

Exhibit 7.2

Invasive Weed Species Observed in the Mason Dam Study Area

Exhibit 7.2.1 Noxious and Invasive Weed Species Observed in the Mason Dam Study Area During the July 2008 plant surveys.¹

Species	Noxious or Invasive Weed Status ²		Evaluation of December Mapping
	Baker County List	Baker Ranger District Priority	
<i>Centaurea diffusa</i>	A	1	Excellent
<i>Centaurea maculosa</i> (=<i>C. biebersteinii</i>)	A	1	Excellent
<i>Cirsium arvense</i>	Not on list	2	Good
<i>Cirsium vulgare</i>	B	4	Good
<i>Cynoglossum officinale</i>	Not on list	3	Good
<i>Dipsacus fullonum</i>	B	2	Excellent
<i>Potentilla recta</i>	B	2	Good
<i>Verbascum thapsus</i>	C	Not on list	Excellent

¹ *Onopordum acanthium* (Class A, FS priority 2) was observed in spring 2007 by A. Grammon, but has not been observed since treatment. *Hypericum perforatum* (Class B, FS priority 2) has been previously observed in the vicinity by the FS but was not observed in the 2008 summer surveys.

² See table 3 for Baker County weed classes and Appendix A for Baker Ranger District Invasives priorities.

Exhibit 7.2.2 Invasive Weed Species on the PNW Regional List Observed in the Mason Dam Study Area During the July 2008 plant surveys that are not on any of the local lists.

Species	Evaluation of December Mapping
Bromus tectorum	Excellent
Dactylis glomerata	N/A not mapped ¹
Lactuca serriola	Fair-Good
Melilotus officinale	Fair
Urtica dioica	N/A not mapped ¹

¹ These species were not on any list received during 2008 and are not known to threaten special habitats in this locale and therefore were not mapped.

Exhibit 7.3

2008 Baker County Noxious Weeds “Watch List”, “A”, “B” & “C” Designated Weeds “A” List Weeds are Eligible for Cost-Share

“Watch List” – Few Known Sites; Controlled by Weed Supervisor County-Wide

- | | |
|-----------------------|----------------------------|
| 1. Musk Thistle | <i>Carduus nutans</i> |
| 2. Mediterranean sage | <i>Salvia aethiopis</i> |
| 3. Dyers Woad | <i>Istaxis tinctoria</i> |
| 4. Common bugloss | <i>Anchusa officinalis</i> |

“A” Designated Weeds – Mandatory Control County-wide

- | | |
|-------------------------|-------------------------------|
| 1. Tansy ragwort | <i>Senecio jacobaea</i> |
| 2. Leafy spurge | <i>Euphorbia esula</i> |
| 3. Rush skeletonweed | <i>Chondrilla juncea</i> |
| 4. Spotted knapweed | <i>Centaurea maculosa</i> |
| 5. Diffuse knapweed | <i>Centaurea diffusa</i> |
| 6. Dalmation toadflax | <i>Linaria dalmatica</i> |
| 7. Yellow starthistle | <i>Centaurea solstitialis</i> |
| 8. Perennial pepperweed | <i>Lepidium latifolium</i> |
| 9. Purple loosestrife | <i>Lyrum salicaria</i> |
| 10. Black henbane | <i>Hyoscyamus niger</i> |
| 11. Jointed goatgrass | <i>Aegilops cylindrica</i> |
| 12. Buffalobur | <i>Solanum rostratum</i> |
| 13. Japanese knotweed | <i>Polygonum cuspidatum</i> |
| 14. Scotch Thistle | <i>Onopordum acanthium</i> |
| 15. Yellow flag iris | <i>Iris pseudacorus</i> |
| 16. Salt Cedar | <i>Tamarix ramosissima</i> |
| 17. Whitetop | <i>Lepidium draba</i> |

Whitetop is listed as an “A” weed in designated areas of the County. Pine Valley and West Baker Valley and Bowen Valley/Sumpter areas are Mandatory Control. Contact Baker County Weed Control for specific information at 523-0618.

“B” Designated Weeds – Widespread and/or of High Concern

- | | |
|-------------|-----------------------|
| 1. Whitetop | <i>Lepidium draba</i> |
|-------------|-----------------------|

NOTE!: Whitetop is a “B” weed in all other areas of the County not listed in the above section.

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|-----------------------|-----------------------------|
| 2. Russian knapweed | <i>Centaurea repens</i> |
| 3. Canada thistle | <i>Cirsium vulgare</i> |
| 4. Venice mallow | <i>Hibiscus trionum</i> |
| 5. Yellow toadflax | <i>Linaria vulgaris</i> |
| 6. Dodder | <i>Cuscuta campestris</i> |
| 7. Chickory | <i>Cichorium intybus</i> |
| 8. Teasel | <i>Dipsacus fullonum</i> |
| 9. Common Tansy | <i>Tanacetum vulgare</i> |
| 10. Klamathweed | <i>Hypericum perforatum</i> |
| 11. Puncturevine | <i>Tribulus terrestris</i> |
| 12. Myrtle spurge | <i>Euphorbia myrsinites</i> |
| 13. Sulfur cinquefoil | <i>Potentilla recta</i> |

