



Gallatin Valley Water Exchange: Expediting New Water Uses in a Closed Basin

**WPIC Meeting
Helena, MT
January 11, 2016**

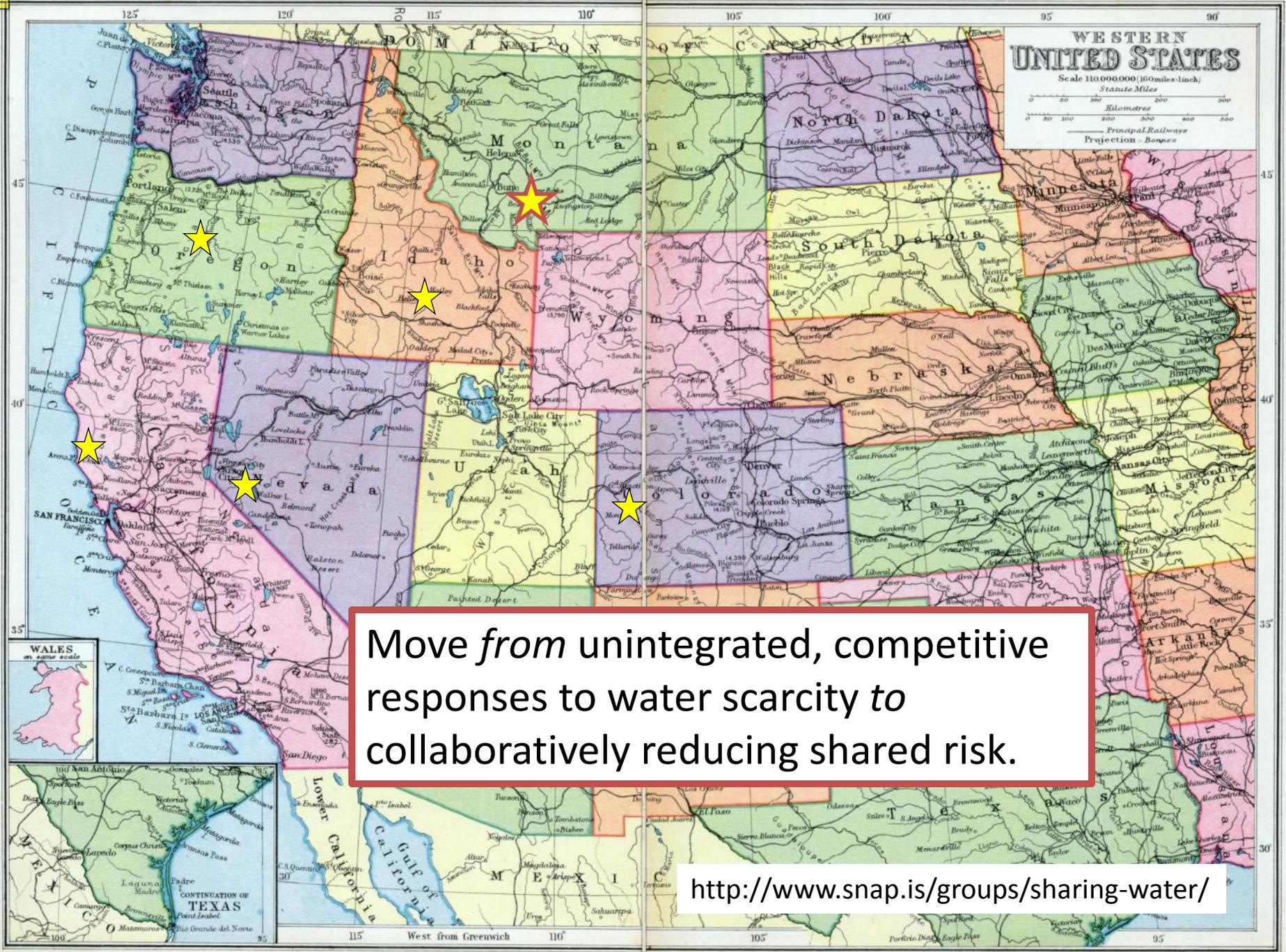
In Order of Presentation:

