

Hydrogeologic framework status, POD well data, & NY Canal seepage data, Treasure Valley, Idaho



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HYDROGEOLOGIC- FRAMEWORK REPORT STATUS

Framework report status

- ❖ The hydrogeologic framework report is through supervisory, colleague, and editorial review and has been approved; will go to layout in the next several days.
- ❖ Furlough, retirements, hiring freezes have caused a backlog for the USGS editors.
- ❖ Will be released in January.
- ❖ The data release is approved and will be released concurrently with the report.

ScienceBase: Main

The screenshot shows a web browser window with the URL sciencebase.gov. The page header features the USGS logo and navigation links. The main content area displays the title 'Hydrogeologic Framework of the Treasure Valley and Surrounding Area, Idaho and Oregon; Datasets' with a subtitle 'Model, well data, and model animation datasets'. The page is organized into several sections: 'Dates' (Publication Date: 2019-01-01), 'Citation' (Bartolino, J.R., 2019, Hydrogeologic Framework of the Treasure Valley and Surrounding Area, Idaho and Oregon; Data and Model: U.S. Geological Survey data release, <http://dx.doi.org/10.3133/P9CAC0F6>), 'Summary' (A three-dimensional hydrogeologic framework model (3D HFM) of the westernmost western Snake River Plain (WSRP) aquifer system...), 'Child Items' (3 items: Hydrogeologic Framework Model, Hydrogeologic Framework Animation, and Well Data), 'Contacts' (Point of Contact: James R. Bartolino, Originator: James R. Bartolino, Metadata Contact: James R Bartolino, Publisher: U.S. Geological Survey, Data Owner: Idaho Water Science Center, Distributor: U.S. Geological Survey - ScienceBase), and 'Attached Files' (3 files). On the right side, there is a 'Thumbnail' section with a 3D model, a 'Map' section with a 2D map of the study area, and 'Spatial Services' (ScienceBase WMS: <https://www.sciencebase.gov/cat:>). The 'Communities' section lists 'USGS Idaho Water Science Center'. The 'Associated Items' section has a link to 'Associate an Item'. The 'Tags' section shows categories: 'Data', 'Data Release - In Progress'.



ScienceBase: Model

The screenshot shows the ScienceBase website interface. The browser address bar displays "sciencebase.gov". The top navigation bar includes the USGS logo and the tagline "science for a changing world". Below the navigation bar, the breadcrumb trail reads: "ScienceBase Catalog -> USGS Idaho Water Science ... -> In-Progress Data Releases -> Hydrogeologic Framework o... -> Hydrogeologic Framework o...".

Hydrogeologic Framework of the Treasure Valley and Surrounding Area, Idaho and Oregon; Hydrogeologic Framework Model

Dates

Publication Date : 2019
Start Date : 1924-01-01
End Date : 2016-10-19

Citation

James R. Bartolino, 2019, Hydrogeologic Framework of the Treasure Valley and Surrounding Area, Idaho and Oregon; Hydrogeologic Framework Model: U.S. Geological Survey, <http://dx.doi.org/10.3133/SS###>, <http://dx.doi.org/10.3133/P9CAC0F6>.

Summary

A three-dimensional hydrogeologic framework model (3D HFM) of the westernmost western Snake River Plain (WSRP) aquifer system was prepared to represent the subsurface distribution and thickness of four hydrogeologic units. The primary source of data for the 3D HFM was lithologic data from a total of 291 well-driller reports. These data were then processed using Rockware Rockworks17 three-dimensional modeling software. This dataset is an ASCII text file of the 3D HFM containing XYZ data. It is one of three related datasets.

Contacts

Point of Contact : U.S. Geological Survey, Idaho Water Science Center, James R. Bartolino
Originator : James R. Bartolino
Metadata Contact : James R Bartolino, U.S. Geological Survey, Idaho Water Science Center
Publisher : U.S. Geological Survey
Distributor : U.S. Geological Survey

Attached Files

Click on title to download individual files attached to this item or [download all](#) files listed below as a compressed file.

File Name	View	Date	Author	Size
TV-HFM_Model_Draft.xml "Metadata" <i>Original FGDC Metadata</i>	View	2019-10-16 10:51	jrbarolo@usgs.gov	19.27 KB
TV-HFM_Model_Thmb.jpg "Thumbnail Image"		2019-10-16 10:51	jrbarolo@usgs.gov	47.45 KB
TV-HFM_Model.txt "Data file"		2019-10-16 10:52	jrbarolo@usgs.gov	29.34 MB

Spatial Services

ScienceBase WMS :
<https://www.sciencebase.gov/cats>

Communities

- USGS Idaho Water Science Center *

Associated Items

[Associate an Item](#)

Tags

Categories : Data
Theme : [Geology](#), [animations](#), [environment](#), [geoscientificinformation](#), [geospatial datasets](#), [groundwater](#), [groundwater flow](#), [hydrogeology](#)

ScienceBase: Animation

The screenshot shows a web browser window displaying the ScienceBase website. The browser's address bar shows "sciencebase.gov". The website header includes the USGS logo and navigation links such as "ScienceBase-Catalog", "Communities", "Add Item", "My Items", "More", and "Help". The breadcrumb trail indicates the current page is "Hydrogeologic Framework Model Animation".

Hydrogeologic Framework of the Treasure Valley and Surrounding Area, Idaho and Oregon; Hydrogeologic Framework Model Animation

Dates

Publication Date : 2019
Start Date : 1924-01-01
End Date : 2016-10-19

Citation

James R. Bartolino, 2019, Hydrogeologic Framework of the Treasure Valley and Surrounding Area, Idaho and Oregon; Hydrogeologic Framework Model Animation: U.S. Geological Survey, <http://dx.doi.org/10.3133/SS###>, <http://dx.doi.org/10.3133/P9CAC0F6>.

Summary

A three-dimensional hydrogeologic framework model (3D HFM) of the westernmost western Snake River Plain (WSRP) aquifer system was prepared to represent the subsurface distribution and thickness of four hydrogeologic units. The primary source of data for the 3D HFM was lithologic data from a total of 291 well-driller reports. These data were then processed using Rockware Rockworks17 three-dimensional modeling software. This dataset consists of a MP4 video file showing the 3D HFM model as it is revealed by slices and then rotated. It is one of three related datasets.

