

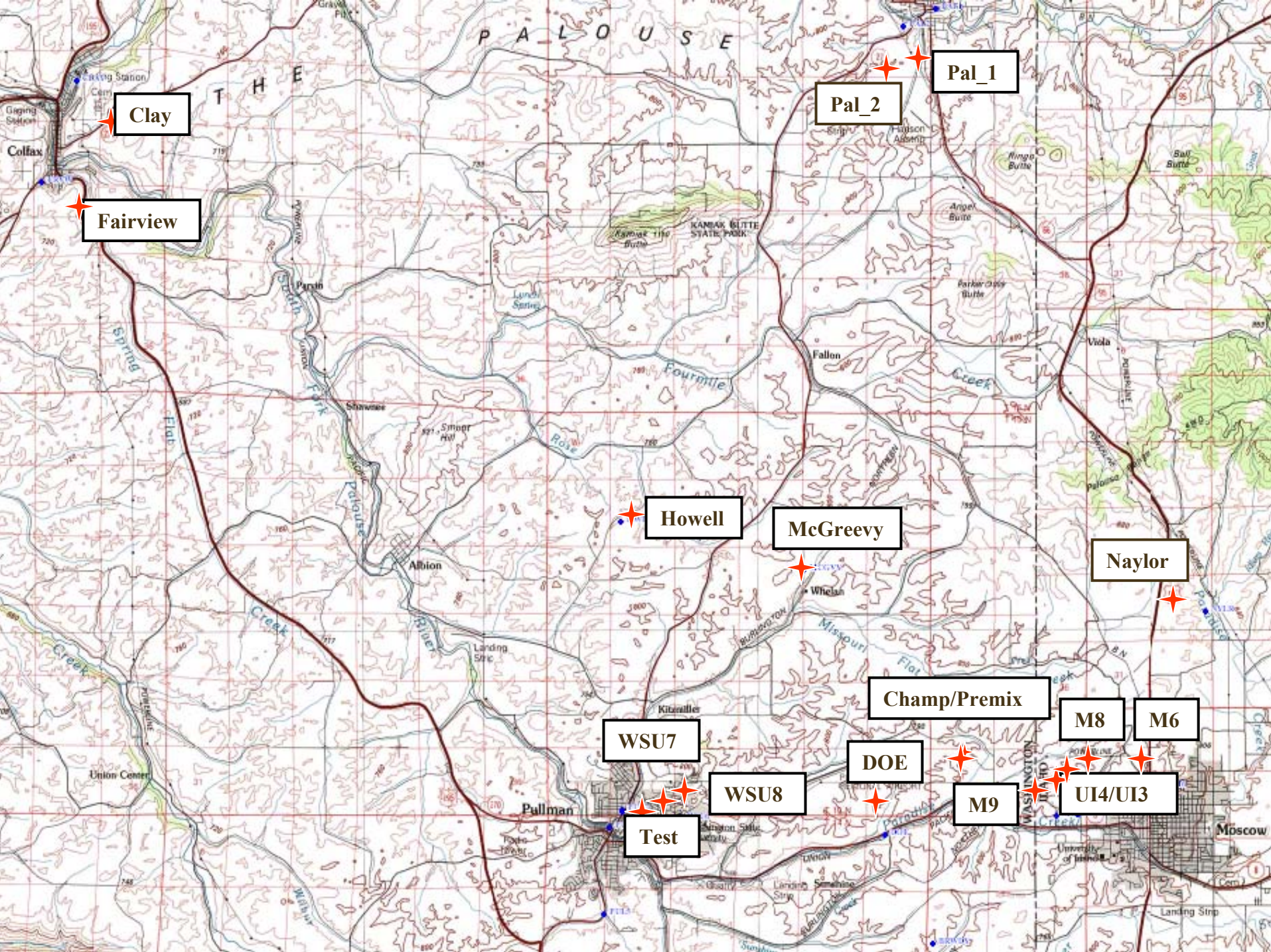
Continued Monitoring of the Grande Ronde Aquifer System Water Levels with an Emphasis on Hydraulic Testing and Maximizing the Benefits from the New Monitoring Well Fields



Project Objectives

- Maintain existing Grande Ronde monitoring network, download water level data as required, reset dataloggers to record on a consistent time frame, test the integrity of all dataloggers, and replace faulty dataloggers when necessary.
- Continuously update the water level monitoring database as appropriate based on periodic downloading of the data.





Clay

Fairview

Pal_2

Pal_1

Howell

McGreevy

Naylor

WSU7

WSU8

Test

DOE

M9

M8

M6

UI4/UI3

Champ/Premix

- Design and conduct detailed aquifer tests to evaluate hydraulic connections between pumping centers and all new monitoring wells. Collect, synthesize, analyze and interpret aquifer test data to evaluate properties of the Grande Ronde aquifer system such as transmissivity and storativity.
- Expand the analysis of potential well interference effects between pumping centers in the basin.



