Barriers that prevent and barriers that protect: Grappling with legacy effects of dams in SE Oregon

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Future of Our Salmon: Technical Workshop, Spokane, 20 March 2014

Outline

Burns Paiute Tribe & Malheur R. background

Summary of historic & current fish distribution

Barriers of BPT interest & their changing roles

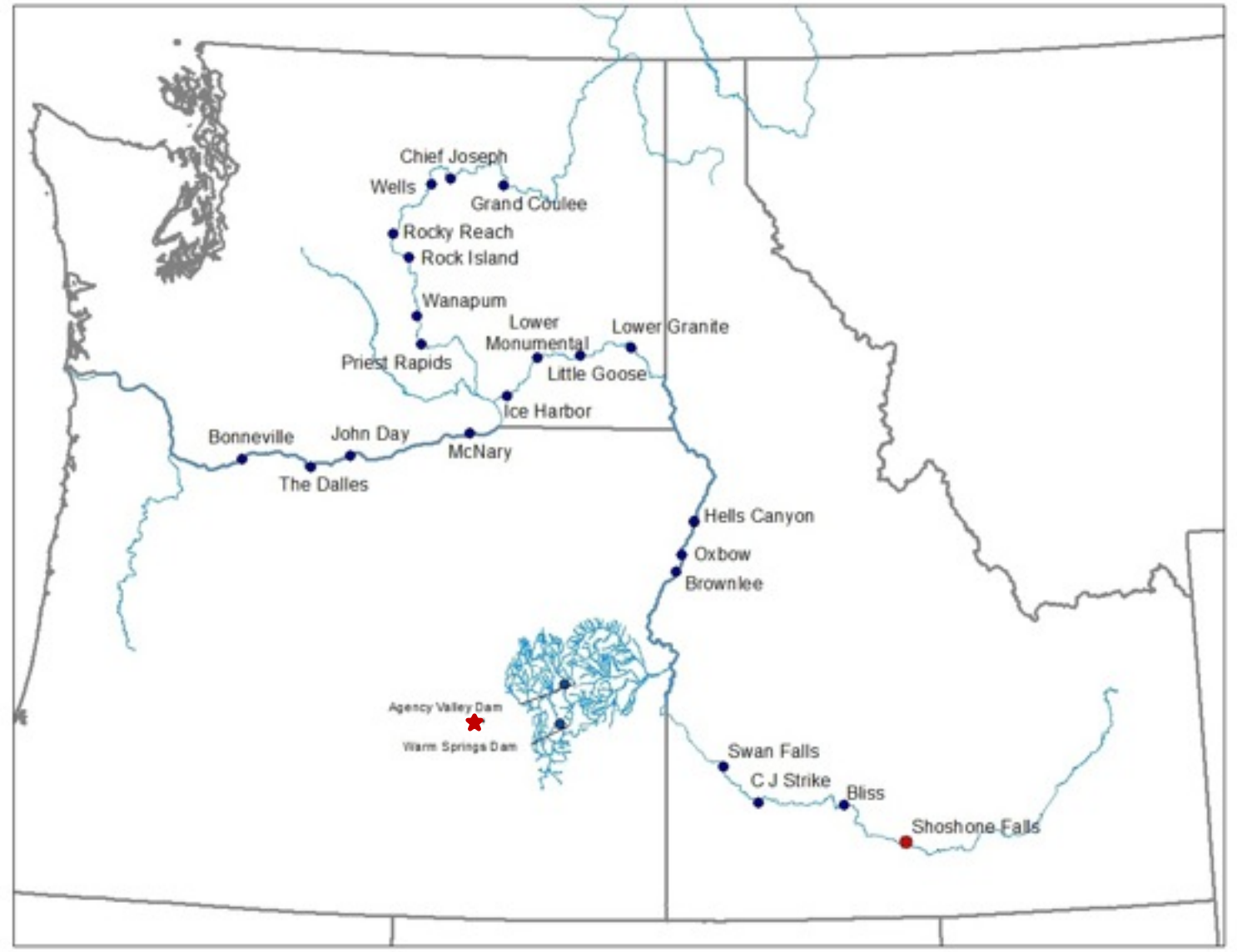
Legacy effects case study

Conclusions from staff perspective

Objective:

To provide a recent case study that demonstrates how unaddressed legacy effects of dams at the local level present additional challenges to our tribe in the collective pursuit of regional fish passage.

