

Periodic Review

Stevens Pass Ski Resort Vehicle Maintenance Facility and Stevens Pass Mini Mart Station US 2 – Stevens Pass Summit Skykomish, Washington 98288

> Facility/Site ID #s: 19775 and 56 Cleanup Site ID #s: 11420 and 11421

Completed by: Washington State Department of Ecology Central Regional Office Toxics Cleanup Program

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1.0 INTRODUCTION

This periodic review document is the Department of Ecology's review of post-cleanup site conditions and monitoring data to assure that human health and the environment are being protected at two sites at the summit of Stevens Pass. The sites include the Stevens Pass Ski Resort Vehicle Maintenance Facility site and the Stevens Pass Mini Mart Station site (Sites). Cleanup at these Sites was implemented under the Model Toxics Control Act (MTCA), Chapter 173-340 of the Washington Administrative Code (WAC).

Cleanup activities at these Sites was completed under the Voluntary Cleanup Program (VCP) as VCP No. CE0339 and CE0338 for the Vehicle Maintenance Facility and the Mini Mart, respectively. The cleanup actions resulted in residual concentrations of petroleum hydrocarbons in soil at both Sites that exceed MTCA Method A cleanup levels established under WAC 173-340-740(2). As a result of residual contamination, institutional controls were required for the Sites to be eligible for a No Further Action (NFA) determination. WAC 173-340-420(2) requires that Ecology conduct a periodic review of a site every five years under the following conditions:

- 1. Whenever the department conducts a cleanup action.
- 2. Whenever the department approves a cleanup action under an order, agreed order or consent decree.
- 3. Or, as resources permit, whenever the department issues a no further action opinion
- 4. And one of the following conditions exists:
 - (a) Institutional controls or financial assurance are required as part of the cleanup.
 - (b) Where the cleanup level is based on a practical quantitation limit.
 - (c) Where, in the department's judgment, modifications to the default equations or assumptions using site-specific information would significantly increase the concentration of hazardous substances remaining at the site after cleanup or the uncertainty in the ecological evaluation or the reliability of the cleanup action is such that additional review is necessary to assure long-term protection of human health and the environment.

When evaluating whether human health and the environment are being protected, the factors the department shall consider include [WAC 173-340-420(4)]:

- (a) The effectiveness of ongoing or completed cleanup actions.
- (b) New scientific information for individual hazardous substances of mixtures present at the Site.
- (c) New applicable state and federal laws for hazardous substances present at the Site.
- (d) Current and projected Site use.
- (e) Availability and practicability of higher preference technologies.
- (f) The availability of improved analytical techniques to evaluate compliance with cleanup levels.

The department shall publish a notice of all periodic reviews in the Site Register and provide an opportunity for public comment.

2.0 SUMMARY OF SITE CONDITIONS

2.1 Site History

The Stevens Pass Ski Area operates on two areas of U.S. Forest Service (Forest Service) land (a total of 2,463 acres), pursuant to a special use permit issued by the Forest Service to New Stevens, LLC, as well as on a 32-acre privately held parcel referred to as Yodelin. One of the Forest Service areas includes the main downhill ski and base areas, and the second area is in Mill Valley and includes the Nordic Center and cross country and snowshoe trails. The majority of the subject property is ski terrain and undeveloped forest land. U.S. Highway 2 bisects a portion of the property.

The area was first developed as a small ski area in 1937, and was expanded over time into the current ski resort. The adjoining properties are undeveloped, wooded Forest Service lands.

A gas station (the Mini Mart station) was constructed on the subject property, along the northern side of Highway 2, in 1960 and it operated until 1971. In 1964, five underground storage tanks (USTs) were installed at the station. Two of the tanks contained heating oil, one contained leaded gasoline, one contained unleaded gasoline, and one contained waste oil. According to Ecology files, all five of these USTs were removed. Ski resort employees are reported to have removed at least some of the USTs during the summer of 1980 and installed two of the tanks at the current vehicle maintenance facility. The station building was demolished in 1998.

