What's Happening with the Baker FIP: History, Goals, and Strategic Planning

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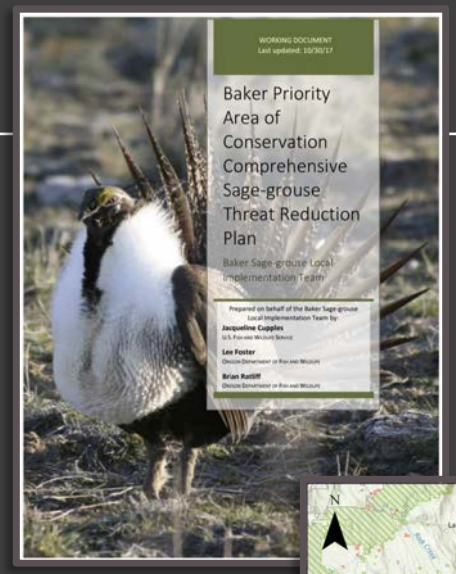
Baker Sage-grouse Local Implementation Team (LIT)

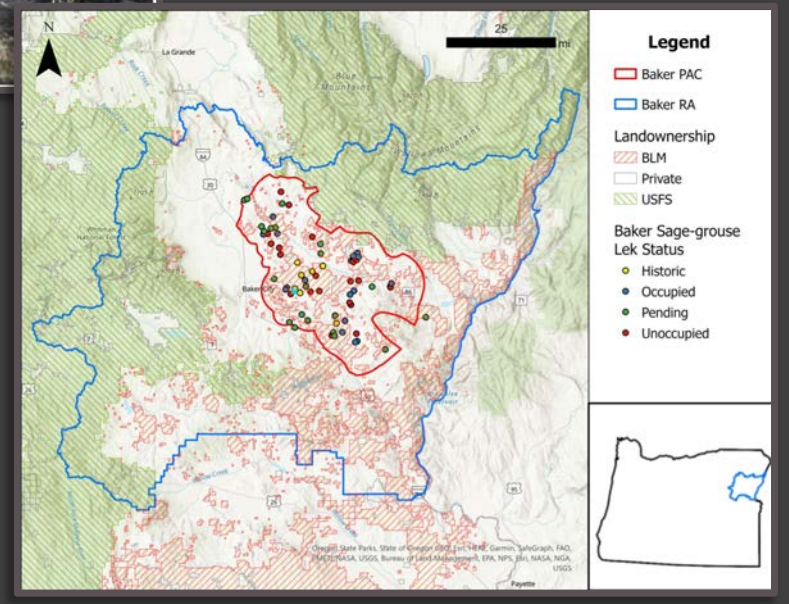
2017

- Finalized the Baker Sage-grouse Priority Area of Conservation Threat Reduction Plan (TRP)

2018

- Applied for Oregon Watershed Enhancement Board Focused Investment Partnership (FIP) Grant
- Developed Baker Sage-grouse LIT FIP Strategic Action Plan (SAP)

