# NATIONAL OUTCOMES & INDICATORS

Selway-Middle Fork CFLRA Project

# Selway-Middle Fork CFLRA

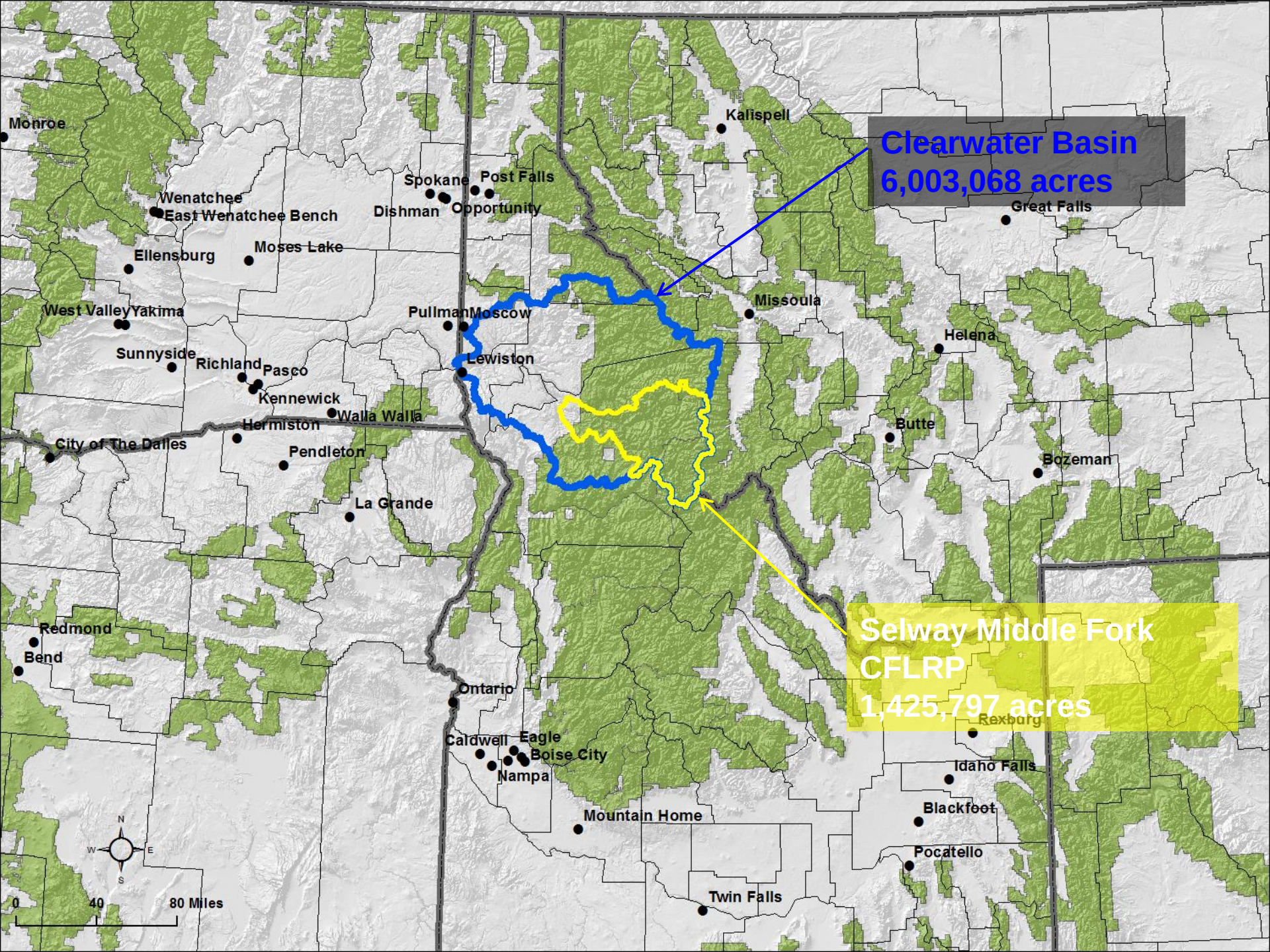
*Clearwater Basin: 6 million acres*

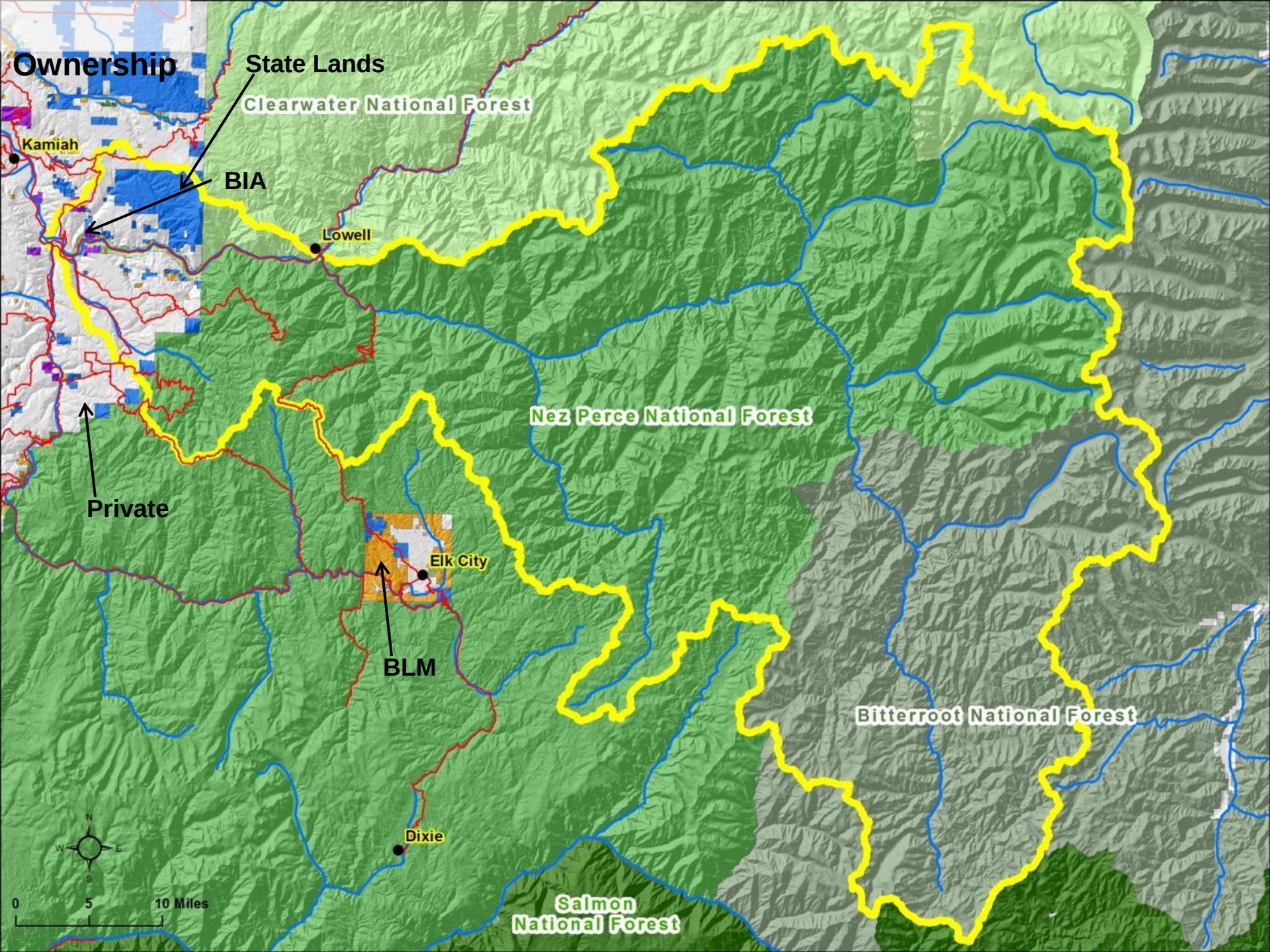
*Total Project Area:  1.4 million acres*

