

# Storm Water Pollution Prevention Plan

## for:

Middle Bowl Lift Replacement  
Snowbasin Resort  
Huntsville, Utah, 84317

## Operator:

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*Appendix A – Site Maps*

*Appendix B – NOI*

*Appendix C – Construction General Permit*

*Appendix D – BMP Instruction and Detail Specifications*

*Appendix E – Inspection Reports*

*Appendix F –Corrective Action Report*

*Appendix G – Subcontractor Certifications/Agreements/Delegation of Authority (see CGP 9.16(1)b.)*

*Appendix H – Training Logs and Certifications (see CGP 6)*

*Appendix I – Additional Information (i.e., other permits such as dewatering, stream alteration, wetland; and out of date SWPPP documents)*

## SECTION 1: CONTACT INFORMATION/ RESPONSIBLE PARTIES

### 1.1 Storm Water Team

Name and/or Position, and Contact	Responsibilities, Qualifications, and Training
Chris Westover Snowbasin Ski Resort Mountain Manager (801) 648-3565 cwestover@snowbasin.com	Responsibilities: <ul style="list-style-type: none"> <li>• Project Manager</li> <li>• Prepare NOI</li> <li>• Oversee daily project operations</li> </ul>
Ben Ahern Snowbasin Ski Resort Lift Maintenance Manager (801) 389-1659 bahern@snowbasin.com	Responsibilities: <ul style="list-style-type: none"> <li>• Spill Prevention and Response</li> </ul>
Peter Traum Snowbasin Ski Resort Lift Operations Manager (801) 644-2442 ptraum@snowbasin.com	Responsibilities: <ul style="list-style-type: none"> <li>• Spill Prevention and Response assistance</li> </ul>
John Stratton Leitner Poma of America (970) 552-9046 John.stratton@leitner-poma.com	Responsibilities: <ul style="list-style-type: none"> <li>• On-site Construction Manager</li> <li>• Installation, repair, and maintenance of stormwater controls</li> <li>• Update training logs and certifications</li> <li>• Add other permit documents as needed</li> <li>• Taking corrective action as needed</li> </ul>
Eric Duffin Cirrus Ecological Solutions, LC Watershed Scientist/Hydrologist (435) 787-1490 eduffin@cirruses.com	Responsibilities: <ul style="list-style-type: none"> <li>• SWPPP preparation</li> <li>• Site inspection</li> <li>• Update SWPPP and remove out of date SWPPP documents</li> </ul> Qualifications: <ul style="list-style-type: none"> <li>• Licensed Utah RIS/RSW, Utah Chapter APWA</li> </ul>

## SECTION 2: NATURE OF CONSTRUCTION ACTIVITIES

### 2.1 Construction Site Estimates

The following are estimates for the construction site.

Total project area (lot size):	9.9 acres
Construction site area to be disturbed:	3.8 acres

### 2.2 Construction Activity Descriptions

Middle Bowl lift is a CTEC chairlift built in 1979, making it the oldest lift that remains in service at Snowbasin Ski Resort (Appendix A, Map 1). Given the age of the Middle Bowl lift, maintaining it in safe and functional condition has become impractical. The 2019 lift inspection completed by Mountain Guard Insurance Program identified 13 separate repair and maintenance requirements, far more than for any other Snowbasin lift. Some of these requirements would entail significant redesign or replacement of major lift components. Based on these considerations, Snowbasin is proposing to replace Middle Bowl lift, currently a fixed-grip triple chairlift, with a detachable four- or six-person chairlift. The new lift would be 4,767 feet long, with a top drive terminal, bottom terminal, and 16 intervening lift towers.

This SWPPP addresses installation of the Middle Bowl lift, creating a skiway/access road from the new top terminal to the existing Needles Lodge, and removing the old lift. A Notice of Intent (NOI) was prepared for this project (Appendix B). The SWPPP is prepared under guidance from the Utah Construction General Permit (Appendix C).

Construction activities will include **excavating** footings for lift terminals and towers and a trench for a buried power line, **grading** the approach to new terminals and a skiway/access road, **clearing** trees to provide a 60-ft wide cleared corridor for the shifted lift alignment, removing the existing lift terminals and towers and **recontouring** the disturbed areas.

Construction will begin in mid-July 2021 and finish before access is prevented by winter weather conditions. Work will typically occur Monday - Saturday from 7:00 am – 5:30 pm. No construction activities addressed in this SWPPP will affect waters of the U.S.

Off-site construction support will be located near the existing base area (Appendix A, Map 2). All construction materials will be staged in an open area near the administration building and existing service road. All fuel and motor lubricants used for maintaining and servicing heavy equipment will be stored in the existing vehicle maintenance building.

### **2.3 Phase/Sequence of Construction Activity**

Snowbasin is proposing to complete the construction activities listed below, in sequence based on their starting date. Due to the short construction season, most activities will begin at approximately the same time.

**Lift corridor (Mid-July through mid-August).** Trees will be removed in forested patches that are crossed by the shifted lift alignment to provide a cleared corridor 60 feet wide (Appendix A, Map 2). Trees will be disposed of onsite through chipping, or otherwise as directed by the Forest Service permit administrator. This method will minimize surface disturbance, provide extra protection for exposed soil surface, and provide a source of soil organic matter.

**Bottom Terminal (Late July – November).** Excavation for the bottom terminal (Appendix A, Map 3) will begin immediately following approval by Weber County. Backfilling and contouring of the area will begin a few weeks after the footings are installed and **conclude in September**. Construction of the bottom terminal will finish in November. Topsoil will be salvaged and stockpiled near disturbed areas for use in rehabilitation. Silt fence will border the southwest side of disturbance at the bottom terminal to remove sediment from any runoff that flows to Bear Hollow Creek. Broad based dips will be installed on the road near the bottom terminal to divert runoff from the road into the silt fence before it enters the stream. Detailed grading plans of the bottom terminal are shown in Appendix A, Maps 4 through 6.

**Top Terminal (Late July – November).** Excavation for the top terminal (Appendix A, Map 7) will begin after excavation for the bottom terminal. Excavation and grading for the top terminal will be more extensive compared to the bottom terminal. Backfilling and contouring for the top terminal will finish several weeks after these activities are finished at the bottom terminal. All earthwork will **conclude by the end of September**. The cut/fill balance for graded areas around the top terminal and skiway/access road would include 5,200 cubic yards of cut material, 5,600 cubic yards of fill material creating a deficit of 400 cubic yards. These calculations are estimates based on topographic contours and approximations of disturbance boundaries. This deficit will be filled by material retrieved from contouring the area around the skiway/access road. Excavation and installation of the power line will occur September-October. Construction of the top terminal will be complete in November. BMPs at the top terminal will include topsoil salvage in areas where topsoil exists, and erosion control matting to temporarily stabilize slopes before vegetation growth. Detailed grading plans of the top terminal are shown in Appendix A, Maps 8 through 10.

**Skiway/Access Road (Late July – August).** Grading will occur at the same time as excavation for the Top Terminal (Appendix A, Map 11). Final grade and contouring will be completed in August. BMPs for the skiway/access road include topsoil salvage in areas where topsoil exists, and erosion control matting to temporarily stabilize slopes before vegetation growth. Detailed grading plans of the skiway/access road are also shown in Appendix A, Maps 8 through 10.

**Existing Terminal and Towers (Late July – September).** Existing ski towers and lift terminals will be removed (Appendix A, Map 11). Bases will be cut 1 foot below the ground level. Lift

removal will be finished by mid-August. Disturbed areas will be graded to match existing contours in adjacent areas. Rehabilitation will take place after foundations for the new towers are finished. BMPs for removing the existing terminals and towers include topsoil salvage where possible and reseeding disturbed areas with native soil mix to achieve final stabilization.

**Lift towers (Late-August through mid-September).** Tower footings will be excavated using heavy equipment traveling over existing roads (Appendix A, Map 11). Off-road travel by heavy equipment will be minimized to the extent possible. Other BMPs for lift towers include helicopter transport of construction materials (e.g., foundation forms, steel, and concrete), and sediment barriers (e.g., berms or silt fence) between excavation material and any waterbodies.

## **2.4 Maps**

The SWPPP site map(s) are filed in Appendix A including:

- Map 1 – General location map of construction site at Snowbasin Resort.
- Map 2 – Location of off-site construction support areas.
- Map 3 – Close up view of bottom terminal construction site and recommended BMPs.
- Map 4 – Profile view of bottom terminal grading plan.
- Map 5 – Topographic view of bottom terminal grading plan.
- Map 6 – Orthographic view of bottom terminal grading plan.
- Map 7 – Close up view of top terminal, skiway access road, power line for terminal, and recommended BMPs.
- Map 8 – Profile view of top terminal grading plan.
- Map 9 – Topographic view of top terminal grading plan.
- Map 10 – Orthographic view of top terminal grading plan.
- Map 11 – Location of rehabilitated areas following removal of existing Middle Bowl lift.

## SECTION 3: WATER QUALITY

### 3.1 Discharge Information

Does your project/site discharge storm water into a Municipal Separate Storm Sewer System (MS4)?  Yes  No

### 3.2 Receiving Waters

#### Names of Receiving Waters

Name of Receiving Water (first surface water that receives storm water or where storm system discharges to)	Is the water impaired or high quality?	If high quality: Is it Category 1 or 2?  If impaired: List pollutants that the waterbody is impaired for
Bear Hollow Creek, an intermittent tributary of Wheeler Creek and the Ogden River	<input type="checkbox"/> Not high quality/impaired <input type="checkbox"/> Impaired, has approved TMDL <input type="checkbox"/> Impaired, no TMDL <input checked="" type="checkbox"/> High quality	Category 1

### 3.3 Impaired Waters

Project activities in this SWPPP do not discharge to impaired waters.

### 3.4 High Water Quality

Description of additional precautions taken to minimize pollution effects if you are discharging to a high quality surface water.

Bear Hollow Creek is an intermittent tributary to Wheeler Creek and the Ogden River. This creek is located entirely within the outer boundary of the Cache National Forest and considered a Category 1 High Quality water. In the absence of BMPs, Category I waters could potentially receive stormwater runoff from construction projects located near these water bodies.

Surface disturbance that occurs during construction of the new lower lift terminal and removal and rehabilitation of the existing lower lift terminal will occur no closer than 60 feet from Bear Hollow Creek (Appendix A - Map 3). Natural surface vegetation will remain in this buffer area to filter surface runoff. Prior to disturbance, silt fence will be installed parallel to the channel and above the OHWM to provide additional filtration of any surface runoff that might occur.

The existing road crossing on Bear Hollow Creek between the existing lower terminal and the proposed lower terminal site will utilize a broad based dip to divert surface runoff off the road

into native vegetation and/or the silt fence paralleling the stream channel. Straw bales will be used to reinforce the silt fence near the crossing.

If needed, the road surface above the culvert (i.e., culvert cover or bridge deck) will be raised to make it higher than the approach road to improve drainage away from the stream crossing. Cull logs can also be embedded in the bridge approach (if needed), that are perpendicular to the road, to reinforce the sides of the stream channel at the road crossing.

## SECTION 4: POLLUTION PREVENTION STANDARDS

### 4.1 Potential Sources of Pollution

The following table lists pollutant generating activities and where they will be located.

<b>Pollutant-Generating Activity</b>	<b>Pollutants or Pollutant Constituents</b> (that could be discharged if exposed to storm water)	<b>Location on Site</b> (or reference SWPPP site map where this is shown)
Excavation – tower and terminal footings, utility trench for power line.	Sediment	See Appendix A Maps 1, 3, and 4.
Grading/contouring for Skiway / Access Road and around new terminals.	Sediment	See Appendix A Maps 1, 3, and 4.
Runoff from stockpiles	Sediment	Topsoil stockpiles will be located near terminal disturbance and along graded Skiway / Access Road
Heavy equipment operation and maintenance	Gasoline, diesel fuel, lubricants, hydraulic fluid, coolant	Equipment maintenance building at base area
Solid waste storage	Material used in construction and erosion control activities (wood, plastic, paper)	Staging area. See Appendix A – Map 2
Wind erosion	Airborne fine particulate material	Access routes to construction sites, stockpiles of salvaged topsoil
Portable Toilets	E. coli and nutrients	Staging area. See Appendix A – Map 2

### 4.2 Non-Storm Water Discharges

The following table lists allowable non-storm water discharges and the measures used to eliminate them or reduce them and to prevent them from becoming contaminated. Note that emergency firefighting will take place if necessary.

<b>Authorized Non-Storm Water Discharges</b>	<b>Present</b>	<b>Comments/Controls</b>
Discharges from emergency fire-fighting activities	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	In the event of wildfire, measures will be taken to stabilize disturbed areas when sites can be accessed.

Fire hydrant flushing	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	
Properly managed landscape irrigation (excludes fertilizer injector systems)	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	
Properly managed vehicle and equipment wash water with no soaps, solvents, or detergents	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	
Water used to control dust	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	Used as necessary on roadways to construction site or topsoil salvage piles.
Drinking water, includes uncontaminated water line flushing	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	
External building washdown with no soaps, solvents, detergents, or hazardous substances	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	
Pavement wash waters with no detergents or toxic or hazardous materials. Must have a sediment basin, sediment trap, or similarly effective control prior to discharge.	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	
Uncontaminated air conditioning or compressor condensate	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	
Uncontaminated, non-turbid discharges of ground water (from natural sources) or spring water	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	
Uncontaminated foundation or footing drains	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	

### 4.3 Dewatering Practices

Check box if section not applicable to this site

### 4.4 Natural Buffers or Equivalent Sediment Controls

#### 4.4.1 Buffer Compliance Alternatives

Are there any surface waters within 50 feet of your project's earth disturbances?

