



Clearwater Basin Collaborative

finding solutions

SELWAY-MIDDLE FORK CFLRA PROJECT

WEED MANAGEMENT ASSESSMENT

MIA Consulting

US Forest Service

Idaho County Weed Control

Additional Partners

September 2014

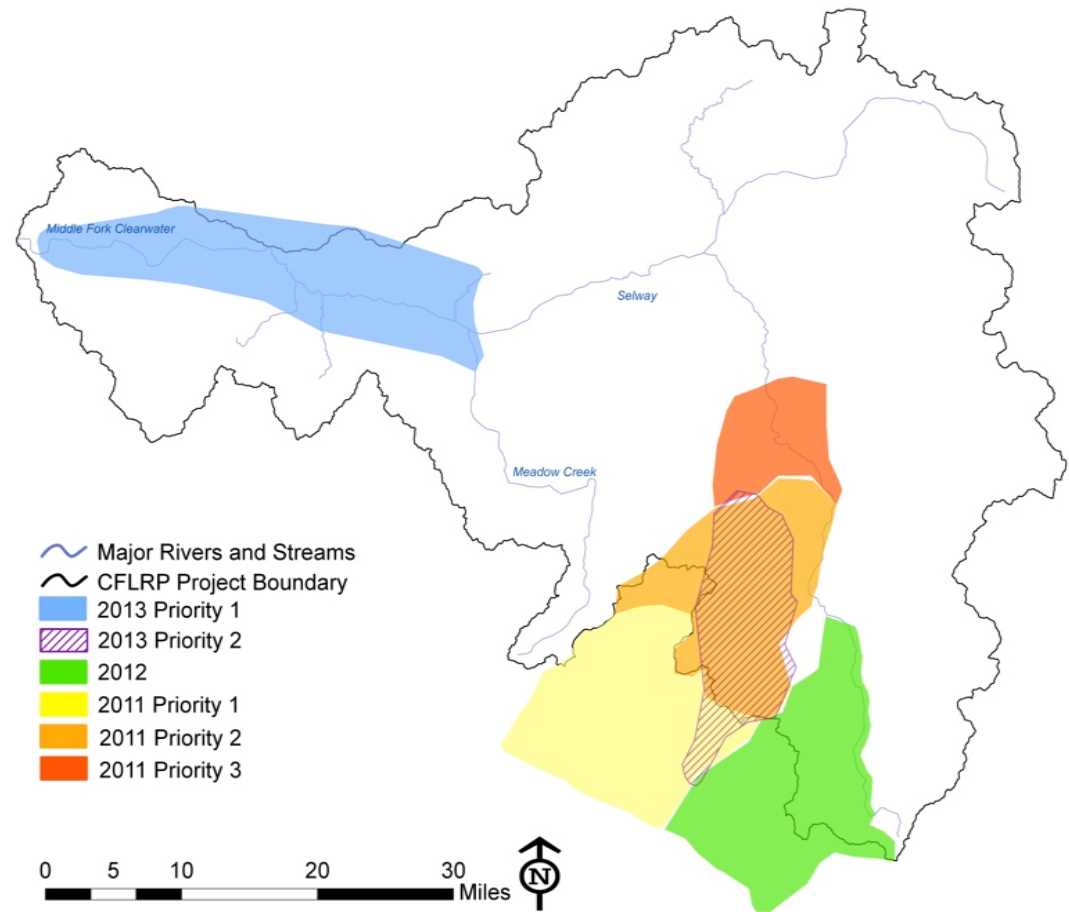
Goals of Assessment

1. Stakeholders
2. Weed management activities undertaken
3. Baseline data:
 - weed species present
 - infestation locations
 - treatment history
 - program expenditures
4. Efficacy and explanations
5. Improvement recommendations

Definitions

- Weed
- Stakeholder
- Weed Management Activities
 1. Inventory
 2. Treatment
 - a. Biological
 - b. Chemical
 - c. Physical
 3. Rehabilitation
 4. Monitoring
 5. Prevention/Education

- USFS:
 - Designated weed crews
 - Timber harvest
 - Road decommissioning/restoration
 - Fire management
- Idaho County Weed Control
- Nez Perce Tribe
 - Watershed Division
 - Biocontrol Center
- Private contractors
- Montana Conservation Corps
- Back Country Horsemen of NCI
- Selway-Bitterroot Frank Church Foundation
- Outfitters/Guides
- Private landowners
- Volunteers



CWMA:

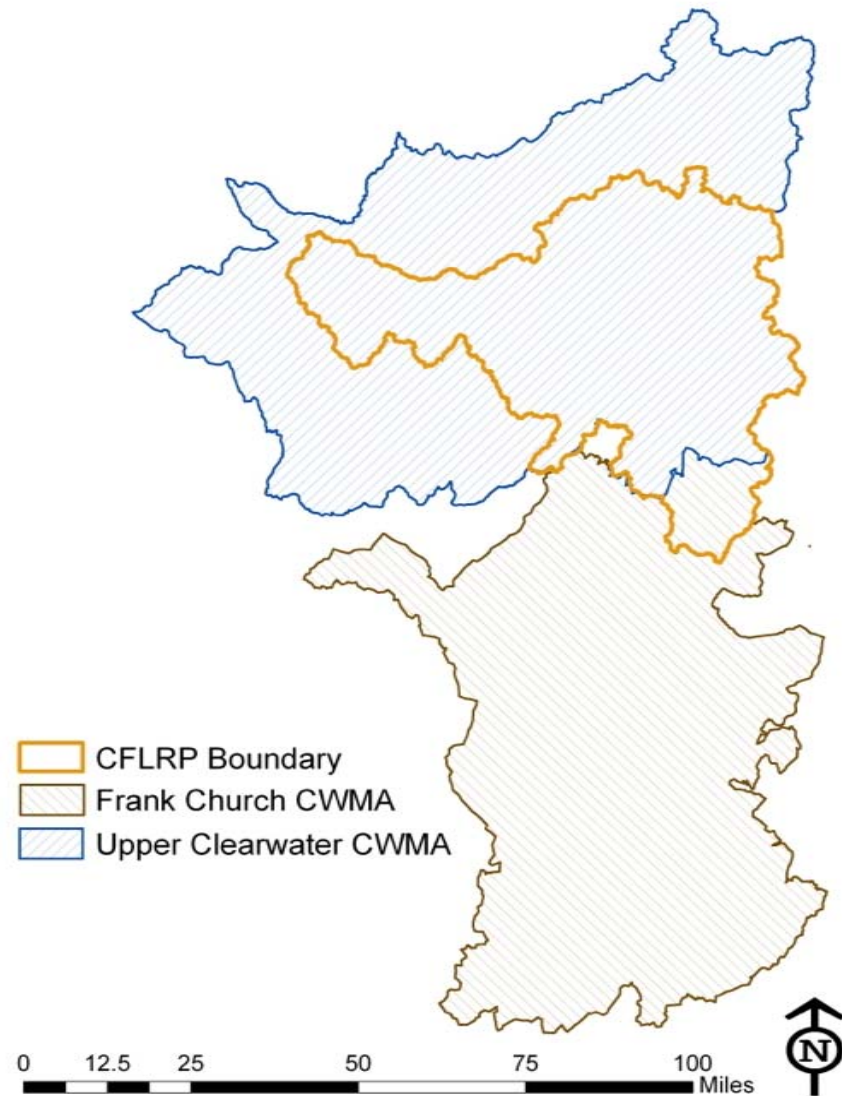
- Upper Clearwater
- Frank Church-River of No Return Wilderness

