RECLAMATION

Managing Water in the West

Odessa Subarea Special Study

Groundwater Conditions

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October 23, 2007

U.S. Department of the Interior
Bureau of Reclamation

Odessa Special Study - Groundwater

- Concern about declining water levels and long-term groundwater availability
- Who's studying the groundwater?
- What do we know about the aquifers?
- Where are the water level declines (and where are there no declines?)

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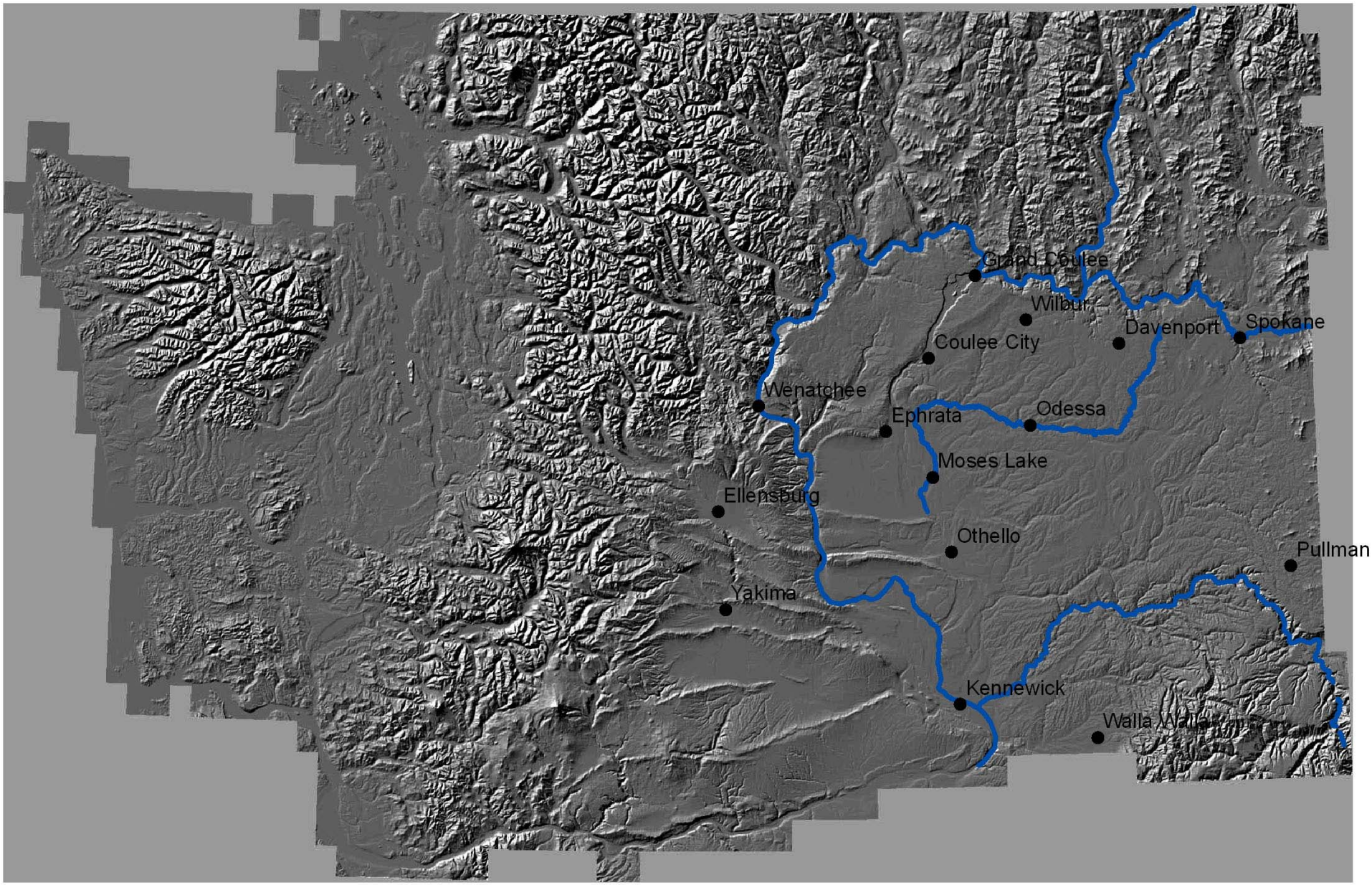

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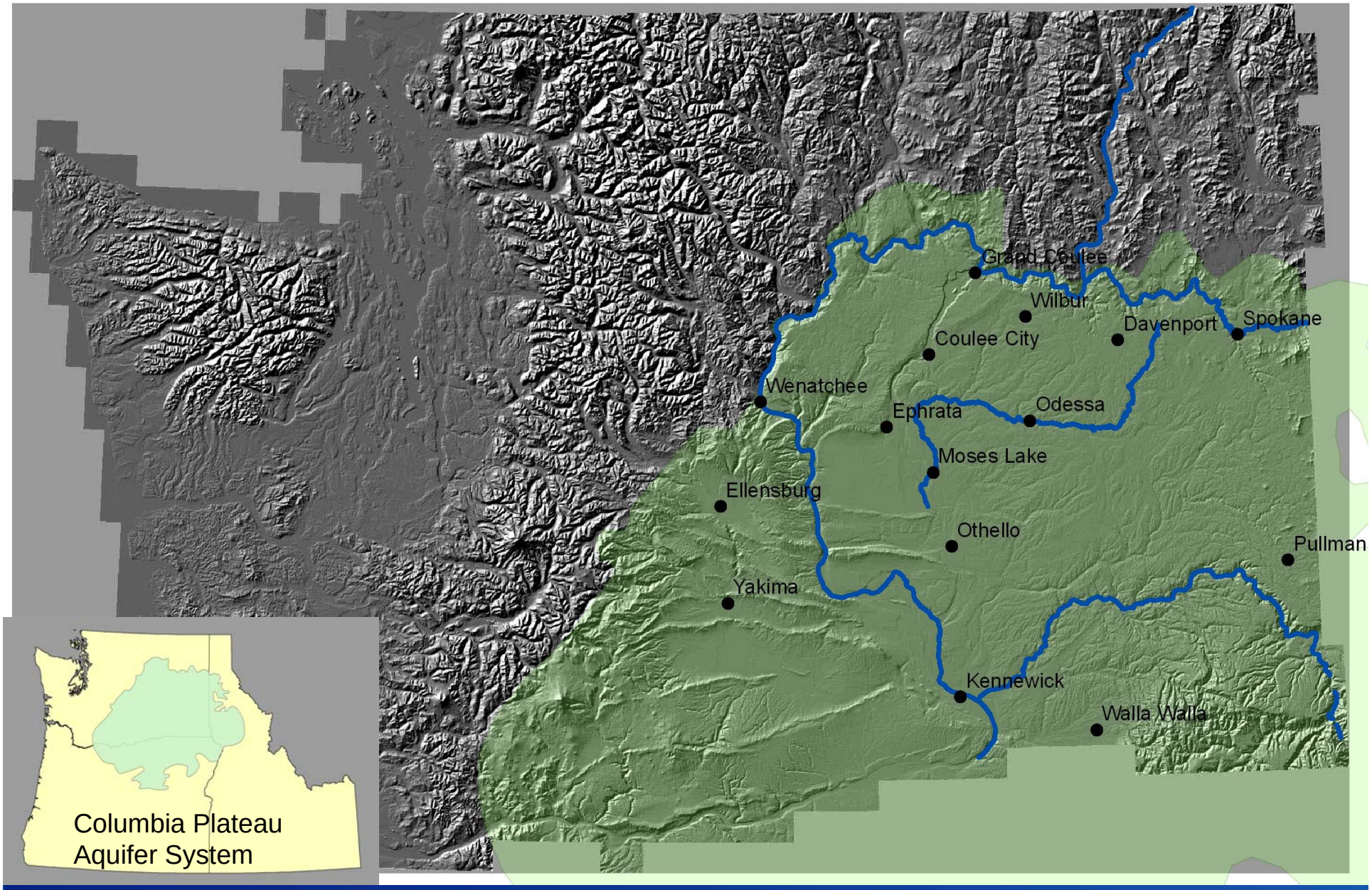