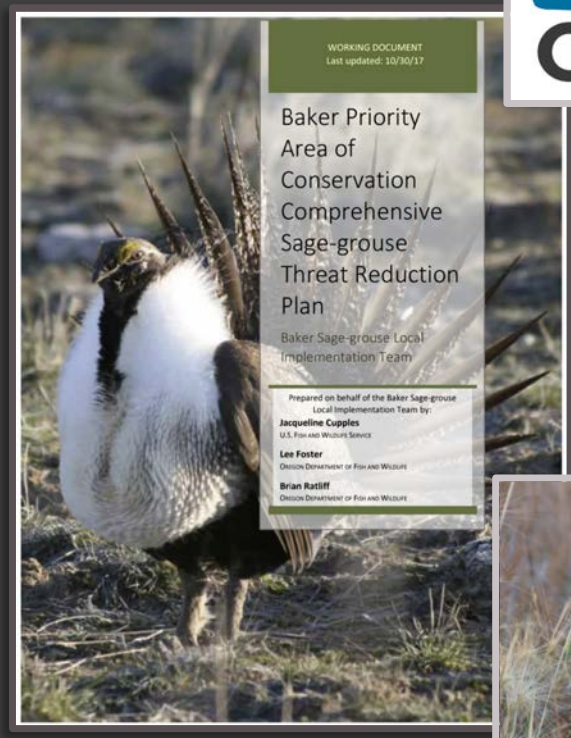




Baker LIT

2019

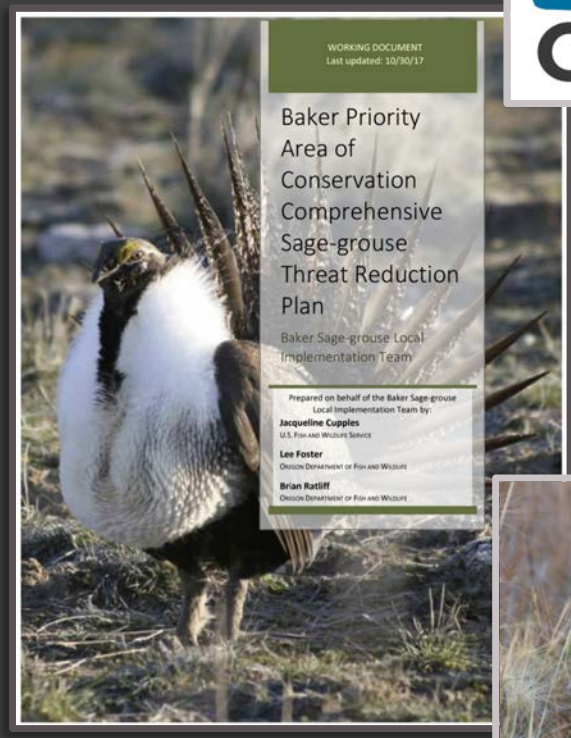
- Baker Sage-grouse FIP grant awarded by OWEB
- ~$6.1 million for Sage-grouse conservation
- To be implemented over 3 bienniums (2019-2025)



OWEB FIP GRANT

Overarching Goal:
"…increase the quantity and quality of sage-grouse habitat and ultimately increase the Baker Sage-grouse population."

Broad Outcomes:
1. Education, Engagement, Coordination
2. Bridge Information Gaps
3. Vegetation Management



1. Education, Engagement, & Coordination

Education	Engagement	Coordination
Distribute weed booklets	Loaner spray equipment & rangeland seed drill	Coordinators hired (CCAA, LIT)
Workshops & field tours	CCAA enrollment	Quarterly meetings
Landowner Meetings	Social media	Special Edition project meetings
Outreach mailings	Newsletters	Seasonal monitoring techs