Treatment Priorities:

1. Eradicate New Invaders
2. Eradicate Satellite Populations
3. Control
4. Contain
5. Reduce

Monitoring Priorities:

- Priorities 1 & 2, visited 3 x per season



Inventory: Weed Species Present

- 48, from 1980-2013

Taxonomic Name	Common Name	Taxonomic Name	Common Name	Taxonomic Name	Common Name
<i>Ailanthus altissima</i>	tree of heaven	<i>Crupina vulgaris</i>	common crupina	<i>Pilosella</i>	hawkweed
<i>Arctium minus</i>	lesser burdock	<i>Cynoglossum officinale</i>	houndstongue	<i>Pilosella aurantiaca</i>	orange hawkweed
<i>Barbarea vulgaris</i>	garden yellowrocket	<i>Cytisus scoparius</i>	Scotch broom	<i>Pilosella caespitosa</i>	meadow hawkweed
<i>Berteroa incana</i>	hoary alyssum	<i>Daucus carota</i>	Queen Anne's lace	<i>Polygonum cuspidatum</i>	Japanese knotweed
<i>Brassica</i>	mustard	<i>Equisetum arvense</i>	field horsetail	<i>Potentilla recta</i>	sulphur cinquefoil
<i>Bromus tectorum</i>	cheatgrass	<i>Euphorbia esula</i>	leafy spurge	<i>Ranunculus acris</i>	tall buttercup
<i>Cardaria draba</i>	whitetop	<i>Galium aparine</i>	bedstraw	<i>Rosa rubiginosa</i>	sweetbriar rose
<i>Carduus acanthoides</i>	spiny plumeless thistle	<i>Hypericum perforatum</i>	St. Johnswort	<i>Rubus armeniacus</i>	Himalayan blackberry
<i>Carduus pycnocephalus</i>	Italian plumeless thistle	<i>Lactuca serriola</i>	prickly lettuce	<i>Sisymbrium altissimum</i>	tall tumbled mustard
<i>Centaurea solstitialis</i>	yellow starthistle	<i>Lathyrus latifolius</i>	perennial pea	<i>Taeniatherum caput-medusae</i>	medusahead
<i>Centaurea stoebe</i>	spotted knapweed	<i>Lepidium latifolium</i>	broadleaved pepperweed	<i>Tanacetum vulgare</i>	common tansy
<i>Chondrilla juncea</i>	rush skeletonweed	<i>Leucanthemum vulgare</i>	oxeye daisy	<i>Taraxacum officinale</i>	dandelion
<i>Cirsium arvense</i>	Canada thistle	<i>Linaria dalmatica</i>	Dalmatian toadflax	<i>Tragopogon dubius</i>	yellow salsify
<i>Cirsium vulgare</i>	bull thistle	<i>Linaria vulgaris</i>	butter and eggs	<i>Trifolium pratense</i>	red clover
<i>Conium maculatum</i>	poison hemlock	<i>Lythrum salicaria</i>	purple loosestrife	<i>Ventenata dubia</i>	ventenata
<i>Convolvulus arvensis</i>	field bindweed	<i>Onopordum acanthium</i>	Scotch thistle	<i>Verbascum thapsus</i>	common mullein

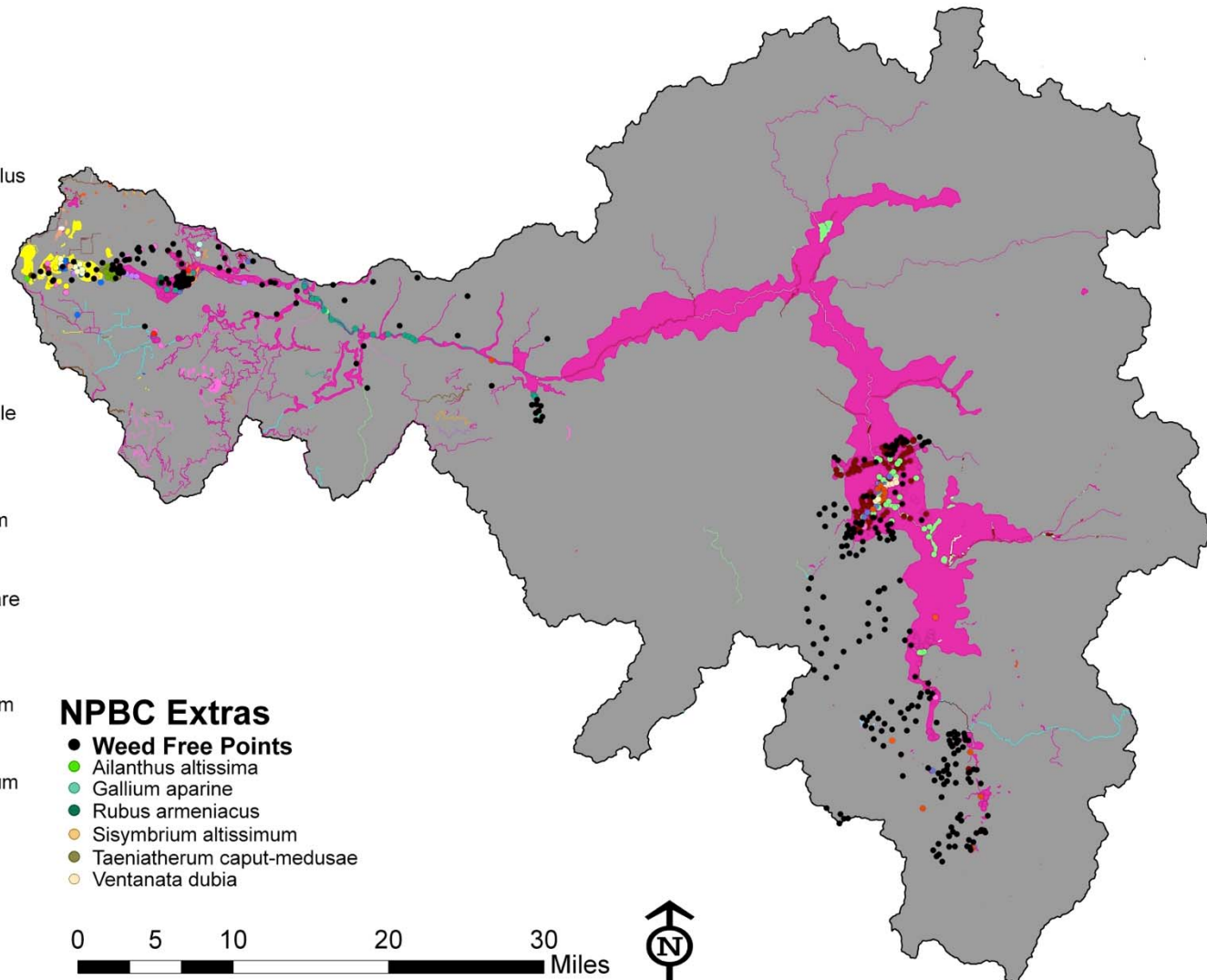
Inventory: Weed Species Present (ever)

