The end of the Multi-District Litigation Settlement, developing a Species Status Assessment, and FWS petition finding for northern Wormwood, *Artemisia campestris wormskioldii*

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Presentation Overview

1. The Multi-Litigation Settlement, FWS's work plan responsibilities for 2011 – 2016.

2. Improving ESA implementation: Species Status Assessment, or SSA.

3. FWS Petition Finding for *Artemisia campestris wormskioldii*, northern wormwood.

1. Multi-District Litigation

- WildEarth Guardians vs. Salazar (former Secretary DOI). Settlement of Section 4 Litigation, May 2011.
- 251 Candidate Species, the majority have been candidates for decades. Recycled 1999 - 2010 CNOR.
- Required FWS to complete petition findings, proposed and final rules and designate critical habitat.




Decision Points when listing species under the Endangered Species Act.

- 90 Day petition Finding
  - Substantial vs not Substantial finding, if substantial:
- 12 month finding (aka Status Review)
  - Warranted, not warranted, or warranted, but precluded finding, if warranted:
  - Species is determined to be "candidate species"
- Develop Proposed and Final Rule, and designate Critical Habitat Rule, if determinable.

Candidate Species

- Candidate species are plants and animals for which the U.S. Fish and Wildlife Service (FWS) has sufficient information on their biological status and stressors to propose them as endangered or threatened under the Endangered Species Act (ESA), but for which development of a proposed listing regulation is precluded by other higher priority listing activities.

Washington Field Office
MDL Responsibilities, 2011 - 2012

- WFWO Candidate Species that became Listed under ESA

- Umtanum buckwheat – T with Critical Habitat (CH) - 2013
- White-Bluff Bladderpod – T, CH - 2013
- Taylor's checkerspot butterfly – E, CH - 2013
- Streaked horned lark – T, CH - 2013
- 4 of 9 subspecies Mazama pocket gopher – T, CH - 2014
- Oregon spotted frog – T, CH - 2014
- Yellow-billed cuckoo – T, CH – 2014






Washington Field Office Responsibilities during MDL 2011-2016

- Giant Palouse Earthworm – not warranted (NW) (2011)
- Kokanee Salmon – Lake Sammamish DPS not sig. (2011)
- 29 species of NW Mollusks – 12 month due 2018 (2011)
- Sand Verbena moth – 12 month finding due 2018 (2011)
- White-tailed Ptarmigan, Mt. Rainier DPS – NW (2012)
- Mardon Skipper – Candidate Removal (2012)
- Sage Grouse – Candidate Removal (2015)
- Washington Ground Squirrel – Candidate removal (2016)
- West Coast Fisher – Proposed Rule Withdrawn (2016)
- Northern wormwood – NW (2016)

2. Species Status Assessment

USFWS SSA Framework
ver 3.4 August, 2016

1. Integrated, conservation-focused analytical approach to species
2. Assess species biological status to ESA decisions (Listing, Recovery, BO, CA)
3. Does not result in decision directly

Realized Benefits of SSA

- Defensible - grounded in Science
- Consistency - Framework & Terminology
- Clarity - Science and Policy
- Efficiency - Repeatable analysis
- Effective - reasoned Decision making
- Collaboration - fosters Partnerships

An SSA supports the 3 "R" principles of conservation biology

- Representation – The ability of a species to adapt to a changing environment. Related to distribution within a species ecological setting.
- Resilience – The ability of a species to withstand stochastic disturbance events; related to pop size, growth rate and habitat quality.
- Redundancy – The ability of a species to withstand catastrophic events, related to number, distribution and resilience of populations.

3. Petition Finding
Artemisia campestris wormskioldii

Completed Species Status Assessment

Published a not-warranted finding based on an assessment of species Stressors.

The single active Stressor determined: Invasive, nonnative plants.

Previous Federal Action *Artemisia campestris wormskioldii*

- Prior to February 28, 1996, northern wormwood was a C1 Candidate. Removed from Federal candidate list.
- October 25, 1999 Candidate Notice of Review determined Candidate status for northern wormwood.
- The annual CNOR has maintained Candidate Species.
- The MDL settlement agreed to make a listing determination during FY 2016.

Northern wormwood, a short statured plant, growing in a sparse plant community. Var. wormskioldii matures, or flowers in early spring.

Morphological comparison - northern wormwood & 2 related *Artemisia* taxa: boreal (Mtn.) and Scouler's (field sagewort)

Artemisia borealis
mountain wormwood
Blue Mountain, Olympic NP.

