Invasive Plants
Item 10

OBJECTIVE: Monitor infestations of leafy spurge, dalmatian toadflax, goatweed and knapweed.

DATA SOURCE: Inventory of infestations.

FREQUENCY: 100% every three years.

VARIABILITY: Increase in area infested.

REPORTING PERIOD: 2014, 2015

EVALUATION:

As in previous years, the Forest monitored for all known and suspected invasive plant species, not just the four species identified for monitoring in the Forest Plan.

The objective for invasive plant control on the Forest is a coordinated and effective Integrated Pest Management (IPM) program. Prevention of new invaders through education and awareness, quick eradication of new invaders, and protection of weed-free areas remain high priorities. The Forest has expanded its invasive plant awareness, education, and prevention efforts. The control components of the IPM approach include chemical, manual, and biological measures which are used singly or in combination.

MONITORING RESULTS:

Noxious Weed Treatment Record of Decision

The 2003 Forest Noxious Weed Treatment Project Record of Decision identified new expanded objectives for the Forest and provided a road map for achieving those objectives. It emphasized application of the progressive principles of Integrated Pest Management. The Selway Bitterroot Wilderness Invasive Plant Management Project Record of Decision was signed in the fall of 2009 and allowed invasive plant treatments to begin in wilderness areas that had never been treated before. Table 1 below summarizes the key invasive plant activities that occurred on the Forest in 2014 and 2015.

Table 1 - Program Highlights

Project	Description
1) Backcountry contract – Frank Church Wilderness	On-going backcountry treatment, mapping, and monitoring project for new invaders and expanding established invaders on trails and remote areas including the FCRNR Wilderness, west side canyon trails, and at-risk grassland sites. Treatments to continue through 2016. New infestations of rush skeletonweed were found in the Gold Pan and Kim Creek drainages.
2) Backcountry contract – Selway Bitterroot Wilderness	On-going contract for the Selway-Bitterroot Wilderness and surrounding back country includes Inventory, treatment and monitoring. It continues through 2016.
3) Participating Agreement between Ravalli County and Bitterroot Forest	The Forest continually contributes funds to the existing agreement(s) that implement an integrated invasives strategy including: cooperative treatment of high priority invasive plants such as leafy spurge, Dalmatian toadflax, hawkweeds, common bugloss and rush skeletonweed across Forest / private land boundaries; biological control release and monitoring with the Victor and Darby schools science departments; mapping of new invaders; and improving and delivering invasive weed education to groups in the county. The agreements included regular appropriations and special funding.

Project	Description
4) Resource Advisory Committee (RAC)	A new RAC project received funds for mapping and treatment of rush skeletonweed on and off the Forest.
5) Resource Advisory Committee (RAC)	Ongoing 2014-2015 RAC project for treatment and monitoring of Dalmatian Toadflax on and off the forest.
6) Participating Agreement with Montana Conservation Corps	On-going 2013-2017 agreement for mapping and treatment work in remote areas and trails on the Bitterroot Forest. The program also promotes education and training for the participants about invasive plants.
7) General Invasive Plant Education and Training	a) Wilderness Rangers inspect and enforce weed-free feed/hay requirements in the backcountry throughout the field and hunting seasons. In addition, they inform users about best practices to prevent the increase and spread of invasive weeds. b) Invasive plant awareness and prevention is a major theme in the conservation education program. The Forest continued to develop working relationships with groups like the Bitterroot Garden Club, county schools, and Backcountry Horsemen. c) Forest and County specialists trained permanent and seasonal employees on each ranger district in the identification of new invaders and in the basic weed prevention measures outlined in the Region One supplement to the Forest Service Manual 2080 (R1 2000-2001-1).
8) Roadside and ATV treatment	On-going multi-year contracts in which numerous weed-vector roads were treated throughout the Forest and selected low relief grassland terrain compatible with ATV treatment for a wide variety of invasive plant species.
9) Biocontrol Program	This program involves: releasing biological control insects for several target invasive plant species at priority sites; recording the GPS locations of the release sites; and pre / post release measurements of plant community features and insect establishment.
10) Post-treatment Plant Monitoring	Grassland plant trend plots were reread on Reimel and Sula Peak aerial treatments in 2015.
11) BAER program	In 2014, funds were provided for treatment and monitoring for the Gold Pan Fire. Work was completed in 2015.
12) NRIS Database	On-going entry of newly found weed sites in the NRIS database. This database serves the purpose of allowing the quick generation of maps by species and location of invasive weeds. The database allows the program manager to target work objectives and timing for maximum effect and efficiency.
13) Continental Divide Barrier Zone Project	Agencies located along and near the Continental Divide continued joint efforts to determine and stop spread of new invaders from one side of the Divide to the other.

