

**MATERIAL PIT INSPECTIONS FOR INVASIVE SPECIES
2012 ANNUAL REPORT**

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INTRODUCTION

The Lake Tahoe Basin Management Unit (LTBMU), in cooperation with the Lake Tahoe Basin Weed Coordinating Group (LTBWCG), began invasive species surveys, inventories and treatments in 2003. Since that time, forest projects that utilize fill materials have been identified as one of the sources of invasive species introductions. Projects such as restoration, road and trail construction, or implementation of BMPs often require the use of materials including gravel, soil, and/or straw. It is crucial to ensure that these materials are free of invasive species seeds, vegetative plant parts or other propagules. In an effort to prevent new introductions of invasive species onto Nation Forest System lands, an LTBMU botanist, ecologist, or botanical technician annually surveys local material pits for invasive species. Invasive species present are noted during the survey of each pit in order to assess the risk of invasive species introduction if importing the pits materials. This effort is completed in cooperation with the LTBMU engineering and recreation departments, and the physical sciences group of the ecosystem conservation department.

PURPOSE & APPROACH

The intent of the gravel pit surveys is to prevent the introduction and spread of invasive species onto LTBMU land via imported construction materials. The pits, adjacent areas, and haul roads are surveyed for invasive species. Populations of invasive species found are noted and discussed with the pit owners in order to develop a plan to control the invasive species and prevent material contamination.

The following report is a summary of the findings of the material pit surveys conducted in 2012 as well as recommendations for re-survey and mitigation. **California or Nevada state-listed noxious weeds are in bold print**; additional invasive species targeted by the LTBMU are included as well. Species in bold print are considered a major risk and operations that are not treating these species should be avoided.

All invasive non-native plants found during inspections, including those that are only minimally invasive, are discussed with pit operators. Most material operations have infestations of cheatgrass and Russian thistle; these species are invasive and pose a risk of invasion to LTBMU projects and should continue to be treated at material sites. However, due to the widespread nature of these species, material operations are considered suitable if these species are found. However, if the LTBMU plans to utilize top soil from such an operation the project should include a plan to treat for these species.

Below is the table of material pits surveyed in 2012. The last four columns indicate the status of the invasive species infestation and mitigation needs. This list is not an all inclusive list for recommendations of materials to use in the Basin. The Nevada Department of Agriculture certifies pits and their list/certification is also acceptable. Visit http://agri.nv.gov/Plant/Noxious_Weeds/WFProducersList/ or contact the Weed-Free Certification Program Manager at 775-353-3640.

	Material Site Name	Location	Phone Number	Contact	Clear of Noxious Weeds?	Mitigation Needed?	OK to Use Materials?	LTBMU Invasive Species Found (T) = treated
1	Al Pombo Inc. Hobart Pit	Hwy 89/Hobart Mills Road Truckee, CA	(530) 392-5534 (530) 277-3540	Al Al Pombo	No	Yes	Conditional	bull thistle (T), common mullein, cheatgrass
2	Amacker Construction Wolf Creek Pit	Wolf Creek Road Markleeville, CA	(530) 544-2039	Curt Amacker	Yes	No	Yes	none
3	Bing Materials	1226 Kimmerling Road Gardnerville, NV 89460	(775) 265-3641	Scotty Capra	No	Yes	Conditional	bull thistle, musk thistle, diffuse knapweed , cheatgrass, Russian thistle
4	Blackwood Canyon Material Storage Pit	Blackwood Canyon, Barker Pass Road Tahoe Pines, CA	(530) 543-2600	Forest Service, LTBMU	Yes	No	Yes	none
5	Burdick Excavating Co.	3270 Old Highway 395 Franktown, NV	(530) 546-7217 (775) 230-3221	Randy Burdick Emerson	No	Yes	Yes	perennial pepperweed (T) , common mullein, cheatgrass
6	Canyon Creek Construction Mound House Pit	299 Industrial Parkway Mound House, NV	(775) 882-6622 (775) 721-0910	Sam Nevis	No	Yes	Conditional	perennial pepperweed (T) , bull thistle (T), cheatgrass, Russian thistle
7	Cinderlite Goni Pit	1665 South Sutro Terrace Carson City, NV 89706	(775) 882-4483	Greg Lehman	Yes	No	Yes	cheatgrass, Russian thistle