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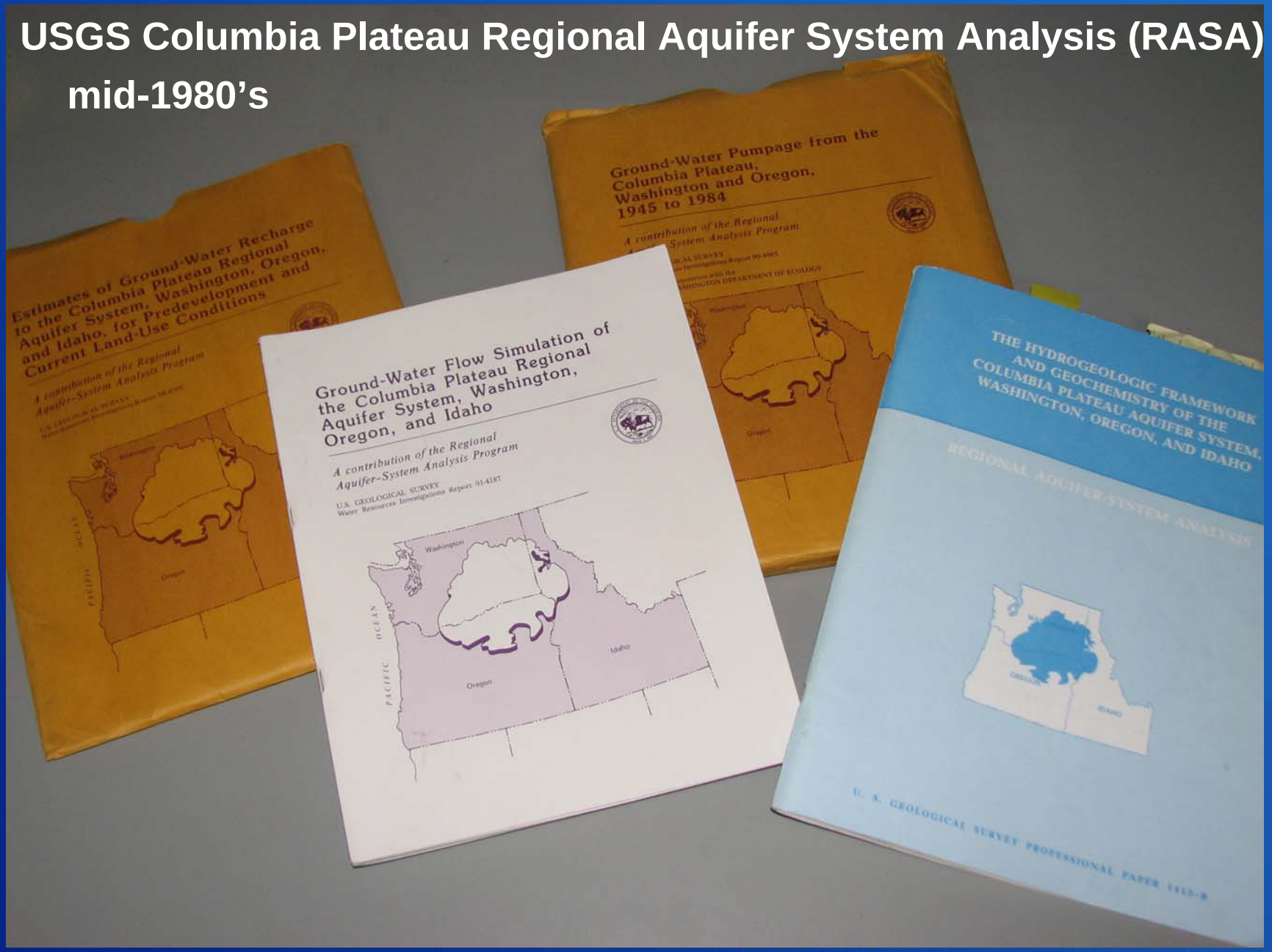
USGS Columbia Plateau Regional Aquifer System Analysis (RASA)

mid-1980's



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USGS – Groundwater Availability Study

- Update water budget
  - groundwater recharge
  - water use
- Update groundwater flow model
  - new modeling tools available
  - regional scale with localized detail
- Look at climate variability effects

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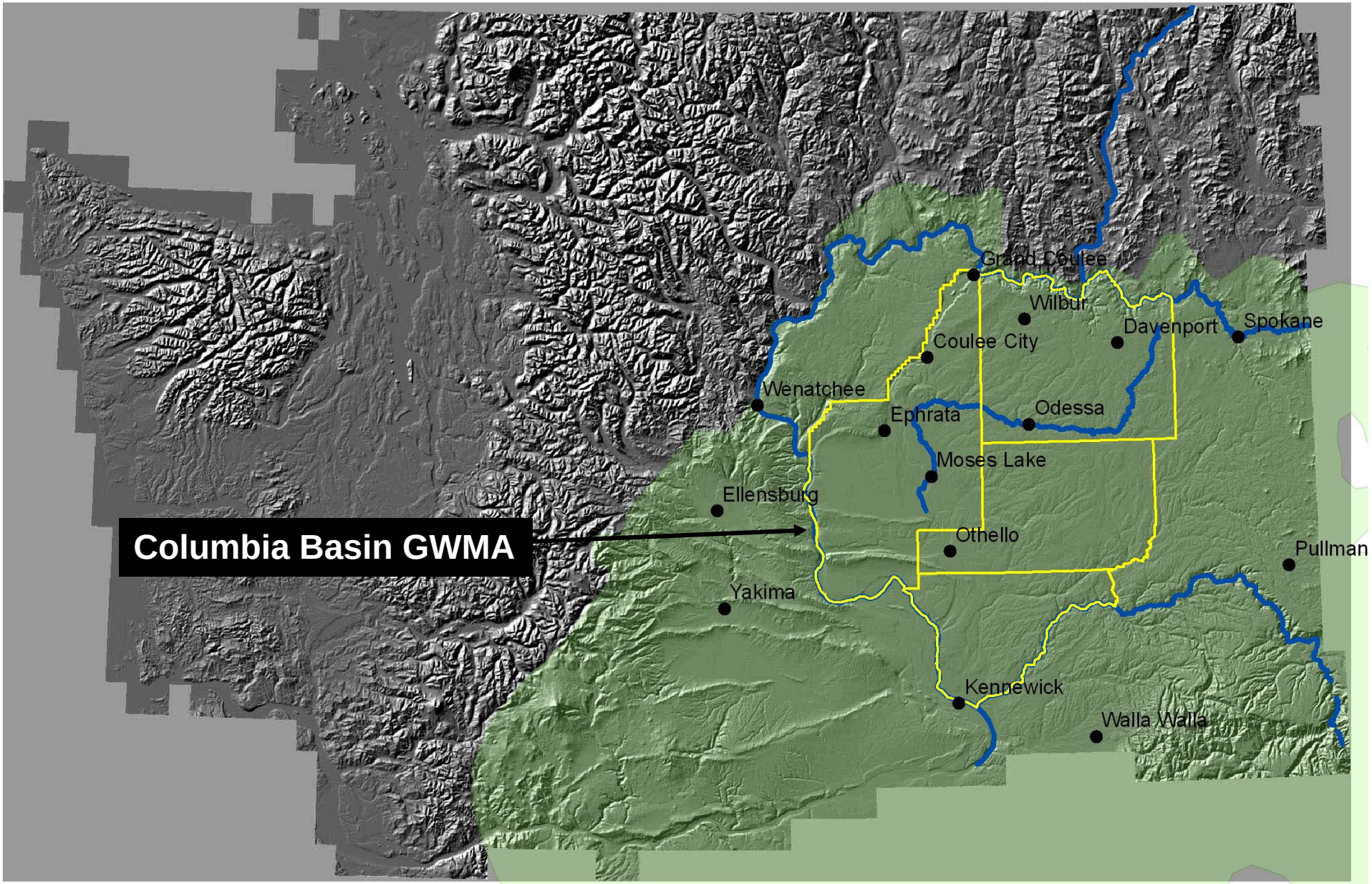