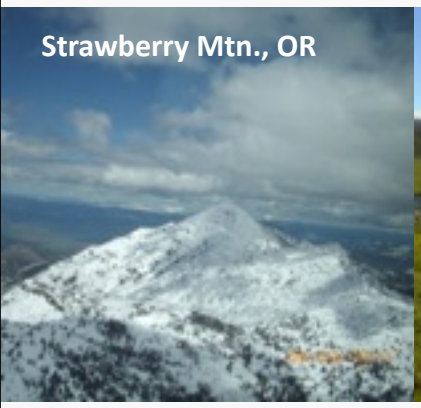
Malheur River, OR

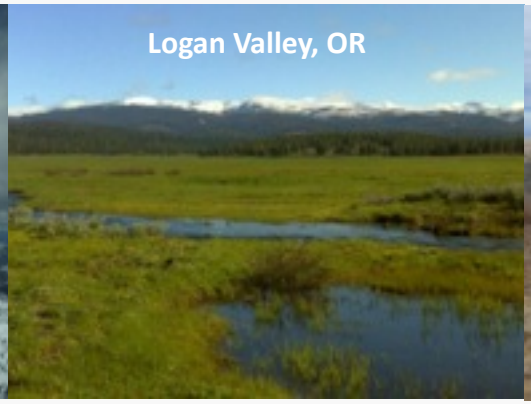


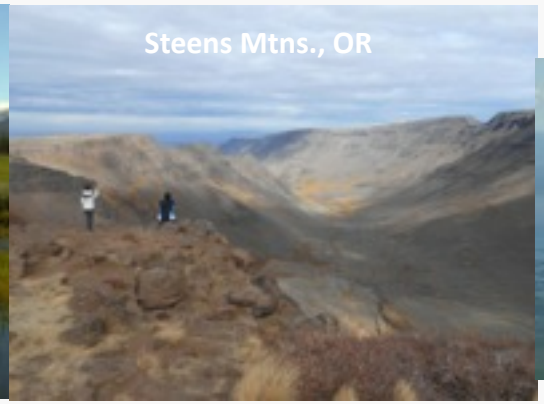
Burns Paiute Tribe

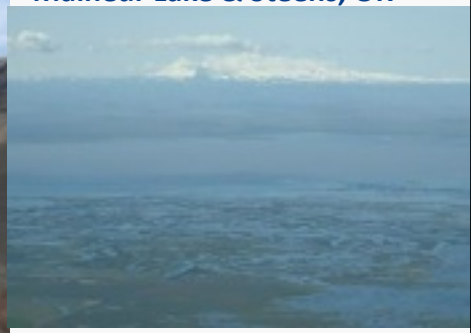
Reservation in Burns, OR (Great Basin)

- 2014—396 enrolled
- 1968—Constitution & Bylaws; 1972—reservation
- Current reservation: 1,113 ac
  - Fee lands: 8,387 ac *(all to trust)*
  - Grazing allotments: 25,396 ac *(≈21k ac to trust)*
- 1997—Natural Resources Dept.

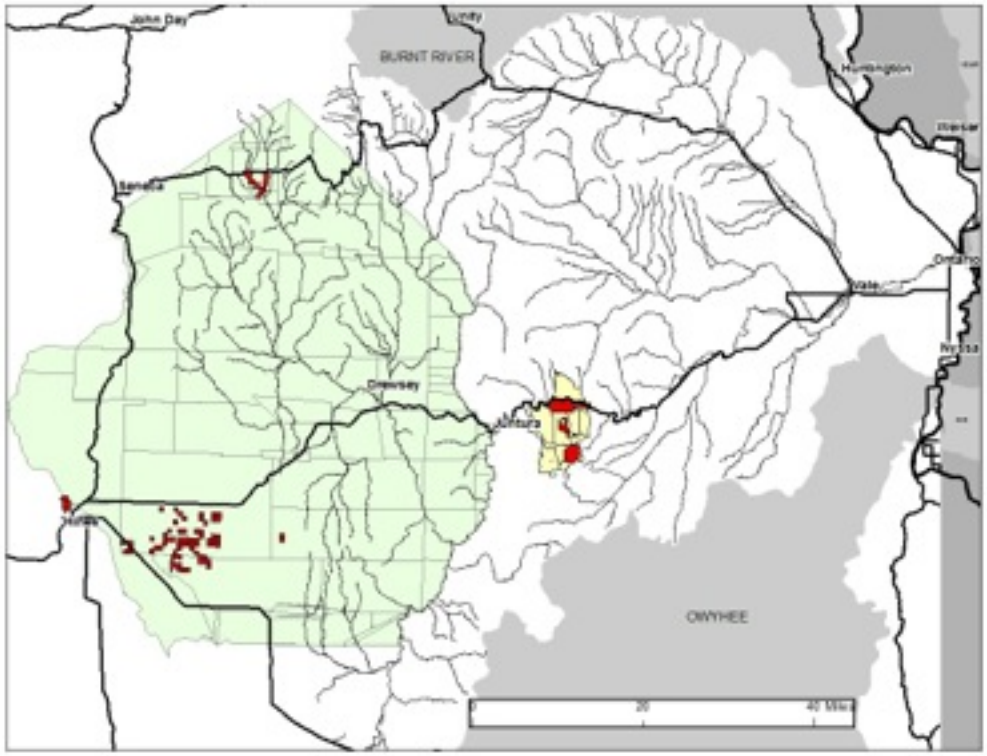

Strawberry Mtn., OR


Logan Valley, OR


Steens Mtns., OR


Malheur Lake & Steens, OR

Burns Paiute Former Reservation & Current Property



Original Reservation boundaries (green), Current fee/reservation lands (red) and grazing allotments (yellow).