“C” Designated Weeds – Widespread and/or of Moderate Concern

- | | |
|-----------------------|-----------------------------------|
| 1. Poison hemlock | <i>Conium maculatum</i> |
| 2. Morningglory | <i>Convolvulus arvensis</i> |
| 3. Russian thistle | <i>Salsola iberica</i> |
| 4. Medusahead wildrye | <i>Taeniatherum caput-medusae</i> |
| 5. Kochia | <i>Kochia scoparia</i> |
| 6. Common mullein | <i>Verbascum thapsis</i> |
| 7. Moth mullein | <i>Verbascum blattaria</i> |
| 8. Bur buttercup | <i>Ranunculus testiculatus</i> |
| 9. Water hemlock | <i>Cicuta douglasii</i> |

Exhibit 7.4

Wallowa-Whitman National Forest Weed Lists

Exhibit 7.4.1 Invasive species priorities by Ranger District

Common Name	Wallowa-Whitman National Forests - Ranger Districts						
	01 Baker	02 Wallowa Valley	04 Hells Canyon NRA	05 Eagle Cap	06 La Grande	07 Pine	09 Unity
Russian Knapweed	2	1	1	1	1	2	2
Slender Meadow Foxtail	1	1	1	1	1	1	1
Common Bugloss	1	1	1	1	1	1	1
Whitetop	2	1	1	1	2	2	2
Musk Thistle	1	1	1	1	1	1	1
Plumeless Thistle (Italian)	1	1	1	1	1	1	1
Diffuse Knapweed	1	1	1	1	2	1	1
Spotted Knapweed	1	1	1	1	1	1	1
Meadow Knapweed	1	1	1	1	1	1	1
Yellow Star-Thistle	1	1	1	1	2	1	1
Squarrose Knapweed	1	1	1	1	1	1	1
Rush Skeletonweed	1	1	1	1	1	1	1
Canada Thistle	2	2	2	2	2	2	2
Bull Thistle	4	4	4	4	4	4	4
Field Bindweed	3	2	2	2	3	3	3
Poison Hemlock	3	2	2	2	3	3	3
Common Crupina	1	1	1	1	1	1	1
Chaparral Dodder	4	4	4	4	2	4	4
Houndstongue	3	3	3	3	3	3	3
Scotchbroom	1	1	1	1	1	1	1
Common Teasel	2	2	2	2	2	2	2
Leafy Spurge	1	1	1	1	1	1	1
Meadow Hawkweed	1	1	1	1	1	1	1
St. Johnswort	2	2	2	2	2	2	2
Broadleaved Pepperweed	1	1	1	1	1	1	1
Dalmatian Toadflax	1	1	1	1	1	1	1
Yellow Toadflax	2	3	3	3	2	2	2
Purple Loosestrife	1	1	1	1	1	1	1
Scotch Thistle	2	1	1	1	3	2	2
Japanese Knotweed	1	1	1	1	1	1	1
Sulfur Cinquefoil	2	1	1	1	2	2	2
Himalayan Blackberry	2	2	2	2	2	2	2
Mediterranean Sage	1	1	1	1	2	1	1
Prickly Russian Thistle	3	3	3	3	3	3	3
Bouncingbet	3	3	3	3	3	3	3
Clary Sage	2	2	2	2	2	2	2
Stinking Willie	1	1	1	1	1	1	1
Silverleaf Nightshade	1	1	1	1	1	1	1
Medusahead	3	1	1	1	3	3	3

Wallowa-Whitman National Forests - Ranger Districts							
Common Name	01 Baker	02 Wallowa Valley	04 Hells Canyon NRA	05 Eagle Cap	06 La Grande	07 Pine	09 Unity
Puncturevine	2	2	2	2	2	2	2

Priority 1 = Generally State Class A or T listed species. Goal is to eradicate new populations and/or control existing populations of these aggressive and harmful species

Priority 2 = Goal is to contain existing populations of aggressive species

Priority 3 = Goal is to eradicate new populations and/or control existing populations of these less aggressive invasive species

Priority 4 = Goal is to contain existing populations of less aggressive invasive spp.