FACTS

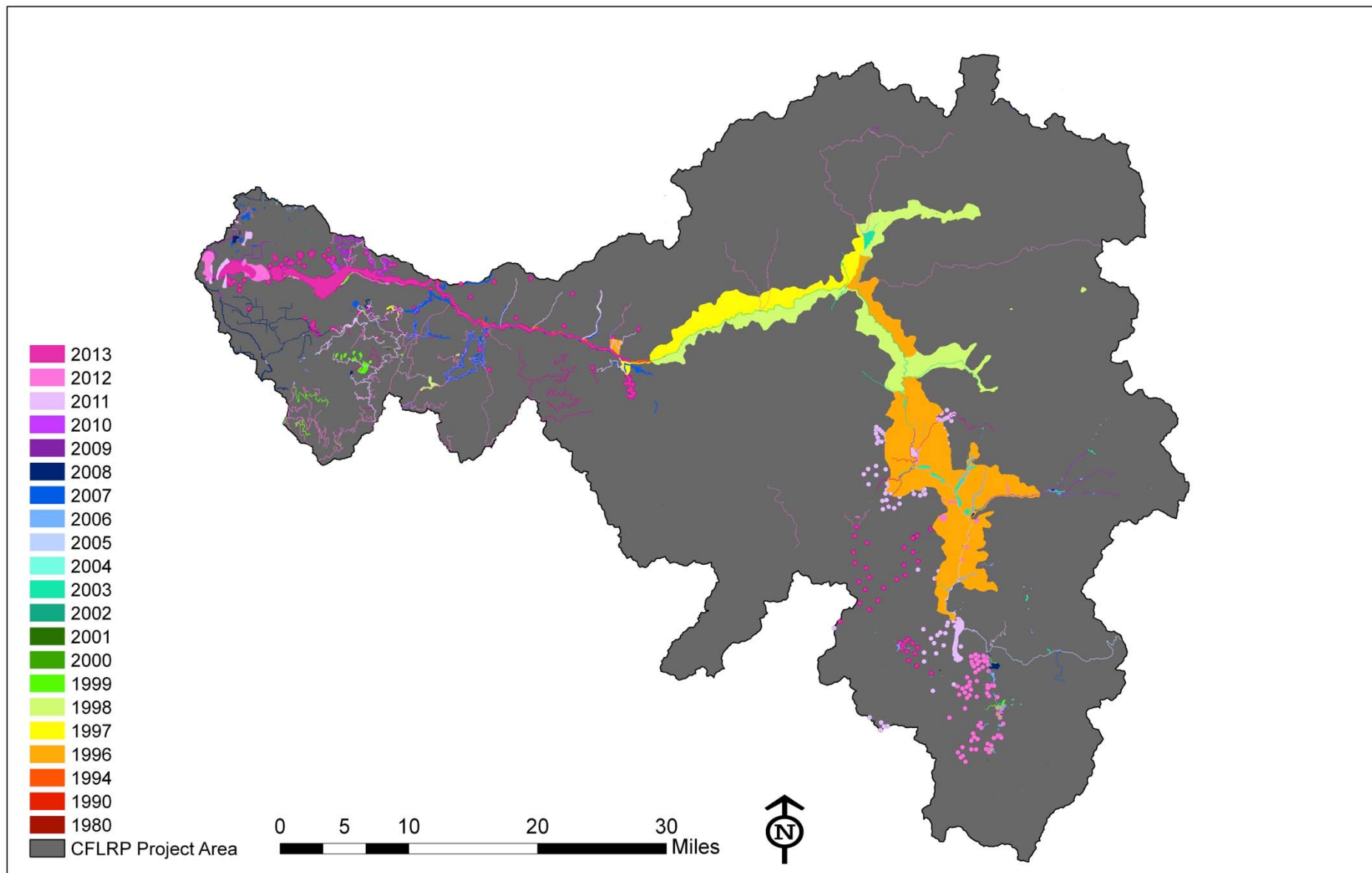
- Arctium minus*
- Barbarea vulgaris*
- Berteroa incana*
- Brassica*
- Bromus tectorum*
- Cardaria draba*
- Carduus acanthoides*
- Carduus pycnocephalus*
- Centaurea solstitialis*
- Centaurea stoebe*
- Chondrilla juncea*
- Cirsium arvense*
- Cirsium vulgare*
- Conium maculatum*
- Convolvulus arvensis*
- Crupina vulgaris*
- Cynoglossum officinale*
- Cytisus scoparius*
- Daucus carota*
- Euphorbia esula*
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- Pilosella aurantiaca*
- Pilosella caespitosa*
- Polygonum cuspidatum*
- Potentilla recta*
- Ranunculus acris*
- Rosa rubiginosa*
- Tanacetum vulgare*
- Trifolium pratense*
- Verbascum thapsus*
- Boundary_SMF*

NPBC Extras

- Weed Free Points**
- Ailanthus altissima*
- Gallium aparine*
- Rubus armeniacus*
- Sisymbrium altissimum*
- Taeniatherum caput-medusae*
- Ventanata dubia*

