of a new water well in February 2010

Fort Rock Store (continued)

wells. However, the report also recommended performing a streamlined subsurface investigation to provide needed data on the current subsurface conditions prior to the implementation of any corrective action work in the source area.

Recovery Act Project Corrective Action Implementation

Recovery Act funding was used to replace two domestic water wells. A limited subsurface investigation was also completed to assess the current magnitude and extent of contamination near the store and to assess the potential risks posed by the site to human health and the environment. These results suggested that vapor intrusion is not a concern for current or future site use. Another soil gas sampling event was performed in July 2010 and confirmed that vapor intrusion is not a pathway of concern at the site. Three semi-annual groundwater monitoring events were also performed with Recovery Act funding.

Recovery Act Project Results

Low levels of petroleum contamination are still present in the domestic wells. Annual monitoring will continue to be performed to monitor the concentrations. Funding for continued work at the site will be provided by DEQ's Orphan Site Program.

Recovery Act Funding and Cost Recovery

Approximately \$164,226 of Recovery Act funding was used to complete the corrective actions described above. The responsible parties were determined to have no ability to pay. No cost recovery actions are planned at this time.

Recovery Act Document Summary

The site documents prepared with Recovery Act funding are summarized below.

Prepared by DEQ
<ul style="list-style-type: none">• <i>Tribal and SHPO Consultation letters, 9/25/09</i>• <i>Press Release, 12/21/09</i>• <i>WPCF General Permit Exemption, 1/12/10</i>
Prepared by Ash Creek Associates
<ul style="list-style-type: none">• <i>Groundwater Sampling Work Plan, 10/12/09</i>• <i>Corrective Action Plan, 12/14/09</i>• <i>Review for Threatened and Endangered Species, 10/29/09</i>• <i>Corrective Action Work Plan, 1/7/10</i>• <i>Site Investigation and Well Replacement Report, 4/19/10</i>• <i>July 2010 Groundwater and Soil Vapor Sampling, 8/12/10</i>• <i>November 2010 Groundwater Sampling, 1/25/11</i>

GOODMAN OIL SERVICE STATION ONTARIO, OREGON

The Goodman Oil Service Station site is located at 268 SW Fourth Avenue in Ontario, Malheur County, Oregon. The site has been a petroleum gas station since before 1949. The service station has been in temporary closure since 2002.

A limited site assessment was performed on the site in December 2008, as required to receive an extension of the Temporary Closure Certificate. The assessment consisted of the advancement of five borings. Petroleum contamination was detected in soil and groundwater.



View of station building looking northeast in August 2010

Recovery Act Site Assessment

Recovery Act funding was used to perform a baseline site assessment to determine the nature and extent of petroleum contamination. A total of 15 soil borings were advanced in July 2011. The borings were installed at both on and off site locations. As part of the development of a preliminary conceptual site model, beneficial water and land use surveys were completed. The highest levels of petroleum contamination in both soil and groundwater were generally found in the explorations advanced down gradient of the existing underground storage tanks (USTs) and dispenser islands.

Recovery Act Project Results

The assessment has provided the necessary data to determine the additional corrective actions needed at the site to protect human health and the environment.

Recovery Act Funding and Cost Recovery

A total of \$37,732 of Recovery Act funding was used to complete the assessment actions described above. The responsible party has been determined to have no ability to pay for assessment and cleanup actions at the site. DEQ has secured additional LUST Cooperative Agreement funding to perform additional corrective actions at the site. Cost recovery options are being evaluated.

Recovery Act Document Summary

The site documents prepared with Recovery Act funding are summarized below.



Advancement of an off-site soil boring in July 2011. Station is visible in background of photograph.

Prepared by DEQ
• Tribal and SHPO Consultation letters, 6/7/11
Prepared by GeoEngineers, Inc.
• Threatened and Endangered Species Survey, 7/20/11
• Site Investigation Work Plan, 7/24/11
• Site Investigation Report, 8/24/11

KENO GROUNDWATER AREA WIDE KENO, OREGON

Keno is a small, rural, unincorporated community located in south-central Oregon approximately 10 miles southwest of the City of Klamath Falls in Klamath County. The community of Keno is characterized by a mix of commercial and residential properties along the Klamath River and State Highway 66. The primary source of drinking water for the Keno community is groundwater obtained from domestic wells or from the Keno Water Company's (KWC) community well system.



View of fueling facilities at Keno River Gas with Whoa Tavern in the background.

Six drinking water wells that serve three residential properties, three businesses, and the elementary school have been and continue to be impacted by petroleum constituents as a result of releases from former petroleum regulated underground storage tank (UST) system(s). Petroleum contamination has impacted both the shallow and deep aquifers in the Keno Area. The groundwater is located in a complex, fractured basalt aquifer and DEQ's understanding of the aquifer system is limited. In April 1997, groundwater in the vicinity of Keno Gas (now Klamath River Gas) and the Whoa Tavern was designated as an Orphan Site.

An activated carbon treatment system was installed on the Keno Elementary School well in September 1997. DEQ has also installed and maintained activated carbon well head treatment systems on the following contaminated potable water wells: Whoa Tavern, Keno Gas, and the Kingsbury, DeGrande and Welton residences. DEQ has been addressing the symptoms and primary pathway of the contamination but has not had the funding to assess, evaluate, and effectively treat the contamination.

DEQ negotiated the extension of the water delivery system from the original end point to include the connection of the Keno Elementary School when KWC started to plan for the expansion and upgrades to their water delivery system in the mid-2000's. The school connection was facilitated by DEQ's Orphan Site Program obligation of \$150,000 in state funds towards costs to expand the water delivery system to the school. The initial water system extension addressed only impacts to the school and did not address other impacted properties.

Additional site assessment and soil removal actions have been performed at the site since 1995. Only actions performed with Recovery Act funding are summarized below.

Recovery Act Corrective Action Plan

Recovery Act funding was used to complete a corrective action plan to evaluate site conditions, the potential risk to human health and the environment, and to select a corrective action to address contamination. Based on initial risk screening, groundwater ingestion or use was identified as the primary exposure pathway of concern to area receptors. Eliminating this exposure pathway would reduce the risk to potential receptors to acceptable levels.

Keno Groundwater Areawide (continued)

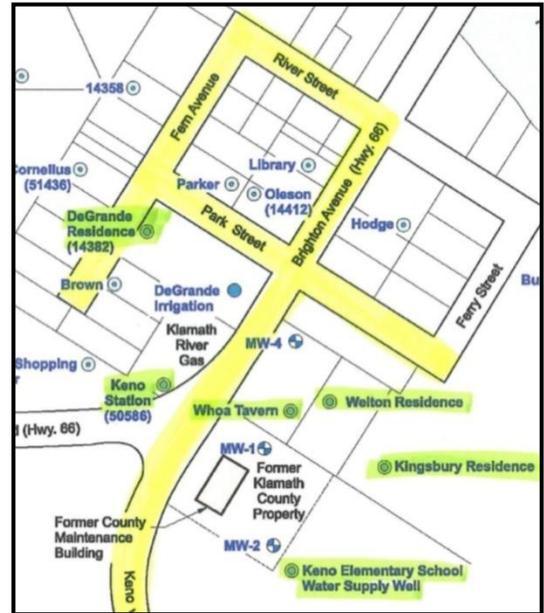
The current interim action (wellhead treatment) was effective in eliminating risk to the users of the six systems, but additional actions were necessary to provide reliable long-term protectiveness to known and potential receptors.