YES  NO

## SECTION 5: EROSION AND SEDIMENT CONTROLS – BMPS

### 5.1 List of Erosion and Sediment BMPs on Site

CGP Requirement	Example BMPs	EPA SWPPP Guide Section	BMPs Selected (Name and Reference Number if applicable)
Preserve vegetation where possible and direct storm water to vegetated areas when feasible (CGP 2.2.2.).	Preserve natural vegetation between disturbance and stream.	Chapter 4, ESC Principle 1	Natural buffers (50 ft. minimum) will be preserved between bottom terminal and Bear Hollow Creek. Sections 5.1.4.
Install sediment controls along perimeter areas that receive pollutant discharges (CGP 2.2.3.).	Runoff management in disturbed areas including silt fence, straw bales, earth berms.	Chapter 4, ESC Principle 7	Silt fence between creek and disturbed areas to stop runoff at perimeter. Straw bales will reinforce silt fence near stream crossing. Section 5.1.1
Manage stockpiles with perimeter controls and locate away from storm water conveyances (CGP 2.2.5.)	Sediment barriers downgradient, proper location, covered stockpiles, divert storm water.	Chapter 4, ESC Principle 4	Install barriers using berms, straw bales, or silt fence around stockpiles of topsoil. Section 5.1.1 and 5.1.2.
Minimize dust (CGP 2.2.6.)	Water or chemical tackifiers. Application for dust suppression on roads.	Chapter 4, ESC Principle 4	Implement fugitive dust control plan (see Appendix D).
Minimize steep slope disturbance (CGP 2.2.7.)	Erosion control blankets, protect slopes from disturbance.	Chapter 4, ESC Principle 5	Biodegradable jute Matting to stabilize soils on steep slopes. Section 5.1.3.
Preserve topsoil (CGP 2.2.8.)	Stockpile topsoil.	Chapter 4, ESC Principle 1	Protect with cover or surround with silt fence to prevent loss of soil. Section 5.1.2.
Stabilize exposed portions of site with 14 days of inactivity (CGP 2.2.14).	Seeding, erosion control blankets, gravel, hydromulch	Chapter 9	Seeding, planting, mulching, and erosion stabilize graded soils with seeding/planting, erosion mats, and mulch. Section 5.1.3.

### 5.1.1: Perimeter Controls

#### ***BMP Description/Instructions: Silt Fence***

<b><i>Installation Schedule:</i></b>	As needed to prevent stormwater inflow. Install and inspect prior to commencement of construction activities where possible. Where trees and brush must be removed first, install immediately after clearing to prevent soil loss.
<b><i>Maintenance and Inspection:</i></b>	Inspect after each rainfall event, or daily during continuous rainfall when the amount of rainfall exceeds 0.5 inches. Complete repairs as soon as possible.
<b><i>Responsible Staff:</i></b>	Inspector will be responsible for inspections, and repairs will be delegated to trained individuals by the project manager.
<b><i>Design Specifications and Drawings:</i></b>	See design specifications in Appendix D.

#### ***BMP Description/Instructions: Straw Bale Barrier***

<b><i>Installation Schedule:</i></b>	As needed to prevent stormwater inflow. Install and inspect prior to commencement of construction activities where possible.
<b><i>Maintenance and Inspection:</i></b>	<ul style="list-style-type: none"> <li>• Inspect immediately after any rainfall and at least daily during prolonged rainfall.</li> <li>• Look for runoff bypassing ends of barriers or undercutting barriers.</li> <li>• Repair or replace damaged areas of the barrier and remove accumulated sediment.</li> <li>• Realign bales as necessary to provide continuous barrier and fill gaps.</li> <li>• Recompact soil around barrier as necessary to prevent piping.</li> </ul>
<b><i>Responsible Staff:</i></b>	BMP will be installed by the construction operator. Site inspector and construction operator will be responsible for identifying areas where BMP is failing or not functioning properly. Repairs will be delegated to trained individuals by the SWPPP contact.
<b><i>Design Specifications and Drawings:</i></b>	See design specifications in Appendix D.

### 5.1.2: Topsoil

#### *BMP Description/Instructions: Topsoil Salvage*

<b><i>Installation Schedule:</i></b>	Install following grading and compaction to achieve desired slope.
<b><i>Maintenance and Inspection:</i></b>	Monitor stockpiles while in use to minimize erosion. Protect with cover or surround with silt fence to prevent loss of soil. Utilize additional BMPs such as mulch, reseeding, and other measures to stabilize areas where topsoil is applied.
<b><i>Responsible Staff:</i></b>	Inspector will be responsible for inspections, and repairs will be delegated to trained individuals by the project manager.
<b><i>Design Specifications and Drawings:</i></b>	A. Remove sod and grass before stripping topsoil. B. Strip topsoil to depth indicated on Drawings in a manner to prevent intermingling with underlying subsoil or other waste materials. C. Stockpile topsoil away from edge of excavations without intermixing with subsoil. Grade and shape stockpiles to drain surface water. Cover to prevent windblown dust and erosion by water. See design specifications in Appendix D.

### 5.1.3: Stabilization

#### *BMP Description/Instructions: Seeding and Planting*

<b><i>Installation Schedule:</i></b>	Prepare seedbed prior to seeding if compaction of topsoil has occurred. Seed with Forest Service specified weed-free seed mix after final grading of an area is complete.
<b><i>Maintenance and Inspection:</i></b>	Unless covered by snow, inspect monthly for washouts, re-grade and reseed as needed.
<b><i>Responsible Staff:</i></b>	Inspector will be responsible for inspections, and repairs will be delegated to trained individuals by the project manager.
<b><i>Design Specifications and Drawings:</i></b>	See disturbed areas show on maps in Appendix A and design specifications in Appendix D.

#### *BMP Description/Instructions: Mulching*

<b><i>Installation Schedule:</i></b>	Install on disturbed surfaces after construction and no more than 14 days of inactivity.
<b><i>Maintenance and Inspection:</i></b>	<ul style="list-style-type: none"> <li>• Inspect mulched areas after every rainfall event and at a minimum of monthly.</li> <li>• Replace mulch on any bare areas and re-anchor as necessary.</li> <li>• Clean and replace down gradient controls as necessary.</li> </ul>
<b><i>Responsible Staff:</i></b>	BMP will be installed by the construction operator. Site inspector and SWPPP contact will be responsible for identifying areas where

	BMP is failing or not functioning properly. Repairs will be delegated to trained individuals by the SWPPP contact.
<b><i>Design Specifications and Drawings:</i></b>	See disturbed areas show on maps in Appendix A and design specifications in Appendix D.

***BMP Description/Instructions: Geotextiles and Mats***

<b><i>Installation Schedule:</i></b>	Install post-construction to temporarily or permanently stabilize soil.
<b><i>Maintenance and Inspection:</i></b>	<ul style="list-style-type: none"> <li>Inspect monthly and after significant rainfall.</li> <li>Re-anchor loosened matting and replace missing matting and staples as required.</li> </ul>
<b><i>Responsible Staff:</i></b>	BMP will be installed by the construction operator. Site inspector and SWPPP contact will be responsible for identifying areas where BMP is failing or not functioning properly. Repairs will be delegated to trained individuals by the SWPPP contact.
<b><i>Design Specifications and Drawings:</i></b>	See Map 7, Appendix A and design specifications in Appendix D.

**5.1.4: Manage Stormwater*****BMP Description/Instructions: Broad based dip or Swale at stream crossing***

<b><i>Installation Schedule:</i></b>	Install prior to disturbance at lower terminal site.
<b><i>Maintenance and Inspection:</i></b>	Inspect after each rainfall event, or daily during continuous rainfall when the amount of rainfall exceeds 0.5 inches. Complete repairs as soon as possible.
<b><i>Responsible Staff:</i></b>	Inspector will be responsible for inspections, and repairs will be delegated to trained individuals by the project manager.
<b><i>Design Specifications and Drawings:</i></b>	See design specifications in Appendix D.

***BMP Description/Instructions: Preserve vegetation / buffer strip***

<b><i>Installation Schedule:</i></b>	Mark boundary of preserved areas prior to construction.
<b><i>Maintenance and Inspection:</i></b>	Inspect buffer area near stream channel when rainfall exceeds 0.5 inches to identify rills or other areas of erosion. Stabilize soil surface and vegetation cover as needed.
<b><i>Responsible Staff:</i></b>	Inspector will be responsible for inspections, and repairs will be delegated to trained individuals by the project manager.
<b><i>Design Specifications and Drawings:</i></b>	See design specifications in Appendix D.

## 5.2 Linear Site Perimeter Control Exemption

Check box if section not applicable to this site.

## 5.3 Final Stabilization

Description of final stabilization practices and schedule:

Type of stabilization (vegetation/landscaped, graveled, paved, etc.)	Location	Implementation Schedule
Final stabilization: Hand seeding; mulch crimped in disturbed areas with tracked equipment.	Graded slopes near new terminals and skiway/access road, new lift corridor, and rehabilitated areas where existing terminals and towers are removed.	Fall 2021.
Temporary stabilization: Silt fence, straw bales, and erosion control material.	Lower terminal, graded slopes near new terminals and skiway/access road.	Prior to disturbance (lower terminal only) and within 14 days of inactivity at any disturbed site.

## SECTION 6: BMPS - POLLUTION PREVENTION/OPERATIONAL CONTROLS

### 6.1 *Spill Prevention and Response*

Describe spill procedures and materials available for expeditious containment, clean-up, and disposal of spills:

Spill prevention emphasizes safe transfer of fuel from the fuel storage tank at the Snowbasin maintenance facility to mobile units and from mobile units to on-site construction equipment. The fuel storage tank is monitored with leak detection sensors and meets all requirements for above ground fuel storage tanks. A full spill kit is present at this site. All mobile tanks have a certified 100 percent containment design within each unit. All transfers of fuel or other fluids to on site construction equipment will be done with industry standard mobile transfer tanks. Absorbent material will be present at all times to contain any dripping. Spill kits and fire extinguishers will be present on each mobile transfer unit. All hoses and apparatus will be inspected daily, and any issues will be corrected immediately.

Any spill will be dealt with by removing all contaminated materials and disposing them at a certified facility. Any spills that reach or exceed thresholds for reportable quantities (see table at end of section 6.1) will be reported to the appropriate authorities.

Identify the employee responsible for detection and response of spills and leaks:

Ben Ahern, spill prevention and response manager.

Any discharges in 24 hours equal to or in excess of the reportable quantities listed in 40 CFR 117, 40 CFR 110, and 40 CFR 302 will be reported to the National Response Center and the Division of Water Quality (DWQ) as soon as practical after knowledge of the spill is known to the permittees. The permittee shall submit within 14 calendar days of knowledge of the release a written description of: the release (including the type and estimate of the amount of material released), the date that such release occurred, the circumstances leading to the release, and measures taken and/or planned to be taken to the Division of Water Quality (DWQ), 288 North 1460 West, P.O. Box 144870, Salt Lake City, Utah 84114-4870. The Storm Water Pollution Prevention Plan must be modified within 14 calendar days of knowledge of the release to provide a description of the release, the circumstances leading to the release, and the date of the release. In addition, the plan must be reviewed to identify measures to prevent the reoccurrence of such releases and to respond to such releases, and the plan must be modified where appropriate.

<b>Agency</b>	<b>Phone Number</b>
National Response Center	(800) 424-8802
Division of Water Quality (DWQ) 24-Hr Reporting	(801) 231-1769 (801) 536-4123
Utah Department of Health Emergency Response	(801) 580-6681

<b>Material</b>	<b>Media Released To</b>	<b>Reportable Quantity</b>
Engine oil, fuel, hydraulic & brake fluid	Land	25 gallons
Paints, solvents, thinners	Land	100 lbs (13 gallons)
Engine oil, fuel, hydraulic & brake fluid	Water	Visible Sheen
Antifreeze, battery acid, gasoline, engine degreasers	Air, Land, Water	100 lbs (13 gallons)
Refrigerant	Air	1 lb

## **6.2 Pollution Prevention Controls**

<b>CGP Requirements</b>	<b>Example BMPs</b>	<b>EPA SWPPP Guide Section</b>	<b>BMPs Selected (Name and Reference Number if applicable)</b>
Equipment and vehicle fueling (CGP 2.3.1)	Spill kits, SPCCP, drip pans, locate activities away from conveyances, use secondary containment	Chapter 5, P2 Principle 4	Vehicle and equipment fueling, Section 6.2.1.
Storage, handling, and disposal of building products and waste (CGP 2.3.3.)	Cover (plastic sheeting / temporary roofs), secondary containment, leakproof containers, proper dumpsters, secured portable toilets, locate away from storm water conveyances	Chapter 5, P2 Principle 1 and 2	Materials storage, portable toilets, spill clean-up and waste, Section 6.2.2.

**6.2.1.: Refueling*****BMP Description/Instructions:***

<b><i>Installation Schedule:</i></b>	As needed.
<b><i>Maintenance and Inspection:</i></b>	<ul style="list-style-type: none"> <li>• Keep ample supplies of spill cleanup materials on-site.</li> <li>• Inspect fueling areas and storage tanks on a regular schedule.</li> </ul>
<b><i>Responsible Staff:</i></b>	Inspector will be responsible for inspections, and repairs will be delegated to trained individuals by the project manager.
<b><i>Design Specifications and Drawings:</i></b>	See Appendix D.

**6.2.2.: Storage and Handling*****BMP Description/Instructions: Portable Toilet***

<b><i>Installation Schedule:</i></b>	As needed.
<b><i>Maintenance and Inspection:</i></b>	<ul style="list-style-type: none"> <li>• Portable toilets should be maintained in good working order by licensed service with daily observation for leak detection.</li> <li>• Regular waste collection should be arranged with licensed service.</li> <li>• All waste should be deposited in sanitary sewer system for treatment with appropriate agency approval.</li> </ul>
<b><i>Responsible Staff:</i></b>	Inspector will be responsible for inspections, and repairs will be delegated to trained individuals by the project manager.
<b><i>Design Specifications and Drawings:</i></b>	See Appendix D.

***BMP Description/Instructions: Spill Clean-up***

<b><i>Installation Schedule:</i></b>	As needed.
<b><i>Maintenance and Inspection:</i></b>	Maintain supply of clean-up equipment on-site and post a list of local response agencies with phone numbers.
<b><i>Responsible Staff:</i></b>	Inspector will be responsible for inspections, and repairs will be delegated to trained individuals by the project manager.
<b><i>Design Specifications and Drawings:</i></b>	See maps in Appendix A, design specifications in Appendix D.

***BMP Description/Instructions: Waste Handling and Disposal***

<b><i>Installation Schedule:</i></b>	As needed.
<b><i>Maintenance and Inspection:</i></b>	Arrange for waste to be picked up regularly and disposed at approved disposal facilities.
<b><i>Responsible Staff:</i></b>	Inspector will be responsible for inspections, and repairs will be delegated to trained individuals by the project manager.
<b><i>Design Specifications and Drawings:</i></b>	See Appendix D.

