



# SNAKE VALLEY PUBLIC MEETING

September 26, 2019

# Purpose

- ⦿ Current Appropriation Policy
- ⦿ How are we doing?
- ⦿ Groundwater Conditions
- ⦿ What to do?
- ⦿ Public Comment

# Current Appropriation Policy

- ⦿ Surface – fully appropriated
- ⦿ Groundwater – limited to 550.05 ac-ft (136 acres, 1 EDU, 200 ELU)
- ⦿ Applications limited to one application per entity
  - New application can be filed upon certification.

# Published Literature

Hood & Rush (1965)	Water-Resources Appraisal of Snake Valley Area
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Gates (1981)	Hydrologic Reconnaissance of the Southern Great Salt Lake Desert
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Carlton (1985)	Fish Springs Multibasin Flow System
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Harrill (1988)	Major Ground Water Flow Systems in the Great Basin
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RASA (1993)	Open File Report 93-170 Open File Report 93-420
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Nichols (2000)	Regional Ground-Water Evapotranspiration and Ground-Water Budgets, Great Basin: Nevada
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# Published Literature

BARCAS (2007)	Water Resources of the Basin and Range Carbonate-Rock Aquifer System
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USGS (2011)	Conceptual Model of the Great Basin Carbonate and Alluvial Aquifer System
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UGS (2014)	Hydrogeologic studies and groundwater monitoring in Snake Valley
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Multiple New Models / Information

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# How are we doing?

- ⦿ Estimated Groundwater Pumping = 20,300 af
  - Groundwater Conditions in Utah, 2017, USGS
  - Does not include spring flows
- ⦿ Safe Yield = 132,000 acre-feet
  - Basin and Range Carbonate Aquifer Study (BARCAS, 2007)
- ⦿ Perfected, Approved and Unapproved Applications...

# Current Allocation of Groundwater Rights – Utah Only

Estimated Depletion (ac-ft)				
	Unapproved Applications	Approved Applications	Perfected Rights	All
18 Area	8,168	5,609	57,043	70,820
19 Area	19,792	17	849	20,658
<b>Totals</b>	<b>27,960</b>	<b>5,626</b>	<b>57,892</b>	<b>91,478</b>

