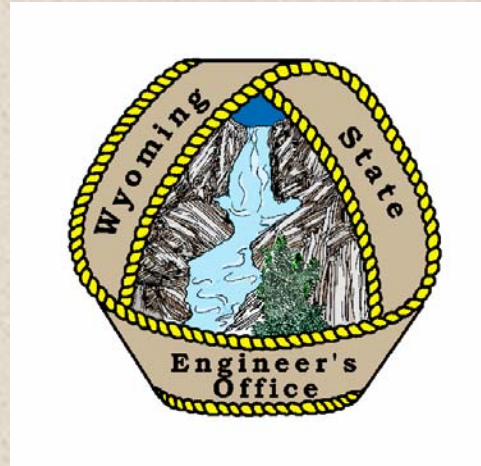


High Plains Aquifer in Wyoming



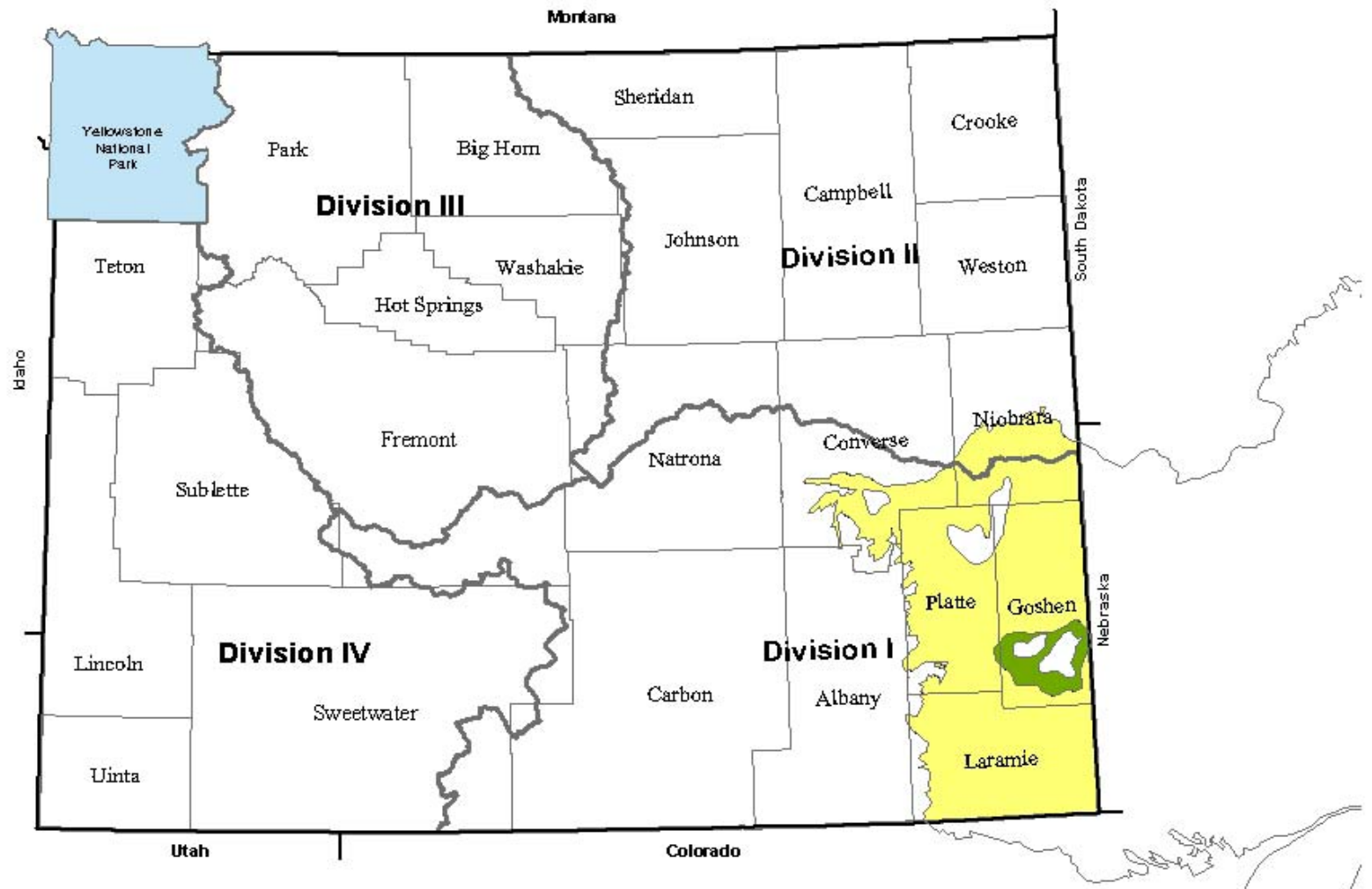
Darren Parkin

**Water Management Specialist
Wyoming State Engineer's Office**

Presented to the Northeastern Wyoming iBAG

July 17, 2003

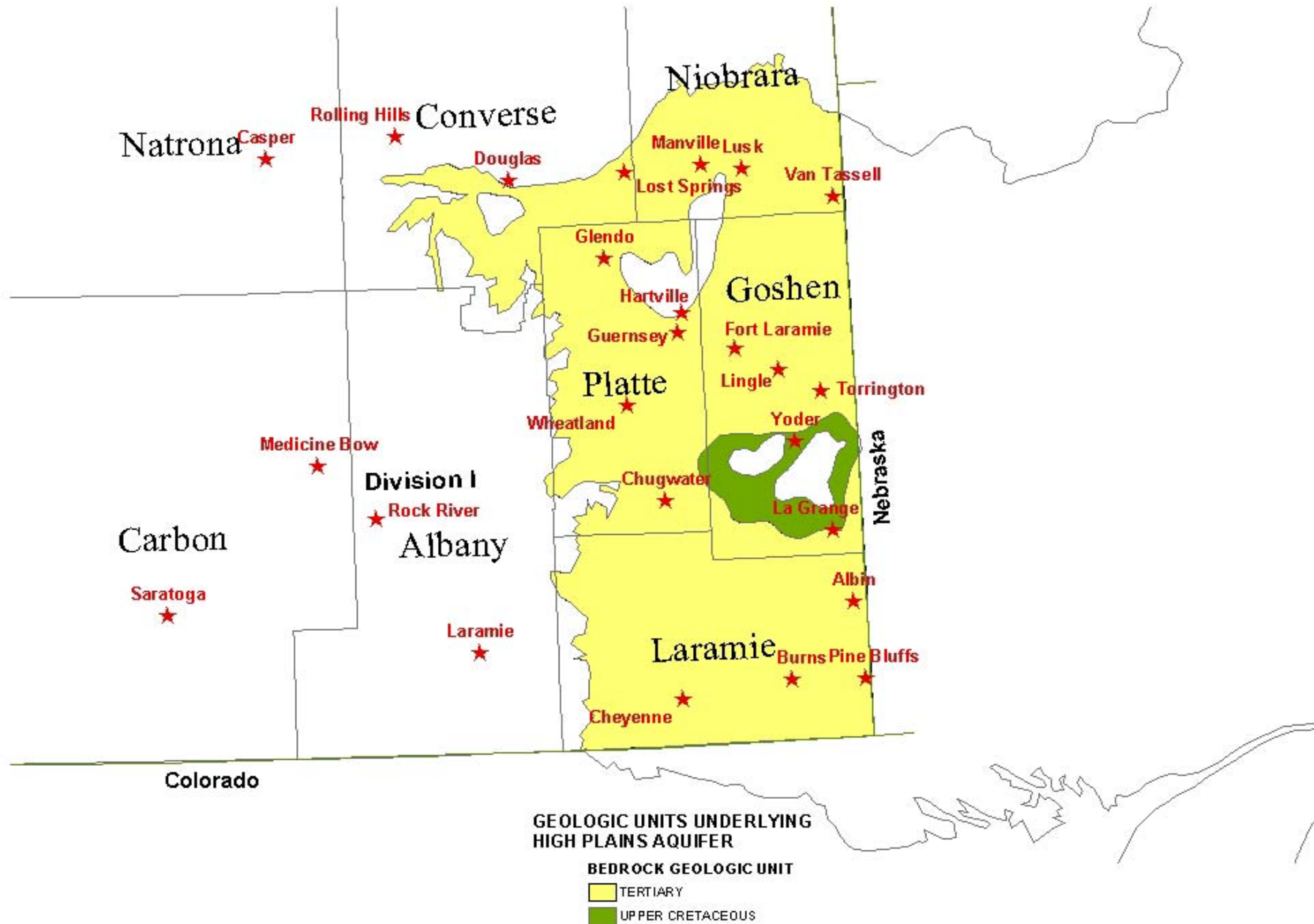
EXTENT OF THE HIGH PLAINS AQUIFER SYSTEM IN WYOMING



