



IWRB Managed Recharge Program

Henry's Fork Watershed Council

Wesley Hipke

IWRB Recharge Program Manager

December 4, 2018

IWRB Managed Recharge Program

- **ESPA Managed Recharge**
- **IWRB Recharge Monitoring**
- **IWRB Current Recharge Projects**
- **Other Managed Recharge Projects**

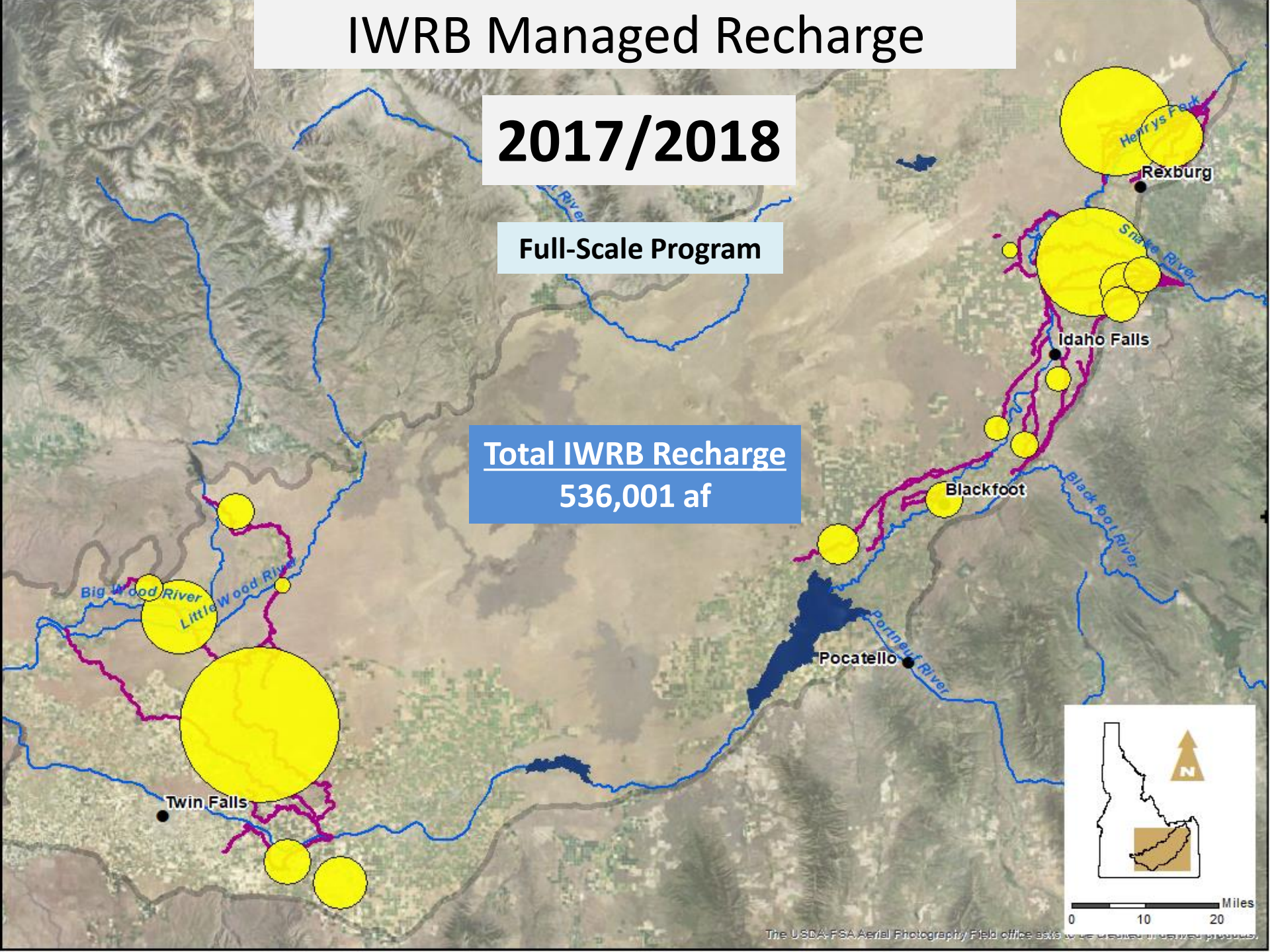


IWRB Managed Recharge