**Wallowa-Whitman National Forest
Invasive Plant Treatment Project
Proposed Action**

Exhibit 7.4.2. Acres of Invasive Plants by Ranger District

Invasive Plant Scientific Name	Ranger District							Total
	Baker	Eagle Cap	Hells Canyon NRA	La Grande	Pine	Unity	Wallowa Valley	
Acroptilon repens	21.03		5.26					26.28
Alopecurus myosuroides			0.30					0.30
Anchusa arvensis			5808.26					5808.26
Cardaria draba	104.34		555.51	87.72	475.30	250.12	15.30	1488.29
Carduus nutans				1.62		25.57		27.19
Centaurea biebersteinii	75.79	34.54	416.92	31.79	11.43	123.87	211.23	905.58
Centaurea debeauxii		0.03						0.03
Centaurea diffusa	417.85	704.25	432.80	887.63	336.44	537.84	826.52	4143.33
Centaurea solstitialis	9.93		867.24	418.67	571.81		96.84	1964.49
Centaurea sp.	35.02		2.15	2.30	31.37	10.21	37.54	118.60
Centaurea triumfettii	6.62							6.62
Chondrilla juncea			375.24		15.32			390.56
Cirsium arvense	470.91	127.39	737.73	462.20	167.71	1226.81	200.03	3392.79
Cirsium subniveum	2.19							2.19
Cirsium vulgare				22.20				22.20
Conium maculatum			6.53		0.62			7.16
Convolvulus arvensis					3.28			3.28
Crupina vulgaris							284.02	284.02
Cuscuta sp.			7.16					7.16
Cyanopsis sp.		1.80					0.58	2.38
Cynoglossum officinale	210.85			39.84	406.23	321.46		978.38
Cytisus scoparius	0.32			0.13			114.62	115.07
Dipsacus fullonum	22.02					8.07		30.09
Euphorbia esula	51.60		0.95	22.28		26.55	0.63	102.01
Hieracium caespitosum		9.23	6.87				0.09	16.20
Hypericum perforatum	258.36		212.92		100.32	31.46		603.06
Lepidium latifolium					0.70			0.70
Linaria dalmatica	77.70	2.92	14.90	1.68	136.85	301.98	191.65	727.68
Linaria sp.							3.79	3.79
Linaria vulgaris	34.86		7.45		6.23	0.06	1.92	50.52
Lythrum salicaria			2.53					2.53
Onopordum acanthium	88.78		1142.96	16.77	20.56	96.79	426.46	1792.32
Potentilla recta	80.89			9.81	96.03		0.09	186.82
Salsola tragus					9.73			9.73
Senecio jacobaea	3.00	0.51	0.95	7.39		63.90	2.44	78.18
Senecio sp.			4.12				4.30	8.42
Solanum elaeagnifolium			10.88					10.88
Taeniatherum caput- medusae			6.01		916.39			922.40
Tribulus terrestris			12.30					12.30
Total	1972.06	880.67	10637.94	2012.05	3306.35	3024.69	2418.05	24251.81

Exhibit 7.4.3 Current Invasive Plant Species on National Forest Lands in the Pacific Northwest Region

SCIENTIFIC NAME	COMMON NAME	HABITAT PREFERENCE	LIFE CYCLE	HABIT	MODE OF REPRODUCTION
<i>Acaena novae-zelandica</i>	bidly-biddy	Open, disturbed, well-drained sites, including stable dunes, open scrub, grassy areas, and trampled sites in coastal habitats where some summer moisture is available and frosts are infrequent. Plants thrive on poor soils and compete poorly with established vegetation.	perennial	shrub, subshrub	seed
<i>Acroptilon repens</i>	Russian knapweed	Prefers heavy, often saline soils of bottomlands and sub-irrigated slopes and plains. Commonly found along roadsides, riverbanks, irrigation ditches, pastures, waste places, clearcuts, croplands, and hayfields. Prefers similar sites to those occupied by basin wildrye (<i>Elymus cinereus</i>). Does not readily establish in healthy native vegetation, requires disturbance.	perennial	forb/herb	seed and deep growing, creeping roots (penetrate up to 8 feet depth)
<i>Alopecurus myosuroides</i>	blackgrass	Blackgrass prefers moist soils. It grows most abundantly in the low areas of fields and on heavy soils with a high winter water table, but is not confined to these areas.	annual	grass	seed
<i>Ammophila arenaria</i>	European beachgrass	Found along the west coast of the United States, it thrives in areas of active sand movement and most often occupies the windward slopes of exposed dunes. However, it may extend inland for several miles. It grows on well-drained soils with various mineral compositions, including the sands of the Pacific Coast.	perennial	grass	rhizomes, few low vigor seeds
<i>Anchusa arvensis</i>	small bugloss	Annual bugloss grows along roadsides, in disturbed habitats, pastures, and cultivated fields.	annual	forb/herb	seed

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SCIENTIFIC NAME	COMMON NAME	HABITAT PREFERENCE	LIFE CYCLE	HABIT	MODE OF REPRODUCTION
<i>Anchusa officianalis</i>	common bugloss	Often found in waste places and roadsides.	biennial perennial	forb/herb	seed
<i>Artemisia absinthium</i>	absinth wormwood	Frequently found near streams, lakes or irrigation ditches.	perennial	shrub/ subshrub/ forb/herb	seed
<i>Arctium minus</i>	lesser burdock	Commonly found growing along roadsides, ditchbanks, in pastures and waste areas.	biennial	forb/herb	seed
<i>Brassica rapa</i>	field mustard	Found in cultivated fields, roadsides and waste areas.	annual biennial	forb/herb	seed
<i>Bromus rigidus</i>	ripgut brome	Common in waste areas, roadsides and railroads. Is also invasive on rangelands.	annual	grass	seed
<i>Brachypodium sylvaticum</i>	slender false brome	Closed-canopy coniferous forests, riparian forests, forest edges, and upland prairies in full sun. Can become dominant in the understory of forests that it invades, forming nearly monospecific stands that appear to outcompete and completely exclude native forbs and grasses. Tom Kaye (Institute of Applied Ecology) reports that <i>B. sylvaticum</i> can competitively exclude other species (including endangered plants and butterfly species that depend on them) in the understory of coniferous forests it invades, and that it even inhibits establishment of tree seedlings by sequestering much-needed soil moisture.	perennial	grass	seed; though not rhizomatous, can resprout from small stem or root fragments when cut

Exhibit 7.4.3 Current Invasive Plant Species on National Forest Lands in the Pacific Northwest Region