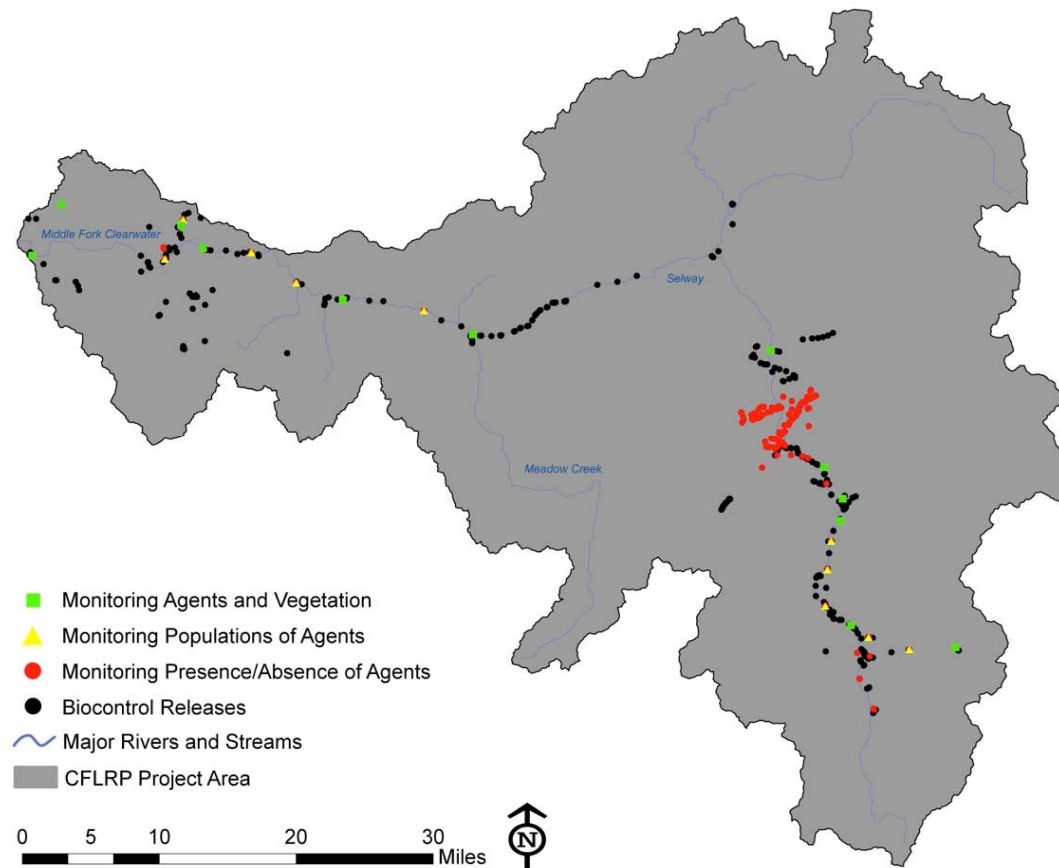


Inventory: Weed Locations, by year



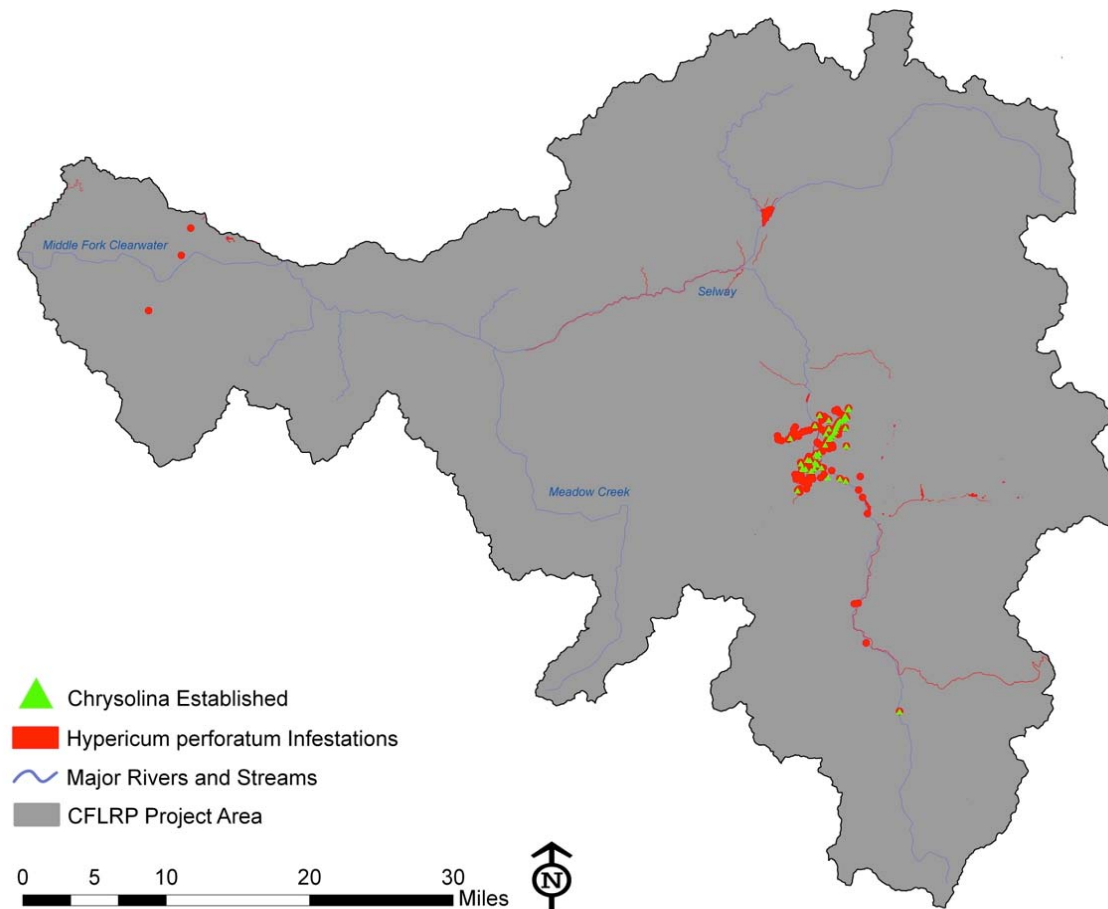
Treatment/Monitoring: Biological

- 399 releases since 1983 (391 targeted spotted knapweed)
- 10 species established