- Estimated Groundwater Pumping = 20,300 af
- Estimated Safe Yield = 132,000 af

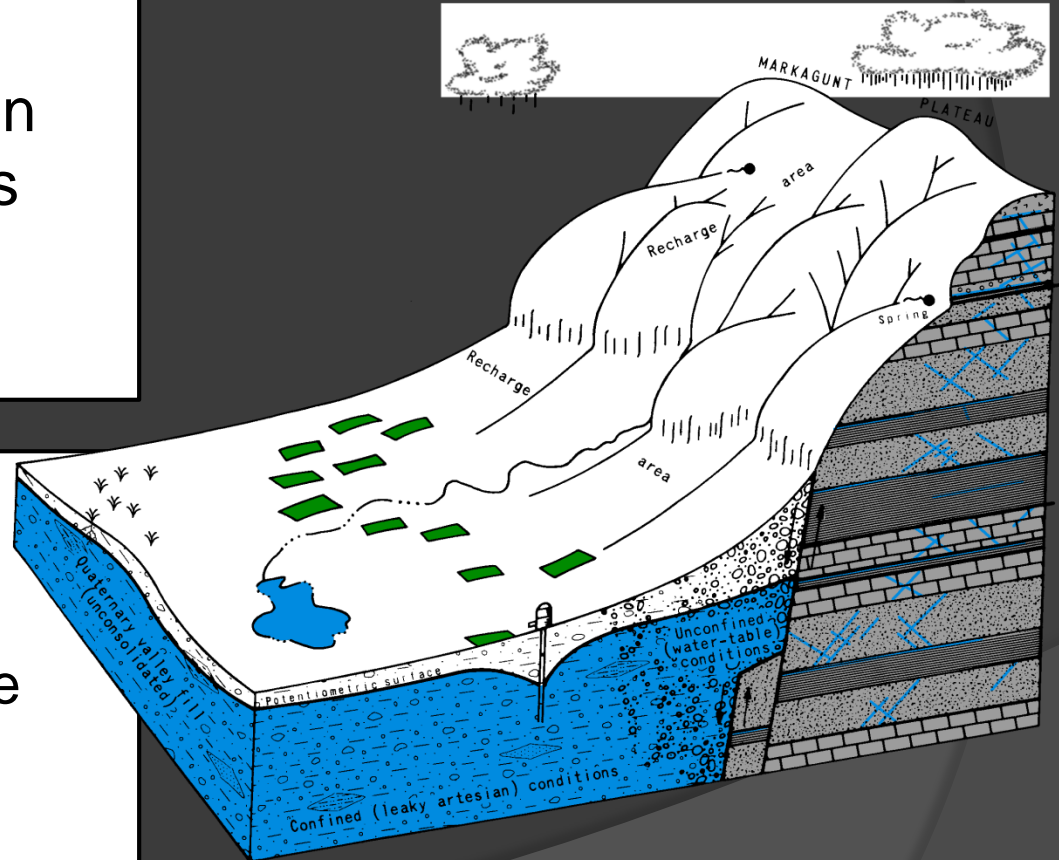
# Groundwater Balance

## Recharge

- Precipitation
- Seepage from irrigation
- Seepage from streams and canals
- Subsurface inflow