The current vehicle maintenance facility was constructed in 1980. The facility is located south of Highway 2, near the bottom of a ski run. Vehicle fueling occurs at the facility and, at the time of the remedial action, two USTs were in use. A 10,000-gallon UST that contained diesel and a 4,000-gallon UST that contained unleaded gasoline were located along the northwest corner of the facility building. The USTs were installed in 1988, replacing the two USTs that had been originally installed in 1980. A 300-gallon diesel AST is located along the northeast corner of the facility building, and one 500-gallon used oil AST, two 500-gallon transmission fluid ASTs, two 70-gallon engine oil ASTs, and two 70-gallon drive train oil ASTs are located inside of the building.

A vicinity map is available as Appendix 6.1 and a Site plan is available as Appendix 6.2.

2.2 Site Investigations and Remedial Actions

2.2.1 Phase I Environmental Site Assessment

In April 2010, a Phase I Environmental Site Assessment (ESA) identified two recognized environmental conditions (RECs) associated with the Sites. The RECs were: 1) soil staining on the unpaved ground surface of the fuel dispensing area at the vehicle maintenance facility

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indicated the potential for soil and possibly groundwater impacts, and 2) potential releases from the previous UST system at the former mini mart.

2.2.2 Phase II Assessment

In May 2010, Sound Environmental Strategies (SES) conducted a Phase II assessment to characterize the soil conditions at the current vehicle maintenance facility and the former Mini Mart station area. The assessment consisted of excavating and sampling five test pits (TP01 through TP05) at the vehicle maintenance facility and five test pits (TP06 through TP10) at the former Mini Mart area.

The soil sample analytical results from the vehicle maintenance facility showed that at least one sample from all of the test pits, except TP03, contained gasoline-range organics (GRO), diesel-range organics (DRO), heavy oil-range organics (HO), benzene, and/or total xylenes concentrations that exceeded the current site soil cleanup levels. Groundwater was not encountered in any of the test pits.

At the former Mini Mart station area, soil sample analytical results showed that at least one sample from all of the test pits, except TP10, contained GRO, DRO, HO, benzene, toluene, ethylbenzene, and/or total xylenes concentrations that exceeded the current site soil cleanup levels. Groundwater was encountered in TP06 and TP09; however, groundwater samples were not collected.

2.2.3 Remedial Actions

Source removal by remedial excavation was used to remediate the impacted soil at the former Mini Mart area and the current vehicle maintenance facility. There were two areas of soil excavation at the former Mini Mart area and two areas of soil excavation at the vehicle maintenance facility. Each excavation was extended laterally until the petroleum hydrocarbon concentrations in the final confirmation sidewall samples were below MTCA Method A soil cleanup levels or until there were potential structural concerns for a nearby building, utility, or other structure. Each excavation was extended vertically to at least one foot below the groundwater table to remove the source of the impacted groundwater and to allow for recovery of the groundwater. However, if the excavation within a specific grid cell did not extend to below the groundwater table, then a floor sample was collected to confirm that the impacted soil had been removed at that location.

A total of 19,864 tons of excavated soil were hauled to the Greater Wenatchee Regional Landfill for disposal. Approximately 16,724 and 3,140 tons of the disposed soil were from the former Mini Mart station area excavations and the current vehicle maintenance facility excavations, respectively. Based on the analytical results from the final confirmation sidewall and floor samples from each excavation, the excavation activities effectively removed all of the *accessible* soil at each area that contained petroleum hydrocarbon concentrations greater than the site soil cleanup levels.

After completing the soil excavations, there are a total of six remaining localized areas of inaccessible contaminated soil at the north end of the current vehicle maintenance building, at the north and south corners of the former maintenance building, and along the eastern edge of the southern Mini Mart area. To reduce the risks (direct human contact, protection of groundwater, and/or protection of terrestrial ecological organisms) associated with the remaining impacted soil, an 8-inch-thick, reinforced concrete surface cap was installed over each area of impacted soil that was located adjacent to a building. A 6-inch-thick asphalt surface cap was also installed over both areas of impacted soil along the eastern edge of the southern Mini Mart area excavation.