*95% USFS – Nez Perce-Clearwater & Bitterroot NF*

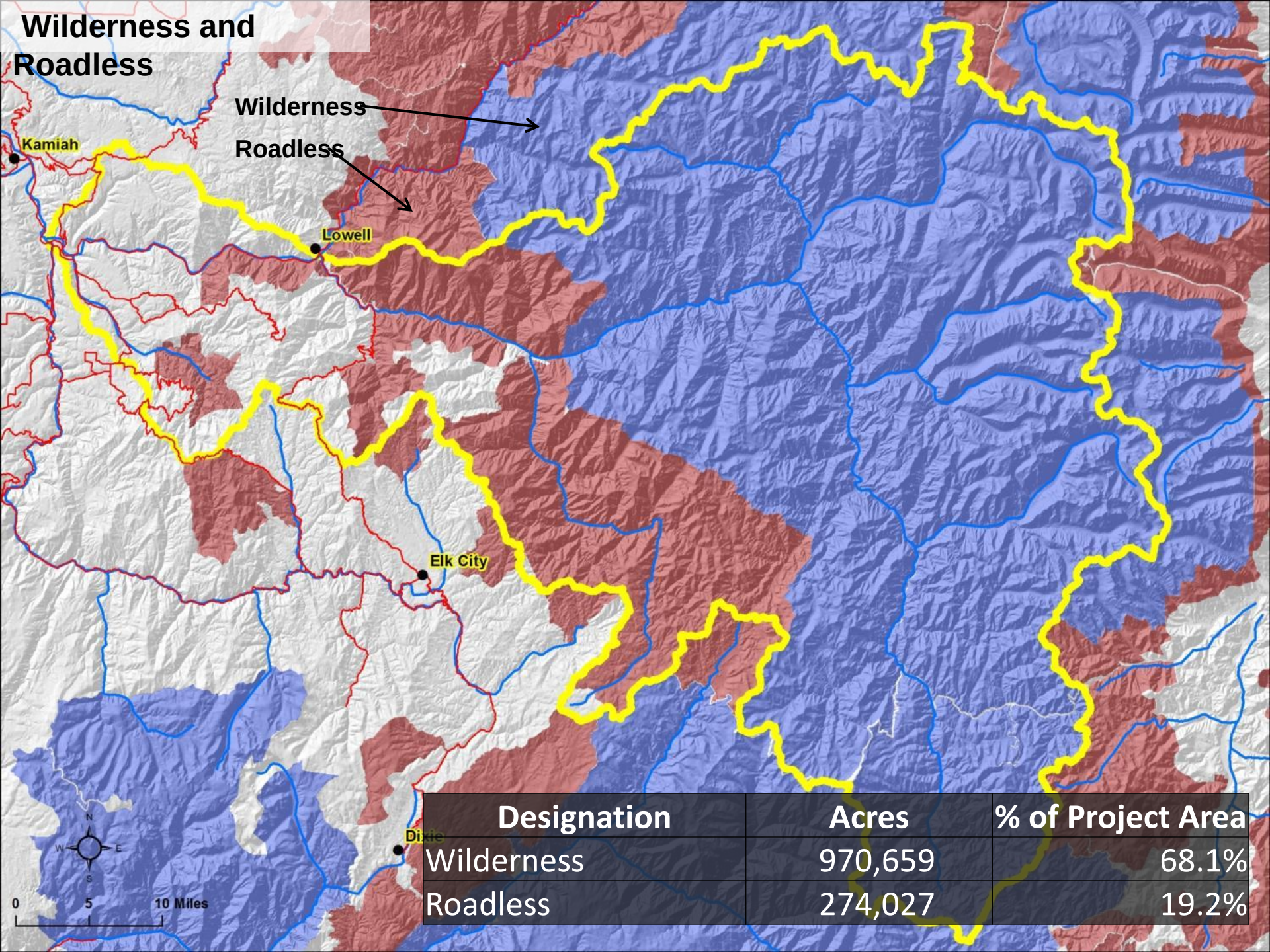
- *Wilderness – approximately 68%*
- *Idaho Roadless – approximately 19%*
- *USFS "Roaded Front" – approximately 13%*

*Remaining 5% – private, State, BIA, BLM, USFWS*


Clearwater Basin
6,003,068 acres
Selway Middle Fork
CFLRP
1,425,797 acres
Monroe
Kalispell
Spokane
Post Falls
Wenatchee
East Wenatchee Bench
Dishman
Opportunity
Great Falls
Ellensburg
Moses Lake
West Valley
Yakima
Pullman
Moscow
Missoula
Helena
Sunnyside
Richland
Pasco
Lewiston
Kennewick
Walla Walla
Hermiston
Butte
City of The Dalles
Pendleton
Bozeman
La Grande
Redmond
Bend
Ontario
Caldwell
Eagle
Boise City
Nampa
Rexburg
Idaho Falls
Blackfoot
Mountain Home
Pocatello
Twin Falls
N
W
E
S
0
40
80 Miles


Ownership
State Lands
Clearwater National Forest
Kamiah
BIA
Lowell
Nez Perce National Forest
Private
Elk City
BLM
Bitterroot National Forest
Dixie
Salmon
National Forest
N
W
E
S
0
5
10 Miles

# Wilderness and Roadless




| Designation | Acres | % of Project Area |
|---|---|---|
| Wilderness | 970,659 | 68.1% |
| Roadless | 274,027 | 19.2% |

# Process & Partners

*Everyone pitched in time, resources, and expertise!!*

# Process

- ***2012 Baseline Assessment*** *– contract with Ecosystem Research Group to evaluate the current ecological conditions and existing monitoring programs on the Forests as well as with partners such as the Nez Perce Tribe and the Idaho Fish and Game.*
- ***National Forest Foundation Grant*** *– modified contract to include SIMPPLLE modeling and leadership on development of desired conditions, scoring, indicators, and targets*

# Partners – Roles and Responsibilities

- **Clearwater Basin Collaborative**, specifically Selway-Middle Fork Project Monitoring Advisory Committee participants (Great Burn Study Group, The Nature Conservancy, The Wilderness Society, Idaho Fish & Game, Idaho Conservation League, & Framing Our Community)
- Contractor – **Ecosystem Resource Group** including SIMPPLLE model developer Jim Chew
- **Nez Perce-Clearwater National Forest** Staff – CFLRA Coordinator, District Ranger, Forest Supervisor, Forest Plan Revision Team, and other resource-specific staff
- **Northern Region (R1) Staff** – Silviculturist, Planners, Economists