The primary corrective action selected for this site was the expansion of the KWC water system to include properties that have been impacted or could be impacted in the future. The existing wellhead treatment systems would continue operation as an interim action until these users were connected to the KWC system. The corrective actions selected also included the identification and abandonment of existing but inactive wells to eliminate the potential for contaminant migration to the productive water-bearing zones and on-going groundwater extraction from the Keno School well to hydraulically contain the contaminant plume. The review also identified several data gaps that needed to be addressed in order to further evaluate and implement the proposed corrective actions.

Recovery Act Project Corrective Action Implementation

Recovery Act funding was used to perform several phases of work at this site including conducting a water well use survey of properties within or near the impacted area and the collection of water samples from three residences.

Geophysical surveys consisting of a very low frequency (VLF) survey and electrical resistivity profiles were performed. One of the anomalies identified by VLF methods appears to be related to fracture networks at depths within the basalt flows and interflow zones. The resistivity profiles showed indications of fracturing within this area. The Keno School well is located within this area, and the presence of fractures may contribute to the Keno School well's production and the ability to hydraulically contain the contaminant plume in this area.



Site map of Keno area. Yellow highlights the path of the water extension. Green highlights location of impacted water well with carbon well head treatment units.

Three monitoring wells were installed at the site to gain a better understanding of subsurface conditions and fully define the extent of contamination. Five quarterly groundwater monitoring events were performed. Five active carbon filtration treatment systems were maintained and monitored bi-monthly.

The Recovery Act funding allowed DEQ to negotiate with KWC to further extend their water system to provide a permanent source of clean water to the remaining impacted properties. The path of the extension's water delivery piping is shown in yellow on the Keno area map above. Due to concerns that the contamination plume may migrate and impact additional water wells once the school well is no longer used as often, the system was constructed to allow easy connection by other properties within the area where future impacts may occur.

Recovery Act Project Results

A better understanding of the nature and extent of the contamination plume has been obtained. A reliable and permanent source of safe, clean drinking water has been provided to impacted properties. Funding for continued work at the site will be provided by DEQ's Orphan Site Program.

Recovery Act Funding and Cost Recovery

Approximately \$652,778 of Recovery Act funding was used to complete the corrective actions described above. It was determined that the responsible parties have no ability to pay. DEQ has exhausted cost recovery avenues. No further cost recovery actions are planned.

Keno Groundwater Areawide (continued)



Installation of water piping adjacent to Keno River Gas Station in June 2011. Petroleum contaminated soil was encountered in this segment of the water pipe installation.

Recovery Act Document Summary

The site documents prepared with Recovery Act funding are summarized below.

Prepared by DEQ
<ul style="list-style-type: none">• <i>Tribal and SHPO Consultation letters, 10/27/09</i>• <i>Project Status Report, 12/09</i>• <i>Press Release, 12/30/09</i>• <i>WPCF General Permit Exemption, 3/5/10</i>• <i>Water Right Application, KWC T-10954, 3/30/10</i>
Prepared by Hart Crowser
<ul style="list-style-type: none">• <i>Water Supply and Groundwater Sampling Work Plan Addendum, 10/05/09</i>• <i>Review for Threatened and Endangered Species and Habitat, 10/30/09</i>• <i>Corrective Action Plan, 11/10/09</i>• <i>Status Report: July through October 2009, 11/17/09</i>• <i>Corrective Action Data Gap Work Plan, 11/30/09</i>• <i>Status Report: November and December 2009, 1/26/10</i>• <i>Status Report: February 2010, 3/24/10</i>• <i>Corrective Action Data Gap Report, 6/10/10</i>• <i>Status Report: June 2010, 7/9/10</i>• <i>Status Report: July and August 2010, 9/17/10</i>• <i>Status Report: November 2010, 12/10/10</i>• <i>Status Report: April 2011, 5/4/11</i>• <i>Status Report: February 2011, 2/28/11</i>• <i>Status Report: May 2011, 6/15/11</i>
Prepared by Native-X
<ul style="list-style-type: none">• <i>Test Excavations at Site 35KL3594” dated 9/20/11</i>

LONE ELK MARKET SPRAY, OREGON

The Lone Elk Market is located at 800 Willow Street in Spray, Wheeler County, Oregon. The site is a rural market that has dispensed petroleum products from underground storage tanks (USTs) for over 60 years. Private wells near the site exhibited indications of contamination as early as 1988. A 1992 site assessment suggested that the source of the petroleum hydrocarbons in these wells was a leaking gasoline UST at the Lone Elk Market. The leaking UST was removed in 1992 and petroleum contamination was confirmed at the site.



View of Lone Elk Market and fueling facilities

The source of the City of Spray's municipal water supply is groundwater produced at depths of less than 60 feet from shallow, highly permeable sand and gravel deposits. Petroleum contamination was first detected in the city's water supply beginning in 1992. Replacement water supply wells were installed in March 1997 but only a few hundred feet down gradient from the impacted supply wells. Contamination was detected in the replacement wells in 1998. The site was referred to DEQ's Orphan Site Program in January 1997.

Extensive assessment and cleanup actions have been performed by DEQ since 1995 including multiple phases of delineation, groundwater monitoring, and the implementation of an interim removal action measure (IRAM) program that included the installation and operation of soil vapor extraction (SVE) and groundwater extraction systems. Operation of the treatment system for several years prevented contamination from reaching the city water supply. By February 2008, both systems had ceased operations and needed significant maintenance to restore functions. The IRAM systems removed the equivalent of about 14,000 gallons of petroleum hydrocarbons during their operations.

Additional sampling performed in 2008 and 2009 showed an upward concentration trend in the site area, indicating that unacceptable inhalation exposure risks may be present in the vicinity of the market building. The potential existed once again for future impacts to the city's water supply. Only actions performed with Recovery Act funding are summarized below.

Recovery Act Corrective Action Plan

Recovery Act funding was used to complete several phases of work at this site. A corrective action plan was prepared to evaluate site conditions, potential risks to human health and the environment, and to select a corrective action to address contamination. Evaluation of data collected from the site indicated that the previous IRAM activities were successful in mitigating previously observed impacts of petroleum hydrocarbons in the city's municipal water supply wells, but that further corrective action was needed to address potential future impacts to the city's water supply and to address potentially unacceptable risks from vapor inhalation in the vicinity of the source area.

The recommended corrective action for the site was to rehabilitate and modify the existing groundwater treatment and SVE systems to remove source mass from beneath the site building and contain the dissolved-phase plume during the removal.

