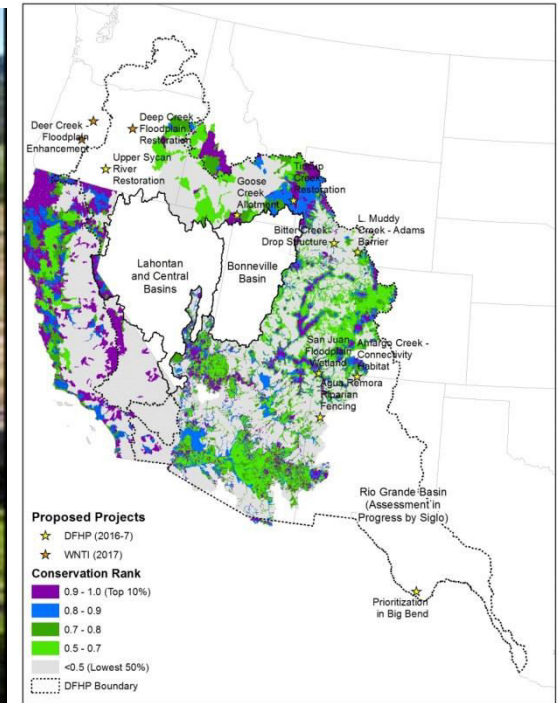


Partnering on multi-species aquatic assessments to inform efficient conservation delivery



Dan Dauwalter, Trout Unlimited/DFHP

Stephanie Vail-Muse, U.S. Fish and Wildlife Service/DFHP

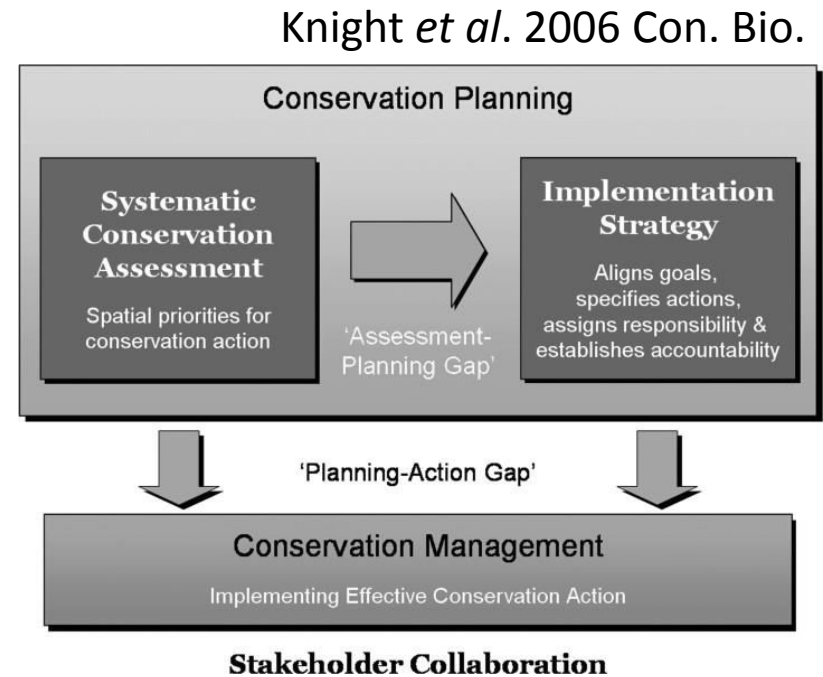
Therese Thompson, Western Native Trout Initiative,

Kevin Johnson, U.S. Fish and Wildlife Service/Southern Rockies LCC

Jodi Whittier, University of Missouri

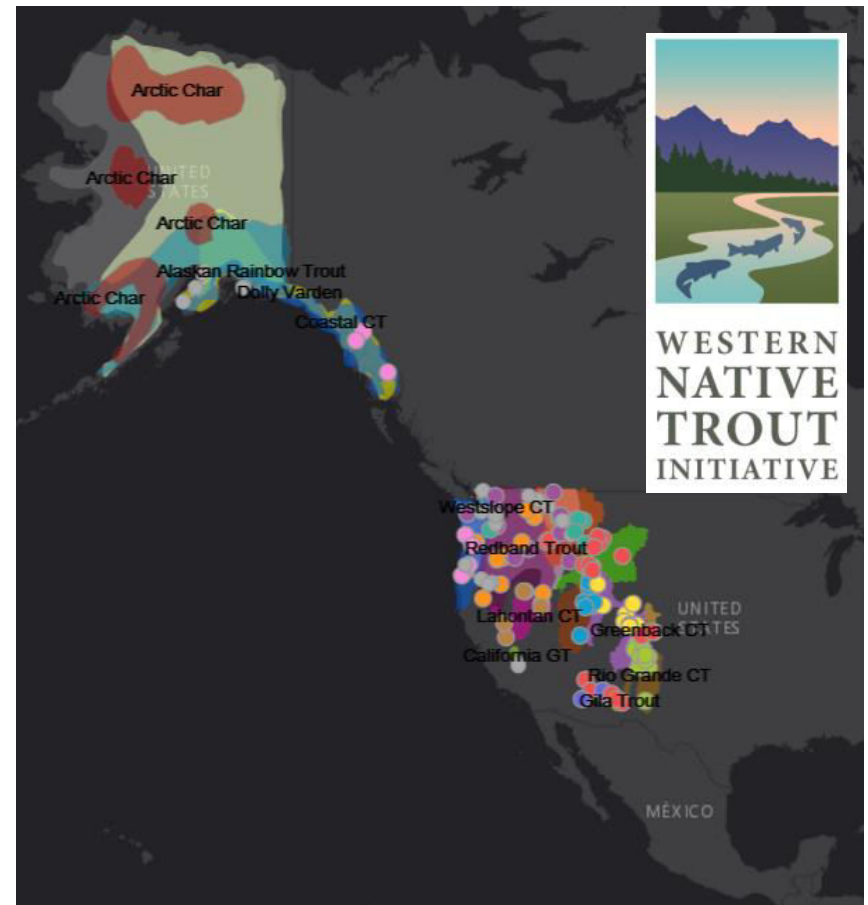
Efficient Conservation

- **Efficiency:**
accomplish with least waste of time and effort
- “Random acts of conservation”
- Assessment *INFORMS* planning
- Plan → Action



