



Irrigation Wells

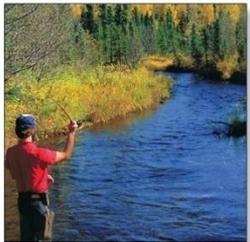
Presented by Allan Wylie IDWR

6 June 2013

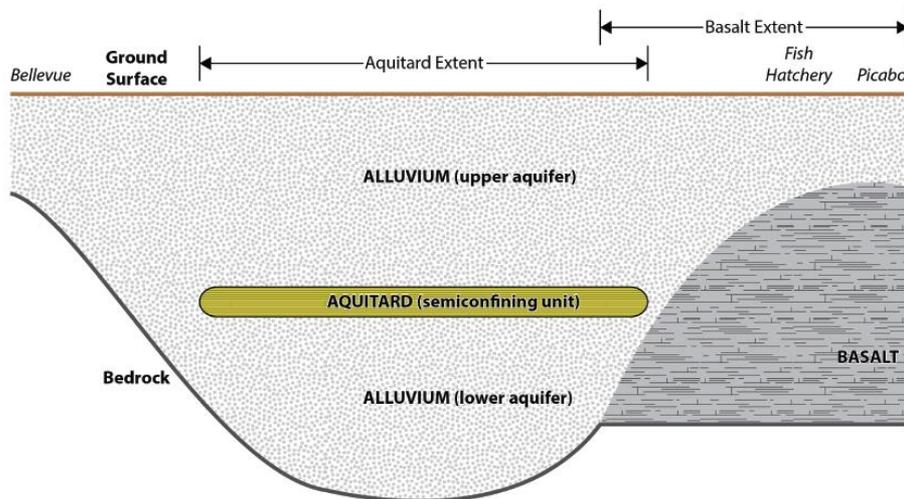


Correlate Driller Reports with Water Rights

- Why we need to correlate wells with water rights
- Select wells drilled for Irrigation
- Select 'Active Water Rights' with a source of 'Ground Water' and use of 'Irrigation'
 - Recommendations
- Correlate wells to Water Rights

