

Appendix A

Soil and Water Protection BMPS for LTBMU Basin-Wide Infrastructure Management and Use

NEPA analysis provides a conceptual description of the BMPS to be applied during project implementation. The conceptual description of BMPs is provided through the US Forest Service National Core BMP Technical Guide and Region 5 Water Quality Management Handbook. The links to these two documents are provided below.

http://www.fs.fed.us/biology/resources/pubs/watershed/FS_National_Core_BMPs_April2012.pdf

http://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5399662.pdf

The table below displays the USFS BMP guidance to be utilized during project planning, design, and implementation. The most protective BMP between the National and Regional BMP guidance documents has been identified. In some cases, additional project specific direction has also been provided.

This guidance provides the language, or guidance for developing the project specific language/maps, to be incorporated into project contracts and implementation plans prior to project implementation.

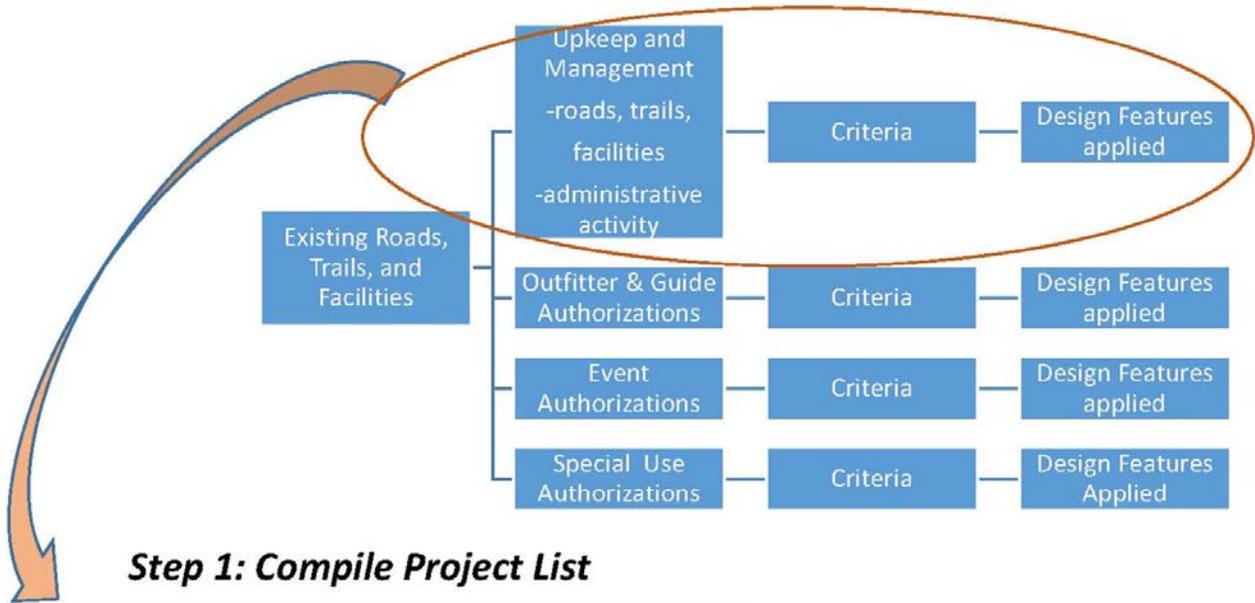
National or Regional BMP Identifier	Title/ <i>Objective</i>	Additional LTBMU guidance
<i>Upkeep and management of Roads And Trails</i>		
(R) BMP 2.3	Roads Construction and Reconstruction/ <i>Avoid or minimize adverse effects to soil, water quality, and riparian resources from erosion, sediment, and other pollutant delivery during road construction or reconstruction.</i>	Activities that involve grading or movement of more than 3 cubic yards of soil will occur between May 01 and October 15 (except as specifically permitted by the TRPA and RWQCB) each year to avoid the period of highest precipitation, stream flow, and erosion potential. During periods of inclement weather, operations will be shut down until conditions are sufficiently dry and stable to allow construction to continue without the threat of substantial erosion, sedimentation, or offsite sediment transport.
(R) BMP 2.4	Roads Operation and Maintenance/ <i>Avoid, minimize, or mitigate adverse effects to soil, water quality, and riparian resources by controlling road use and operations and providing adequate and appropriate maintenance to minimize sediment production and other pollutants during the useful life of the road.</i>	
(R) BMP 2.5	Water Source Development and Utilization/ <i>To supply water for road construction, maintenance, dust abatement, fire protection, and other management activities, while protecting and maintaining water quality</i>	
(R) BMP 2.8	Stream Crossings/ <i>Avoid, minimize, or mitigate adverse effects to soil, water quality, and riparian resources when constructing, reconstructing, or maintaining temporary or permanent water crossings.</i>	
(R) BMP 2.10	Parking and Staging Areas/ <i>Construct, install, and maintain an appropriate level of drainage and runoff treatment for parking and staging areas to protect water, aquatic, and riparian resources</i>	
(N) Road -10	Equipment Refueling and Servicing/ <i>Prevent fuels, lubricants, cleaners, and other harmful materials from discharging into nearby surface waters or</i>	Wastes and petroleum products used will be contained, stored, collected, and removed from the project site in

	<i>infiltrating through soils to contaminate groundwater resources.</i>	accordance with Resource Conservation and Recovery Act regulations and federal Occupational Safety and Health Administration standards.
Upkeep and management of Facilities		
(N) FAC-1	Facilities and Nonrecreation Special Uses Planning/ <i>Use the applicable special use authorization and administrative facilities planning processes to develop measures to avoid, minimize, or mitigate adverse effects to soil, water quality and riparian resources during construction and operation of facilities and nonrecreational special use permits.</i>	The use of water hoses or other pressurized water devices to perform general clearing of pathways or paved surfaces shall only be allowed when associated with a single event activity such as construction debris or a spill of non-hazardous materials; then the activity may only occur after manual removal of material has first been conducted.
(N) FAC-2	Facility Construction and Stormwater Control/ <i>Avoid, minimize, or mitigate adverse effects to soil, water quality, and riparian resources by controlling erosion and managing stormwater discharge originating from ground disturbance during construction of developed sites.</i>	Activities that involve grading or movement of more than 3 cubic yards of soil will occur between May 01 and October 15 (except as specifically permitted by the TRPA and RWQCB) each year to avoid the period of highest precipitation, stream flow, and erosion potential. During periods of inclement weather, operations will be shut down until conditions are sufficiently dry and stable to allow construction to continue without the threat of substantial erosion, sedimentation, or offsite sediment transport.
(N) FAC-4	Sanitation Systems/ <i>Avoid, minimize, or mitigate adverse effects to soil and water quality from bacteria, nutrients, and other pollutants resulting from collection, transmission, treatment, and disposal of sewage and wastewater at facilities.</i>	Include consideration of urban storm drainage when establishing setbacks to prevent accidental discharges to waterbodies.
(N) FAC-5	Solid Waste Management/ <i>Avoid, minimize, or mitigate adverse effects to water quality from trash, nutrients, bacteria, and chemicals associated with solid waste management at facilities.</i>	
(R) BMP 2.10	Parking and Staging Areas/ <i>Construct, install, and maintain an appropriate level of drainage and runoff treatment for parking and staging areas to protect water, aquatic, and riparian resources</i>	

