

The Wood River Valley Aquifer System: Previous work and data



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These slides were presented at the Wood River Valley Modeling Technical Advisory Committee meeting Thursday, 11Apr2013, 10am-4pm at the Community Campus, Rm 200, in Hailey. Taken outside the context of the original presentation, these slides may not provide a complete or accurate representation of the speaker's intent.

Groundwater reports

- ❖ Chapman (1921)
- ❖ Stearns and others (1938)
- ❖ Smith (1959, 1960)
- ❖ Moreland (1977)
- ❖ Castelin and Chapman (1972)
- ❖ Castelin and Winner (1975)
- ❖ Brockway and Grover (1978)
- ❖ Luttrell and Brockway (1982, 1984)
- ❖ Frenzel (1989)
- ❖ Skinner and others (2007)
- ❖ Bartolino (2009)
- ❖ Bartolino and Adkins (2012)
- ❖ Consultant reports

Groundwater data

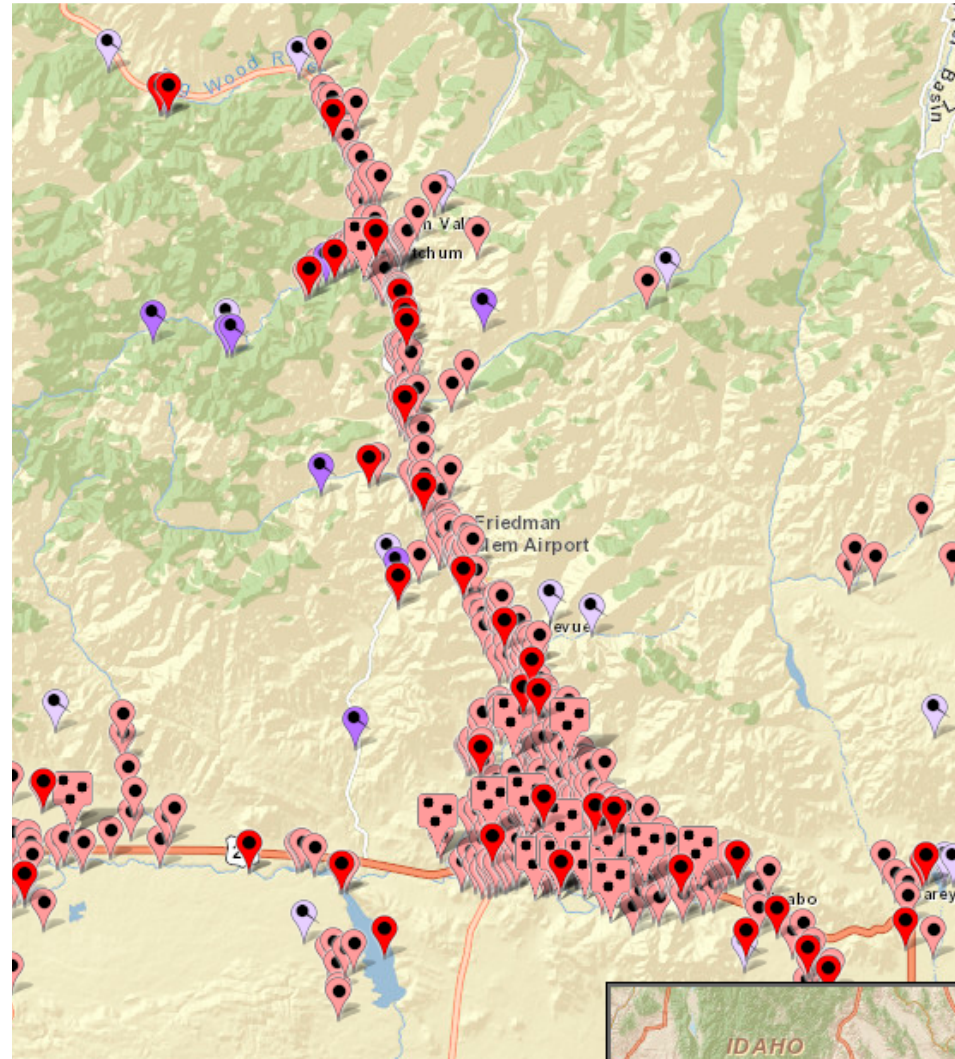
❖ USGS

- Mass measurements Oct 2006, Oct 2012
- 3 wells with continuous record since 1954