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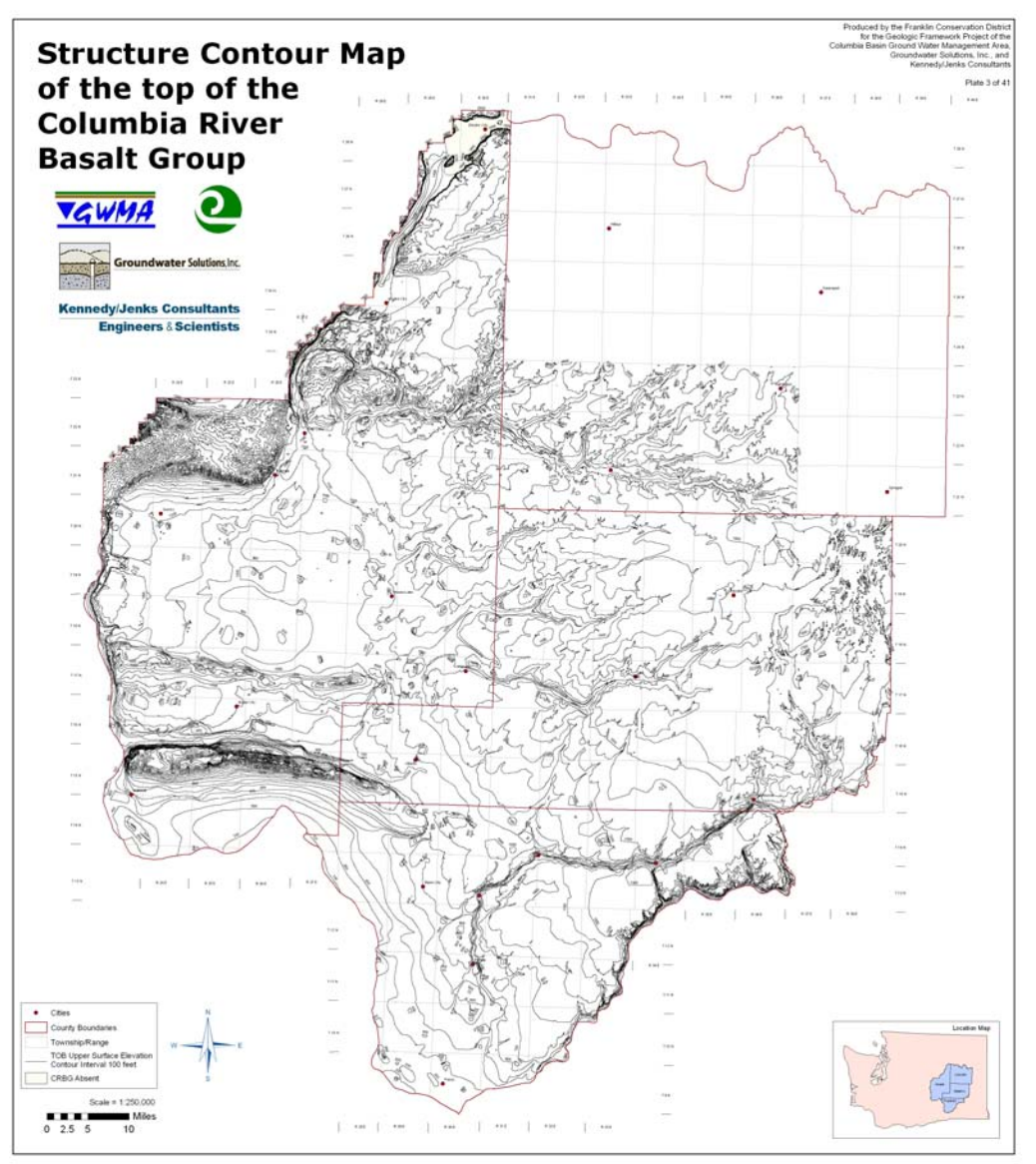
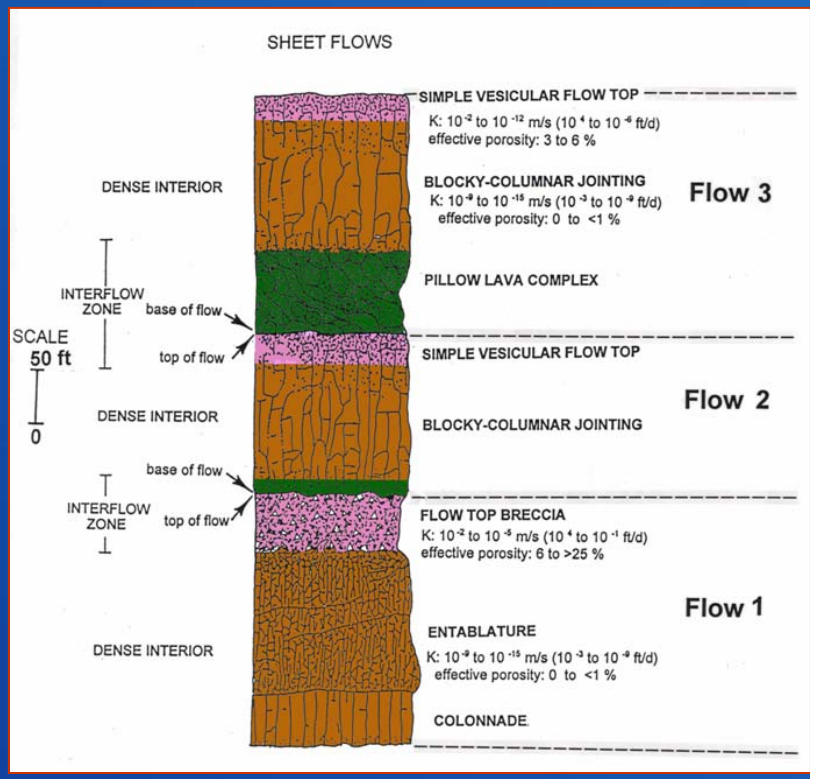
Basalt Aquifers





Columbia Basin GWMA

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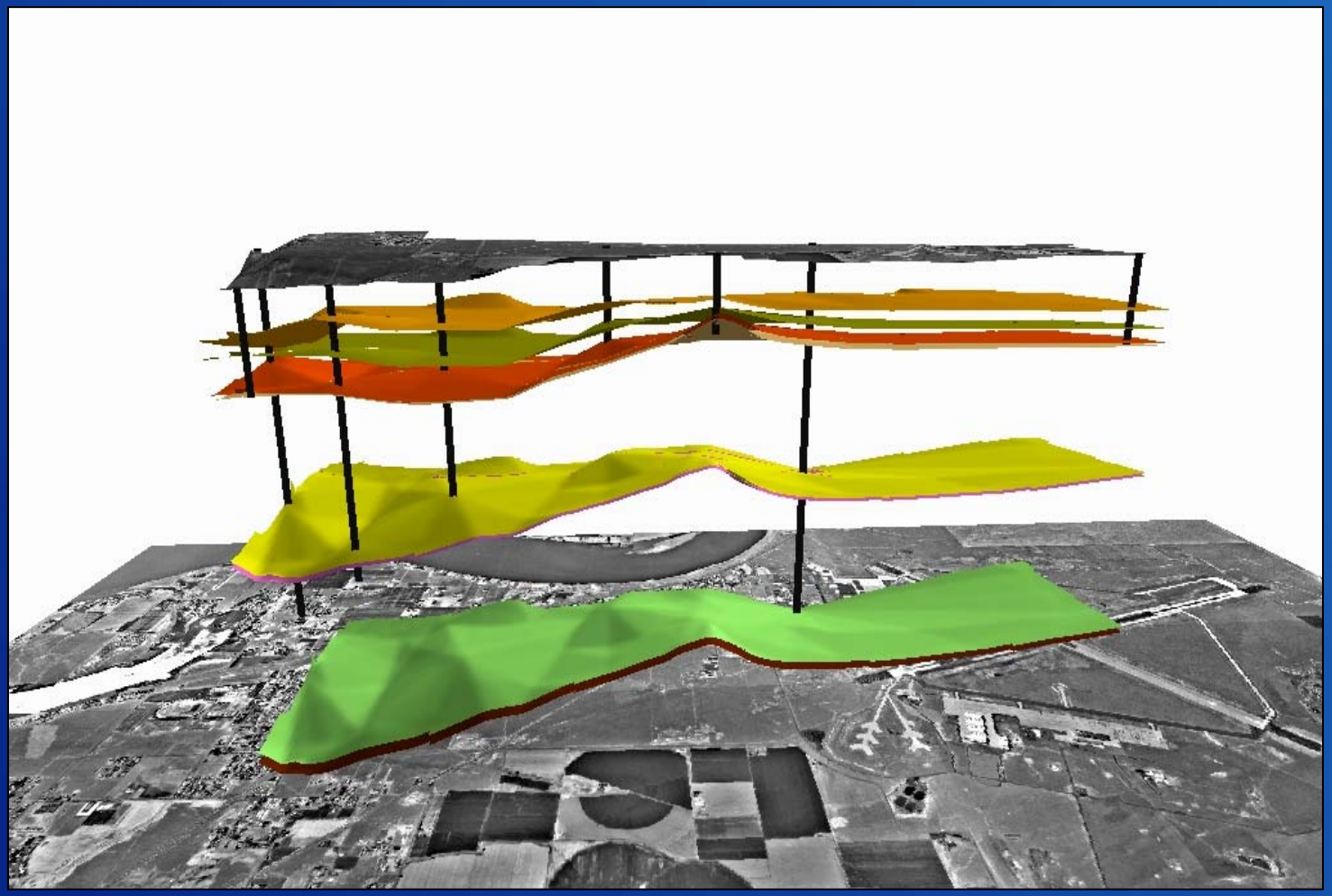
City of Moses Lake Skyline Well