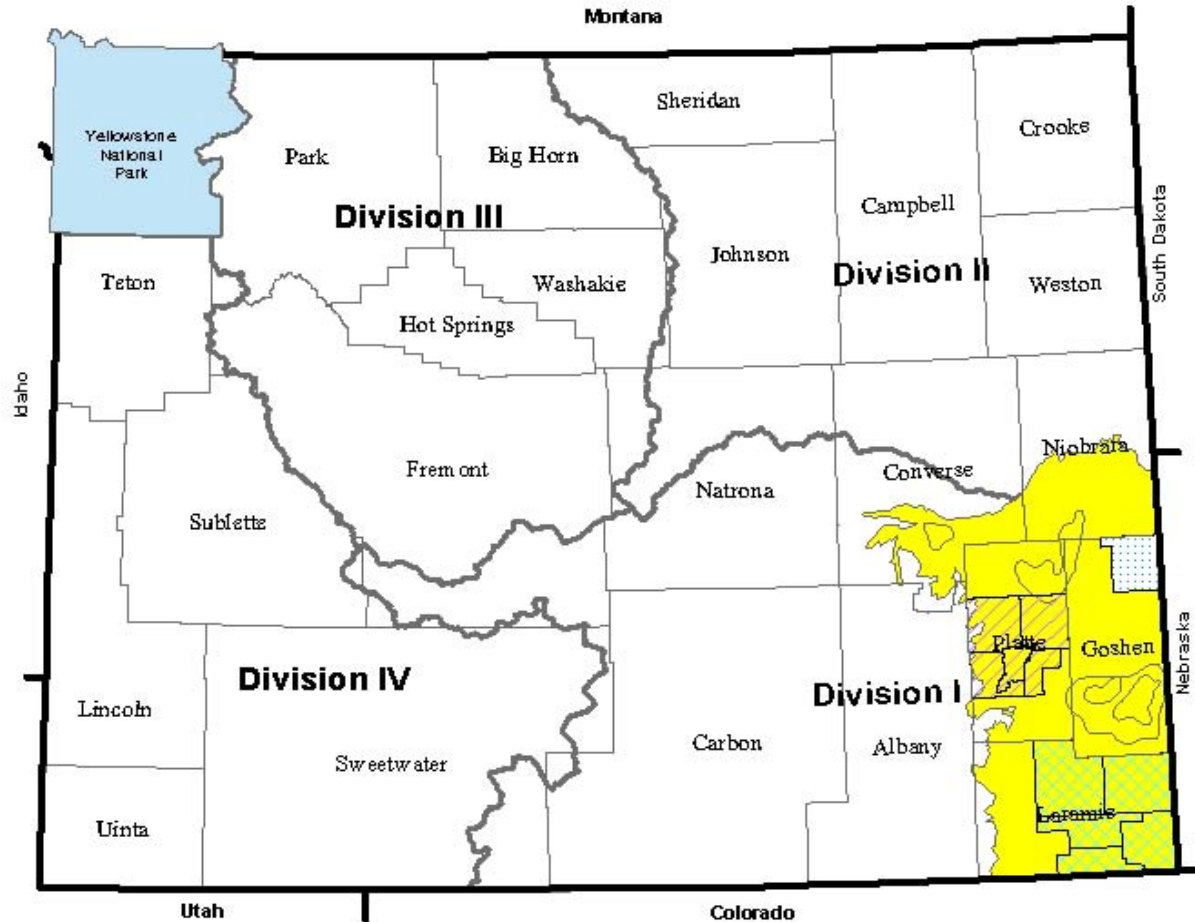
GEOLOGIC UNITS UNDERLYING HIGH PLAINS AQUIFER

- BEDROCK GEOLOGIC UNIT**
- TERTIARY
 - UPPER CRETACEOUS

Wyoming Towns Dependent on the High Plains Aquifer



WATER DIVISION MAP WYOMING



Legend

 PLATTE COUNTY CONTROL AREA

 LARAMIE COUNTY CONTROL AREA

 PRAIRIE CENTER CONTROL AREA

COUNTY BOUNDARIES SHOWN FOR REFERENCE

GW CONTROL AREA REQUIREMENTS

- GW Use is Approaching or Exceeding the Recharge Rate.**
- GW Levels are Declining Excessively.**
- Conflicts Occurring Between Water Users.**
- WSEO Determination that Regulation is Required to Protect the Public Interest.**