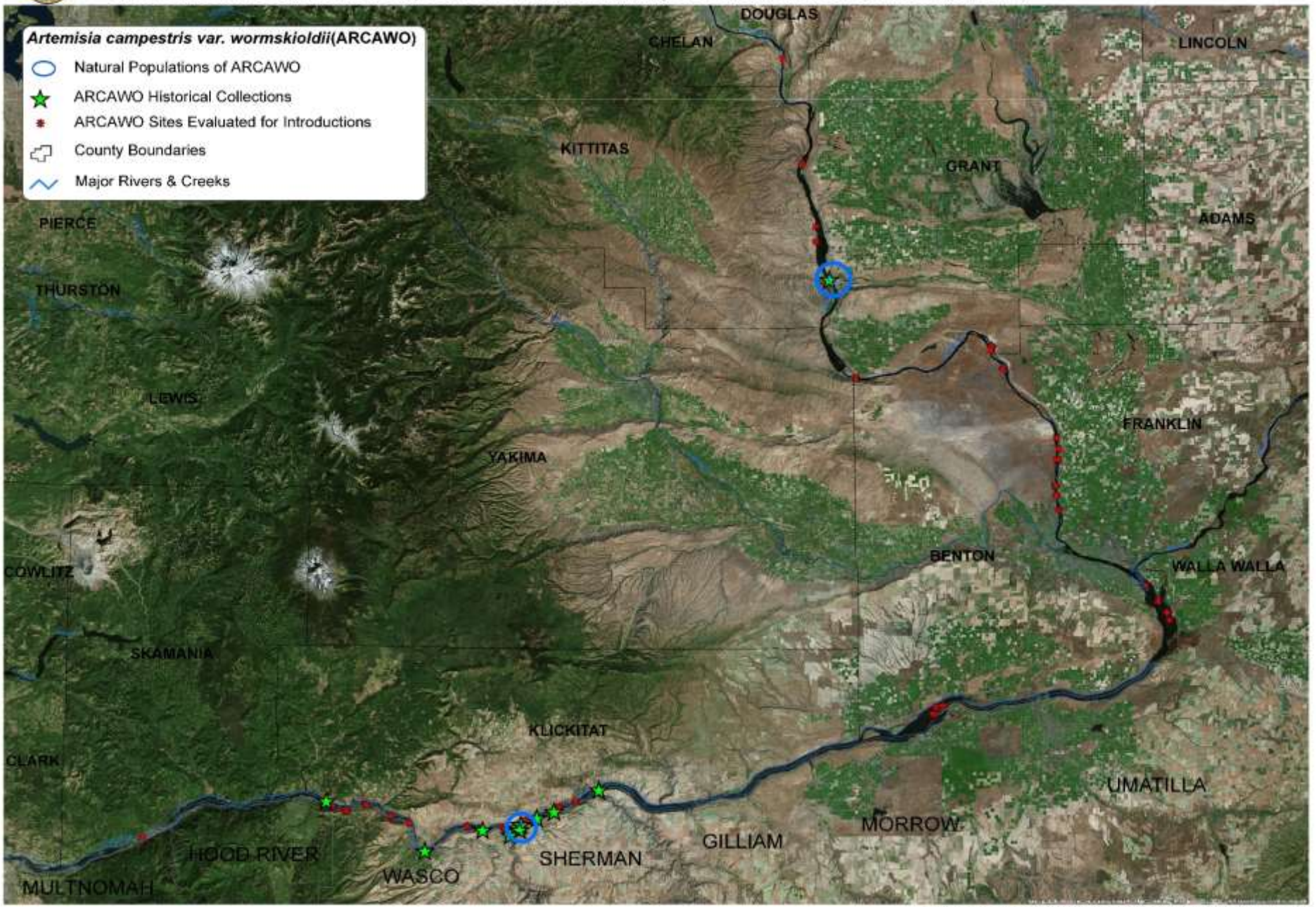
Artemisia campestris
var. *wormkioldii*
northern wormwood
Miller Island, WA