Fish Habitat Partnerships

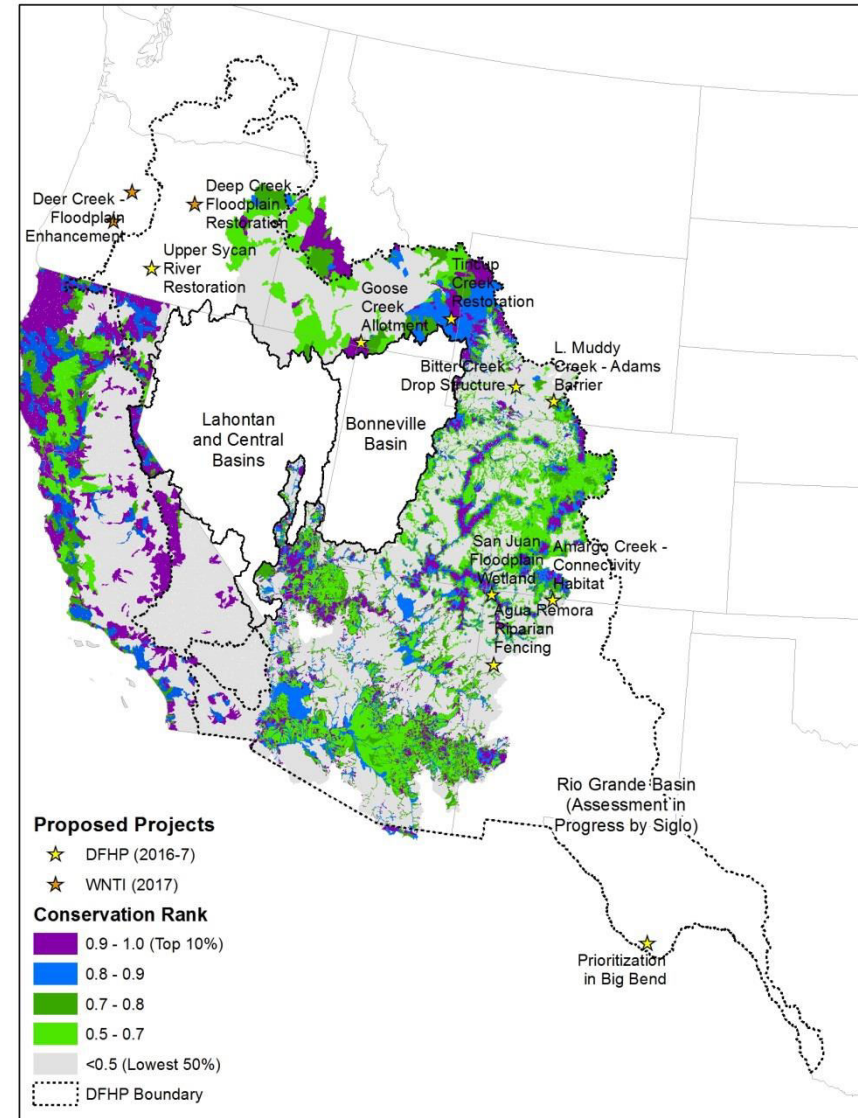
- FHPs make decisions across large landscapes



Multispecies Assessments

- What are they?
 - Species richness vs. representation
 - Threat level
 - Connectivity

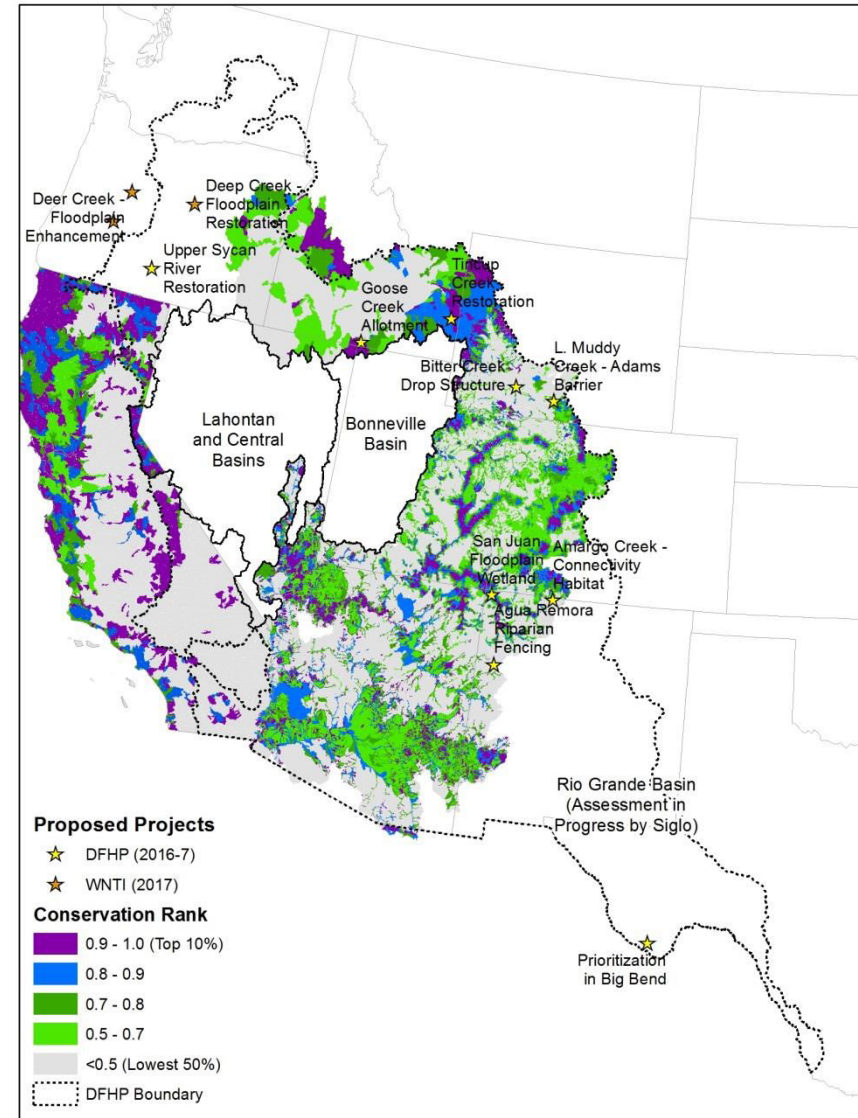
Water shed	Species			
	A	B	C	D
1	X	X		
2	X	X	X	
3	X		X	
4				X