Laura Ziemer, Trout Unlimited

Brian Heaston, City of Bozeman

Deb Stephenson, DMS Natural Resources

Lain Leoniak, City of Bozeman

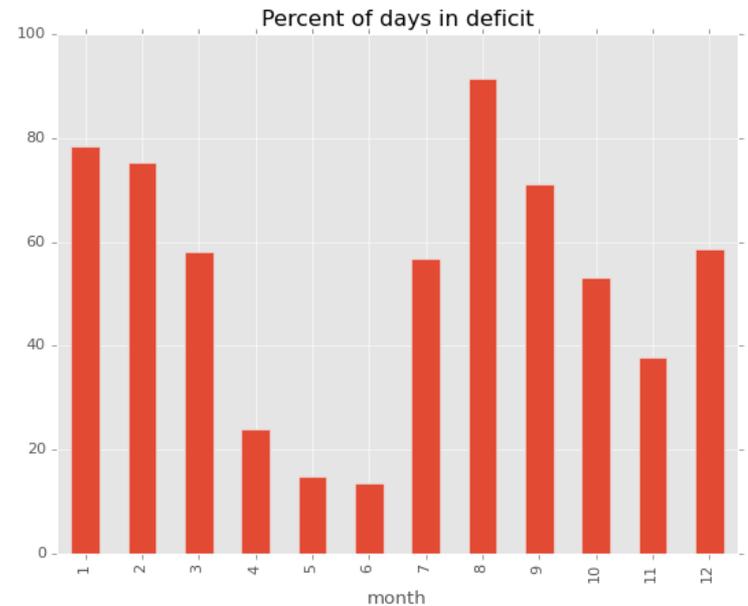
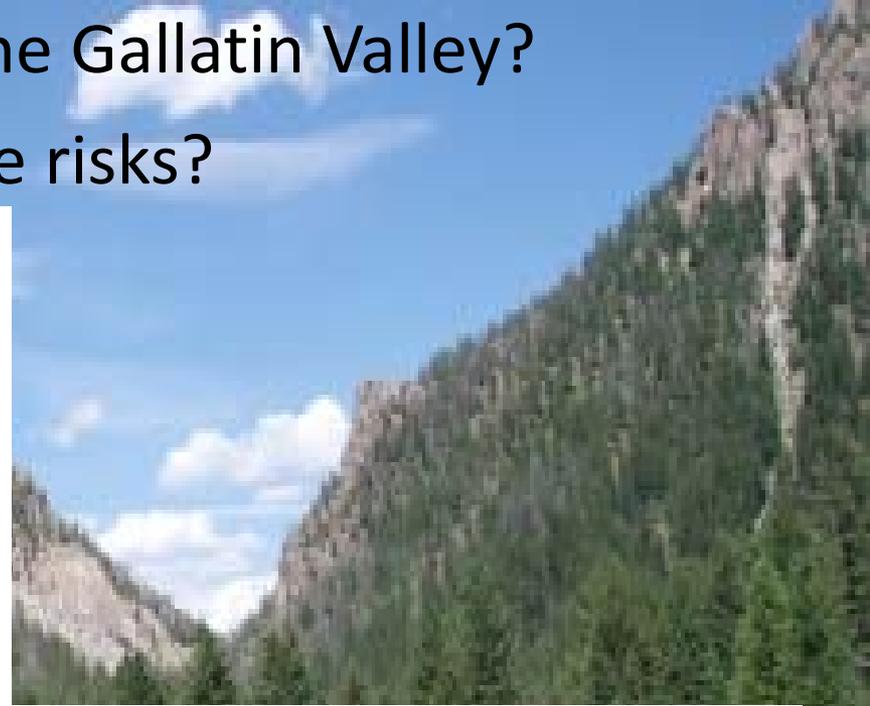
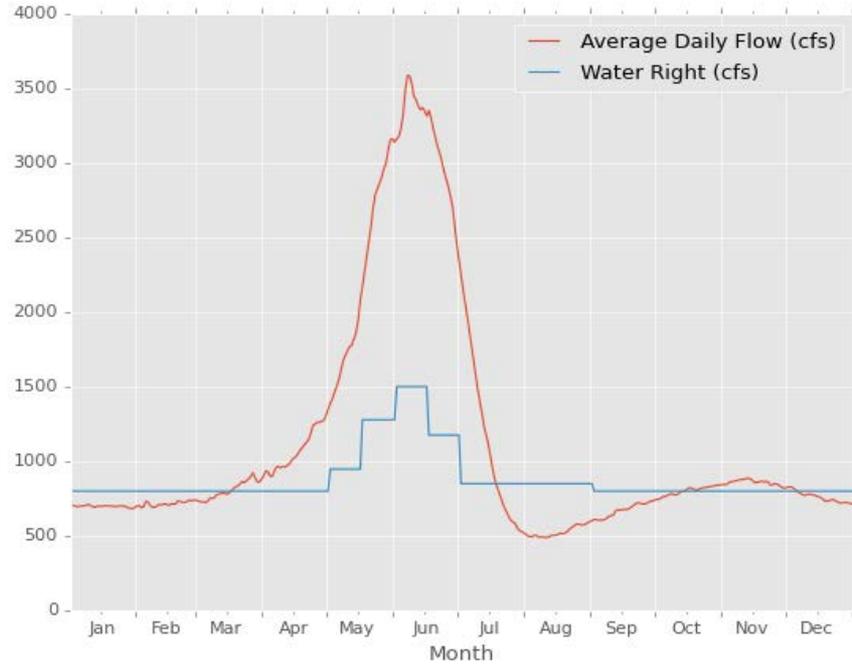