Noxious Weed Inventory and Mapping

The species listed in table 2 are listed as Priority 1A, 1B, 2A, 2B and 3 noxious weed species in the State of Montana. Priority 1A weeds are not present in Montana. Management criteria will require eradication if detected, education and prevention. Priority 1B weeds have limited presence in Montana. Management criteria will require eradication or containment and education. Priority 2A weeds are common in isolated areas of Montana. Management criteria will require eradication or containment where less abundant. Management shall be prioritized by local weed districts. Priority 2B weeds are abundant in Montana and widespread in many counties. Management criteria will require eradication or containment where less abundant. Management shall be prioritized by local weed districts. Priority 3 weeds are not Montana listed noxious weeds. These regulated plants have the potential to have significant negative impacts. The plant may not be intentionally spread or sold other than as a contaminant in agricultural products. The state recommends research, education and prevention to minimize the spread of the regulated plant. In Idaho there are three categories of weeds. They are EDRR; early detection, rapid response; control and containment.

Table 2 - Noxious Weed Infestation Information

Montana Priority	Idaho List	Scientific Name	Common Name	FY 2015 Inventory Acres
1A	Contain	*Centaurea solstitialis*	Yellow starthistle	0.2
	EDRR	*Egeria densa*	Brazilian Elodea	0
	EDRR	*Hydrcharis morsus-ranae*	Common/European Frogbit	0
	EDRR	*Cobomba caroliniana*	Fanwort	0
	EDRR	*Azolla pinnata*	Feathered Mosquito Fern	0
	EDRR	*Heracleum mantegazzianum*	Giant Hogweed	0
	EDRR	*Salvinia molesta*	Giant Salvinia	0
	EDRR	*Impatiens glandulifera*	Policeman's Helmet	0
	EDRR	*Centaurea triumfetti*	Squarrose Knapweed	0
	EDRR	*Zygophyllum fabago*	Syrian Beancaper	0
	EDRR	*Hieracium piloselloides*	Tall Hawkweed	0
	EDRR	*Myriophyllum heterophyllum*	Variable-Leaf-Milfoil	0
	EDRR	*Trapa natans*	Water Chestnut	0
	EDRR	*Hieracium glomeratum*	Yellow Devil Hawkweed	0
	EDRR	*Nymphoides pelata*	Yellow Floating Heart	0
1B	Control	*Isatis tinctoria*	Dyer's woad	0
1B	Contain	*Butomus umbellatus*	Flowering rush	0
1B	Control	*Polygonum cuspidatum*	Japanese knotweed complex	.003
1B	Contain	*Lythrum spp.*	Purple loosestrife	0
1B	Contain	*Chondrilla juncea*	Rush skeletonweed	131
1B	Control	*Myriophyllum spicatum*	Eurasian watermilfoil	0
1B	Control	*Cytisus scoparius*	Scotch broom	.01
1B	Contain	*Potamogeton crispus*	Curlyleaf pondweed	0
	Control	*Hyoscyamus niger*	Black Henbane	1
	Control	*Polygonum bohemicum*	Bohemian Knotweed	0
	Control	*Solanum rostratum*	Buffalobur	0
	Control	*Crupina vulgaris*	Common Crupina	0
	Control	*Phragmites australis*	Common Reed (Phragmites)	0
	Co**ntro**l	*Polygonum sachalinense*	Giant Knotweed	0
	Control	*Sorghum halepense*	Johnsongrass	0
	Control	*Nardus stricta*	Matgrass	0
	Control	*Centaurea debeauxii*	Meadow Knapweed	0
	Control	*Salvia aethiopis*	Mediterranean Sage	0
	Control	*Carduus nutans*	Musk Thistle	315
	Control	*Myriophyllum aquaticum*	Parrotfeather Milfoil	0
	Control	*Sonchus arvensis*	Perennial Sowthistle	0
2A	Contain	*Senecio jacobaea*	Tansy ragwort	0
2A	Control	*Hieracium caespitosum*	Meadow/yellow hawkweed	29
2A	Control	*Hieracium aurantiacum*	Orange hawkweed	27
2A		*Ranunculus acris*	Tall buttercup	524
2A	Contain	*Lepidium latifolium*	Perennial pepperweed	0
2A	Contain	*Iris pseudacorus*	Yellowflag iris	0
2A	Control	*Echium vulgare*	Blueweed (Vipers Bugloss)	11
	Control	*Anchusa arvensis*	Small Bugloss	.07
2A	Contain	*Berteroa incana*	Hoary alyssum	53
2B	Contain	*Cirsium arvense*	Canada thistle	1,145
2B	Contain	*Convolvulus arvensis*	Field bindweed	0