Artemisia campestris
var. *scouleriana*
field sagewort
Hanford Reach, WA

All photos by Joe Arnett

U.S. Fish & Wildlife Service

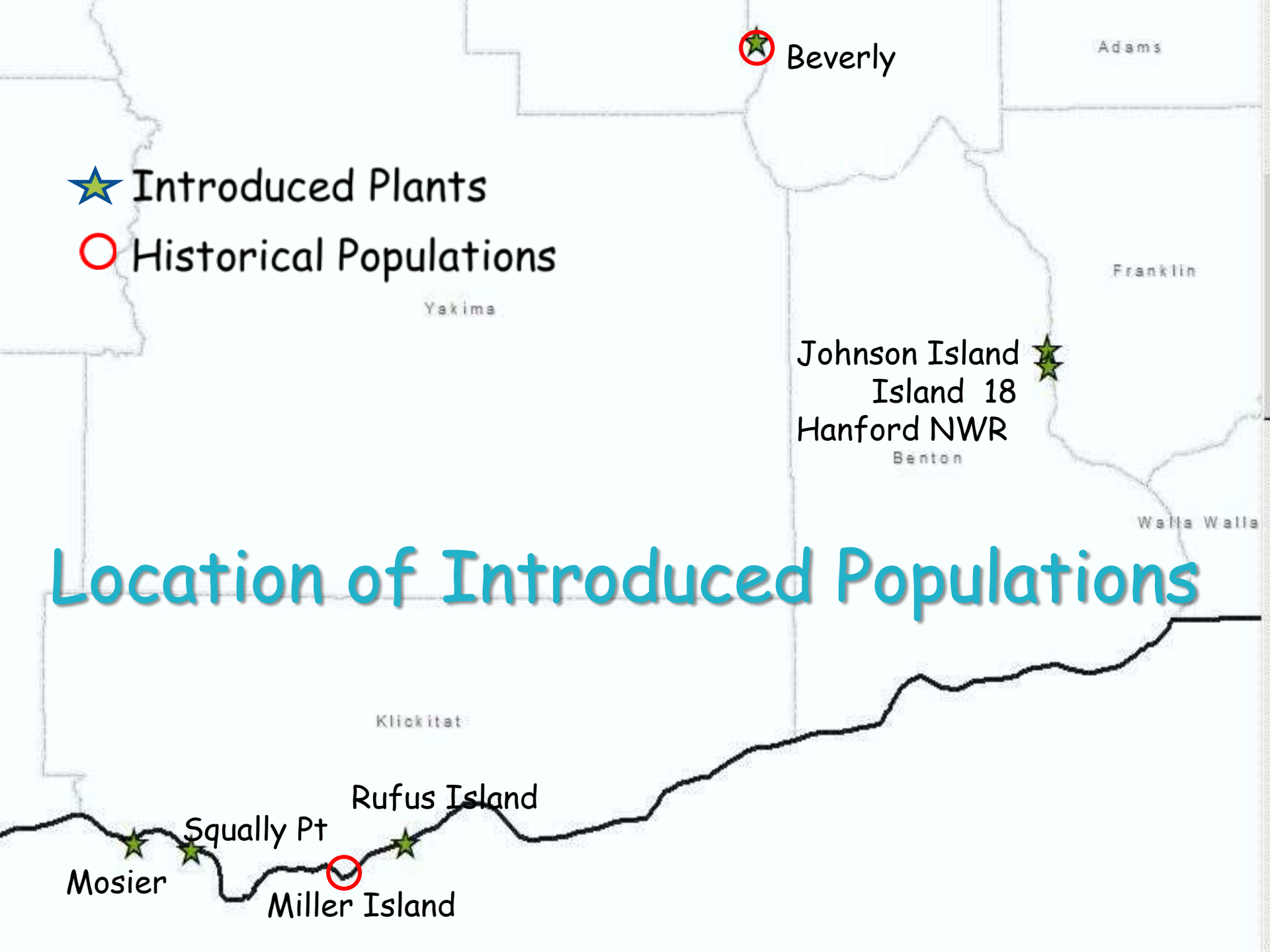
Northern Wormwood (*Artemisia campestris var. wormskioldii*) Rangewide Distribution of Populations (2/1/2016)



2 wild *ARCAWO* populations: Miller Island and Beverly


Miller Island, River Mile 207
Restricted distribution - 2 patches
Managed by US Forest Service
Tribal Interests - UA by 5 tribes