52 landowners enrolled in restoration & habitat programs

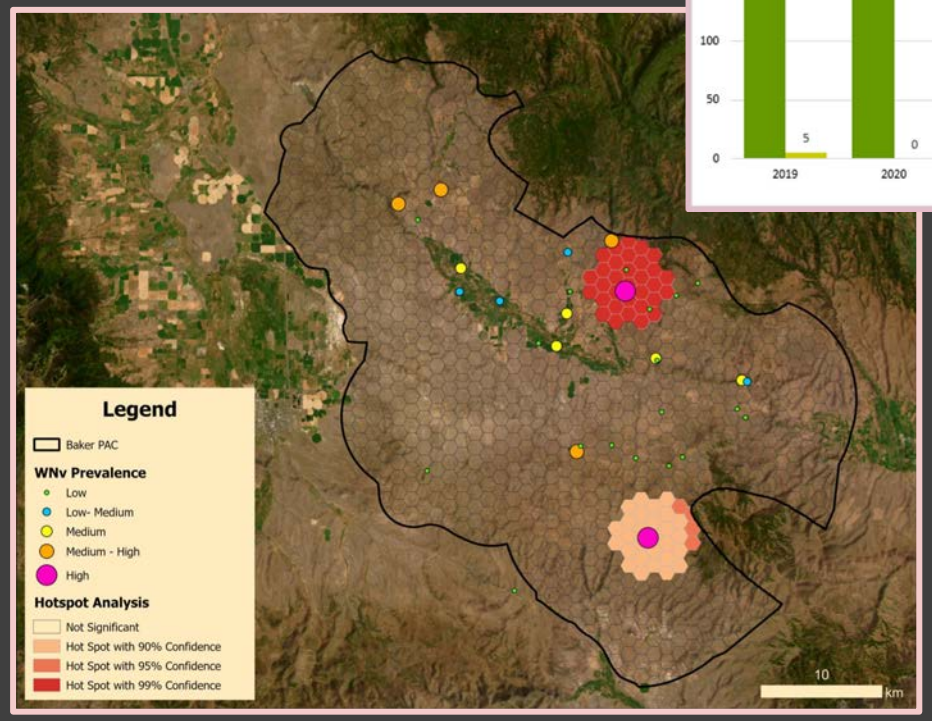
2. Bridge Information Gaps

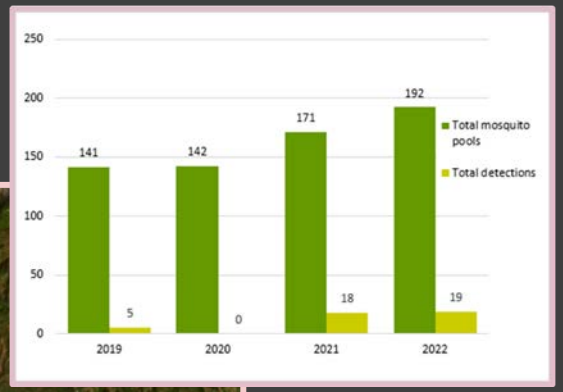
Gaps Identified in TRP/FIP SAP:

- West Nile virus & Sage-grouse Interactions – finished
- Raven/Sage-grouse interactions – ongoing
- Mesic Resource Availability – ongoing, next presentation

2. West Nile virus (WNv) monitoring

- **Threat:** Sage-grouse highly susceptible to WNv
- **Info Gap:** Little information on WNv and potential implications to sage-grouse populations in Baker
- **Goal:** "...expand WNv surveillance to better understand potential impacts to sage-grouse within the Baker PAC".