Move from unintegrated, competitive responses to water scarcity to collaboratively reducing shared risk.

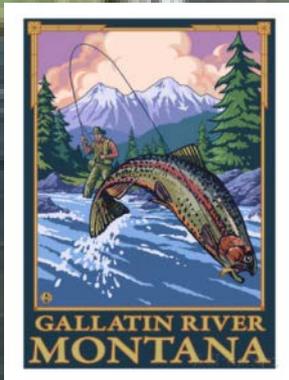
<http://www.snap.is/groups/sharing-water/>

Who needs water in the Gallatin Valley?

What are the risks?

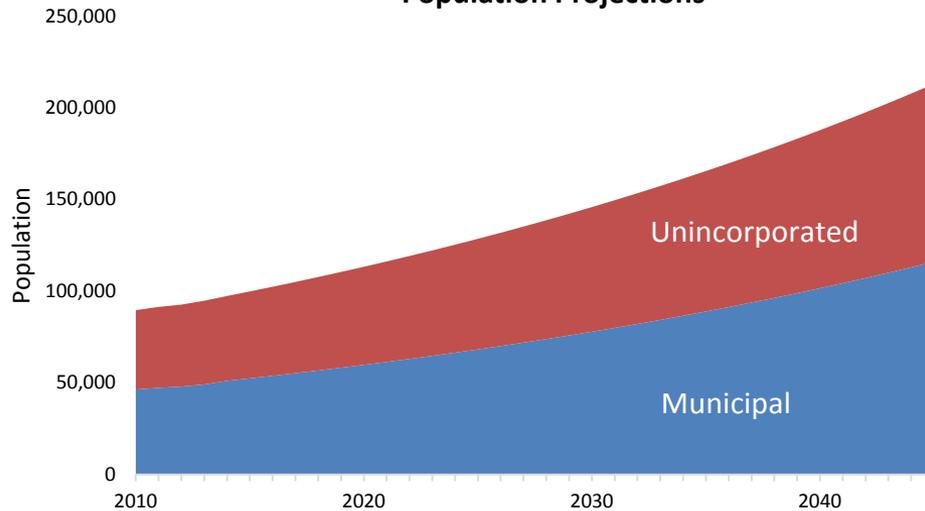


Murphy Rights at Logan



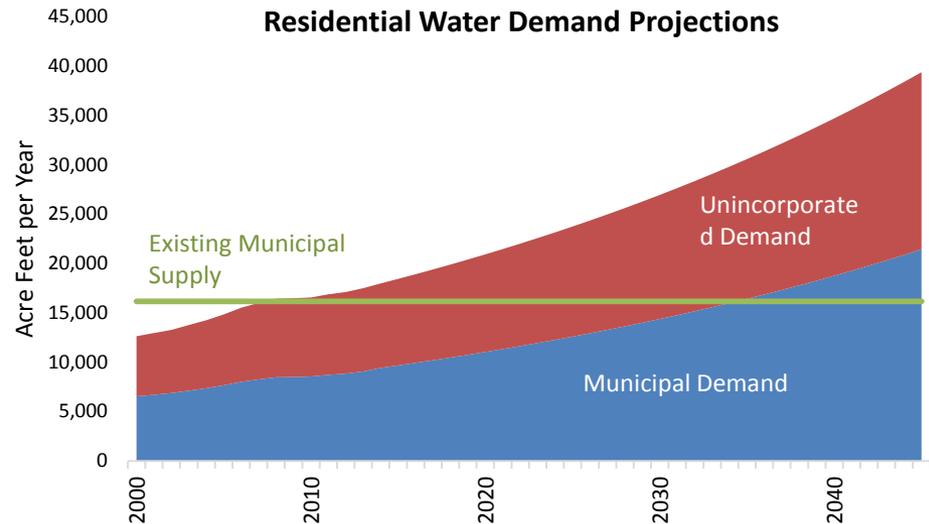
Who needs water in the Gallatin Valley? What are the risks?