## SECTION 7: SPECIAL CONDITIONS

### **7.1 Emergency Related Projects**

Emergency-Related Project?       Yes       No

### **7.2 UIC Class 5 Injection Wells**

Check box if section not applicable to this site

### **7.3 Chemical Treatment**

Check box if section not applicable to this site

## SECTION 8: INSPECTIONS & CORRECTIVE ACTIONS

### 8.1 Inspections

#### Minimum Inspection Schedule Requirements:

<b>Standard Frequency:</b>
<input type="checkbox"/> Once every 7 calendar days.
<input checked="" type="checkbox"/> Once every 14 calendar days and within 24 hours of the end of a storm event of 0.5 inches or greater. Rain gauge/weather station used: SNOWBASIN – BASE, UT. SBE (SNOWNET) data available for download at <a href="https://www.wrh.noaa.gov/mesowest/getobext.php?sid=SBE">https://www.wrh.noaa.gov/mesowest/getobext.php?sid=SBE</a>
<b>Increased Frequency (if applicable):</b>
<input type="checkbox"/> <i>Sites discharging to impaired or high quality waters: Once every 7 calendar days and within 24 hours of the end of a storm event of 0.5 inches or greater.</i>
<b>Decreased Frequency (if applicable):</b>
<input type="checkbox"/> <i>Arid areas: once a month and within 24 hours of a 0.5 inch storm event or greater.</i>
<input type="checkbox"/> <i>Semi-arid areas: once a month and within 24 hours of a 0.5 inch storm event or greater during the dry season</i>
<input type="checkbox"/> <i>Frozen conditions with work suspended – must have 3 months of continuous expected frozen conditions based on historical averages</i>
<input type="checkbox"/> <i>Frozen conditions with continued activities - must have 3 months of continuous expected frozen conditions based on historical averages</i>
<b>Other:</b>
<input type="checkbox"/> Describe alternative frequency

Inspection Reports are filed in Appendix E.

### 8.2 Corrective Actions

Correction Action Reports will be filed in Appendix F as necessary.

### 8.3 Delegation of Authority

See the signed delegation of authority forms in Appendix G.

#### **8.4 Training Logs and Certifications**

Training logs (CGP Part 6) and certifications are found in Appendix H.

#### **8.5 Additional Information**

Additional information (i.e., other permits such as dewatering, stream alteration, wetland; and out of date SWPPP documents) are found in Appendix I.



## SECTION 10: CERTIFICATION

### Owner

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name: Chris Westover

Title: Mountain Manager

Signature:



Date:

7.14.21

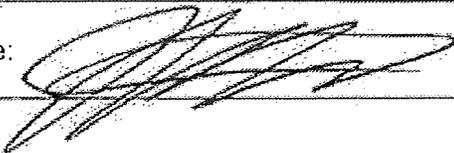
### General Contractor

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name: John Stratton

Title: Construction Manager –  
Leitner Poma of America

Signature:



Date:

7-14-21

## SECTION 11: SWPPP PREPARER CERTIFICATION

### SWPPP Preparer

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name: Eric Duffin

Title: Registered SWPPP Writer (RSW)

---

Signature:



Date: July 16, 2021

---

## **SWPPP APPENDICES**

***Appendix A – Site Maps***

***Appendix B – NOI***

***Appendix C – Construction General Permit***

***Appendix D – BMP Instruction and Detail Specifications***

***Appendix E – Inspection Reports***

***Appendix F – Corrective Action Report***

***Appendix G – Subcontractor  
Certifications/Agreements/Delegation of  
Authority (see CGP 9.16(1)b.)***

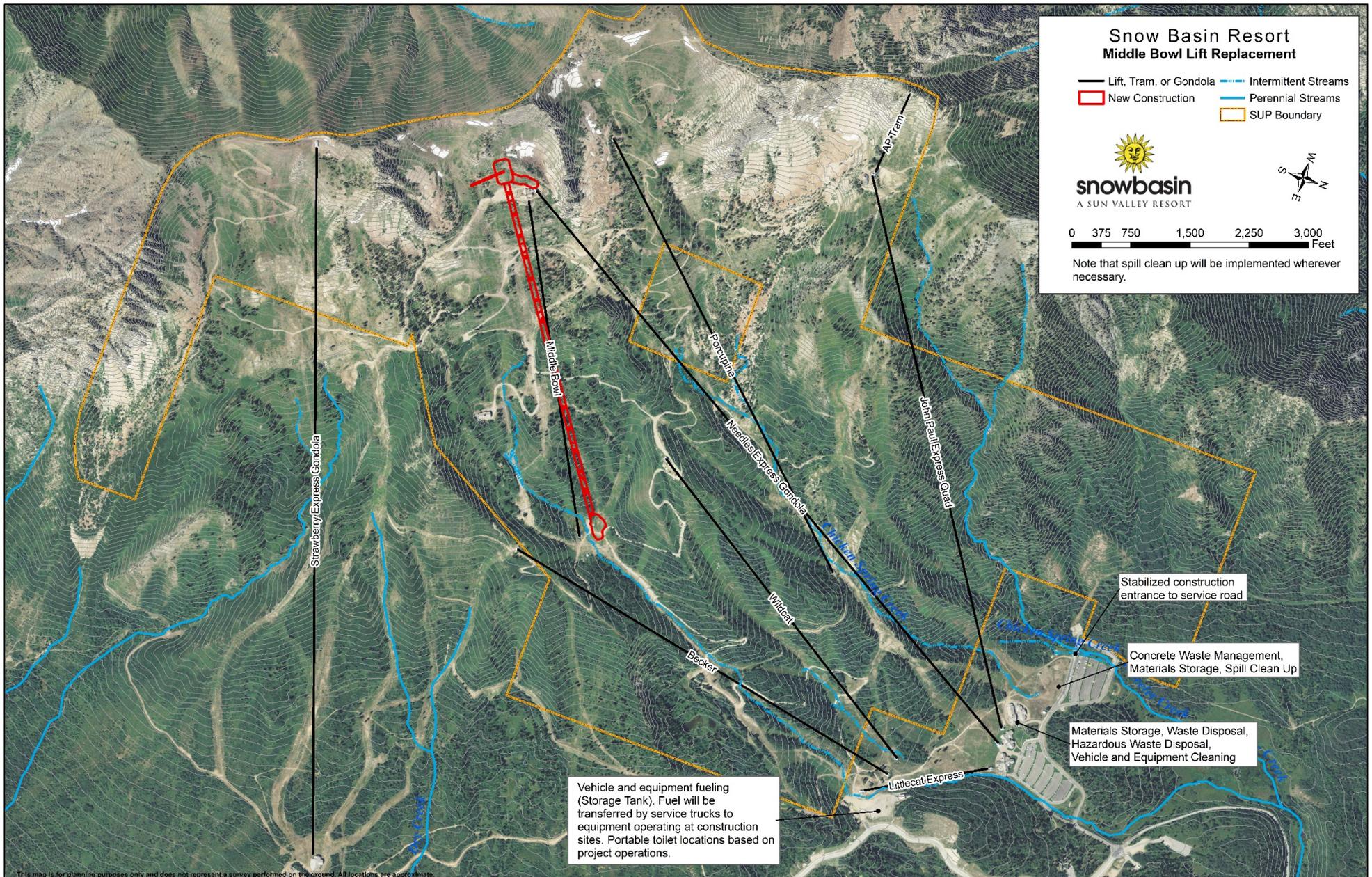
***Appendix H – Training Logs and Certifications (see CGP 6)***

***Appendix I – Additional Information (i.e., Other permits such as  
dewatering, stream alteration, wetland; and out of  
date swppp documents)***

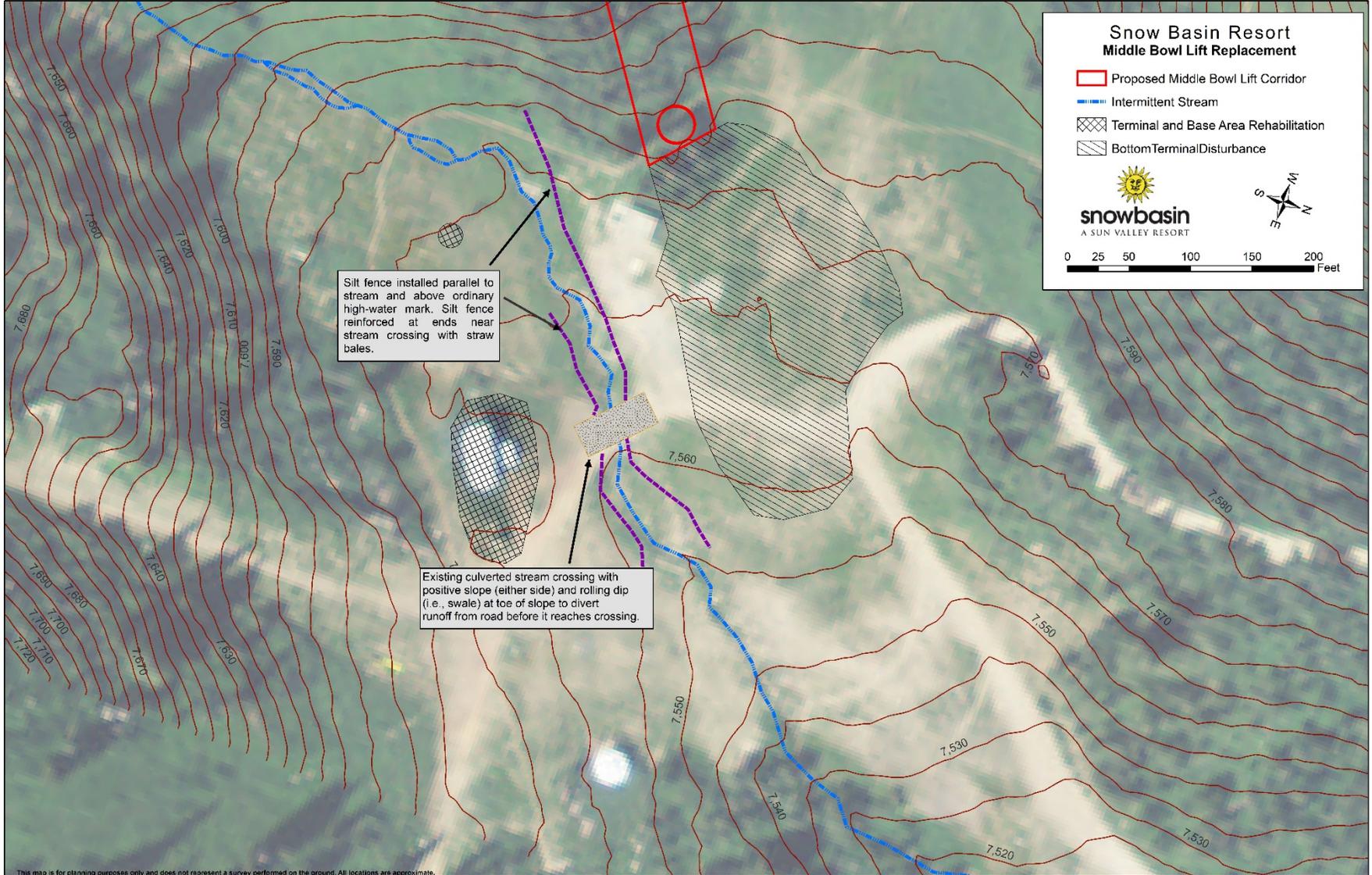
## **Appendix A: Site Maps**

- Map 1 – General location map of construction site at Snowbasin Resort.
- Map 2 – Location of off-site construction support areas.
- Map 3 – Close up view of bottom terminal construction site and recommended BMPs.
- Map 4 – Profile view of bottom terminal grading plan.
- Map 5 – Topographic view of bottom terminal grading plan.
- Map 6 – Orthographic view of bottom terminal grading plan.
- Map 7 – Close up view of top terminal, skiway access road, power line for terminal, and recommended BMPs.
- Map 8 – Profile view of top terminal grading plan.
- Map 9 – Topographic view of top terminal grading plan.
- Map 10 – Orthographic view of top terminal grading plan.
- Map 11 – Location of rehabilitated areas following removal of existing Middle Bowl lift.