Columbia Basin

GWMA

Hydro-Stratigraphic Project

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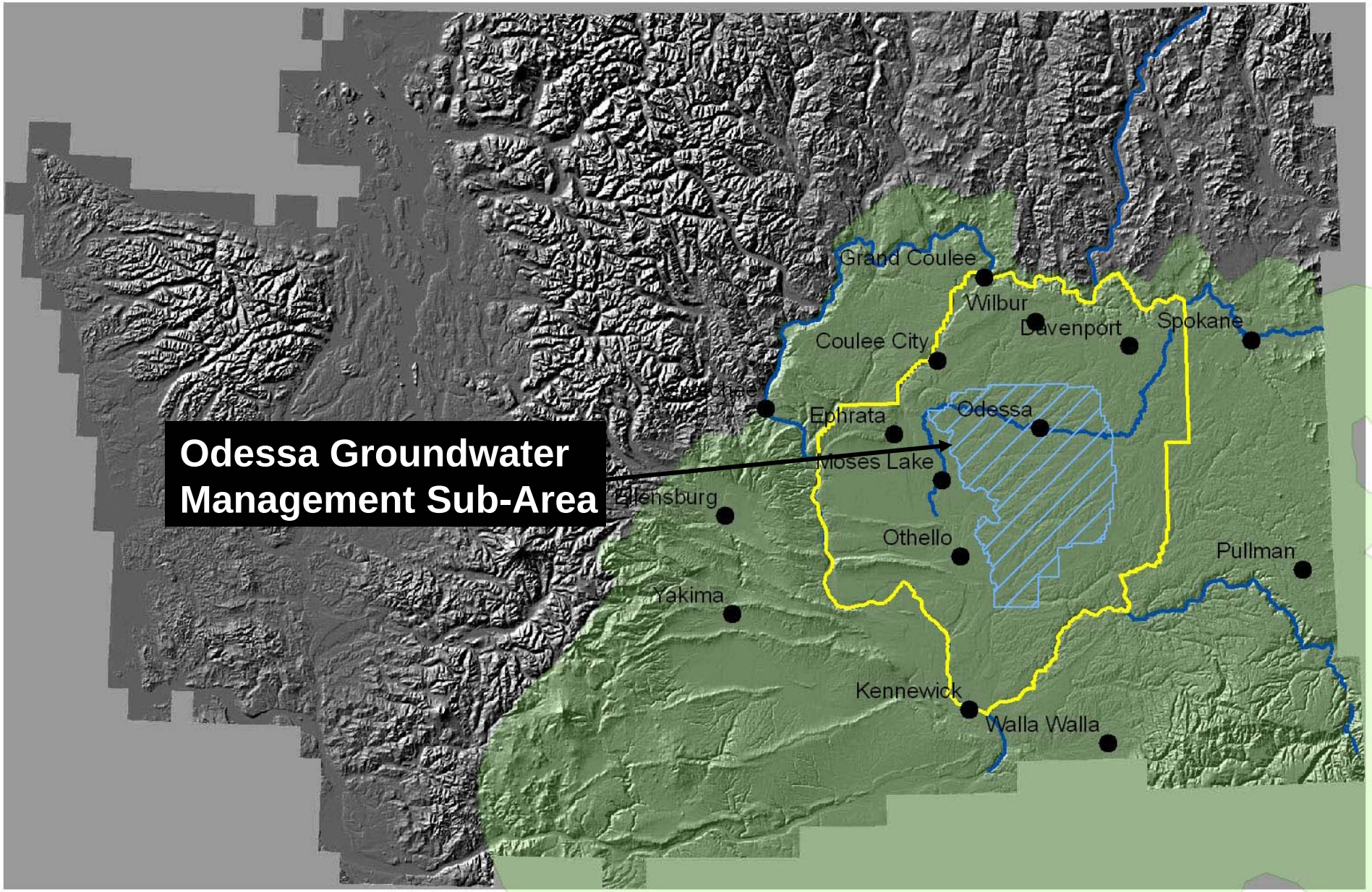

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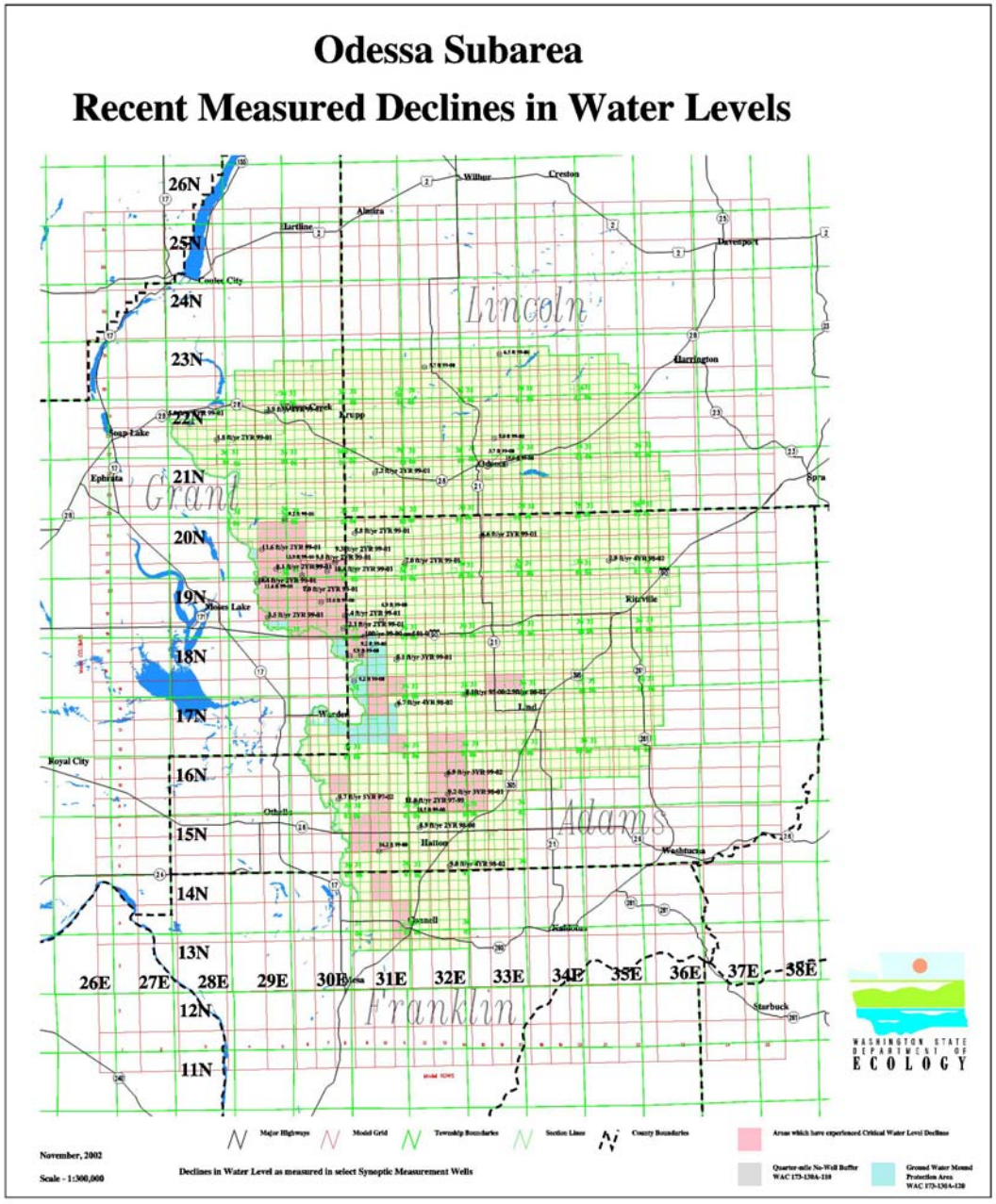

Department of Ecology

Responsible for management of State water resources

Measures about 100 water levels annually

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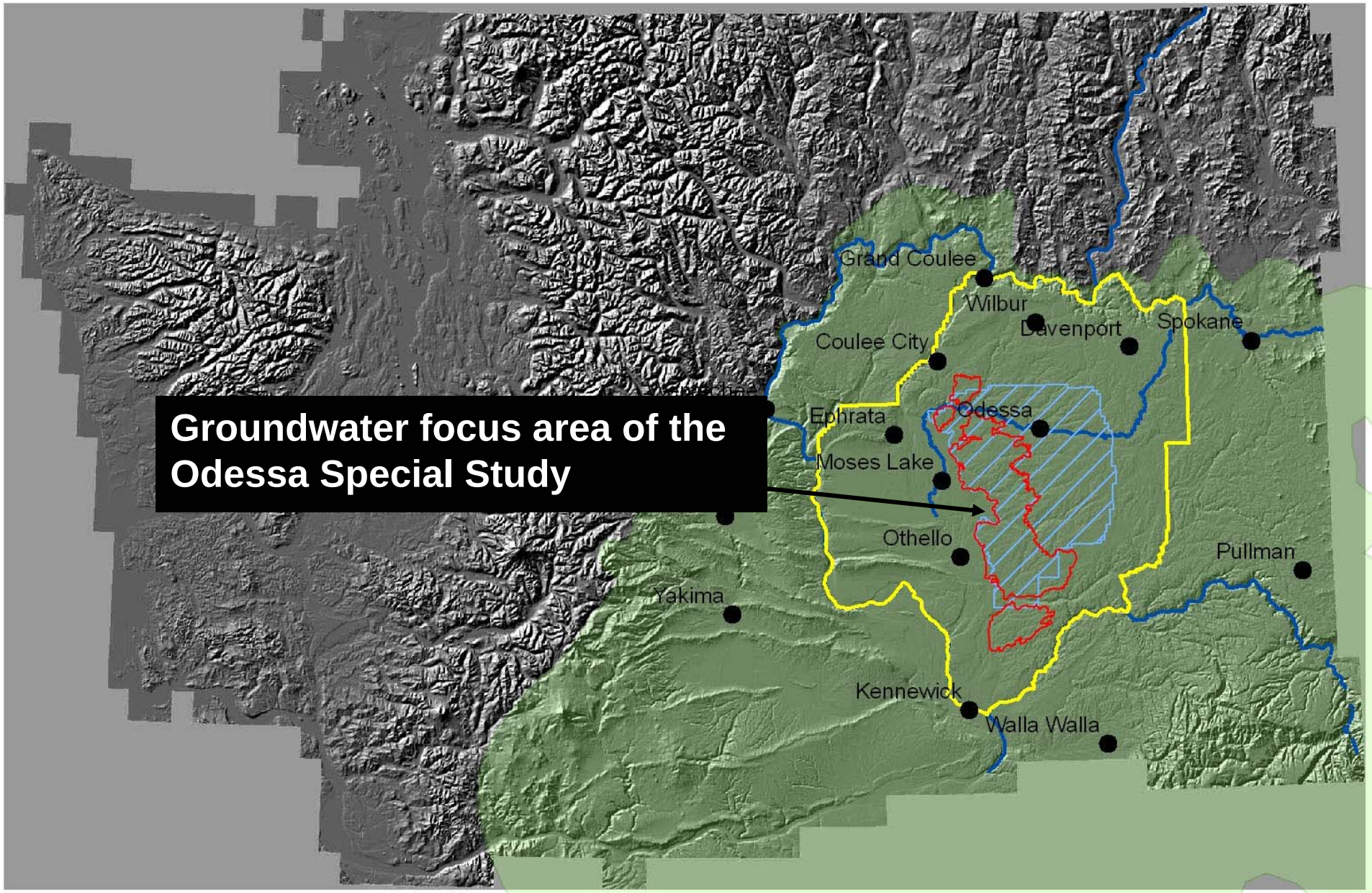