Contacts

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Publisher : U.S. Geological Survey
Distributor : U.S. Geological Survey

Attached Files

File Name	View	Date	Author	Size
TV-HFM_Anim_draft.xml "Metadata" Original FGDC Metadata	View	2019-10-16 11:50	jrbarol@usgs.gov	15.87 KB
TV-HFM_Anim_RevwDraft.mp4 "MP4 3d HFM animation"		2019-10-16 11:52	jrbarol@usgs.gov	120.23 MB
TV-HFM_Anim_Thmb.jpg		2019-10-16 11:50	jrbarol@usgs.gov	189.64 KB

Spatial Services

ScienceBase WMS : <https://www.sciencebase.gov/catalog>

Communities

- USGS Idaho Water Science Center *

Associated Items

[Associate an Item](#)

Tags

Categories : Data
Theme : [Geology](#), [animations](#), [environment](#), [geoscientificinformation](#), [spatial datasets](#), [groundwater](#), [groundwater flow](#), [hydrogeology](#)

ScienceBase: Wells

The screenshot shows the ScienceBase.gov website interface. The browser address bar displays "sciencebase.gov". The page title is "Hydrogeologic Framework of the Treasure Valley and Surrounding Area, Idaho and Oregon; Well Data". The page includes a breadcrumb trail: "ScienceBase Catalog -> USGS Idaho Water Science... -> In-Progress Data Releases -> Hydrogeologic Framework... -> Hydrogeologic Framework...".

Dates

Publication Date : 2019
Start Date : 1924-01-01
End Date : 2016-10-19

Citation

James R. Bartolino, 2019, Hydrogeologic Framework of the Treasure Valley and Surrounding Area, Idaho and Oregon; Well Data: U.S. Geological Survey, <http://dx.doi.org/10.3133/SS###>, <http://dx.doi.org/10.3133/P9CAC0F6>.

Summary

A three-dimensional hydrogeologic framework model (3D HFM) of the westernmost western Snake River Plain (WSRP) aquifer system was prepared to represent the subsurface distribution and thickness of four hydrogeologic units. The primary source of data for the 3D HFM was lithologic data from a total of 291 well-driller reports. These data were then processed using Rockware Rockworks17 three-dimensional modeling software. This dataset consists of five comma-delineated CSV files containing well information: location, lithology, well construction, aquifer, and comments. It is one of three related datasets.

Contacts

Point of Contact : U.S. Geological Survey, Idaho Water Science Center, James R. Bartolino
Originator : James R. Bartolino
Metadata Contact : James R Bartolino, U.S. Geological Survey, Idaho Water Science Center
Publisher : U.S. Geological Survey
Distributor : U.S. Geological Survey

Attached Files

File Name	Date	Time	Author	Size
TV-HFM_Wells_1Location.csv "CSV Well information: LOCATION"	2019-10-16	11:54	jrbarolo@usgs.gov	49.9 KB
TV-HFM_Wells_2Lithology.csv "CSV Well information: LITHOLOGY"	2019-10-16	11:54	jrbarolo@usgs.gov	229.09 KB
TV-HFM_Wells_3WellConstruction.csv "CSV Well information: WELLCONSTRUCTION"	2019-10-16	11:54	jrbarolo@usgs.gov	32.91 KB
TV-HFM_Wells_4Aquifer.csv "CSV Well information: AQUIFER"	2019-10-16	11:54	jrbarolo@usgs.gov	360.94 KB
TV-HFM_Wells_5Comments.csv "CSV Well information: COMMENTS"	2019-10-16	11:54	jrbarolo@usgs.gov	5.98 KB
TV-HFM_Wells_Draft.xml "Metadata" Original FGDC Metadata	2019-10-16	11:54	jrbarolo@usgs.gov	31.76 KB

Spatial Services

ScienceBase WMS : <https://www.sciencebase.gov/ca>

Communities

- USGS Idaho Water Science Center

Associated Items

[Associate an Item](#)