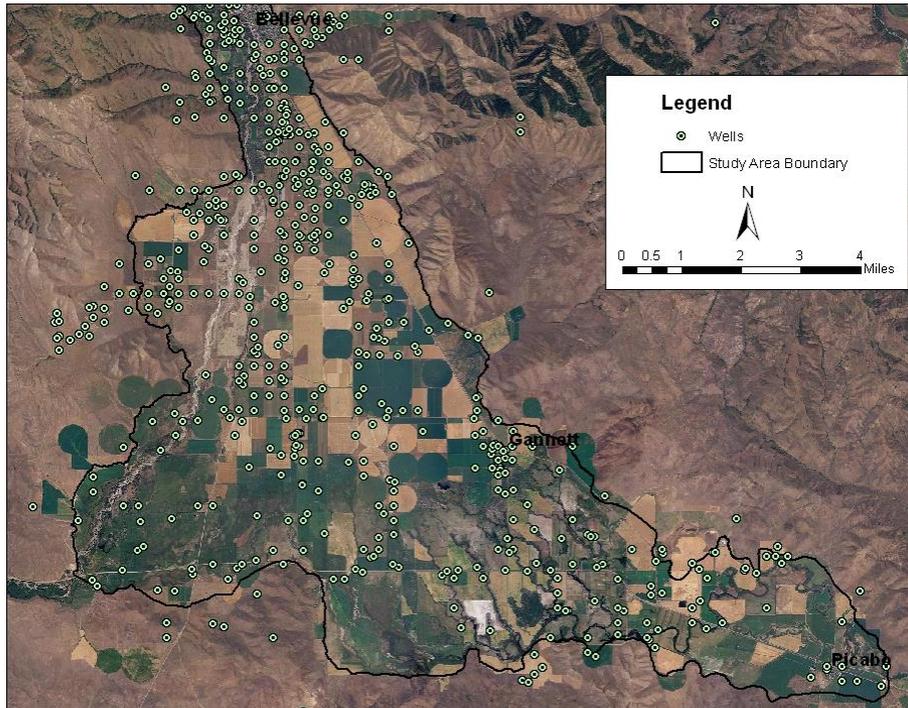


Why do we need to tie wells to water rights



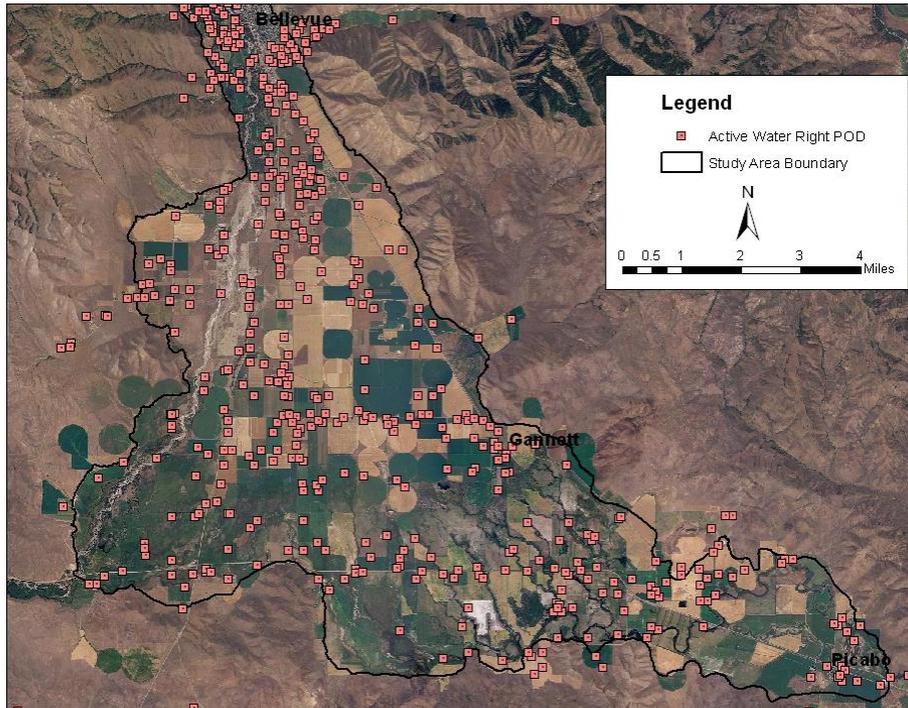
- Non-irrigated recharge, Incidental recharge from irrigation and seepage from the Wood River all occur in upper aquifer
- We need to know if the pumping is from the upper aquifer, lower aquifer, or both aquifers.

Drillers Log Database



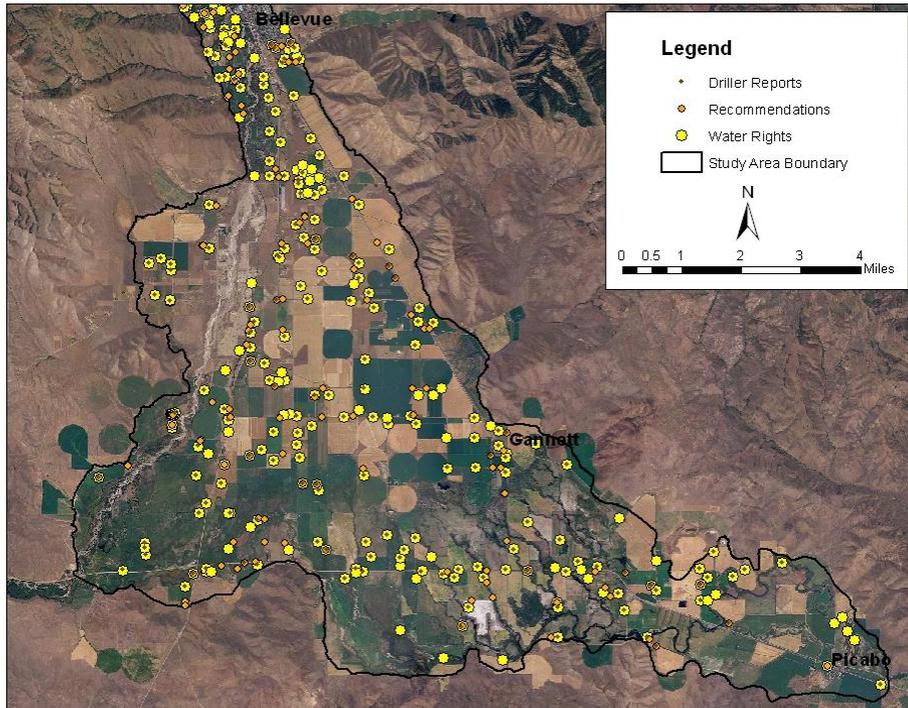
- IDWR maintains a database of drillers logs
- Database is more complete after about 1987
- Well locations are less accurate prior to GPS
- Clip to Study Area Boundary

Water Rights



- Select 'Irrigation' water rights
 - Use might be 'Irrigation', 'Stock water and Irrigation', 'Domestic and Irrigation' etc
- Clip to Study Boundary