2.2.4 Groundwater Remediation

To remediate the known petroleum hydrocarbon-impacted groundwater at the former Mini Mart station area and the current vehicle maintenance facility, a total of 465,905 gallons of groundwater were extracted from the open excavations. The total volumes of groundwater pumped from the former Mini Mart station area excavations and the current vehicle maintenance facility excavations were approximately 450,505 and 15,400 gallons, respectively. All of the extracted groundwater was pumped into a treatment system that consisted of two to three 21,000-gallon sediment settling tanks in series, followed by two 2,000-pound carbon-filled canisters in series. The treated groundwater was reinfiltrated to the subsurface via a trench located south of the southern Mini Mart area excavation. Based on the treatment system sample analytical results, the system effectively reduced the petroleum hydrocarbon concentrations to below the MTCA Method A groundwater cleanup levels prior to reinfiltration.

After backfilling the excavations, a total of four groundwater monitoring wells were installed at the former Mini Mart station area and the current vehicle maintenance facility. During November 2011, March 2012, May 2012, and August 2012 groundwater sampling events, the petroleum hydrocarbon concentrations in all of the groundwater samples from the wells at the current vehicle maintenance facility and the former Mini Mart area (with one exception) were either not detected above detection limits or were below the MTCA Method A cleanup levels. The sample collected from well SMW-4 at the former Mini Mart area on March 1, 2012, contained a DRO concentration (900 micrograms per liter) that exceeded the Method A cleanup level; however, due to low temperatures, the sample was collected with a disposable bailer instead of a peristaltic pump, and it was highly turbid. When temperatures were above freezing, SMW-4 was resampled with a peristaltic pump by using low-flow methods on March 29, 2012. The sample, which was clear with no evidence of particulates, did not contain a DRO concentration above detection limits. The discrepancy between the March 1 and March 29 samples, as well as the other quarterly samples from SMW-4, indicates that the detected DRO concentration on March 1 was due to ORO-impacted particulates in the sample, and did not represent groundwater conditions.

2.3 Cleanup Levels and Point of Compliance

WAC 173-340-704 states that MTCA Method A may be used to establish cleanup levels at sites that have few hazardous substances, are undergoing a routine cleanup action, and where numerical standards are available for all indicator hazardous substances in the media for which the Method A cleanup level is being used.

MTCA Method A cleanup levels for unrestricted land use were determined to be appropriate for contaminants at this Site, which were limited to petroleum hydrocarbons and gasoline constituents. The cleanup actions conducted at the Site were determined to be 'routine', few hazardous substances were found at the Site, and numerical standards were available in the MTCA Method A table for each hazardous substance.

For soil, the point of compliance is the area where the soil cleanup levels must be attained. For this Site, the point of compliance is established as soils throughout the Site. The groundwater point of compliance is throughout the Site from the uppermost level of the saturated zone to the lowest depth that could possibly be affected by the Site.

2.4 Site Closure

After entering the Voluntary Cleanup Program in 2013, it was determined that the Sites would be eligible for a NFA determination if institutional controls were implemented to prevent exposure to contaminated soils. Because the property is under Federal ownership and is leased by CLP Stevens Pass LLC, an alternative institutional control was required. The Federal government does not typically allow deed restrictions to be recorded on Federal property, which prevents the use of the standard institutional control: an environmental covenant. The alternative institutional control was implemented in the form of an amended permit authorization. Following implementation of institutional controls, a NFA determination was issued for both Sites in 2012. The amended permit makes the following statements and requirements of CLP Stevens Pass LLC, the ski resort owner and permit holder:

- 1. The purpose of this amendment is a) to provide a record of the remaining contamination; and b) to provide for the holder's evaluation and cleanup, as necessary, of the remaining contamination upon the removal of any building, surface cap, roadway, or other improvement, in the vicinity of the remaining contamination, or the termination of the permit, whichever occurs first.
- 2. The holder shall not conduct ground disturbing activities in the areas of remaining contamination, develop drinking water wells, or take any other action that might cause the contamination to migrate, without obtaining written authorization from the Forest Service.
- 3. If the holder proposes to conduct any ground disturbing activity including, but not limited to, removal of any building, surface cap, roadway, or other improvement located above remaining contamination, the holder will provide the Forest Service with an analysis of whether the remaining contamination in the area of the proposed activity meets then

current cleanup standards. If cleanup standards are not met, the holder will propose, for the Forest Service's approval and/or modification, an appropriate cleanup. The holder will implement the cleanup, as approved or modified by the Forest Service. This clause also applies when holder is required to remove improvements upon termination or revocation of the permit, as provided by Clause X.A. of the permit.

4. The Forest Service will consider waiving its right to require removal of an improvement located above remaining contamination if a new owner of those improvements agrees to the obligations contained in this amendment. Whether or not to waive the removal requirement shall be in the sole discretion of the Forest Service.

A copy of the permit amendment is available as Appendix 6.3.

3.0 FIVE-YEAR REVIEW

3.1 Effectiveness of completed cleanup actions

3.1.1 Direct Soil Contact

Based on the Site visit conducted on June 1, 2018, no repair, maintenance or contingency actions have been required at either Site. The excavations conducted during the interim actions eliminated the human exposure (ingestion, contact) to contaminated soils. The gravel and concrete caps at the Sites continue to prevent direct contact with the contaminated soils. A photo log is available as Appendix 6.4.

3.1.2 Institutional Controls

Institutional controls were implemented in the form of an amended permit to prevent activities that may expose contaminated soils. The permit prohibits activities that will result in the release of contaminants contained as part of the cleanup without Ecology's approval, and required additional remedial action if any of the building structures located over contaminated soils are removed.

3.1.3 Protection of Groundwater

Groundwater monitoring was conducted for four consecutive quarters through 2012. Contamination was not detected at concentrations exceeding MTCA Method A cleanup levels. Contaminated groundwater does not remain at the Sites, and groundwater does not pose a threat to human health or the environment. Additionally, several decades have passed since contaminants were originally released to Site soils. Sufficient time has passed for contaminants to migrate to groundwater, if it was likely to occur. Groundwater monitoring at the Sites served as an empirical demonstration that residual contaminated soils do not pose a threat to groundwater quality.

3.1.4 Vapor Intrusion

Due to the proximity of residual contamination to structures, the vapor intrusion pathway should be considered. Upon examination of the data from the 2011 remedial action, it was determined that residual concentrations of petroleum hydrocarbons in soil do not pose a threat to indoor air quality for the following reasons:

- Residual contamination is primarily weathered gasoline- and diesel-range petroleum hydrocarbons. Very little benzene remains. This indicates that the release is well-aged and no longer contains significant concentrations of the volatile constituents that may pose vapor intrusion and indoor air concerns.
- Both buildings in the vicinity of residual soil contamination are limited-use, nonresidential buildings. They are unoccupied during the majority of the year and present a limited exposure scenario.

• The maximum residual gasoline-range organic concentration was 1,500 milligrams per kilogram (mg/kg) at a depth of 5 feet below ground surface (bgs) with no detection of benzene; the maximum residual diesel-range organic concentration was 8,700 mg/kg at a depth of 5 feet bgs.

Based on these factors, no additional evaluation of the soil vapor to indoor air pathway is required.

3.2 New scientific information for individual hazardous substances for mixtures present at the Site

There is no new relevant scientific information for the petroleum contaminants related to the Sites.