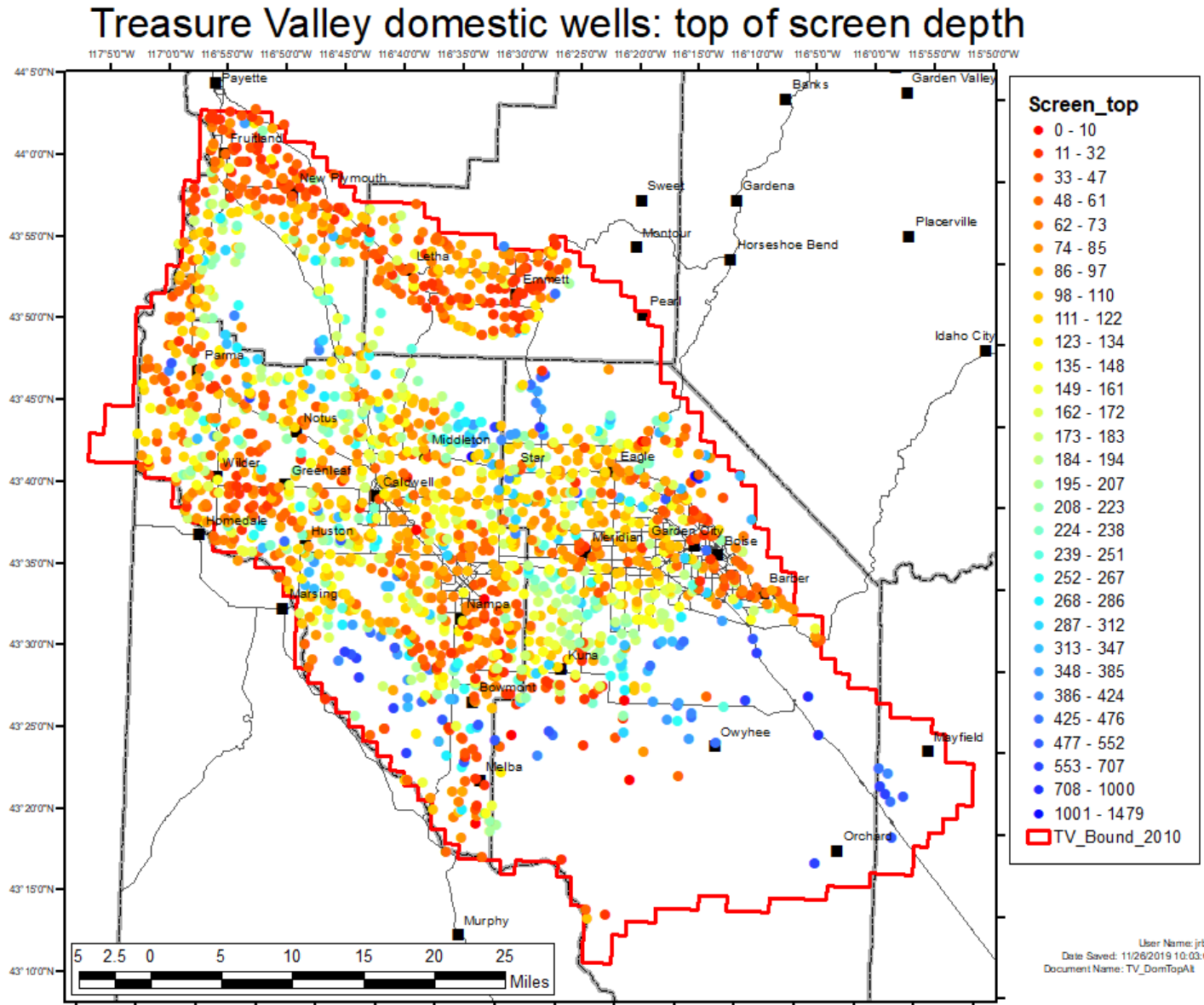
Tags

Categories : Data
Theme : Geology, animations, environment, geoscientificinformation, geospatial datasets, groundwater, groundwater flow, hydrogeology, hydrology, location, mathematical modeling, natural resource assessment, natural resource exploration, rocks and deposits, scientific interpretation, water resource management

GROUNDWATER PODS

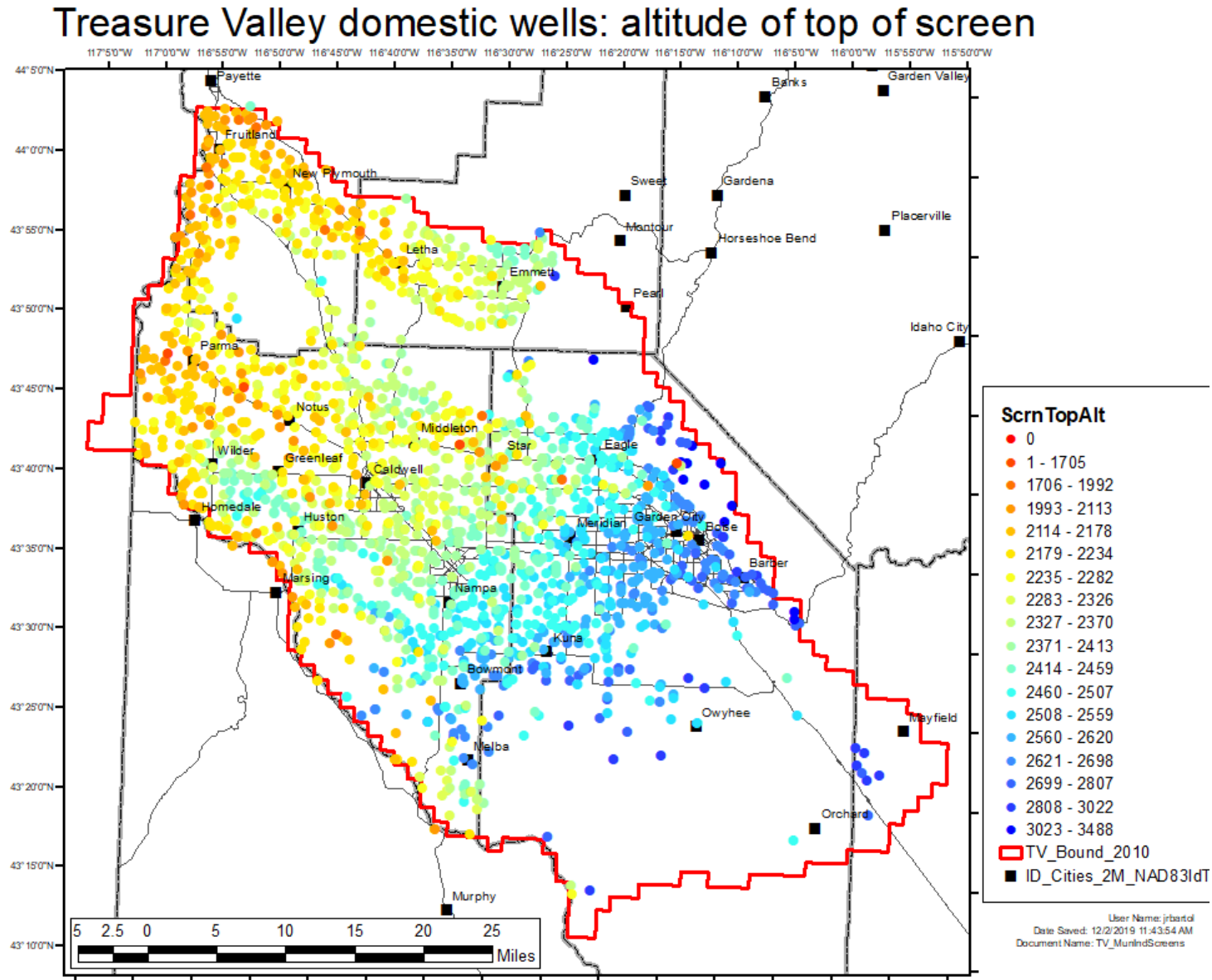
POD Wells: Domestic (1)

- ❖ Difficult to match water rights to wells; entered screen intervals for two wells per section for uniform coverage
- ❖ 1,873 wells
- ❖ Wells have discrete locations and are not aggregated by section