**Map 2. Location of off-site construction support areas.**

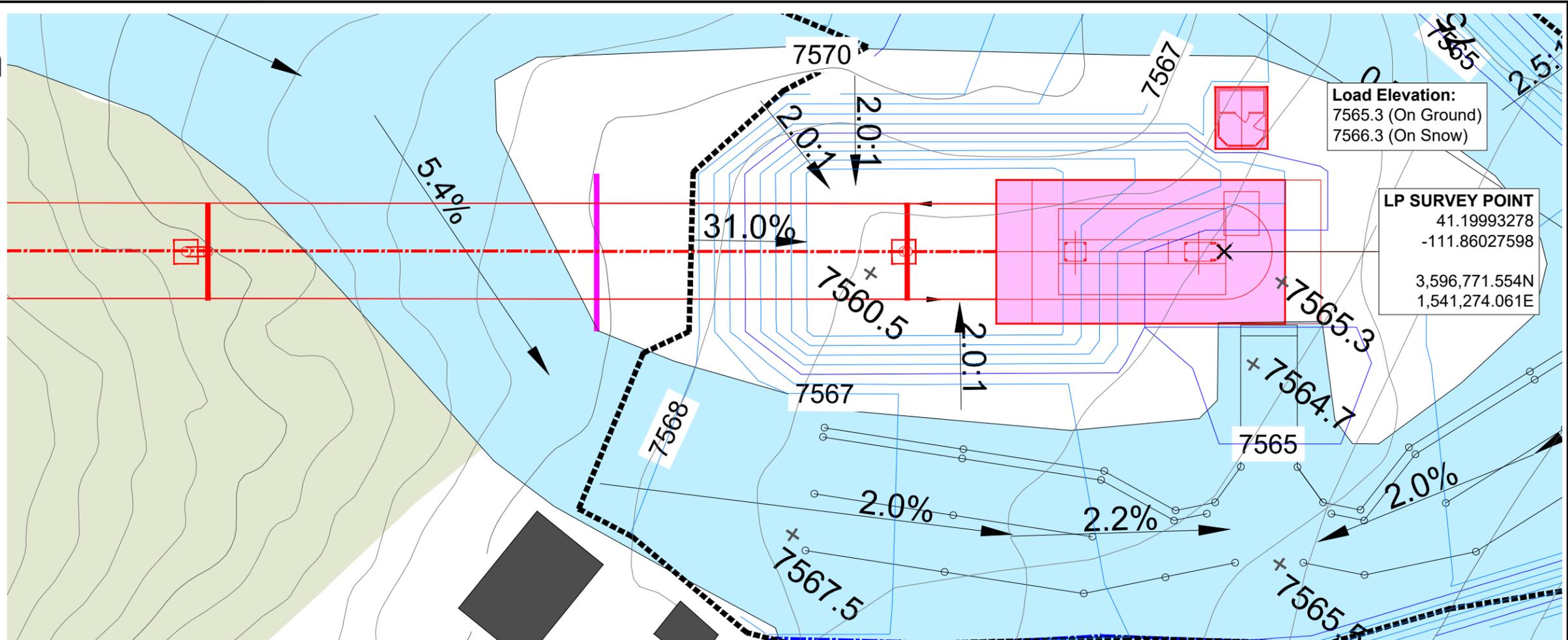


**Map 3. Close up view of bottom terminal construction site and recommended BMPs.**

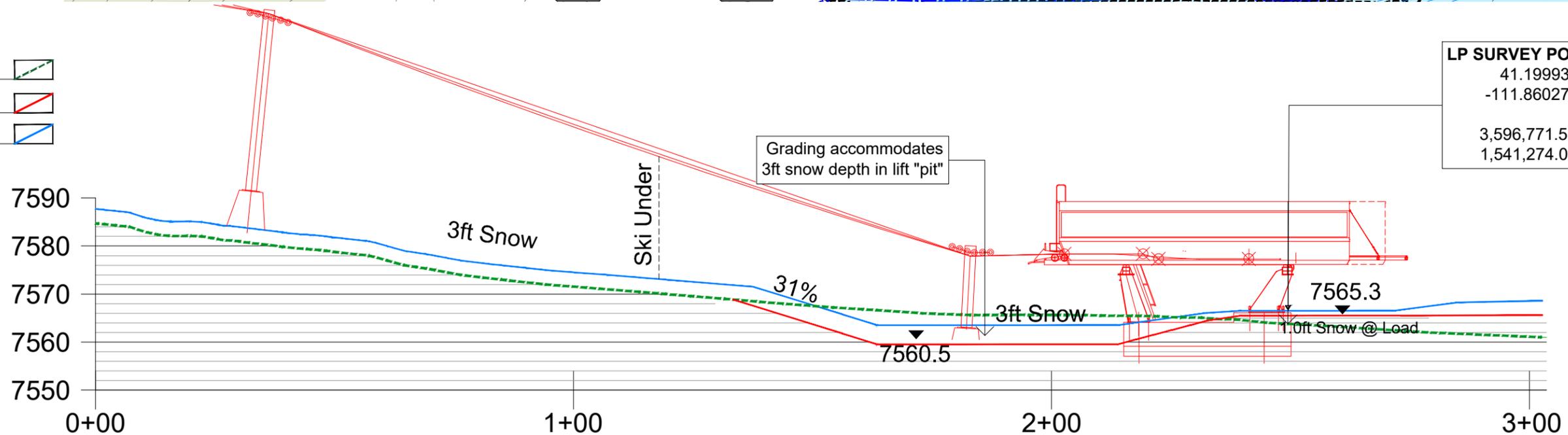


Contours: 2ft Ex, 1ft Proposed  
 0ft 13 25 38 50

- LEGEND**
- Existing Contours
  - Proposed Contours
  - Existing Lift
  - Proposed Lift
  - Existing Trails
  - Proposed Trails
  - Skier Circulation



- Profile Legend**
- Existing Ground
  - Proposed Ground
  - Snow Elevation



Middle Bowl Bottom Terminal - Grading Profile

1	2021/06/28	Ground at load point dropped 0.5ft to account for 1.0ft snow depth at load.	NS	Client: Snowbasin Resort	Designed By: DF	Title: MIDDLE BOWL - D6C - BOTTOM TERMINAL GRADING PLAN - PROFILE	File No. --
				Project: Middle Bowl D6C - Lift Terminal Grading	Drawn By: NS		Fig. no. 8
No.	Date	Revision	By		Checked By: DF		Rev. 1
					Date: 2021/06/29		

Map 4. Profile view of bottom terminal grading plan.

**Total Earthworks:**  
 Cut: 950 yd<sup>3</sup>  
 Fill: 2,850 yd<sup>3</sup>

**Load Elevation:**  
 7565.3 (On Ground)  
 7566.3 (On Snow)

**LP SURVEY POINT**  
 41.19993278  
 -111.86027598  
 3,596,771.554N  
 1,541,274.061E



Contours: 2ft Ex, 1ft Proposed  
 0ft 40 80 120 160

**LEGEND**

Existing Contours	
Proposed Contours	
Existing Lift	
Proposed Lift	
Ski Trails	

39' from Ski-under to Well Head building

Middle Bowl - D6C

Middle Bowl - 3C - Removed

Ski Under

Extent of Grading

1	2021/06/28	Ground at load point dropped 0.5ft to account for 1.0ft snow depth at load.
No.	Date	Revision

Client: Snowbasin Resort  
 Project: Middle Bowl D6C - Lift Terminal Grading



Designed By: DF  
 Drawn By: NS  
 Checked By: DF  
 Date: 2021/06/29

Title: MIDDLE BOWL - D6C - BOTTOM TERMINAL GRADING PLAN

File No.	--
Fig. no.	6
Rev.	1

Map 5. Topographic view of bottom terminal grading plan.

**Total Earthworks:**  
 Cut: 950 yd<sup>3</sup>  
 Fill: 2,850 yd<sup>3</sup>

**Load Elevation:**  
 7565.3 (On Ground)  
 7566.3 (On Snow)

**LP SURVEY POINT**  
 41.19993278  
 -111.86027598  
 3,596,771.554N  
 1,541,274.061E



**LEGEND**

Existing Contours	
Proposed Contours	
Existing Lift	
Proposed Lift	
Ski Trails	

39' from Ski-under to Well Head building

Middle Bowl - D6C

Middle Bowl - 3C - Removed

Ski Under

Extent of Grading

No.	Date	Revision
1	2021/06/28	Ground at load point dropped 0.5ft to account for 1.0ft snow depth at load.

Client: Snowbasin Resort  
 Project: Middle Bowl D6C - Lift Terminal Grading

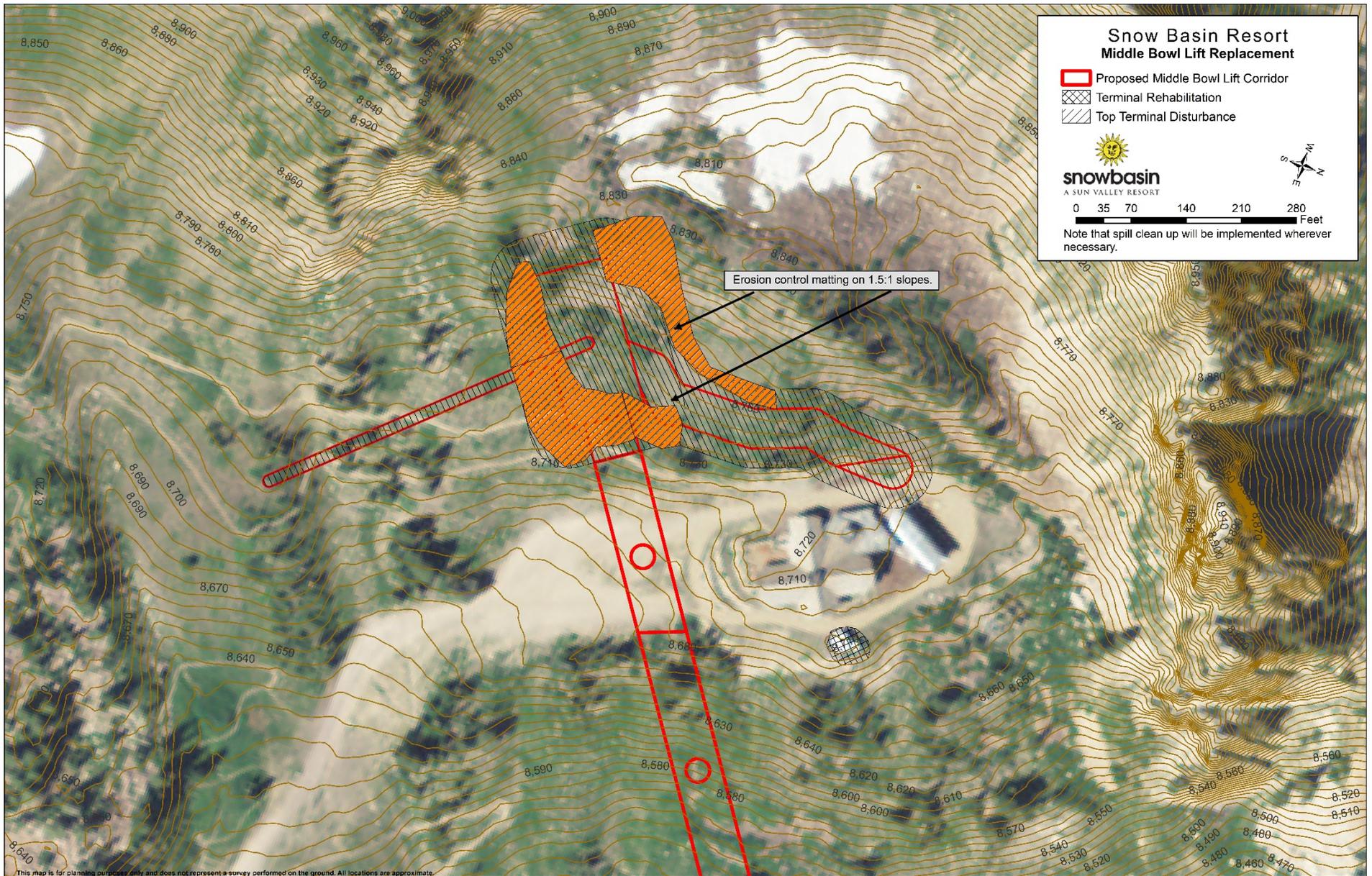


Designed By: DF  
 Drawn By: NS  
 Checked By: DF  
 Date: 2021/06/29

Title: MIDDLE BOWL - D6C - BOTTOM TERMINAL GRADING PLAN - ORTHO

Fig. no.	Rev.
7	1

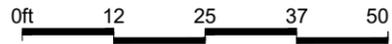
Map 6. Orthographic view of bottom terminal grading plan.



**Map 7. Close up view of top terminal, skiway access road, power line for terminal, and recommended BMPs.**

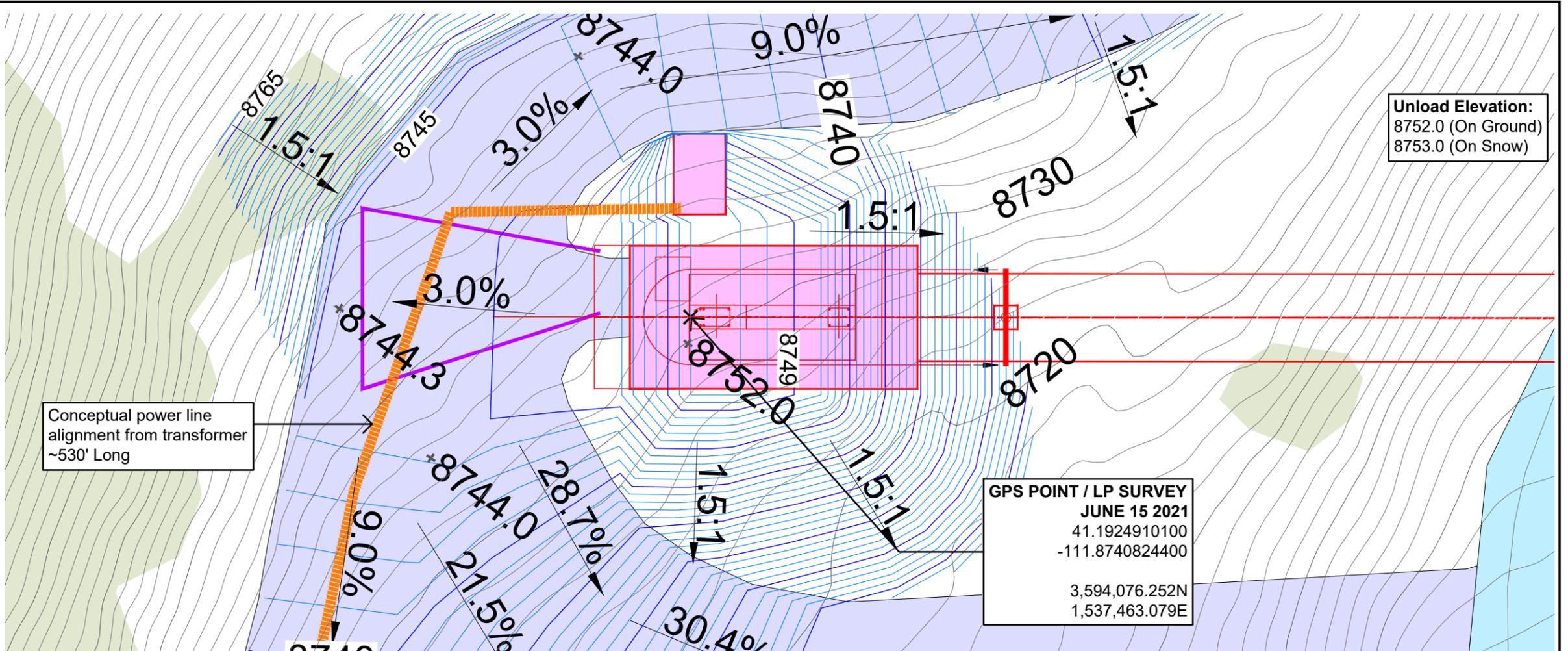


Contours: 2ft Ex, 1ft Proposed



**LEGEND**

- Existing Contours
- Proposed Contours
- Existing Lift
- Proposed Lift
- Existing Trails
- Proposed Trails
- Skier Circulation

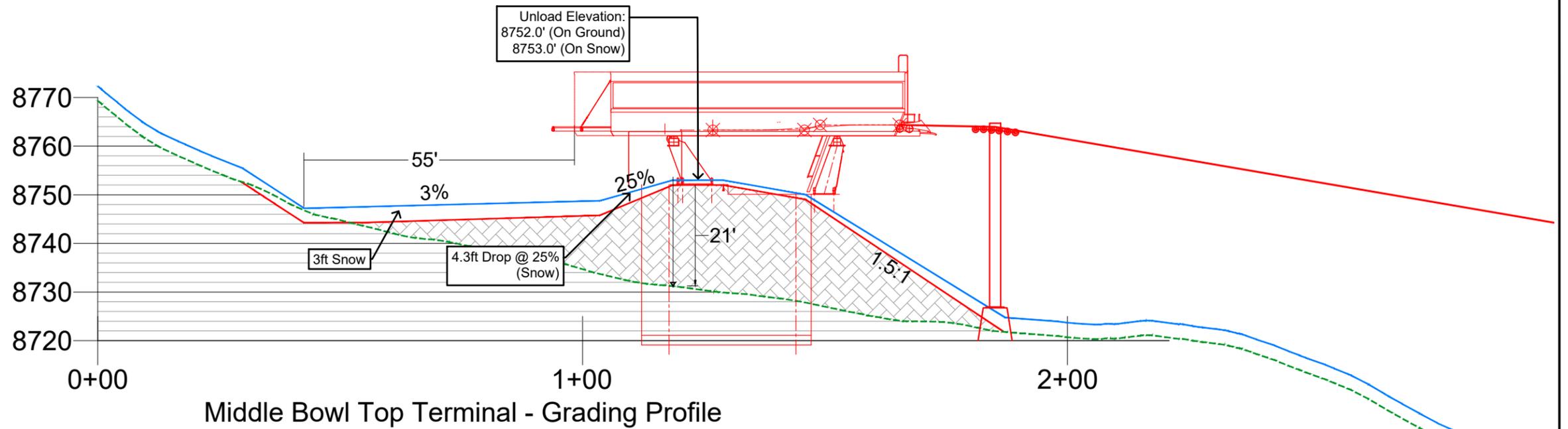


**Unload Elevation:**  
8752.0 (On Ground)  
8753.0 (On Snow)

**GPS POINT / LP SURVEY**  
**JUNE 15 2021**  
41.1924910100  
-111.8740824400  
  
3,594,076.252N  
1,537,463.079E

**Profile Legend**

- Existing Ground
- Proposed Ground
- Snow Elevation



Middle Bowl Top Terminal - Grading Profile

1	2021/06/21	Terminal moved to LP location, grading adjusted
2	2021/06/28	Added conceptual power line alignment
No.	Date	Revision

Client:	Snowbasin Resort
Project:	Middle Bowl D6C - Lift Terminal Grading
By:	

Designed By:	DF
Drawn By:	NS
Checked By:	DF
Date:	2021/06/28

Title:	MIDDLE BOWL - D6C - TOP TERMINAL GRADING PLAN - PROFILE
File No.:	--
Fig. no.:	3
Rev.:	2

Map 8. Profile view of top terminal grading plan.