❖ IDWR

❖ The Nature Conservancy

❖ Brown (for Blaine County)

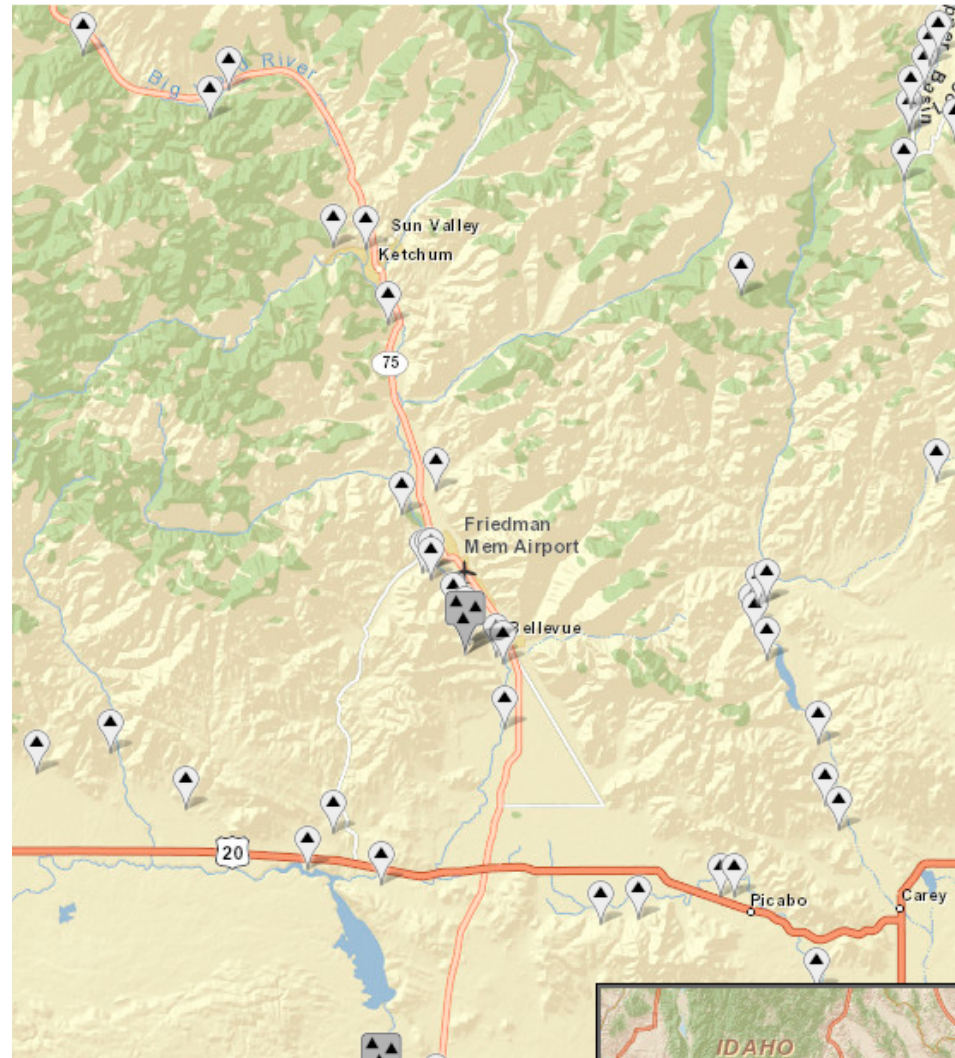


Surface-water reports

- ❖ Chapman (1921)
- ❖ Stearns and others (1938)
- ❖ Jones (1952)
- ❖ Smith (1959, 1960)
- ❖ Moreland (1977)
- ❖ Brockway and Grover (1978)
- ❖ Castelin and Winner (1975)
- ❖ Luttrell and Brockway (1984)
- ❖ Frenzel (1989)
- ❖ Brockway and Kahlown (1994)
- ❖ Wetzstein and others (1999)
- ❖ Skinner and others (2007)