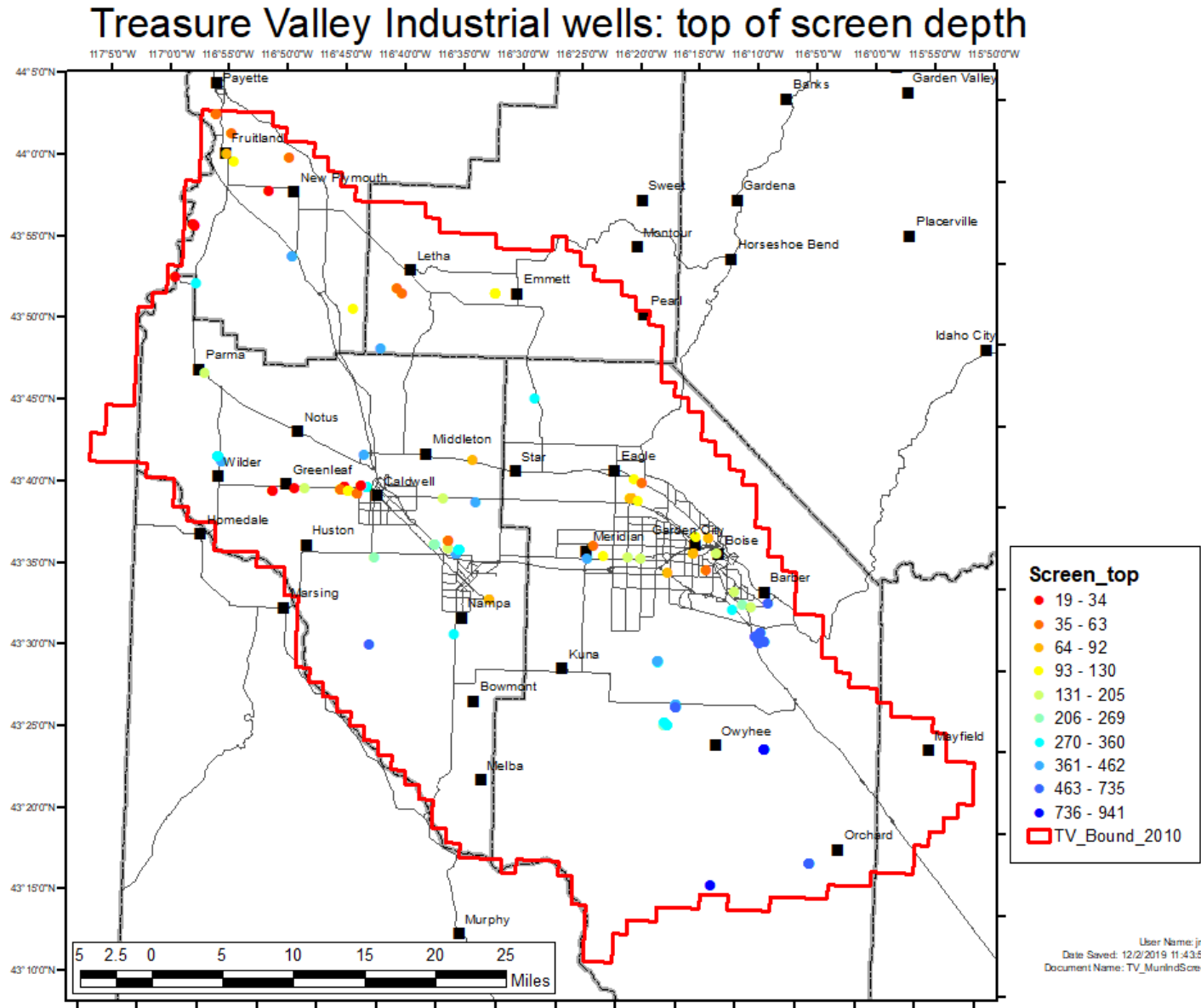
POD Wells: Domestic (2)

- ❖ Difficult to match water rights to wells; entered screen intervals for two wells per section for uniform coverage
- ❖ 1,873 wells
- ❖ Wells have discrete locations and are not aggregated by section



POD Wells: Industrial (1)

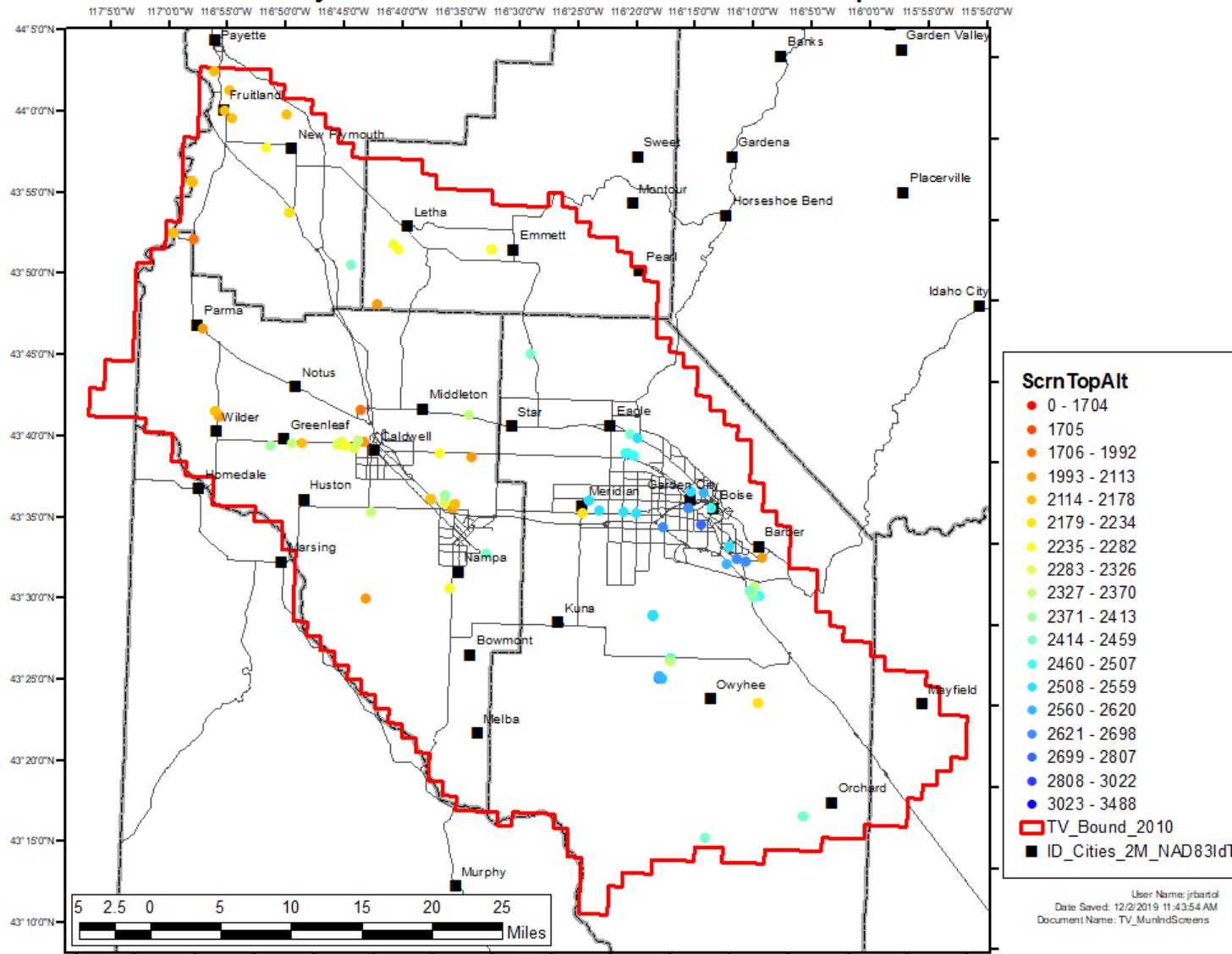
- ❖ Matched 193 water rights to wells; entered screen intervals
- ❖ Many of these wells are essentially domestic/commercial wells (office, store, etc)