Montana Priority	Idaho List	Scientific Name	Common Name	FY 2015 Inventory Acres
2B	Contain	*Euphorbia esula*	Leafy spurge	121
2B	Contain	*Cardaria draba*	White top	1
2B	Control	*Centaurea repens*	Russian knapweed	0
2B	Contain	*Centaurea bierbersteinii* *	Spotted knapweed *	274,000*
2B	Contain	*Centaurea diffusa*	Diffuse knapweed	.06
2B	Contain	*Linaria dalmatica*	Dalmatian toadflax	103
2B		*Hypericum perforatum*	St. Johnswort	1,647
2B		*Potentilla recta*	Sulfur cinquefoil	1,260
2B		*Tanacetum vulgare*	Common tansy	517
2B	Contain	*Chrysanthemum leucanthemum*	Oxeye daisy	5,204
2B	Contain	*Cynoglossum officinale*	Houndstongue	2,450
2B	Contain	*Linaria vulgaris*	Yellow toadflax	17
2B	Contain	*Tamarix spp.*	Saltcedar	0
	Contain	*Aegilpos cylindrica*	Jointed Goatgrass	0
	Contain	*Milium vernale*	Milium	0
	Contain	*Carduus acanthoides*	Plumeless Thistle	0
	Contain	*Conium maculatum*	Poison Hemlock	17
	Contain	*Tribulus terrestris*	Puncturevine	0
	Contain	*Onopordum acanthium*	Scotch Thistle	0
	Contain	*Bryonia alba*	White Bryony	0
3		*Bromus tectorum**	Cheatgrass*	10,031
3	EDRR	*Hydrilla verticillata*	Hydrilla	0
3		*Elaeagnus angustifolia*	Russian olive	0

*****Estimated acres as these species are found profusely throughout the Forest and have not been a priority for inventory.

Control Efforts

The Forest monitored, gridded and treated with herbicides approximately 11,250 acres of invasive plants in 2014 and 5,173 acres in 2015. All treatments complied with the environmental protection measures itemized in Table 14 of the 2003 Noxious Weed Treatment Project Record of Decision, the Selway Bitterroot Wilderness Invasive Plant Management Project Record of Decision and the Record of Decision for the Frank Church-River of No Return Wilderness Noxious Weed Treatment Final Supplemental Environmental Impact Statement.