(R) BMP 2.11	Equipment Refueling and Servicing/ <i>Prevent fuels, lubricants, cleaners, and other harmful materials from discharging into nearby surface waters or infiltrating through soils to contaminate groundwater resources.</i>	
Outfitter / Guide Special Use Permits		
(N) REC-6	Pack and Riding Stock use Areas/ <i>Avoid, minimize, or mitigate adverse effects to soil, water quality and riparian resources at pack and riding stock use areas by managing activities to maintain ground cover, maintain soil quality, control runoff, and provide needed sanitary facilities to minimize discharges of nonpoint source pollutants and maintain streambank and riparian area integrity.</i>	
(N) REC-9	Recreation Special Use Authorizations/ <i>Avoid, minimize, or mitigate adverse effects to soil, water quality and riparian resources from physical, chemical, and biological pollutants resulting from activities under recreation special use authorizations.</i>	Participants must be advised to dispose of trash properly in by outfitter provided containers. The permit holder is responsible for ensuring all refuse generated from participants is disposed appropriately in refuse containers.
Events, using USFS roads, trails, facilities, special use permit authorizations		
(N) REC-9	See above	Participants must be advised to dispose of trash properly in event-provided containers located throughout event routes. The permit holder is responsible for ensuring all refuse generated from participants is removed from site and disposed appropriately in refuse containers. All temporary improvements must be removed by the end of the event and portable restrooms must be removed by close of the next business day after the event.
(N) FAC-1	See above	Portable restrooms must be removed by close of the next business day after the event.

Appendix B

Example of a Project that could be approved under this EA document

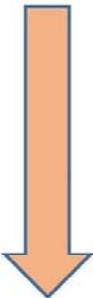


Step 1: Compile Project List

INDIVIDUAL PROJECT PROPOSAL

EXAMPLE: REPLACE A RESTROOM AT POPE BEACH

Step 2: IDT Applies Screening Criteria



- Is the project outside of a sensitive area? **Yes**
- Is the project replacing/upgrading a current facility? **Yes**
- Is the project outside of the need for Fish & Wildlife Service consultation? **Yes**
- Would the project result in "no effect" to historic resources? **Yes**
- Does the project meet all other criteria? **Yes**
- Are there any concerns based on public input? **No**

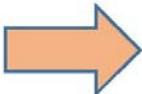
PROJECT MOVES FORWARD INTO DESIGN PHASE

Step 3: Apply Design Features



- Apply all National BMP Handbook design features
- Apply all other relevant project design features from EA

APPROVED PROJECT TO REPLACE A RESTROOM AT POPE BEACH

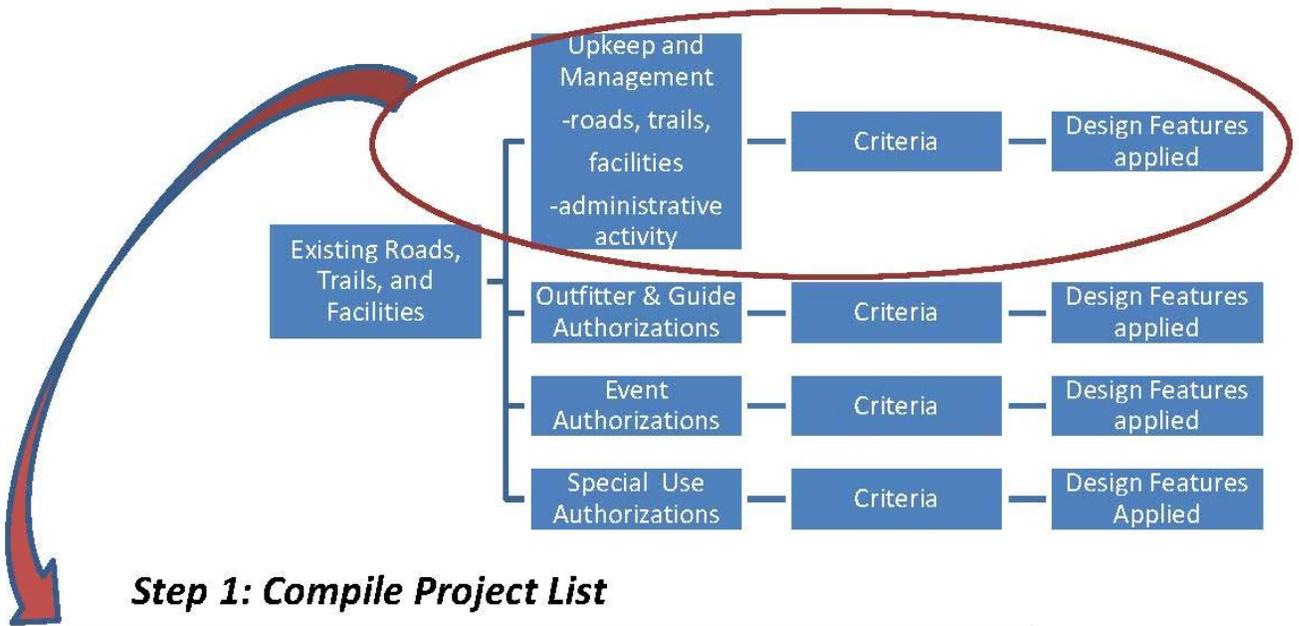


Step 4: Obtain required permits and construct.

Document consistency in Project Record

Appendix C

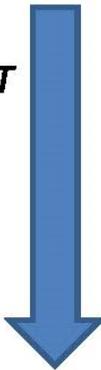
Example Project that would not be approved under this EA document



Step 1: Compile Project List

INDIVIDUAL PROJECT PROPOSAL
EXAMPLE: CONSTRUCT A NEW CAMPGROUND IN MEISS MEADOW

Step 2: IDT Applies Screening Criteria



- Is the project outside of a sensitive area? **No – it is proposed in a sensitive wetland area**
- Is the project replacing/upgrading a current facility? **No; this is a new facility**
- Is the project outside of the need for Fish & Wildlife Service consultation? **No; project affects Lahontan cutthroat trout**
- Would the project result in “no effect” to historic resources? **No**
- Does the project meet all other criteria? **Yes**



This project may not proceed!

The project failed to meet multiple criteria; although failing any one individual criterion would have kicked the project out of approval through this process. Projects that cannot proceed under this project analysis may be considered through an individual project NEPA analysis.