POD Wells: Industrial (2)

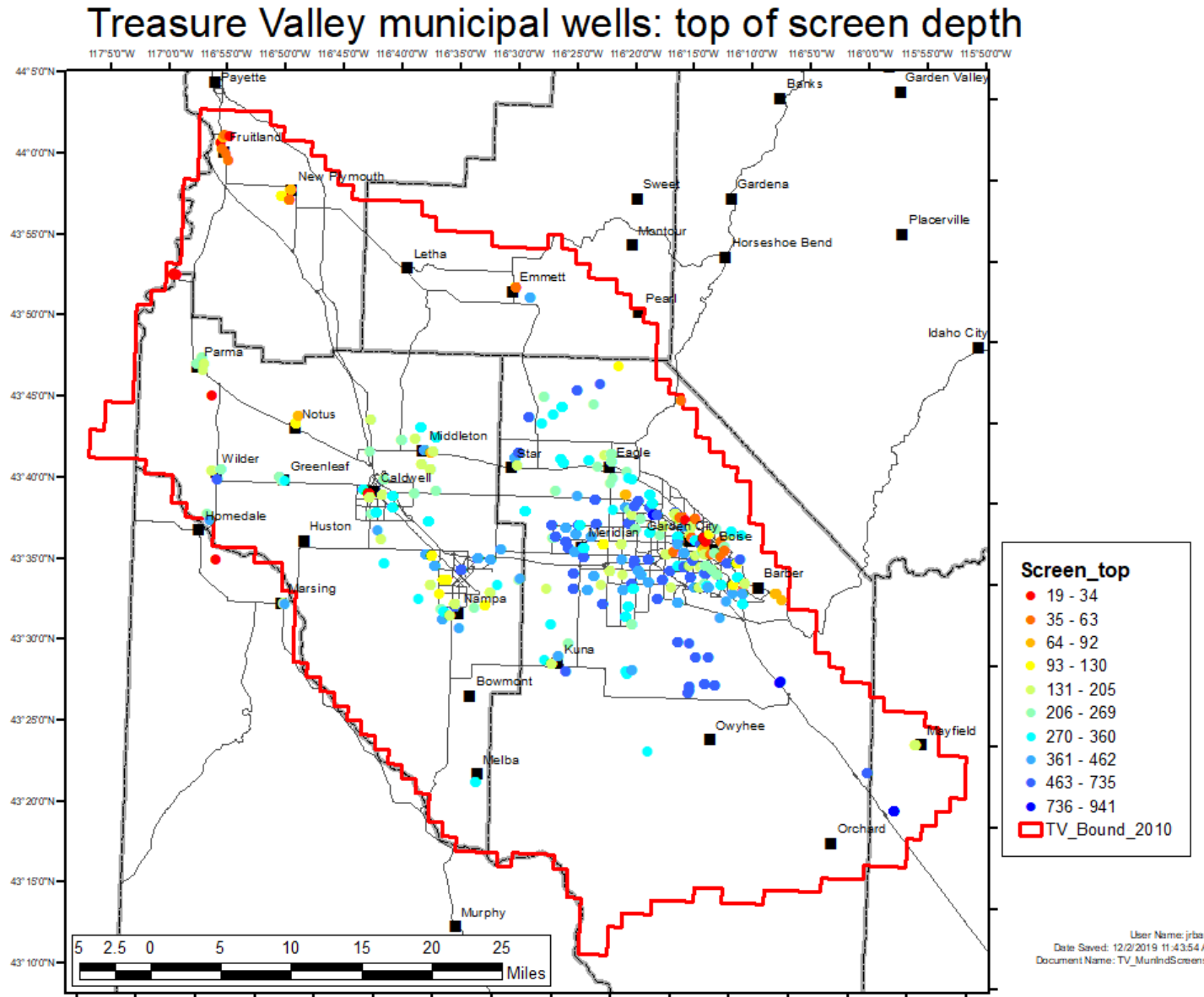
- ❖ Matched 193 water rights to wells; entered screen intervals
- ❖ Many of these wells are essentially domestic/commercial wells (office, store, etc)