Multispecies Assessments

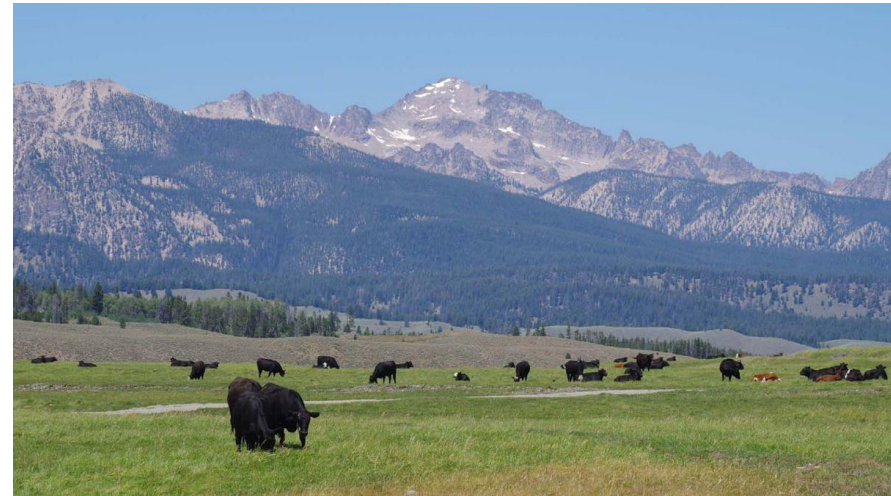
- What are they?
 - Species richness vs. representation
 - Threat level
 - Connectivity

Water shed	Species			
	A	B	C	D
1	X	X		
2	X	X	X	
3	X		X	
4				X



Multispecies Assessments

- What are they?
 - Species richness vs. representation
 - Threat level
 - Connectivity



	Species			
Water shed	A	B	C	D
1	x	x		
2	x	x	x	
3	x		x	
4				x

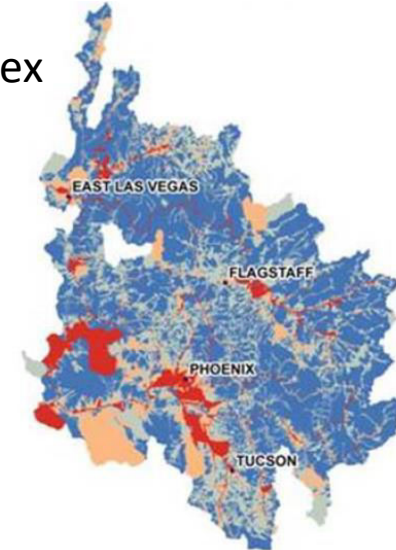


Multispecies Assessments

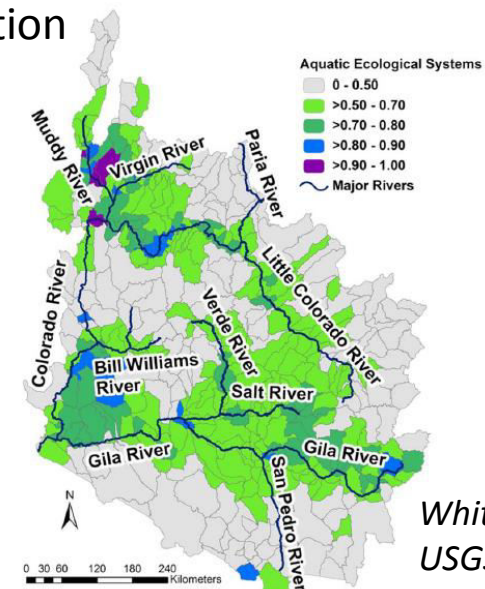
- What are they?
 - Species richness vs. representation
 - Threat level
 - Connectivity

	Species			
Water shed	A	B	C	D
1	x	x		
2	x	x	x	
3	x		x	
4				x

Threat Index



Conservation value

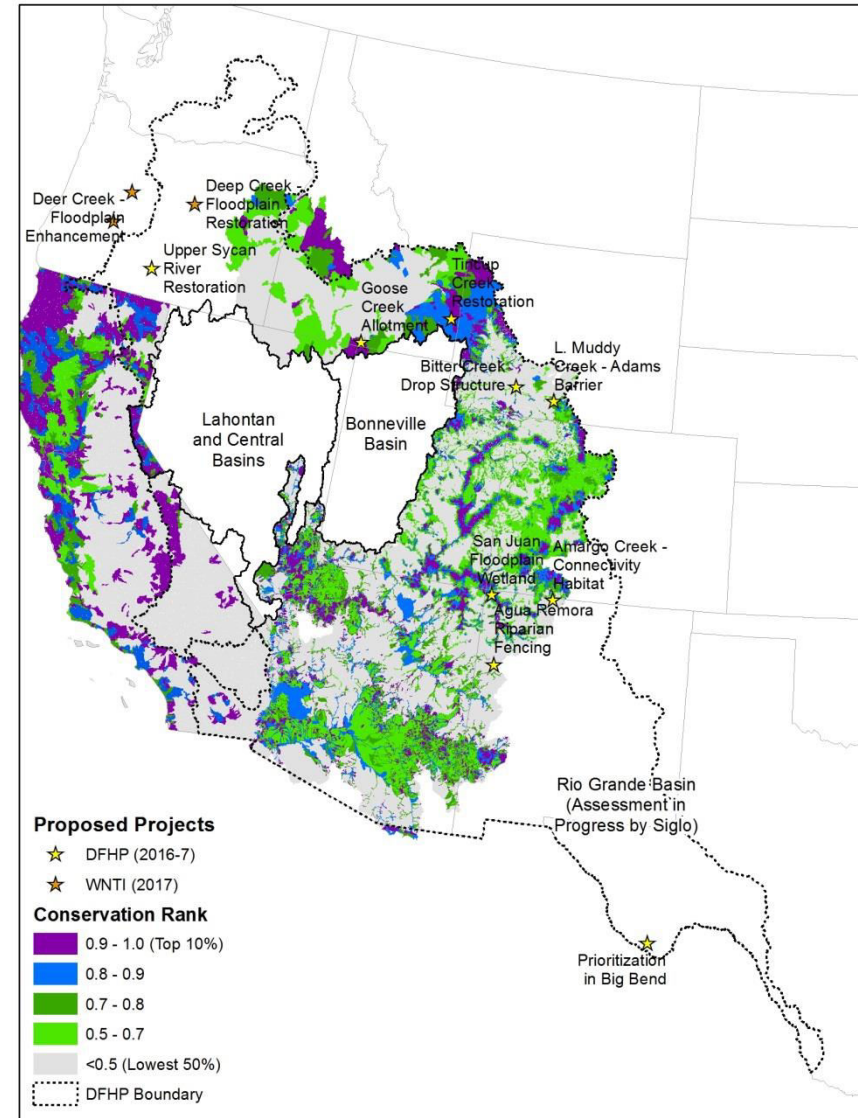


Whittier et al.
USGS (2011)