Source: Whiting (1950); reprinted in Couture (1996).

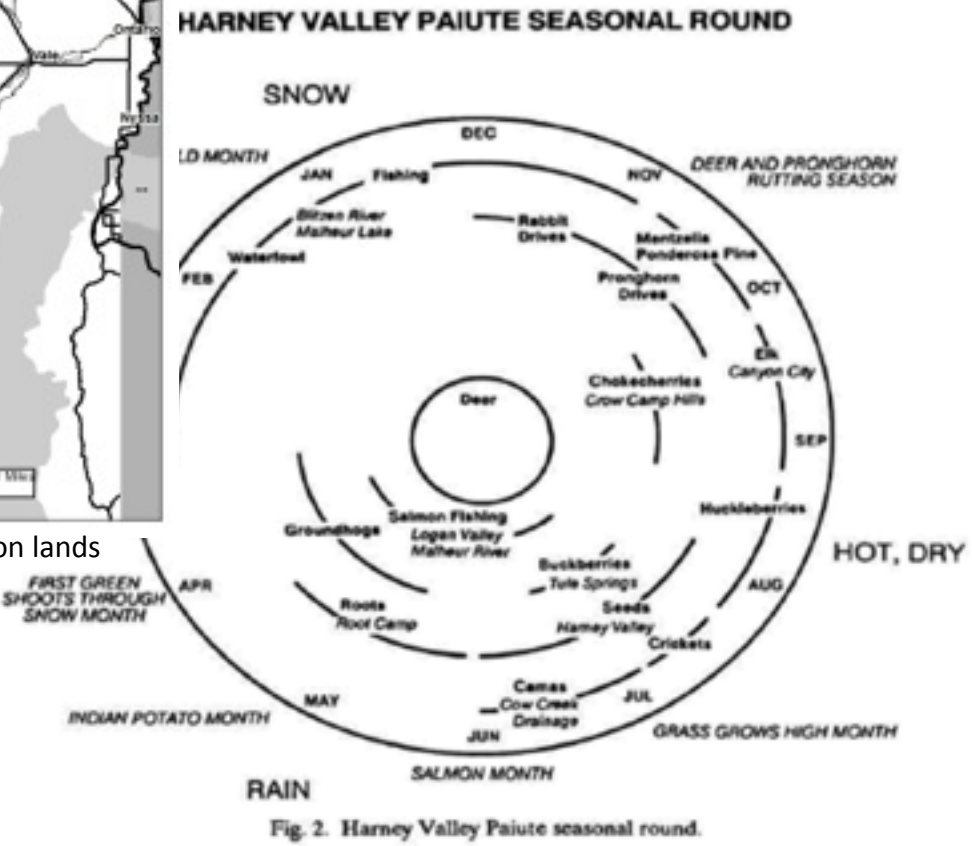


Fig. 2. Harney Valley Paiute seasonal round.