Appendix D

MANAGEMENT REQUIREMENTS FOR INVASIVE PLANTS OF MANAGEMENT CONCERN

USDA FOREST SERVICE
LAKE TAHOE BASIN MANAGEMENT UNIT

Invasive Plant Scientific Name	Invasive Plant Common Name	2015 LTBMU Priority	Known on LTBMU?	Map	Treat
Species actively reported, mapped and treated on LTBMU					
<i>Acroptilon repens</i>	Russian knapweed	Medium	Yes	X	X
<i>Carduus nutans</i>	musk thistle	High	Yes	X	X
<i>Centaurea diffusa</i>	diffuse knapweed	High	Yes	X	X
<i>Centaurea maculosa</i>	spotted knapweed	High	Yes	X	X
<i>Centaurea solstitialis</i>	yellow starthistle	Medium	Yes	X	X
<i>Centaurea virgata ssp. squarrosa</i>	squarrose knapweed	High	Yes	X	X
<i>Chondrilla juncea</i>	rush skeletonweed	High	Yes	X	X
<i>Cirsium arvense</i>	Canada thistle	High	Yes	X	X
<i>Conium maculatum</i>	poison hemlock	Low	Yes	X	X
<i>Cytisus scoparius</i>	Scotch broom	Medium	Yes	X	X
<i>Hypericum perforatum</i>	St. Johnswort; Klamathweed	Medium	Yes	X	O
<i>Isatis tinctoria</i>	Dyer's woad	High	Yes	X	X
<i>Lepidium appelianum</i>	hairy whitetop; globe- podded hoary cress	Medium	Yes	X	X
<i>Lepidium draba</i>	whitetop; heart- podded hoary cress	Medium	Yes	X	X
<i>Lepidium latifolium</i>	tall whitetop; perennial pepperweed	High	Yes	X	X
<i>Leucanthemum vulgare</i>	oxeye daisy	Low	Yes	X	O
<i>Linaria genistifolia ssp. dalmatica</i>	Dalmatian toadflax	High	Yes	X	X
<i>Linaria vulgaris</i>	yellow toadflax; butter & eggs	High	Yes	X	X
<i>Onoropordum acanthium ssp. acanthium</i>	Scotch thistle	High	Yes	X	X
<i>Potentilla recta</i>	sulfur cinquefoil	Medium	Yes	X	X
<i>Rubus armeniacus</i>	Himalaya blackberry	Medium	Yes	X	X

Invasive Plant Scientific Name	Invasive Plant Common Name	2015 LTBMU Priority	Known on LTBMU?	Map	Treat
Lower priority species managed on LTBMU but not always mapped or treated					
These are not actively reported, mapped or treated unless they occur within a project area.					
<i>Cirsium vulgare</i>	bull thistle	Low	Yes	O	O
<i>Bromus tectorum</i>	cheat grass	Low	Yes	O	O
<i>Myriophyllum spicatum</i>	Eurasian watermilfoil	N/A	Yes	O	O
Species Not Currently Known on LTBMU					
If any of the following species are found, immediately notify the Forest Botanist. Collect detailed geospatial (GIS) and infestation information					
<i>Ailanthus altissima</i>	tree of heaven	Medium	No	X	X
<i>Centaurea calcitrapa</i>	purple starthistle; red starthistle	Low	No	X	X
<i>Dittrichia graveolens</i>	stinkwort	Low	No	X	X
<i>Dipsacus fullonum</i>	teasel; Fuller's teasel	Low	Yes	X	X
<i>Elymus caput-medusae</i>	medusahead	High	No	X	X
<i>Elymus repense</i>	quackgrass	N/A	No	X	X
<i>Hydrilla verticillata</i>	hydrilla; waterhyme	N/A	No	X	X
<i>Lythrum salicaria</i>	purple loosestrife	High	No	X	X
<i>Potamogeton crispus</i>	curlleaf pondweed	N/A	No	X	X
<i>Tamarix chinensis, T. ramosissima, & T. parvifolia</i>	tamarisk; saltcedar	High	No	X	X

X=Required, **O**=Required in project areas and sensitive habitats

LTBMU: High—Species that have a large ecological impact or invasive potential; species that are easily controlled. Medium—Species that have a moderate ecological impact or invasive potential; species that may be difficult to control. Low—Species that have a low ecological impact or invasive potential; species that require substantial effort to control. N/A—species not evaluated.

Appendix E

Preferred Invasive Plant Treatment Methods

LAKE TAHOE BASIN MANAGEMENT UNIT

Species Currently Known on LTBMU

Species	Common Name	Preferred Treatment Method ¹			
		Herbicide Glyphosate	Herbicide Aminopyralid	Herbicide— Chlorsulfuron ²	Manual
<i>Acroptilon repens</i>	Russian knapweed		Preferred		X
<i>Bromus tectorum</i>	cheatgrass				Preferred
<i>Carduus nutans</i>	musk thistle		X		Preferred
<i>Centaurea diffusa</i>	diffuse knapweed				Preferred
<i>Centaurea maculosa</i>	spotted knapweed				Preferred
<i>Chondrilla juncea</i>	rush skeletonweed				Preferred
<i>Cirsium arvense</i>	Canada thistle		Preferred		
<i>Cirsium vulgare</i>	bull thistle				Preferred
<i>Conium maculatum</i>	poison hemlock				Preferred
<i>Cytisus scoparius</i>	Scotch broom				Preferred
<i>Hypericum perforatum</i>	St. Johnswort		X		Preferred
<i>Isatis tinctoria</i>	Dyer's woad				Preferred
<i>Lepidium appelianum</i>	hairy whitetop	X		Preferred	X
<i>Lepidium draba</i>	whitetop	X		Preferred	X
<i>Lepidium latifolium</i>	perennial pepperweed	X		Preferred	
<i>Leucanthemum vulgare</i>	oxeye daisy		X		Preferred
<i>Linaria dalmatica</i>	Dalmatian toadflax	X		Preferred	X
<i>Linaria vulgaris</i>	yellow toadflax	X		Preferred	X
<i>Onopordum acanthium</i>	Scotch thistle				Preferred
<i>Potentilla recta</i>	sulfur cinquefoil	X			Preferred
<i>Rubus armeniacus</i>	Himalayan blackberry	Preferred			X

¹An 'X' indicates an acceptable alternative effective treatment option

²On LTBMU, use of chlorsulfuron is limited to areas more than 50 feet from perennial water; as such, many infestations are instead treated with glyphosate.

Biennial thistles:

bull thistle (*Cirsium vulgare*)(CIVU); musk thistle (*Carduus nutans*)(CANU4); scotch thistle (*Onoropordum acanthium*)(ONAC)

These thistles are tap-rooted biennials and they can be controlled manually, if enough root is removed and no seed is produced. Preferred treatment is manual. Chemical treatment of large infestations can be assessed in consultation with the Forest Botanist.

Manual (rosette or bolt stage): dig out getting as much of the root as possible and either bag it up or lay it on a rock or log where the roots will not be in contact with the ground.

Manual (bud or flower stage): clip all buds and flowers, bag, and dispose properly. Pull or dig roots out and lay to dry out or bag. Leave as much of the plant behind to minimize landfill space (i.e. stems and leaves).

Chemical: Amminopyralid is preferred for musk and scotch thistle. **Chemical treatment of known bull thistle infestations is not approved.**

Russian Knapweed (*Acroptilon repens*)(ACRE3):

This species is difficult to control manually. **Chemical treatment is preferred, unless infestation is very small. However, manual treatment should be attempted on newly discovered and small infestations.**

Chemical: Amminopyralid is preferred.

Manual (small infestations only): Pull or dig plants; removal of all root and vegetative materials is necessary for effective treatment. Bag and dispose properly. Revisit infestation several times per season. Schedule 5-10 years of follow-up treatment. Revegetation with natives is highly recommended.

Canada thistle (*Cirsium arvense*)(CIAR4):

This plant is rhizomatous and is difficult to control by manual methods. **Chemical treatment is preferred, even for small infestations. However, manual treatment should be attempted on newly discovered small infestations.** Clipping, mowing, and prescribed burning alone are not recommended as they can stimulate regrowth.

Chemical: Aminopyralid is preferred as a late summer application (bud through late flowering stage) or fall application (regrowth stage) for all infestations, even small infestations.