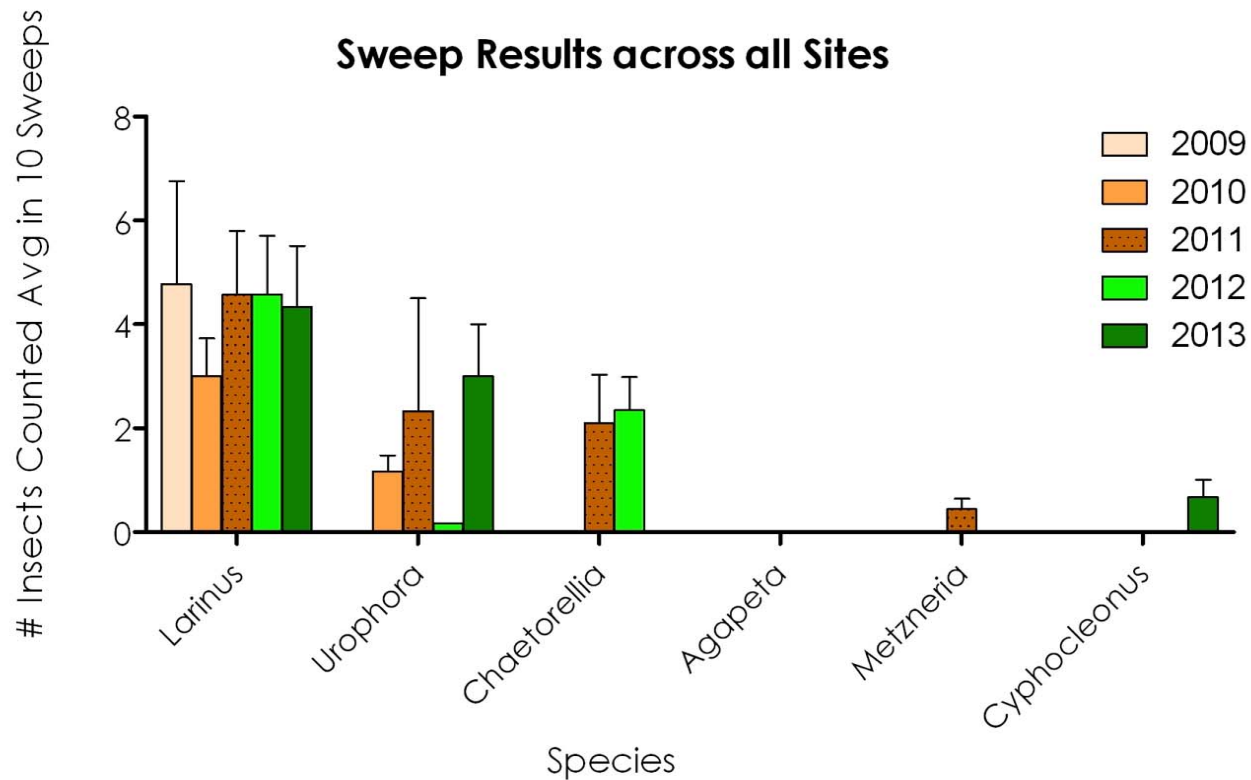
Treatment/Monitoring: Biological

- St. Johnswort and its 2 beetles boom/bust
- Redistributions recommended (open & sunny areas)



Treatment/Monitoring: Biological

- 1 monitoring site: decreased knapweed % cover
- However, insects decreased as well
- 31,095 *Cyphocleonus* since 1994 (7), 36,460 *Larinus* since 1996 (106)

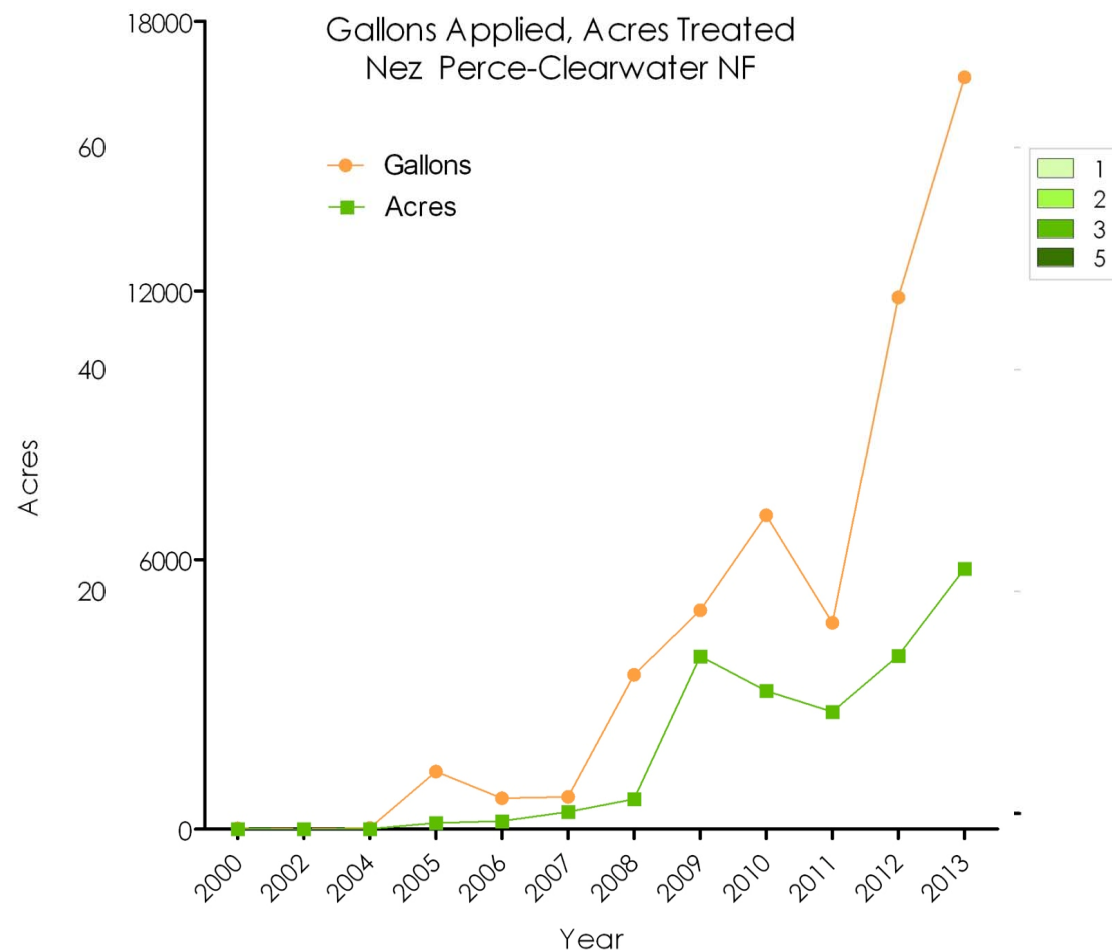


Treatment: Chemical

- FACTS data ~2006 NPCNF, 2007 BNF
- Flexibility in data interpretation between CWMAAs

NPCNF

- 28 species since 2000
- 425 infestations
- Priority 3 infestations most treated
- Herbicides applied and acres treated increasing