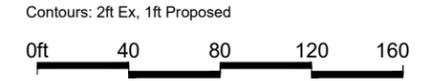
**Total Earthworks:**  
 Cut: 5,800 yd<sup>3</sup>  
 Fill: 6,000 yd<sup>3</sup>

**Unload Elevation:**  
 8752.0 (On Ground)  
 8753.0 (On Snow)

**Skiway to Needles Lodge**  
 25' Wide  
 380' Long (40' @ 3%, 220' @ 9%, 120' @ 2%)

**GPS POINT / LP SURVEY**  
**JUNE 15 2021**  
 41.1924910100  
 -111.8740824400  
 3,594,076.252N  
 1,537,463.079E

Conceptual power line alignment from transformer  
 ~530' Long



**LEGEND**

Existing Contours	
Proposed Contours	
Existing Lift	
Proposed Lift	
Existing Trails	
Proposed Trails	
Skier Circulation	

No.	Date	Revision
1	2021/06/21	Terminal moved to LP location, grading adjusted
2	2021/06/28	Added conceptual power line alignment

Client:	Snowbasin Resort
Project:	Middle Bowl D6C - Lift Terminal Grading



Designed By:	DF
Drawn By:	NS
Checked By:	DF
Date:	2021/06/28

Title:		MIDDLE BOWL - D6C - TOP TERMINAL GRADING PLAN
File No.:	--	
Fig. no.:	1	2
Rev.:		

Map 9. Topographic view of top terminal grading plan.

**Total Earthworks:**  
 Cut: 5,800 yd<sup>3</sup>  
 Fill: 6,000 yd<sup>3</sup>

**Unload Elevation:**  
 8752.0 (On Ground)  
 8753.0 (On Snow)

**Skiway to Needles Lodge**  
 25' Wide  
 380' Long (40' @ 3%, 220' @ 9%, 120' @ 2%)

Middle Bowl - 3C - Removed

Middle Bowl - D6C

Needles Lodge

**GPS POINT / LP SURVEY**  
**JUNE 15 2021**  
 41.1924910100  
 -111.8740824400  
  
 3,594,076.252N  
 1,537,463.079E

Conceptual power line alignment from transformer  
 ~530' Long



**LEGEND**

Existing Contours	
Proposed Contours	
Existing Lift	
Proposed Lift	
Existing Trails	
Proposed Trails	
Skier Circulation	

1	2021/06/21	Terminal moved to LP location, grading adjusted
2	2021/06/28	Added conceptual power line alignment
No.	Date	Revision

Client:	Snowbasin Resort
Project:	Middle Bowl D6C - Lift Terminal Grading
By:	



Designed By:	DF
Drawn By:	NS
Checked By:	DF
Date:	2021/06/28

Title:	MIDDLE BOWL - D6C - TOP TERMINAL GRADING PLAN - ORTHO
Fig. no.	2
Rev.	2

File No.	--
----------	----

Map 10. Orthographic view of top terminal grading plan.



Map 11. Location of rehabilitated areas following removal of existing Middle Bowl lift.

## **Appendix B: NOI**



Notice of Intent (NOI) for Storm Water Discharges Associated with Construction  
Activity Under the Construction General Permit (CGP) UPDES General Permit  
No. UTRC00000

# NOI

Permit Information

Master Permit Number: UTRC00000

UPDES ID: UTRC03166

State/Territory to which your project/site is discharging: UT

Is your project/site located on federally recognized Indian Country Lands? No

Which type of form would you like to submit? Notice of Intent (NOI)

Have stormwater discharges from your project/site been covered previously under an UPDES permit? No

Has a Stormwater Pollution Prevention Plan (SWPPP) been prepared in advance of filling this NOI, as required? Yes

Owner/Operator Information

## Owner Information

Owner: Chris Westover

Status of Owner: Private

Owner Mailing Address:

Address Line 1: P.O. Box 460

Address Line 2:

City: Huntsville

ZIP/Postal Code: 84317

State: UT

## Owner Point of Contact Information

First Name Middle Initial Last Name: Christopher D Westover

Title: Mountain Manager

Phone: 801-648-3565

Ext.:

Email: cwestover@snowbasin.com

## Operator Information

Is the Operator Information the same as the Owner Information? Yes

## NOI Preparer Information

This NOI is being prepared by someone other than the certifier.

Project/Site Information

**Project/Site Name:** Middle Bowl Lift Replacement

**Project Number:**

**Project/Site Address**

**Address Line 1:** 3925 E. Snowbasin Road

**Address Line 2:**

**City:** Huntsville

**ZIP/Postal Code:** 84317

**State:** UT

**County or Similar Division:** Weber

**Have you submitted a Fugitive Dust Control Plan to UT Division of Air Quality?** Yes

## Latitude/Longitude for the Project/Site

**Coordinate System:** Decimal Degrees

**Latitude/Longitude:** 41.192742°N, 111.875278°W

**Estimated Project Start Date:** 07/15/2021

**Estimated Project End Date:** 12/31/2021

**Total Area of Plot (in Acres):** 9.9

**Estimated Area to be Disturbed (in Acres):**

3.8

## Proposed Best Management Practices

Silt Fence/Straw Wattle/Perimeter Controls

Seeding/Preservation of Vegetation

Mulching/Geotextiles

## Proposed Good Housekeeping Practices

Sanitary/Portable Toilet

Garbage/Waste Disposal

Non-Storm Water

## Site Construction Types

Commercial

Site Activity Information

**Municipal Separate Storm Sewer System (MS4) Operator Name:** Weber County (Unincorporated Areas)

Receiving Water Body: Bear Hollow Creek

➔ This is known

What is the estimated distance to the nearest water body? 60

Unit: Feet

Is the receiving water designated as impaired? No

Does this project site have any other UPDES permits? No

Subdivision Information 

Is this project involved in the development of a subdivision? No

Certification Information 

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I have no personal knowledge that the information submitted is other than true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. Signing an electronic document on behalf of another person is subject to criminal, civil, administrative, or other lawful action.

**Certified By:** Christopher D. Westover

**Certifier Title:** Mountain Manager

**Certifier Email:** cwestover@snowbasin.com

**Certified On:** 07/16/2021 10:50 AM ET

## **Appendix C: Construction General Permit**

If all storm water team members access the CGP via the internet while on site the following link to access the Construction General Permit is sufficient:

<http://construction.stormwater.utah.gov>

Otherwise, include a printed out copy of the Construction General Permit in this appendix.

## **Appendix D: BMP Instruction and Detail Specifications**

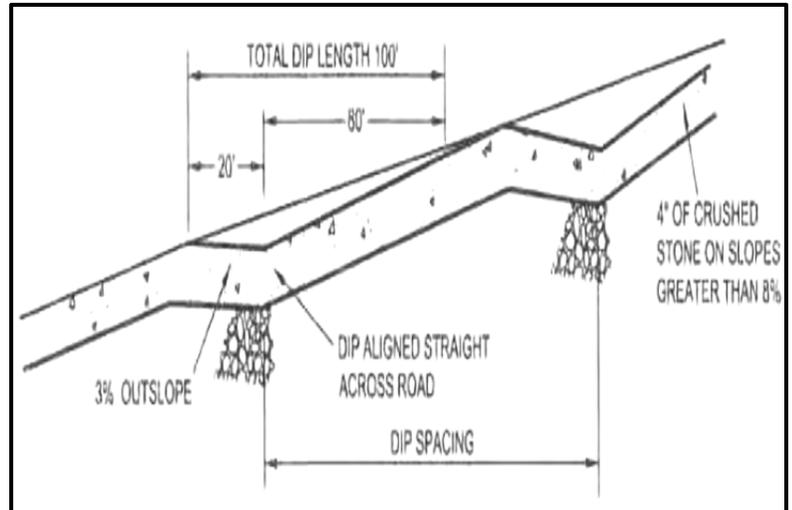
# BMP: Broad Based Dip

## Source:

Penn State Center for Dirt and Gravel Road Studies.

## Objectives:

- Collect flowing water from the road surface and directing to a stable outlet.
- Act as a gradebreak or water bar to prevent water from flowing down wheel tracks.



## Description:

Broad based dips are similar in design to water bars. They have a gradual transition into and out of the drain channel, and function well on moderate-low gradient road surfaces.

## Application:

- Unpaved, low volume roads.

## Installation/Application Criteria:

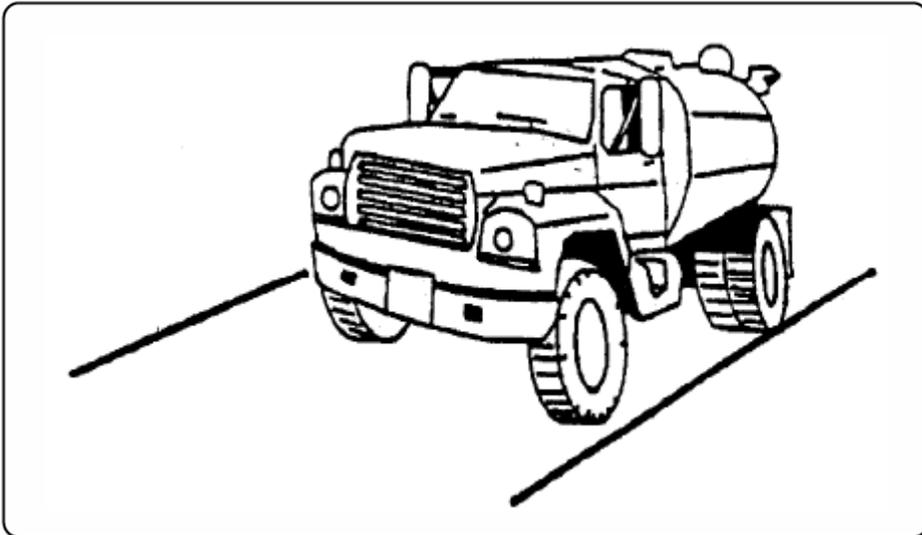
- Broad based dips should be angled across the road at approximately 20-40 degrees. The bottom should have dip 3% towards the outlet end.
- Reinforce bottom of dip with stone or geosynthetic material.
- Discharge to a vegetated buffer area away from streams. Depending on discharge volume and slope of dip, additional stabilization with stone may be needed.

## Limitations:

- Broad-based dips should be installed on roads with 10% or less slope.
- Not for use on roads with high vehicle traffic and oversized loads.

## Maintenance:

- Minimal maintenance. Do not remove during future road maintenance (e.g. grading).



**DESCRIPTION:**

Dust control measures are used to stabilize soil from wind erosion, and reduce dust by construction activities.

**APPLICATION:**

- ▶ Dust control is useful in any process area, loading and unloading area, material handling areas, and transfer areas where dust is generated. Street sweeping is limited to areas that are paved.

**INSTALLATION/APPLICATION CRITERIA:**

- ▶ Mechanical dust collection systems are designed according to the size of dust particles and the amount of air to be processed. Manufacturers' recommendations should be followed for installation (as well as the design of the equipment).
- ▶ Two kinds of street sweepers are common: brush and vacuum. Vacuum sweepers are more efficient and work best when the area is dry.
- ▶ Mechanical equipment should be operated according to the manufacturers' recommendations and should be inspected regularly.

**LIMITATIONS:**

- ▶ Is generally more expensive than manual systems.
- ▶ May be impossible to maintain by plant personnel (the more elaborate equipment).
- ▶ Is labor and equipment intensive and may not be effective for all pollutants (street sweepers).

**MAINTENANCE:**

- ▶ If water sprayers are used, dust-contaminated waters should be collected and taken
- ▶ for treatment. Areas will probably need to be resprayed to keep dust from spreading.

**OBJECTIVES**

- Housekeeping Practices
- Contain Waste
- Minimize Disturbed Areas
- Stabilize Disturbed Areas
- Protect Slopes/Channels
- Control Site Perimeter
- Control Internal Erosion



**WEBER COUNTY**

**ENGINEERING DEPARTMENT**

2380 Washington Blvd., Suite 240  
Ogden, UT 84401  
(801) 399-8374

**TARGETED POLLUTANTS**

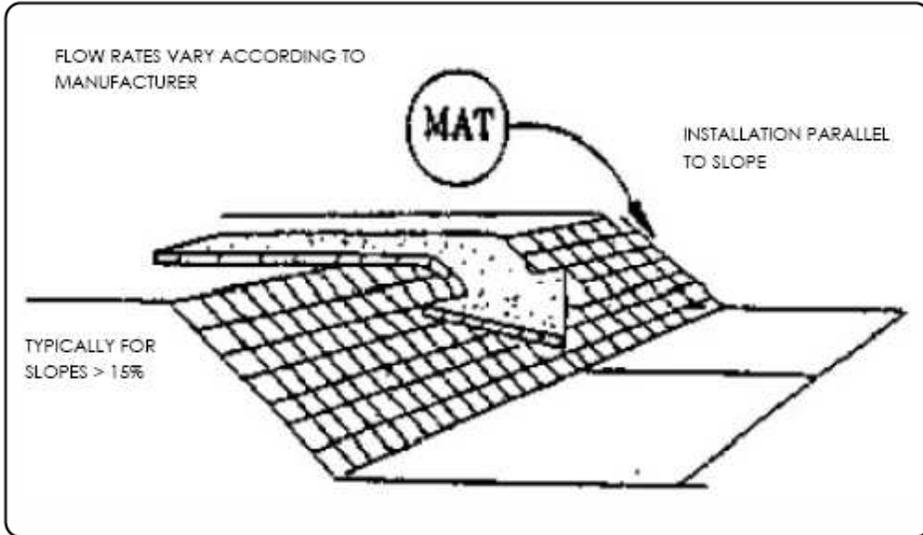
- Sediment
- Nutrients
- Toxic Materials
- Oil & Grease
- Floatable Materials
- Other Waste

- High Impact
- Medium Impact
- Low or Unknown Impact

**IMPLEMENTATION REQUIREMENTS**

- Capital Costs
- O&M Costs
- Maintenance
- Training

- High
- Medium
- Low



## DESCRIPTION:

Mats made of natural or synthetic material, which are used to temporarily or permanently stabilize soil.