Correlate Wells and Water Rights



- Well and water right contain same name and similar date
 - Don't move well more than $\frac{1}{2}$ mile.
- Well and water right in same quarter/quarter
- Move wells to water right POD
 - Assume POD was more accurately mapped during adjudication



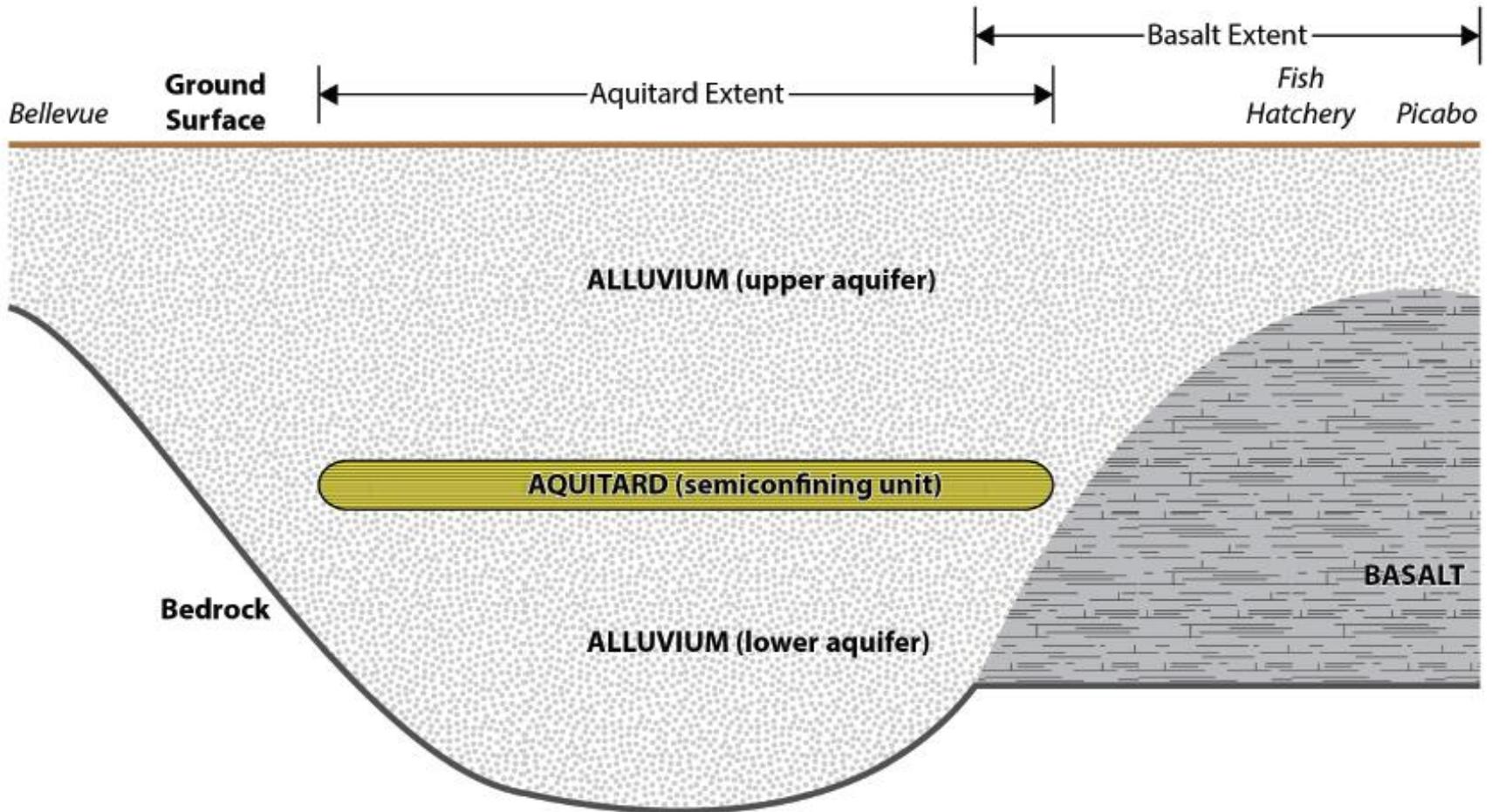
Recommendation

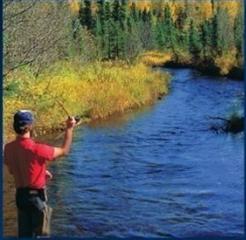
- Drillers options are limited
 - Complete well in upper aquifer
 - Complete well in lower aquifer
 - Complete well in both aquifers
- How wells are completed is a function of the hydrogeology
- Geology tends to vary smoothly
- Where we don't have a well log, assume well construction is similar to the neighboring well



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- Where we don't have a well log, correlate open interval between nearby wells