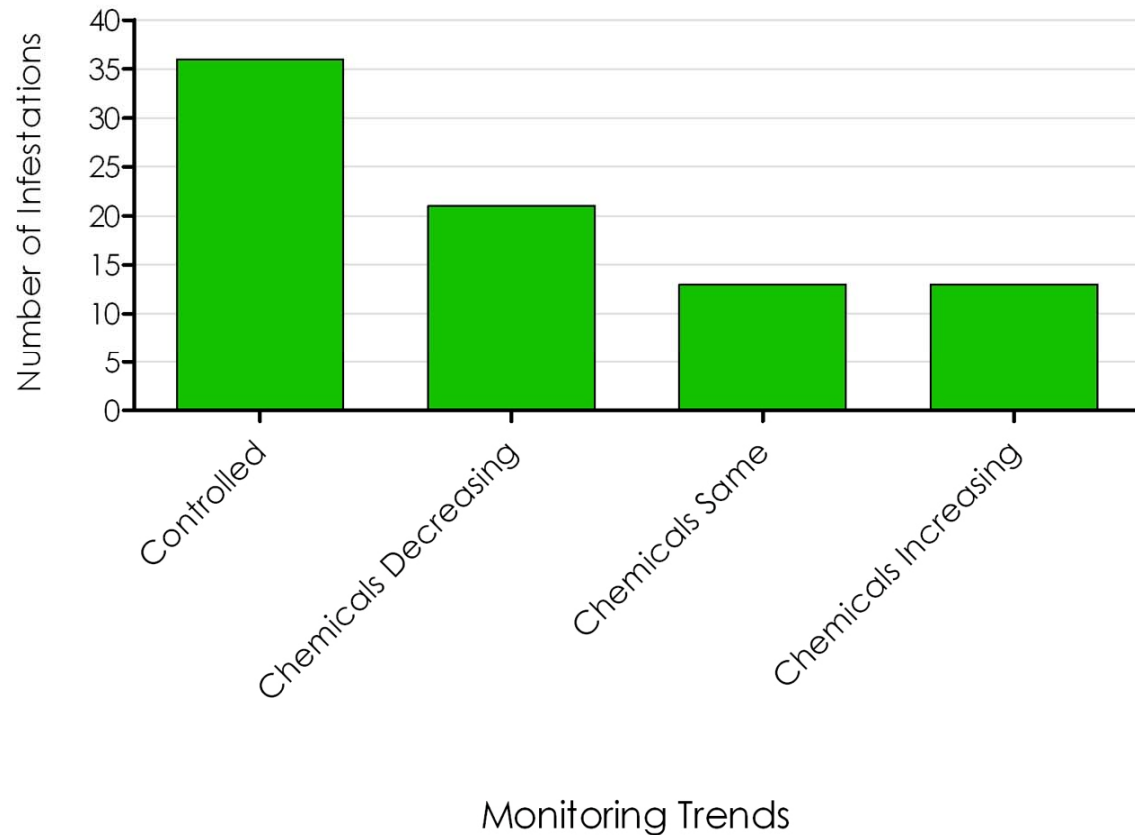


Monitoring: Chemical

NPCNF

- FACTS monitoring ~94%
- ICWC ~82% control
- 113 infestations monitored since 2009
- Of all Priority 1 & 2 infestations treated (100), 10 monitored 3 x in 2013
- 36 sites chemicals decreasing

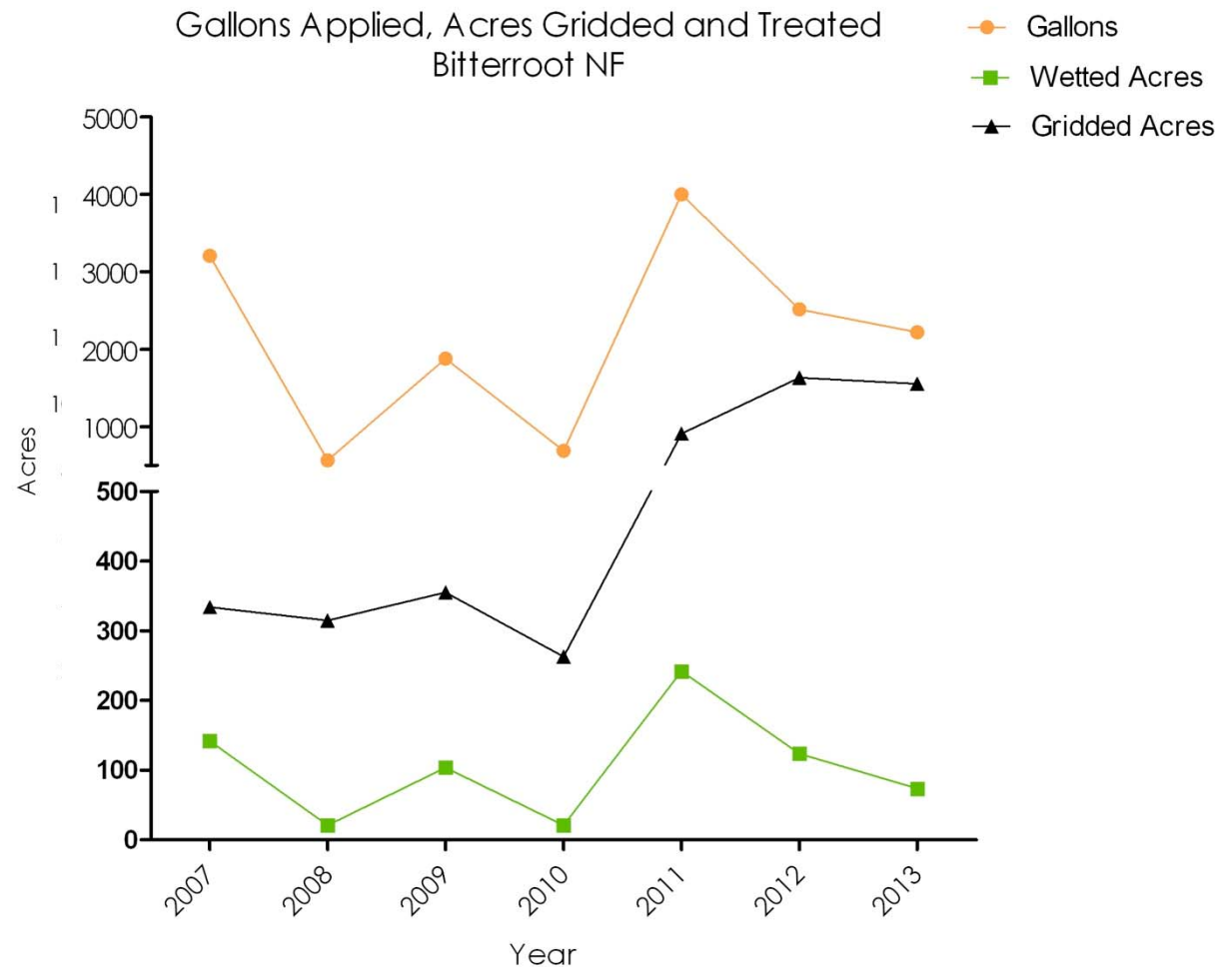
Monitoring and Treatment Trends,
Selected Infestations in Nez Perce-Clearwater NF