Multispecies Assessments

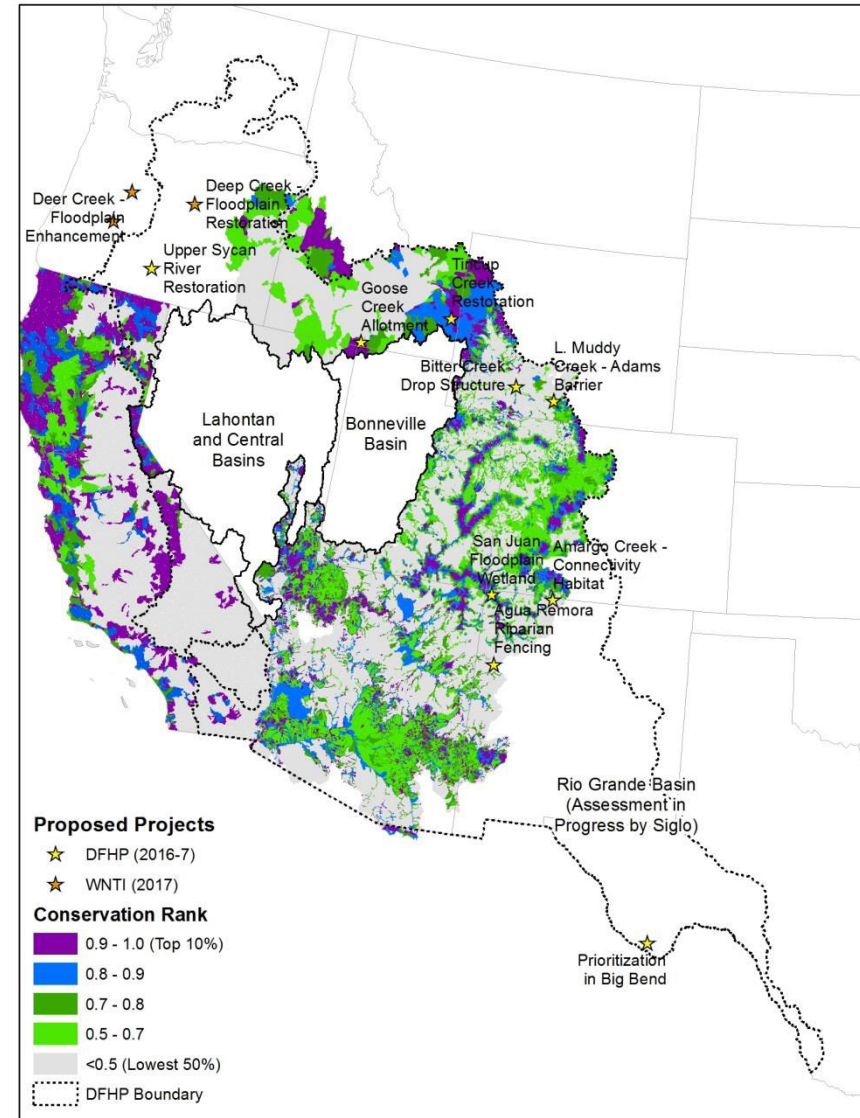
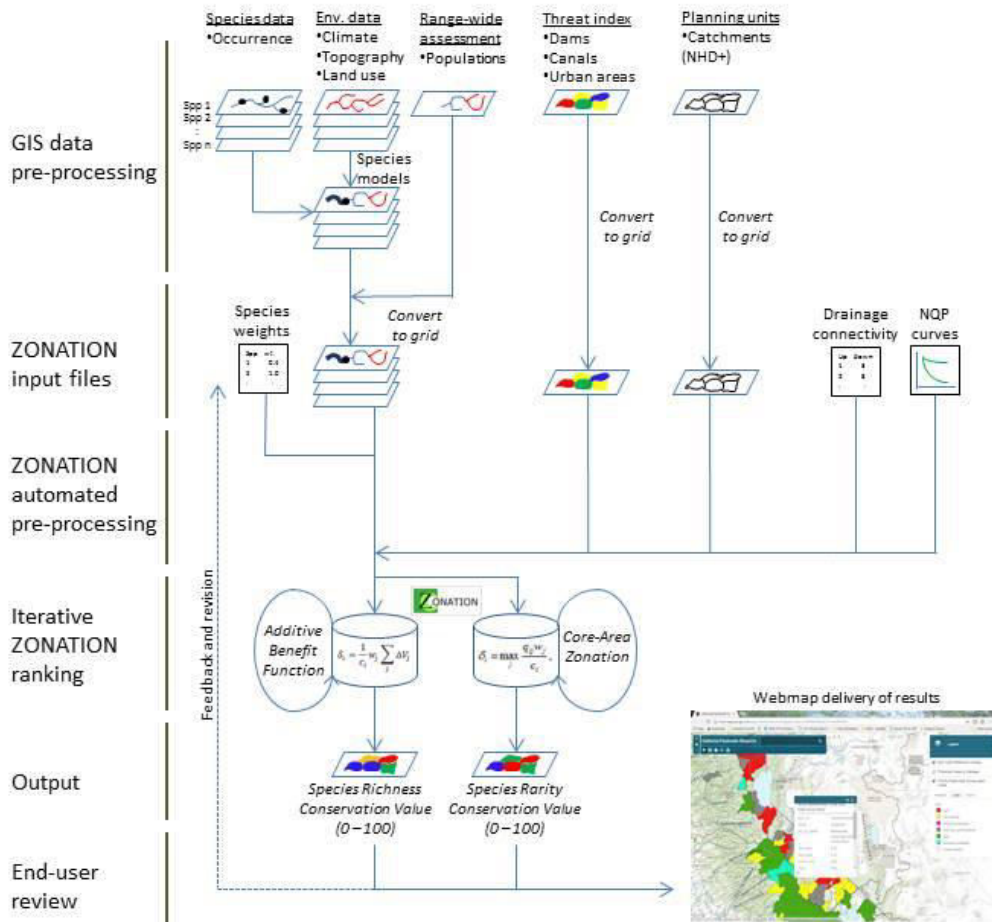
- What are they?
 - Species richness vs. representation
 - Threat level
 - Connectivity

Water shed	Species			
	A	B	C	D
1	X	X		
2	X	X	X	
3	X		X	
4				X

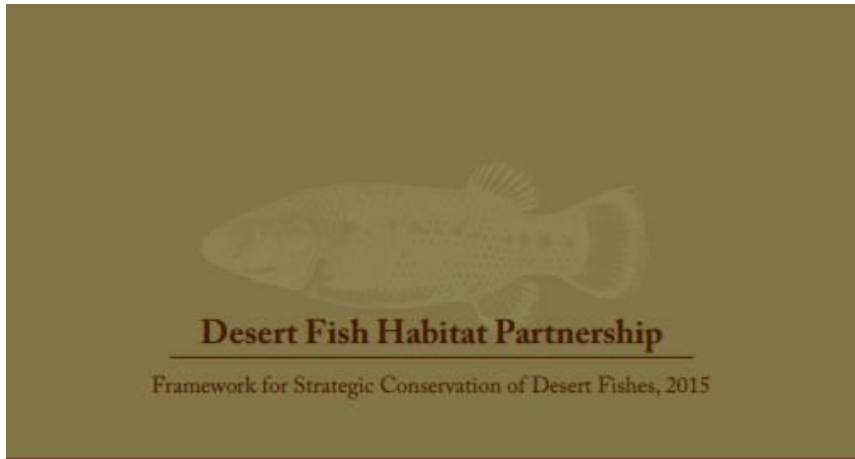


Multispecies Assessments

■ Analysis workflow



Desert Fish Habitat Partnership



Box IV-1. Integrating Scientific Assessments into DFHP Decision Making

An Example Using the Lower Colorado Scientific Assessment to Evaluate the Black Bob Allotment Project