Manual (EDRR only) (not preferred): clip all buds and flowers, bag, and dispose properly.

Knapweeds:

spotted knapweed (*Centaurea maculosa*)(CEMA4); diffuse knapweeds (*C. diffusa*)(CEDI)

These plants can be controlled by repeated pulling or digging and are currently known only from small infestations. Preferred treatment is manual.

Manual (bolt or rosette stage): Pull or dig up plants getting as much root as possible, expose roots, and leave to decompose.

Manual (bud or flower stage): Pull or dig up plants getting as much root as possible, bag, and dispose properly.

Poison Hemlock (*Conium maculatum*)(COMA):

These plants can be controlled by repeated manual treatment and are currently known only from small infestations, so preferred treatment is manual. Poison hemlock is poisonous and can cause an allergic reaction; wear gloves during treatment.

Manual: Hand pull, dig, or cut plants. Bag flowers, buds, and seeds and dispose properly; remaining plant material can be left onsite to decompose.

Rush Skeletonweed (*Chondrilla juncea*)(CHJU):

These plants can be controlled by repeated manual treatment and are currently known only from small infestations (Tahoe Keys, Old Meyers Grade), so preferred treatment is manual.

Manual: Dig plant, getting as much root as possible, as plants have a very deep taproot. Bag flowers, buds, and seeds and dispose properly; remaining plant material can be left onsite to decompose.

Scotchbroom (*Cytisus scoparius*)(CYSC4):

These shrubs are currently known only from small infestations; manual and small tool mechanical treatment is preferred. Broom has a high re-sprout potential; therefore, clipping, mowing, and blade-type mechanical treatments are not recommend.

Manual (small plants): dig up or pull plant, removing as much of root system as possible. Plants without fruit may be left to decompose in the field, but any plants with fruit should be bagged and disposed properly.

Mechanical, small-tool (large plants): A weed wrench is the preferred method. The Lake Tahoe Basin Weed Coordinating Group has them on loan. Plants without fruit may be left to decompose in the field, but any plants with fruit should be bagged and disposed properly.

St. Johnswort (*Hypericum perforatum*)(HYPE):

This species is frequently mistaken for native st johnswort (*Hypericum scouleri*). Confirm identification with trained botanist prior to treatment. This species is rhizomatous and is difficult to control by manual methods. **Chemical treatment is preferred, unless infestation is very small. However, manual treatment should be attempted on newly discovered and small infestations.** Clipping, mowing, and prescribed burning alone are not recommended as they can stimulate regrowth.

Chemical: Amminopyralid is preferred as spring application (bud through late flowering stage).

Manual: Pull or dig up plants getting as much root as possible, bag, and dispose properly.

Dyer's Woad (*Isatis tinctoria*)(ISTI)

These plants can be controlled by repeated manual treatment and are currently known only from small infestations (Hwy 267, Luther Pass), so preferred treatment is manual.

Manual: Dig or pull plants. Plants without fruit may be left to decompose in the field, but any plants with fruit should be bagged and disposed properly.

Whitetops:

whitetop (*Lepidium draba*)(CADR); hairy whitetop (*L. appelianum*)(CAPU6)

These plants are rhizomatous and difficult to control by manual methods. **Chemical treatment is preferred, unless infestation is very small. However, manual treatment should be attempted on newly discovered and small infestations.**

Chemical: Chlorsulfuron is preferred.

Manual (small infestations only): Pull and dig up as much root as possible, getting both lateral and vertical roots. Bag any flowers, buds and any roots and dispose properly.

Perennial Pepperweed (*Lepidium latifolium*)(LELA2):

This plant is rhizomatous and is difficult to control by manual methods. **Chemical treatment is preferred, even for very small infestations. However, manual treatment should be attempted on newly discovered infestations.** Clipping, mowing, and prescribed burning alone are not recommended as they can stimulate regrowth.

Manual: Dig up plant, removing as much root as possible. If larger, pull plant. If soil is compacted, clip the plant at ground level. Bag any flowers, buds and any roots and dispose properly. Revisit infestation several times per season.

Chemical: Chlorsulfuron is preferred. Secondary preference is for glyphosate. For large infestations, mowing or cutting weeks before chemical treatment to stimulate greater leaf area to absorb herbicide products is recommended.

Ox-eye Daisy (*Leucanthemum vulgare*)(LEVU):

Preferred treatment method depends on infestation size. Manual treatment is preferred for small infestations. Large infestations require consultation with the Forest Botanist to develop a treatment plan.

Manual: Hand pull, bag and dispose properly. Manual control is most effective when done before oxeye daisy flowers and seed is dispersed.

Chemical: Aminopyralid is preferred. For large infestations, mowing or cutting weeks before chemical treatment to stimulate greater leaf area to absorb herbicide products is recommended.

Toadflaxes:

yellow toadflax (*Linaria vulgaris*)(LIVU2); Dalmatian toadflax (*L. dalmatica* spp. *dalmatica*)(LIDAD)

There are very few effective treatment methods for these species; both manual and chemical control methods yield erratic results. Clipping, mowing, and prescribed burning alone are not recommended as they can stimulate regrowth.

Manual (small infestations only): Dig, bag, and dispose properly. Remove lateral roots completely; they can tear and underground portions can survive to grow new plants. Revisit infestation several times per season. Schedule 5-10 years of follow-up treatment. Revegetation with natives is highly recommended.

Chemical: Chlorsulfuron is preferred. Secondary preference is for glyphosate as an early summer application (plants ~3").

Cultural (small infestations only): Flaming is a tertiary consideration for small infestations, but is not feasible for large infestations. Conduct in early summer. Requires consultation with the Forest Botanist and Forest Fuels Officer (requires an approved burn plan).

Sulfur Cinquefoil (*Potentilla recta*)(PORE5):

Sulfur cinquefoil is often confused with native cinquefoils. Confirm identification with trained botanist prior to treatment. Preferred treatment method depends on infestation size. Manual treatment is

preferred for small infestations. Large infestations require consultation with the Forest Botanist to develop a treatment plan. Clipping, mowing, and prescribed burning alone are not recommended as they can stimulate regrowth.

Manual: Pull or dig, bag and dispose properly.

Chemical: Aminopyralid is preferred as a spring application (rosette to pre-bud stage), but results are mixed. Follow-up with glyphosate may be required. Leaf and stem hairiness requires use of a surfactant.

Himalayan Blackberry (*Rubus armeniacus*)(RUAR9):

These plants can be controlled by repeated manual treatment and are currently known only from small infestations (SO), so preferred treatment is manual. Treatment of large infestations will require consultation with the Forest Botanist.

Manual: Cut stems close to ground, then dig up root ball. Bag all plant materials and dispose properly.

Species Not Currently Known on LTBMU

If any of the following species are found, immediately notify the Forest Botanist. Collect detailed geospatial (GIS) and infestation information. The following treatment information is provided as rudimentary Early Detection and Rapid Response treatment options. Treatment of large infestations will require consultation with the Forest Botanist.

Medusahead (*Elymus caput-medusae*)(TACA8) :

This species is often confused with the native perennial squirreltail grasses that are found throughout the basin. Confirm identification with trained botanist prior to treatment. Small infestations can be treated manually via pulling or clipping; bag any seeds and dispose properly.