	Material Site Name	Location	Phone Number	Contact	Clear of Noxious Weeds?	Mitigation Needed?	OK to Use Materials?	LTBMU Invasive Species Found (T) = treated
8	Dayton Materials/ 3D Concrete	20 Ricci Road Dayton, NV 89403	(775) 455-2054 (775) 348-1898	Frank Gillespie Vance DeMars	No	Yes	Conditional	perennial pepperweed (T) , common mullein, cheatgrass, Russian thistle
9	Tahoe Asphalt	1104 Industrial Ave South Lake Tahoe, CA	(530) 541-0133	Russell Crawford	No	Yes	Conditional	perennial pepperweed (T) , hoary cress (T) , bull thistle (T), oxeye daisy (T) , Russian thistle, cheatgrass, common mullein
10	Tahoe Sand and Gravel	1096 Industrial Ave., South Lake Tahoe, CA	(530) 542-6862	Steve Harding	Yes	No	Yes	none
11	Teichert Aggregates - Martis Creek Pit	13879 Joerger Dr. Truckee, CA	(530) 587-3811	Mike Peterson	No	Yes	Yes	bull thistle (T), Eurasian watermilfoil , common mullein, cheatgrass
12	Tragedy Springs Pit	Tragedy Springs Rd. Kirkwood, CA	(530) 622-5061	Forest Service, El Dorado National Forest	Yes	No	Yes	none

1 – Al Pombo – Hobart Pit
Surveyor: David Kearney, Diku Sherpa

July 17, 2012

This was the first year the site was surveyed by the LTBMU. Approximately 70 bull thistle plants (*Cirsium vulgare*) were found scattered around the property, primarily along the main road in the pit. In addition, cheatgrass (*Bromus tectorum*) and common mullein (*Verbascum thapsus*) were observed scattered around the property. These infestations were reported and treatment options were discussed with the pit operator. On September 4, 2012 Jamie Faucett of Al Pombo Inc. called to report that all identified infestations had been treated and requested a re-inspection. However we were not able to conduct a re-inspection due to staff unavailability. Due to current treatments of weed infestations but no survey to confirm treatment effectiveness, this pit will conditionally be recommended pending surveys in early 2013.

Al Pombo Inc.'s Hobart Pit is a conditional suitable source of materials for the Lake Tahoe Basin Management Unit in 2013, pending surveys to be conducted in early summer of 2013. If untreated bull thistles are observed during the 2013 survey, there will be a high risk of contamination and the recommendation as a suitable source of materials will be immediately rescinded.

2 – Amacker Construction – Wolf Creek Pit
Surveyor: David Kearney

June 25, 2012

Species that have been found in previous years, including cheatgrass (*Bromus tectorum*), Russian thistle (*Salsola tragus*), and common mullein (*Verbascum thapsus*), were not observed in or near the pit in 2012. A few common mullein plants were observed on Wolf Creek road near the entrance gate approximately 0.5 miles from the active pit. The pit continues to be free of bull thistle (*Cirsium vulgare*) and it appears that when an occurrence is found, it is treated promptly.

Amacker Construction's Wolf Creek Pit is suitable as a source of materials for the LTBMU in 2013. There is low risk of contamination because of successful treatments.

3 – Bing Materials
Surveyor: David Kearney

June 25, 2012

Bull thistle (*Cirsium vulgare*) and **musk thistle** (*Carduus nutans*) were found adjacent to the active areas around the concrete plant and other buildings. **Diffuse knapweed** (*Centaurea diffusa*) was found in the ditch and along the fence bordering Kimmerling Road, as well as adjacent to the quarry. Cheatgrass (*Bromus tectorum*), Russian thistle (*Salsola tragus*), and tumble mustard (*Sisymbrium altissimum*) infestations occurred throughout the property. Treatments have been conducted in previous years but had not occurred in 2012 as of the date of this survey. There was also no definitive plan in place to treat in 2012. However, on July 19, 2012 Bing Materials called to report that all infestations had been treated and requested a re-

inspection. However we were not able to conduct a re-inspection due to staff unavailability. Due to current treatments of weed infestations but no survey to confirm treatment effectiveness, this pit will conditionally be recommended pending surveys in early summer of 2013.