Treasure Valley industrial wells: altitude of top of screen



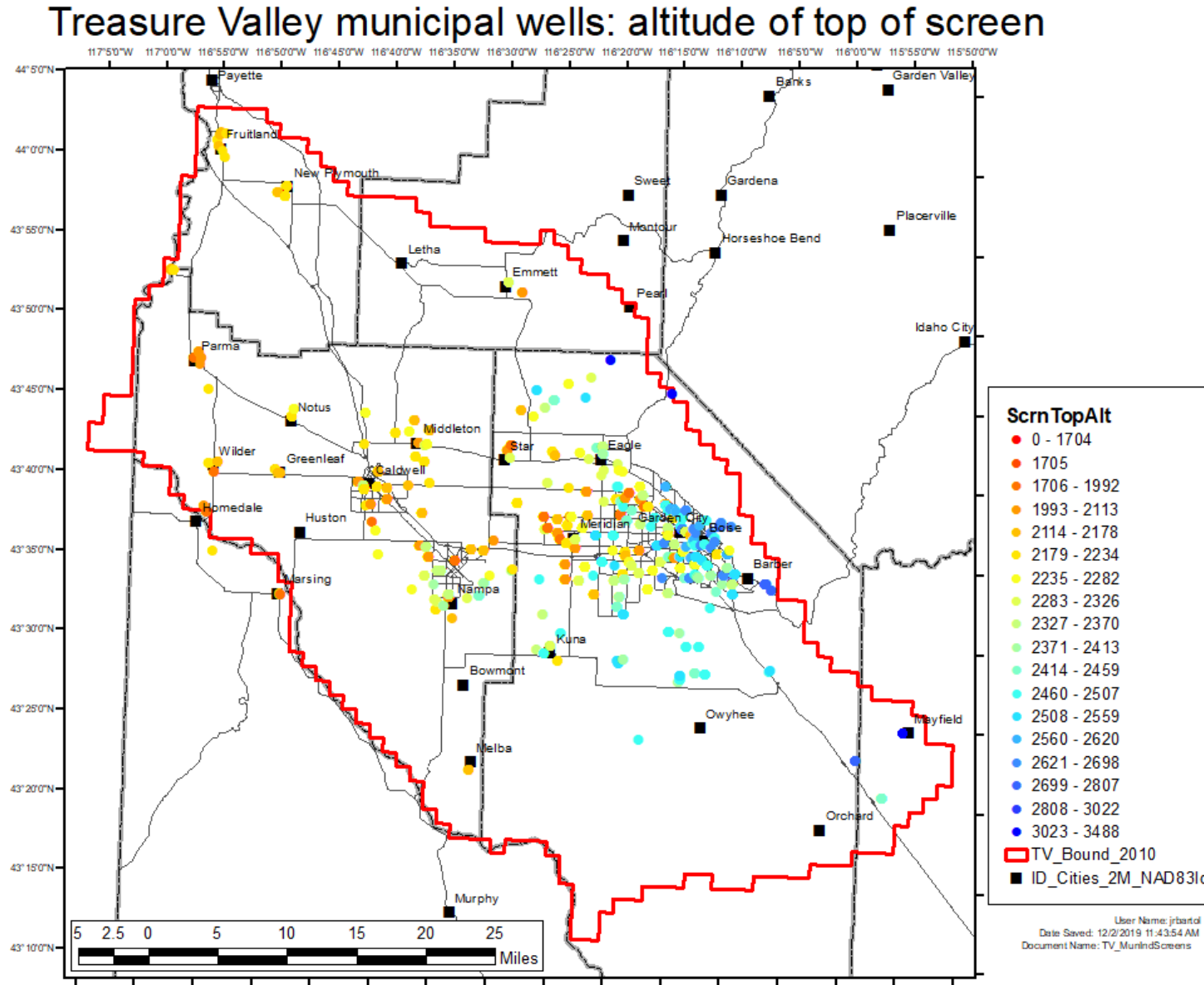
POD Wells: Municipal (1)

- ❖ Matched 4,973 water rights to wells; entered screen intervals
- ❖ Water rights may be transferred to younger wells
- ❖ A well may have multiple water rights



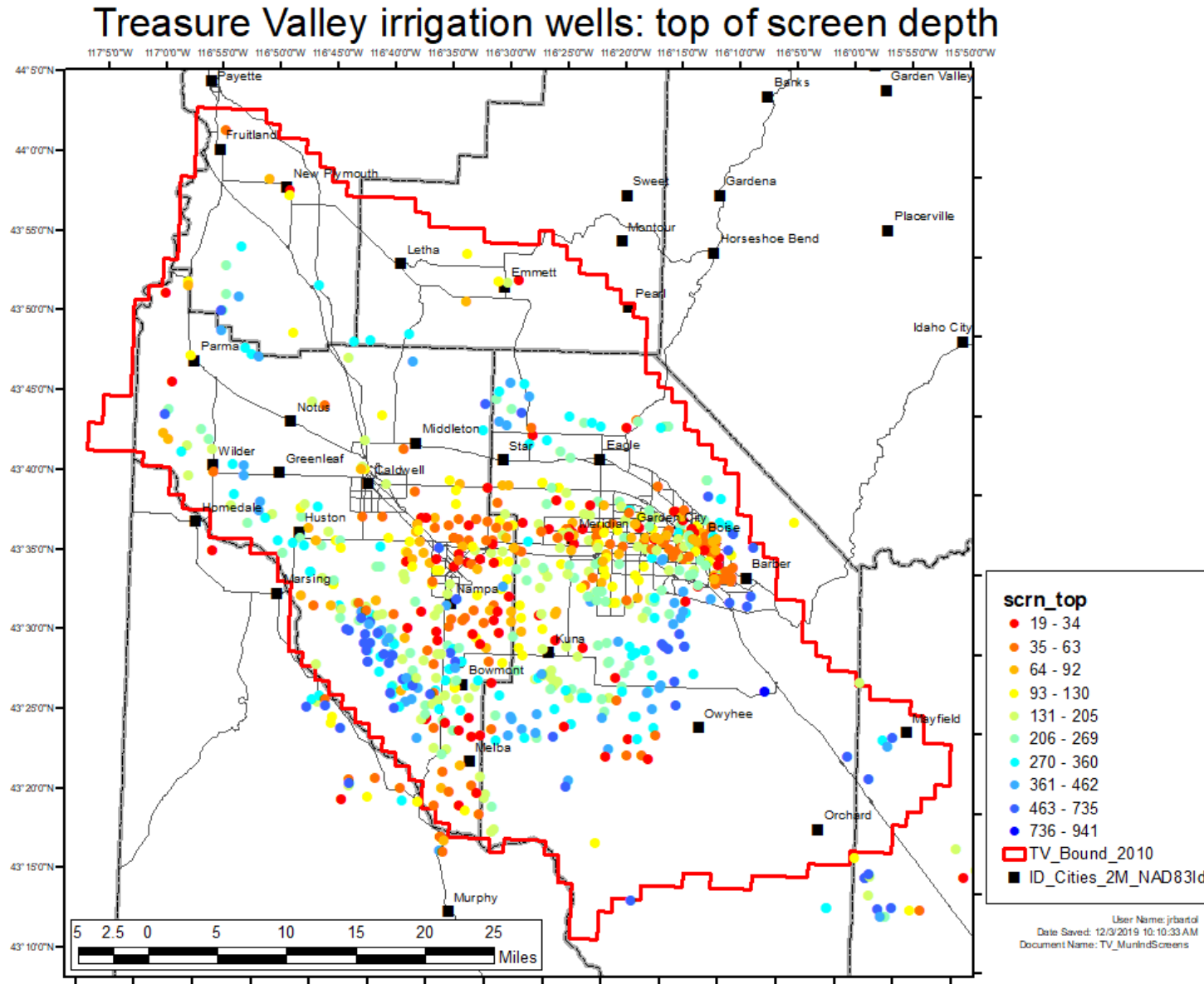
POD Wells: Municipal (2)

- ❖ Matched 4,973 water rights to wells; entered screen intervals
- ❖ Water rights may be transferred to younger wells
- ❖ A well may have multiple water rights