- Collect water samples and formation samples during drilling of new Grande Ronde monitoring wells. Draft geologic logs and well construction /design diagrams for new Grande Ronde monitoring wells.
- Develop a ground water monitoring program for new Grande Ronde monitoring wells.



- Arrange to have the new monitoring wells surveyed, and add that information to the existing ground water monitoring database.
- Compose/complete ground water monitoring report as an MS thesis in Hydrology that addresses issues, documents observed field data, and compiles findings of results and interpretations.

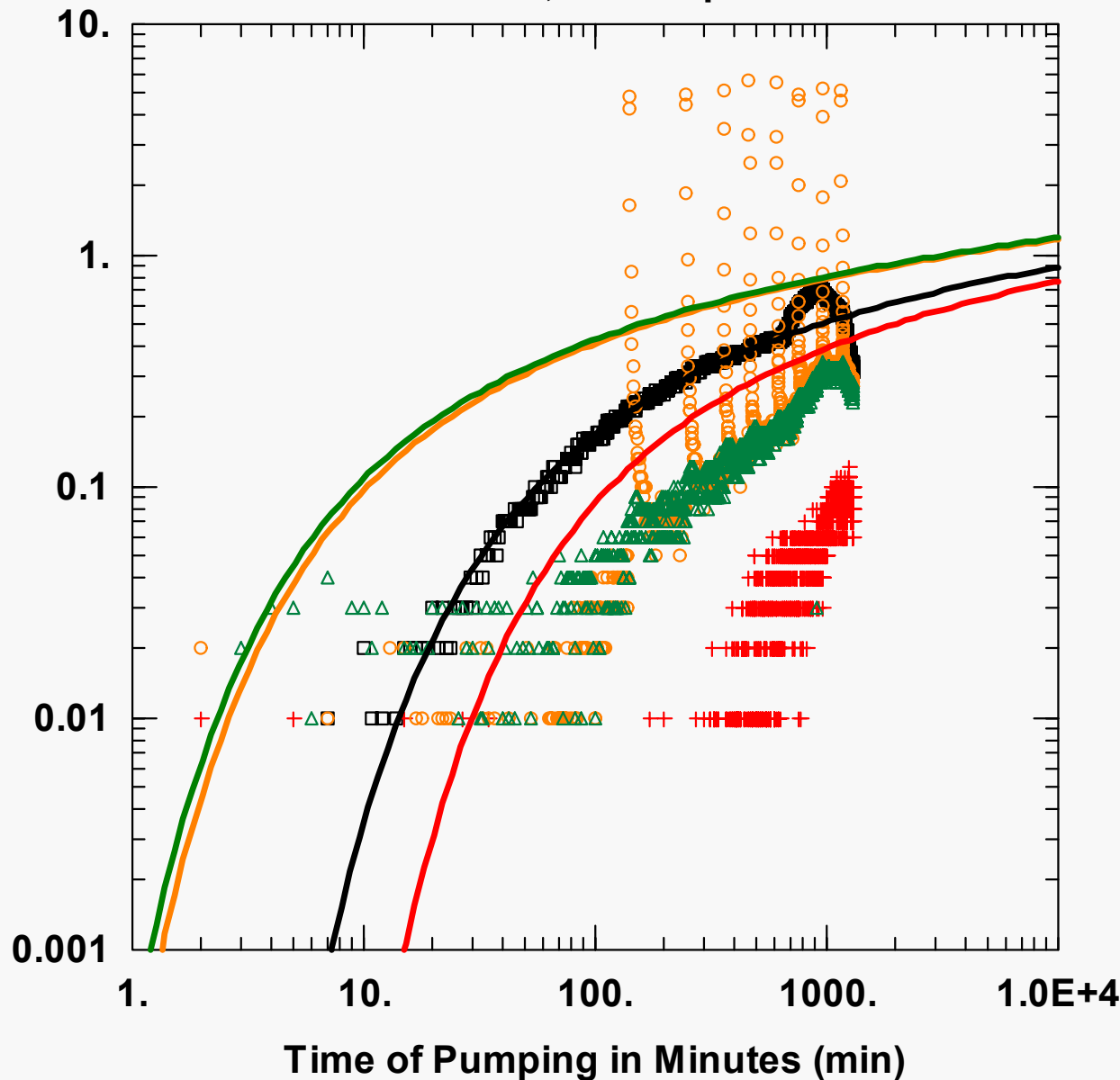


Preliminary November 22, 2005 And January 31, 2006 Aquifer Test Results



November 22, 2005 Aquifer Test

Drawdown in Feet (ft)