Teasel (*Dipsacus fullonum*)(DIFU2)

There is only one location know in the basin: off Upper Truckee near the Angora Burn area. Cutting, pulling or digging is effective. Buds and flowers should be bagged but leaves, stems and roots can be left to dry to save landfill space. Seeds viable for 2-4 years, so repeat treatment for several years.

Starthistles:

yellow starthistle (*Centaurea solstitialis*)(CESO3); purple starthistle (*C. calcitrapa*)(CECA2)

Grub and dig up as much root as possible getting at least 2" below surface, cut and bag flower heads. Revisit infestations at least 3 times per growing seasons. Schedule follow-up treatment for 2-4 years.

Squarrose Knapweed (*Centaurea squarrosa*)(CESQ):

These form rhizomatous roots and are very difficult to manually control. If small infestation is found, pull and dig up as much root as possible, getting both lateral and vertical roots (at least 8").

Tree of Heaven (*Ailanthus altissima*)(AIAL):

This species was discovered last summer near the dam in Tahoe City. Dig up young plants getting as much root as possible, any root or plant part left behind can resprout. Infestations must be monitored and treated multiple times within the year.

Stinkwort (*Dittrichia graveolens*)(DIGR3):

Since its root system is shallow, hoeing or pulling easily removes the plant. Wear protective gloves during treatment, as plant oils are irritating. Plants without flowers can be left on site. Plants with flowers should be bagged and disposed properly.

Hydrilla/waterthyme (*Hydrilla verticillata*)(HYVE):

Collect a specimen. Currently, on LTMBU, there is no treatment prescribed for these aquatic species, as there are few effective control methods. Management focuses on avoidance and prevention.

Tamarisk/saltcedar (*Tamarix chinensis*, *T. ramosissima*, & *T. parvifolia*):

If found as a young plant, pull or dig up the plant getting as much root as possible. Cutting plants just encourages growth and resprouting.

Purple Loosestrife (*Lythrum salicaria*)(LYSA2):

Hand pull only as seedlings. Do not mow or graze. Chemical control is often effective.

Species Managed on LTBMU, But Not Always Treated**Cheat Grass (*Bromus tectorum*)(BRTE):**

Management outside of project areas focuses on avoidance and prevention. When this species intersects proposed project activities, it is mapped and managed (avoided or treated); recommended management will be project and site-specific.

Manual: Preferred treatment method for small infestations. Pull plants prior to seed set. Plants without flowers can be left on site. Plants with flowers should be bagged and disposed properly. Repeat as new plants appear. May not be feasible for large infestations.

Mechanical: Disk/till live plants in spring (prior to seed set). Repeat as new plants appear. Revegetate with native species. Do not mow; mowed plants can still produce seed. May not be feasible for large infestations.

Cultural (small infestations only): Flaming in late spring-early summer may be considered in consultation with the Forest Botanist and Forest Fuels Officer (requires an approved burn plan). Not feasible for large infestations.

Manage to avoid spread (large infestations): Use a combinations of the following techniques: 1) flag and completely avoid infestations; 2) lay down barriers over infestations during staging and construction; 3) work in infested areas first, then wash equipment before moving to uninfested areas; and/or 4) use manual or mechanical techniques (above) in staging or construction areas.

Chemical: **Chemical treatment of cheatgrass is not approved.**

Aquatic Invasive Plants:

Eurasian watermilfoil (*Myriophyllum spicatum*)(MYSP2); curlyleaf pondweed (*Potamogeton crispus*)(POCR3)

LTBMU monitors these species and they may be mapped, when they intersect proposed project activities, they may be mapped. In the Lake Tahoe Basin, some agencies are treating infestations by placing bottom barriers over infestations or suctioning plants via divers, which is only effective for small infestations. Currently, on LTMBU, there is no treatment prescribed for these species, as there are few effective control methods. Management focuses on avoidance and prevention.

Summary of All Approved Treatment Methods

Under the 2010 Terrestrial Invasive Plant Species Treatment Project

Treatment Method	Description
Manual Methods	
Hand Pulling	<p>Pulling or uprooting plants can be effective against some shrubs, tree saplings, and herbaceous invasive plants. Annuals and tap-rooted plants are particularly susceptible to control by hand-pulling. It is not as effective against many perennial invasive plants with deep underground stems and roots that are often left behind to re-sprout. The advantages of pulling include its small ecological impact, minimal damage to neighboring plants, and low (or no) cost for equipment or supplies. The key to effective hand-pulling is to remove as much of the root as possible while minimizing soil disturbance. For many species, any root fragments left behind have the potential to re-sprout, and pulling is not effective on plants with deep and/or easily broken roots.</p>
Pulling Using Tools	<p>Most plant-pulling tools are designed to grip the plant stem and provide the leverage necessary to pull its roots out. Tools vary in their size, weight, and the size of the invasive plant they can extract. Some examples include The Root Talon, which is inexpensive and lightweight, and the Weed Wrench, which is available in a variety of sizes. Both tools can be cumbersome and difficult to carry to remote sites. Both work best on firm ground as opposed to soft, sandy, or muddy substrates.</p>
Clipping	<p>“Clipping” means to cut or remove seed heads and/or fruiting bodies to prevent germination. This method is labor-intensive and effective for small and spotty infestations.</p>
Digging	<p>Using hand tools such as shovels and sharp shooters (shovels with a narrow blade). This is the current method for TIPS treatment.</p>
Mulching	<p>Covering with certified “weed free and plastic free” mulch such as rice straw, grass clippings, wood chips, or newspaper.</p>
Tarping	<p>Placing tarps (visqueen, geocloth or similar material) to shade out weeds or solarize (to injure by long exposure to heat of the sun) them. Tarping is most effective when the soil is damp (Harris 2009).</p>
Mechanical Methods	
Mowing, cutting, brushing, trimming	<p>Mowing and cutting can reduce seed production and restrict invasive plant growth, especially in annuals cut before they flower and set seed. Some species, however, re-sprout vigorously when cut, replacing one or a few stems with many that can quickly flower and set seed. These treatments are used as primary treatments to remove above-ground vegetation in combination with herbicide treatments to prevent re-sprouting, or as follow-up treatments to treat target plants missed by initial herbicide use. Also, mowing and cutting can be used, in conjunction with herbicide treatments, to reduce vegetative materials and to promote vigorous growth in order to decrease the amount of herbicide application needed, and to increase herbicide effectiveness.</p>