SCIENTIFIC NAME	COMMON NAME	HABITAT PREFERENCE	LIFE CYCLE	HABIT	MODE OF REPRODUCTION
<i>Bromus tectorum</i>	cheatgrass	Although cheatgrass can be found in both disturbed and undisturbed shrub-steppe and intermountain grasslands (e.g., where dominant grasses are bluebunch wheatgrass [<i>Pseudoroegneria spicata</i>] and Idaho fescue [<i>Festuca idahoensis</i>]), the largest infestations are usually found in disturbed shrub-steppe areas, overgrazed rangeland, abandoned fields, eroded areas, sand dunes, roads, and waste places.	annual	grass	seed
<i>Buddleja 'davidii</i>	orange eye butterflybush	Prefers well drained, average soil. Once established, can thrive in fairly dry condition.	perennial	shrub	seed
<i>Carduus acanthoides</i>	spiny plumelless thistle	Infrequently to locally abundant in pastures, stream valleys, fields and roadsides.	biennial	forb/herb	seed
<i>Cardaria draba</i>	whitetop	Variety of non-shaded, disturbed conditions, including roadsides, waste places, fields, gardens, feedlots, watercourses, open grasslands, and along irrigation ditches. Found in variety of soil types, even in saline soils, except not found in acidic soils. Most aggressive, rapid expansion occurs in irrigated conditions or during moist years.	perennial	forb/herb	seed (viable up to 3 years) and deep creeping roots
<i>Carduus nutans</i>	musk thistle	Musk thistle thrives in disturbed areas, such as roadsides, grazed pastures, burned areas, and old fields, but also can invade deferred pastures and native grasslands. It can occur in almost all habitats except dense forests, high mountains, deserts, and frequently cultivated farmlands.	biennial perennial	forb/herb	seed (viable up to 10 years)

Exhibit 7.4.3 Current Invasive Plant Species on National Forest Lands in the Pacific Northwest Region

SCIENTIFIC NAME	COMMON NAME	HABITAT PREFERENCE	LIFE CYCLE	HABIT	MODE OF REPRODUCTION
<i>Cardaria pubescens</i>	hairy whitetop	Well adapted to moist habitats, especially sub-irrigated pastures, rangeland, roadsides, and ditch banks.	perennial	forb/herb	seed
<i>Carduus pycnocephalus</i>	Italian plumeless thistle	Invades pasture, range and forest lands along with roadsides, waste areas, ditch banks, stream banks and grain fields.	annual	forb/herb	seed
<i>Carduus tenuiflorus</i>	winged plumeless thistle	Infests roadsides and waste areas, and can be a major problem on hill pastureland.	annual	forb/herb	seed
<i>Centaurea biebersteinii</i>	spotted knapweed	Best adapted to well-drained, light-textured soils in areas that receive some summer rainfall. This includes ponderosa pine (<i>Pinus ponderosa</i>) and Douglas-fir (<i>Pseudotsuga menziesii</i>) forests and shrub-steppe habitats with bluebunch wheatgrass, needle-and-thread, and Idaho fescue. Infestations may change soil conditions to the advantage of this species (see 3.1.2)	biennial perennial		seed (viable up to 8 years) and lateral shoots
<i>Centaurea cyanus</i>	garden cornflower	No description.	annual	forb/herb	seed
<i>Centaurea debeauxii</i> (C. pratensis)	meadow knapweed	Best adapted to well-drained, light-textured soils in areas that receive some summer rainfall. This includes ponderosa pine and Douglas-fir forests and shrub-steppe habitats with bluebunch wheatgrass, needle-and-thread, and Idaho Fescue.	perennial	forb/herb	seed
<i>Centaurea diffusa</i>	diffuse knapweed	Disturbed or overgrazed lands are prime habitat, but can also invade undisturbed grasslands, shrublands, riparian communities, forested benchlands, and rugged terrain.	biennial perennial	forb/herb	seed, tumbleweed
<i>Centaurea jacea</i>	brownray knapweed	Infests roadsides, waste areas, fields and pastures.	perennial	forb/herb	seed

Exhibit 7.4.3 Current Invasive Plant Species on National Forest Lands in the Pacific Northwest Region

SCIENTIFIC NAME	COMMON NAME	HABITAT PREFERENCE	LIFE CYCLE	HABIT	MODE OF REPRODUCTION
<i>Centaurea melitensis</i>	Maltese star-thistle	Grows on various soil types; usually introduced on roadsides and waste areas.	annual biennial	forb/herb	seed
<i>Centaurea solstitialis</i>	yellow starthistle	Best adapted to open grasslands with deep well-drained soils and average annual precipitation of 10 to 60 inches.	annual	forb/herb	seed
<i>Centaurea triumfettii</i>	squarrose knapweed	Invasives juniper-Idaho fescue and big sagebrush-bunchgrass rangelands, and dry rocky sites of degraded juniper-shrub savanna with scattered western juniper and ponderosa pine.	perennial	forb/herb	seed
<i>Chondrilla juncea</i>	rush skeletonweed	Sandy to gravelly, well-drained soils or shallow soils. Seedlings require moisture for up to 6 weeks to develop a persistent root system.	perennial	forb/herb	seed
<i>Cirsium arvense</i>	Canada thistle	Prefers and is invasive in prairies and other grasslands and riparian areas with deep, well-aerated, mesic soils, but also occurs in almost every upland herbaceous community, especially roadsides, abandoned fields, and pastures.	perennial	forb/herb	seed and shoots from lateral roots (dormant buried seed viable up to 26 years)
<i>Cichorium intybus</i>	chicory	Widespread along roadsides and disturbed sites.	biennial perennial	forb/herb	seed
<i>Cirsium ochrocentrum</i>	yellow spine thistle	Can be found in dry sandy and gravelly soil in prairies, pastures and open disturbed sites.	biennial perennial	forb/herb	seed
<i>Cirsium undulatum</i>	wavyleaf thistle	Found in foothills, meadows and rangeland.	biennial perennial	forb/herb	seed