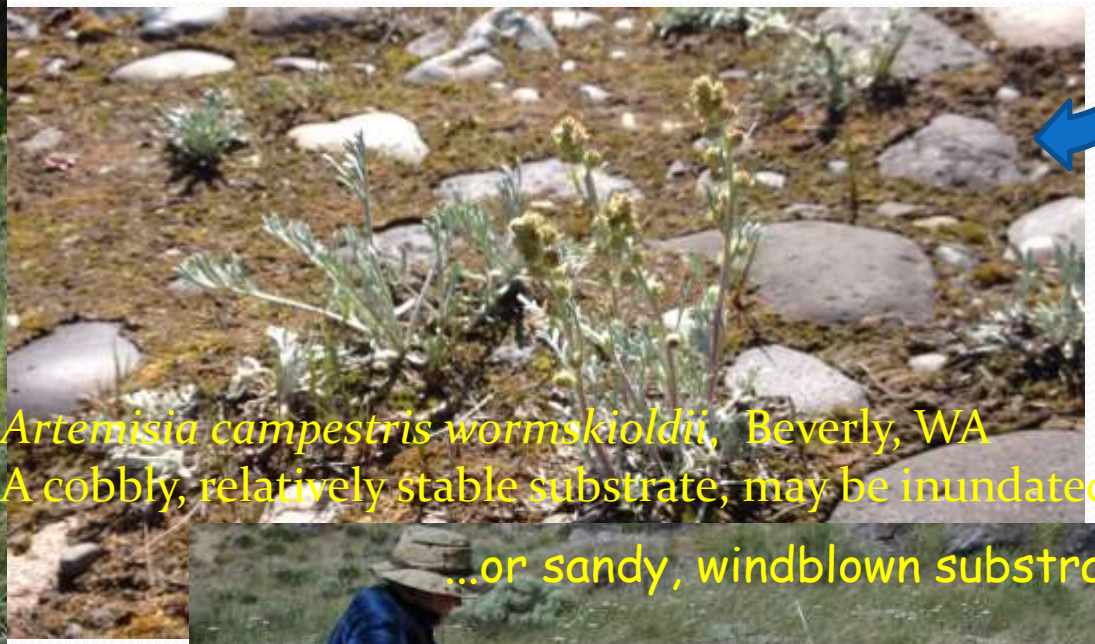
Beverly, Bureau of Reclamation site, River Mile 413
Managed by Grant Co PUD



Location of Introduced Populations

Nursery production versus wild population conditions

Nursery Production, Humble Roots
www.humblerootsnursery.com



Artemisia campestris wormskioldii, Beverly, WA
A cobbly, relatively stable substrate, may be inundated.

Rangewide Abundance

Introduced Sites	Establishment	Abundance 2015
Squally Point	2008	129
Rock Creek State Park	2015	87
Rufus Island	2011 301 plants added 2016	382
Johnson Island (Hanford)	2013	135
Island 18 (Hanford)	2013	109
Natural Populations		
Miller Island	Wild, Natural	53
Beverly	Wild, Natural	280

5 Factor Summary of Stressors

FACTOR	Threats cited 2014 CNOR	Current Assessment
1. Habitat	Altered Hydrology, Erosion, Trampling, Invasive Plants	**Invasive Species – the only existing population level stressor**
2. Overutilization	Not a threat	Not considered population level stressor
3. Disease or Predation	Plants easily uprooted by grazing cattle	Grazing removed, no longer considered pop level stressor
4. Inadequacy of Regulatory Mechanisms	Not considered a stressor	Regulatory mechanisms may provide benefit
5. Other natural and man-made factors	Climate Change (CC) Fire Genetic Issues	CC , no longer a stressor Fire not a threat Small pops may be stressor

Summary of Stressors

1. Habitat loss from changes in water flow and sediment deposition were thought to be primary stressors.

   Conclusion: After 15 years of monitoring no documentation of this stressor as threat.

2. Stressors brought on by herbivory, fire, trampling and climate change have been ameliorated or available information does not indicate as a stressor

   Conclusion: These stressors do not constitute threats to the species at the individual or population level.

3. Stressor from invasive species is ubiquitous and spreading at natural and introduced population (except Miller Island). Regular management will be required to control or reduce spread of invasive species.

   Conclusion: Invasive species are possibly a stressor to individuals and at population level.

Nonnative, invasive species Indigo bush, *Amorpha fruitcosa* a class B WA noxious weed

Conservation Measures

Federal, County, State and NGO Coordination

USDA Forest Service
Bureau of Reclamation and Grant Co PUD
Hanford Reach National Monument
Washington Dept. of Natural Resources
Rare Care Plant Conservation

Conservation Actions Implemented

1. Weed Control
2. Fences erected to prohibit foot and vehicle traffic
3. Monitoring
4. Introduced new populations, OR and WA
5. A new population to be planted on Yakama IN lands

Conservation Measure Impact

- Candidate status designation resulted in increased protection via implementation of conservation measures to the species. Threats such as trampling from cattle grazing or humans mostly eliminated.
- Conservation measures have resulted in the establishment of five new introduced populations, improving the species distribution and abundance, improving resilience and representation.

Northern Wormwood

Artemisia campestris

var. *wormskioldii*

12 Month Finding

FR 64843

September 21, 2016

Unified Listing Team
Region 1
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QUESTIONS?