Burns Paiute Tribe & Malheur R. background

-Summary of historic & current fish distribution-

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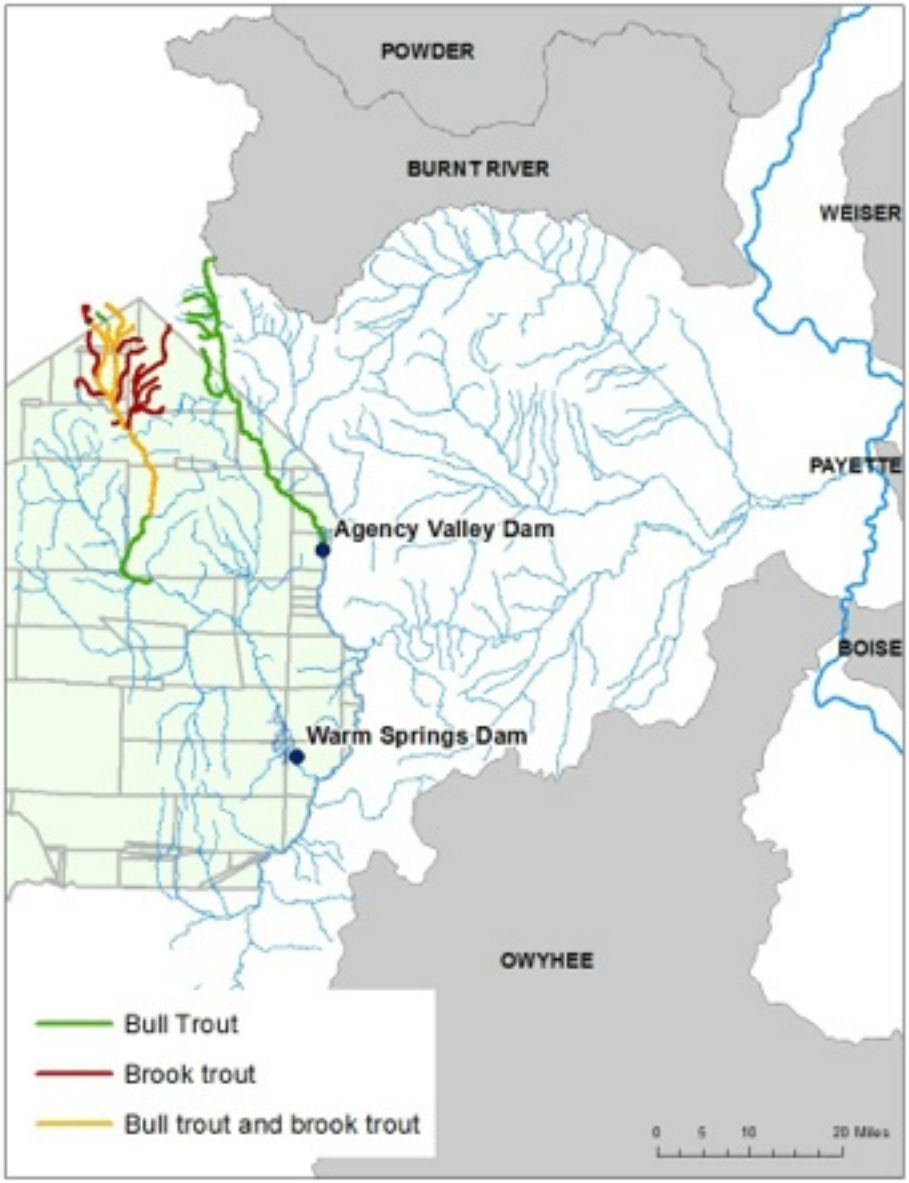
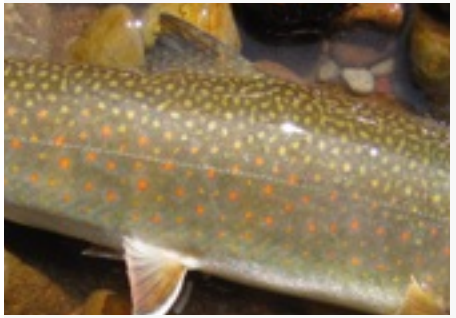
Conclusions from staff perspective