Yellow starthistle: Years ago, a small infestation was located along the Selway road, between Paradise and the Magruder crossing and was treated and mapped. One plant was found in 2004 and again treated but none has been found since.

Knotweed complex: A couple of knotweed plants have been found in landscaping around the government housing at both Darby and Sula districts. These plants have been treated and none have been found since.

Rush skeletonweed: One new plant was found at the existing Deer Creek infestation in 2015. No new plants were found in the Coal Creek drainage just a couple of miles from the 2006 Deer/Chicken Creek infestation. The site located at Fawn Ridge has received steady attention with chemical treatment since its discovery. The known site, treated in past years, is contained at 24 acres and appears to be diminishing in size. The Rush Skeletonweed polygons along the Dwyer/Smith trail were treated on the multi-year backcountry contract. Existing sites are slowly diminishing in size due to the use of Milestone and surfactant, but new sites have been found near these over the years. Four new sites were found on Black Creek and Ridge areas in 2015. In the Fall of 2015, five new infestations were also found in the Kim Creek, Gold Pan and Buck Knob areas of the Upper Selway where the Gold Pan fire burned in 2013.

Scotch broom: In 2003 one plant was found along the roadside near the main Lake Como campground. The plant was dug up, the site treated and no plants have been found since.

Black Henbane: A few plants have been found northeast of Critter Crossing in the Medicine Tree area that have been treated. There is a great deal of it on private adjacent to the forest boundary.

Musk thistle: Commonly found on disturbed sites such as timber sale landing area. A biocontrol weevil moves on its own to most of these areas so large patches are not usually found. This plant is listed as noxious in Idaho but not Montana.

Hawkweed complex: Yellow hawkweed was found in the Martin Creek area a number of years ago. It was treated and not seen again until 2011. An infestation of Orange Hawkweed was found off the Skalkaho Rye road that same year and treated with milestone. In 2013, a large mixed infestation of orange and meadow hawkweed was found off of several East Fork roads and was treated with Milestone herbicide. A few other small infestations have been found across the forest in the past few years. Monitoring and treatment of all sites continues annually.

Tall buttercup: Found mostly on the Westside canyons and in some meadows. It responds well to Milestone herbicide treatment.

Blueweed: The first known infestations of blueweed on the Forest were found in McCoy Creek. Since that time several more small patches have been found in the North Fork of Rye Creek, Harlan Gulch, Deer Mountain areas and one plant on the Two Bear road north of Sleeping Child Creek. All sites have been sprayed with metsulfuronmethyl and monitored annually.

Small/Common bugloss: One plant was found at the end of a road in the Rocky Knob area and other in the field behind the Supervisors Office. Both plants were pulled and treated and have not been found since.

Hoary alyssum: is a new invader that has exploded over the last few years. It's found mostly along roadsides in the valley bottom, but has been found on the Forest around Paradise, a few plants at Magruder pasture and at the bottom of Prospect Ridge in the Frank Church Wilderness. All sites have been treated and are monitored regularly.

Canada thistle: This species has been associated with timber sales and roadside areas. It is typically treated only when found with other weed species. The one-acre patch in Blue Joint Meadows continues to be monitored and treated when necessary.

Leafy spurge: In past years there were an increasing number of new infestations, however due to diligent spraying over the years, the number of plants at each site has greatly been reduced and no new infestations have been found. The Little Sleeping Child, main Sleeping Child and Skalkaho drainages supports several small infestations that have been receiving treatments—both chemical and biological. Eradication of this weed species continues to be the goal. Apthona beetles are established on these sites. A small new patch was found in 2015 along the road in Stone Creek.

Whitetop: This species occurs in Ravalli County, and has only been identified at one site on the forest. It was treated and repeated monitoring has not turned up any new plants.