Bing Materials is a conditional suitable source of materials for the Lake Tahoe Basin Management Unit in 2013, pending surveys to be conducted in early summer of 2013. If untreated diffuse knapweed, musk thistle, or bull thistles are observed during the 2013 survey, there will be a high risk of contamination from these species and the recommendation as a suitable source of materials will be immediately rescinded.

4 – Blackwood Canyon Material Storage Pit
Surveyor: David Kearney

June 12, 2012

Previous bull thistle (*Cirsium vulgare*) site found and eradicated in 2010 was not found in 2012 or 2011. Known weed sites in Blackwood canyon are actively treated by LTBMU staff and none of these species were observed at the storage pit.

Blackwood Canyon Material Storage Pit is suitable as a storage site and source of materials for the LTBMU. There is low risk of contamination due to absence of current infestations.

5 – Burdick Excavating Co.
Surveyor: David Kearney

June 21, 2012

One small **perennial pepperweed plant** (*Lepidium latifolium*) was found in the active area, which was treated immediately. Perennial pepperweed has previously been found around the private residence, and this area should continue to be monitored and treated several times per year by the operator. Since the site is actively treated and much reduced in size compared to previous years there is a low risk of contamination from perennial pepperweed. Scattered patches of cheatgrass (*Bromus tectorum*) and common mullein (*Verbascum thapsus*) were observed in the active area, and Russian thistle (*Salsola tragus*) was observed just outside the property. However the presence of these three species is not enough to prevent the Lake Tahoe Basin Management Unit from utilizing materials from this pit.

Burdick Excavating Co.' pit in Franktown, NV is a suitable source of materials for the LTBMU. There is a low risk of contamination from treated perennial pepperweed.

6 – Canyon Creek Construction - Mound House Pit
Surveyor: David Kearney

June 21, 2012

Bull thistle (*Cirsium vulgare*) was still present in small numbers in the East Hill area and adjacent to the processing plant near a trailer. Three patches of flowering **perennial pepperweed** (*Lepidium latifolium*) totaling approximately 70 plants were found at the east hill K-Rail storage area; this species has not been found on the property since 2009. However **perennial**

pepperweed, Canada thistle (*Cirsium arvense*), and yellow starthistle (*Centaurea solstitialis*) are abundant just outside the pit along Industrial Parkway. Cheatgrass (*Bromus tectorum*) and Russian thistle (*Salsola tragus*) are present in small patches throughout the operation. The surveyor discussed the infestations of concern and treatment options with the pit operator. The pit operator planned to treat the identified infestations and continue to monitor the property for noxious weeds. However we were not able to conduct a re-inspection due to staff unavailability. Due to current treatments of weed infestations but no survey to confirm treatment effectiveness, this pit will conditionally be recommended pending surveys in early summer of 2013.

Canyon Creek Construction is a conditional suitable source of materials for the LTBMU in 2013, pending surveys to be conducted in early summer of 2013. If untreated bull thistle or perennial pepperweed are observed during the 2013 survey there will be a high risk of contamination from these species and the recommendation as a suitable source for materials in 2013 will be immediately rescinded. There is an ongoing moderate risk of contamination from the many noxious weeds which are present on Industrial Parkway.

**7 – Cinderlite Trucking Inc. – Goni Pit
Surveyor: David Kearney**

June 14, 2012

Cinderlite has been working with the Nevada Cooperative Extension to become weed-free certified in 2010 through 2012. **Perennial pepperweed (*Lepidium latifolium*)**, which was last observed during our 2010 survey, has been treated annually. This species was not observed in 2012. In the past sow thistle (*Sonchus asper*) and hoarycress (*Cardaria pubescens*) were found but were not present during the 2011 or 2012 inspections. Cheatgrass (*Bromus tectorum*) and Russian thistle (*Salsola tragus*) were found along the access roads and on the perimeter of the property but these species were not treated. Only the Goni pit was surveyed; the Black and Red Pits were not inspected and cannot be recommended as a source of material.