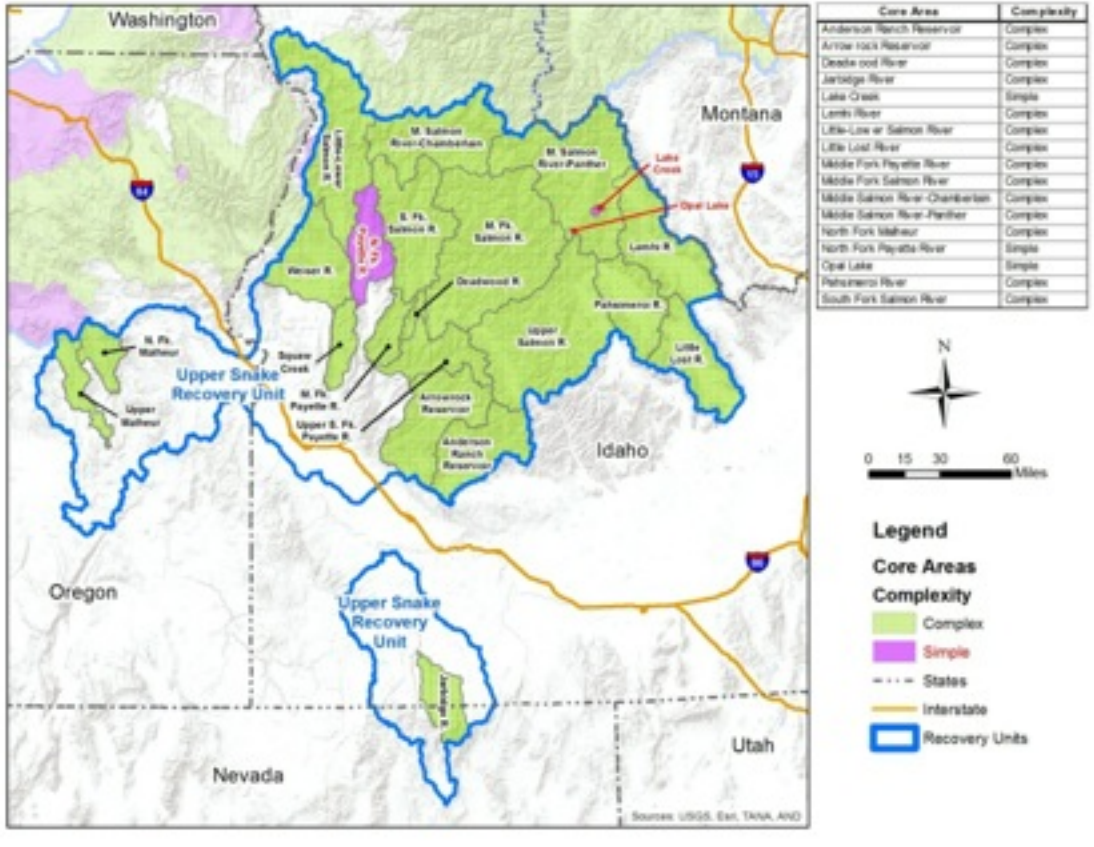
Remnant, Extirpated & Nonnative

Source: Bardwell et al. (1958)