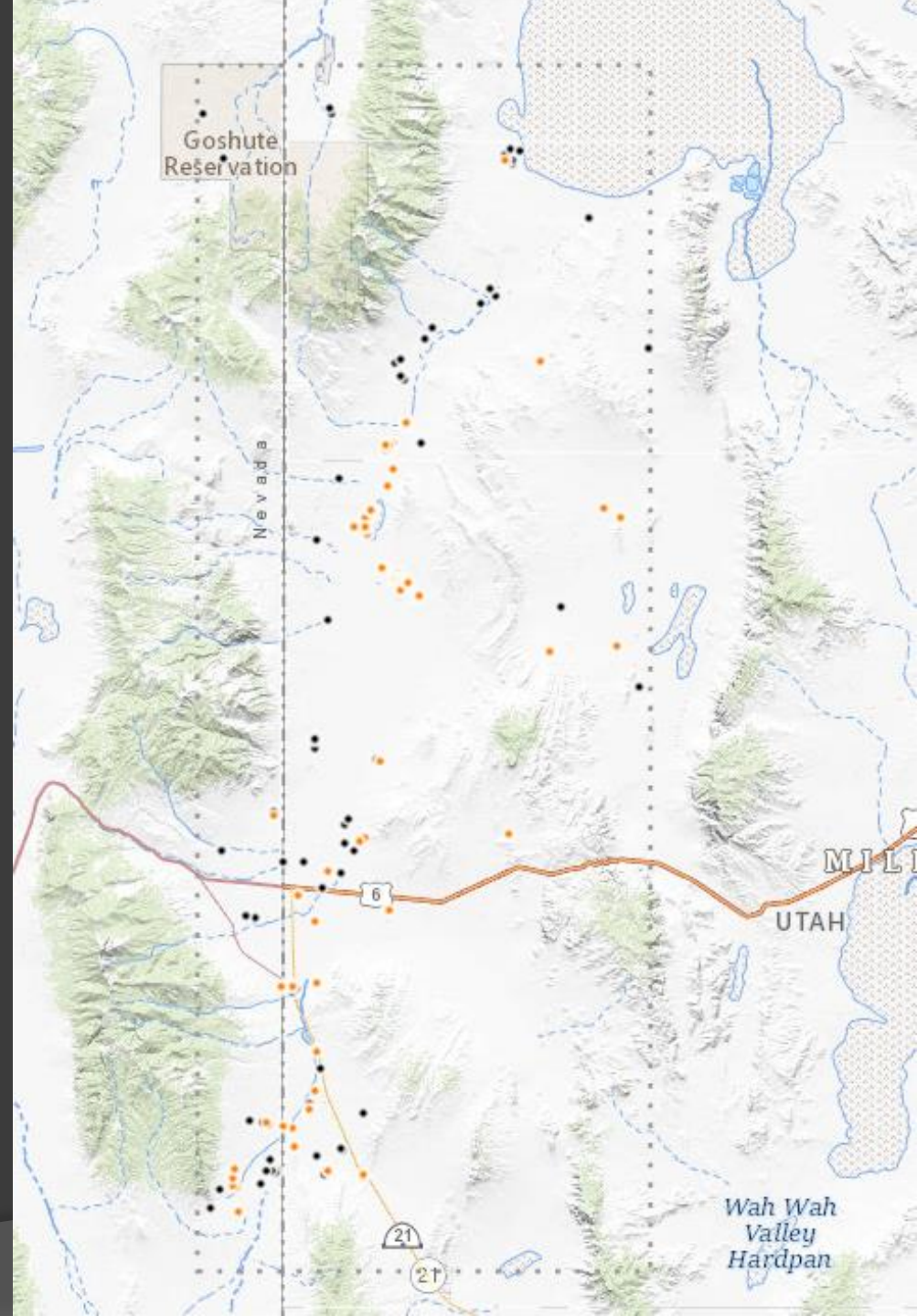
## Discharge

- Well pumping
- Subsurface outflow
- Evapotranspiration (Lake evaporation and plant transpiration)
- Valley springs