Treatment Method	Description
<i>Herbicide Methods</i>	
	Herbicides will be applied according to label directions. Herbicide treatments would include use of adjuvants such as surfactants and dyes. Adjuvants are materials that facilitate the activity of herbicides, such as the emulsifying, dispersing, spreading, wetting, or other surface modifying properties of liquids; and dyes assist the applicator in efficiently treating target TIPS and also avoiding contact with herbicide-treated plants by showing which plants have been treated already. Herbicide use must be timed to the growth stage and physiology of the target species.
Hand/ Selective	Treatment of individual plants using land-based equipment to avoid other non-target plants. There is a low likelihood of drift or delivery of herbicides away from treatment sites, because with these methods there should be no drift. These methods are used in sensitive areas, such as near water, to avoid getting any herbicide on the soil or in the water. Hand/Selective methods could be done under more variable conditions than spot spraying or broadcast spraying (Tu et al., 2001). Specific methods include: <u>Dip & clip</u> – similar to cut stump, where cutting tool is first dipped in concentrated herbicide, then used to cut target TIPS to be treated <u>Hack & Squirt, Cut & Squirt, Cut stump</u> – herbicide is applied to cut surfaces to eliminate or greatly reduce re-sprouts; this is an individual target TIPS treatment <u>Wicking & wiping</u> – herbicide is wiped onto the target TIPS with the wick of the applicator
Directed/ spot spray	Accomplished by land-based backpack sprayer with wand with regulated nozzle so that spray is concentrated at the target TIPS
Limited broadcast spray	Hand application with land-based backpack sprayer while wetting more than one target TIPS plant at a time; used for dense occurrences of target TIPS where individual plant application would not be effective.
<i>Other Methods</i>	
Thermal	Thermal methods are based on the systematic increase of plant temperature, reaching diverse thermal death points to eliminate the vegetation. Steaming, flaming, torching, infrared, microwave, and similar methods to be done only when weather conditions permit, such as in a wet season (spring). Equipment for these methods is produced by various companies and may include an open flame. However, flame/fire is not the prerequisite for this method, since temperatures to accomplish cell death are generally 50-70 degrees C (122-158° F), significantly below the temperatures attained by some propane burners (e.g. 1,900 C - 3452° F). Bladders and hand tools such as shovel and Pulaski are required when using this method (see Design Features). This method is especially useful for small plants, plants in the rosette stage, or seedlings. Larger weeds that are removed using other methods often release the seeds in the seed bank to germinate, which results in a flush of seedlings at that location. Thermal treatment would be a possible choice in treating these seedlings. Fuels burning is not part of this project. Thermal would not be used within wilderness.

Herbicides Analyzed for Use on LTBMU

Under the 2010 Terrestrial Invasive Plant Species Treatment Project

Herbicide use on LTBMU requires a project-specific Pesticide Use Proposal (PUP) (FS-2100-2) and safety plan (FS-6700-7). Herbicides will be applied and monitored in accordance with: a) product label directions; b) Best Management Practices for water quality (USDA Forest Service 2000), c) Forest Service Manual (FSM 2080, 2150 and 2200) and Handbook (FSH 2109.14) direction; and d) design features contained within the 2010 Terrestrial Invasive Plant Species (TIPS) Treatment Environmental Assessment (listed below).

Herbicide Active Ingredient	Maximum Application Rate (pounds/acre)
Aminopyralid	0 .25 lbs (ae)
Chlorsulfuron	0.14 lbs/acre (ai)
Glyphosate	2.7 lbs/acre (ae)
Aminopyralid and Triclopyr premix	0.11 lbs (ae) Aminopyralid + 1.12 lbs (ae) Triclopyr acid

Resource Protection Measures for All Treatment Methods

Under the 2010 Terrestrial Invasive Plant Species Treatment Project

Special Status (Threatened, Endangered, Candidate, Forest Sensitive, TRPA¹ Special Interest, Management Indicator, and Migratory Bird Species) Wildlife and Fisheries

Chapter 1 Where possible, manual weed treatment methods will be utilized within 50 feet of perennial rivers, streams, lakes and other water bodies, including seasonally flooded Stream Environment Zones (SEZs)².

Chapter 2 Chlorsulfuron and Triclopyr will not be applied within 50 feet of perennial rivers, streams, lakes, and other water bodies, including seasonally flooded SEZs.

Chapter 3 Only dip & clip, wicking & wiping, or spot applications of Glyphosate or Aminopyralid will be used within a zone between 10 to 50 feet from perennial rivers, streams, lakes, seasonally flooded SEZs, and meadows, including adjacent to occupied Lahontan cutthroat trout and Sierra Nevada yellow-legged frog habitats (consistent with Sierra Nevada Forest Plan Amendment (SNFPA) Standard and Guideline #98).

Chapter 4 Only dip & clip and wicking & wiping applications of Aminopyralid or the aquatic formulation of Glyphosate will be used within 10 feet of perennial rivers, streams, lakes, seasonally flooded SEZs, and meadows.

Chapter 5 When applying aquatic formulations of herbicides within 50 feet of perennial rivers, streams, lakes and other water bodies, including seasonally flooded SEZs, a surfactant registered by the California Department of Pesticide Regulation for aquatic use will be utilized. Prior to application, the noxious weed coordinator will consult with an aquatic biologist to select a surfactant.

¹ Tahoe Regional Planning Agency

² Unless otherwise noted, SEZs will be based on the riparian vegetation layer for the Forest, and field checked prior to implementation.

- Chapter 6 Herbicide applications will not take place within six hours of predicted rainfall that has a high probability of producing measurable runoff, or as requested by the Aquatics Biologist, and as found in the label directions. Daily spot weather forecasts will be made available to the applicator.
- Chapter 7 Streams or other surface waters must not be used for washing herbicide application equipment or personnel, unless required in an emergency situation. However, Pesticide Worker Safety Regulations require that water, soap and a towel be available within ¼ mile of field workers and at mixing sites (PRD L30).
- Chapter 8 Treatment crews will use system road or trail stream crossings when wearing contaminated clothing or carrying herbicide mix, within or upstream of LCT occupied habitat. Mixing of herbicides for application will take place more than 100 feet from perennial rivers, streams, lakes and other water bodies, and outside of SEZs.
- Chapter 9 The noxious weed coordinator will inform the project or staff biologists for fisheries and wildlife of new infestations before each treatment season, to verify that treatments would not disturb nesting or denning activity of any special status wildlife species. This information will be used to verify that treatments will not impact Lahontan cutthroat trout, yellow-legged frog, or other species habitat or populations. Limited operating periods for all special status wildlife species will be implemented as necessary, based on the most current wildlife data from pre-project field surveys, or habitat suitability as determined by the project biologist. Most vegetation management activities are prohibited during limited operating periods (LOP), unless surveys confirm that nests are uninhabited (SNFPA 2004).
- Chapter 10 Any incidental sightings of special status fish and wildlife species will be reported to the project or staff biologists. Active nests or dens will be protected according to management direction found in the LTBMU Forest Plan and Sierra Nevada Forest Plan Amendment. Species identification, known locations, and protection procedures will be discussed during a pre-treatment meeting.
- Chapter 11 TIPS occur within 0.25 mile of osprey nests designated as Fallen Leaf Lake 04 and South Lake Tahoe 06. Both nests were active in 2008. A limited operating period of March 1 through August 15 applies, unless surveys confirm that osprey are not nesting.

Hydrology/Water Quality/Soils

- Chapter 12 State and Regional Water Quality Control Board certified Best Management Practices will be implemented. BMPs applied to all Forest projects are outlined in the Water Quality Management for Forest System Lands in California, BMP handbook. See Appendix E for BMPs appropriate for this project and references to the associated design features outlined in section 3.2. Referenced design features provide additional information as to how these BMPs will be applied on this project. Weed infestation size and density criteria will be used to delineate degree of LRWQCB notification and involvement, as below (PRD I5).
- Where infestations are less than one acre in size and rapid action is required to prevent impending seed production, notify LRWQCB with request for “return in 48-hour” response. The LRWQCB will notify the Forest within two days if anything more is needed prior to treatment. If the LRWQCB does not respond, it can be interpreted that the agency does not need anything additional (Bruce Warden, personal communication 3/18/2010).
 - Where infestation areas are greater than one acre, or are within 25 feet of a water surface, or infestation areas are from ¼ to 1 acre and so do not require rapid consultation for seed production control, full consultation with LRWQCB is required prior to treatment.
1. Additional specifications regarding buffer zones for herbicide applications adjacent to water are given in the preceding section (Design Features 1 through 8).