# Ecological Indicators

Combination of Methods:

Fire Regime and Fish & Wildlife – HRV using SIMPPLLE modeling

Watershed Condition – WCATT

Invasive Species – Local Data

# SIMPPLLE Model – Collaborative Approach

- Project Initiation:
  - Resulted from MAC follow-up meeting in December 2012 that was originally designed to discuss overlapping project and data needs with various partners

- Led by Clearwater Basin Collaborative through contract with Ecosystem Research Group
  - Species Crosswalk Meetings: x3
  - Model Logic Calibration Workshops: x8

Began January 29th

Completed March 26th

# SIMPPLLE Model – Collaborative Approach

- Species Crosswalk
  - “crosswalk” vegetative attributes meaning that existing data was translated from one format (VMAP) to be useable in another (SIMPPLLE)

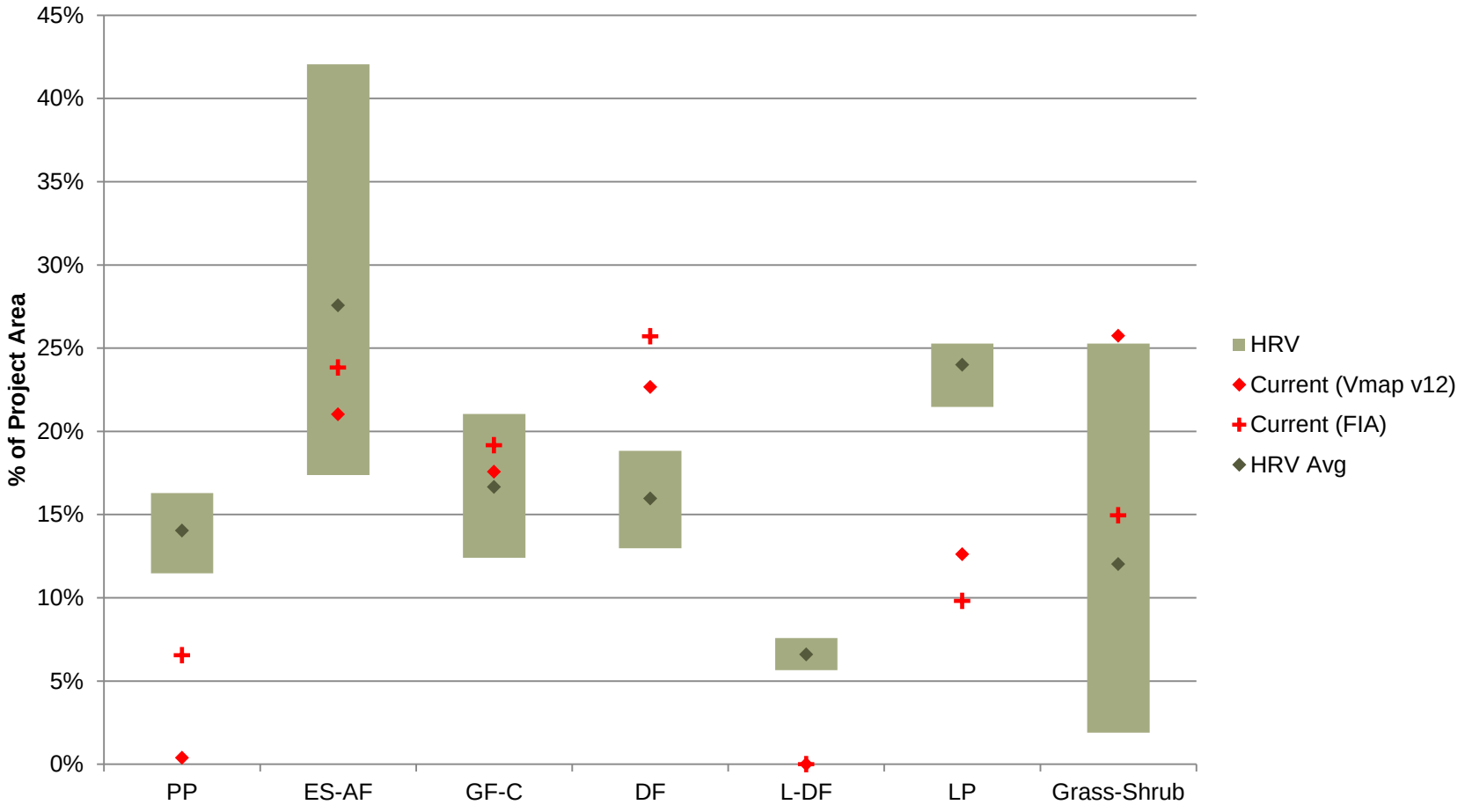
- Logic Calibration
  - successional pathways
  - regeneration
  - growth rates
  - insects and disease
  - wildfire spread, spotting, probability of extreme wildfire spread, type of wildfire, probability of weather-ending wildfire events
  - root disease
  - blister rust resistance in white pine
  - shrub field ecology
  - Pacific decadal oscillation

# Fire Regime Restoration

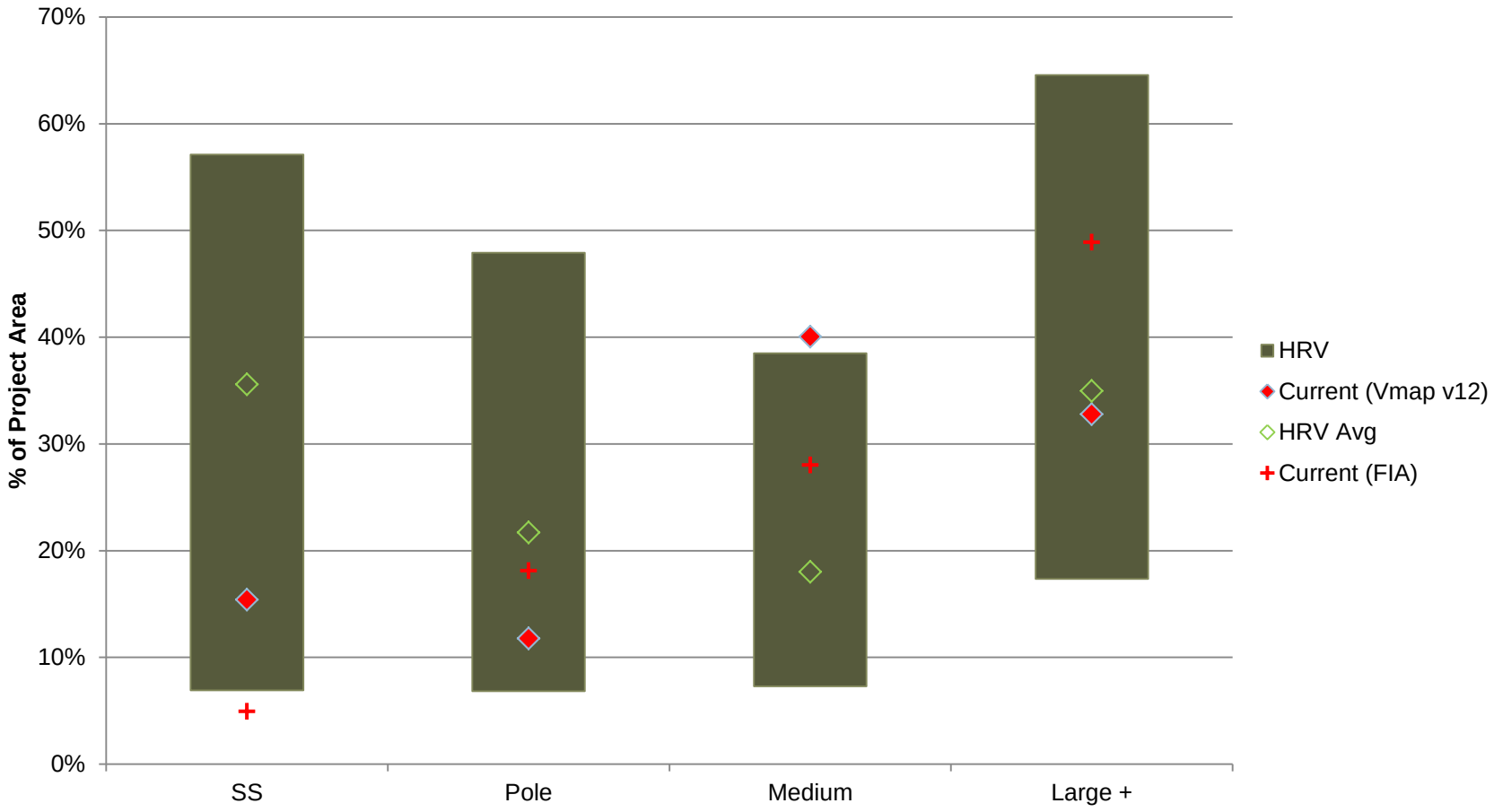
- Used newly calibrated SIMPPLLE model, we characterized the project area's vegetative communities' HRV using a combination of cover type and size class as a surrogate for fire regime restoration.