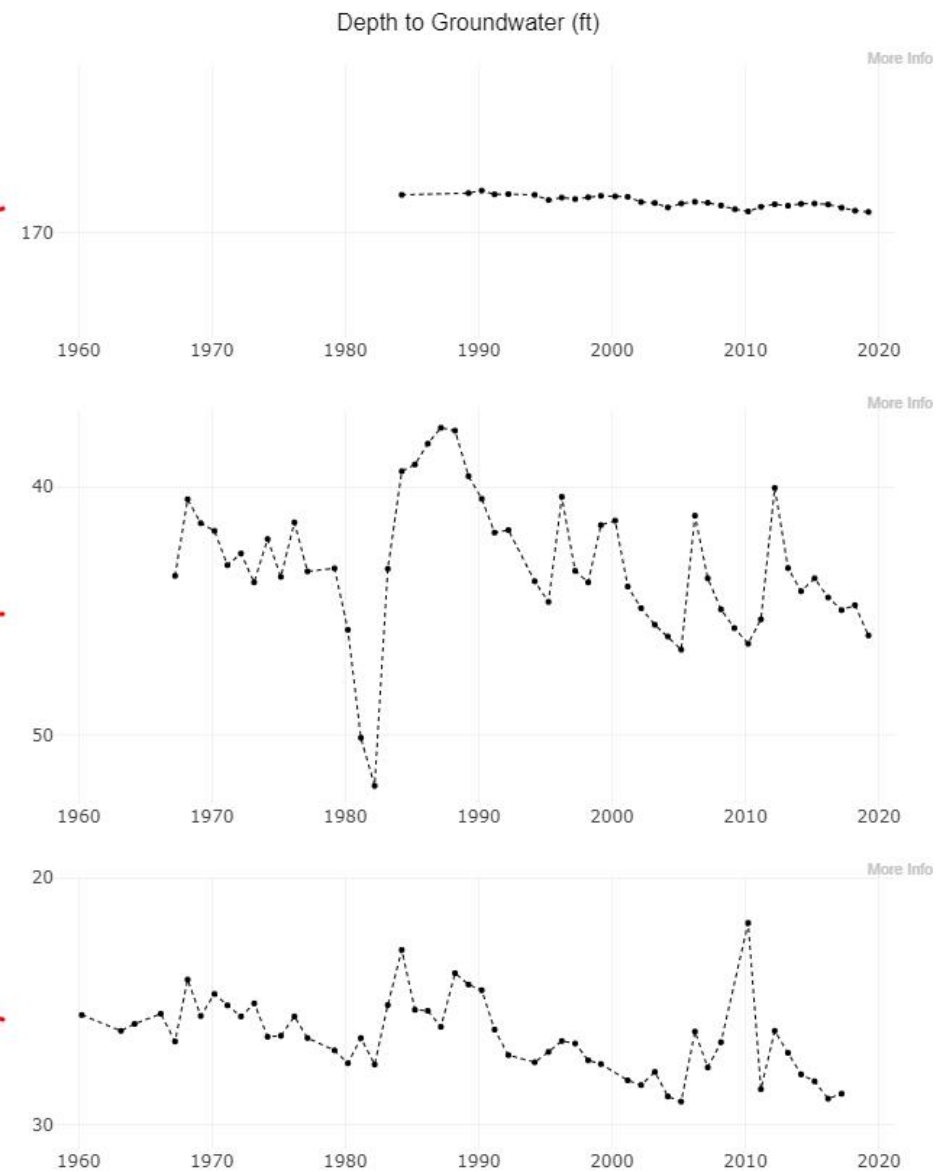
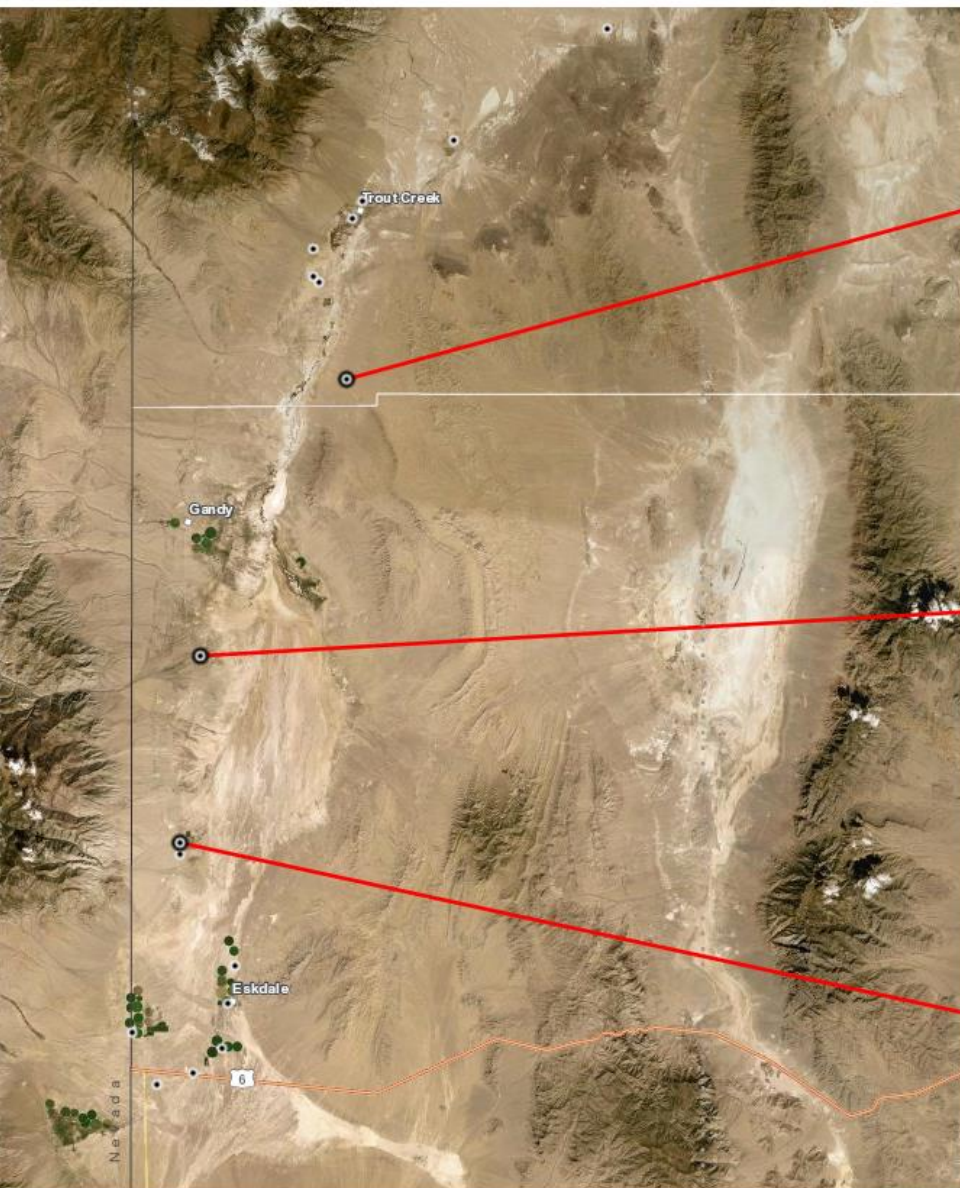