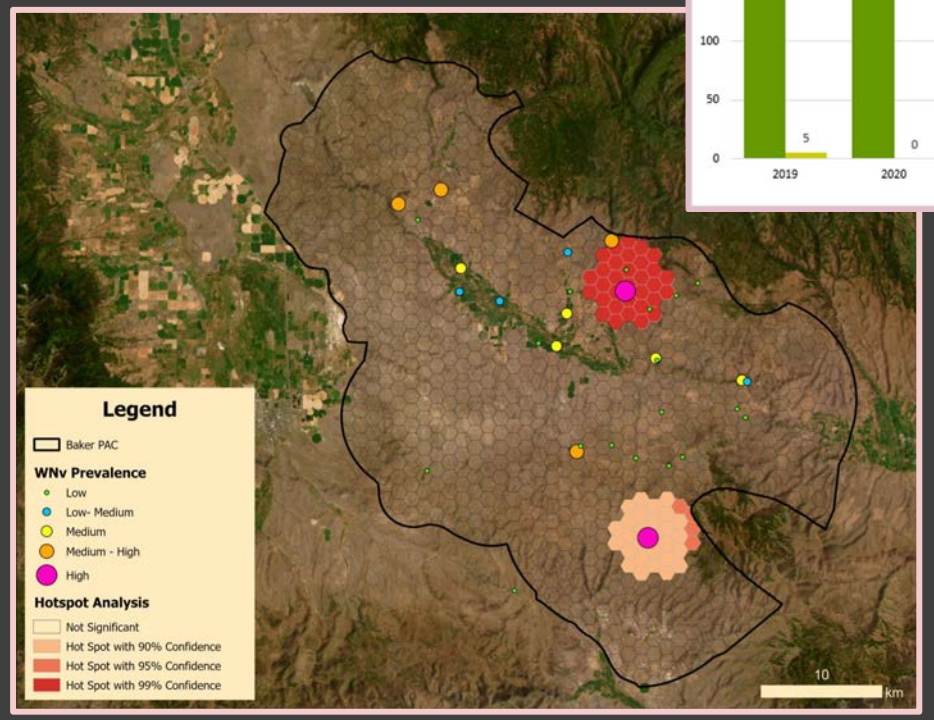
2. West Nile virus monitoring

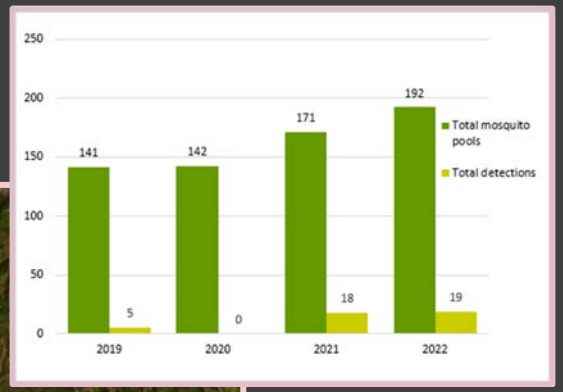
Monitoring

- Partnered with Baker Valley Vector Control to monitor WNv
  - 17 sites monitored over 4 years
  - 42 detections

Conclusions:

- Low detection rate overall
- Most WNv detections came from sources we are unable to mitigate (e.g., rivers/streams)





Raven/Sage-grouse Interactions

- **Threat**: High raven densities (>0.2 ravens/km^2), raven depredation of sage-grouse nests
- **Info Gap**: Little info on sage-grouse/raven interactions and potential mitigation methods

Raven/Sage-grouse Interactions

- **Goal**: "...collaborate with OSU to assess the interactions between ravens and sage-grouse population dynamics in the Baker PAC, with the potential to promote sage-grouse nest success through targeted reduction of anthropogenic raven subsidies and raven removal."

Raven/Sage-grouse Interactions

⇩ Raven densities

- Lethal/Non-lethal raven mitigation strategies
  - Raven/nest removal
  - Roadkill removal

⇩ Raven perch/nesting subsidies

- Evaluate raven use of natural and anthropogenic subsidies
  - Develop mitigation methods to deter ravens

Vegetation Management

Noxious weed treatments

Reported acres as of December 2022:
IAG Treatments: 6,730
Broadleaf Treatments: 2,861