- The data on vegetation conditions is displayed according to landform in order to better define the desired conditions and ecological indicators.

# Cover Type


45%
40%
35%
30%
25%
20%
15%
10%
5%
0%
% of Project Area
PP
ES-AF
GF-C
DF
L-DF
LP
Grass-Shrub
HRV
Current (Vmap v12)
Current (FIA)
HRV Avg

# Size Class


70%
60%
50%
40%
30%
20%
10%
0%
% of Project Area
SS
Pole
Medium
Large +
HRV
Current (Vmap v12)
HRV Avg
Current (FIA)

# Reporting

- Final Report to Clearwater Basin Collaborative includes explanatory information on why current conditions have/have not departed from HRV
  - Desired Conditions = return to HRV
  - Indicators: increase in ss, reduction in medium size class, increase in LP, increase in PP, increase in WL
- Results further analyzed by HUC 6 watershed to help prioritize restoration treatments
  - HUC 6's also used for project level scoring

# Fish Habitat Condition

- Desired condition = maintain a minimum road system that is safe and efficient and is responsive to the public and agency needs and desires.

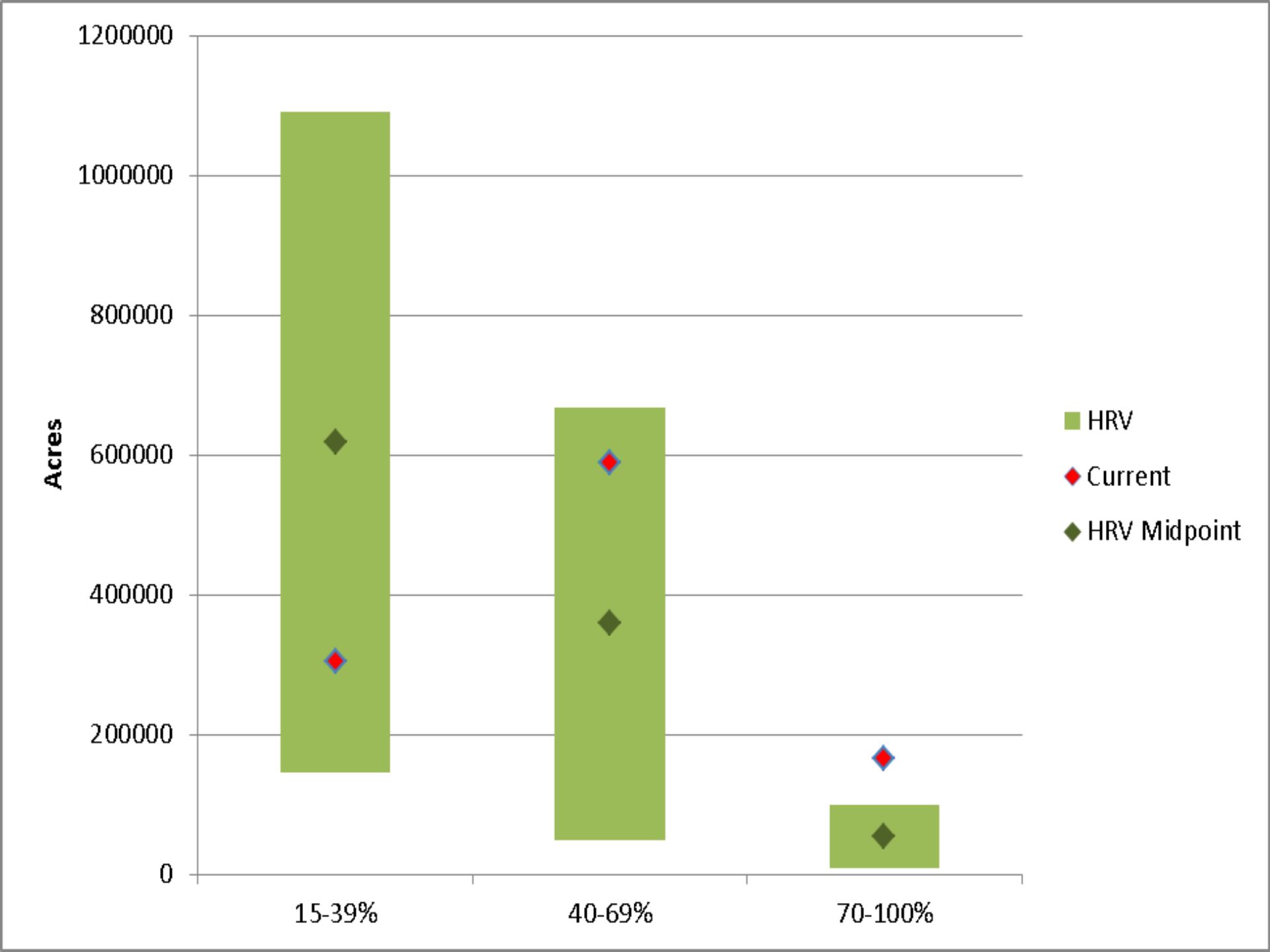
- Indicators:
  - Reduction in RHCA road densities
  - Reduction of % of stream road buffers
  - Reduction or improvement in # of crossings
  - # of stream crossings with adjacent cross drain culverts
  - % of streams with >80% overstory shade