Cinderlite's Goni pit is a suitable source of materials for the LTBMU. There is a low risk of contamination from this site. Cinderlite also was certified weed-free by the Nevada Department of Agriculture on June 14, 2012. The certification is good for one year and expires on June 14, 2013. Cinderlite will look to recertify in 2013.

**8 - Dayton Materials – 3D Concrete
Surveyor: David Kearney**

June 14, 2012

During the 2012 survey, three patches of untreated **perennial pepperweed (*Lepidium latifolium*)** were found along roads within 100 feet of active areas. These patches totaled over 100 plants. No other noxious weeds were observed at the property. The surveyor discussed treatment of these infestations with the pit operator, and the pit operator indicated his intention to treat the infestations. Untreated perennial pepperweed was previously observed on two visits conducted in 2011, and the pit was not recommended for use in 2012 for this reason. On July 12, 2012 Brian McClure of Dayton Materials called to report that all identified infestations had been treated. However we were not able to conduct a re-inspection due to staff unavailability. Due to

current treatments of weed infestations but no survey to confirm treatment effectiveness, this pit will conditionally be recommended pending surveys in early 2013. Common mullein (*Verbascum thapsus*) and Russian thistle (*Salsola tragus*) were observed in scattered patches. The presence of these species alone currently does not preclude the Lake Tahoe Basin Management Unit from using materials from this pit.

Dayton Materials is a conditional suitable source of materials for the Lake Tahoe Basin Management Unit in 2013, pending surveys to be conducted in early summer of 2013. If untreated perennial pepperweed is observed during the 2013 survey there will be a high risk of contamination from this species and the recommendation as a suitable source for materials in 2013 will be immediately rescinded.

9 - Tahoe Asphalt

July 10, 2012

Surveyor: David Kearney

In 2012, the surveyor found patches of **hoarycress** (*Cardaria draba*), bull thistle (*Cirsium vulgare*), **perennial pepperweed** (*Lepidium latifolium*), and **oxeye daisy** (*Leucanthemum vulgare*) located adjacent to roads within the property. No weeds were found in the active pit areas. Tahoe Asphalt has worked with the El Dorado County of Agriculture to treat weeds in the past. Recommendations for treatment options were discussed with the operator. The perennial pepperweed had already been treated earlier in the 2012 season and the pit operator was going to complete additional treatments of all identified infestations. Cheatgrass (*Bromus tectorum*), tumble mustard (*Sisymbrium altissimum*), common mullein (*Verbascum thapsus*), and Russian thistle (*Salsola tragus*) were observed in scattered patches.

Tahoe Asphalt is a conditional suitable source of materials for the Lake Tahoe Basin Management Unit in 2013, pending surveys to be conducted in early summer of 2013. If untreated perennial pepperweed, hoarycress, oxeye daisy, or bull thistles are observed during the 2013 survey there will be a moderate risk of contamination from these species and the recommendation as a suitable source for materials will be immediately rescinded.

10 – Tahoe Sand and Gravel

September 25, 2012

Surveyor: Blake Engelhardt

No noxious weeds were found in or around Tahoe Sand and Gravel in 2012. The patch of cheatgrass (*Bromus tectorum*) found in 2011 near the entrance to Tahoe Sand & Gravel was not observed in 2012. This is a material storage site and is not an active mining site. Material is cycled through very quickly so the opportunity for any vegetation to establish at this site is minimized. However there could be weed material or propagules in their material if it comes from a contaminated source. The pit owner will continue to monitor for infestations.

Tahoe Sand and Gravel is a suitable source of materials for the LTBMU. There is low risk of contamination due to absence of current infestations.