LOWER COLORADO RIVER ASSESSMENT: The scientific assessment for the Lower Colorado River region was completed by the University of Missouri (Whittier et al. 2011). The assessment ranks all catchments (confluence-to-confluence river segments) according to their native fish conservation value continuously from 0 (lowest value) to 1 (highest value). The conservation values of catchments are based on:

- Known and modeled native fish distributions
- Non-native fish distributions
- Landscape level threats (water quality, hydrologic alteration, land use, etc.)
- Riverine connectivity

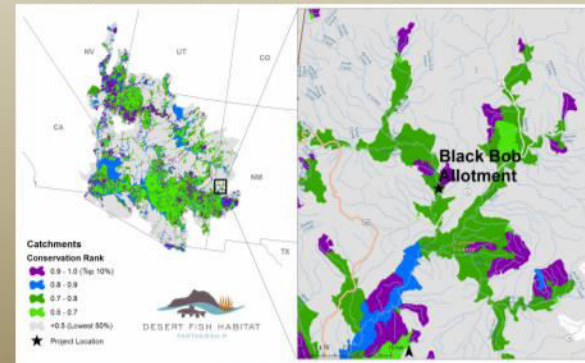
Overlaying project locations on catchment conservation values allow DFHP to evaluate how projects proposed for DFHP funding compare to other proposed projects (if there are multiple projects proposed by DFHP region) regarding the conservation value of the location in which the project is proposed.

BLACK BOB ALLOTMENT PROJECT: A fiscal year (FY) 2015 funding request was submitted to DFHP for the Black Bob Allotment Water System and Fencing project located on the San Francisco River. Based on the Lower Colorado River scientific assessment, the conservation value of the catchment in which the project is located is 0.769 (out of a maximum of 1.000), indicating that it is just within the top 25% of all catchments (best 25% of the landscape) in the Lower Colorado River basin.

The conservation value of catchments are used to compare how different projects within DFHP regions fit into the broader picture of fish conservation in the basin. For example, DFHP is exploring ways to incorporate catchment conservation values in which projects are located into project ranking criteria. One way is to have one criterion based on the conservation value of the catchment for the proposed project (using the Black Bob Allotment project as an example):

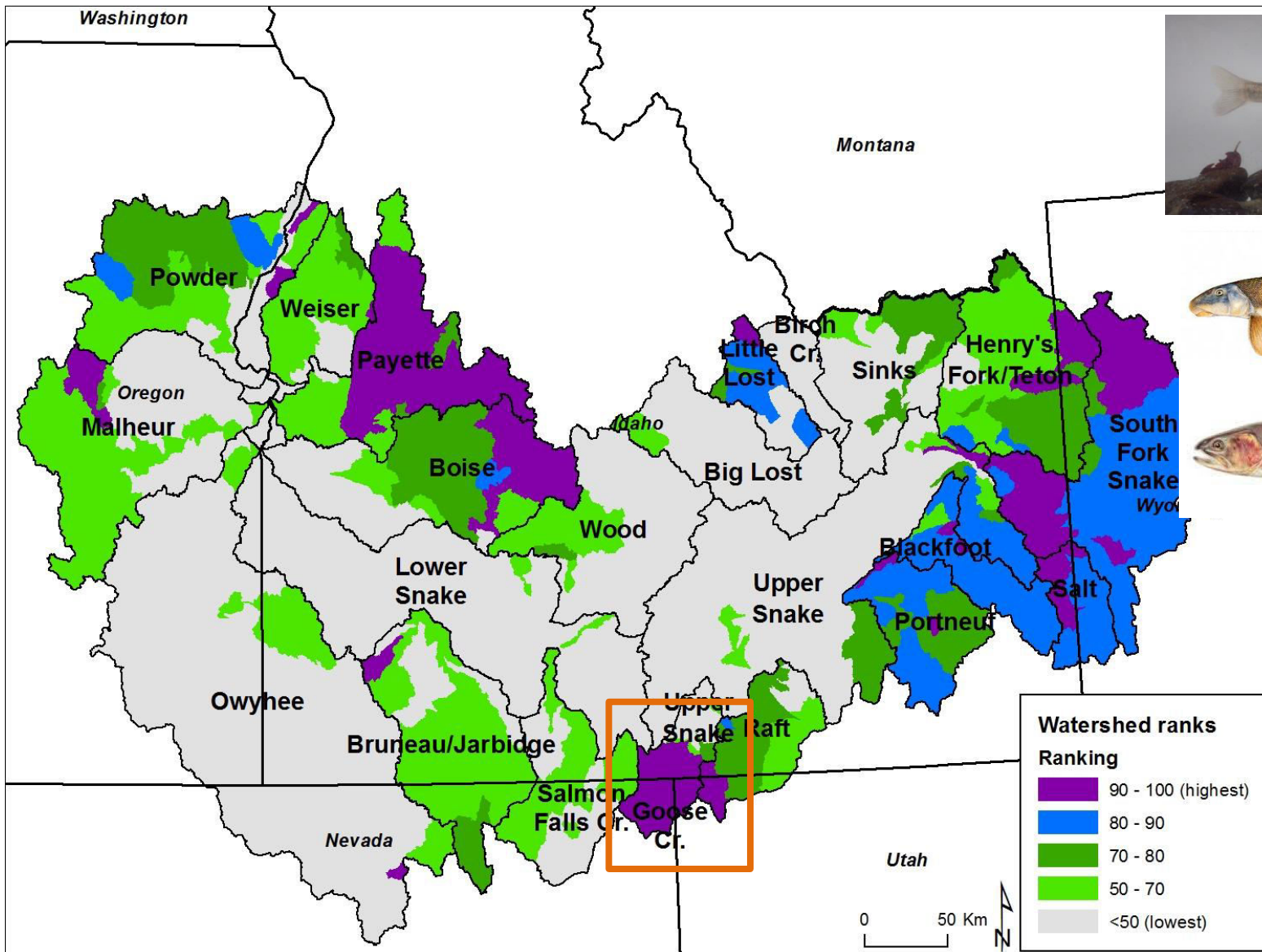
Criterion: Using the appropriate regional scientific assessment, what is the conservation value of the catchment in which the project occurs?