Exhibit 7.4.3 Current Invasive Plant Species on National Forest Lands in the Pacific Northwest Region

SCIENTIFIC NAME	COMMON NAME	HABITAT PREFERENCE	LIFE CYCLE	HABIT	MODE OF REPRODUCTION
<i>Cirsium vulgare</i>	bull thistle	Occurs in dry to moist habitat, fields, pastures, grasslands, roadways, forest clearings, rock outcrops, and along waterways. Does best in areas with moderate slope. It is not shade tolerant.	biennial	forb/herb	seed (viable 3 years or less)
<i>Clematis vitalba</i>	evergreen clematis	Found in forest lands and in the margins and openings of forested lands. It is also found in riparian areas established with willows, in waste areas, and in coastal and lowland areas (Cronk and Fuller 1995).	perennial	vine, subshrub	seed
<i>Convolvulus arvensis</i>	field bindweed	Cultivated fields, orchards, vineyards, gardens, pastures, abandoned fields, roadsides, waste places. Grows best on moist fertile soils. Tolerates poor, dry, gravelly soils, but seldom grows in wet soils. Inhabits regions with temperate, Mediterranean, and tropical climates.	perennial	vine, forb/herb	seed and long, deep (~10 feet) taproot that gives rise to lateral roots
<i>Conium maculatum</i>	poison hemlock	Tolerates poorly drained soils and frequents stream and ditch banks. Commonly occurs along roadsides, field margins, ditches, and in low-lying waste places. Can invade native riparian woodlands and open floodplains along waterways.	biennial	forb/herb	seed
<i>Cortaderia spp.</i>	pampas grass	Highly competitive with native plants once seedlings become established and is a substantial threat to the ecological quality of preserves, particularly in coastal and grassland sites. Particularly threatened habitats include coastal sand dunes and inland sand hills.	perennial	grass	seed
<i>Crupina vulgaris</i>	common crupina	Primary habitat is southern slopes in steep canyon grasslands, waste areas, arid hillsides, rangelands, and grassy slopes.	annual	forb/herb	seed

Exhibit 7.4.3 Current Invasive Plant Species on National Forest Lands in the Pacific Northwest Region

SCIENTIFIC NAME	COMMON NAME	HABITAT PREFERENCE	LIFE CYCLE	HABIT	MODE OF REPRODUCTION
<i>Cyperus esculentus</i>	yellow nutsedge	Prefers moist, sandy soils.	perennial	sedge	seed, creeping rootstock, and/or small underground nutlets
<i>Cynoglossum officinale</i>	houndstongue	Well-adapted to forested areas, roadsides, meadows, pastures, and waste places, often found on gravelly, somewhat alkaline soils.	biennial	forb/herb	seed
<i>Cytisus scoparius</i>	Scot's broom	Found in pastures, forest, and wastelands. This nitrogen fixer which has prolific and vigorous growth patterns may have the ability to alter native plant succession.	perennial	shrub	seed (long-lived)
<i>Cytisus striatus</i>	striated broom	Found in open disturbed sites, such as logged or burned sites, roadsides, and pastures, and can invade +/- undisturbed grasslands, coastal scrub, oak woodlands, and open forests. Does not tolerate heavy shade, but can tolerate minimal shade along the edges of forest canopies. Drought-resistant.	perennial	shrub	seed
<i>Daucus carota</i>	wild carrot	Found in pastures, meadows, dry areas and rocky soils.	biennial	forb/herb	seed
<i>Dactylis glomerata</i>	orchardgrass	Found along roadsides and in disturbed habitats.	perennial	grass	seed
<i>Dipsacus fullonum</i>	Fuller's teasel	Found in moist sites, especially along irrigation ditches, canals and disturbed sites.	biennial	forb/herb	seed
<i>Dipsacus laciniatus</i>	cutleaf teasel	Grows in open, sunny habitats that range from wet to dry levels. Optimal conditions seem to be mesic habitats. Roadsides and heavily disturbed areas are the most common habitats of teasel. Teasel sometimes occurs in high quality prairies, savannas, seeps, and sedge meadows.	biennial	forb/herb	seed

Exhibit 7.4.3 Current Invasive Plant Species on National Forest Lands in the Pacific Northwest Region