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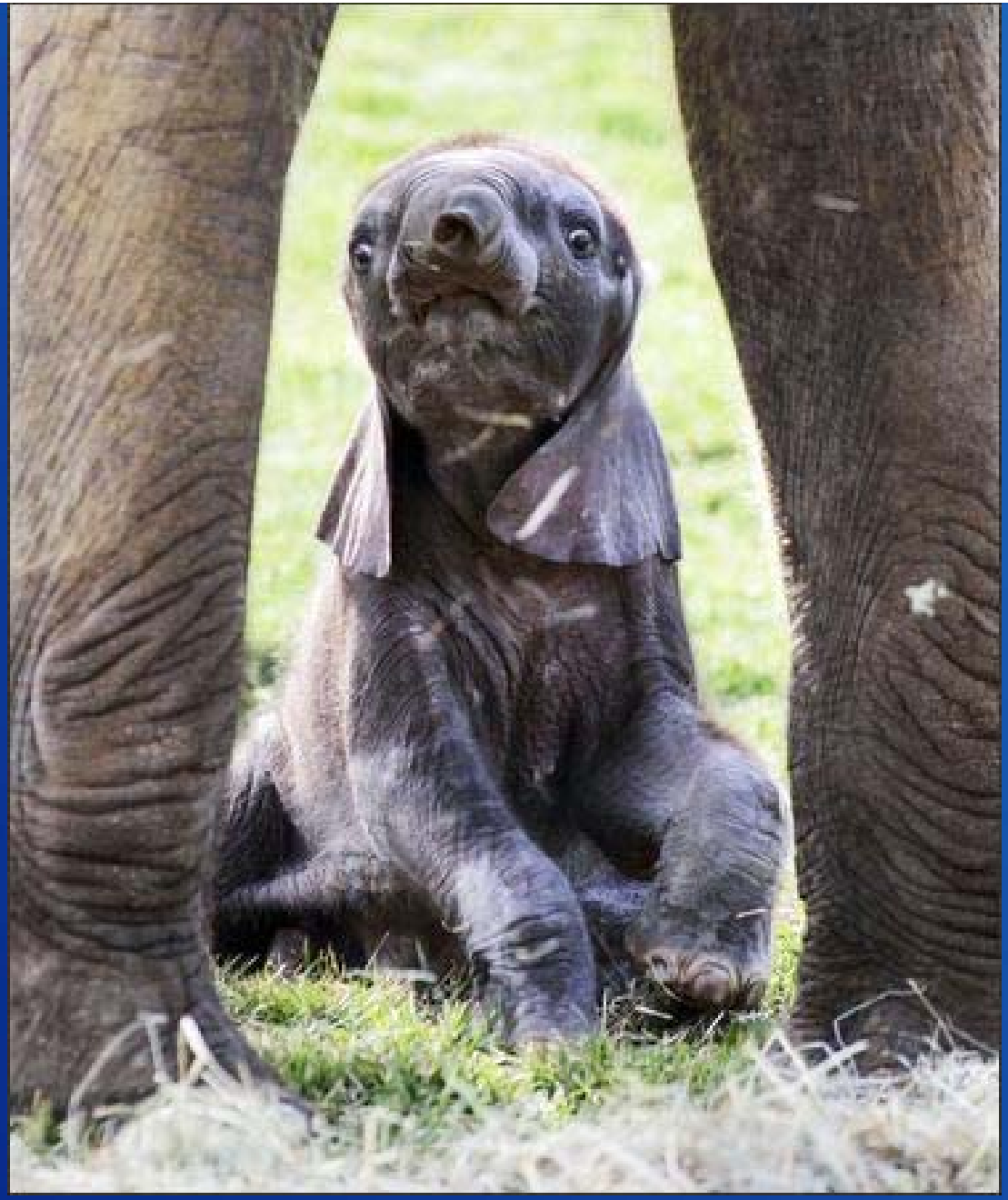

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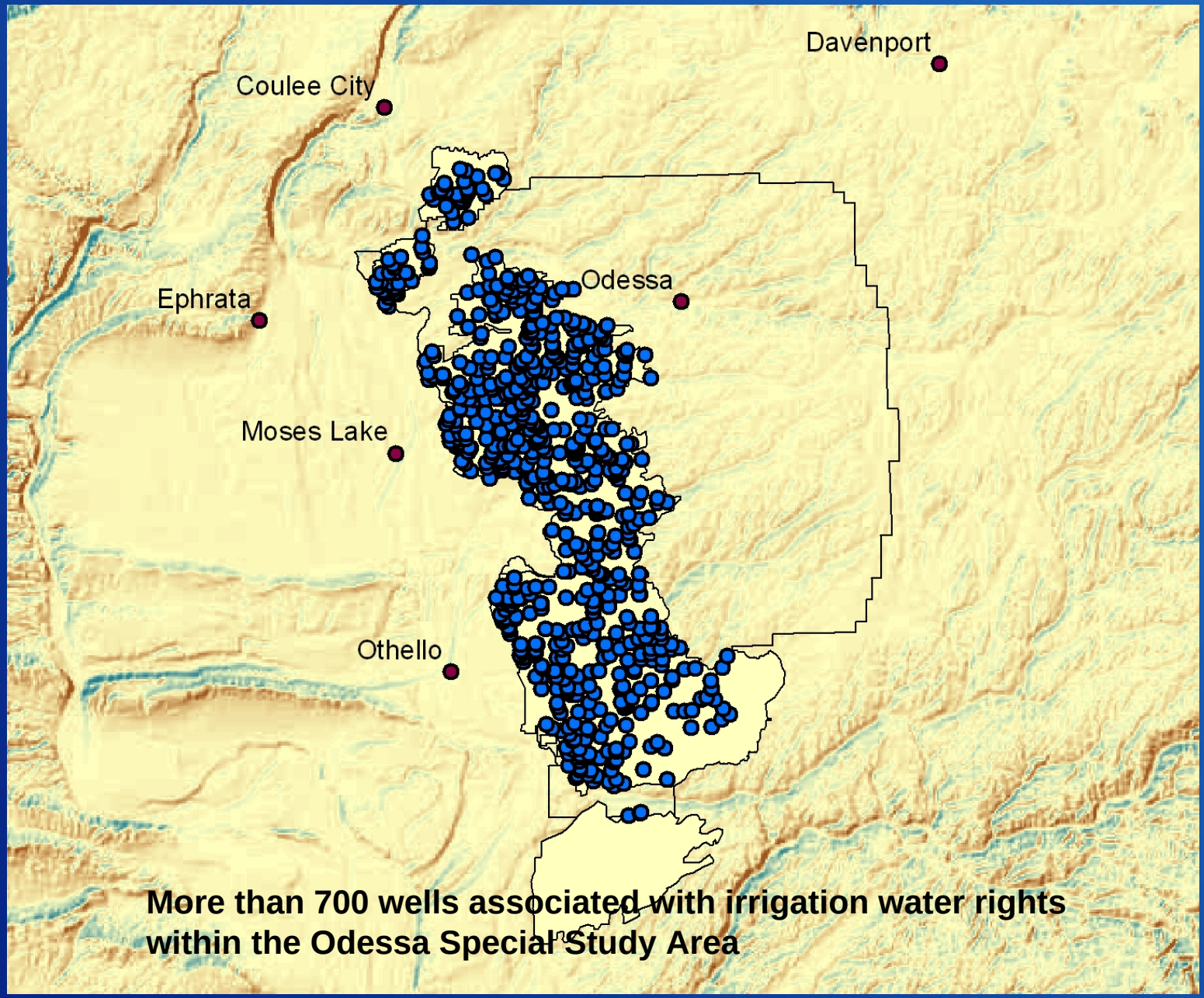