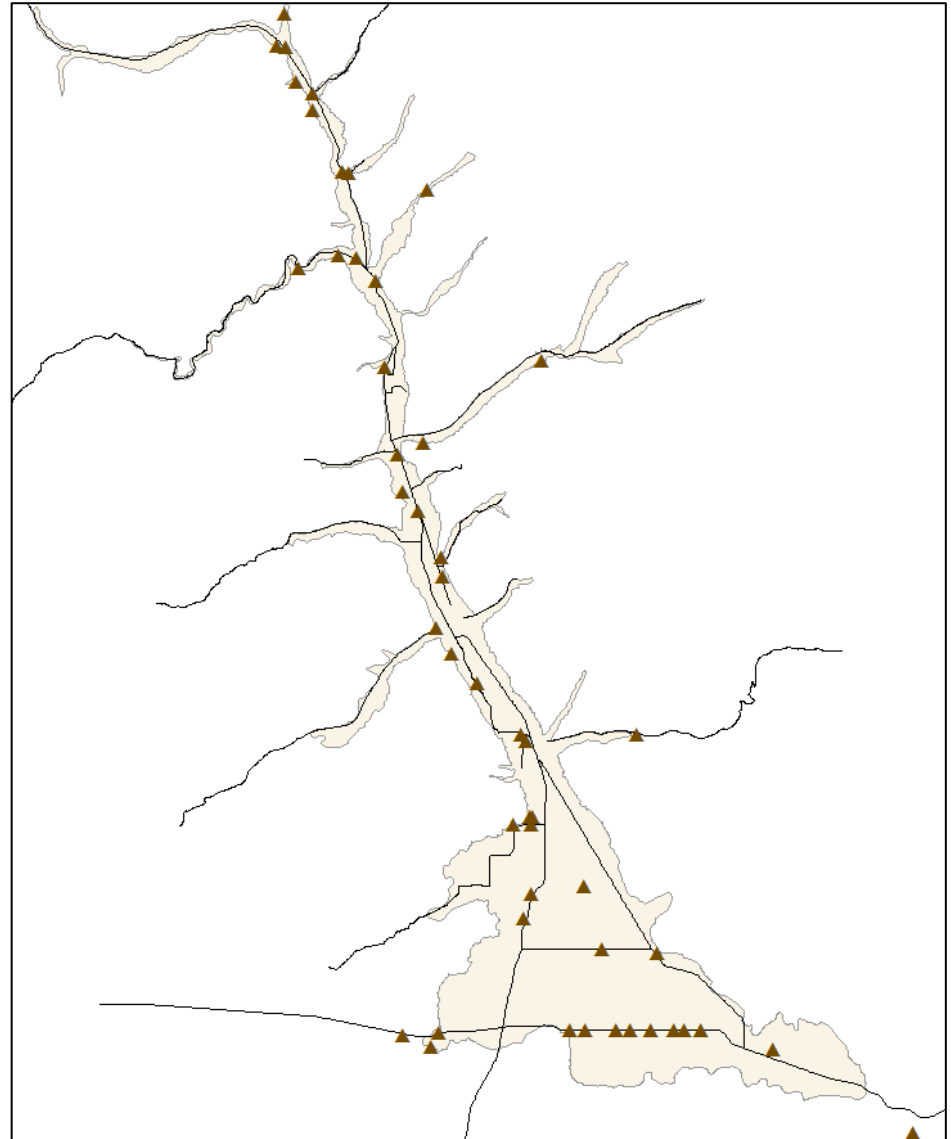
Surface-water data

- ❖ USGS streamgages
- ❖ Willow Creek: IPCO and Brockway Engineering
 - Aug 1999-Present
- ❖ Various measurements: Idaho Water Engineering
- ❖ Canal companies and District 37
- ❖ The Nature Conservancy
- ❖ SaveSilverCreek.org