Lone Elk Market (continued)

Recovery Act Project Corrective Action Implementation

Recovery Act funding was used to rehabilitate and modify the existing remedial systems to further treat remaining contamination. Three SVE wells were drilled at angles to depths of 65 feet to 70 feet below ground surface (bgs) in order to access source areas beneath the site. Another boring was completed as a combined groundwater extraction and vapor extraction well to 75 feet bgs.

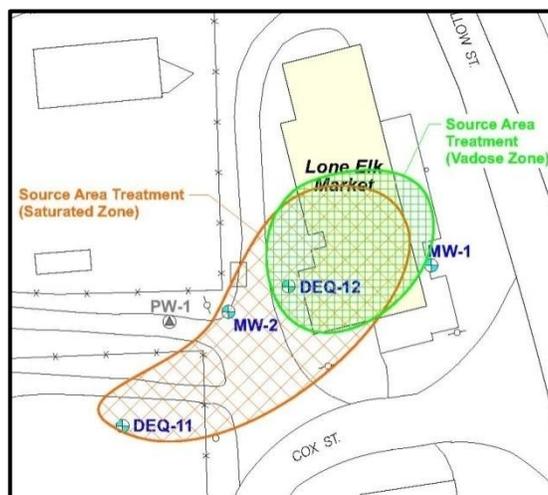


Advancement of a SVE/groundwater extraction well in March 2010.

The remedial system construction activities included restoration of existing system components, removal of components not used in the modified system, replacement of needed but unsalvageable system components, connection of the groundwater treatment system to the new extraction well, and installation of new vapor extraction treatment units. The systems were brought on-line in May 2010. Troubleshooting and routine maintenance of the systems has been performed since the systems began operations. Four semi-annual groundwater monitoring events were also performed with Recovery Act funding.

Recovery Act Project Results

The remedial systems have removed the equivalent of about 450 gallons of petroleum hydrocarbons since May 2010. The systems remain operational and continue to remove significant petroleum hydrocarbon mass from the source area. Funding for continued work at the site will be provided by DEQ's Orphan Site Program.



Site map showing treatment target areas

Recovery Act Funding and Cost Recovery

Approximately \$454,461 of Recovery Act funding was used to complete the corrective actions described above. The responsible parties were determined to have no ability to pay. DEQ has exhausted cost recovery avenues including researching historic insurance policies. No further cost recovery actions are planned.

Recovery Act Document Summary

The site documents prepared with Recovery Act funding are summarized below.

Prepared by DEQ
<ul style="list-style-type: none"> • <i>Tribal and SHPO Consultation letters, 9/24/09</i> • <i>Press Release, 1/4/2010</i> • <i>Public Outreach, City of Spray, 3/5/2010</i>
Prepared by Ash Creek Associates
<ul style="list-style-type: none"> • <i>Groundwater Monitoring Work Plan Review, 9/24/09</i> • <i>Corrective Action Plan, 10/20/09</i> • <i>Review for Threatened and Endangered Species, 10/21/09</i> • <i>Corrective Action Work Plan, 11/24/09</i> • <i>Corrective Action Implementation Report, 7/26/10</i> • <i>Lone Elk Market Corrective Action O&M (December 2010), 1/5/11</i> • <i>Data Report – April 2011 Groundwater Monitoring, 6/8/11</i>

MADARIAGA CHEVRON JORDAN VALLEY, OREGON

The Madariaga Chevron site is a closed petroleum service station and motel located at 607 Main Street in Jordan Valley, Malheur County, Oregon



View of site in September 2009. Motel portion is in background.

Four underground storage tanks (USTs) storing gasoline and diesel were removed in October 1989. Petroleum contamination was documented. The USTs were replaced by three new USTs. Eleven soil borings were advanced to collect soil and groundwater samples in May 2002. Petroleum contamination was present in both soil and groundwater samples.

A site assessment was performed by the Oregon Department of Transportation (ODOT) in September 2003 that included the advancement of five soil borings in the roadways in the vicinity of the site. Stained soil and petroleum odors were noted in soil from the borings. ODOT installed two groundwater monitoring wells in the roadway near the site in May 2004.

The responsible parties declared bankruptcy and DEQ determined they have no ability to pay for assessment or cleanup costs. The property was later abandoned by the bankruptcy court.

Recovery Act Site Assessment

Recovery Act funding was used at this site to delineate the full extent of petroleum contamination. A site assessment was performed in November 2009. The assessment included the advancement of 15 borings and collection of soil, soil gas, and groundwater samples.

During the November 2009 investigation, three soil gas samples from the southeastern portion of the site near the motel contained elevated concentrations of benzene and/or ethylbenzene. The concentrations in the soil gas samples exceeded both the residential and occupational risk-based concentrations. The soil gas samples were collected in an area of shallow soil contamination as verified by test pits excavated in January 2010. Four temporary sub-slab soil gas sampling ports were installed in select motel rooms in March 2010. Concentrations of gasoline and constituents were not detected in soil gas samples from the four sub-slab sampling locations.



Advancement of a soil boring in November 2009

Recovery Act Underground Storage Tank Decommissioning

Recovery Act funding was also used to evaluate the conditions of the most recent UST system and the subsurface beneath the system. Three USTs were decommissioned by removal in January 2010. The USTs appeared to be in relatively good condition and no apparent points of release were observed, although PCS was noted around the turbine area of all three USTs. Approximately 70 linear feet of product piping trenches were exposed at the site using a track hoe. Visual inspection indicated that the

Madariaga Chevron (continued)

pipes were in good condition and no visible points of release were identified. The piping was removed from the subsurface and the site for disposal.

A contaminated media management plan was also prepared. This plan is intended to minimize risks to worker health and the environment, and outlines procedures for the handling and disposal of petroleum contaminated soil and groundwater that may be encountered during future earthwork related construction activities.

Recovery Act Project Results

The assessment documented the extent of residual petroleum concentrations in soil and groundwater. The residual petroleum contamination was determined not to be a risk to human health and the environment but would require institutional controls in the form of a deed restriction to maintain site conditions.



Removal of underground storage tank in January 2010

However, due to the abandonment of the property through bankruptcy and the death of the lien holder, the property ownership is in question. DEQ has been unable to resolve the ownership issue and file the deed restriction. Therefore, DEQ filed a notice of contamination on the property but will be unable to issue a conditional no further action determination until necessary deed restrictions are filed on the property.

Recovery Act Funding and Cost Recovery

A total of \$116,011 of Recovery Act funding was used to complete the assessment actions described above. Cost recovery actions are not planned.

Recovery Act Document Summary

The site documents prepared with Recovery Act funding are summarized below.