# Monitoring Well Network







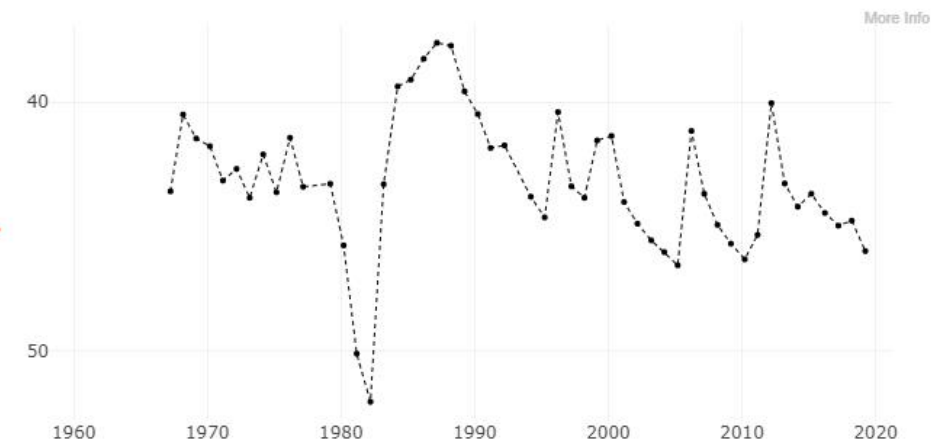




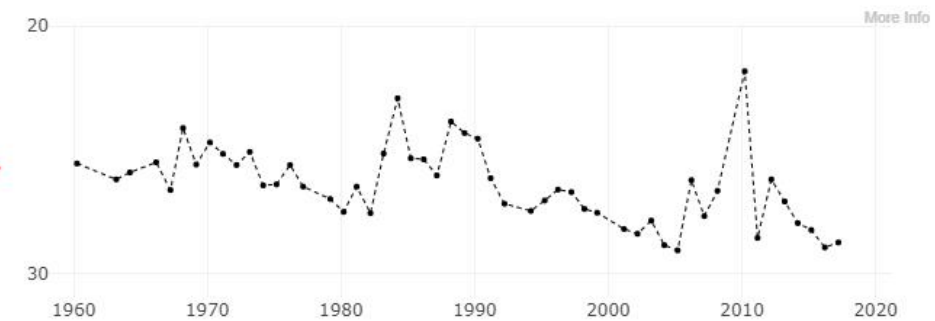
Depth to Groundwater (ft)



[More Info](#)