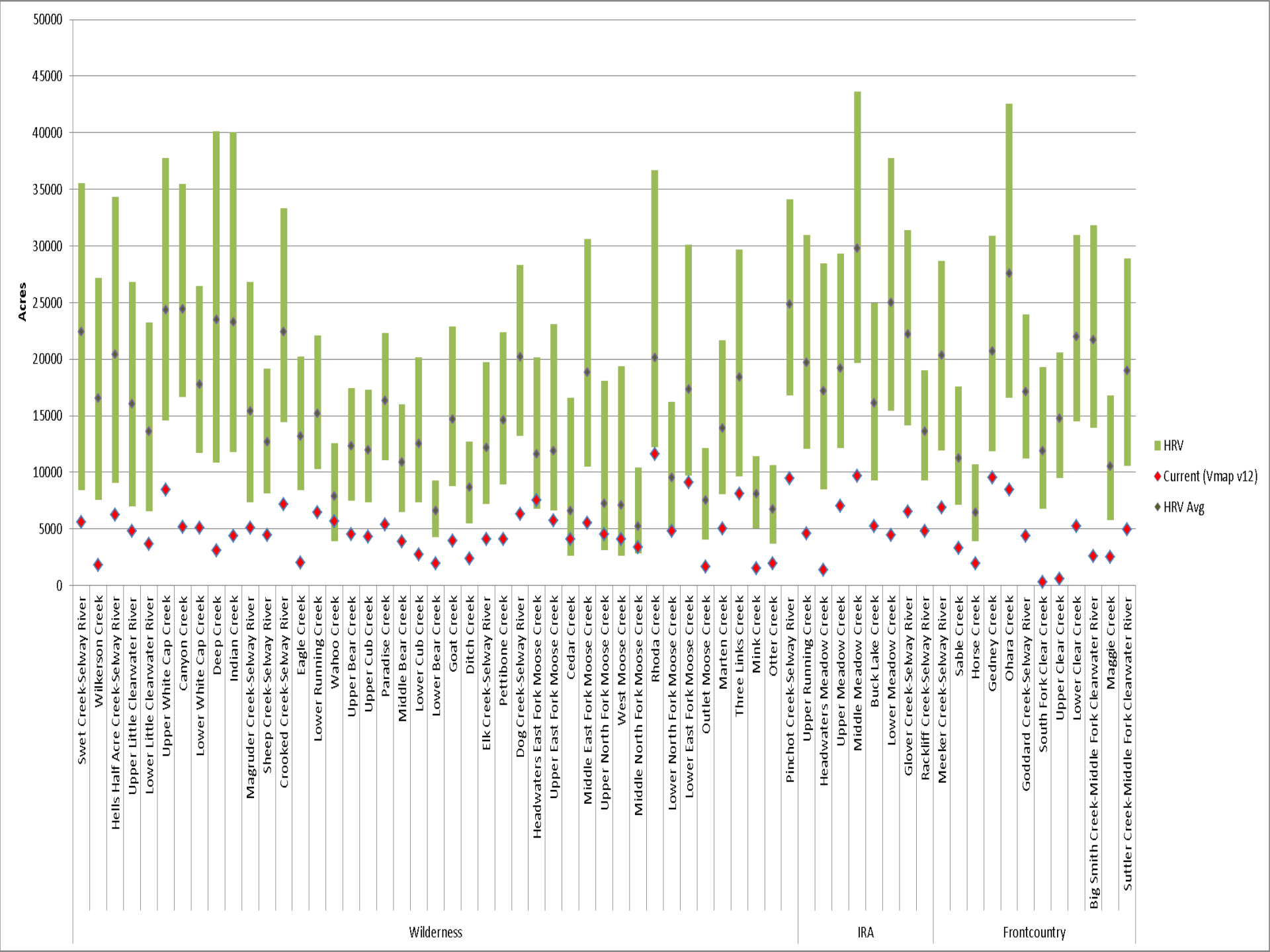
| HUC 5 Name | Total Miles of Streams | Existing % of Stream Road Buffers | Target % of Stream Road Buffers | Existing # of Stream Crossings | Target # of Stream Crossings |
|---|---|---|---|---|---|
| Bad Luck Creek - Main Stem Selway | 469.5 | 7.8% | 7.8% | 56 | 56 |
| Clear Creek | 220.0 | 12.5% | 10% | 168 | 135 |
| Gedney Creek-Selway River | 486.9 | 10.7% | 7.0% | 156 | 125 |
| Headwaters Selway River | 323.8 | 0.3% | 0.3% | 1 | 1 |
| Little Clearwater River | 159.2 | 0.4% | 0.4% | 2 | 2 |
| Meadow Creek | 536.2 | 1.3% | 0.8% | 19 | 15 |
| Middle Fork Clearwater River | 239.4 | 30.1% | 25% | 249 | 200 |
| Running Creek | 235.3 | 1.3% | 1.0% | 8 | 7 |
| Three Links Creek-Selway River | 473.2 | 0.4% | 0.4% | 7 | 7 |
| White Cap Creek | 266.9 | 0.5% | 0.5% | 2 | 2 |
| **Total for Project Area** | **4885.9** | 4.9% | 4.1% | **668** | **550** |

# Wildlife Habitat Condition

- Used SIMPPLLE generated HRV data to analyze habitats for northern goshawk, flammulated owl, pileated woodpecker, and American marten

- Found that departed habitat levels can be extrapolated for many habitats by looking at the density of all stands in the project area