Prepared by DEQ
<ul style="list-style-type: none">• <i>Tribal and SHPO Consultation letters, 9/22/09</i>• <i>Conditional No Further Action Decision Document, 7/20/10</i>• <i>Notice of Environmental Contamination, 12/13/10</i>
Prepared by GeoEngineers, Inc.
<ul style="list-style-type: none">• <i>Sensitive Species Evaluation, 10/19/09</i>• <i>Site Investigation Work Plan, 10/22/09</i>• <i>Site Investigation and UST Decommissioning Report, 2/26/10</i>• <i>Contaminated Media Management Plan, 3/16/10</i>• <i>Sub-Slab Soil Gas Risk Screening Investigation, 4/19/10</i>

**NEHALEM HWY 101 RIGHT-OF-WAY
NEHALEM, OREGON**

The site consists of a section of the Highway 101 right-of-way in the northeast corner of the intersection of “H” Street and Seventh Street in Nehalem, Tillamook County, Oregon.

The Oregon Department of Transportation (ODOT) discovered three underground storage tanks (USTs) beneath the sidewalk in 2006 during a highway reconstruction project. The northeast corner of the intersection was historically used as a gas station that ceased operations in the late 1970s. The three USTs are likely a remnant of the historical operations of the gas station. Limited sampling conducted by ODOT as part of the tank decommissioning indicated the presence of petroleum hydrocarbons and other petroleum constituents in soil and groundwater near the location of the USTs.



Advancement of a soil boring in November 2009

Recovery Act Site Assessment

Recovery Act funding was used at this site to delineate the extent of soil and groundwater contamination. Eleven soil borings were advanced in November 2009 with three being completed as groundwater monitoring wells. Soil and groundwater samples were collected during this event. One additional groundwater monitoring event was performed in September 2010 to assess the concentrations in the groundwater monitoring wells during the dry season and at a low river stage. The wells were abandoned once they were no longer needed.

Recovery Act Project Results

The assessment documented residual petroleum concentrations in soil and groundwater. The residual petroleum contamination was determined not to be a risk to human health and the environment. A no further action determination was issued by DEQ on December 15, 2010.

Recovery Act Funding and Cost Recovery

A total of \$57,644 of Recovery Act funding was used to complete the assessment actions described above. A responsible party has not been identified.

Recovery Act Document Summary

The site documents prepared with Recovery Act funding are summarized below.

Prepared by DEQ
<ul style="list-style-type: none">• <i>Tribal and SHPO Consultation letters, 9/17/09</i>• <i>No Further Action, 10/15/10</i>
Prepared by Ash Creek Associates
<ul style="list-style-type: none">• <i>Review for Threatened and Endangered Species, 10/9/09</i>• <i>Site Investigation Work Plan, 10/16/09</i>• <i>Site Investigation Report, 1/11/10</i>• <i>Site Investigation Report Addendum, 10/14/10</i>• <i>Well Abandonment Summary, 12/30/10</i>

NEW BEATTY STORE BEATTY, OREGON

The New Beatty Store site is located at 42615 Highway 140 in Beatty, Klamath County, Oregon. The former store dispensed petroleum products from USTs that were installed in the mid-1980s. The site is currently occupied by a restaurant.



Former fuel island and store in September 2009

Three registered underground storage tanks (USTs) were decommissioned by removal in May 1999. During excavation activities, one additional UST was discovered and was also removed. The tanks were replaced with above ground storage tanks. Petroleum hydrocarbon contamination was discovered during the UST removal. Approximately 90 cubic yards of petroleum contaminated soil was removed and treated on-site.

DEQ advanced four soil borings at the site in September 2008 to evaluate subsurface conditions. Extensive petroleum contamination was detected in soil and shallow groundwater samples collected from the borings. Petroleum contamination was not detected in the domestic on-site well that is located in a deeper aquifer.

Recovery Act Site Assessment

Recovery Act funding was used to delineate the extent of soil and groundwater contamination at the site. The initial phase of the site assessment was performed in December 2009 to define the extent of the contamination. Based on the results of the December 2009 event, a second phase of assessment was performed in March 2010. The assessment consisted of the advancement of 17 soil borings, 4 soil gas borings, and the sampling of several water wells. Soil, soil gas, and groundwater samples were collected during this event. The extent of soil and groundwater contamination was delineated.

To mitigate potential future risk, institutional controls in the form of "Notice of Environmental Contamination" deed notices were recorded with Klamath County on the site and three adjacent properties. The deed notices document the presence of soil and groundwater contamination in the shallow subsurface at each property. A contaminated media management plan was also prepared.



Advancement of a soil boring in September 2008

Recovery Act Project Results

The assessment documented residual petroleum concentrations in soil and groundwater. The residual petroleum contamination was determined not to be a risk to human health and the environment following the implementation of institutional controls. A conditional no further action determination was issued by DEQ on December 29, 2010.

New Beatty Store (continued)

Recovery Act Funding and Cost Recovery

A total of \$68,033 of Recovery Act funding was used to complete the assessment actions described above. The responsible party was determined to have no ability to pay for assessment or remedial actions and a lien was placed on the property. The responsible party has since declared bankruptcy.

Recovery Act Document Summary

The site documents prepared with Recovery Act funding are summarized below.

Prepared by DEQ
<ul style="list-style-type: none">• <i>Tribal and SHPO Consultation letters, 9/25/09</i>• <i>Conditional No Further Action Decision Document, 12/29/10</i>
Prepared by Hart Crowser
<ul style="list-style-type: none">• <i>Review for Threatened and Endangered Species and Habitat, 10/30/09</i>• <i>Site Investigation Work Plan, 11/18/09</i>• <i>Site Investigation Report, 5/12/10</i>• <i>Contaminated Media Management Plan, 6/22/10</i>

NIGHT OWL TRUCK STOP BURNS, OREGON

The Night Owl Truck Stop & Café site is part of a 7.75 acre property located at 30850 Highway 20E in Burns, Oregon. The former service station operation is located on about one acre in the western portion of the property adjacent to Highway 20E. The site ceased retail fuel sales in the mid-1990s and the business has been inactive since that time. Drinking water is obtained from an onsite water well located within the site building. The remainder of the property is vacant.



Fueling island and station building in November 2009

Gasoline and diesel contamination was discovered during a site assessment conducted in November 2006. Three underground storage tanks (USTs) were decommissioned by removal in June 2007. Additional assessments have been completed at the site and the extent and degree of petroleum contamination has been defined. The on-site water well located inside the building was within the area of shallow contaminated groundwater and needed to be abandoned prior to the issuance a no further action determination.

Recovery Act Corrective Action and Project Results

Recovery Act funding was used at this site to abandon the on-site water well. Following the abandonment of the well, a conditional no further action determination was issued by DEQ on September 14, 2011.

Recovery Act Funding and Cost Recovery

A total of \$19,603 of Recovery Act funding was used to complete the actions described above. The property owner was determined to have no ability to pay for corrective actions. Options for cost recovery actions are being reviewed.



Abandonment of water well in station building in August 2011

Recovery Act Document Summary

The site documents prepared with Recovery Act funding are summarized below.