Population Projections



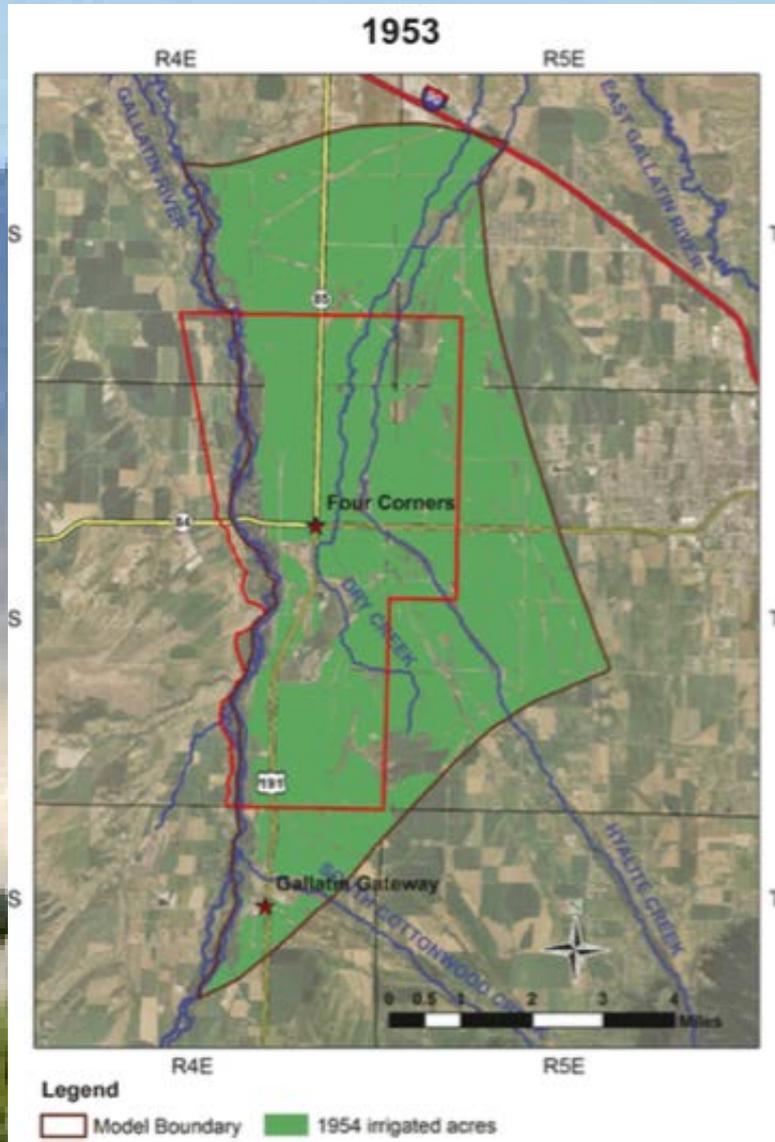
Gallatin County population projections. Municipal projections include populations with municipal water supply (Bozeman, Belgrade and Manhattan). Unincorporated includes populations without municipal water supply. Source: United States Census Bureau.

Residential Water Demand Projections



Gallatin County water demand projections and existing municipal water supply. Source: Bozeman's Integrated Water Resources Plan and DNRC Water Rights Records.

Who needs water in the Gallatin Valley? What are the risks?



Gallatin Valley Water Exchange

Mission: Meet projected urban and domestic water demands while sustaining riverine habitat and protecting senior agricultural water rights.