5pts (value >0.9) ___ 4pts (0.8-0.9) ___ 3pts (0.7-0.8) X 2pts (0.60-0.70) ___ 1pts (0.50-0.60) ___ 0pts (<0.5) ___



Catchment conservation values (ranks) for the Lower Colorado River basin (left), and specifically for the San Francisco River where the Black Bob Allotment project was proposed where the catchment value is 0.769.

Goose Creek (Upper Snake R.)

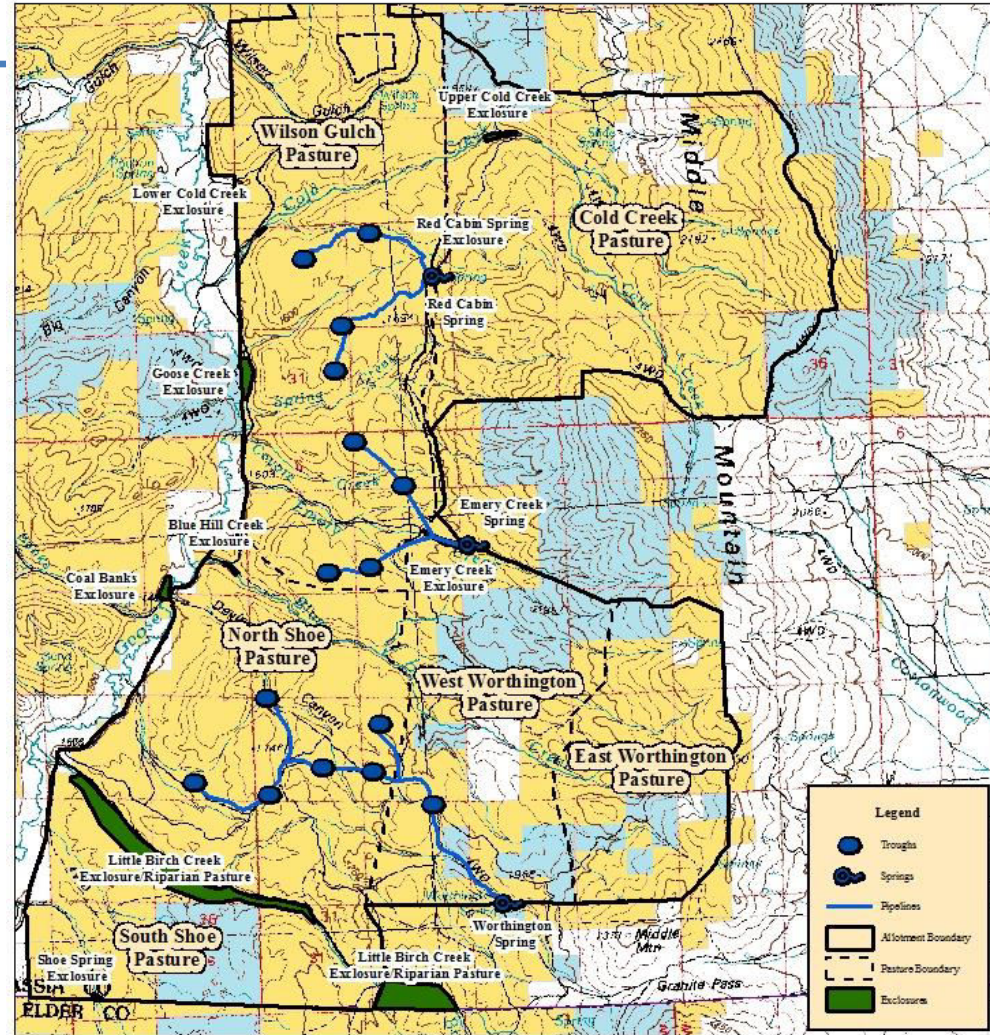


Goose Creek

- 30-yr old infrastructure
- Allotment managed for riparian health



Goose Creek Group Pipeline Reconstruction Project



DESERT FISH HABITAT
PARTNERSHIP



The surface management status ("land ownership") should be used as a general guide only. Official land records, located at the Bureau of Land Management (BLM) and other offices, should be checked for up-to-date information concerning any specific tract of land.

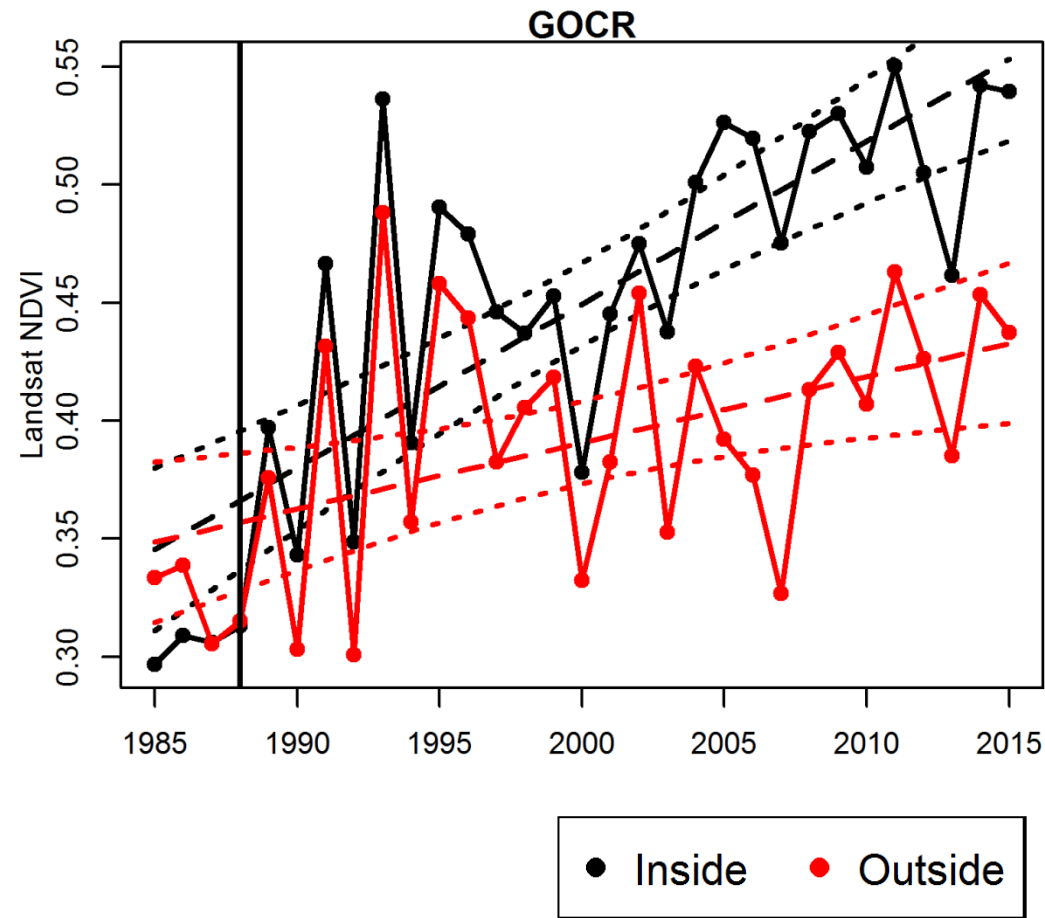
No warranty is made by the Bureau of Land Management. The accuracy, reliability, or completeness of these data for individual use or aggregate use with other data is not guaranteed. The following cannot be made Section 508 compliant. For help with this data or information, please contact the BLM Idaho State Office Webmaster at 208-373-4000.