Obs. Wells

- DOE
- + Naylor
- Champion
- △ Premix

Aquifer Model

Confined

Solution

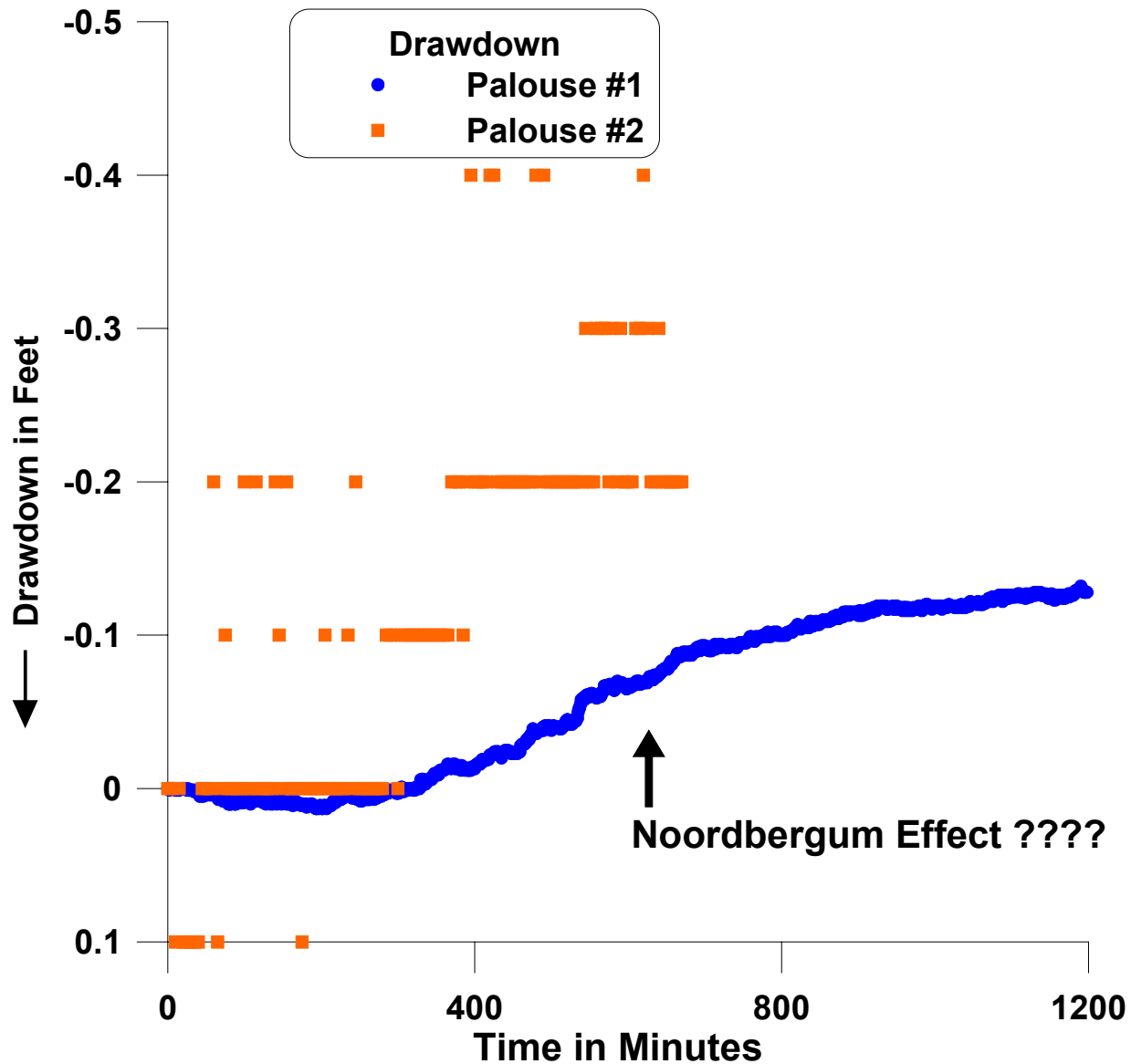
Theis

Parameters

$T = 2.099E+5 \text{ ft}^2/\text{day}$
 $S = 7.6E-5$
 $Kz/Kr = 1.$
 $b = 500. \text{ ft}$

Figure 1. Preliminary Aquifer Test Results For November 22, 2005. Wells Moscow 9 and UI 3 were used as pumping wells.