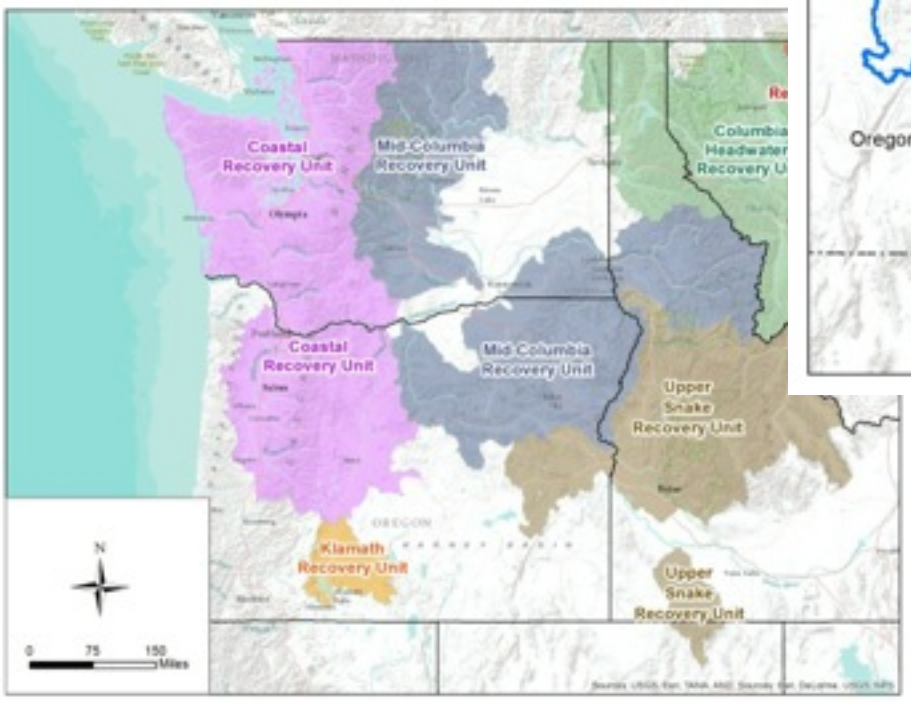




Remnant, Extirpated & Nonnative

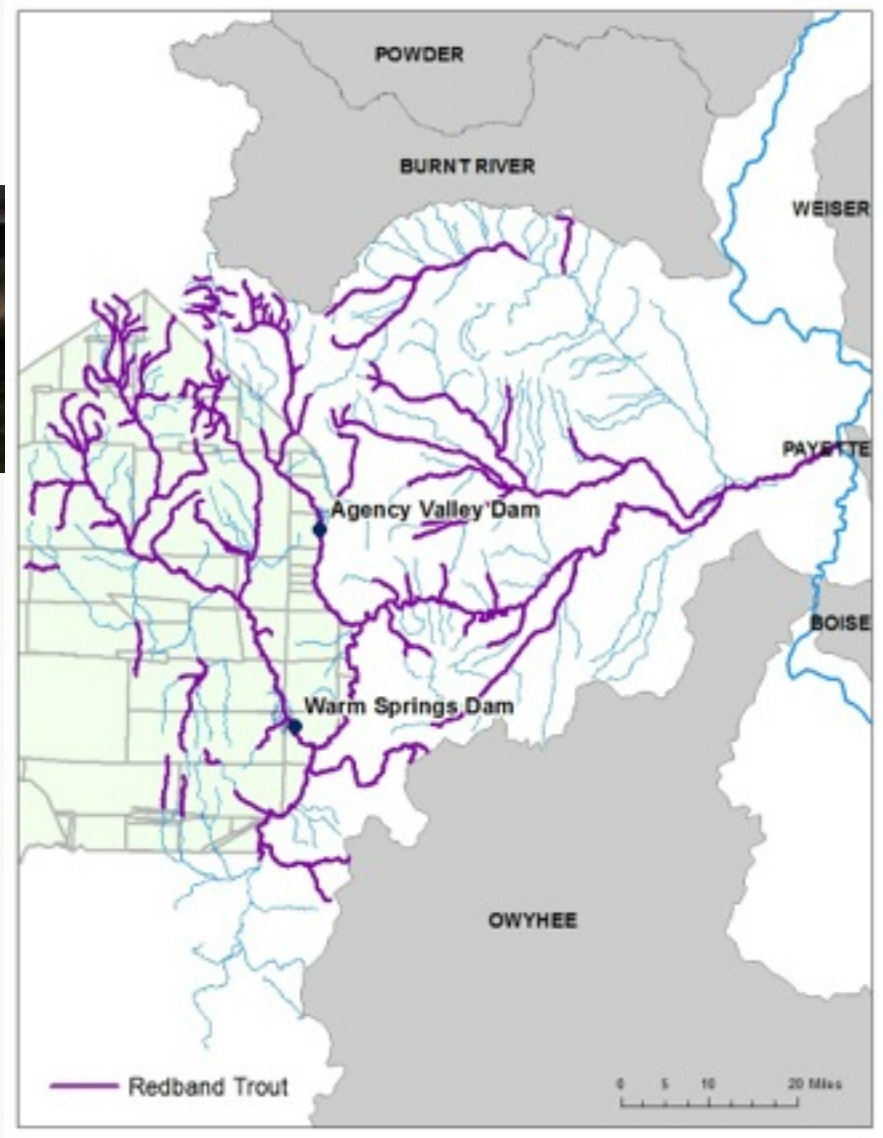


Proposed bull trout Recovery Units. Source: USFWS (2014)



Upper Snake Recovery Unit includes the Malheur. Source: USFWS (2014)

Remnant, Extirpated & Nonnative



Burns Paiute Tribe & Malheur R. background

Summary of historic & current fish use

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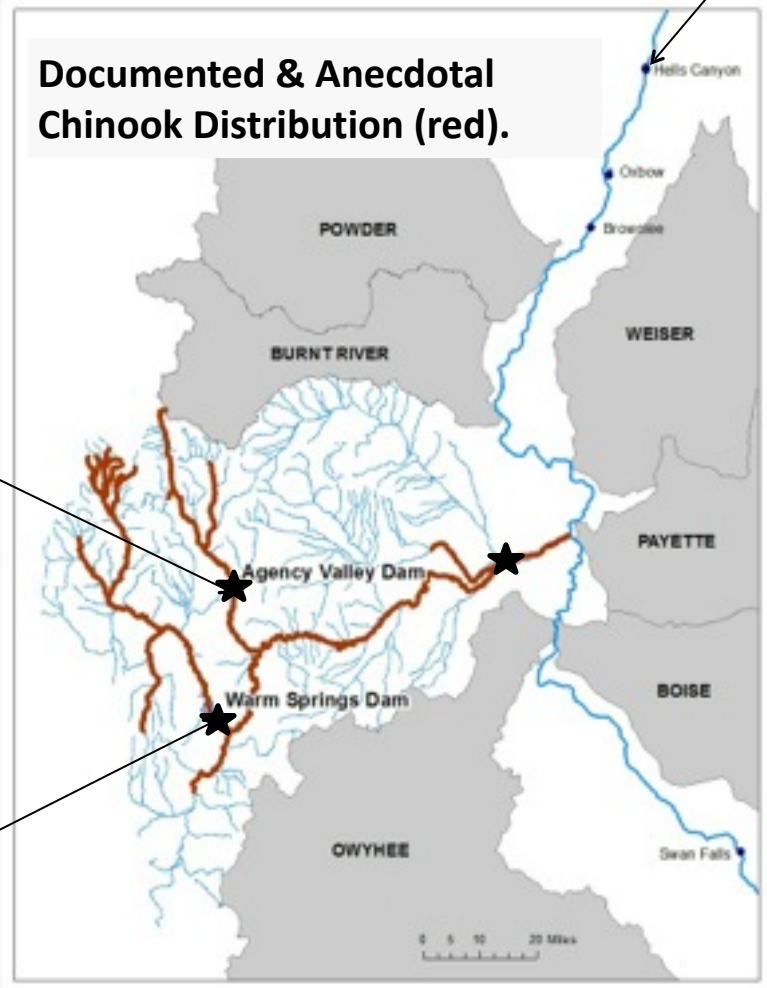
Preventative

Credit: USBR



We receive 500 lbs of surplus fish annuall

Brook trout introductions

Local decline (anadromy)