11 – Teichert Aggregates – Martis Valley Pit
Surveyor: David Kearney, Diku Sherpa

July 17, 2012

Bull thistles (*Cirsium vulgare*) were found in small numbers in a ditch along Martis Creek and in a reclaimed area at the north end of the property and were not in the active areas. These plants were treated immediately by the pit operator. **Eurasian watermilfoil (*Myriophyllum spicatum*)** was widespread in Martis Creek and was found in the intake pond. The intake pond is only used to control dust on roads and is not used to wash materials, therefore there is a low risk of Eurasian watermilfoil contamination. The poison hemlock (*Conium maculatum*), perennial pepperweed (*Lepidium latifolium*), and oxeye daisy (*Leucanthemum vulgare*) infestations found in 2011 were not present in 2012. These infestations have been treated or were located in areas reclaimed by Teichert's Habitat and Land Management Division. Management of the noxious weeds has been effective in reducing and eliminating noxious weeds in the Martis Valley Pit, and monitoring and treatments should continue. Small scattered patches of cheatgrass (*Bromus tectorum*), tumble mustard (*Sisymbrium altissimum*), Russian thistle (*Salsola tragus*), and common mullein (*Verbascum thapsus*) were found on the property. The presence of these species alone currently does not preclude the Lake Tahoe Basin Management Unit from using materials from this pit.

Teichert Aggregates – Martis Valley Pit is a suitable source of materials for the LTBMU. There is low risk of contamination from a small population of treated bull thistle.

12 – Tragedy Springs Gravel Pit
Surveyor: David Kearney

June 25, 2012

No noxious weeds were found in the active pit or any of the surveyed areas. Previously observed infestations of bull thistle (*Cirsium vulgare*) and cheatgrass (*Bromus tectorum*) located outside of the pit have not been observed since 2009 and were not found in 2012.

Tragedy Springs Gravel Pit is a suitable source of materials for the LTBMU. There is low risk of contamination due to absence of current infestations.

Below are standard resource protection measures that are used in a variety of Forest Service projects. Measures are included in each project's Invasive Species Risk Assessment as appropriate if they pertain to the project.

1. Invasive plant infestations located within 75 feet of project activities will be treated prior to project implementation in accordance with the design features of the LTBMU's 2010 Terrestrial Invasive Plant Species Treatment Project Environmental Assessment (TIPS EA). If treatment is not feasible, infestations will be "flagged and avoided" according to the

species present, project constraints, and feasibility. Any additional invasive plant infestations discovered prior to or during project implementation will also be treated. The Project Leader will notify the Forest Botanist prior to project initiation to coordinate the treatment of invasive plant infestations. GIS layers and maps of invasive plant infestations will be provided to the Project Leader.

2. All vehicles and equipment must be cleaned before moving into the project area, in order to ensure that they are free of invasive plants. Equipment will be considered clean when visual inspection does not reveal soil, seeds, plant material, or other debris that could contain or hold seeds of invasive plants.
3. Staging areas for equipment, materials, or crews will not be situated in areas infested by invasive plants. Areas containing invasive plants should be avoided during project activities. When working in areas known to harbor invasive plants, equipment shall then be cleaned at a washing station before moving to other non-infested lands. If this mitigation isn't possible, then coordination with the Forest Botanist should take place.
4. All gravel, fill, or other materials are required to be "weed-free". Use on-site sand, gravel, rock, or organic matter when possible. Otherwise, obtain "weed-free" materials from gravel pits and fill sources that have been surveyed and approved by the Nevada Department of Agriculture or by the Forest Botanist. A list of suitable material sources, based on annual inspections, will be provided to the project leader annually.
5. Use "weed-free" mulches, hay, and seed sources. Salvage topsoil from project area for use in onsite revegetation, unless contaminated with invasive plants. Do not use soil or materials from area contaminated by cheatgrass.
6. Minimize the amount of ground and vegetation disturbance in construction areas. Reestablish vegetation where feasible on disturbed bare ground to minimize non-native invasive species establishment and infestation. Revegetation is especially important in staging areas.
7. Seed mixes must be approved by the Forest Botanist or their appointed representative. Utilize locally collected native seed sources when possible. Plant and seed material should be collected from or near the project area, from within the same watershed and at a similar elevation, when possible. Persistent non-natives such as *Phleum pratense* (cultivated timothy), *Dactylis glomerata* (orchard grass), or *Lolium spp.* (ryegrass) will not be used.
8. The Forest Botanist should be notified after project completion so that the project area can be monitored for three years (as funding allows) to ensure additional invasive plants do not spread or become established in the areas affected by the project.