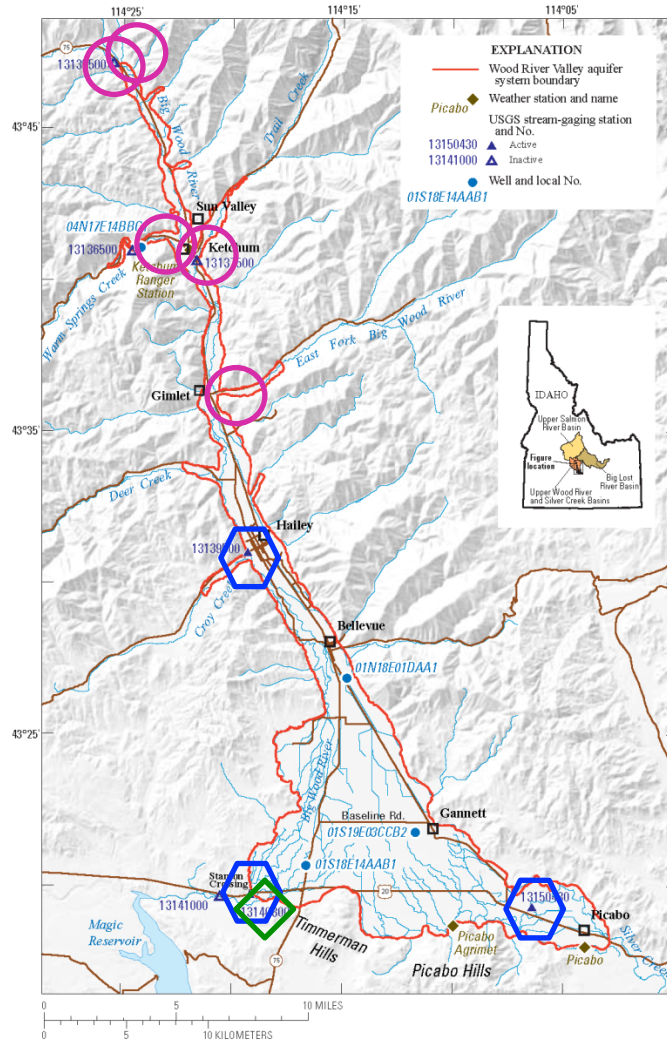


Gain/loss measurements

- ❖ Moreland (1977)
- ❖ Brockway and Grover (1978)
- ❖ Frenzel (1989)
- ❖ Skinner and others (2007)
- ❖ USGS
 - Aug 2012
 - Oct 2012
 - Mar 2013



Real-time stream gages



❖ Existing gages

- Big Wood River at Hailey
- Big Wood River at Stanton Crossing
- Silver Creek at Sportsman's Access

❖ New gages funded by IDWR, District 37, and USGS

- Big Wood River near Ketchum
- North Fork Big Wood River
- Trail Creek
- Warm Springs Creek
- East Fork Big Wood River

❖ IPCO: Willow Creek

Previous groundwater models

- ❖ Brockway and Grover (1978)
 - IWRRI model: De Sonneville (1972)/Newton (1978)
- ❖ Brockway and Kahlown (1994); Wetzstein and others (1999)
 - MODFLOW
- ❖ Loinaz (2012)
 - MIKE SHE-MIKE 11
- ❖ Carter Borden
 - MIKE SHE
- ❖ Other proprietary models

USGS/IDWR model

- ❖ Will primarily start with:
 - Water budget (Bartolino, 2009)
 - Hydrogeologic framework (Bartolino and Adkins, 2012)