Chapter 13 Rehabilitation of disturbed sites will be accomplished using local native plant species. Areas with greater than 0.1 acre of bare soil created by the treatment of TIPS would be evaluated for rehabilitation and revegetation. Temporary Best Management Practices, such as use of rice grass mulch, will be implemented as needed.

Heritage Resources

Chapter 14 Weed treatments will be coordinated with the Forest Heritage Resource specialist to protect resources such as traditional plant gathering areas, rock art, and historic structures in both Nevada and California. In California, soil disturbance will be limited to one cubic meter per acre, without prior authorization from the heritage resources specialist. (R5 Programmatic Agreement for minimum disturbance activities with State Historic Preservation Officer)

Chapter 15 Herbicides will not be used to treat TIPS in any Area of Concern or gathering site for the Washoe Tribe without consultation with the Tribe. If weeds become established in the future, the LTBMU will consult with the Tribe on suitable treatment methods.

Chapter 16 Cultural surveys will be conducted as needed and evaluation will occur on a case by case basis. Existing properties will be considered with each treatment of weeds.

Forest Service Sensitive and Special Interest Plant Species

Chapter 17 The project or staff botanist will be consulted prior to chemical treatment of new TIPS occurrences or expanding occurrences, to ensure that Threatened, Endangered, Proposed, Candidate, and Sensitive (TEPCS) plant species are not affected.

Chapter 18 Only wicking & wiping, dip & clip, and non-chemical treatments may take place within 100 feet of Sensitive Plants.

Management Areas and Adjacent Non-Forest Areas

Chapter 19 If TIPS are discovered in the Grass Lake RNA, approval for treatment will be coordinated with the Pacific Southwest Research Station Director. Refer to FSM 4060.

Chapter 20 If herbicide use is proposed to control an infestation of TIPS in any Wilderness Area (Desolation, Granite Chief, Mt. Rose), Regional Forester approval will be sought. Refer to FSM 2320.

Chapter 21 If National Forest property boundary is unclear, then Forest Service personnel will identify property boundary locations before treatment occurs.

Recreation, Special Uses and Recreation Residences

Chapter 22 The Recreation Department will be consulted prior to treatment near public developed recreation sites, areas of concentrated public use such as trailheads, and publicly and privately operated water systems and facilities, to reduce conflicts with operational needs. Application of herbicides in recreation areas would ideally occur during the week, and on weekends before Memorial Day or after Labor Day.

Chapter 23 For domestic water system sources, chemical applications shall be avoided within areas where movement into drinking water is possible. For surface water and groundwater sources, a buffer of 50 feet is required from the point of diversion.

Chapter 24 Prior to herbicide applications within Special Use Permitted areas, LTBMU Special Uses will be contacted for any necessary coordination with permit holders.

Health and Safety

Chapter 25 Chemicals will be stored in designated storage facilities according to the manufacturer's labels and consistent with SNFPA Standard and Guideline #99.

Chapter 26 All Personal Protective Equipment (PPE) will be used in accordance with the Material Safety Data Sheet (MSDS) and product label for the specific type of chemical being applied during field operations.

- Chapter 27 Cautionary notice signs regarding herbicide use will be placed at access points to treatment areas prior to initiating treatment. These signs will identify the herbicide(s) to be used, the date of application and date of expiration of the cautionary notice (at least 48 hours after application), name and phone number of Forest contact, and phone number for the County Health Department. They will be removed as soon as possible after the expiration date of the cautionary notice.
- Chapter 28 Herbicides will only be applied by trained and/or certified applicators in accordance with label instructions and applicable Federal and state pesticide laws. Label instructions include constraints on application under certain wind, temperature, precipitation and other weather conditions to eliminate drift, volatilization, leaching, or runoff.
- Chapter 29 Any hazardous materials spills will be reported to the LTBMU Forest Spill Coordinator and treated in accordance with the LTBMU Hazardous Materials Response and Spill Safety Plan (PRD L10). If a spill is threatening or has occurred, and requires emergency containment, staff will call 911, and radio or call Camino Dispatch. Dispatch will notify the appropriate agencies according to the Lake Tahoe Geographic Response Plan (September 2007). If material is determined to be of the type that may be handled by local refuse companies (such as oil and gas), staff will call refuse companies first to see if they are capable of retrieving and disposing. If material is beyond the capability of local refuse companies, staff will call a hazardous waste contractor to arrange retrieval and disposal.
- Chapter 30 Unused herbicides will be disposed of in accordance with the manufacturer's label.
- Chapter 31 Bladder bag and hand tools such as shovel and Pulaski shall be on site when using an open flame to thermally treat TIPS. Although this method does not utilize *burning per se*, but rather heats to boiling the cells of plants (and not necessarily with an open flame), if any fires result from this treatment, they will be put dead-out before personnel leave the area. Fire-trained personnel will be on site as required.

Herbicides

- Chapter 32 All appropriate laws and regulations governing the use of pesticides, as required by the U.S. Environmental Protection Agency, the California Department of Pesticide Regulation, and Nevada Division of Environmental Protection, and Forest Service policy pertaining to pesticide use, will be followed.
- Chapter 33 Coordination with the appropriate County Agricultural Commissioners will occur, and all required licenses and permits will be obtained prior to any pesticide application.
- Chapter 34 All herbicide spray tanks will be equipped with a pressure gauge to ensure that herbicides are applied with low pressure.
- Chapter 35 For control of drift, all herbicide application will follow EPA approved *label directions* to control the drift of herbicides during spraying. These directions have specific wind speeds and air temperatures for application of each herbicide. In addition, applicators will utilize droplet size and spray pressure to ensure droplets do not travel outside of the targeted zone.

TIPS

- Chapter 36 Manual, mechanical, or thermal treatment will be utilized in lieu of chemical treatment where effective.
- Chapter 37 Any cut TIPS will be disposed of in a manner to preclude spread of propagative parts or contact with soils likely to encourage re-sprouting. Disposal will be as follows: If no flowers or seeds are present, pull the weed and place it on the ground to dry out if species is not rhizomatous or if there is no potential for re-sprouting. If flowers or seeds are present or there is resprouting potential, pull the weed carefully to prevent seeds from falling and to prevent roots from breaking and leaving segments in the ground, and place in an appropriate container for disposal; or

separate the flowers and seedheads from the plant if vegetative reproduction is not a concern and dispose of separately as above.

Chapter 38 The Forest will continue to inventory and monitor current TIPS populations and use this information to direct activities to reduce the spread and establishment of TIPS.

Chapter 39 All off-road equipment used for weed control efforts will be washed before moving into the project area to ensure that the equipment is free of soil, seeds, vegetative material, or other debris that could contain or hold seeds of noxious weeds. "Off-road equipment" – in this case, potentially ATVs - does not include vehicles not intended for off-road use. Equipment will be considered clean when visual inspection does not reveal soil, seeds, plant material, or other such debris.

Chapter 40 When working in known weed-infested areas, the equipment will be cleaned before leaving.