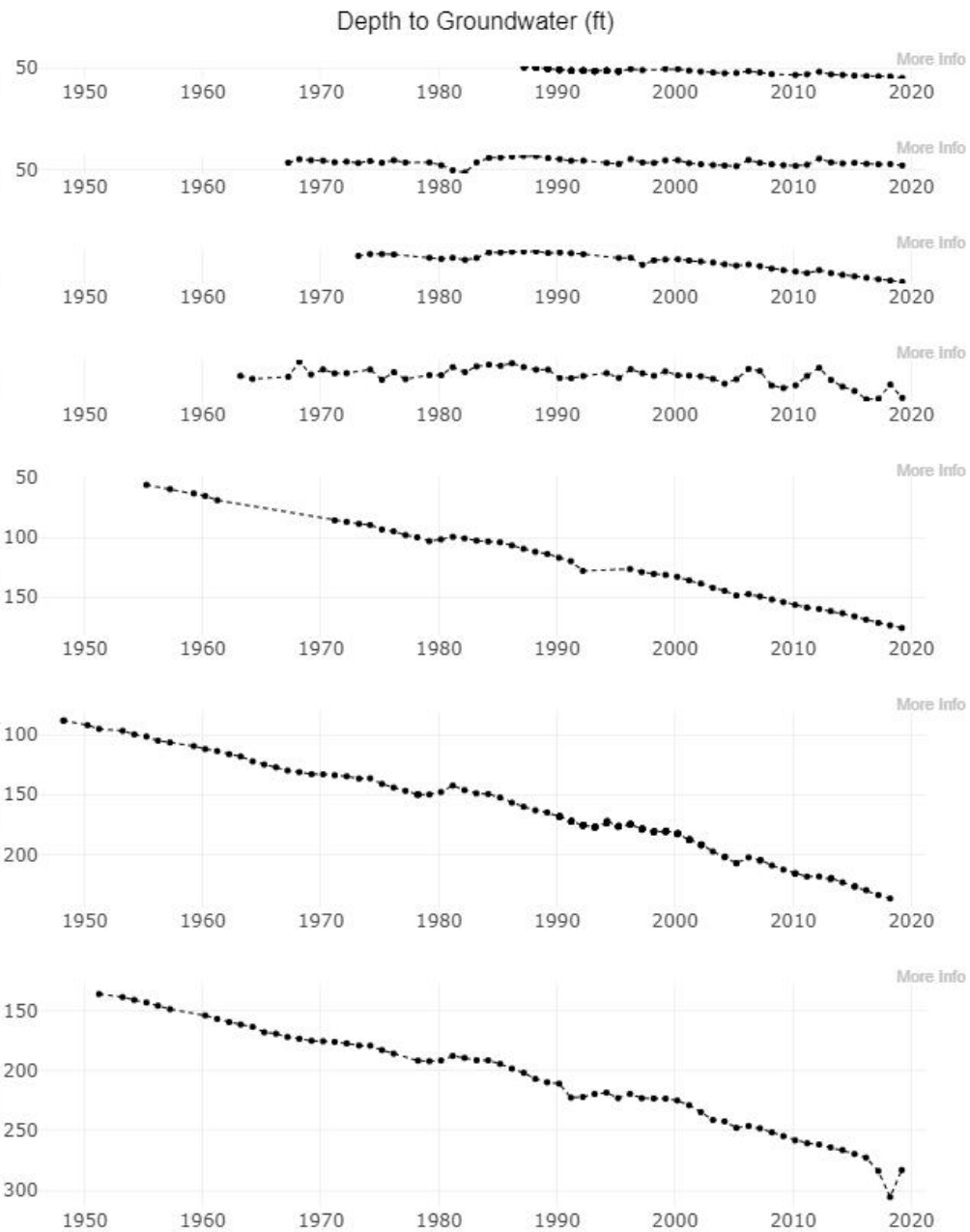
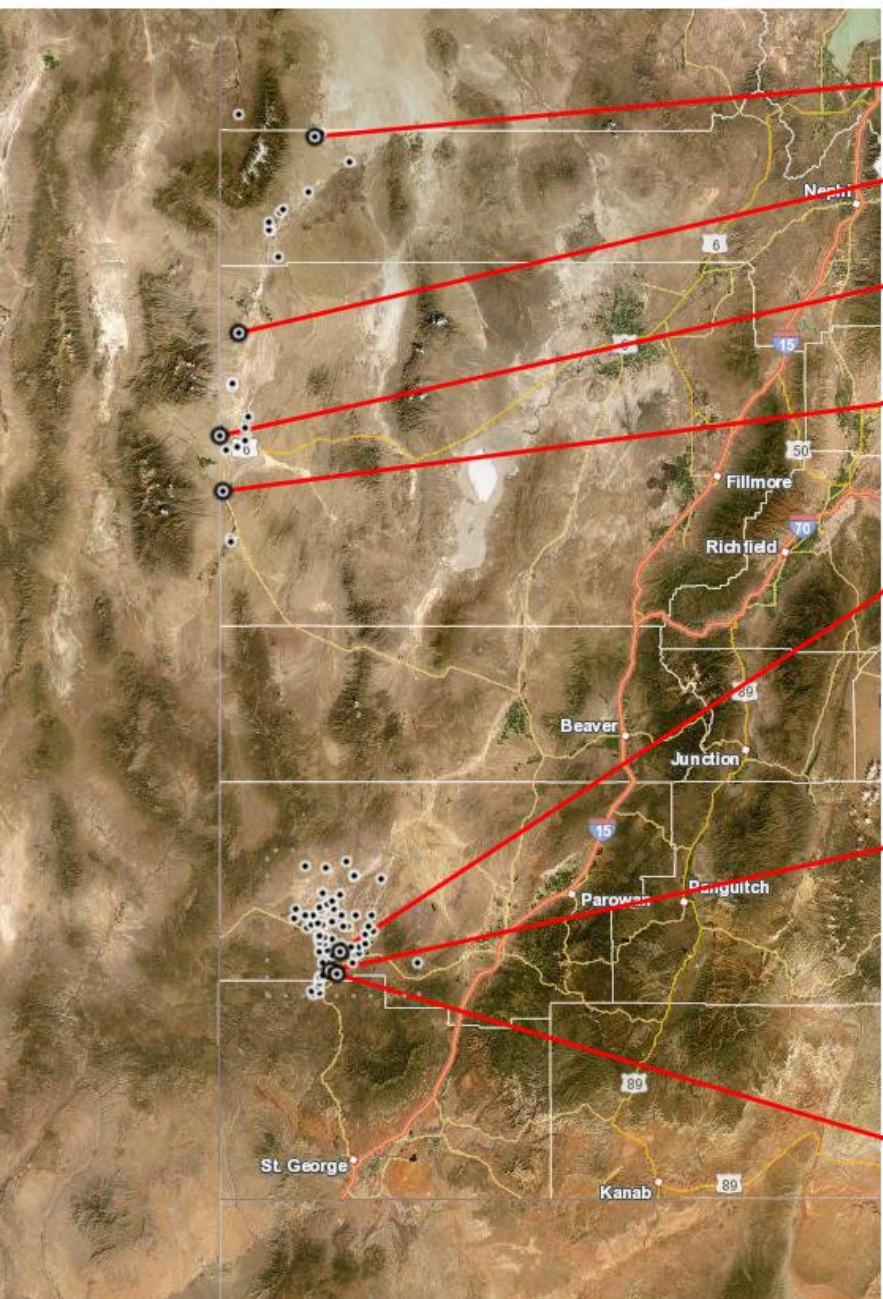
[More Info](#)



[More Info](#)









# What to do?

- ⦿ Groundwater Management Plan
  - What would be the basis (i.e. safe yield)?
  - Shared Basin
    - What is Utah's Portion?
    - What is Nevada's Portion?
- ⦿ State Engineer Policy Change
  - BLM has provided a proposal
  - Local policy changes to address effects of pumping
  - What would be an appropriate policy?
  - What about the endangered species issues?
- ⦿ Make No Change (Status Quo)

# Public Comment

- ⦿ 60 Day Comment Period (Nov. 25<sup>th</sup>)
- ⦿ Email: [waterrights@utah.gov](mailto:waterrights@utah.gov)
- ⦿ Mail:        Division of Water Rights  
                 Attn: Snake Valley Public Meeting  
                 PO Box 146300  
                 Salt Lake City, UT 84114-6300
- ⦿ [www.waterrights.utah.gov](http://www.waterrights.utah.gov)
  - Meetings→Past Meetings→Snake Valley  
(September 26, 2019)





Public Comment