Prepared by DEQ
<ul style="list-style-type: none">• <i>Tribal and SHPO Consultation letters, 6/24/11</i>• <i>Conditional No Further Action, 9/14/11</i>
Prepared by Ash Creek Associates
<ul style="list-style-type: none">• <i>Well Abandonment, 9/27/11</i>

RAINIER SHELL RAINIER, OREGON

The Rainier Shell site is located at located at 207 'B' Street W in Rainier, Columbia County, Oregon. The site is a former retail service station and historically operated under several different brands. Current site features include a single story service station building equipped with two interior pneumatic hoists in a service area, two dispenser islands, and surrounding asphalt and concrete covered parking and service areas. The property is currently used as a Columbia County Rider bus station.



Site view in September 2009

A limited assessment was conducted at the site during January 2000 and petroleum contamination was documented. Additional assessments were performed in December 2000 and March 2001. The responsible party filed for bankruptcy in 2002. The property was obtained by Columbia County through tax foreclosure in November 2006.

The three gasoline USTs were emptied and associated lids and dispensers were secured by the county in June and July 2007. A site assessment was performed in December 2007 with brownfield grant funding. The assessment documented that the petroleum plume extended onto the neighboring property to the north.

Three USTs were decommissioned and five groundwater monitoring wells were installed in October 2008 with the brownfield grant funding. Petroleum contamination was detected in soil and groundwater at the site. Significant soil contamination was present between 19 feet and 21.5 feet bgs, which generally corresponds with the depth to the water table. The full extent of soil and groundwater contamination was not defined in the October 2008 investigation.



Removal of underground storage tanks in October 2008

Recovery Act Site Assessment

Recovery Act funding was used at this site to delineate the full extent of petroleum contamination. Five soil borings and seven soil gas sampling points were advanced in December 2009. Two of the soil borings were completed as groundwater monitoring wells. Soil, soil gas, and groundwater samples were collected during this event. One additional groundwater monitoring event was performed in March 2010 to confirm the groundwater analytical results observed in December 2009. The wells were abandoned once they were no longer needed. A contaminated media management plan was also prepared.

Recovery Act Project Results

The assessment documented residual petroleum concentrations in soil and groundwater. The residual petroleum contamination was determined not to be a risk to human health and the environment. A conditional no further action determination was issued by DEQ on September 29, 2010.

Rainier Shell (continued)

Recovery Act Funding and Cost Recovery

A total of \$65,994 of Recovery Act funding was used to complete the assessment actions described above. Cost recovery actions are not planned.

Recovery Act Document Summary

The site documents prepared with Recovery Act funding are summarized below.

Prepared by DEQ
<ul style="list-style-type: none">• <i>Tribal and SHPO Consultation letters, 9/16/09</i>• <i>Conditional No Further Action, 9/29/10</i>
Prepared by GeoEngineers, Inc.
<ul style="list-style-type: none">• <i>Site Investigation Work Plan, 10/28/09</i>• <i>Threatened and Endangered Species Survey, 11/4/09</i>• <i>Site Investigation Report, 2/18/10</i>• <i>Results of Groundwater Monitoring March 2010, 4/9/10</i>• <i>Contaminated Media Management Plan, 8/2/10</i>• <i>Well Decommissioning Work Plan, 8/3/10</i>• <i>Decommissioning of Monitoring Well, 9/28/10</i>

REEDSPORT 5TH STREET SEWER LINE REEDSPORT, OREGON

The DEQ received reports from the City of Reedsport regarding petroleum contamination in the sanitary sewer located in the alley south of Fir Street between Fifth and Sixth Streets and the downstream wastewater treatment plant in Reedsport, Douglas County, Oregon. These reports noted the occasional presence of free product and persistent explosive levels of combustible gases in one manhole located within the study area as recently as August 2009. The source of the petroleum contamination is unknown, but impacts to soil and groundwater in the vicinity of impacted area have been observed from multiple properties, including historic and active gasoline service stations.



View of area where impacted segment of sewer is located. Manholes are in the foreground and alley in the background.

Recovery Act Site Assessment

The main purpose of Recovery Act funding was to identify and mitigate the potential source(s) of the observed impacts to the sewer. DEQ and its contractor met with the city, potentially responsible parties, and developed a work plan to evaluate sewer and petroleum contamination issues. DEQ notified multiple potential responsible parties in the area of DEQ's plans to assess the impacted segment of the sewer line. They were notified that if contamination was traced to their facility(s) they would be responsible for costs associated with the assessment and future remedial costs. The responsible parties requested approval from DEQ to perform the necessary actions to prevent petroleum contamination from entering the sewer line utilizing their own contractors. DEQ approved their request and ceased Recovery Act funded work.

Future Work

DEQ is continuing to work with the responsible parties to address petroleum contamination issues on their properties. At least one of the responsible parties has taken actions to seal off infiltration into the sanitary sewer in order to mitigate the petroleum impacts. DEQ has on-going enforcement action with another responsible party. Monitoring plans are being developed to maintain a safe environment in the impacted sewer line.

Recovery Act Funding and Cost Recovery

A total of \$17,578 of Recovery Act funding was used to complete the actions described above. No cost recovery actions are currently planned.

Recovery Act Document Summary

The site documents prepared with Recovery Act funding are summarized below.

Prepared by DEQ
• <i>Tribal and SHPO Consultation letters, 9/16/09</i>
Prepared by Ash Creek Associates
• <i>Review for Threatened and Endangered Species, 10/9/09</i>
• <i>Site Investigation Work Plan, 10/15/09</i>

SENZ AUTOMOTIVE SERVICE YAMHILL, OREGON

The Yamhill Station, also known as the former Senz Automotive Service was located at 210 S Maple Street in Yamhill, Yamhill County, Oregon. This facility provided fuel and automotive repairs for over 70 years between the 1930s and late 2009.



View of site while in operation

Petroleum was reported flowing through the storm-water pipe southwest of the site at the Yamhill Fire Department property in December 1988. This petroleum release appears to have originated as the result of leaks in the UST system's piping. The contamination from the 1988 release extends onto multiple properties to the south and west of the site.

Extensive assessment and cleanup actions have been performed by responsible parties since 1988 and by the Orphan Site Program since July 2006 including multiple phases of delineation, groundwater monitoring, and the installation and operation of a groundwater extraction system. Only actions performed with Recovery Act funding are summarized below.

Recovery Act Petroleum Contaminated Soil (PCS) Removal

An interim removal action measure (IRAM) was performed at the site in December 2009. The IRAM consisted of the removal of the most severely contaminated soils, which also required removal of an AST system and demolition of the existing buildings.

A total of 3,250 tons of heavily contaminated soils were removed and transported for disposal at Riverbend Landfill in McMinnville, Oregon. Soil samples were collected to assess and document remedial results. Four areas of contamination above the target cleanup goal for the site remain. These areas are relatively small and can be addressed during reuse of the site through a combination of construction methods (engineering controls), and property use restrictions (institutional controls). The cleanup goal of this work was not to remove all of the contaminated soil, but to reduce the remaining contamination to concentrations below levels required for safe commercial reuse of the site.