SCIENTIFIC NAME	COMMON NAME	HABITAT PREFERENCE	LIFE CYCLE	HABIT	MODE OF REPRODUCTION
<i>Digitalis purpurea</i>	purple foxglove	Found in logged areas, along roadsides and in coastal pastures.	biennial	forb/herb	seed
<i>Echium vulgare</i>	blueweed/vipers bugloss	Found in waste ground, roadsides, gravel bars, and sand bars.	biennial perennial	forb/herb	seed
<i>Elymus repens</i>	quackgrass	Tolerates a variety of soil types, including saline conditions, but grows most vigorously in soils of pH 6.5-8.0. Will dominate fields for several years after abandonment, but will not tolerate shade. In western North America, quackgrass invades wet meadows, wetland borders and other low-lying wet areas of grasslands and prairies.	perennial	grass	seed and rhizomes
<i>Euphorbia esula</i>	leafy spurge	Occurs in untilled, non-cropland habitats, including both disturbed and undisturbed sites, especially abandoned cropland, pastures, rangelands, woodlands, roadsides, and waste places. Tolerant of a wide range of soils from rich, moist soils of riparian zones to nutrient-poor, dry soils of western rangelands. It is most aggressive in semi-arid situations where competition from associated species is less intense, so invades most rapidly on dry hillsides, dry prairies, or rangelands.	perennial	forb/herb	seed (viable up to 8 years, usually germinate within 2) deep, spreading roots
<i>Foeniculum vulgare</i>	sweet fennel	Found along waste places, roadsides, riverbanks, and other nonagricultural situations (Parsons 1973)	biennial perennial	forb/herb	seed
<i>Genista monspessulana</i>	French broom	See Scot's broom (<i>Cytisus scoparius</i>).	perennial	shrub	seed

Exhibit 7.4.3 Current Invasive Plant Species on National Forest Lands in the Pacific Northwest Region

SCIENTIFIC NAME	COMMON NAME	HABITAT PREFERENCE	LIFE CYCLE	HABIT	MODE OF REPRODUCTION
<i>Geranium robertianum</i>	stinky bob	Highly adaptable. It is found in moist forests with varying amounts of canopy closure (i.e., from closed canopy to forest gaps to more open canopies), and on dry rocky outcrops.	annual biennial	forb/herb	seed
<i>Gypsophila paniculata</i>	babysbreath	Found in pastures, open areas and rangeland.	perennial	forb/herb	seed
<i>Hedera helix</i>	English ivy	Grows easily in many types of soil and in sun or shade. English ivy is fairly drought tolerant once it is established.	perennial	vine/subshrub	vegetative, stoloniferous, seed
<i>Heracleum mantegazzianum</i>	giant hogweed	Thrives in many habitats but does particularly well where the soil has been disturbed, such as on wasteground or on riverbanks, where erosion combined with a good supply of groundwater provide ideal conditions.	perennial	forb/herb	seed
<i>Hieracium aurantiacum</i>	orange hawkweed	Elevational range of 2000 to 5500 ft. in abandoned farmlands, pastures, lawns, fields, roadsides, mountain meadows, and forest clearings. They do not tolerate full shade, so they are not found in densely forested areas, but can dominate forest openings and margins. Prefer well-drained, coarse-textured soils moderately low in organic matter.	perennial	forb/herb	seed

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SCIENTIFIC NAME	COMMON NAME	HABITAT PREFERENCE	LIFE CYCLE	HABIT	MODE OF REPRODUCTION
<i>Hieracium caespitosum</i>	meadow hawkweed	Elevational range of 2000 to 5500 ft. in abandoned farmlands, pastures, lawns, fields, roadsides, mountain meadows, and forest clearings. They do not tolerate full shade, so they are not found in densely forested areas, but can dominate forest openings and margins. Prefer well-drained, coarse-textured soils moderately low in organic matter.	perennial	forb/herb	seed
<i>Hieracium laevigatum</i>	Smooth hawkweed	Area of highest concentration is in Whatcom County, Washington, where it is most common along road shoulders. However, plants are starting to invade fields and other areas adjacent to roadside infestations.	perennial	forb/herb	seed
<i>Hyoscyamus niger</i>	black henbane	Disturbed open sites, roadsides, fields, waste places, and abandoned gardens. Grows best in sandy or well-drained loam soils with moderate fertility. Does not tolerate waterlogged soils.	annual biennial	forb/herb	seed (viable up to 4 years)
<i>Hypericum perforatum</i>	common St. Johnswort	Rangeland and pastures (especially when poorly managed), fields, roadsides, forest clearings in temperate regions with cool, moist winters and dry summers. Grows best in open, disturbed sites and on slightly acidic to neutral soils. Does not tolerate saturated soils.	perennial	forb/herb	seed and short runners
<i>Hypochoeris radicata</i>	hairy catsear	Found in disturbed sites, waste areas, lawns, gardens, pastures and cultivated fields.	perennial	forb/herb	seed
<i>Ilex aquifolium</i>	English holly	Grows in forests, parks, gardens and in plains and mountain areas	perennial	tree/shrub	seed

Exhibit 7.4.3 Current Invasive Plant Species on National Forest Lands in the Pacific Northwest Region