## APPLICATION:

- ▶ Typically suited for post-construction site stabilization, but may be used for temporary stabilization of highly erosive soils.
- ▶ Channels and streams.
- ▶ Steep slopes.

## INSTALLATION/APPLICATION CRITERIA:

- ▶ Mats may be applied to disturbed soils and where existing vegetation has been removed.
- ▶ The following organic matting materials provide temporary protection until permanent vegetation is established, or when seasonal circumstances dictate the need for temporary stabilization until weather or construction delays are resolved: Jute mats and straw mats.
- ▶ The following synthetic mats may be used for either temporary or post-construction stabilization, both with and without vegetation: excelsior matting, glass fiber matting, and mulch matting.
- ▶ Staples are needed to anchor the matting.

## LIMITATIONS:

- ▶ Mats are more costly than other BMP practices, limiting their use to areas where other BMPs are ineffective (e.g., channels, steep slopes).
- ▶ May delay seed germination, due to reduction in soil temperature.
- ▶ Installation requires experienced contractor to ensure soil stabilization and erosion protection.

## MAINTENANCE:

- ▶ Inspect monthly and after significant rainfall.
- ▶ Re-anchor loosened matting and replace missing matting and staples as required.

## OBJECTIVES

- Housekeeping Practices
- Contain Waste
- Minimize Disturbed Areas
- Stabilize Disturbed Areas
- Protect Slopes/Channels
- Control Site Perimeter
- Control Internal Erosion



# WEBER COUNTY

## ENGINEERING DEPARTMENT

2380 Washington Blvd., Suite 240  
Ogden, UT 84401  
(801) 399-8374

## TARGETED POLLUTANTS

- Sediment
- Nutrients
- Toxic Materials
- Oil & Grease
- Floatable Materials
- Other Waste

- High Impact
- Medium Impact
- Low or Unknown Impact

## IMPLEMENTATION REQUIREMENTS

- Capital Costs
- O&M Costs
- Maintenance
- Training

- High
- Medium
- Low



### DESCRIPTION:

Placement of material such as straw, grass, woodchips, woodfibers or fabricated matting over open area.

### APPLICATION:

- ▶ Any exposed area to remain untouched longer than 14 days and that will be exposed less than 60 days (seed areas to be exposed in excess of 60 days).
- ▶ Areas that have been seeded.
- ▶ Stockpiled soil material.

Material	Application	Depth	Comments
Gravel: Washed 1/4" to 1-1/2"	9 cy/1000 s f	3 inches	Good for traffic areas Good for short slopes
Straw: Air-dried, free of seeds and coarse material	2-3 bales /1000 s f	2 inches min.	Subject to wind blowing Track down or keep moist
Wood Fiber Cellulose: Free from growth inhibitors; dyed green	35 lb/1000 s f	1 inch	For critical areas, double application rate; Limit to slopes < 3% and < 150 feet

### INSTALLATION/APPLICATION CRITERIA:

- ▶ Roughen area to receive mulch to create depressions that mulch material can settle into.
- ▶ Apply mulch to required thickness and anchor as necessary.
- ▶ Ensure material used is weed free and does not contain any constituents that will inhibit plant growth.

### LIMITATIONS:

- ▶ Anchoring may be required to prevent migration of mulch material.
- ▶ Down gradient control may be required to prevent mulch material being transported to storm water system.

### MAINTENANCE:

- ▶ Inspect mulched areas after every rainfall event and at a minimum of monthly.
- ▶ Replace mulch on any bare areas and reanchor as necessary.
- ▶ Clean and replace down gradient controls as necessary.

### OBJECTIVES

- Housekeeping Practices
- Contain Waste
- Minimize Disturbed Areas
- Stabilize Disturbed Areas
- Protect Slopes/Channels
- Control Site Perimeter
- Control Internal Erosion



## WEBER COUNTY

### ENGINEERING DEPARTMENT

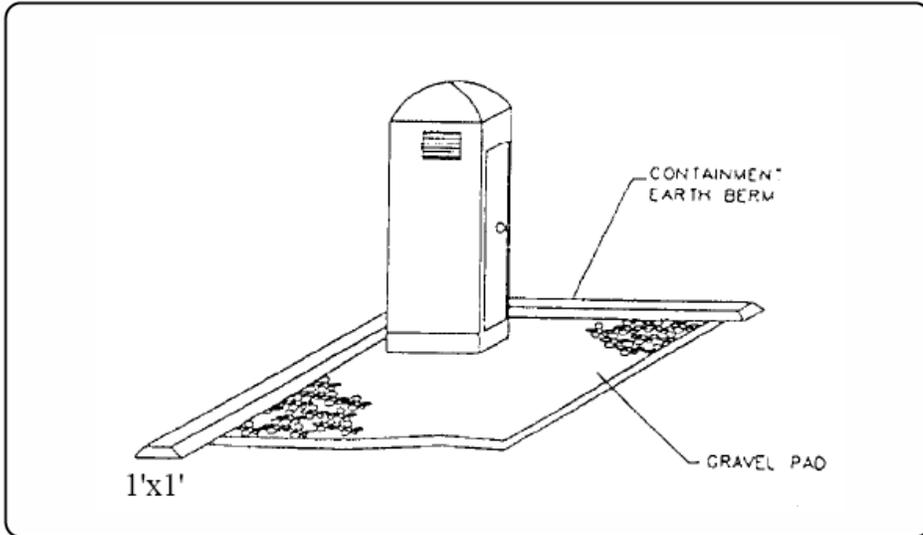
2380 Washington Blvd., Suite 240  
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(801) 399-8374

### TARGETED POLLUTANTS

- Sediment
- Nutrients
- Toxic Materials
- Oil & Grease
- Floatable Materials
- Other Waste
  
- High Impact
- Medium Impact
- Low or Unknown Impact

### IMPLEMENTATION REQUIREMENTS

- Capital Costs
- O&M Costs
- Maintenance
- Training
  
- High
- Medium
- Low



**DESCRIPTION:**

Temporary on-site sanitary facilities for construction personnel.

**APPLICATION:**

- ▶ All sites with no permanent sanitary facilities or where permanent facility is too far from activities.

**INSTALLATION/APPLICATION CRITERIA:**

- ▶ Locate portable toilets in convenient locations throughout the site.
- ▶ Prepare level, gravel surface and provide clear access to the toilets for servicing and for on-site personnel.
- ▶ Construct earth berm perimeter (See Earth Berm Barrier Information Sheet), control for spill/protection leak.

**LIMITATIONS:**

No limitations.

**MAINTENANCE:**

- ▶ Portable toilets should be maintained in good working order by licensed service with daily observation for leak detection.
- ▶ Regular waste collection should be arranged with licensed service.
- ▶ All waste should be deposited in sanitary sewer system for treatment with appropriate agency approval.

**OBJECTIVES**

- Housekeeping Practices
- Contain Waste
- Minimize Disturbed Areas
- Stabilize Disturbed Areas
- Protect Slopes/Channels
- Control Site Perimeter
- Control Internal Erosion



**WEBER COUNTY**

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**TARGETED POLLUTANTS**

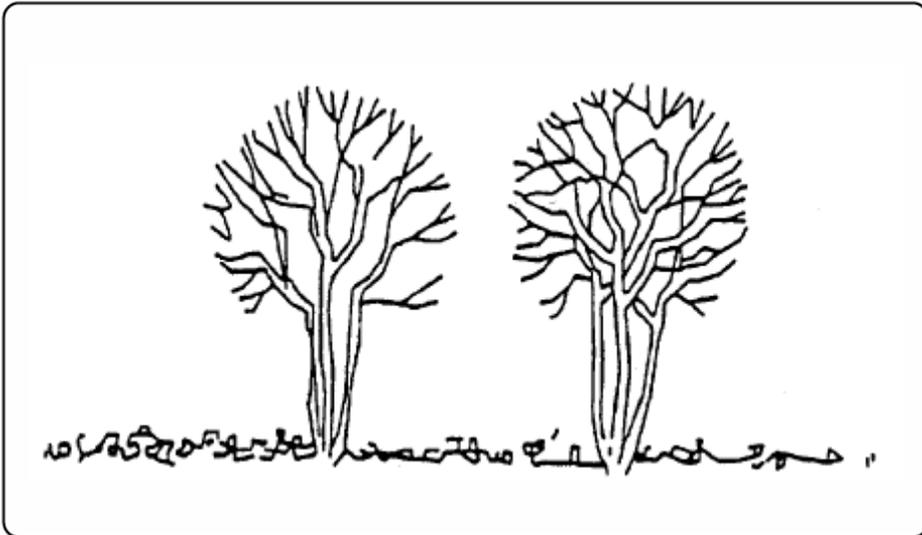
- Sediment
- Nutrients
- Toxic Materials
- Oil & Grease
- Floatable Materials
- Other Construction Waste

- High Impact
- Medium Impact
- Low or Unknown Impact

**IMPLEMENTATION REQUIREMENTS**

- Capital Costs
- O&M Costs
- Maintenance
- Training

- High
- Medium
- Low



## DESCRIPTION:

Carefully planned preservation of existing vegetation minimizes the potential of removing or injuring existing trees, vines, shrubs and/or grasses that serve as erosion controls.

## APPLICATIONS:

- ▶ This technique is applicable to all types of sites. Areas where preserving vegetation can be particularly beneficial are floodplains, wetlands, stream banks, steep slopes, and other areas where erosion controls would be difficult to establish, install, or maintain.

## INSTALLATION/APPLICATION CRITERIA:

- ▶ Clearly mark, flag or fence vegetation or areas where vegetation should be preserved.
- ▶ Prepare landscaping plans which include as much existing vegetation as possible and state proper care during and after construction.
- ▶ Define and protect with berms, fencing, signs, etc. a setback area from vegetation to be preserved.
- ▶ Propose landscaping plans which do not include plant species that compete with the existing vegetation.
- ▶ Do not locate construction traffic routes, spoil piles, etc. where significant adverse impact on existing vegetation may occur.

## LIMITATIONS:

- ▶ Requires forward planning by the owner/developer, contractor and design staff.
- ▶ For sites with diverse topography, it is often difficult and expensive to save existing trees while grading the site satisfactorily for the planned development.
- ▶ May not be cost effective with high land costs.

## MAINTENANCE:

- ▶ Inspection and maintenance requirements for protection of vegetation are low.
- ▶ Maintenance of native trees or vegetation should conform to landscape plan specifications.

## OBJECTIVES

- Housekeeping Practices
- Contain Waste
- Minimize Disturbed Areas
- Stabilize Disturbed Areas
- Protect Slopes/Channels
- Control Site Perimeter
- Control Internal Erosion



# WEBER COUNTY

## ENGINEERING DEPARTMENT

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## TARGETED POLLUTANTS

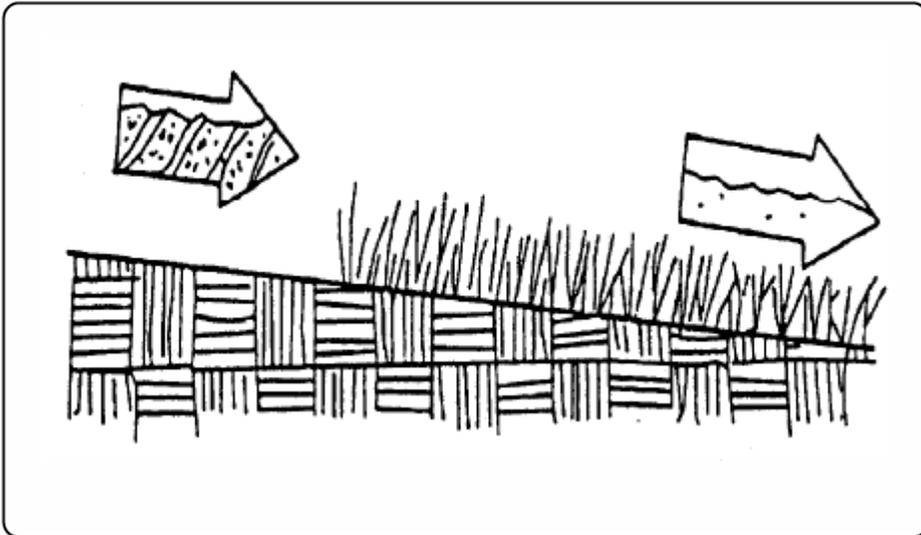
- Sediment
- Nutrients
- Toxic Materials
- Oil & Grease
- Floatable Materials
- Other Waste

- High Impact
- Medium Impact
- Low or Unknown Impact

## IMPLEMENTATION REQUIREMENTS

- Capital Costs
- O&M Costs
- Maintenance
- Training

- High
- Medium
- Low



## DESCRIPTION:

- ▶ Seeding of grass and plantings of trees, shrubs, vines and ground covers provide long-term stabilization of soil. In some areas, with suitable climates, grasses can be planted for temporary stabilization.

## APPLICATION:

- ▶ Appropriate for site stabilization both during and after construction
- ▶ Any graded/cleared areas where construction activities have ceased.
- ▶ Open space cut and fill areas.
- ▶ Steep slopes, spoil piles, vegetated swales, landscape corridors, stream banks.

## INSTALLATION/APPLICATION CRITERIA:

Type of vegetation, site and seedbed preparation, planting time, fertilization and water requirements should be considered for each application. Grasses:

- ▶ Ground preparation: fertilize and mechanically stabilize the soil.
- ▶ Tolerant of short-term temperature extremes and waterlogged soil composition.
- ▶ Appropriate soil conditions: shallow soil base, good drainage, slope 2:1 or flatter.
- ▶ Mowing, irrigating, and fertilizing are vital for promoting vigorous grass growth.