Chapter 41 Use weed-free mulches and seed sources for revegetation efforts. All activities that require seeding or planting must 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. Seed mixes must be approved by a LTBMU botanist, noxious weed coordinator, or ecologist.

Chapter 42 Staging areas for equipment, materials, or crews will be prohibited within the actual area of TIPS infestations.

Appendix F

Projects considered for Cumulative Effects

Past Projects considered for cumulative effects analysis

This cumulative effects analysis does not attempt to quantify the effects of past human actions by adding up all prior actions on an action-by-action basis. There are several reasons for not taking this approach.

- 1) This project is basin-wide, so a catalog and analysis of all past actions would be impractical to compile – and unduly costly to obtain. Current conditions within the project area have been impacted by innumerable actions over the last century (and longer); attempting to isolate the individual actions that continue to have residual impacts would be nearly impossible.
- 2) Providing the details of past actions, on an individual basis, would not be useful to predict the cumulative effects of the proposed action or alternatives. In fact, focusing on individual actions would be less accurate than looking at existing conditions because there is limited information on the environmental impacts of individual past actions, and one cannot reasonably identify each and every action over the last century that has contributed to current conditions. Additionally, focusing on the impacts of past human actions can risk ignoring the important residual effects of past natural events, which also contribute to cumulative effects by looking at current conditions, we are sure to capture all the residual effects of past human actions and natural events, regardless of which particular action or event contributed those effects.
- 3) Public scoping for this project did not identify any public interest or need for detailed information on individual past actions.
- 4) The Council on Environmental Quality issued an interpretive memorandum on June 24, 2005 regarding analysis of past actions, which states, “agencies can conduct an adequate cumulative effects analysis by focusing on the current aggregate effects of past actions without delving into the historical details of individual past actions.” (Connaughton 2005)

The cumulative effects analysis in this EA is consistent with Forest Service National Environmental Policy Act (NEPA) Regulations (36 CFR 220.4(f)) (July 24, 2008), which state, in part:

“CEQ regulations do not require the consideration of the individual effects of all past actions to determine the present effects of past actions. Once the agency has identified those present effects of past actions that warrant consideration, the agency assesses the extent that the effects of the proposal for agency action or its alternatives will add to, modify, or mitigate those effects. The final analysis documents an agency assessment of the cumulative effects of the actions considered (including past, present, and reasonable foreseeable future actions) on the affected environment. With respect to past actions, during the scoping process and subsequent preparation of the analysis, the agency must determine what information regarding past actions is useful and relevant to the required analysis of cumulative effects. Cataloging past actions and specific information about the direct and indirect effects of their design and implementation could in some contexts be useful to predict the cumulative effects of the proposal. The CEQ regulations, however, do not require agencies to catalogue or exhaustively list and analyze all

individual past actions. Simply because information about past actions may be available or obtained with reasonable effort does not mean that it is relevant and necessary to inform decision making. (40 CFR 1508.7)”

Present and Ongoing Projects considered for cumulative effects analysis

Upkeep and Maintenance

Roads Maintenance
 Trails Maintenance
 Roads Access and Travel Management Plans
 Trails Access and Travel Management Plans
 Recreation Residence Tracts BMP Retrofit
 Heavenly Mountain Resort Ski Area Master Plan
 Heavenly Mountain Resort EPIC Summer Uses
 Zephyr Cove Resort Corral BMP Retrofit
 Zephyr Cove Resort Campground Retrofit
 Incline Lake Dam Project
 Basin Wide Vault Toilets
 William Kent Facilities BMP Retrofit
 Meeks Bay BMP Retrofit
 Day Use Beaches Toilet Replacement
 Taylor Creek Visitor Center Replacement
 Taylor Creek Washoe Center
 Historic Sites BMP Retrofit
 Fallen Leaf Water System Renovation
 Fallen Leaf Campground BMP retrofit
 Camp Richardson Resort Campground and Vehicle Circulation BMP Retrofit
 Pope Beach BMP retrofit
 Angora Lakes Resort cabin replacement
 Angora Lakes Resort parking and restroom Retrofit
 Kingsbury Stinger Trail Reconstruction and BMP Upgrade Project
 Angora Fire Restoration
 Meeks Bay Highway Corridor BMP Retrofit
 Tahoe Yellow Cress Fencing
 LTBMU Invasive Weeds Treatment
 Zephyr Fire Lookout Relocation
 Meeks Meadow Restoration
 Restoration of Fire Adapted Meadows
 CalPeco Electrical Line Upgrade

Outfitter / Guide Authorizations

Brockway Summit Snowmobile Tours
 Wedding Provider permits
 Homewood Mountain Resort Snow Cat Ski Outfitter / Guide for Ellis Peak Area

Recreation Permit Administration and Reissuance

Recreation Residence Tracts permit issuance
 Lam Watah Trail / Stateline to Stateline Parking Area
 Heavenly Mountain Resort Ski Area Permit

Round Hill Pines Resort permit issuance
64 Acres permit issuance
Campground and Day Use Beaches permit issuance
Meeks Bay Resort permit issuance
Sno Park permit issuance
Taylor Tallac Association permit issuance
Tahoe Heritage Foundation partnership
Camp Richardson Corral permit issuance
Camp Richardson Resort permit issuance
Glen Alpine Springs Resort life trust
Angora Lakes Resort permit issuance
Commercial Filming permits

Reasonably Foreseeable Future Projects considered for cumulative effects analysis

Upkeep and Maintenance

Angora Lakes Resort Restroom Replacement
Burke Creek Highway 50 Crossing and Realignment Project
Nevada Stateline to Stateline Bikeway North Demonstration Project
Round Hill Pines Resort Day Use Redevelopment
Taylor-Tallac Restoration Project
Truckee River Stabilization & Restoration Project
Zephyr Cove Erosion Control Project
Meeks Bay Bike Path

Outfitter / Guide Authorizations

North Shore Commercial Snowmobile Outfitter-Guide Special Use Permit Extension

Event Authorizations

Big Blue Adventures Recreation Event - Tahoe Trail 100
Cystic Fibrosis Foundation Xtreme Hike Event
Far West Nordic Ski Education Association 5 Year Recreation Event
Kokanee Run Event
Primal Quest Endurance Run Event
Tahoe 200 Endurance Run Event
Tahoe Area Mountain Bike Assn Events
Tahoe Heritage Foundation Events

Recreation Permit Administration and Reissuance

Camp Richardson Resort 5- Year Special Use Permit

Other

Winter Recreation and Over the Snow Travel Management
LTBMU Forest Plan Revision

Other Agencies Projects or on-going uses

Maintenance and Use of other agencies recreation and administration sites
Lake Tahoe Nevada State Park Mountain Bike outfitter

Campgrounds
Lake Tahoe Marathon
America's Most Beautiful Bike Ride
Tour de Tahoe – Bike Big Blue
Lake Tahoe Relay
Lake Tahoe Half Marathon

Other reasonably foreseeable Vegetation management (thinning and fuel reduction) project activities

General Conservation/Santini-Burton: 500 acres per year (100 mechanical/400 hand thin)
Wildland Urban Interface (WUI): 2,000 acres per year (500 mechanical/1,500 hand thin)

Prescribed Burning - General Conservation/Santini-Burton 100 acres per year
WUI - 1,800 acres per year