More than 700 wells associated with irrigation water rights within the Odessa Special Study Area

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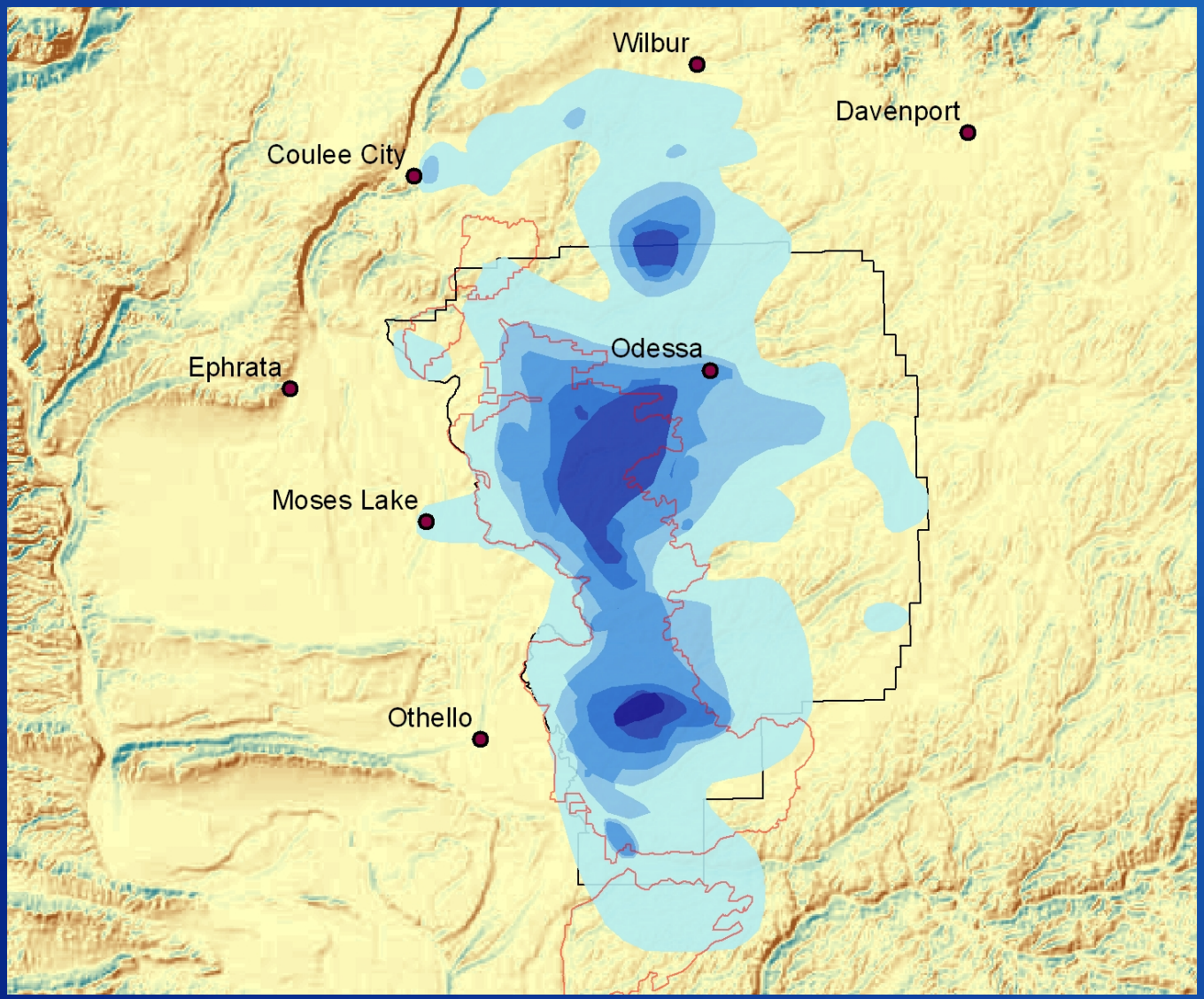
Average Water Level Decline 1968 – 1981 in wells tapping Wanapum and Grande Ronde



(data from Cline, 1984)

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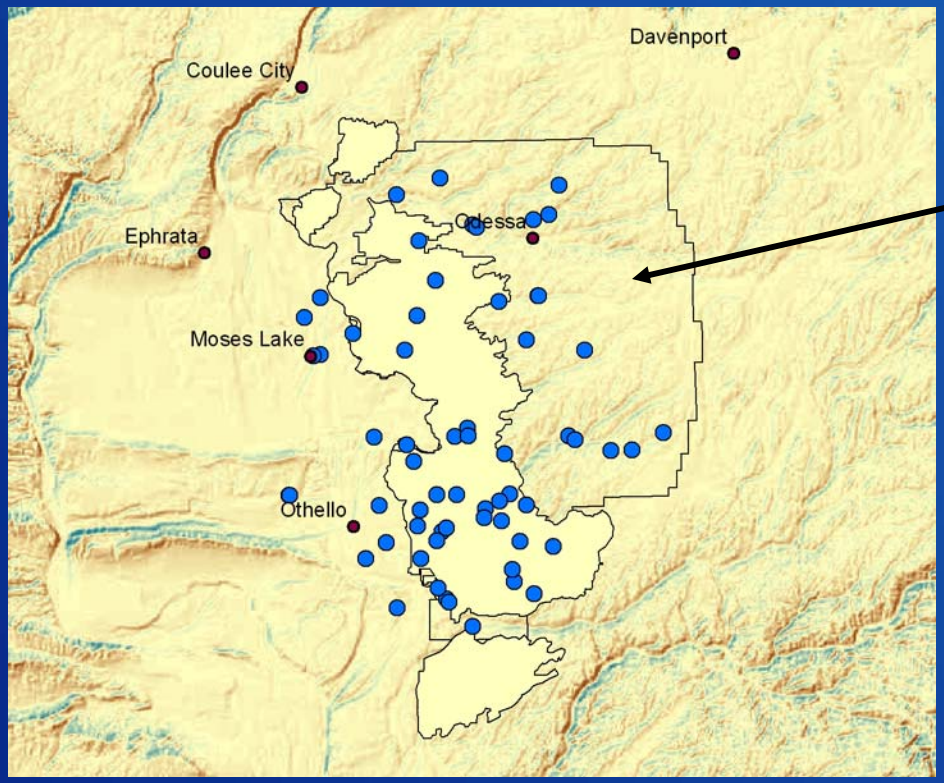
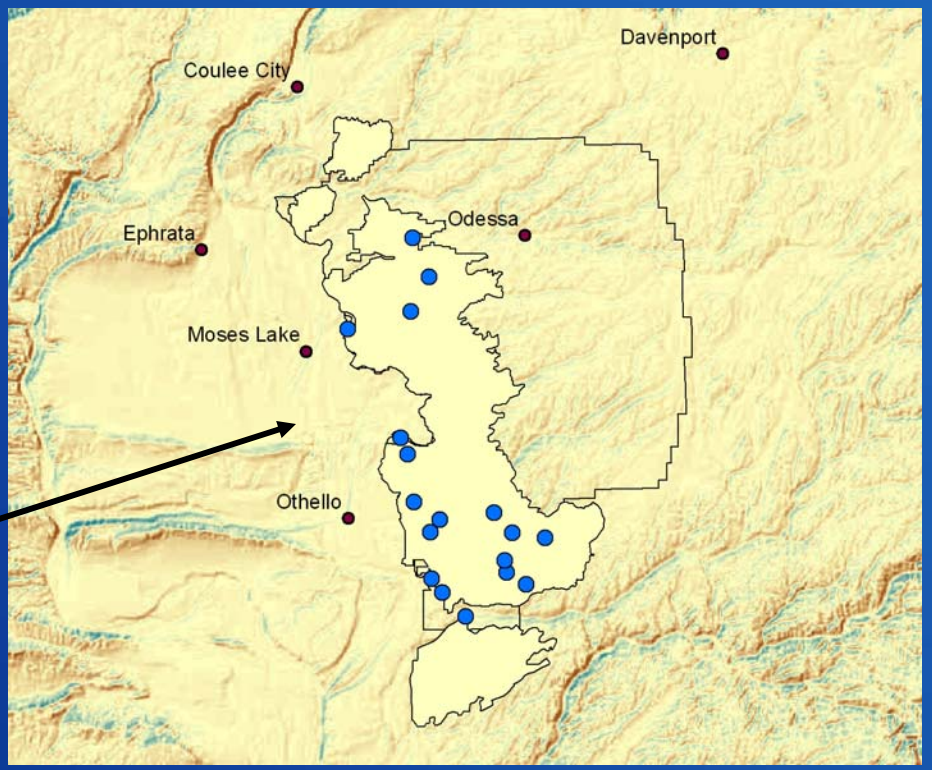