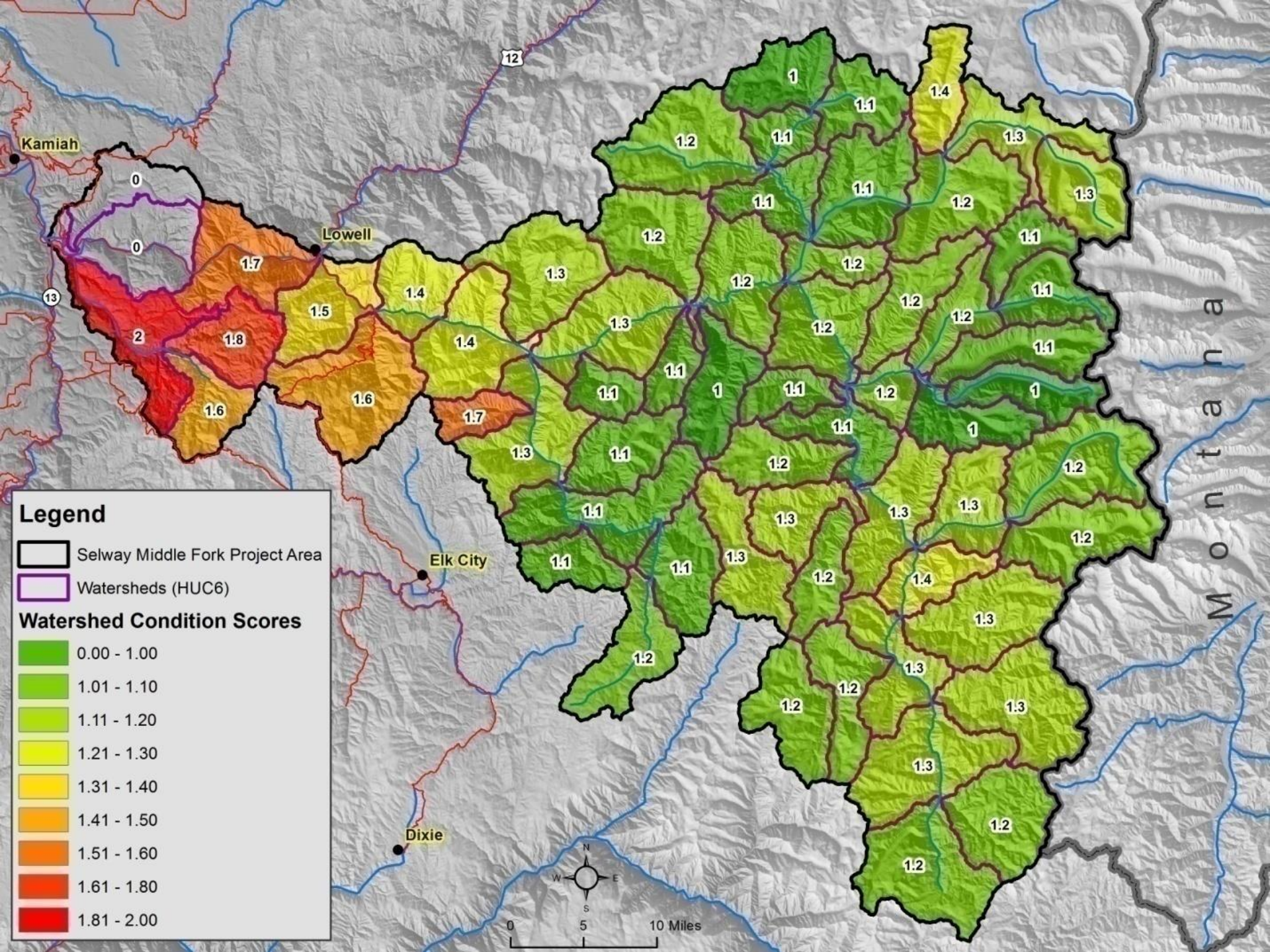

1200000
1000000
800000
600000
400000
200000
0
Acres
15-39%
40-69%
70-100%
HRV
Current
HRV Midpoint


Acres
50000
45000
40000
35000
30000
25000
20000
15000
10000
5000
0
HRV
Current (Vmap v12)
HRV Avg
Swet Creek-Selway River
Wilkerson Creek
Hells Half Acre Creek-Selway River
Upper Little Clearwater River
Lower Little Clearwater River
Upper White Cap Creek
Canyon Creek
Lower White Cap Creek
Deep Creek
Indian Creek
Magruder Creek-Selway River
Sheep Creek-Selway River
Crooked Creek-Selway River
Eagle Creek
Lower Running Creek
Wahoo Creek
Upper Bear Creek
Upper Cub Creek
Paradise Creek
Middle Bear Creek
Lower Cub Creek
Lower Bear Creek
Goat Creek
Ditch Creek
Elk Creek-Selway River
Pettibone Creek
Dog Creek-Selway River
Headwaters East Fork Moose Creek
Upper East Fork Moose Creek
Cedar Creek
Middle East Fork Moose Creek
Upper North Fork Moose Creek
West Moose Creek
Middle North Fork Moose Creek
Rhoda Creek
Lower North Fork Moose Creek
Lower East Fork Moose Creek
Outlet Moose Creek
Marten Creek
Three Links Creek
Mink Creek
Otter Creek
Pinchot Creek-Selway River
Upper Running Creek
Headwaters Meadow Creek
Upper Meadow Creek
Middle Meadow Creek
Buck Lake Creek
Lower Meadow Creek
Glover Creek-Selway River
Rackliff Creek-Selway River
Meeker Creek-Selway River
Sable Creek
Horse Creek
Gedney Creek
Ohara Creek
Goddard Creek-Selway River
South Fork Clear Creek
Upper Clear Creek
Lower Clear Creek
Big Smith Creek-Middle Fork Clearwater River
Maggie Creek
Suttler Creek-Middle Fork Clearwater River
Wilderness
IRA
Frontcountry

# Watershed Condition

- Using USFS-developed Watershed Classification and Assessment Tracking Tool (WCATT) via data from the USDA's Watershed Condition Framework

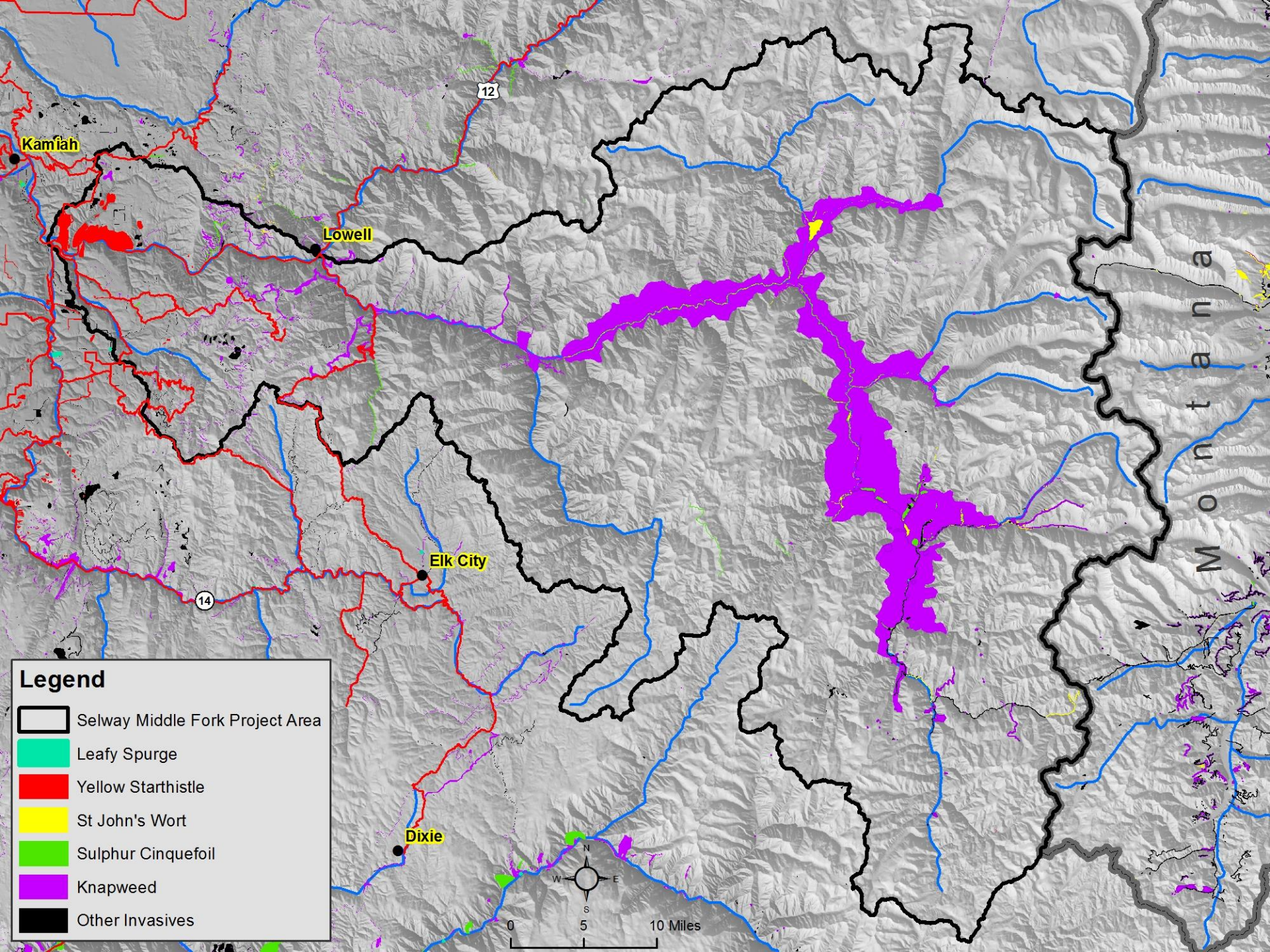
- Desired Condition:
  - Greater than 95% of watersheds within the project area will achieve a "Good" (Condition Rating 1 to 1.6) or better rating as assigned by the WCATT decision matrix.
- Indicators:
  - The watershed ecological outcome measure utilizes WCATT and relies on updated scoring to provide information regarding response to restoration treatments.