Treatment: Chemical

BNF

- 16 species since 2007
- Unable to break down acreage, priority, herbicide applied, spatial location of species
- Gridded vs Wetted
- Herbicides applied and wetted acres both recently decreasing, acres surveyed increasing

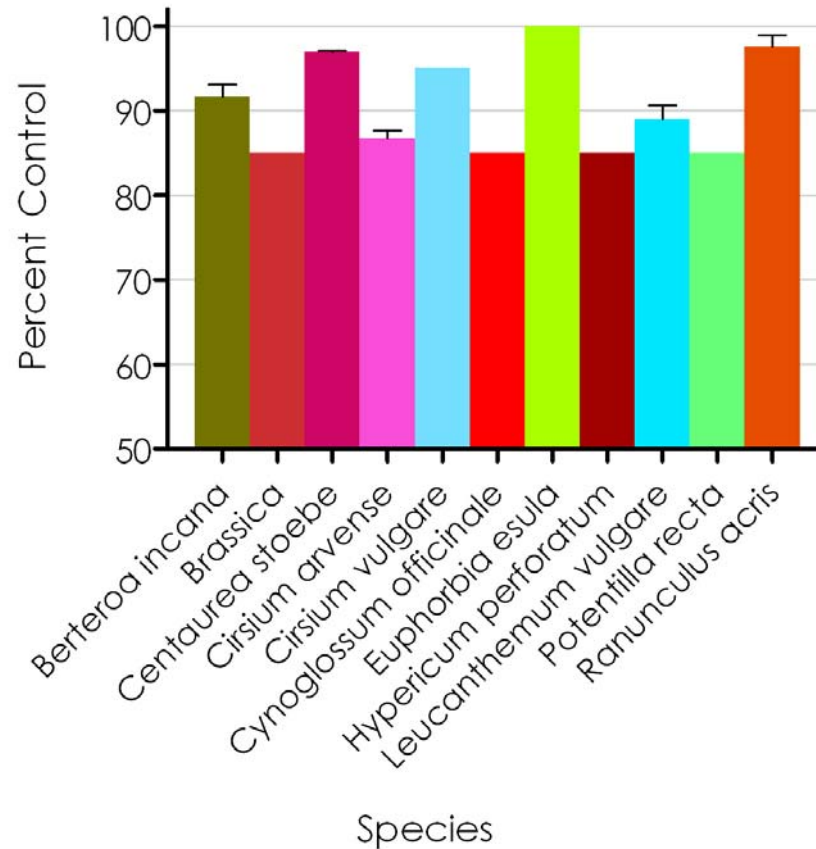


Monitoring: Chemical

BNF

- 279 monitoring visits since 2011
- FACTS monitoring ~94%
- Quantitative monitoring underway

Bitterroot All Monitoring



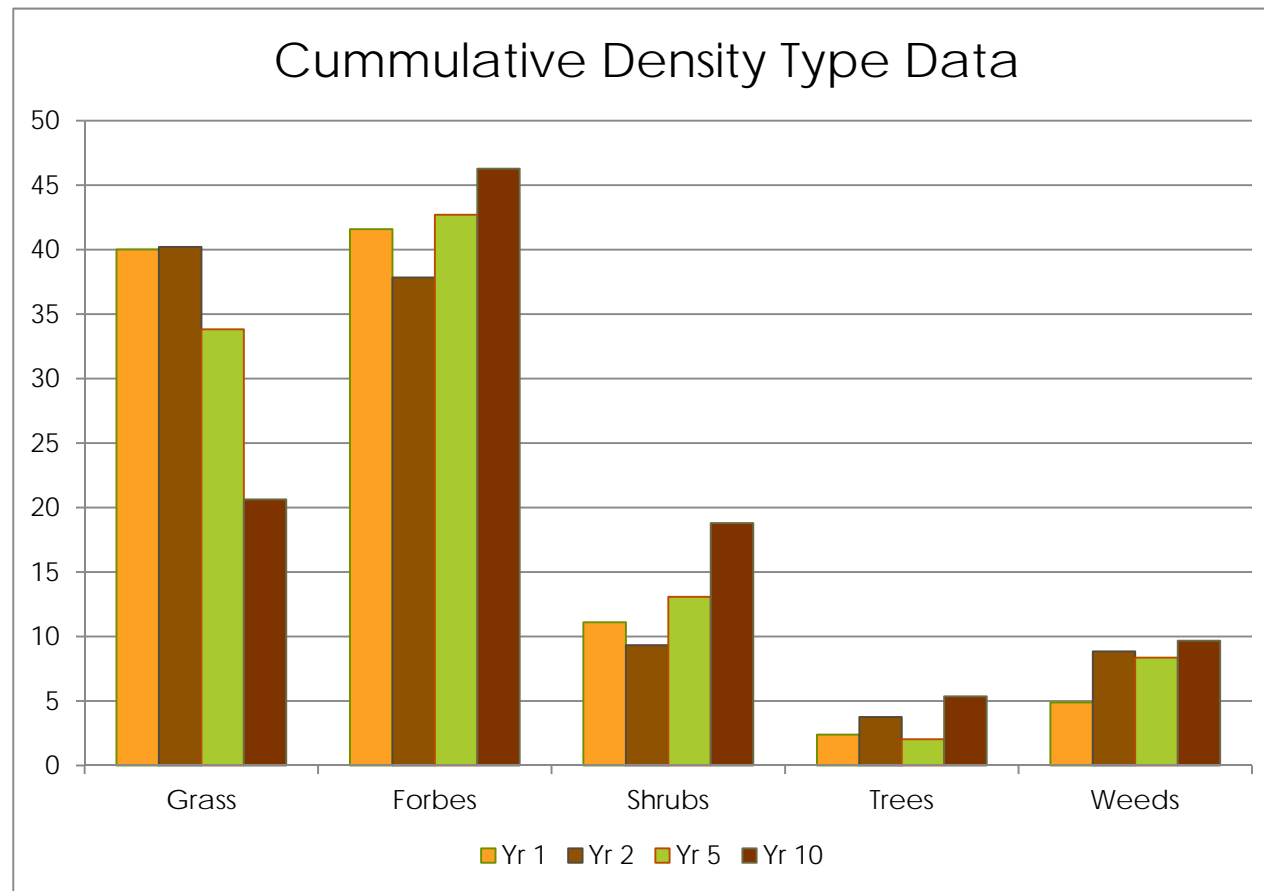
Treatment/Monitoring: Physical

- 1855 acres (12 sites) since 2007, outside NPCNF
- 9 sites monitored each year since 2009
- 4 sites maintain 100% control; 5 fluctuating control



Rehabilitation

- Every 10 miles roadway decommissioned, ¼ mile section monitored
- Vegetation increasing lately, weeds still ~10%




Education/Prevention

- Presentations, dissemination educational material, cleaning equipment, weed-free hay, signs
- Not formally documented, no data available

STOCK GROOMING STATION

GROOM YOUR ANIMALS BEFORE AND AFTER ENTERING PUBLIC LAND AT THESE DESIGNATED SITES. THIS WILL CONSOLIDATE THE AREAS INFESTED BY NOXIOUS WEED SEEDS SPREAD BY RECREATIONAL ACTIVITIES.