EXTIRPATION

1881: Nevada Division

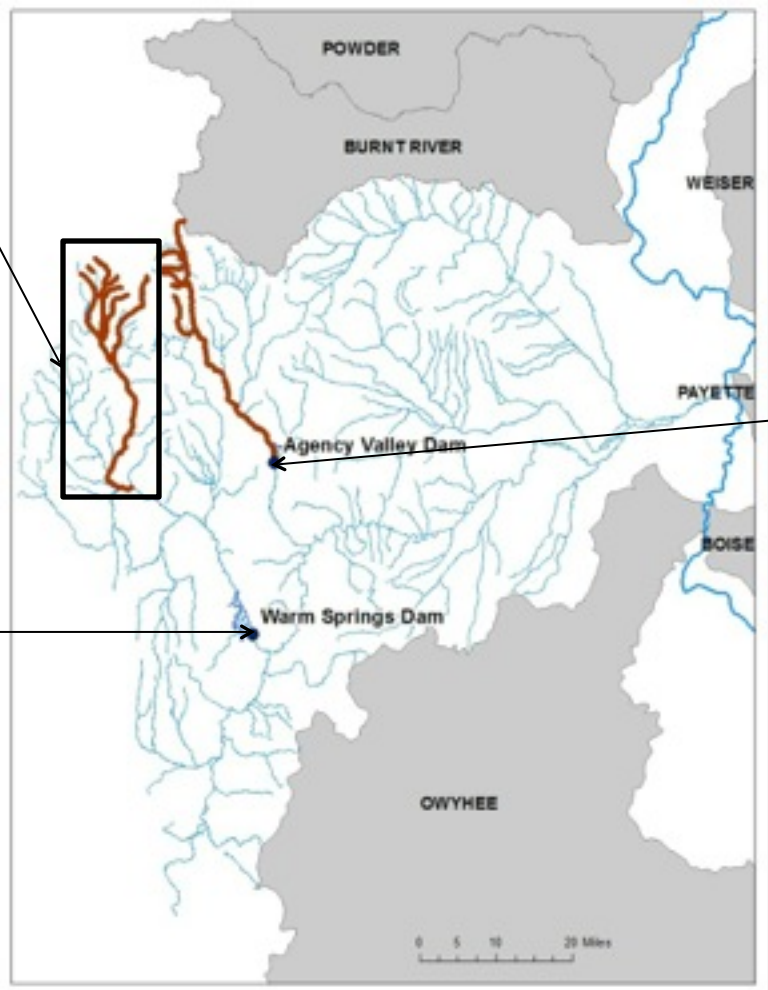
1910: Warmsprings

1935: Agency Valley

1960's: HCC & mitigation goes downstream

2012: Warmsprings proposed retrofit

Preventative/Protective



Proposed for hydroelectric development

Credit: USBR

Protective-*Currently*

Railroad grade on headwater trib (Credit: Bob Hassmiller, USFS-MNF)

Wooden culvert on headwater trib (Credit: Bob Hassmiller, USFS-MNF)

Burns Paiute Tribe & Malheur R. background

Summary of historic & current fish distribution

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Warmsprings Dam & Mason Dam

Mason Dam

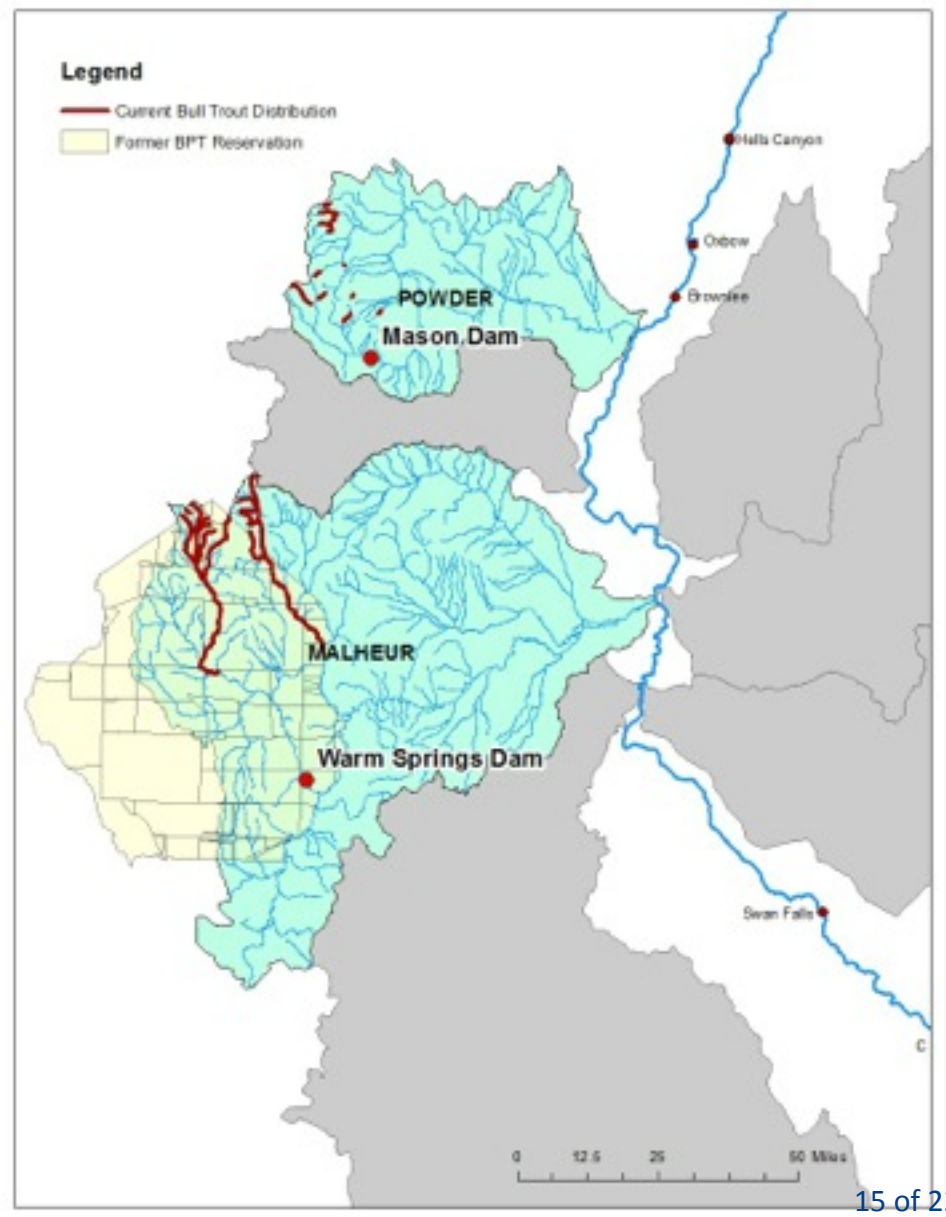
- 1968, storage & flood control
- Total capacity: 95.5k af