Map Created: 9/16/2015

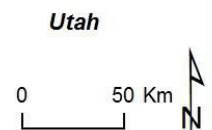
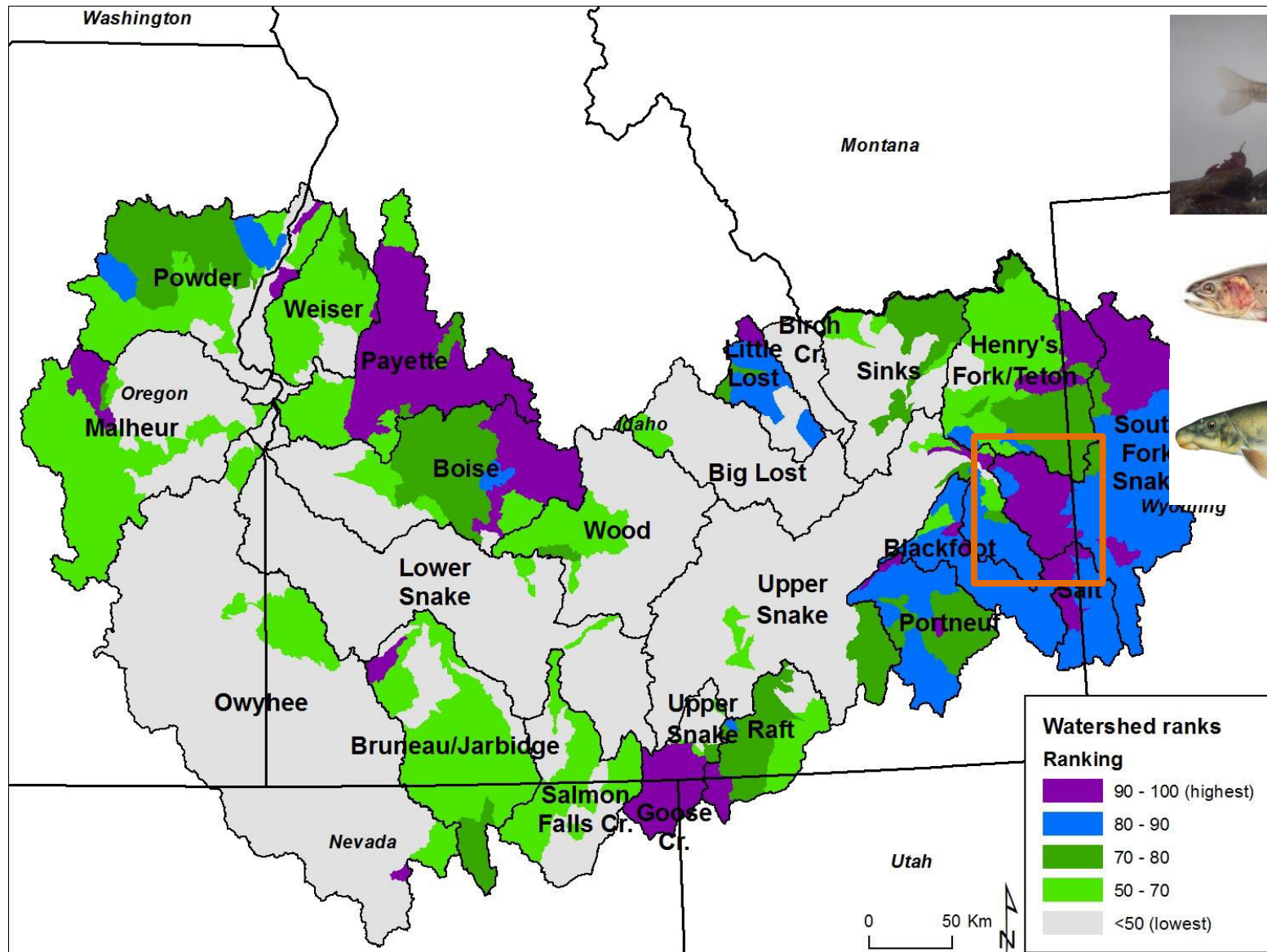
1:80,000
Map Projection: NAD 1983 UTM Zone 11N








Goose Creek (Upper Snake R.)



Tincup Creek (Upper Snake R.)



Watershed ranks	
Ranking	
	90 - 100 (highest)
	80 - 90
	70 - 80
	50 - 70
	<50 (lowest)