Contracted with USGS for Well monitoring – 2006
Measured about 180 wells



USBR returned to measure 20 wells in 2007

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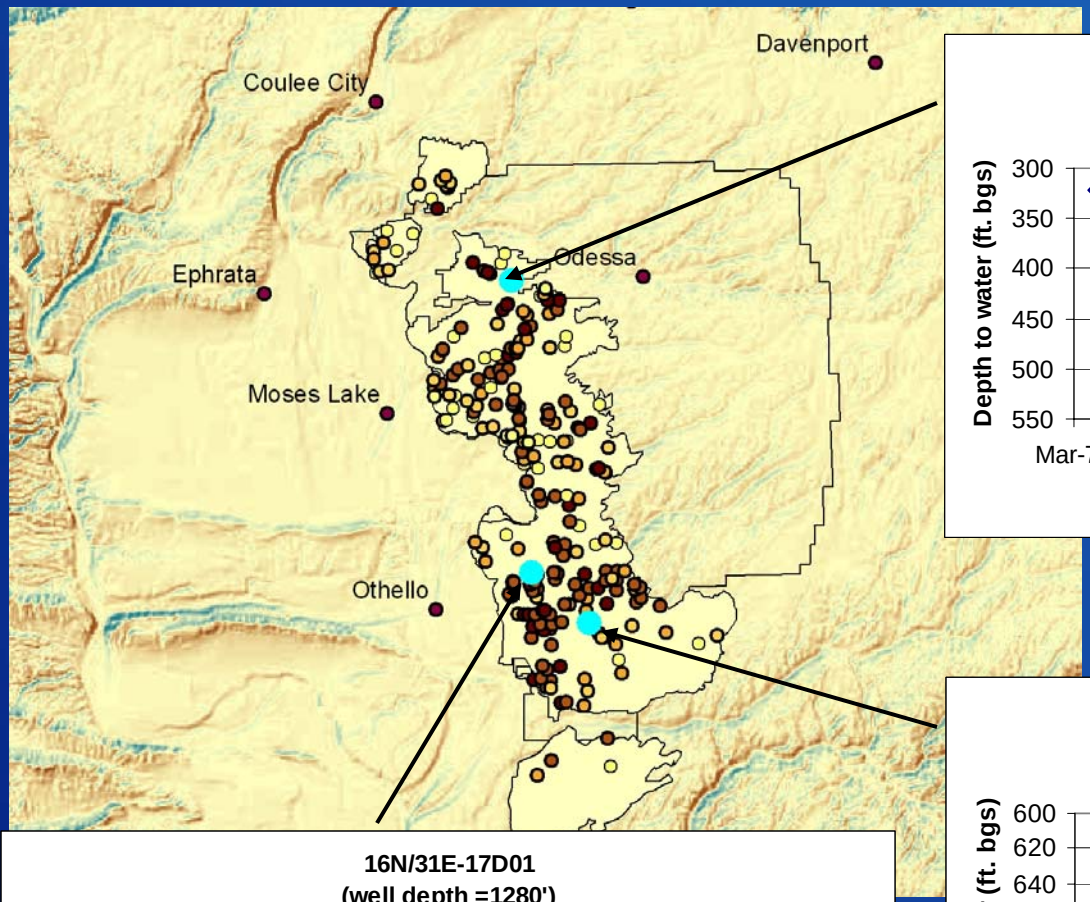