Baker County: 3.4 MW capacity, annual 7,510 MWh

Warmsprings Dam

- 1919, storage (10/15-4/15)
- Total capacity: 169.7k af

WS Irrigation District: 2.7 MW capacity, annual 7,442 MWh



Stream-lining FERC licensing

Hydropower Regulatory Efficiency Act of 2013 (H.R. 267)

Bureau of Reclamation Small Conduit Hydropower Development and Rural Jobs Act (H.R. 678)

Malheur River below Warmsprings Dam.

Warmsprings: Passage Scenarios

- Benefit Analysis of immediate passage vs. mitigation
  - All agree current conditions do not warrant fish passage
- **Waiver** removes any consideration of passage for license
  - ID's on-site or off-site mitigation to provide net benefit
- **Exemption** allows for periodic review of current conditions
  - No mitigation & proponent assumes uncertainty

Malheur R. below Warmsprings during irrigation Releases (Apri.15-Oct. 15).

Malheur R. is dewatered Oct. 15-Apr. 15 due to operations at Warmsprings Dam (Credit: ODFW).

Justification & BPT response

"Current conditions are unsuitable, so passage makes no sense."

- Hydro development is first modification to trigger fish passage.
- Unsuitable conditions due to long-term operations by the project proponent ≠ rationale.
- Relevance of passage needs to be projected to the same timelines as a FERC license.

"There is no T&E species use of the area."

- Impacts of irrigation facilities on E.OR tribs are not the focus of extensive study.
- Expedited processes constrain studies to irrelevant timing.
- Assumes no beneficial change over several decades.

"Hells Canyon."

- Agencies and tribes should ensure that processes make regional sense.
- In the event of a change in passage status, tribs need to remain relevant.

"Costs of fish passage would halt this project."

- Proponents should not set mitigation $ caps prior to analysis.
- The process is expedited, so solutions are expedited.
- Uncertainty should be built into project costs.

We cannot preclude the potential of blocked tributaries if we hope for regional passage.

Outcome

Revision after one month:

"This Agreement shall be valid and remain in effect until such time…

…or a **federal fisheries agency requires the construction of fish passage facilities pursuant to its independent authority** granted under the Federal Power Act or other federal law, and said facilities are functioning and providing benefits to native migratory fish…"

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Conclusions from Staff Perspective

- **Legacy effects vs. impacts of modification are inextricable in the tribal context.**
  - -Modifications present the first time to address impacts.
  - -If not now, when?

- **Legacy effects are not currently addressed in hydroelectric retrofit at existing dams in OR.**
  - -OR Fish Passage Exemption retains flexibility.
  - -Mason Dam & Warmsprings Dam have set an adverse precedent.
  - -When owner/operator is license proponent?

- **Further analysis is needed to develop "hybrid" agreement categories to retain flexibility while acknowledging current conditions.**

Background: Malheur River below Warmsprings dam during irrigation summer releases.

Conclusions from Staff Perspective

- If legacy effects are not addressed, we risk placing irrevocable distance between our membership and the resource.
- Fish passage considerations need to align at varying geographic levels to address legacy effects & cumulative impacts.
- Barriers serve a variety of functions depending on the stage of restoration.

Background: A rare glimpse of an apparently pure Upper Malheur River bull trout.