SCIENTIFIC NAME	COMMON NAME	HABITAT PREFERENCE	LIFE CYCLE	HABIT	MODE OF REPRODUCTION
<i>Isatis tinctoria</i>	dyer's woad	Disturbed and undisturbed sites, roadsides, railroad rights-of-ways, fields, pastures, grain and alfalfa fields, forest and rangeland. Often grows on dry, rocky or sandy soils.	biennial perennial	forb/herb	seed and thick, deep taproot
<i>Kochia scoparia</i>	kochia	Commonly found in cultivated fields, gardens, roadsides, ditchbanks and waste areas.	annual	forb/herb	seed
<i>Lathyrus latifolius</i>	perennial pea	No description	perennial	vine/subshrub/forb/herb	seed and rhizomes
<i>Lactuca scariola</i>	prickly lettuce	A weed in orchards, ornamental stock, horticultural and agronomic crops, most irrigated crops, and roadsides.	annual biennial	forb/herb	seed and rhizomes
<i>Lepidium latifolium</i>	broadleaved pepperweed	Thrives in nutrient-rich soils.	perennial	forb/herb	seed
<i>Leucanthemum vulgare</i>	oxeye daisy	Fields, pastures, waste places, roadsides, railroads, prairies, slopes, disturbed sites.	perennial	forb/herb	seed and rhizomes
<i>Linaria dalmatica</i>	Dalmatian toadflax	Rapidly colonizes open or disturbed areas, especially roadsides, fences, rangelands, croplands, clearcuts, and pastures. Seedlings are ineffective competitors for soil moisture against established perennials and winter annuals, but, once established, both species of toadflax suppress other vegetation mainly by intense competition for limited soil water. Mature plants are particularly competitive with winter annuals and shallow-rooted perennials. Dalmatian toadflax prefers sandy or gravelly soil. It is most commonly found along roadsides, rangelands, dry forests and pastures but can adapt to fit a wide range of habitats.	perennial	forb/herb	seed and rhizomes

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SCIENTIFIC NAME	COMMON NAME	HABITAT PREFERENCE	LIFE CYCLE	HABIT	MODE OF REPRODUCTION
<i>Ligustrum vulgare</i>	European privet	Prefers fine and medium textured soils.	perennial	shrub	seed
<i>Linaria vulgaris</i>	butter and eggs	Found along roadsides, waste places, and cultivated fields.	perennial	forb/herb	seed and rhizomes
<i>Lotus corniculatus</i>	birdfoot deervetch	Found in fields, roadsides, and disturbed areas along railroads.	perennial	forb/herb	seed
<i>Lotus pedunculatus</i>	big trefoil	Big trefoil can grow in standing water, high acid soils, or soils with a high aluminum content. It does well in soils with low fertility.	perennial	forb/herb	seed
<i>Lythrum salicaria</i>	purple loosestrife	Grows in aquatic areas, including wetlands, bogs, along stream and river banks, lake shores, in ditches and disturbed wet soil areas.	perennial	forb/herb	seed and rhizomes
<i>Marrubium vulgare</i>	horehound	Widely distributed along roadsides, dry waste areas and in gardens.	perennial	forb/herb	seed
<i>Melilotus officinalis, M. alba</i>	yellow sweetclover, white sweetclover	Common along roadsides and waste areas (often first plants to appear on disturbed sites) and is sometimes promoted for soil stabilization and improvement.	annual biennial perennial	forb/herb	seed
<i>Onopordum acanthium</i>	Scotch cottonthistle	Invades most habitats, from dry to moist sites. Occurs in waste places, along roadsides, in dry meadows, rangelands, pastures, and sometimes waterways.	biennial	forb/herb	seed
<i>Phalaris arundinacea</i>	reed canarygrass	Found in wet areas along streams and in marshes.	perennial	grass	seed and rootstock
<i>Plantago lanceolata</i>	narrowleaf plantain	Found along roadsides, pastures and other disturbed sites such as lawns and gardens.	biennial perennial	forb/herb	seed
<i>Polygonum cuspidatum</i>	Japanese knotweed	Found along roadsides, waste areas, ditchbanks, wetlands, streambanks and hillsides.	perennial	subshrub, shrub, forb/herb	seed, rhizomes, vegetative

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SCIENTIFIC NAME	COMMON NAME	HABITAT PREFERENCE	LIFE CYCLE	HABIT	MODE OF REPRODUCTION
<i>Polygonum polystachyum</i>	Himalayan knotweed	Grows in wet meadows and marshes of forested areas between 2500-4000 m (8200-13000 ft) elevation in its native range, but can be found to sea level in the Pacific Northwest.	perennial	forb/herb	seed and creeping rhizomes
<i>Potentilla recta</i>	sulphur cinquefoil	Found in open grasslands, shrubby areas, open forests, logged areas, roadsides, waste places, and abandoned fields. Sulfur cinquefoil is an early successional species that colonizes disturbed sites, as well as forest edges. It cannot survive shade, such as full forest canopy. Sulfur cinquefoil is becoming co-dominant with spotted knapweed on many sites and now is apparently replacing knapweed in some areas of western Montana.	perennial	forb/herb	seed
<i>Polygonum sachalinense</i>	giant knotweed	Giant knotweed shares habitat with Japanese knotweed. Both species are found along stream banks, in moist waste places, neglected gardens, roadsides, and railroad right-of-ways. In Washington it is more commonly found west of the Cascade Mountains.	perennial	forb/herb	seed and creeping rhizomes
<i>Ranunculus repens</i>	creeping buttercup	Most often found in lowland pastures and wet areas.	perennial	forb/herb	seed and creeping roots
<i>Rubus discolor</i>	Himalayan blackberry	Grows along roadsides, creek gullies, river flats, fence lines (Parsons and Amor 1968), and right-of-way corridors. <i>R. discolor</i> tends to prefer wet sites (Amor and Stevens 1976), but can also be found on dry roadsides in western parts of the region.	perennial	shrub	seed, adventitious root