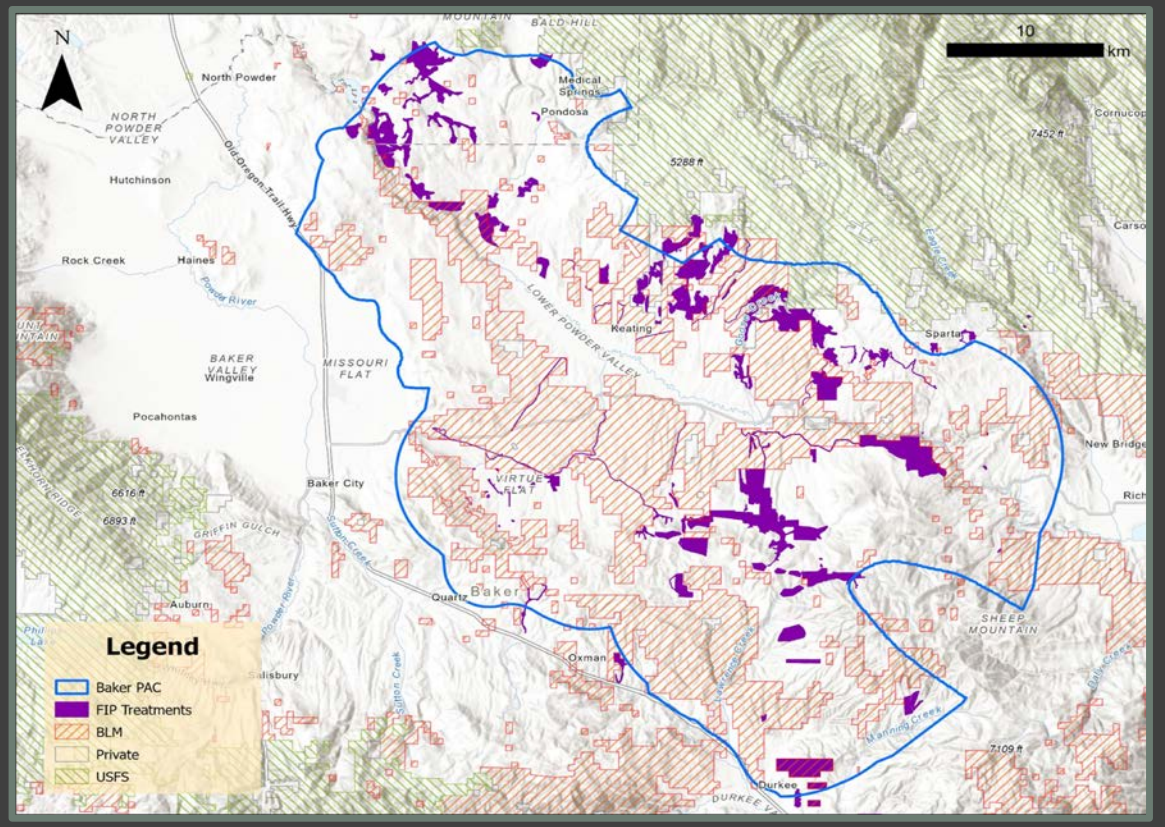
Proposed Acres to be treated in 2023
IAG Treatments: 2,956
Broadleaf Treatments: 1,136

Seeding

2,825 Acres completed as of December 2022 with and additional 877 acres planned for 2023.
*This does not include seedings completed through NRCS

Project Areas

Baker LIT FIP Treatments as of Fall 2022



Camp Creek

This is a large site of whitetop monoculture located in the Unity area. We used a large truck broadcast sprayer with 60ft booms to apply Telar and Weedmaster to this field in May of 2020. The results were excellent with almost 100% whitetop control 1 year post treatment. A second treatment was planned but not needed so we used the funds to treat adjacent sites. This field was seeded in the fall of 2021.

This photo is taken before any broadleaf noxious weed treatments have taken place. It is a state of invasion where very little grass remains, and it is a monoculture of weeds.

Before: taken May 2020

Picture taken 1 year post treatment. Lots of bare ground because the whitetop has been removed. Seed planned fall of 2021.