Prairie Center Control Area est. 1977

Legend

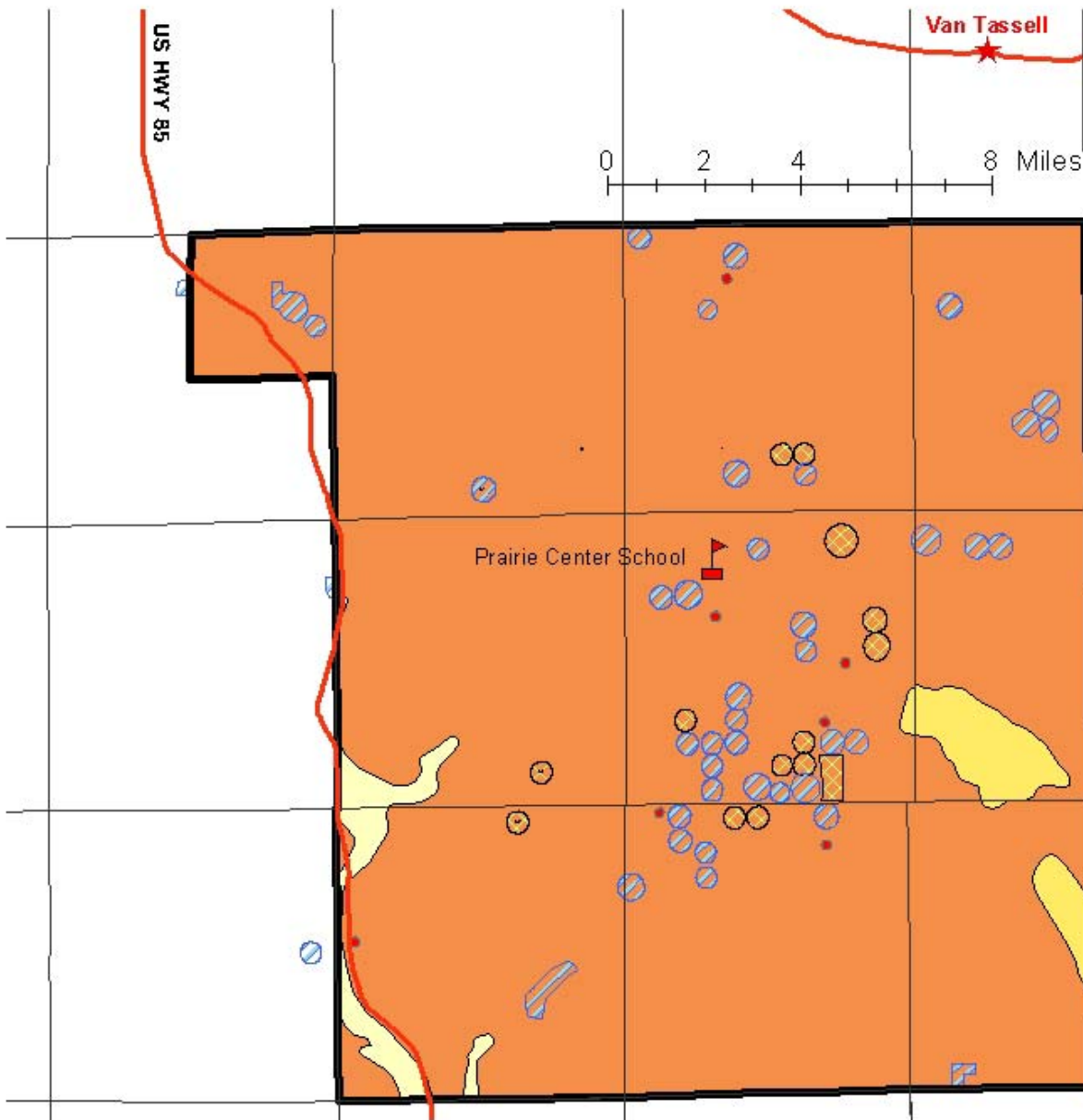
- Townships
- Prairie Center Control Area boundary
- Observation Wells