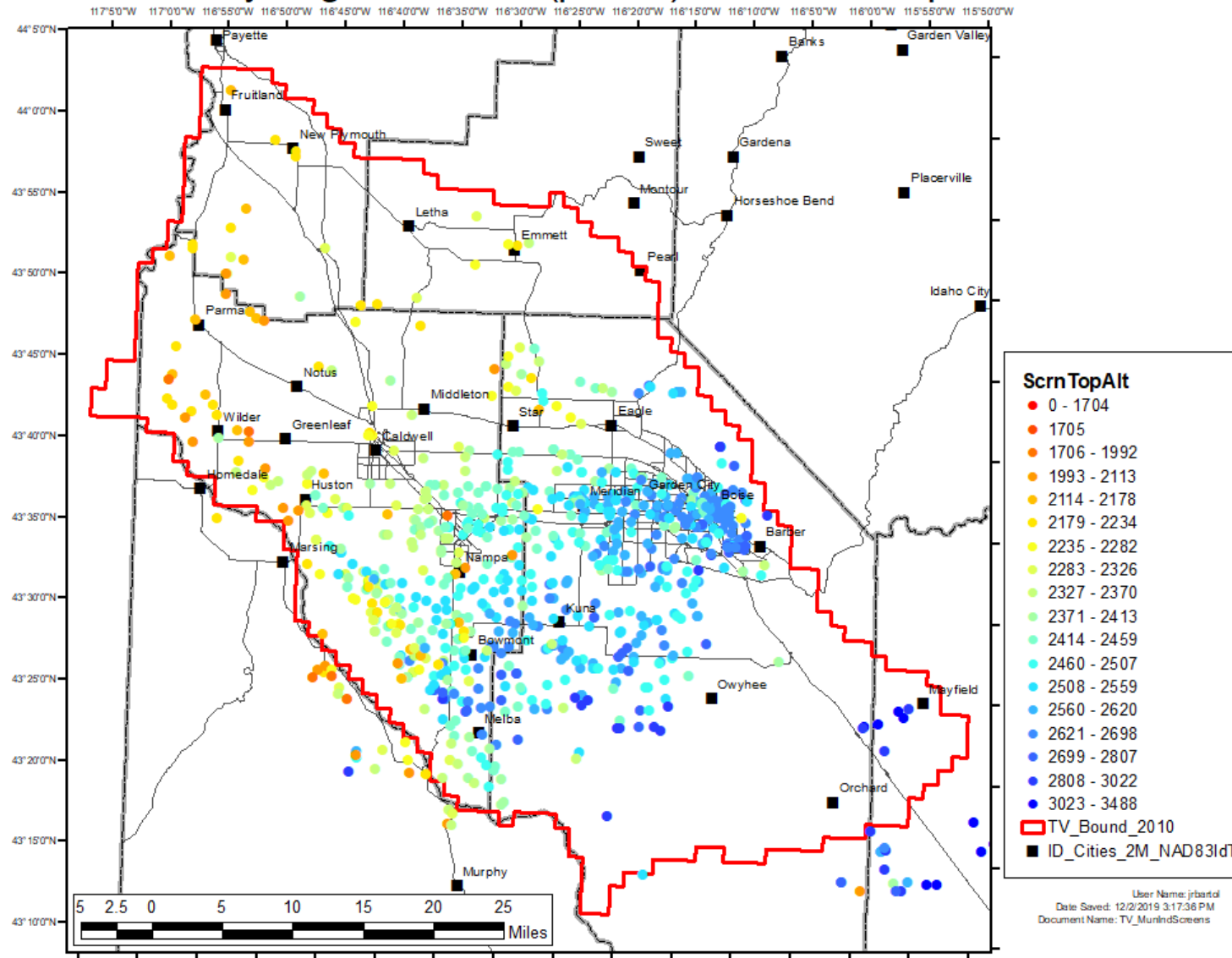
POD Wells: Irrigation (1)

- ❖ Difficult to match water rights to wells; entered screen intervals for two wells per section
- ❖ Wells have discrete locations and are not aggregated by section
- ❖ In progress: 829 wells done (about half)



POD Wells: Irrigation (2)

Treasure Valley irrigation wells (partial): altitude of top of screen



❖ Difficult to match water rights to wells; entered screen intervals for two wells per section

❖ Wells have discrete locations and are not aggregated by section

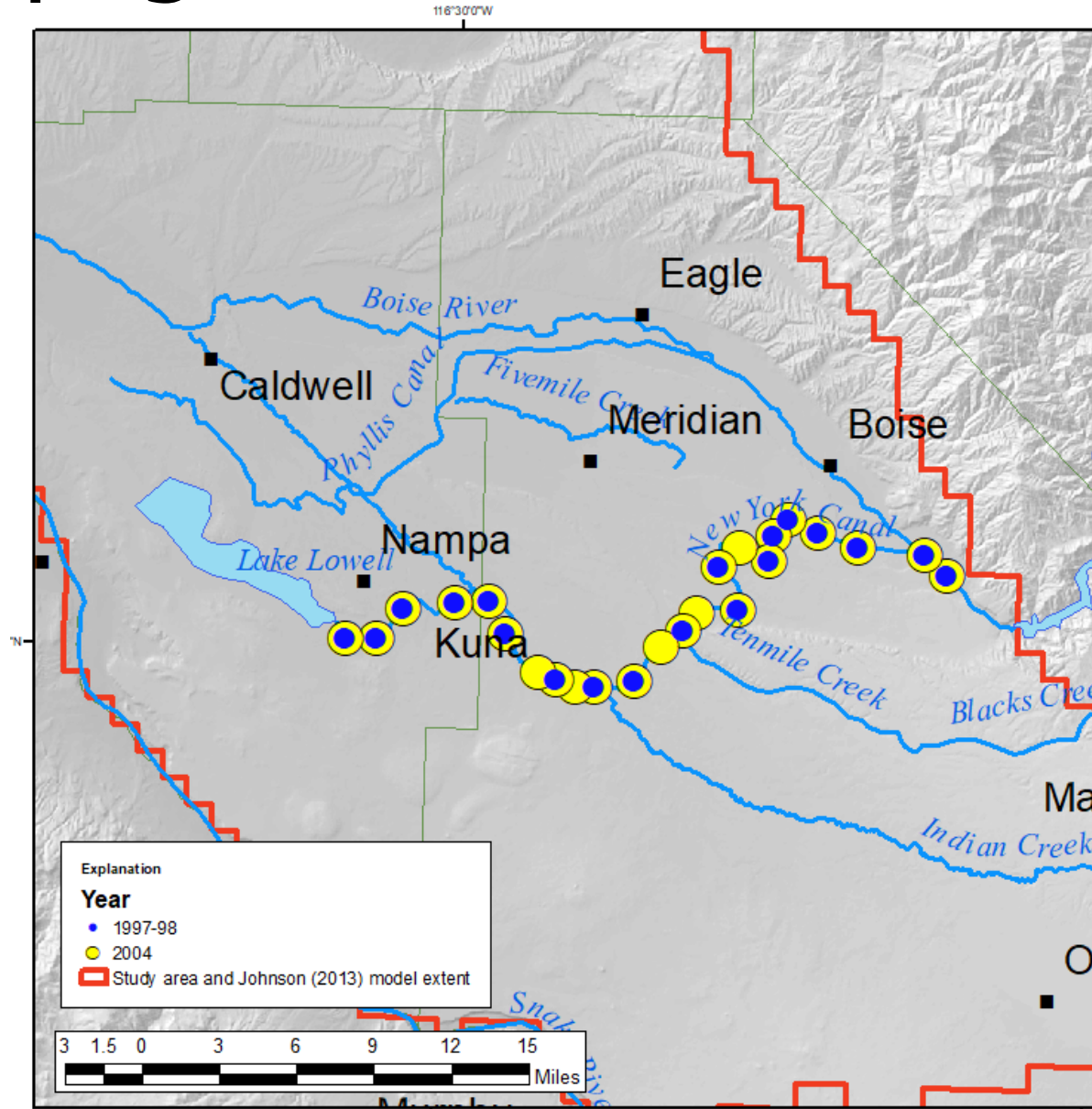
❖ In progress: 829 wells done (about half)