3.3 New applicable state and federal laws for hazardous substances present at the Site

There are no new applicable state or federal laws for hazardous substances remaining at the Sites.

3.4 Current and projected Site use

The Sites are currently used as a private vehicle maintenance facility and a parking lot for ski resort users. There have been no changes in current or projected future Site or resource uses. Neither of these uses pose a threat to the integrity of the remedial action.

3.5 Availability and practicability of higher preference technologies

The remedy implemented included removal of hazardous substances as well as containment, and it continues to be protective of human health and the environment. While higher preference cleanup technologies may be available, they are still not practicable at these Sites.

3.6 Availability of improved analytical techniques to evaluate compliance with cleanup levels

The analytical methods used at the time of the remedial action were capable of detection well below MTCA Method A cleanup levels. The presence of improved analytical techniques would not effect decisions or recommendations made for the Sites.

4.0 CONCLUSIONS

- The cleanup actions completed at the Sites are protective of human health and the environment.
- Soil cleanup levels have not been met at either site; however, the cleanup action is determined to comply with cleanup standards under WAC 173-340-740(6)(f), since the long-term integrity of the containment systems are ensured and the requirements for containment technologies have been met.
- The use permit for the Sites has been fully implemented and is effective in the short term protecting public health and the environment from exposure to hazardous substances and protecting the integrity of the cleanup action.

Based on this five-year review, the Department of Ecology has determined that the requirements of the use permit are being followed at the Sites. No additional remedial actions are required by the property owner. It is the property owner's responsibility to continue to inspect the Sites to assure that the integrity of the surface caps is maintained.

5.0 REFERENCES

SLR International Corp. Remedial Action Report. December 8, 2011.

United States Forest Service. Amended Use Permit. September 13, 2012.

SLR International Corp. Quarterly Groundwater Sampling Report. October 12, 2012.

Ecology. No Further Action Letter. March 14, 2013.

Ecology. Site Visit. June 1, 2018.

6.0 APPENDICIES

6.1 Vicinity Map



6.2 Site Plans





6.3 Use Permit

Authorization ID: SKY129	FS-2700-23 (v. 10/09)		
Contact ID: CLP STEVENS PASS,LLC	OMB No. 0596-0082		
Use Code: 161			
U.S. DEPARTMENT OF AGRICULTURE	Amendment#: 1		
FOREST SERVICE			
AMENDMENT			
FOR A SPECIAL USE AUTHORIZATION			
This amondment is attached to and made a pa	rt of the TERM special use authorization for a WINTER SPORTS		
RESORT issued to CLP Stevens Pass, LLC on 11/			
Amend the Permit Authorization ID SKY129 to	include institutional controls to address the petroleum		
contamination remaining at the Stevens Pass S	ki Area after a cleanup in 2011.		
Background: CLP Stevens Pass LLC purchased t	the ski area in 2011. Prior to that, petroleum contamination		
-	area. The prior permit holder New Stevens LLC conducted a		
	to CLP Stevens Pass, LLC. This amendment is necessary to		
document the fact that some petroleum remai	ns due to obstruction from existing facilities. This amendment		
	counted for during replacement or removal of those facilities		
or at permit expiration or termination.			
	nditions set forth herein, and to conditions 1 to 8 and Exhibits		
5 to 8 attached hereto and made a part of this	Amendment.		
1. In 2011the New Stevens, LLC (prior permit h	nolder) conducted a response action under the Washington		
	etroleum contamination in 2 areas within the permit area.		
	of the Fleet Maintenance Building, which is Base Area Building		
	rrea of contamination was in the vicinity of the Parking ng G shown on Exhibit 2 of the permit. U.S. Highway 2 is also		
in the vicinity of this second area of contamina			
2. Permit Exhibit 5 shows the northern part of	the Fleet Maintenance Building Facility and the area of		
	nination along the northern end of the building. Permit		
Exhibit 5 is attached to this amendment and is	incorporated into the permit by this reference.		
3. Permit Exhibits 6 and 7 show the former Mi	ni Mart Excavation Areas near the Parking Operations Building		
and the areas of removed contamination and remaining contamination in the vicinity of that building and			
	Exhibits 6 and 7 are attached to this amendment and are		
	Exhibit 8 shows the area of petroleum hydrocarbon		
contamination that has tested above MTCA M	ethod "A" groundwater cleanup levels.		
	tion" includes the area of contamination denoted on Exhibits		

5, 6, 7 and 8 including any portions of the plume outside the denoted areas.