Prairie Center Irrigated Acres Status

- Adjudicated
- Pending

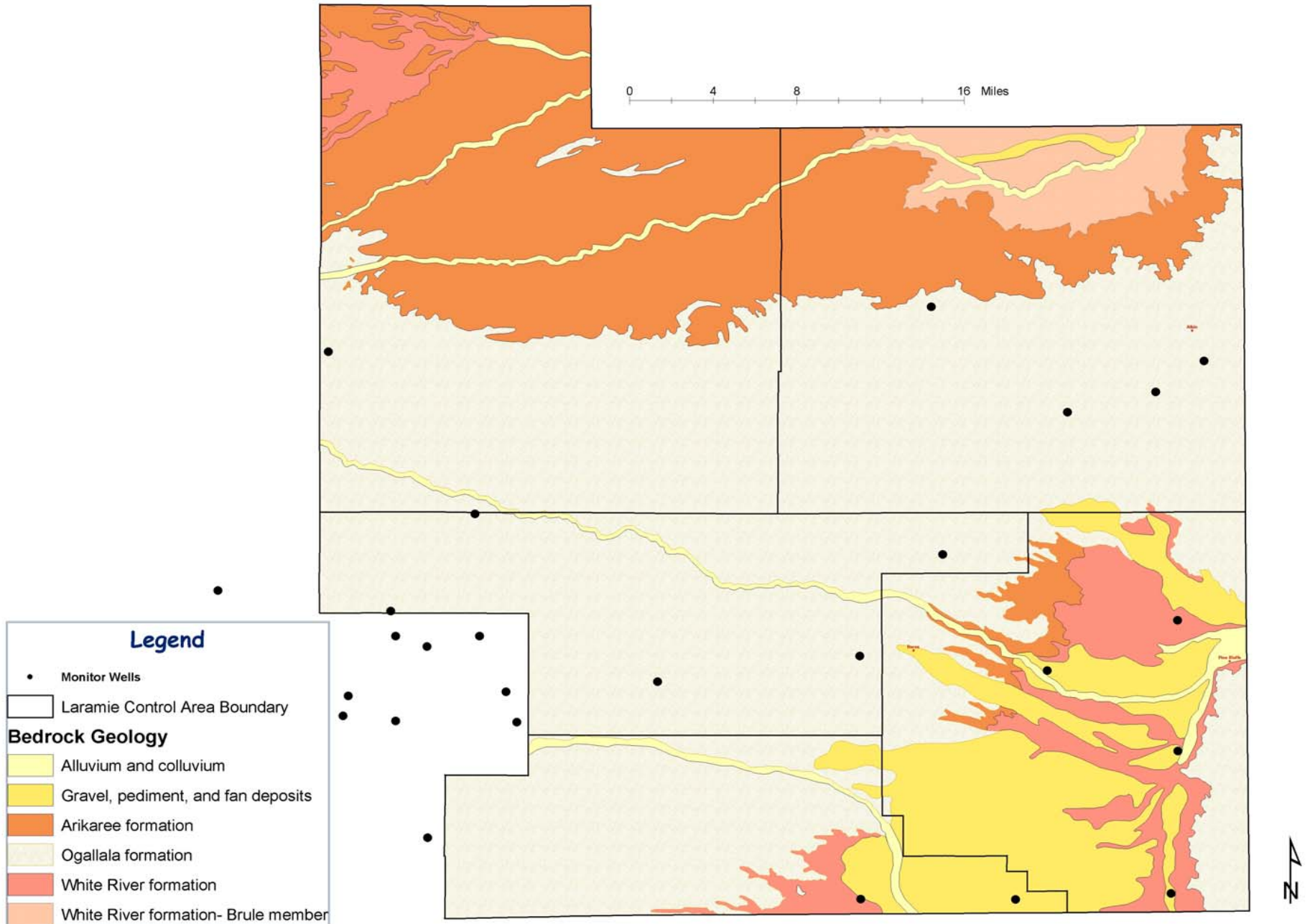
Bedrock Geology

- Alluvium and colluvium
- Dune sand and loess