Spotted knapweed: Milestone at a rate of 6 ounces of herbicide per acre was used and good containment results are apparent in areas due to the diligent efforts of District spray crews and contractors. Spotted knapweed was treated on most forest trails and roads, and consequently a reduction in occurrence and plant density is resulting from these spray efforts.

Diffuse knapweed: This species was located during field surveys being conducted in the burned areas for sensitive plant populations in 2001. It is a small infestation (0.1 acre) in the Whiskey Gulch area and turned out to be on private land.

Dalmatian toadflax: The largest infestation of this species occurs along the Sweeney Creek road. Smaller infestations have been found in the Gold Creek and Sawmill drainages and is being monitored and treated on a regular basis.

St. Johnswort: Infestations occur along the Magruder Corridor, and along many of the west side canyon trails. The largest infestation is in the Camas Creek area along the road sides. Beetles have been established. Efforts are aimed at keeping this species from becoming widely established in the Selway-Bitterroot Wilderness.

Sulfur cinquefoil: This species has been treated with Milestone and has been found near roads and trails, as well as in areas far removed from roads or trails. It has been commonly associated with knapweed and in some instances has out-competed knapweed.

Common tansy: This species was added to the State of Montana noxious weed list a few years ago. Many roadsides have been treated along with knapweed.

Oxeye daisy: This species is found mostly along roadsides, trails and riparian areas. It typically occurs with spotted knapweed. Treatments are ongoing in an attempt to keep it from spreading off of roads and trails.

Houndstongue: Found along road sides, trail sides, timber sales, and other disturbed areas particularly within grazing allotments. This plant began expanding in 2009 and spray treatments have been expanded in an attempt to reduce spread.

Yellow toadflax: A few small infestation of yellow toadflax have been found on the Forest such as the one located on the Sula Ranger District compound. Yellow toadflax is often found in small patches along the highway and is easier to kill than dalmatian toadflax. It's been treated in all locations on the Forest.

Poison Hemlock: This species is listed in Idaho but not Montana. It is found in the campground at Paradise and has been treated over the last several years. The population is greatly decreased, but still present.

Cheatgrass: It is not formally listed at this time as a noxious weed in Montana. Cheatgrass is an invasive species of annual grass that has demonstrated the ability to form replacement monocultures on sites where effective herbicide (and in a few instances biocontrol) treatment has eliminated a former monoculture of spotted knapweed. This species has shown that, under certain conditions, it can derail the objective of reinstalling a vigorous native plant community.

Table 3 - Roadside Monitoring – Number of Acres Treated

Acres Sprayed	Nez Perce Rd 468	Meadow Creek Rd 725	Gibbons Pass Rd 106	Reimel Creek Rd 272	Tough Creek Rd 5644	Porcupine Saddle Rd 8112	Saddle Mountain Rd 729	Mink Creek Rd 5753	Piquett Creek Rd 5720	Lick Creek Saddle Rd 5771
2000	54	15						13		20
2001										
2002	233	40	12			30	76	12.5	26	
2003	88	80	60	17.5	87					
2004										
2005										
2006										
2007			18							
2008			59							
2009										
2010										
2011										
2012										
2013										
2014		25		41					29	11
2015	45		27	19	8	29	13	25		2

Table 4 – Little Sleeping Child Spurge

Year	Acres Sprayed
1999	8
2000	9.6
2001	15.14
2002	20.5
2003	17
2004	6.5
2005	10.25
2006	11
2007	24
2008	16
2009	15.5
2010	10.5
2011	9.75
2012	2.5
2013	7
2014	4.125
2015	3.25

Biological Control

A former contract, a cooperative working relationship with the Montana State University Agricultural Experiment Station and Ravalli County's Victor and Darby school programs has contributed to the expansion and effectiveness of the biological control program. Although target species for biological agent introductions in the past have been leafy spurge, Canada thistle, and spotted knapweed, in recent years they have only been for spotted knapweed. Table 3 describes the biological control accomplishments for the 2014-2015 seasons.