Excavation of contaminated soil in December 2009

Recovery Act Site Assessment

Contaminated soil and groundwater had been documented beyond the property boundaries. Several phases of off site assessment actions were performed to evaluate and delineate the extent of contaminated soil, petroleum vapor exposures, and groundwater contamination. This included collection of soil, groundwater and soil-gas samples on six of the adjacent properties and city right-of-ways. The results of this assessment identified areas where petroleum contamination had spread beyond the extent previously estimated.

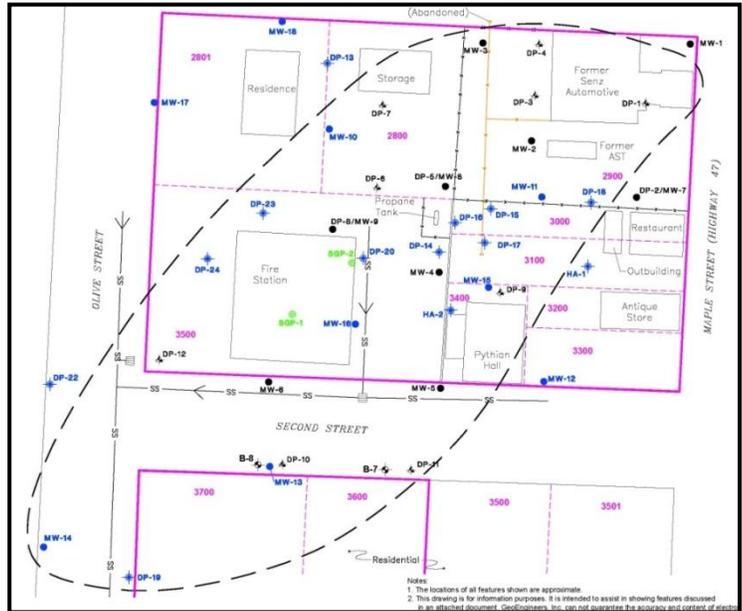
Six groundwater monitoring events were performed quarterly from December 2009 to March 2011. Soil gas samples were also collected where possible (limited by shallow groundwater) during multiple Senz Automotive Service
LUST No. 36-88-4062

Senz Automotive Service (continued)

events. The extent of petroleum contamination and the location of monitoring wells and other sampling points are shown on the adjacent site map. All monitoring wells and sampling points were abandoned once they were no longer needed.

Recovery Act Project Results

The removal of the petroleum saturated soil and the most heavily impacted groundwater from the former Yamhill Station site has effectively stabilized petroleum contamination so that the plume is no longer expanding. DEQ has determined that the remaining petroleum concentrations are within acceptable levels for the current and reasonably likely future property uses. DEQ is continuing to work with property owners to implement necessary institutional controls prior to regulatory closure of the site.



The project site, vicinity, and extent of investigation.

Recovery Act Funding and Cost Recovery

Approximately \$506,778 of Recovery Act funding was used to complete the corrective actions described above. Settlement negotiations are on-going between DEQ and several responsible parties to recover, to the extent possible, both Orphan Site Program and Recovery Act funding used to address contamination issues at this property.

Recovery Act Document Summary

The site documents prepared with Recovery Act funding are summarized below.

Prepared by DEQ	
<ul style="list-style-type: none"> • <i>Tribal and SHPO Consultation letters, 6/23/09</i> • <i>Yamhill Station Cleanup Begins fact sheet, 9/29/09</i> 	<ul style="list-style-type: none"> • <i>Yamhill Station Contamination fact sheet, 5/21/10</i>
Prepared by GeoEngineers, Inc.	
<ul style="list-style-type: none"> • <i>Historic Survey of Senz Automotive Service, 7/28/09</i> • <i>Hazardous Building Materials Survey, 8/4/09</i> • <i>Sensitive Species Evaluation, 8/26/09</i> • <i>Site Investigation Work Plan, 10/28/09</i> • <i>Site Investigation, 4/8/10</i> • <i>Interim Removal Action Measure, 4/12/10</i> • <i>March 2010 Groundwater Monitoring, 5/5/10</i> • <i>Groundwater Monitoring and Site Investigation, 8/31/10</i> 	<ul style="list-style-type: none"> • <i>Groundwater Monitoring and Soil Gas Risk Screening Investigation, 11/17/10</i> • <i>Contaminated Media Management Plan, 1/17/11</i> • <i>Quarterly Groundwater Monitoring and Stormwater Conveyance Piping Camera Survey, 2/23/11</i> • <i>Well Decommissioning Work Plan, 3/2/11</i> • <i>Quarterly Groundwater Monitoring, Stormwater Conveyance Piping Services, Remediation System Removal and Well Decommissioning Services, 6/28/11</i>

STEVE'S AUTO ENTERPRISE, OREGON

Steve's Auto is located at 207 S River Street in Enterprise, Wallowa County, Oregon. The site is an automotive repair shop and service station. A hole was found in a pressurized fuel line at the site in May 1992. An estimated 5,400 gallons of unleaded gasoline was released through the line into the shallow groundwater. Two recovery wells were installed and approximately 400 gallons of gasoline was pumped from the groundwater. The remaining 5,000 gallons migrated off the site in less than a week.



View of Site

Approximately one month after the release, gasoline vapors were reported in several nearby businesses. Vapor problems at most of the businesses were eliminated when the buildings' basements were sealed and/or vented. However, the basement of the Pioneer Bank (205 West Main Street) could not be vented because of the way the building was constructed. A soil vapor extraction (SVE) system was installed at the Pioneer Bank property in February 1993 to mitigate the vapors.

Three underground storage tanks (USTs) were excavated and removed from the site in May 1995. Post-removal sampling found only a small amount of gasoline in the soil at the site. In 1998, new USTs were installed at the site.

DEQ evaluated the owner/operators ability to pay and determined they had limited ability to pay for remedial actions related to the 1992 release. Based on that review, DEQ entered into a settlement with the owner/operators for the completion of actions that were equivalent to their limited ability to pay. Following the completion of actions listed in the settlement, DEQ agreed the owner/operators would not have to pay any future costs. The LUST program referred the site to DEQ's Orphan Site Program in May 1999 and the site was designated as an Orphan Site in January 2000.

The SVE system located at Pioneer Bank was shut down by DEQ in February 2000. DEQ monitored the air quality in the bank building for one year to ensure that gasoline vapors were no longer a threat to human health. The aboveground SVE equipment was removed from the bank property in April 2001.

Recovery Act Site Assessment

Recovery Act funding was used at this site to evaluate current soil and groundwater conditions throughout the area impacted by the 1995 release. Six soil borings were advanced, three on-site and three off-site in December 2009. The soil borings were completed as groundwater monitoring wells. Soil and groundwater samples were collected during this event. One additional groundwater monitoring event was performed in March 2010 to confirm the groundwater analytical results observed in December 2009. The wells were abandoned once they were no longer needed.