Preliminary January 31, 2006 Aquifer Test Results



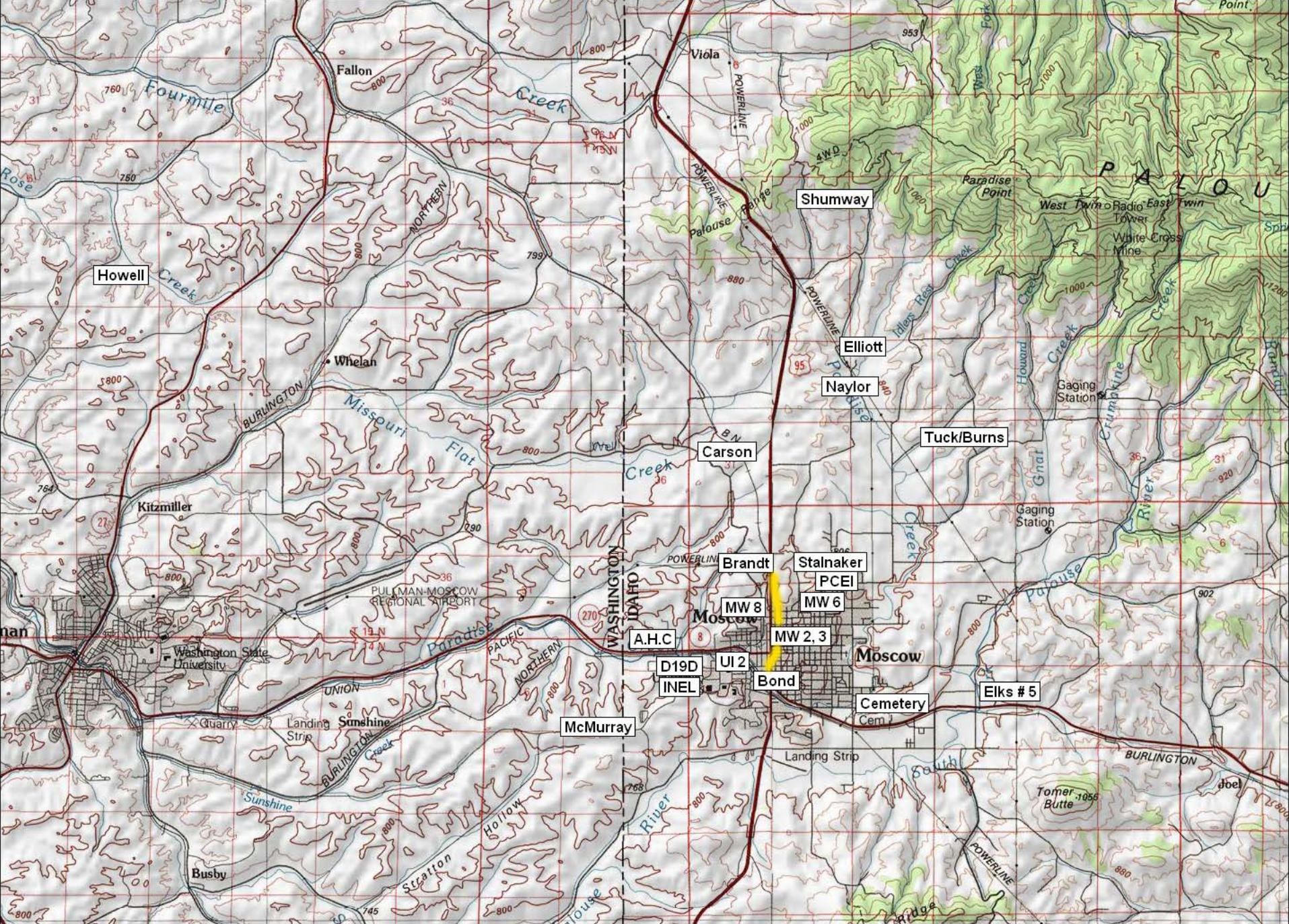
Wanapum Basalt/Latah Formation Sediments Aquifer Testing/Monitoring



Project Objectives

- Maintain existing Wanapum/Latah Formation monitoring network, download water level data as required, reset dataloggers to record on a consistent time frame, test the integrity of all data loggers, and replace faulty dataloggers when necessary.
- Continuously update the water level monitoring database as appropriate based on periodic downloading of the data.





- Design and conduct detailed aquifer tests to evaluate hydraulic connections between wells. Collect, synthesize, analyze and interpret aquifer test data to evaluate properties of the Wanapum/Latah Formation aquifer system(s) such as transmissivity and storativity.
- Correlate field scale hydraulic response data with point sample drilling data derived by the Solomon et al., 2005-2006 investigation to the maximum extent supported by the stratigraphy data.



- Evaluate ground water/surface water interaction under pumping conditions in selected areas of the Moscow-Pullman basin (e.g., suspected recharge areas).
- Collect water samples and formation samples during drilling of new Wanapum/Latah Formation monitoring wells. Draft geologic logs and well construction/design diagrams for new monitoring wells.



- Develop a ground water monitoring program for new Wanapum/Latah Formation monitoring wells.
- Arrange to have the new monitor wells surveyed, and add that information to the existing ground water monitoring database.
- Compose/complete a ground water monitoring/aquifer testing report as an MS thesis in Hydrology that addresses issues, documents observed field data, and compiles findings of results and interpretations.