Supply



Privately
Held
Irrigation
Rights



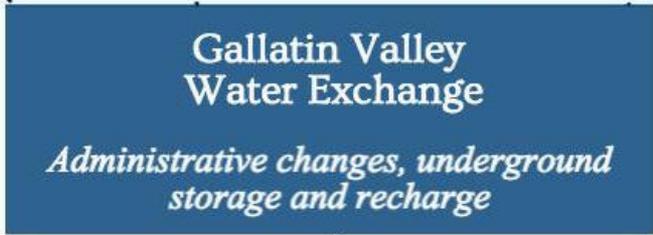
Canal
Company
Rights



FWP
Rights



Other
Rights



Demand



Irrigation



Municipal and
Industrial



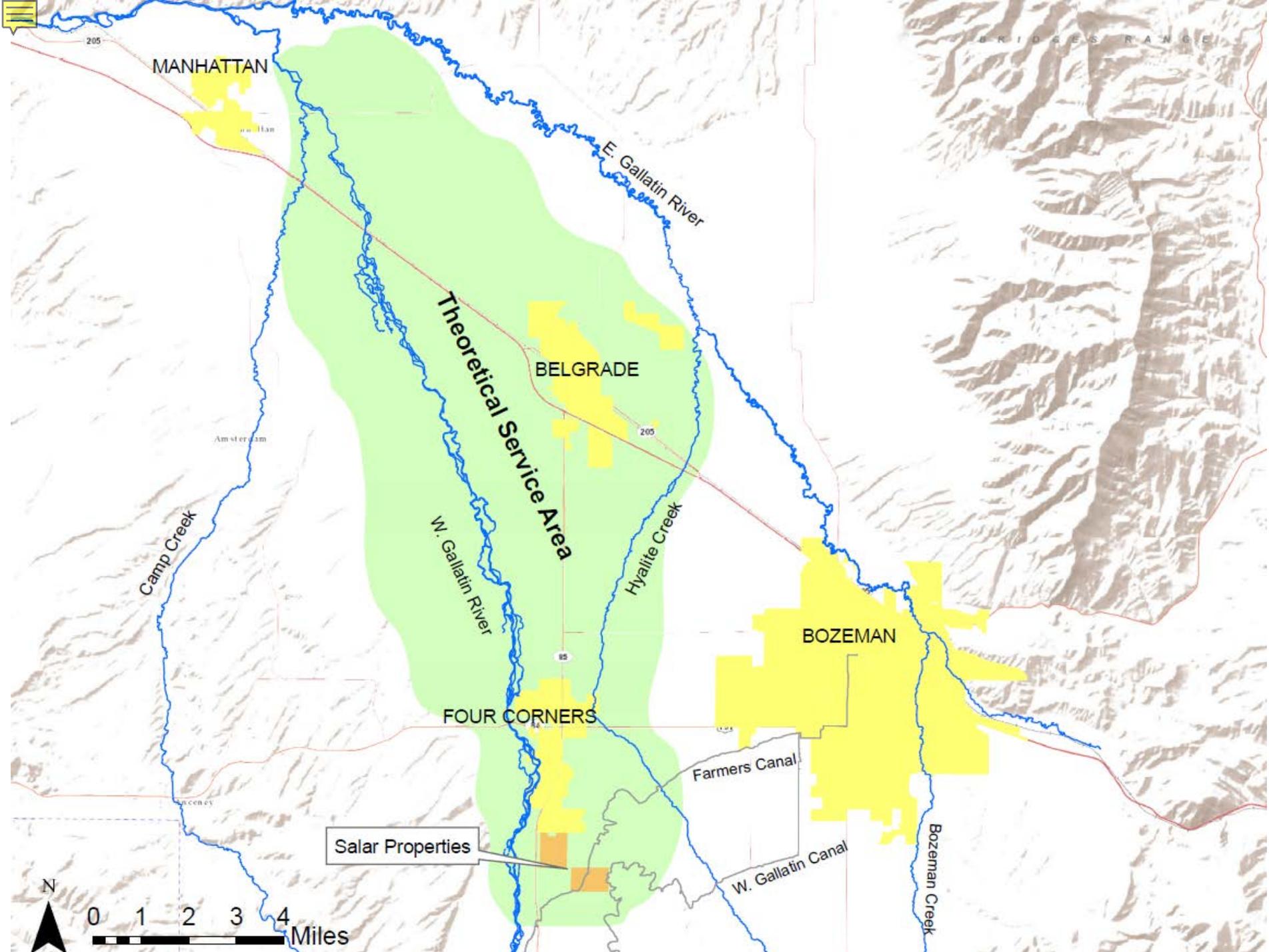
Environmental



Irrigation to Mitigation:

Maintain location, volume, *and timing* of impact on streamflow





Senior Surface Water Rights with Priority Date

Purchase or lease right

Gallatin Valley Groundwater Mitigation Bank

Sell mitigation credit

New Groundwater User (developer, municipality, etc.)