5. The purpose of this amendment is a) to provide a record of the remaining contamination; and b) to provide for the holder's evaluation and cleanup, as necessary, of the remaining contamination upon the removal of any building, surface cap, roadway, or other improvement, in the vicinity of the remaining contamination of the permit, whichever occurs first.

6. The holder shall not conduct ground disturbing activities in the areas of remaining contamination, develop drinking water wells, or take any other action that might cause the contamination to migrate, without obtaining written authorization from the Forest Service.

7. If the holder proposes to conduct any ground disturbing activity including, but not limited to, removal of any building, surface cap, roadway, or other improvement located above remaining contamination, the holder will provide the Forest Service with an analysis of whether the remaining contamination in the area of the proposed activity meets then current cleanup standards. If cleanup standards are not met, the holder will propose, for the Forest Service's approval and/or modification, an appropriate cleanup. The holder will implement the cleanup, as approved or modified by the Forest Service. This clause also applies when holder is required to remove improvements upon termination or revocation of the permit, as provided by Clause X.A. of the permit.

8. The Forest Service will consider waiving its right to require removal of an improvement located above remaining contamination if a new owner of those improvements agrees to the obligations contained in this amendment. Whether or not to waive the removal requirement shall be in the sole discretion of the Forest Service.

ACCEPTED:

9/13/12

HOLDER NAME AND SIGNATURE DATE

Kay Redlich, Senior Vice President CLP Stevens Pass, LLC

AUTHORIZED ØFFICER

DATE

Jennifer Eberlein, Forest Supervisor, Mt. Baker-Snoqualmie National Forest

AGREED TO BY THE HOLDER'S LESSEE, STEVENS PASS MOUNTAIN RESORT, LLC, FOR THE LIMITED PURPOSE OF OBLIGATING STEVENS PASS MOUNTAIN RESORT, LLC TO OPERATE THE PERMITTED IMPROVEMENTS IN COMPLIANCE WITH SECTIONS III, IV, V, VI AND CLAUSES VIII.A.1, VIII.A.2, VIII.B., AND VIII.D. OF THIS PERMIT AND CLAUSES 1 TO 8 OF THIS PERMIT AMENDMENT #1 AND ENABLING THE FOREST SERVICE TO DIRECTLY ENFORCE THAT OBLIGATION AGAINST STEVENS PASS MOUNTAIN RESORT, LLC. HOLDER'S LESSEE DATE Karl Kapuscinski, President Stevens Pass Mountain Resort, LLC ÷.... According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0596-0082. The time required to complete this information collection is estimated to average one (1) hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or part of an individual's income is derived from any public assistance. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at 202-720-2600 (voice and TDD). To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, 1400 Independence Avenue, SW, Washington, DC 20250-9410 or call toll free (866) 632-9992 (voice). TDD users can contact USDA through local relay or the Federal relay at (800) 877-8339 (TDD) or (866) 377-8642 (relay voice). USDA is an equal opportunity provider and employer. The Privacy Act of 1974 (5 U.S.C. 552a) and the Freedom of Information Act (5 U.S.C. 552) govern the confidentiality to be provided for information received by the Forest Service.









6.4 Photo log

Photo 1: Mini Mart Site – from the west



Photo 2: Mini Mart Site and US 2 – from the east



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Photo 3: Maintenance Facility Site - from the north

Photo 4: Maintenance Facility Site – from the south