Trees and Shrubs:

- ▶ Selection criteria: vigor, species, size, shape & wildlife food source.
- ▶ Soil conditions: select species appropriate for soil, drainage & acidity.
- ▶ Other factors: wind/exposure, temperature extremes, and irrigation needs.

Vines and Ground Covers:

- ▶ Ground preparation: lime and fertilizer preparation.
- ▶ Use proper seeding rates.
- ▶ Appropriate soil conditions: drainage, acidity and slopes.
- ▶ Generally avoid species requiring irrigation.

## LIMITATIONS:

- ▶ Permanent and temporary vegetation may not be appropriate in dry periods without irrigation.
- ▶ Fertilizer requirements may have potential to create stormwater pollution.

## MAINTENANCE:

- ▶ Shrubs and trees must be adequately watered and fertilized and if needed pruned.
- ▶ Grasses may need to be watered and mowed.

## OBJECTIVES

- Housekeeping Practices
- Contain Waste
- Minimize Disturbed Areas
- Stabilize Disturbed Areas
- Protect Slopes/Channels
- Control Site Perimeter
- Control Internal Erosion



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## TARGETED POLLUTANTS

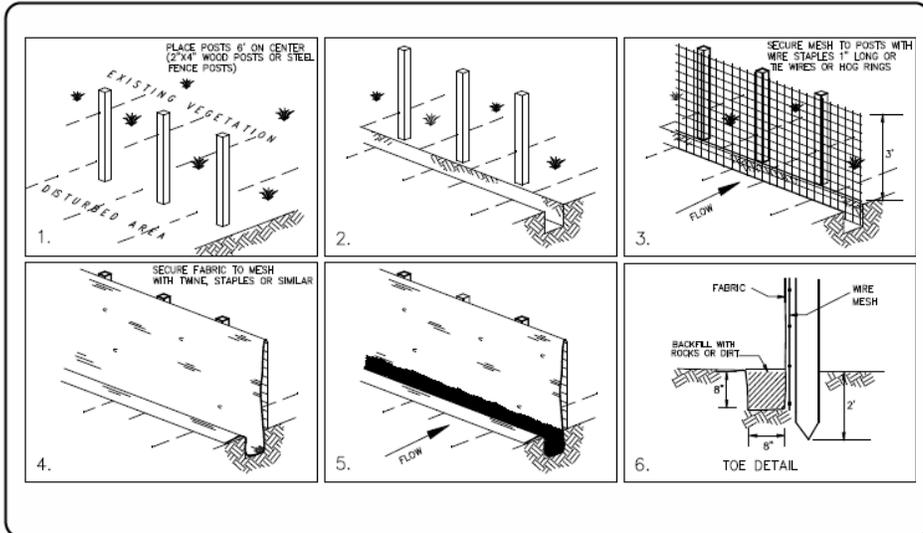
- Sediment
- Nutrients
- Toxic Materials
- Oil & Grease
- Floatable Materials
- Other Waste

- High Impact
- Medium Impact
- Low or Unknown Impact

## IMPLEMENTATION REQUIREMENTS

- Capital Costs
- O&M Costs
- Maintenance
- Training

- High
- Medium
- Low



## OBJECTIVES

- Housekeeping Practices
- Contain Waste
- Minimize Disturbed Areas
- Stabilize Disturbed Areas
- Protect Slopes/Channels
- Control Site Perimeter
- Control Internal Erosion

## DESCRIPTION:

- ▶ A temporary sediment barrier consisting of entrenched filter fabric stretched across and secured to supporting posts.

## APPLICATION:

- ▶ Perimeter control: place barrier at downgradient limits of disturbance
- ▶ Sediment barrier: place barrier at toe of slope or soil stockpile
- ▶ Protection of existing waterways: place barrier at top of stream bank
- ▶ Inlet protection: place fence surrounding catchbasins

## INSTALLATION/APPLICATION CRITERIA:

- ▶ Place posts 6 feet apart on center along contour (or use preassembled unit) and drive 2 feet minimum into ground. Excavate an anchor trench immediately upgradient of posts.
- ▶ Secure wire mesh (14 gage min. With 6 inch openings) to upslope side of posts. Attach with heavy duty 1 inch long wire staples, tie wires or hog rings.
- ▶ Cut fabric to required width, unroll along length of barrier and drape over barrier. Secure fabric to mesh with twine, staples, or similar, with trailing edge extending into anchor trench.
- ▶ Backfill trench over filter fabric to anchor.

## LIMITATIONS:

- ▶ Recommended maximum drainage area of 0.5 acre per 100 feet of fence
- ▶ Recommended maximum upgradient slope length of 150 feet
- ▶ Recommended maximum uphill grade of 2:1 (50%)
- ▶ Recommended maximum flow rate of 0.5 cfs
- ▶ Ponding should not be allowed behind fence

## MAINTENANCE:

- ▶ Inspect immediately after any rainfall and at least daily during prolonged rainfall.
- ▶ Look for runoff bypassing ends of barriers or undercutting barriers.
- ▶ Repair or replace damaged areas of the barrier and remove accumulated sediment.
- ▶ Reanchor fence as necessary to prevent shortcutting.
- ▶ Remove accumulated sediment when it reaches ½ the height of the fence.



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## TARGETED POLLUTANTS

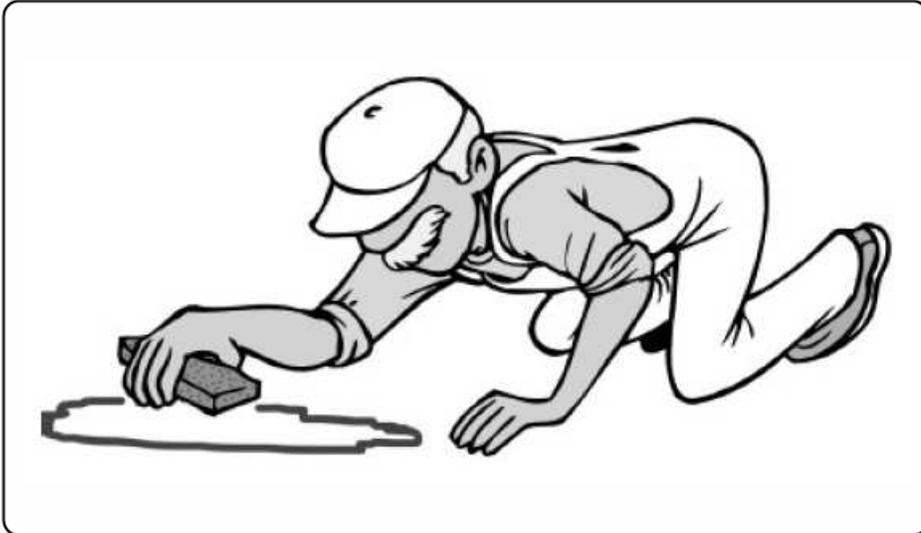
- Sediment
- Nutrients
- Toxic Materials
- Oil & Grease
- Floatable Materials
- Other Waste

- High Impact
- Medium Impact
- Low or Unknown Impact

## IMPLEMENTATION REQUIREMENTS

- Capital Costs
- O&M Costs
- Maintenance
- Training

- High
- Medium
- Low



## DESCRIPTION:

Practices to clean-up leakage/spillage of on-site materials that may be harmful to receiving waters.

## APPLICATION:

- ▶ All sites

## GENERAL:

- ▶ Store controlled materials within a storage area.
- ▶ Educate personnel on prevention and clean-up techniques.
- ▶ Designate an Emergency Coordinator responsible for employing preventative practices and for providing spill response.
- ▶ Maintain a supply of clean-up equipment on-site and post a list of local response agencies with phone numbers.

## METHODS:

- ▶ Clean-up spills/leaks immediately and remediate cause.
- ▶ Use as little water as possible. NEVER HOSE DOWN OR BURY SPILL CONTAMINATED MATERIAL.
- ▶ Use rags or absorbent material for clean-up. Excavate contaminated soils. Dispose of clean-up material and soil as hazardous waste.
- ▶ Document all spills with date, location, substance, volume, actions taken and other pertinent data.
- ▶ Contact local Fire Department and State Division of Environmental Response and Remediation (Phone #536-4100) for any spill of reportable quantity.

## OBJECTIVES

- Housekeeping Practices
- Contain Waste
- Minimize Disturbed Areas
- Stabilize Disturbed Areas
- Protect Slopes/Channels
- Control Site Perimeter
- Control Internal Erosion



# WEBER COUNTY

## ENGINEERING DEPARTMENT

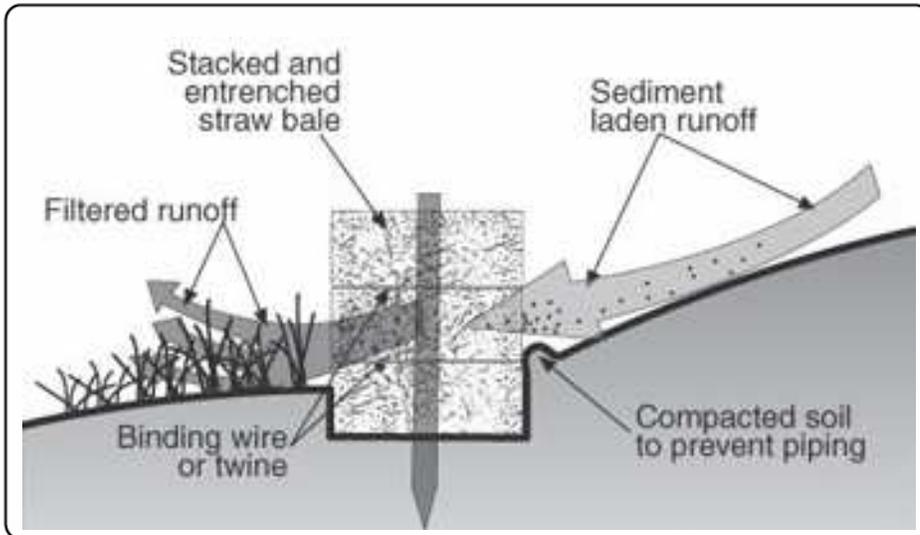
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(801) 399-8374

## TARGETED POLLUTANTS

- Sediment
  - Nutrients
  - Toxic Materials
  - Oil & Grease
  - Floatable Materials
  - Other Construction Waste
- 
- High Impact
  - Medium Impact
  - Low or Unknown Impact

## IMPLEMENTATION REQUIREMENTS

- Capital Costs
  - O&M Costs
  - Maintenance
  - Training
- 
- High
  - Medium
  - Low



## DESCRIPTION:

Temporary sediment barrier consisting of a row of entrenched and anchored straw bales.

## APPLICATION:

- ▶ Perimeter Control: place barrier at downgradient limits of disturbance.
- ▶ Sediment barrier: place barrier at toe of slope or soil stockpile.
- ▶ Protection of existing waterways: place barrier at top of stream bank.
- ▶ Inlet Protection.

## INSTALLATION/APPLICATION CRITERIA:

- ▶ Excavate a 4-inch minimum deep trench along contour line, i.e. parallel to slope, removing all grass and other material that may allow underflow.
- ▶ Place bales in trench with ends tightly abutting; fill any gaps by wedging loose straw into openings.
- ▶ Anchor each bale with 2 stakes driven flush with the top of the bale.
- ▶ Backfill around bale and compact to prevent piping, backfill on uphill side to be built up 4-inches above ground at the barrier.

## LIMITATIONS:

- ▶ Recommended maximum area of 0.5 acre per 100 feet of barrier
- ▶ Recommended maximum upgradient slope length of 150 feet
- ▶ Recommended maximum uphill grade of 2:1 (50%)

## MAINTENANCE:

- ▶ Inspect immediately after any rainfall and at least daily during prolonged rainfall.
- ▶ Look for runoff bypassing ends of barriers or undercutting barriers.
- ▶ Repair or replace damaged areas of the barrier and remove accumulated sediment.
- ▶ Realign bales as necessary to provide continuous barrier and fill gaps.
- ▶ Recompress soil around barrier as necessary to prevent piping.

## OBJECTIVES

- Housekeeping Practices
- Contain Waste
- Minimize Disturbed Areas
- Stabilize Disturbed Areas
- Protect Slopes/Channels
- Control Site Perimeter
- Control Internal Erosion



# WEBER COUNTY

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## TARGETED POLLUTANTS

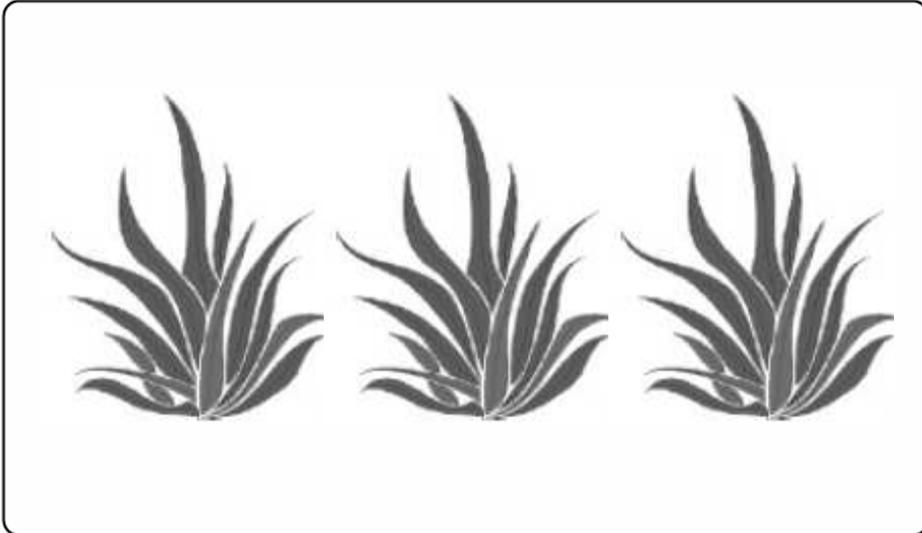
- Sediment
- Nutrients
- Toxic Materials
- Oil & Grease
- Floatable Materials
- Other Waste

- High Impact
- Medium Impact
- Low or Unknown Impact

## IMPLEMENTATION REQUIREMENTS

- Capital Costs
- O&M Costs
- Maintenance
- Training

- High
- Medium
- Low



## DEFINITION:

- ▶ Temporary seeding - establishment of short term cover by application of rapidly germinating seed mix (alternatively hydroseeding may be utilized).
- ▶ Permanent seeding - establishment of final term cover by application of perennial seed mix (alternatively sod may be utilized).