Administrative Process

Purchase or lease water right

Water right change application

Mitigation Credit

Markets mitigation to appropriate buyers

Sell mitigation credit

Physical Process



Water right diversion

Convey through existing or natural infrastructure

Infiltrate into groundwater aquifer through artificial or natural infiltration sites

New groundwater well

Recharges groundwater aquifer

=

Mitigates new appropriation

MULTI-SECTORS, MULTI-BENEFITS



Municipal/industrial/domestic

- Secure water for drought response and future use
- Diversify water sources
- Increase regulatory certainty



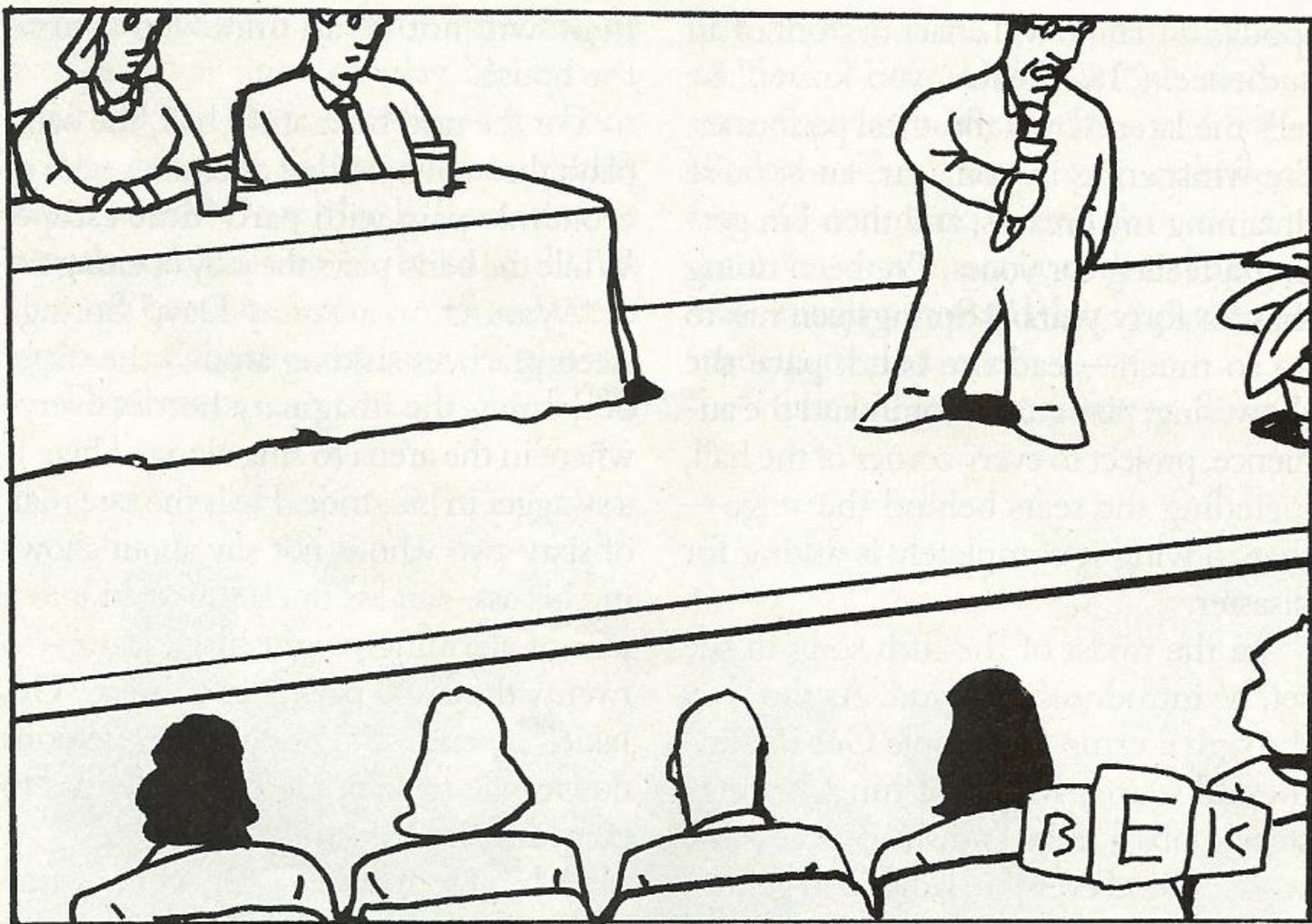
Agricultural

- Preserve and protect water rights
- Maintain economic productivity of unused irrigation water
- Reduce O&M assessments



Environmental

- Protect instream flows – maintain cap
- Restore instream flows – add seniority
- Avoid competition



“Afterward, there will be a short Q. and A. that will be just long enough for one person to take up too much of it.”

For more info:

Gallatin Valley Water Exchange

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