Table 5 - Biological Control Agent Releases

Agent (species)	Target Weed Spp.	Year Released	Number Released	Acres Treated
Cyphocleonus achates	Spotted knapweed	2014	0	0
Cyphocleonus achates	Spotted knapweed	2015	1850	60

Monitoring of biological control releases is ongoing. Effectiveness and population survival are monitored with the goal of looking at long-term survival. New releases are typically given two years to transition into new environments before monitoring is conducted. Good results are being seen on knapweed where biocontrols have been established in the valley bottoms for many years. Knapweed is difficult to find on many of these sites.

Invasive Plants in Wilderness

A basic weed-monitoring program (visual observations) has been in place for many years along trails and at campsites in the Anaconda-Pintler Wilderness, Selway-Bitterroot Wilderness and the Frank Church River of No Return Wilderness areas. Wilderness rangers have filled out weed location cards and/or have mapped weed locations. Recent observations are summarized below.

Anaconda-Pintler Wilderness: Invasive plants identified in the Anaconda-Pintler Wilderness include knapweed on the East Fork Trail near the trailhead and knapweed, Canada thistle, and tall buttercup in the Kurtz Flat area and beyond Star Falls. The trail and campsites have been treated every few years on a rotation bases.

Selway-Bitterroot Wilderness: An EIS for weed treatment in the Selway Bitterroot Wilderness (SBW) was completed in the fall of 2009 allowing treatment for Idaho trails as well as the Montana trails formerly analyzed in the 2003 Forest EIS. Weed treatments in the White Cap and Canyon Creek drainages were done in 2010. In

2011 a backcountry contract was let for treatment and inventory of all trails in the SBW. By 2013, all trails in the wilderness had been inventoried, and initial treatments started. The contract is ongoing through 2016.

Invasive plants identified along trails leading directly into the SBW include:

- Ø Knapweed -present for many years along trail corridors, sometimes in isolated patches. Also present on south facing slopes some distance above the trail especially along the Kootenai, Bass and Big Creek drainages as well as Indian Creek and all trails out of Paradise in Idaho. South facing slopes along the west side canyons have been treated with good results and greatly reduced the populations to a few scattered plants.
- Ø Canada Thistle -found in small patches trailside.
- Ø Tall Buttercup - found scattered in trace amounts on most trails on the west side of the Bitterroot Valley.
- Ø Common Tansy-found in trace amounts along Bass Creek Trail growing in trailside clumps.
- Ø Sulfur Cinquefoil- found in similar habitat to knapweed. It is not limited to the trailside, but tends to run up the hillside. It is found on many of the trails out of Paradise.
- Ø St. Johnswort – found along Sweathouse Trail before the wilderness boundary and in an isolated 1/2 acre patch in the South Fork of Sweeney Creek as well as White Cap trail out of Paradise.
- Ø Oxeye Daisy -Scattered trailside plants.

Visual observations by a wilderness ranger of efforts to spot spray knapweed along trails indicates that the canopy coverage of knapweed has been reduced by over 95%. Non-target species do not appear to have been affected by spot treatments (dead or wilting plants not observed).

All wilderness trailhead bulletin boards have a sign informing users of weed free feed regulations. Most Wilderness trailheads have noxious weed education posters.