After: taken May 2021

Camp Creek

May 2022

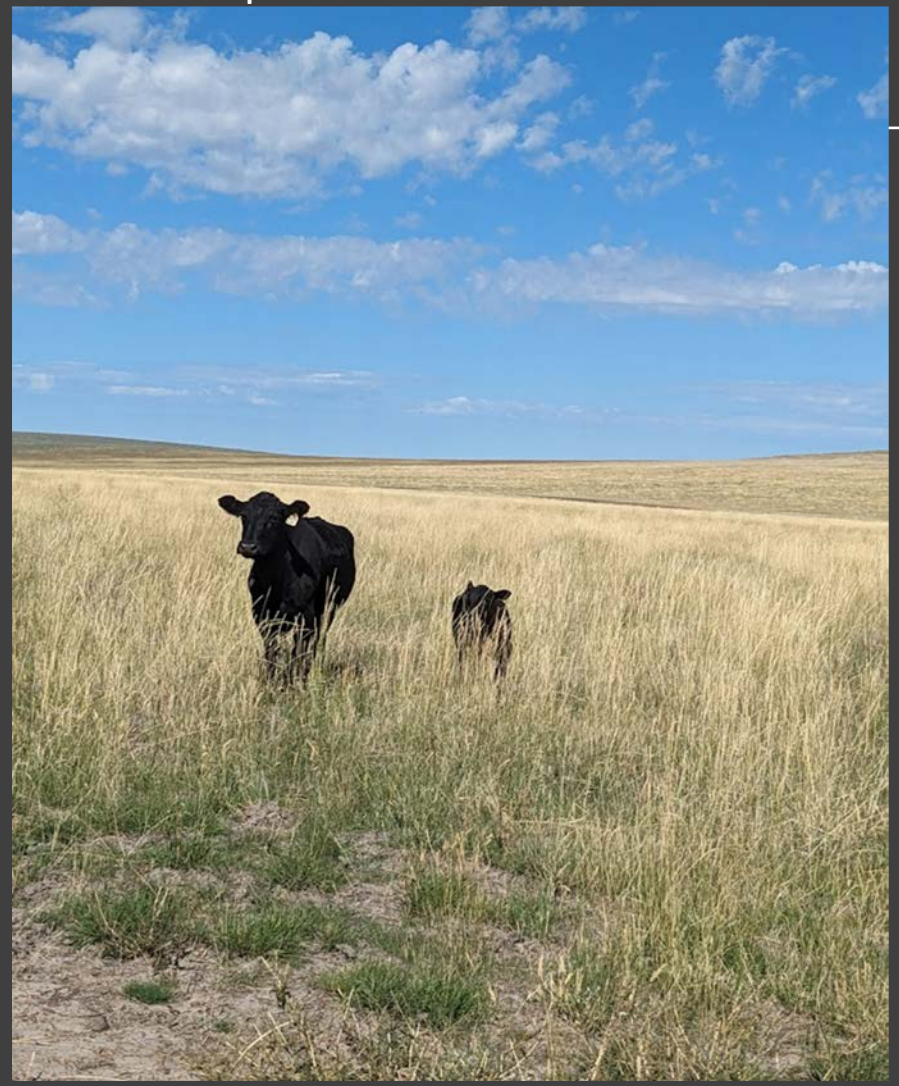
We are very happy with the results of this treatment site. The whitetop was greatly reduced and the seeding was very successful. The site will continue to be monitored and treated for reinvasion of whitetop in Phase II of the project.

Homestead Pasture

The Homestead pasture is a historical homestead site that was used as a shearing shed for all the surrounding bands of sheep back when sheep dominated the landscape. The historical overgrazing has left this site very diminished. The landowner began a medusahead treatment in 2019 prior to OWEB funding. In 2020 the site was covered with dense scotch thistle and whitetop that was treated in order to prep for seed. This site was seeded fall of 2021.

Pritchard Flat

September 2023



September 2021

This site received two different treatments of Imazapic and was seeded aerially in the fall of 2021

Not everything goes as planned…

We fight a constant battle of different weeds. Often medusahead, whitetop, and Russian thistle each cycling through in different seasons or years.

Understory Enhancement

- Goal: enhance the understory and provide more desirable habitat for Sage-grouse
- There are two specific situations common to degraded sagebrush steppe in the Baker PAC
  - (1) invasive-dominated areas within intact, higher quality sagebrush steppe – “hotspots”
  - (2) homogenous areas of degraded understory with high sagebrush cover – “degraded”.

The Baker LIT Sagebrush Understory Enhancement Project was Funded by the USFWS partners program and the research is being completed by the Eastern Oregon Agricultural Research Center in Burns, Oregon.