Kamiah
Lowell
Elk City
Dixie
Montana
12
13
Legend
Selway Middle Fork Project Area
Watersheds (HUC6)
Watershed Condition Scores
0.00 - 1.00
1.01 - 1.10
1.11 - 1.20
1.21 - 1.30
1.31 - 1.40
1.41 - 1.50
1.51 - 1.60
1.61 - 1.80
1.81 - 2.00
N
W
E
S
0
5
10 Miles

# Invasive Species

- Current Condition

| Common Name | Breaklands | Subalpine | Uplands | Total Acres |
|---|---|---|---|---|
| Canada Thistle | 348 | 39 | 913 | 1,300 |
| Common St. Johnswort | 1,474 | 58 | 45 | 1,1577 |
| Dalmatian Toadflax | 3 | | 11 | 14 |
| Rush Skeletonweed | 6 | | 9 | 15 |
| Spotted Knapweed | 100,955 | 3,913 | 4,330 | 109,197 |
| Yellow Star-thistle | 3,561 | | 528 | 4,089 |
| **Grand Total** | **106,347** | **4,010** | **5,835** | **116,192** |


Kamiah
Lowell
Elk City
Dixie
12
14
Montana
Legend
Selway Middle Fork Project Area
Leafy Spurge
Yellow Starthistle
St John's Wort
Sulphur Cinquefoil
Knapweed
Other Invasives
N
W
E
S
0
5
10 Miles

# Invasive Species

- Landscape Desired Condition
  - Aggressively deal with new invaders and provide rapid response for newly identified species
  - Limit infestations of NNIS that do not already occur within the project area.

- Project Scale Desired Condition
  - The treatment should not result in any increase of NNIS coverage in treatment areas. Treated areas should result in less coverage (acreage) in NNIS than pretreatment conditions.

# Invasive Species

- Landscape Scale Scoring:
  - Scoring targets for the landscape mapping:
    - 50% of the project area mapped by year 3
    - 75% of the project area mapped by year 6
    - 100% of the project area mapped by year 10
  - Scoring targets for new invaders:
    - No establishment of leafy spurge.
    - No increase in acres of Dalmation toadflax and rush skeleton weed. Eradicated by year 5.
    - No net increase in yellow starthistle.  Reduce yellow starthistle coverage by 10% by year 5.

# Invasive Species

- Project Scale Scoring:
  - Each Project scored as follows for NNIS:
    - Good = Post treatment NNIS coverage reduced by 60-100%
    - Fair = Post treatment NNIS coverage reduced by 30-60%
    - Poor = Post treatment NNIS coverage reduced by less than 30% or any increase

# Invasive Species

- Indicators:
  - Percent of project area mapped
  - Reduction within existing infestations
  - Number of new infestations within treated areas
  - Establishment of native species following treatment
- Targets:
  - **Landscape Scale NNIS Severity:** 75% change across 100% of the project area.
  - **Project Scale NNIS Severity:** 75% change across 13% of the project area.

# Jobs/Economic Indicator

Using the TREAT model – information provided by Region 1 Economists and the Nez Perce Clearwater National Forest for both the baseline and subsequent years' results.

# Jobs/Economic Indicator

- 2012 Socio-Economic Monitoring
  - Qualitative baseline assessment of both direct and indirect economic impacts
  - Evaluation/Comparison of results with TREAT results

- Outcome
  - Working directly with Region 1 Economists to address concerns and potential inconsistencies
  - 2013 and beyond – work collaboratively with Forest and Region on quantitative validation of TREAT model