## APPLICATION:

- ▶ Disturbed areas that are at final grade and which will not be disturbed by continuing activities on site. Also areas that are not at final grade but which will be left untouched in excess of one year.

## LIMITATIONS:

- ▶ Limited to areas that will not be subject to traffic or high usage.
- ▶ May require irrigation and fertilizer which creates potential for impacting runoff quality.
- ▶ May only be applied during appropriate planting season, temporary cover required until that time.

## INSTALLATION:

- ▶ Roughen soil to a depth of 2 inches. Add fertilizer, manure, topsoil as necessary.
- ▶ Evenly distribute seed using a commonly accepted method such as; breast seeding, drilling, hydroseeding.
- ▶ Use a seed mix appropriate for soil and location that will provide rapid germination and growth. Check with County for recommended mix and application rate.
- ▶ Cover area with mulch if required due to steep slopes or unsuitable weather conditions.

## MAINTENANCE:

- ▶ Provide irrigation as required to establish growth and to maintain plant cover through duration of project.
- ▶ Reseed as necessary to provide 75% coverage
- ▶ Remediate any areas damaged by erosion or traffic.
- ▶ When 75% coverage is achieved inspect monthly for damage and remediate as necessary.

## OBJECTIVES

- Housekeeping Practices
- Contain Waste
- Minimize Disturbed Areas
- Stabilize Disturbed Areas
- Protect Slopes/Channels
- Control Site Perimeter
- Control Internal Erosion



# WEBER COUNTY

## ENGINEERING DEPARTMENT

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## TARGETED POLLUTANTS

- Sediment
- Nutrients
- Toxic Materials
- Oil & Grease
- Floatable Materials
- Other Waste
  
- High Impact
- Medium Impact
- Low or Unknown Impact

## IMPLEMENTATION REQUIREMENTS

- Capital Costs
- O&M Costs
- Maintenance
- Training

- High
- Medium
- Low

## BMP: Topsoil Salvage

Source: USDA Forest Service National Core BMPs, Ski Area BMPs.

### Objective:

- Remove topsoil from disturbed areas to preserve for later use in reclamation activities.
- Provide greater long-term opportunity for reclamation and surface stability through vegetative regrowth.



### Description:

Stockpile biologically active topsoil that is removed during grading or excavation for use in reclamation activities.

### Application:

- Use in areas where topsoil is scarce and success of revegetation is limited due to shallow or scarce soil resources.

### Installation/Application Criteria:

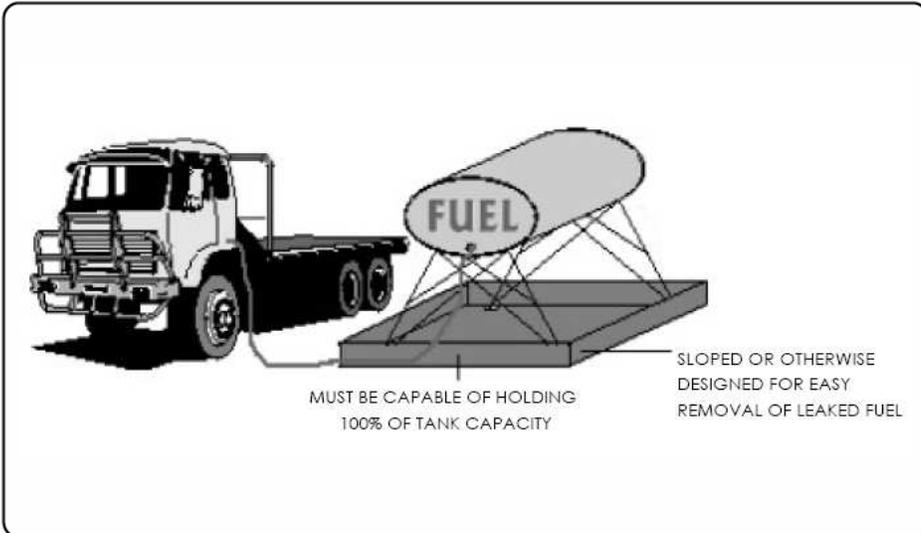
- Estimate depth and volume of topsoil prior to disturbance using field surveys and soil mapping data, where available.
- Store stockpiled topsoil separately from other vegetative slash, soil, or rock and protect from wind and water erosion, unnecessary compaction, and contaminants.
- On steep slopes, stockpile salvaged topsoil at the top of cut/fill slopes for ease of reapplication.
- Reapply soil to previously disturbed area or other desired locations as soon as possible to preserve microorganisms in salvaged topsoil.

### Limitations:

- Stockpiles are extremely vulnerable to wind and water erosion.
- Restoration requires limiting topsoil loss in disturbed areas to a minimum of two inches or half the thickness of original topsoil layer, whichever is less.

### Maintenance:

- Monitor stockpiles while in use to minimize erosion.
- Protect with cover or surround with silt fence to prevent loss of soil.
- Utilize additional BMPs such as mulch, reseeding, and other measures to stabilize areas where topsoil is applied.



## OBJECTIVES

- Manufacturing
- Material Handling
- Vehicle Maintenance
- Construction
- Commercial Activities
- Roadways
- Waste Containment
- Housekeeping Practices



# WEBER COUNTY

## ENGINEERING DEPARTMENT

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## DESCRIPTION:

Prevent fuel spills and leaks, and reduce their impacts to stormwater by using off-site facilities, fueling in designated areas only, enclosing or covering stored fuel, implementing spill controls, and training employees and subcontractors.

## APPROACH:

- ▶ Use off-site fueling stations as much as possible. Fueling vehicles and equipment outdoors or in areas where fuel may spill/leak onto paved surfaces or into drainage pathways can pollute stormwater. If you fuel a large number of vehicles or pieces of equipment, consider using an off-site fueling station. These businesses are better equipped to handle fuel and spills properly. Performing this work off-site can also be economical by eliminating the need for a separate fueling area at your site.
- ▶ If fueling must occur on-site, use designated areas, located away from drainage courses, to prevent the runoff of stormwater and the runoff of spills.
- ▶ Discourage "topping-off" of fuel tanks.
- ▶ Always use secondary containment, such as a drain pan or drop cloth, when fueling to catch spills/leaks. Place a stockpile of spill cleanup materials where it will be readily accessible. Use adsorbent materials on small spills rather than hosing down or burying the spill. Remove the adsorbent materials promptly and dispose of properly.
- ▶ Carry out all federal and state requirements regarding stationary above ground storage tanks. Avoid mobile fueling of mobile construction equipment around the site; rather, transport the equipment to designated fueling areas. With the exception of tracked equipment such as bulldozers and perhaps forklifts, most vehicles should be able to travel to a designated area with little lost time. Train employees and subcontractors in proper fueling and cleanup procedures.

## LIMITATIONS:

- ▶ Sending vehicles/equipment off-site should be done in conjunction with Stabilized Construction Entrance (See BMP sheet in Construction section).

## MAINTENANCE:

- ▶ Keep ample supplies of spill cleanup materials on-site.
- ▶ Inspect fueling areas and storage tanks on a regular schedule.

## TARGETED POLLUTANTS

- Sediment
- Nutrients
- Heavy Metals
- Toxic Materials
- Oxygen Demanding Substance
- Oil & Grease
- Floatable Materials
- Bacteria & Viruses
- High Impact
- Medium Impact
- Low or Unknown Impact

## IMPLEMENTATION REQUIREMENTS

- Capital Costs
- O&M Costs
- Maintenance
- Training
- High
- Medium
- Low



## OBJECTIVES

- Manufacturing
- Material Handling
- Vehicle Maintenance
- Construction
- Commercial Activities
- Roadways
- Waste Containment
- Housekeeping Practices



# WEBER COUNTY

## ENGINEERING DEPARTMENT

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(801) 399-8374

## DESCRIPTION:

Prevent or reduce the discharge of pollutants to stormwater from waste handling and disposal by tracking waste generation, storage, and disposal; reducing waste generation and disposal through source reduction, re-use, and recycling; and preventing runoff and runoff from waste management areas.

## APPROACH:

- ▶ Maintain usage inventory to limit waste generation.
- ▶ Substitute or eliminate raw materials.
- ▶ Modify process or equipment.
- ▶ SARA Title III, Section 313 requires reporting for over 300 listed chemicals and chemical compounds. This requirement should be used to track these chemicals although this is not as accurate a means of tracking as other approaches.
- ▶ Track waste generated.
- ▶ Use design data and review: process flow diagram, materials and applications diagram, piping and instructions, equipment list, plot plan.
- ▶ Use economic data and review: Waste treatment and disposal cost. Product utility and economic cost. Operation and maintenance labor cost.
- ▶ Recycle materials whenever possible.
- ▶ Maintain list of and the amounts of materials disposed.
- ▶ Segregation and separate waste.
- ▶ Cover, enclose, or berm industrial wastewater management areas whenever possible to prevent contact with runoff or runoff.
- ▶ Equip waste transport vehicles with anti-spill equipment.
- ▶ Minimize spills and fugitive losses such as dust or mist from loading systems.
- ▶ Ensure that sediments or wastes are prevented from being tracked off-site.
- ▶ Training and supervision.
- ▶ Stencil storm drains on the facility's property with prohibitive message regarding waste disposal.

## LIMITATIONS:

- ▶ Hazardous waste that cannot be re-used or recycled must be disposed of by a licensed hazardous waste hauler.

## TARGETED POLLUTANTS

- Sediment
- Nutrients
- Heavy Metals
- Toxic Materials
- Oxygen Demanding Substance
- Oil & Grease
- Floatable Materials
- Bacteria & Viruses
- High Impact
- Medium Impact
- Low or Unknown Impact

## IMPLEMENTATION REQUIREMENTS

- Capital Costs
- O&M Costs
- Maintenance
- Training
- High
- Medium
- Low

## Appendix E: Inspection Reports

Place all completed inspection reports in this appendix. You may also put blank inspection reports here to be completed.

You are encouraged to create your own inspection forms for each site. Inspection reports must have the following information:

- 1) The inspection date.
- 2) The UPDES ID number (UTRC03166).
- 3) Name and title of personnel making the inspections.
- 4) Summary of inspection findings and any necessary corrective actions:
  - a. Are storm water controls properly installed and operational? If failed then why?
  - b. Presence of any conditions that could lead to spills or leaks.
  - c. Locations where new or modified controls are necessary.
  - d. Signs of visible erosion or sediment depositing related to your discharges.
  - e. Any incidents of noncompliance.
  - f. Visual quality of any discharges occurring.
- 5) Rainfall amount if the inspection was triggered by a precipitation event.
- 6) If it was unsafe to inspect any areas of the site, a description of the area and reason.

## **Appendix F: Corrective Action Report**

An example corrective action report has been included in this appendix. Review SWPPP section 8.2 for corrective action requirements. You can also create your own form or include corrective actions on your inspection form.



## **Appendix G: Subcontractor Certifications/Agreements/Delegation of Authority (CGP 9.16.(1)b.)**

A sample subcontractor agreement form and delegation of authority form have been included in this appendix. If these are used, keep complete signed forms here.

SUBCONTRACTOR CERTIFICATION  
STORM WATER POLLUTION PREVENTION PLAN

Project Number: \_\_\_\_\_

Project Title: \_\_\_\_\_

Operator(s): \_\_\_\_\_

As a subcontractor, you are required to comply with the Storm water Pollution Prevention Plan (SWPPP) for any work that you perform on-site. Any person or group who violates any condition of the SWPPP may be subject to substantial penalties or loss of contract. You are encouraged to advise each of your employees working on this project of the requirements of the SWPPP. A copy of the SWPPP is available for your review at request.

Each subcontractor engaged in activities at the construction site that could impact storm water must be identified and sign the following certification statement:

**I certify under the penalty of law that I have read and understand the terms and conditions of the SWPPP for the above designated project and agree to follow the BMPs and practices described in the SWPPP.**

This certification is hereby signed in reference to the above named project:

Company: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone Number: \_\_\_\_\_

Type of construction service to be provided: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Signature: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Delegation of Authority

I, Chris Westover, hereby designate the person or specifically described position below to be a duly authorized representative for the purpose of overseeing compliance with environmental requirements, including the UPDES "General Permit for Storm Water Discharges Associated with Construction Activity" (CGP), at the construction site:

Middle Bowl Chair Lift Replacement Snowbasin Ski Resort, Permit No. UTR CO3166

The designee is authorized to sign all reports required by the Permit and other information requested by the Director of the Utah Division of Water Quality, or by an authorized representative of the Executive Secretary.

**Name of Person or Position:** John Stratton

**Owner/Operator:** Leitner Poma of America

Mailing Address: 2746 Seeber Drive

City, State, Zip Code: Grand Junction, CO 81506

---

**Phone Number:** (970) 552-9046

By signing this authorization, I confirm that I meet the requirements to make such a designation as set forth in Part 9.16 of the CGP, and that the designee above meets the definition of a "duly authorized representative" as set forth in Part 9.16.b. of the CGP.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

**Name:** Chris Westover

**Title:** Mountain Manager, Snowbasin Ski Resort

**Signature:** Chris Westover

**Date:** 7.16.21

## **Appendix H: Training Logs and Certifications (see CGP 6)**

A sample training log has been included in this appendix to keep track of trainings that have been provided. At a minimum, storm water team members that require training should be provided with the following if it relates to their duties (CGP Part 6.3.):

- The permit deadlines associated with installation, maintenance, and removal of storm water controls and with stabilization;
- The location of all storm water controls on the site required by this permit and how they are to be maintained;
- The proper procedures to follow with respect to the permit's pollution prevention requirements; and
- When and how to conduct inspections, record applicable findings, and take corrective actions

Certifications for SWPPP inspectors or writers can also be placed in this appendix.

## Appendix H – *Sample* SWPPP Training Log

### Storm Water Pollution Prevention Training Log

Project Name:

Project Location:

Instructor's Name(s):

Instructor's Title(s):

Course Location: \_\_\_\_\_ Date: \_\_\_\_\_

Course Length (hours): \_\_\_\_\_

Storm Water Training Topic: *(check as appropriate)*

- Erosion Control BMPs       Emergency Procedures  
 Sediment Control BMPs       Good Housekeeping BMPs  
 Non-Storm Water BMPs

Specific Training Objective: \_\_\_\_\_  
 \_\_\_\_\_

Attendee Roster: *(attach additional pages as necessary)*

No.	Name of Attendee	Company
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		

## **Appendix I: Additional Information**

Use this appendix for additional information such as other permits (dewatering, stream alteration, etc.) or out of date SWPPP documents.