Degraded

Hotspot

Seed Mix Treatment #2: Non-native/native Grass & Forb

Grass Species	Percentage based on weight	% Purity	% Germination	PLS (%; Purity * Germination)
Siberian wheatgrass	25	98.79	99	98
Bluebunch wheatgrass	12.5	99.25	95	94
Bottlebrush Squireltail	12.5	98.45	94	93
Forb Species	**Percentage based on weight**	**% Purity**	**% Germination**	**PLS (%; Purity * Germination)**
Arrowleaf Balsamroot	12.5	99.4	85	85
Western Yarrow	2.5	96.25	95	91
Threadleaf Fleabane	4	54.65	53	29
Munro's Globemallow	4	94.73	89	84
Fernleaf Biscuitroot	10	97.96	72	70
Sulphur Buckwheat	7	98.84	88	87
SilkyLupine	10	97.21	88	86
Total	100	NA	NA	

Seed Mix Treatment #1: Native Grass & Forb

Grass Species	Percentage based on weight	% Purity	PLS (%; Purity * Germination)	PLS (%; Purity * Germination)
Bluebunch Wheatgrass	12.5	99.25	95	94
Bottlebrush Squirreltail	12.5	98.45	94	93
Thurbers Needlegrass	12.5	99.45	85	85
Sandberg's Bluegrass	12.5	99.40	95	95
Forb Species	**Percentage based on weight**	**% Purity**	**% Germination**	**PLS (%; Purity * Germination)**
Arrowleaf Balsamroot	12.5	99.4	85	85
Western Yarrow	2.5	96.25	95	91
Threadleaf Fleabane	4	54.65	53	29
Munro's Globemallow	4	94.73	89	84
Fernleaf Biscuitroot	10	97.96	72	70
Sulphur Buckwheat	7	98.84	88	87
Silky Lupine	10	97.21	88	86
Total	100	NA	NA	

Seed [illegible]

Grass Species	Percentage based on weight	% Purity	% Germination	PLS (%; Purity * Germination)
Bluebunch wheatgrass	25	99.25	95	94
Prairie Junegrass	25	92.51	92	85
Bottlebrush Squirreltail	25	98.45	94	92
Thurbers Needlegrass	25	99.45	85	85

Juniper Removal

- Goal: Protect Sage-grouse habitat from juniper encroachment and remove potential perch sites for predators.
- We would like to prioritize areas of early juniper encroachment where the trees are <10ft tall and will have minimal ground disturbance during removal.
- Project will begin in 2024
- Funded by USFWS BIL funding