Recovery Act Project Results

The assessment documented residual petroleum concentrations in soil and groundwater. The residual petroleum contamination was determined not to be a risk to human health and the environment. A no further action determination was issued by DEQ on June 8, 2010.

Steve's Auto (continued)

Recovery Act Funding and Cost Recovery

A total of \$69,907 of Recovery Act funding was used to complete the assessment actions described above. Settlement negotiations were previously completed with the responsible party and no further cost recovery actions are planned.

Recovery Act Document Summary

The site documents prepared with Recovery Act funding are summarized below.

Prepared by DEQ
<ul style="list-style-type: none">• <i>No Further Action Decision Document, 4/26/10</i>• <i>No Further Action, 6/8/10</i>
Prepared by GeoEngineers, Inc.
<ul style="list-style-type: none">• <i>Threatened and Endangered Species Survey, 11/5/09</i>• <i>Site Investigation Report, 1/19/10</i>• <i>Results of Groundwater Monitoring March 2010, 4/9/10</i>• <i>Well Decommissioning Work Plan, 5/7/10</i>• <i>Report of Monitoring Well Decommissioning, 7/30/10</i>

STRONG'S MARKET DAYS CREEK, OREGON

The Strong's Market site is located at 11245 Tiller-Trail Highway in Days Creek, Douglas County, Oregon. The site is a mini market and service station which dispenses gasoline. Adjacent properties are primarily residential except for the vacant Days Creek Store, Post Office, telephone company building, and a restaurant (currently closed) across the highway to the east of the site.



View of Site in June 2010

The Days Creek area relies solely on groundwater wells for drinking water and other household uses. There is no city water service. Petroleum contamination was reported in nearby down gradient domestic wells in the late 1980s. DEQ installed six monitoring wells in April 1990 as part of an areawide investigation to determine the source of impacts to the domestic wells. Soil and groundwater contamination was found on both the Days Creek Store (located across the Tiller-Trail Hwy) and the Strong's Market sites.

The two underground storage tanks (USTs) at the Strong's Market site were removed in September 1999 and replaced with an aboveground storage tank (AST). There are no longer any operating USTs on the site. Soil contamination from the former USTs was found during the tank decommissioning and removal.

DEQ determined that the owners of the Strong's Market did not have the ability to pay for the investigation and cleanup of petroleum contamination. Using several phases of EPA LUST Cleanups Completed Cooperative Agreement funding, DEQ performed multiple investigations to determine the full extent of petroleum contamination. DEQ advanced and sampled 14 soil borings in May 2007 and two additional on-site monitoring wells in October 2008. An additional 14 soil borings and two wells were advanced in October 2010. Another five soil borings and one additional monitoring well were advanced in March 2011. Site investigations also included groundwater monitoring events, sampling of domestic water wells, soil gas sampling, and ambient air sampling within the Strong's Market building.

Based on chemical data collected to date, petroleum contamination on the site is generally the result of historical releases from the former Strong's Market and former Days Creek Store UST systems (i.e., USTs and associated piping). Analytical results indicated that gasoline-contaminated soil and groundwater are present beneath the site property. The highest concentrations were observed east and north of the Strong's Market building near the former fuel island piping, farther east across Tiller Trail Highway in the Douglas County right-of-way near the Days Creek Store USTs, and in monitoring wells west and northwest of the Strong's Market building. In March 2011, ambient air sampling within the Strong's Market building indicated that an unacceptable inhalation risk from benzene may be present.



Advancement of a soil boring in March 2011

Strong's Market (continued)

Recovery Act Site Assessment

Recovery Act funding was used at this site to further evaluate the potential of an unacceptable inhalation risk within the Strong's Market building. Ambient air samples were collected to assess the potential for vapor intrusion into the Strong's Market building in July 2011. Groundwater monitoring was also performed and included collecting groundwater samples from seven monitoring wells and from the Seymour mobile home residential well located on the adjacent property to the west.

Recovery Act Project Results

The July 2011 ambient air samples were collected in the same locations as in March 2011 but sampling was conducted during non-work hours to address possible cross contamination from fueling activities. Samples from the work area and background did not contain detectable concentrations of benzene. Benzene was detected in the Strong's Market crawl space above inhalation based concentrations similar to the levels detected in March 2011. No other detected compounds of interest exceeded their respective risk-based concentrations. Data indicates benzene from vapor intrusion is limited to the crawl space and does not appear to be a risk within the Strong's Market building. The previous elevated benzene concentrations are likely due to business fueling operations.

Future Work

DEQ has reviewed all the actions performed to date and determined that additional work will need to be undertaken once additional funding is obtained.

Recovery Act Funding and Cost Recovery

A total of \$11,670 of Recovery Act funding was used to complete the assessment actions described above. DEQ is currently in the process of recording a lien on this property.

Recovery Act Document Summary

The site documents prepared with Recovery Act funding are summarized below.

Prepared by Hart Crowser
• <i>Groundwater and Ambient Air Monitoring Report – July 2011, 8/30/11</i>

**TRI-CITY RURAL FIRE PROTECTION DISTRICT
BANKS, OREGON**

The Tri-City Rural Fire Protection District (RFPD) is a fire station located at 300 Main Street in Banks, Washington County, Oregon. The site was developed as a garage (Banks Garage) on the 1911 Sanborn Fire Insurance Map with a gasoline underground storage tank (UST) in the street adjacent to the property. The property has been the home of the RFPD since at least 1970. Three USTs storing gasoline and diesel were decommissioned by removal in December 1991. A fourth UST was reportedly removed before 1973. The RFPD removed the original firehouse in May 1999 and constructed the current facility.



View of Site in March 2009

Extensive assessment and cleanup actions were performed on this property by RFPD from 1991 to 2000. Following the terrorist attack on September 11, 2001, additional federal requirements were placed on fire departments and other first responders. This forced the reallocation of available funds from additional assessment and cleanup work to addressing the federal requirements.

Using EPA LUST Cleanups Completed Cooperative Agreement funding, DEQ performed a site investigation at the site including advancing six soil borings and three soil gas probes on and off site in May 2009. The primary purpose of this evaluation was to determine current conditions of the contaminated groundwater and to evaluate possible vapor intrusion impacts.

Recovery Act Project Actions

Recovery Act funding was used at this site to complete the site investigation report detailing the results of the May 2009 field event, prepare a site-specific conceptual site model, and to review the entire project file to determine if a no further action determination was warranted.

Recovery Act Project Results

Residual soil and groundwater contamination is present at the RFPD site. The contamination is primarily located at depths greater than 8 feet below ground surface limiting the potential for contact. In addition, the contaminated areas are covered by foundations, roadways, or established vegetation areas. Soil gas samples did not contain petroleum constituents above risk-based concentrations indicating that the vapor intrusion pathways are not complete. The residual petroleum contamination was determined not to be a risk to human health and the environment. A no further action determination was issued by DEQ on September 15, 2011.