When grooming stock focus on:

- Mane
- Tail
- Legs
- Between legs
- Hooves
- Belly

These are the areas where the majority of weed seed will be found and are transferred from location to location.


GROOMING STOCK PROPERLY WILL NOT ONLY BENEFIT PUBLIC LAND BUT WILL ALSO BENEFIT YOUR LAND!!!!

Noxious weeds can reduce grazing capacities for wildlife and livestock by 65%-

What else can I do to prevent the spread of noxious weeds?


- Feed your animals Certified Noxious Weed Free Forage 72 hours prior to entering public land in Montana or Idaho
- Brush the coat and clean the hooves and feet of other animals (dogs, goats, etc.) before, after, and throughout your time recreating
- Before and after your trip, thoroughly power wash your vehicle and undercarriage
- Drive only on established roads (avoid driving through weed infested areas)
- Avoid setting up camps in weed infested areas
- Clean clothing and outdoor recreation equipment thoroughly and often (boots, socks, pants, jackets, waders, saddles, blankets, backpacks, tents, etc.)
- Leave areas in better condition than when you found them (pull up all known noxious weeds)

WEEDS TO WATCH FOR



← HOUNDSTONGUE
Cynoglossum officinale

- The seeds have been credited as the inspiration for velcro
- Has an uncanny ability to disperse its seeds
- Produces reddish-purple flowers
- Oblong leaves are covered in soft white hairs and have deep veins



← YELLOW STARTHISTLE
Centauria solstitialis

- Radiating out from below the yellow flowers are 3/4 inch long, straw-colored spines
- The grayish or bluish-green rigid stems appear to be winged
- Stems and leaves are covered in cottony white hairs
- 2-6 feet tall

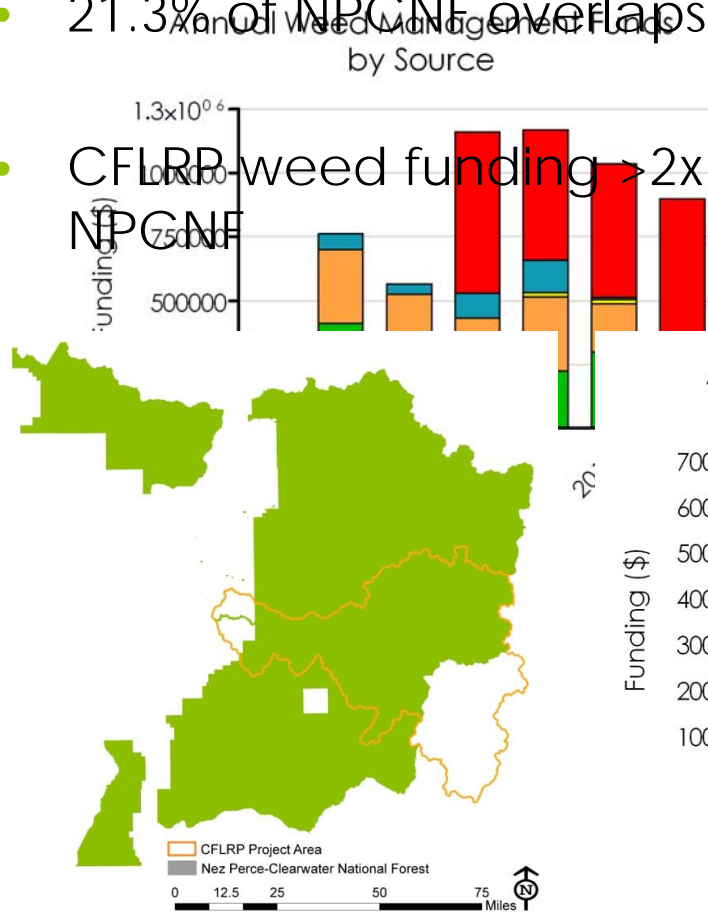
Bitterroot National Forest:
Invasive Species Program
Gil Gale 406-821-3201

Nez Perce and Clearwater National Forest:
Invasive Species Program
John Warofka 208-926-8940

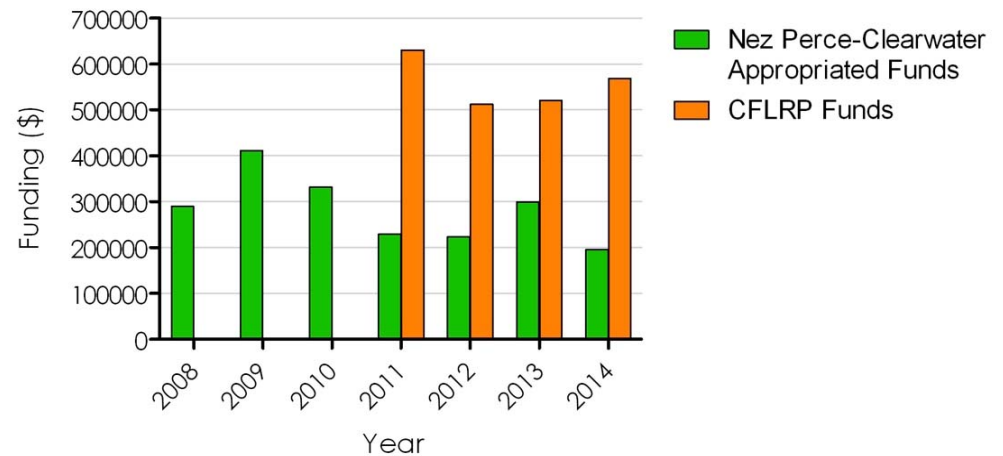
Funding

- Prior to 2010, weed funding in NPCNF from 4 sources
- 21.3% of NPCNF overlaps CFLRP boundary

- CFLRP weed funding > 2x yearly weed budget of entire NPCNF



Annual Weed Management Funds by Source



- Organization Structure
- Accountability
- Funding
- Inventory
- Treatment Data Collection and Entry
- Monitoring
- Training and Coordination



Clearwater Basin Collaborative

finding solutions

Selway-Middle Fork CFLRA Project

Weed Management Assessment