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SCIENTIFIC NAME	COMMON NAME	HABITAT PREFERENCE	LIFE CYCLE	HABIT	MODE OF REPRODUCTION
<i>Rubus laciniatus</i>	cutleaf blackberry	Found in disturbed upland sites. It may often be found growing along fence rows, roadsides, railroad grades, and in disturbed pastures.	perennial	Vine/ shrub/ subshrub	seed, adventitious root
<i>Salvia aethiopsis</i>	Mediterranean sage	Invades pastures, meadows, rangeland and other open areas.	biennial	forb/herb	seed (tumbleweed)
<i>Salsola kali</i>	Russian thistle	Well-adapted in cultivated dryland agriculture, but is also found on disturbed wasteland, over-grazed rangeland, and irrigated cropland.	annual	forb/herb	seed (tumbleweed)
<i>Saponaria officinalis</i>	bouncingbet	Grows in moist ditches, waste places, near old homesites, along roadsides, and as a planted ornamental in some areas of the country.	perennial	forb/herb	seed
<i>Sasa palmata</i>	broadleaf bamboo	No description.	perennial	shrub, forb/herb	rhizomes, few low vigor seeds
<i>Salsola tragus</i>	prickly Russian thistle	Found in disturbed sites, rocky slopes, and flats, frequently occurring on clay soils.	annual	forb/herb	seed
<i>Secale cereal</i>	cereal rye	Found along established roadsides, waste places and open rangeland.	annual biennial	grass	seed
<i>Senecio jacobaea</i>	tansy ragwort	Invades cut-over forest lands, irrigated and non-irrigated pastures, woodland pastures, and fallow lands. Although it prefers light, well-drained soils in cool, moist climates and rarely is tolerant of high water tables or acidic soils, it can grow in most soil moisture regimes, even where there are hot, dry summers. It can over-winter in areas where temperatures reach -20°F or lower if there is good snow cover.	perennial	forb/herb	seed

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SCIENTIFIC NAME	COMMON NAME	HABITAT PREFERENCE	LIFE CYCLE	HABIT	MODE OF REPRODUCTION
<i>Sonchus arvensis</i>	field sowthistle	Adapted to many soil types and moisture regimes, seems to prefer low, fine-textured soils, like loams, and does better under alkaline or neutral conditions.	perennial	forb/herb	seed and creeping roots
<i>Solanum dulcamara</i>	climbing nightshade	Typically found growing in moist waste areas, fence rows, drainage ditches and waterways, and may form large colonies or thickets. Also becomes established in orchards, vineyards and residential landscapes.	perennial	subshrub, forb/herb	seed, spreading stems
<i>Solanum elaeagnifolium</i>	silverleaf nightshade	Found in disturbed sites such as fallow fields, gardens, and vacant areas, especially those with sandy soil.	perennial	forb/herb	seed and rhizomes
<i>Taeniatherum caput-medusae</i>	medusahead	Areas most susceptible to invasion by medusahead are soils with high clay content, well-developed profiles, and those receiving run-off from infested areas (The Nature Conservancy 1988). Medusahead is displacing cheat grass on more mesic sites.	annual	grass	seed
<i>Tanacetum parthenium</i>	feverfew	Found in mountain scrub, rocky slopes, walls, waste places and gardens, but avoids acid soils.	perennial	forb/herb	seed
<i>Tanacetum vulgare</i>	common tansy	Prefers full sun and well-drained but moist soils and is prevalent along ditches, creeks, and roadways. Commonly occurs in disturbed areas at low elevations.	perennial	forb/herb	seed
<i>Tribulus terrestris</i>	puncturevine	Grows on disturbed sites where it needs relatively high temperatures for germination and growth. Adapted to a wide range of soil conditions.	perennial	forb/herb	seed

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SCIENTIFIC NAME	COMMON NAME	HABITAT PREFERENCE	LIFE CYCLE	HABIT	MODE OF REPRODUCTION
<i>Ulex europaeus</i>	common gorse	Found along coastal areas of Oregon and Washington, often in upper elevation pasture land.	perennial	shrub	seed (viable for up to 30 years)
<i>Urtica dioica</i>	stinging nettle	Grows in shaded moist areas along streams, or in deep, rich, undisturbed soils. Difficult to distinguish from the native species of <i>Urtica</i> .	perennial	forb/herb	seed
<i>Ventenata dubia</i>	North Africa grass	Occurs in grain crops, rangeland and disturbed sites.	perennial	grass	seed
<i>Verbascum thapsus</i>	common mullein	Natural meadows and forest openings, where it adapts easily to a wide variety of site conditions. Prefers, but is not limited to, dry sandy soils. It is shade intolerant. Primarily a weed of pastures, hay fields, roadsides, rights-of-way, and abandoned areas.	biennial	forb/herb	seed (one plant can produce 100,000 to 180,00 seeds with viability up to 100 years)
<i>Vinca major</i>	bigleaf periwinkle	Grows most vigorously in moist soil with only partial sun, "but it will grow in the deepest shade, even in poor soil" (Bailey 1914). It is liable to cold damage during hard winters (Steam 1973). Hot, dry weather will cause it to die back. It is most frequently found as an escape in moist rich soils bordering gardens, lawns, roadsides, cemeteries, and shaded waste places, in localities where it has been planted extensively as ground cover (Muenscher 1955).	perennial	vine, subshrub	Seed, trailing and freely rooting branches