Tri-City Rural Fire Protection District (continued)

Recovery Act Funding and Cost Recovery

A total of \$2,659 of Recovery Act funding was used to complete the actions described above. Settlement negotiations are on-going between DEQ and RFPD to recover, to the extent possible, both LUST and Recovery Act funding used to address contamination issues at this property.

Recovery Act Document Summary

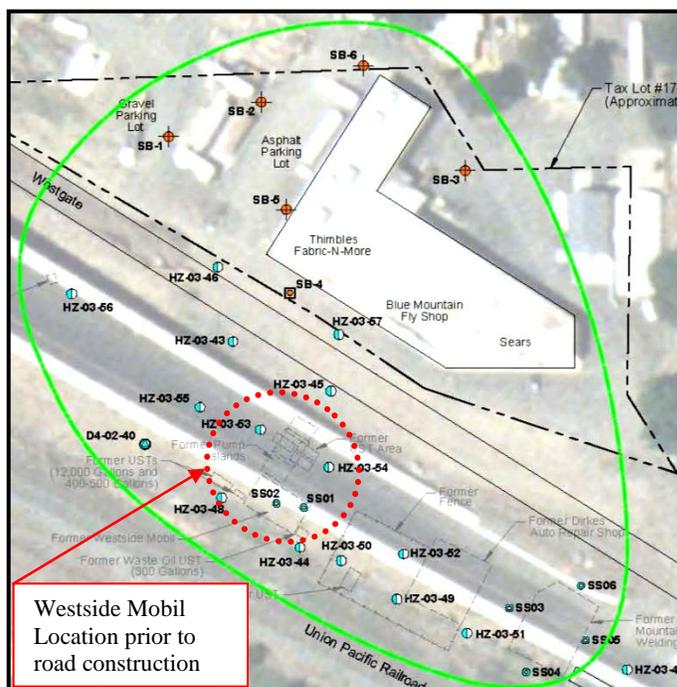
The site documents prepared with Recovery Act funding are summarized below.

Prepared by DEQ
<ul style="list-style-type: none">• <i>Site Assessment Report</i>, 8/8/11• <i>No Further Action Decision Document</i>, 8/8/11• <i>No Further Action</i>, 9/15/11

WESTSIDE MOBIL SERVICE PENDLETON, OREGON

The former Westside Mobil Service site was located on the south side of Westgate Drive in Pendleton, Umatilla County, Oregon prior to the realignment of the road. The Westside Mobil Service property was acquired through eminent domain by the Oregon Department of Transportation (ODOT) in January 2004. A substantial volume of fill was placed over the area to construct a railroad overpass.

Two underground storage tanks (USTs) were decommissioned by removal in February 2003. Petroleum contaminated soil (PCS) was observed and over excavated. ODOT performed additional investigation work in May 2003. Petroleum contamination was detected in both soil and groundwater on and off site at concentrations exceeding generic risk-based standards.



Site map of area

Four regulated USTs and associated piping, hydraulic hoist, sump, and dispensers were decommissioned by removal in March 2004. Approximately 964 tons of PCS were excavated and transported off site for disposal.

Recovery Act Site Assessment

Recovery Act funding was used to delineate the extent of groundwater contamination from the site. Six soil borings were advanced off site in April 2011. Soil and groundwater samples were collected during this event. Soil vapor samples were also collected from one boring.

Recovery Act Project Results

The assessment documented residual petroleum concentrations in soil and groundwater. The residual petroleum contamination was determined not to be a risk to human health and the environment. A no further action determination was issued by DEQ on August 2, 2011.

Recovery Act Funding and Cost Recovery

A total of \$32,320 of Recovery Act funding was used to complete the assessment actions described above. The responsible party is deceased, the property is part of a highway, and cost recovery actions are not planned.

Recovery Act Document Summary

The site documents prepared with Recovery Act funding are summarized below.

Prepared by DEQ	Prepared by Ash Creek Associates
<ul style="list-style-type: none"> • Tribal and SHPO Consultation letters, 1/13/11 • No Further Action Decision Document, 7/5/11 • No Further Action, 8/2/11 	<ul style="list-style-type: none"> • Review for Threatened and Endangered Species, 3/9/11 • Site Investigation Work Plan, 3/4/11 • Site Investigation Report, 5/24/11

VP VALLEY PRODUCTS NYSSA, OREGON

The VP Valley Products site is located at 518 Main Street in Nyssa, Malheur County, Oregon. The service station was reportedly built in the 1960s and operated until 1988. In August 1995, five underground storage tanks (USTs) were decommissioned by removal. Petroleum contamination was documented in soil and groundwater.



View of site in 1996

Some assessment actions and the preparation of a Corrective Action Plan (CAP) were performed by the responsible party. However, based on the continued lack of action in addressing contamination and implementing actions approved in the CAP, the site was referred to the Orphan Site Program and was declared an Orphan site in July 2003. The City of Nyssa and DEQ entered into a Prospective Purchaser Agreement in February 2004 to allow the city to accept the donation of the property while limiting their liability with respect to the petroleum contamination present at the site. The donation was completed in May 2004 and the above ground facilities were removed by the city within a week. The property has been transformed from an eyesore to a memorial park located at the gateway to downtown.

Extensive assessment and cleanup actions have been performed by the Orphan Site Program since July 2003 including multiple phases of delineation, groundwater monitoring, and the installation and operation of a dual phase extraction system.

Recovery Act Project Actions

Recovery Act funding was used to complete project close out tasks. The extensive monitoring and extraction well network was abandoned by over drilling. A contaminated media management plan was prepared. This plan is intended to minimize risks to worker health and the environment, and outlines procedures for the handling and disposal of petroleum contaminated soil and groundwater that may be encountered during future earthwork related construction activities.



View of site in March 2007

Recovery Act Project Results

Institutional controls were placed on the property and the residual petroleum contamination was determined not to be a risk to human health and the environment. A conditional no further action determination was issued by DEQ on March 23, 2010.

Recovery Act Funding and Cost Recovery

A total of \$53,600 of Recovery Act funding was used to complete the actions described above. Settlement negotiations were previously completed with the responsible party and included the donation of the property to the City of Nyssa and a monetary settlement. No further cost recovery actions are planned.

VP Valley Products (Continued)

Recovery Act Document Summary

The site documents prepared with Recovery Act funding are summarized below.

Prepared by DEQ
<ul style="list-style-type: none">• <i>Tribal and SHPO Consultation letters, 9/10/09</i>• <i>Conditional No Further Action, 3/23/10</i>
Prepared by GeoEngineers, Inc.
<ul style="list-style-type: none">• <i>Well Decommissioning Work Plan, 10/16/09</i>• <i>Threatened and Endangered Species Survey, 11/3/09</i>• <i>Report of Monitoring Well Decommissioning, 12/18/09</i>• <i>Contaminated Media Management Plan, 12/29/09</i>• <i>Decommissioning of Monitoring Well MW-6, 3/25/10</i>