Temporary Erosion Control and Job Site Management for Memorandum of Understanding Partners
Introduction

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Standard Conditions

• Attachment Q – Standard Conditions for Grading Projects.
• Handbook of Best Management Practices.
• TRPA Code of Ordiances b
• Have a copy of MOU on site during all construction activities.
Silt Fence and Wattles

- Must be down slope of all soil disturbance
- Coir logs must be weighted or staked
  - Coir logs can be purchased weighted or can be weighted with gravel bags
- Silt fences should be trenched-in
  - Wire-backed silt fences last longer and usually need less maintenance
- Two layers of erosion control required if working near water bodies
- Erosion control blankets for steep slopes (>6%)
Good Silt Fence

A properly installed and well maintained silt fence.

Double layer of erosion control Wattle combined with fabric fence.
Failed Silt Fence

Fence is falling down and allowing water to flow over the top.

This silt fence is not correctly installed. The gap in the fence makes it completely ineffective.
Incorrect Wattle Installation

Gaps between the wattles allow water and sediment to leave the site.

Gravel filled wattles are effective only if maintained and properly positioned.
Drain Inlet (D.I.) Protection

- Protect D.I.s using filter fabric and/or coir logs
- Coir logs must be weighted (gravel bags on top of regular wattle or wattles containing gravel).
- Filter fabric can be inserted under grate to catch sediment (must be removed at end of project).
- Don’t use sand or dirt filled bags. These can rupture resulting in sediment discharge.
Improper DI Protection

Straw or Hay bales not allowed in Tahoe Basin due to potential to import weed seeds.

Poorly maintained gravel bag protection resulting in sediment discharge off of the construction site.
Vegetation Protection Fencing

- Fencing should be at least 4-ft tall.
- Fencing must be extended to the drip line of all trees within the construction site.
- Nothing should be stored within the fencing around the tree. This compacts the soil and can cause damage to the root system.
Tree Protection

• If excavation must occur within the drip line of a tree, hand dig to prevent root damage.
• If roots greater than 4” in diameter are encountered and must be cut, make a clean, straight cut.
• Do not allow storage of any materials within drip line of trees.
Proper installation of tree protection/boundary fencing
Example of bad vegetation protection
Dewatering Plan

• Especially important on projects with deep excavation, or in areas known to have high groundwater.

• A dewatering plan should be prepared prior to construction.

• Water should be disposed of by:
  – Removal from the basin,
  – Infiltrated into areas of high land capability or in existing infiltration basins, OR
  – Discharged to surface waters after filtering or treatment to a higher quality than the receiving waters (may require additional permits).
Dust Control

• Dust is one of the most common problems on a construction site, especially during excavation.
• Particularly an issue when access is unpaved
• Recommend gravel apron at ingress/egress point
• Mulch (wood chips) can be used for dust control in some situations.
• Use a water truck or sprinkler to keep soil moist.
Staging Areas

• Staging areas must be designated and pre-approved.

• Equipment, vehicles and materials should be on a paved or pre-disturbed areas, if not a restoration plan should be prepared.

• Staging areas need BMPs for erosion and vegetation protection.

• Dedicate a boundary for staging areas using construction fencing.
Inappropriate Staging Area

- Materials should not be placed on existing vegetation or previously undisturbed areas.
- Staging needs boundary and tree protection fencing.
- Staging needs to include temporary erosion control and piles should be covered when not in use.
Soil tracking off-site

Paved areas should be swept regularly by hand or with a pick-up broom.

A layer of clean/washed rock spread over the staging area or construction site prevents soil tracking.
Proper stockpile management includes covering the soil with plastic sheeting and surrounding it with weighted coir logs. Always cover soil, base aggregate, cold patch, and sand when not in use.
Inadequate pile covers

- Inadequate weights to hold plastic in place.
- Plastic not covering entire pile.
- No wattle surrounding bare soil.
Hazardous Materials Storage

Improper storage resulting in a Cease & Desist Order

Excellent control of materials
Portable Toilet Management

- Must be located out of the street and away from drainage paths, so that liquid cannot enter the storm drain if knocked over.
- If possible, locate the toilet at least 50’ from the nearest D.I. Otherwise place a secondary confinement system underneath.
- Secure the toilet to prevent wind from knocking it over.
Saw Cutting of Pavement, Concrete or Stone

• Vacuum saw cutting waste immediately. Do not cut if vacuum is non-functional.
• Use additional water along with vacuum to remove fine sediment.
• Dispose of waste in an approved location.
Concrete Management

• Washout facilities must be sized adequately to contain all waste materials.
• Locate washouts away from storm drains and water bodies.
• Washout stations must be water-tight.
• Dispose of all waste materials properly.
• Trucks and large equipment should be washed off-site.
Concrete Management

- Do not empty or clean concrete mixers or tools on the ground.
- Always use a bin or tub specifically designated for concrete waste.
Parking Barriers to Prevent Off-Pavement Parking

- Acceptable parking barriers include: bollards, large boulders, trees or large shrubs.
- Barriers should be set back from the edge of pavement to avoid vehicle damage unless also being used as snow plow markers.
- ½ of boulder should be below soil surface to prevent movement during snow removal.
Grading Season Exceptions (GSE)

• Special approval from TRPA to conduct soil disturbing activities between October 15 and May 1.
• Necessary for any grading over 3 cubic yards.
• Only allowed for public health and safety or benefits to water quality.
• All temporary erosion control must be 100% effective.
• Many MOU activities are not exempt during this period.
Daily Construction Checklist

1. What is the weather forecast for today? For the week?
2. Is there evidence or potential of sediment leaving the site?
3. Is there potential for contaminated runoff in the event of rainfall?
4. Is the construction entrance stabilized? Is there tracking of mud?
5. Are erosion control and perimeter controls installed and maintained? Is boundary and vegetation fencing correctly installed?
6. Are construction materials properly stored and covered?
7. Are dust control measures being applied?
8. Is the concrete washout contained?
9. Is port-a-poty in a stable location away from drainin lets or streams?
10. Are drain inlets protected?
11. Are all required documents on site?
Questions