NEW YORK CANAL SEEPAGE STUDIES

Seepage measurements

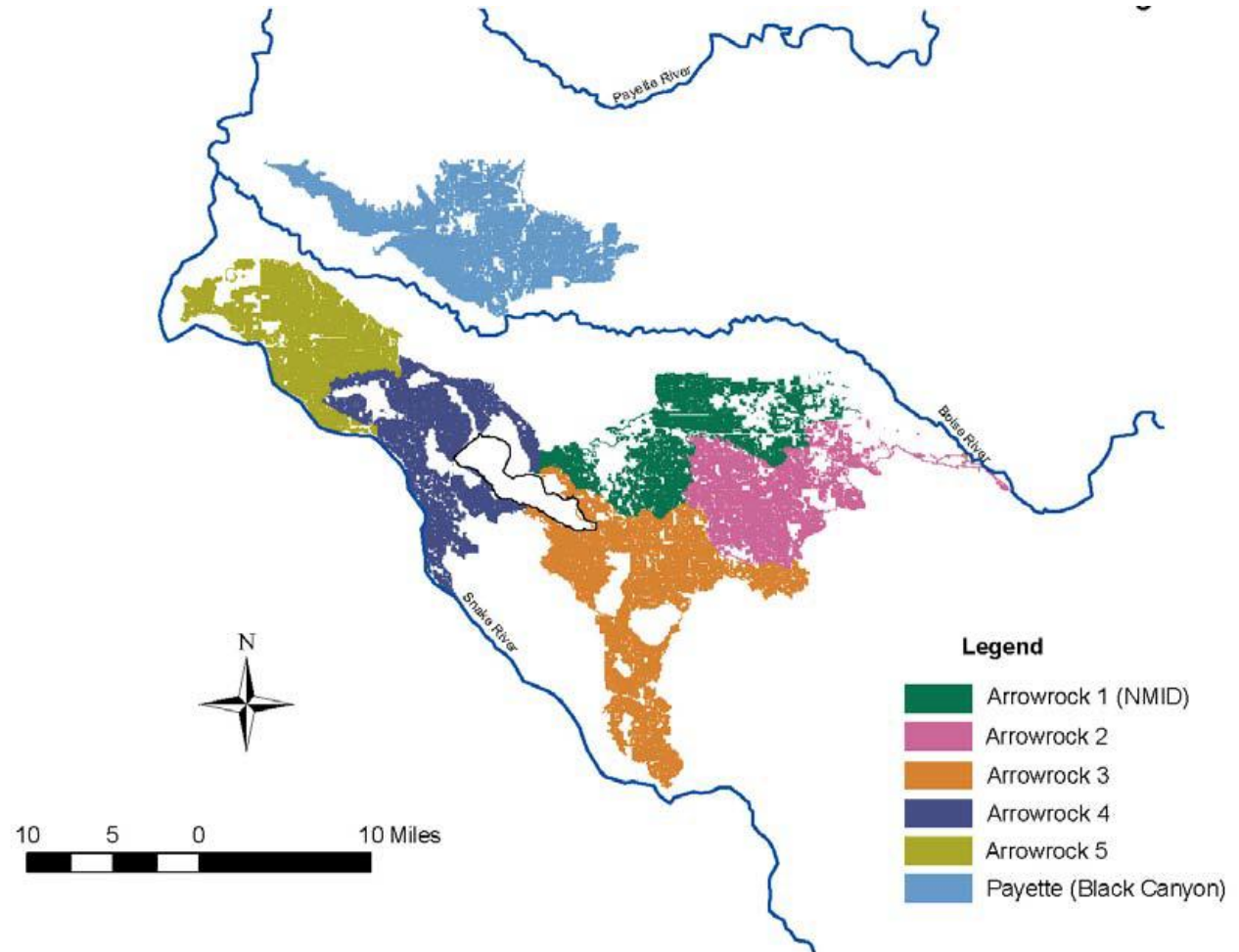
- ❖ March 20—21 and 27-28, 1997; April 2-3, 1998
 - 19 sites: Head to Lake Lowell (Lake Shore Dr)
 - Mostly losses
 - Berenbrock (1999) WRIR-99-4105; USGS letter to BuRec
- ❖ January 28-29, 2004
 - 24 sites: Head to Lake Lowell (Lake Shore Dr)
 - Split between gains and losses
 - USGS annual report
- ❖ October 15-19, 1998
 - Head to Lake Lowell (Lake Shore Dr)
 - Tributary inflow and gate-leak losses

Seepage measurements map



Data needs

- ❖ Do BPBC irrigation divisions correspond to the districts? Shapefiles?
- ❖ NYC lining history



Schmidt and others, 2008; fig. 2-1