- Arikaree formation

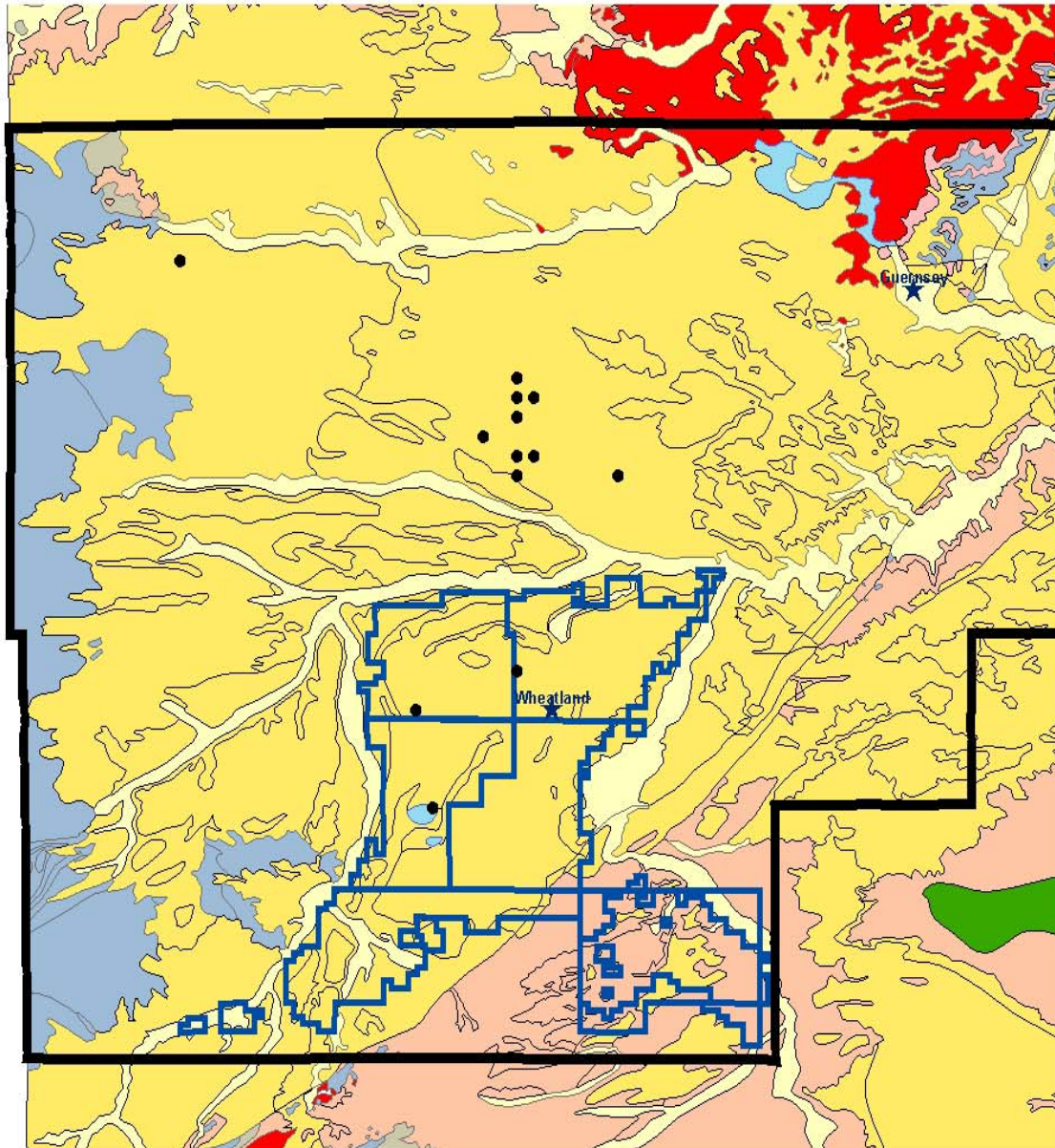


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Laramie County Groundwater Control Area est. 1981