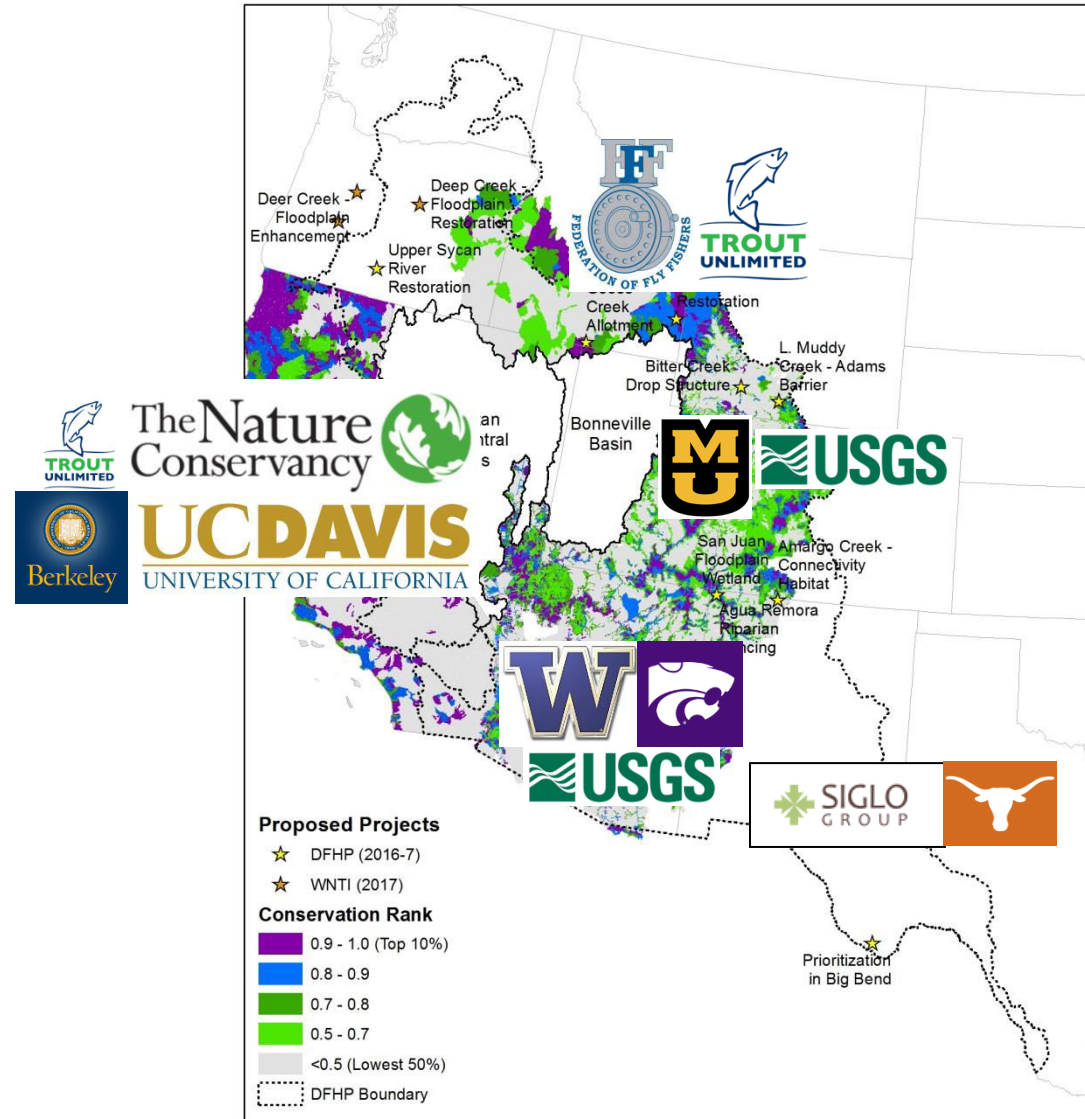
Tincup Creek (Upper Snake R.)

- TU, USFS, IDFG
- DFHP – WNTI joint funding
- Floodplain, riparian and channel restoration



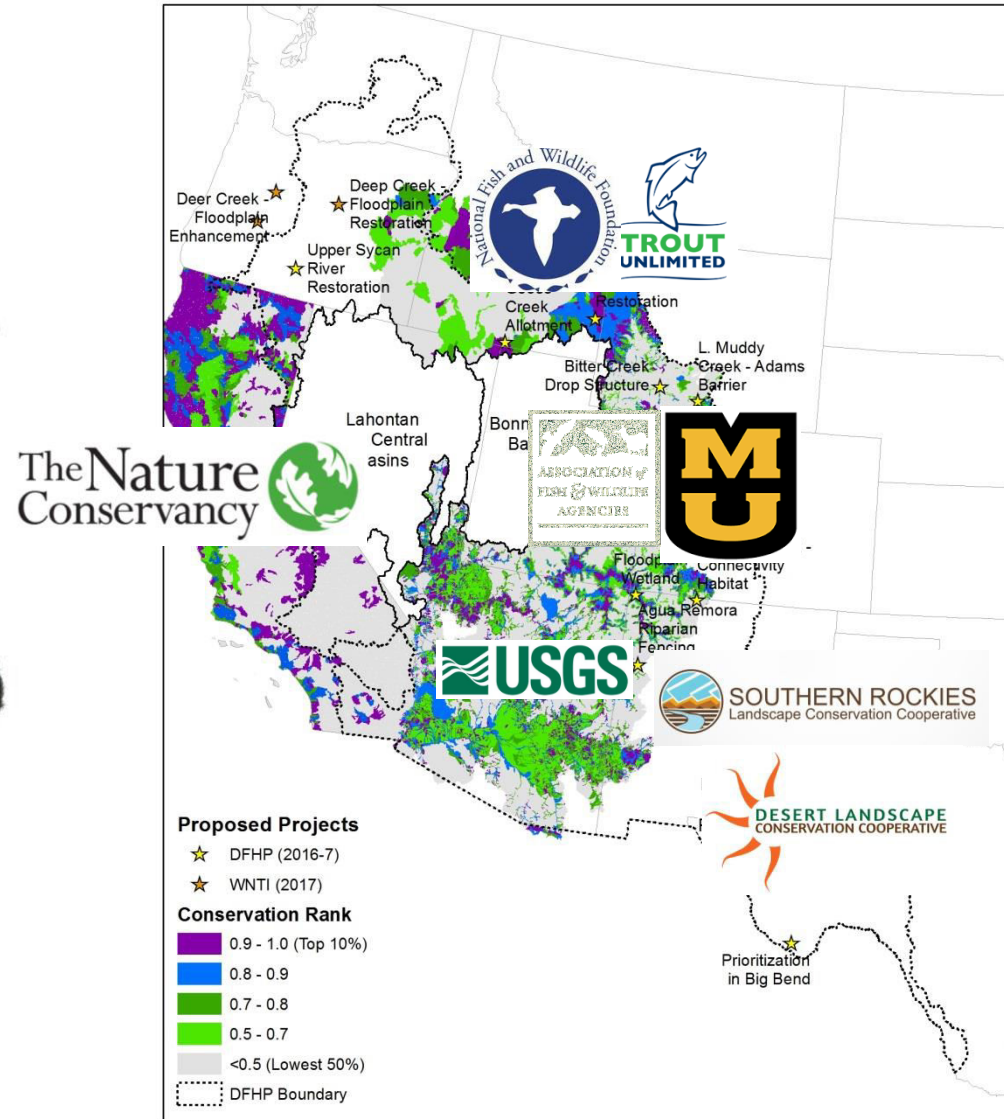
Multispecies Assessments

- Who's doing the work?



Multispecies Assessments

- Who's funding the work?



Conclusions

- Helps with efficiency
 - Strategic
- DFHP – WNTI collaboration
 - Fundraising
- Need partners
 - LCCs, Universities, etc.
- Proactive planning
 - Focal watersheds
- Missing other habitats



Questions



Credit: R. Bjork

Fish Habitat Partnerships

1. Use assessment ranking as one of many criteria
2. Elicit projects (RFP), receive proposals