Table 6 – Westside Canyon Treatment Acres

Year	Trail 53 Koot-enai	Trail 11 Big Creek	Trail 5 Bear Creek	Trail 19 Blodgett	Trail 123 Saw-tooth	Trail 124 Roaring Lion	Trail 580 Rock Creek	Trail 96 Tin Cup	Trail 617 Boulder	Trail 699 * Watch-tower	Trail 142* Sheeps-head	Total for Year
2000	0	1.44	1.56	1.25	1.25	0.97	1.19	1.3	1.34	1.38	0.94	12.62
2001												0
2002	1.5	1.3	1	1.2	1	1	2.2	2.1	1.2	2	1.3	15.8
2003	3	1	1.5	0.625	0.5	0.5	1	0.38	0.5	1	2	12.005
2004	1	0.75	1	0.5	0.25	0.375	1	0.5	0.5	22.375	7.75	36
2005	0	0	0	0.5	0	0	1	0.5	0	2.5	1	5.5
2006	0.5	0.5	0.5	0.25	0.5	0.5	1	4	0	4	1	12.75
2007	0.5	0.025	0.5	0	0	0	0	0	0.5	0.5	0.5	2.525
2008	1	1.5	0.31	0.33	0.125	0.125	2.5	0.5	0.25	29	0	35.64
2009	1.6	0.8	1.2	0.08	0.86	0	0.75	0.6	1	8.5	0	15.39
2010	0.25	0	0	0	0.33	0	5	0	0.75	4	0.5	10.83
2011	0.25	0.25	0	0	0	0	0	0.25	0	4	0	4.75
2012	0	0	0.2	0	0	0	0	0	0.5	4.25	0.125	5.075
2013	0	0	0	0	0	0	0	0	0	2	0	2
2014	0	0.5	0	1	0.5	0.5	0	0.5	0.2	0	0	3.2
2015	0	0	0	0	0	0	0	1	0	3	1	5

*Entire drainage treated after 2004 when it was added to the 2003 EIS

Table 7 – Selway Trails Monitoring – Number of Plants in transect

Year		Bad Luck Creek Trail #93	Bad Luck Ridge Trail # 52	Beaver Jack Trail #37	Indian Ridge Trail #10	Nick Wynn Trail #35	Scimitar Trail #36	Selway River Trail #4	Spot Mountain Trail #3	White Cap Trail #24
2011	**Invasives**	25	43	12	39	21	17	22	21	43
	Non-invasives	35	25	33	21	31	52	26	25	20
2012	**Invasives**	0	11	0	13	5	0	0	3	5
	Non-invasives	50	36	34	42	41	62	38	30	37
2013	**Invasives**	4	24	0	13	10	0	0	4	14
	Non-invasives	54	40	36	46	47	69	37	32	31

*Invasives include: spotted knapweed, sulfur cinquefoil, St Johnswort, common mullein and cheatgrass. Non-invasives include forbs, graminoids, shrubs and trees.

Frank Church-River of No Return Wilderness: In 2014, over 1255 acres of spotted knapweed and rush skeletonweed were monitored, gridded and treated in the Frank Church Wilderness. 803 acres were monitored, gridded and treated in 2015. Treatment areas included the Upper Selway Trails, the Salmon River trail from Horse Creek to Lantz Bar and Fawn Ridge and the Prospect to Dwyer Trails as well as Black Creek, Smith Gulch and Corey Bar. New infestations of rush skeletonweed continue to be found in these areas and are treated immediately. Trails between the Elk City road and the Main Salmon River trail were also monitored for invasive plants. Only a few small infestations of spotted knapweed were found in the later area and have been treated to date.

Table 8 – Frank Church River of No Return Invasives Monitoring – Number of Plants in Transect

Year		Fawn Ridge #1	Fawn Ridge #2	Fawn Ridge #6	Elk Horn #2	Elk Horn #3	Prospect Ridge #3	Prospect Ridge #4	Prospect Ridge #5
2007	**Invasives**	15	0	0	0	1	2	2	0
2008	**Invasives**	4	0	0	0	0	0	0	0
2009	**Invasives**	0	0	0	0	0	0	1	0
2010	**Invasives**	1	0	0	1	0	0	0	0
2011	**Invasives**	0	0	10	2	9	1	0	1
2012	**Invasives**								
2013	**Invasives**	3	3				1	0	0
2014	**Invasives**				0	1			
2015	**Invasives**	3	0	9					
	Non-invasives	40	100	64					

*Invasives include spotted knapweed, rush skeletonweed and common mullein. Non-invasives were added to the monitoring in 2015. They include forbs, graminoids and shrubs.