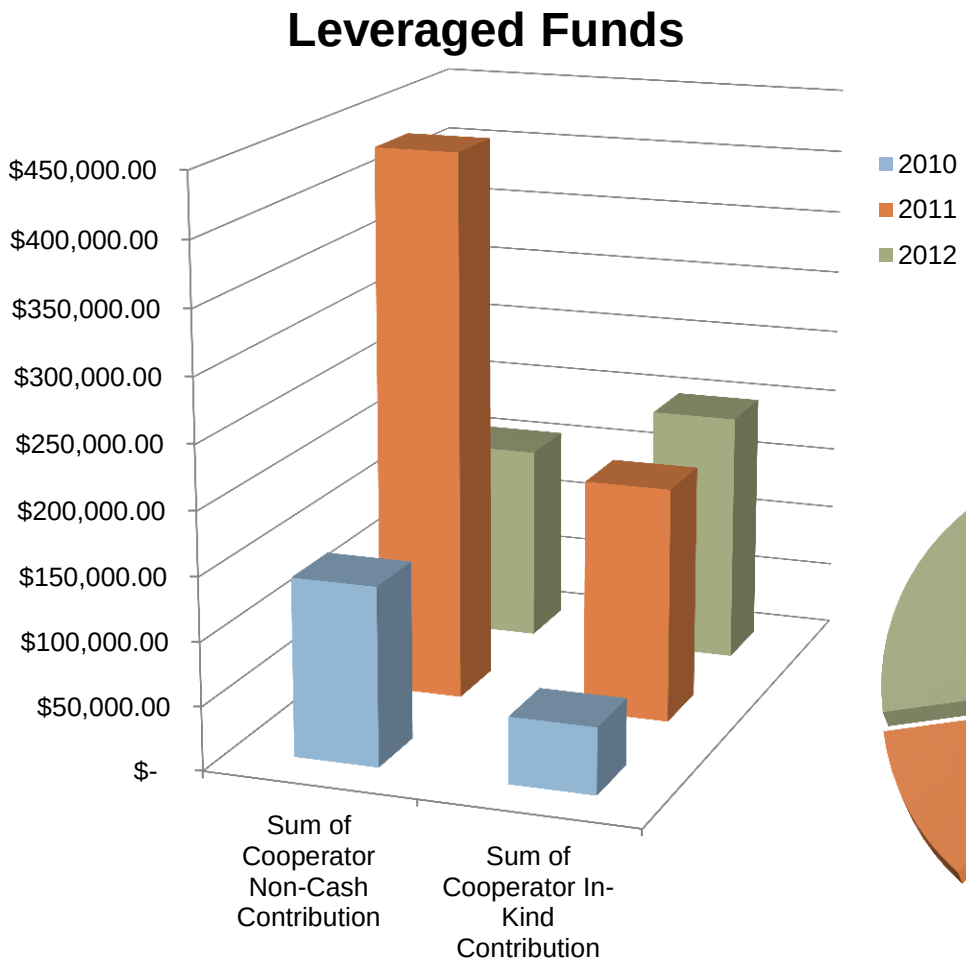
# Fire Costs

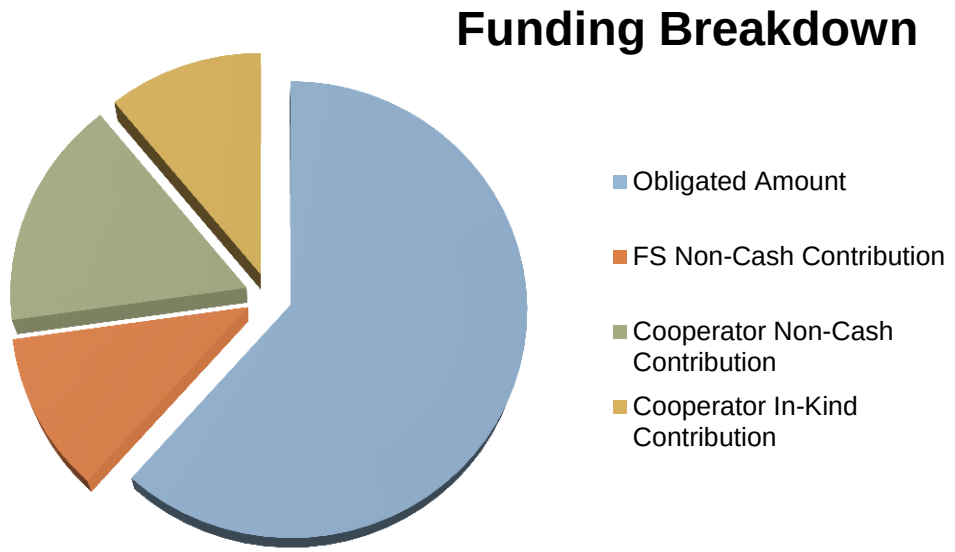
Using R-CAT – Nez Perce-Clearwater National Forest and Region 1 taking the lead and providing all information for Fire Cost Indicator

# Leveraged Funds

This information is collected by the Nez Perce-Clearwater National Forest CFLRA Coordinator and reported annually.

# Leveraged Funds

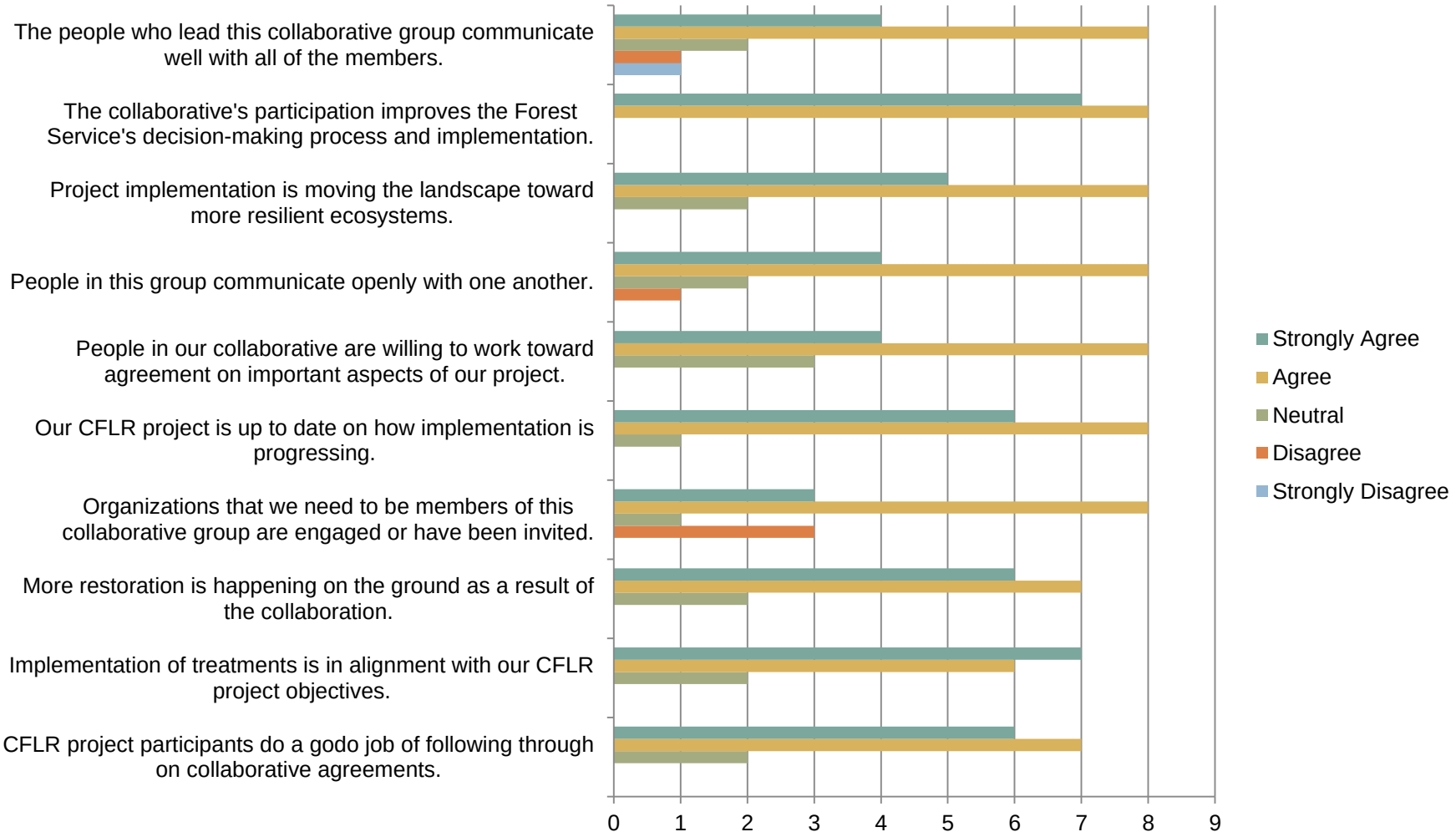


# Collaboration

Active Clearwater Basin Collaborative participants, including Forest staff participated in filling out the “collaboration” tool to establish the baseline.

# Collaboration Tool Results



# On-the-Ground Outcomes

- SIMPPLLE Modeling & Collaborative Approach
  - Phase II Landscape Assessment – document current vegetation conditions and identified active restoration needs in the Clearwater Basin
  - Forest Plan Revision
- Multiple Monitoring Projects including a Invasive Species Monitoring & Coordination
- Continued Discussions on TREAT Model Validation

Clearwater Basin Collaborative

*finding solutions*

# Questions?

Contact Information:

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208-818-3411