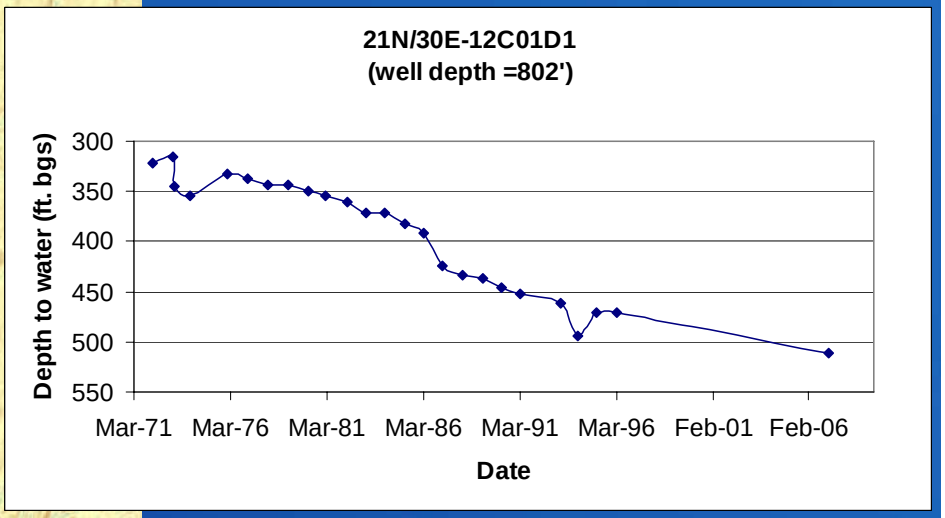

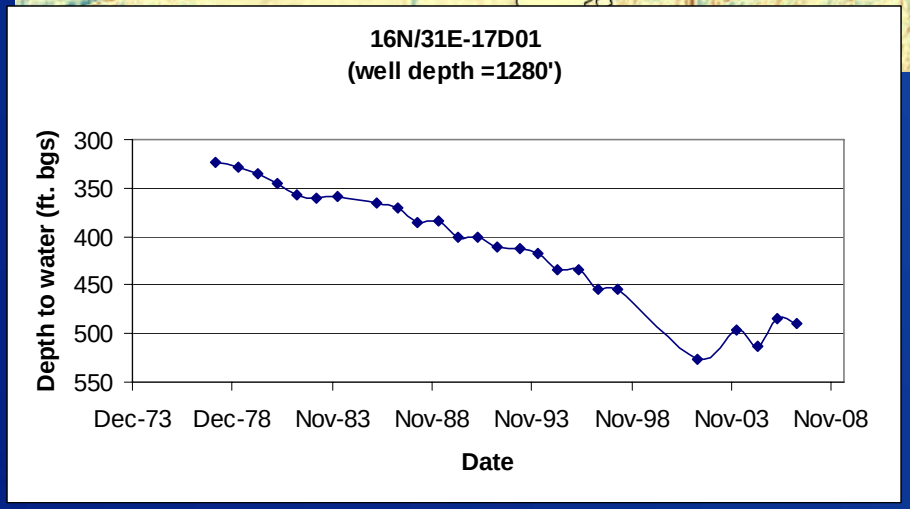

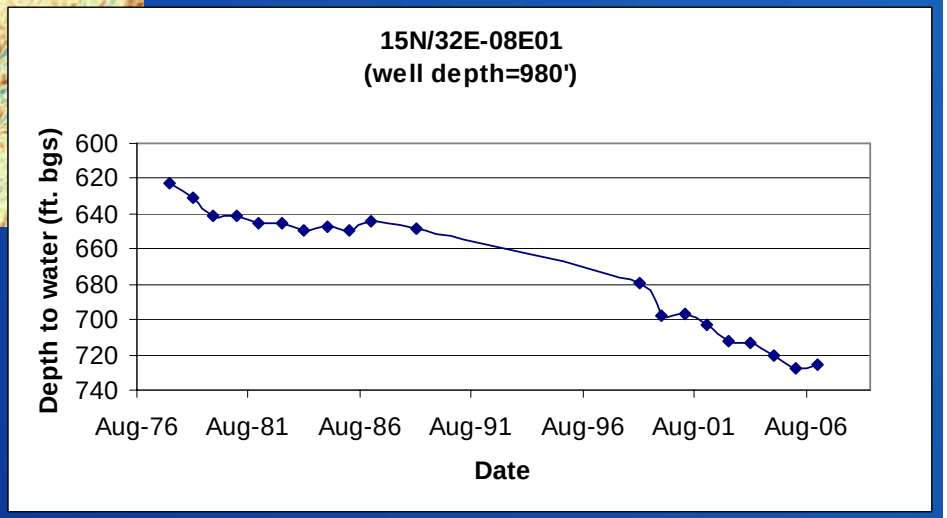

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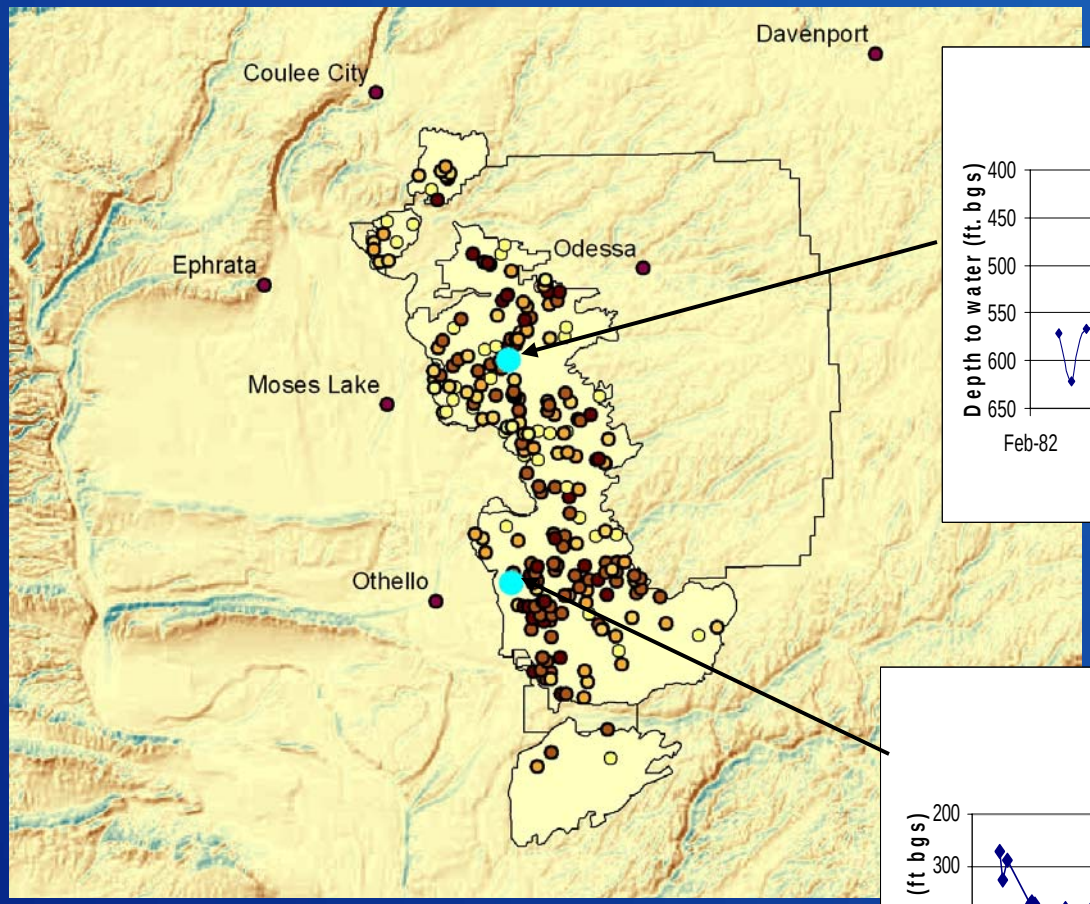

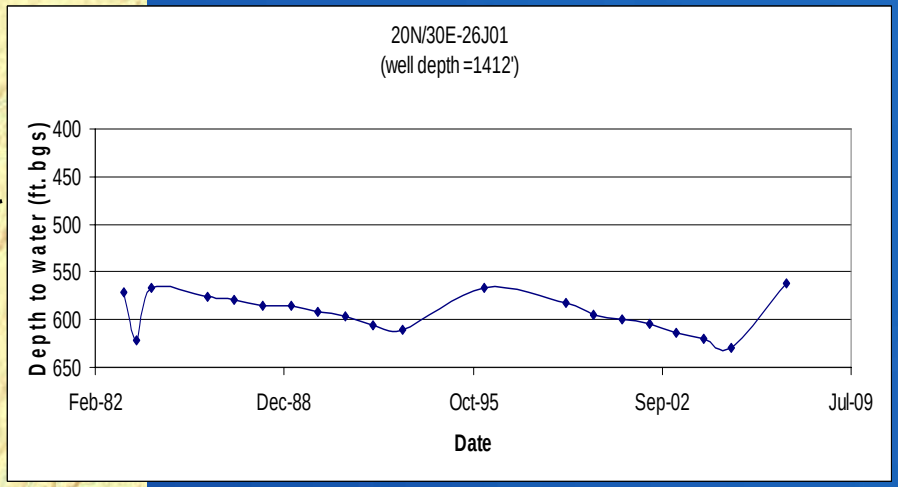

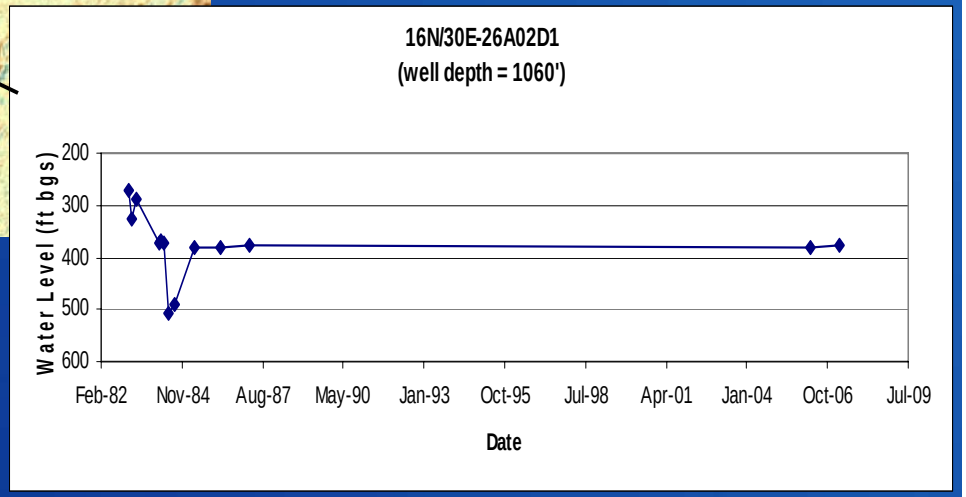

Not all wells show a decline

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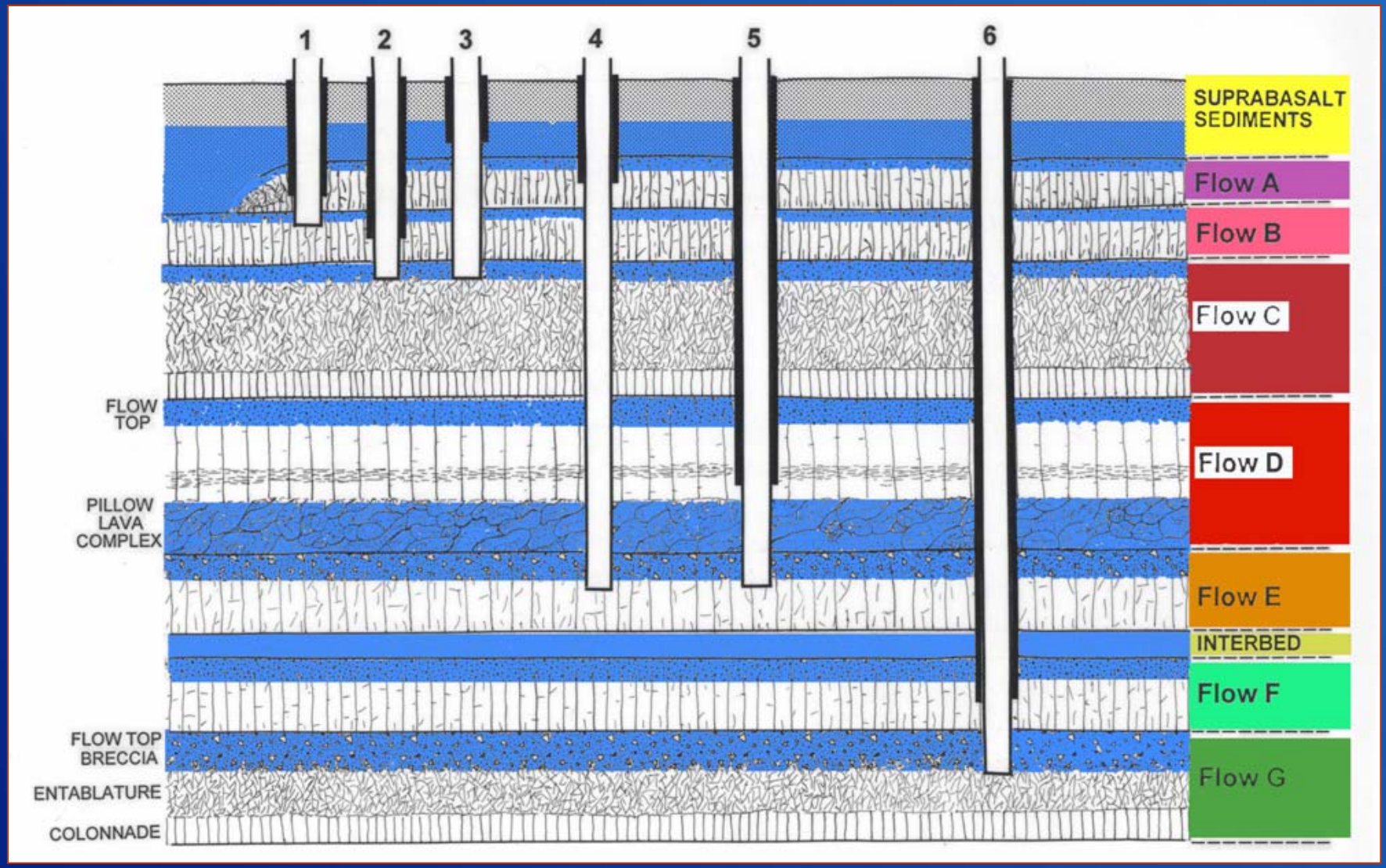
Well Construction



Next Steps:

- Continue to monitor water level trends
- Collaborate with Ecology, USGS, GWMA and others to improve our understanding of the groundwater system
- Use best science to make water resource and project management decisions

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