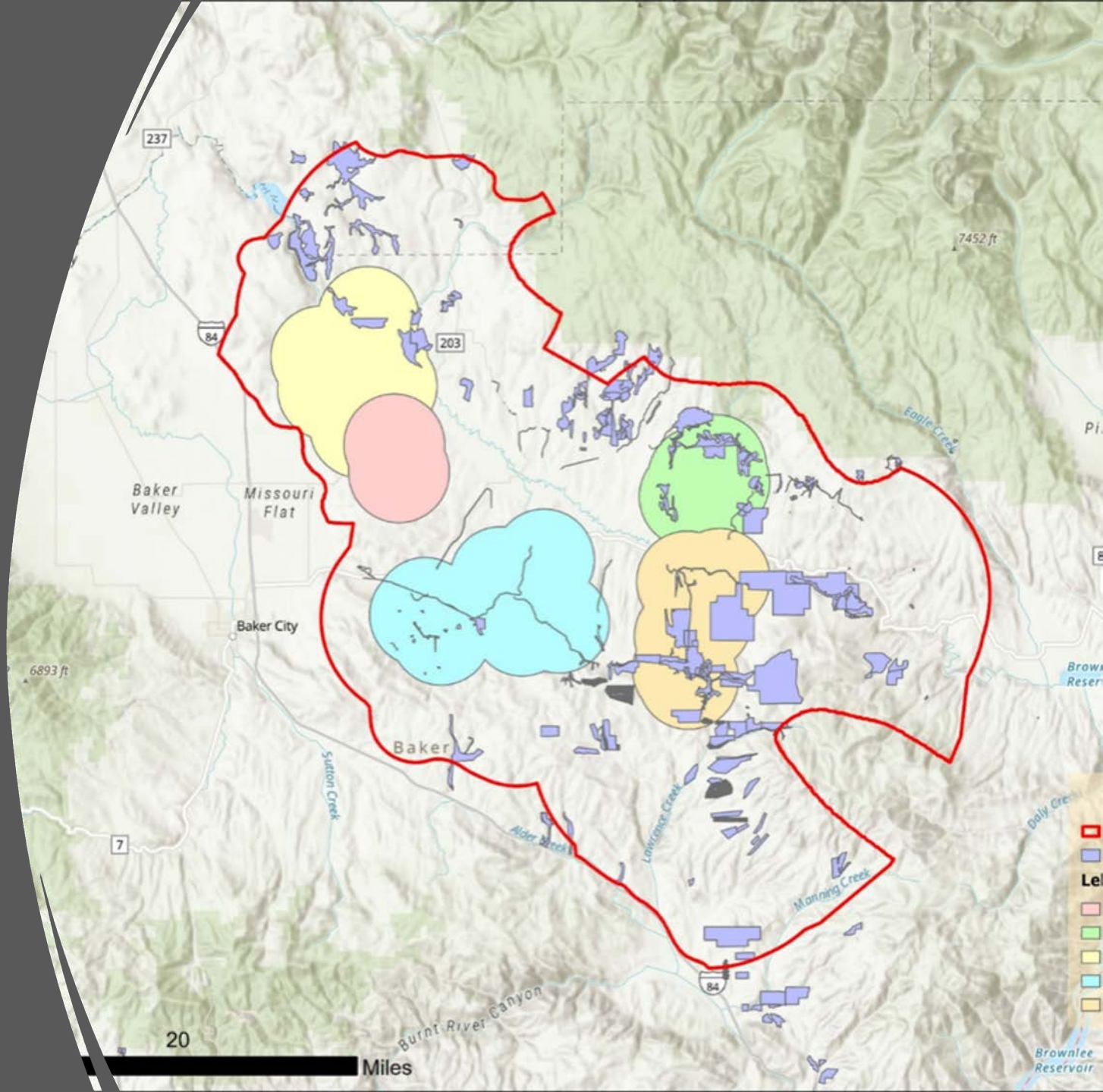
What is unique about Baker?

- 70,000 acres (21%) of Baker PAC are estimated to be dominated by invasive annual grasses (Sage-Grouse Conservation Partnership 2015, Bureau of Land Management 2017).
- We have a tremendous amount of whitetop and Russian thistle that makes the battle on IAG more challenging.
- The Baker PAC is ~70% privately-owned with a mosaic of small public land parcels.
- Different climate compared to the rest of eastern Oregon
- Semi-isolated Sage-grouse population
- Geospatial products often difficult to interpret

How do we strategically prioritize projects?

- **Criteria**
  - Proximity to core habitat
  - Matching funds
  - Landowner willingness to follow long term guidance
  - Partner involvement
  - Goals of the project align with the Threat Reduction Plan

- Initial focus within 2 miles of the most productive leks (i.e., where sage-grouse are)
- Activities should occur where they have the highest likelihood to benefit sage grouse



Strategic Planning in the Last Biennium of the FIP

- Grow Core Habitat
- Identify actions that have been weak or neglected and make improvements
- Protect investments
- Prioritize sites that will have the largest benefit to Sage-grouse habitat.
- Update the Threat Reduction Plan and Strategic Action Plan


Thank You!