Platte County Groundwater Control Area est. 1982



Legend

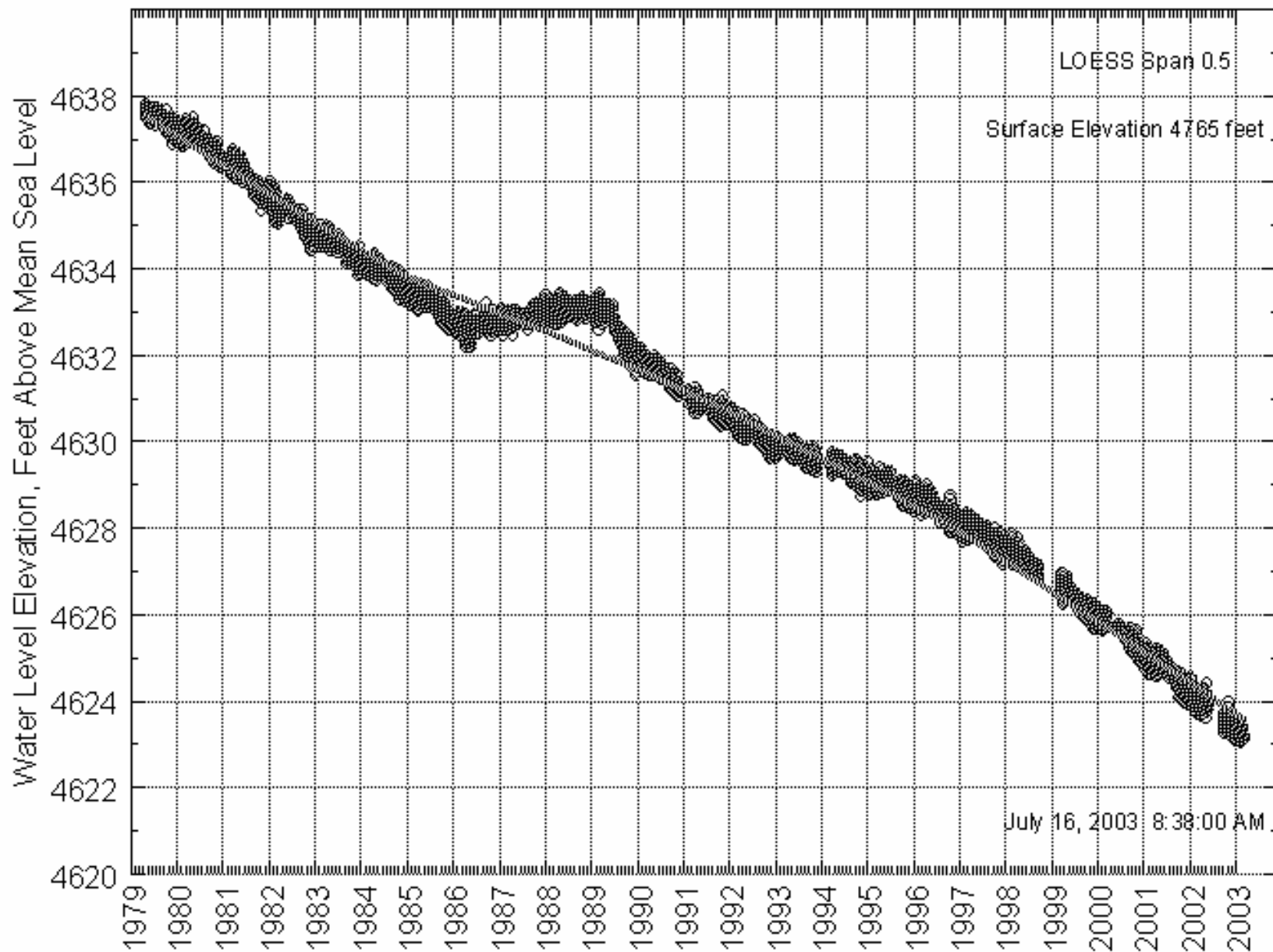
- Monitor Wells
- ▭ Platte Control Area boundary
- ▭ Wheatland Irrigation District boundary
- Alluvium and colluvium
- Chugwater and Goose Egg and Hartville formations
- Dune sand and loess; Gravel pediment and fan deposits
- Granitic Rocks
- Guernsey formation
- Water
- Amsden formations
- White River formation - Brule member - locally includes upper conglomerate member
- White River formation - Chadron member

0 3 6 12 Miles



Hydrograph with LOESS Smooth

Goshen County #2



Thank You!



Darren Parkin

307-777-7133

dparki@state.wy.us