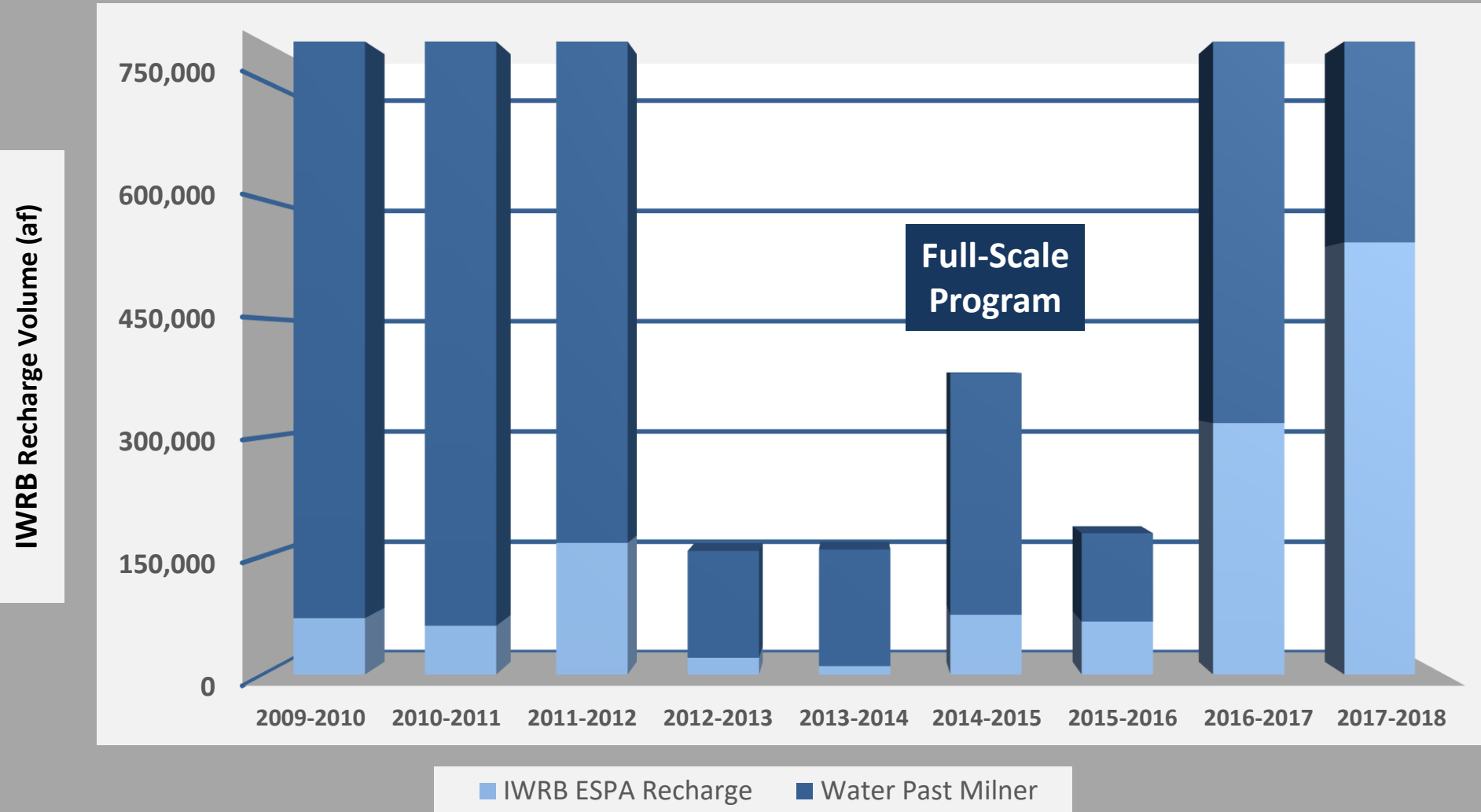
2017/2018

Full-Scale Program

**Total IWRB Recharge
536,001 af**



IWRB Recharge – 2009 to 2018



IWRB ESPA Managed Recharge – Nov 29, 2018

Total IWRB Recharge

65,061 af

105 days

Big/Little Wood

492 af

Median: 17 cfs

**Start Date: Nov 19
15 day**

Upper Valley

57,165 af

Median: 293 cfs

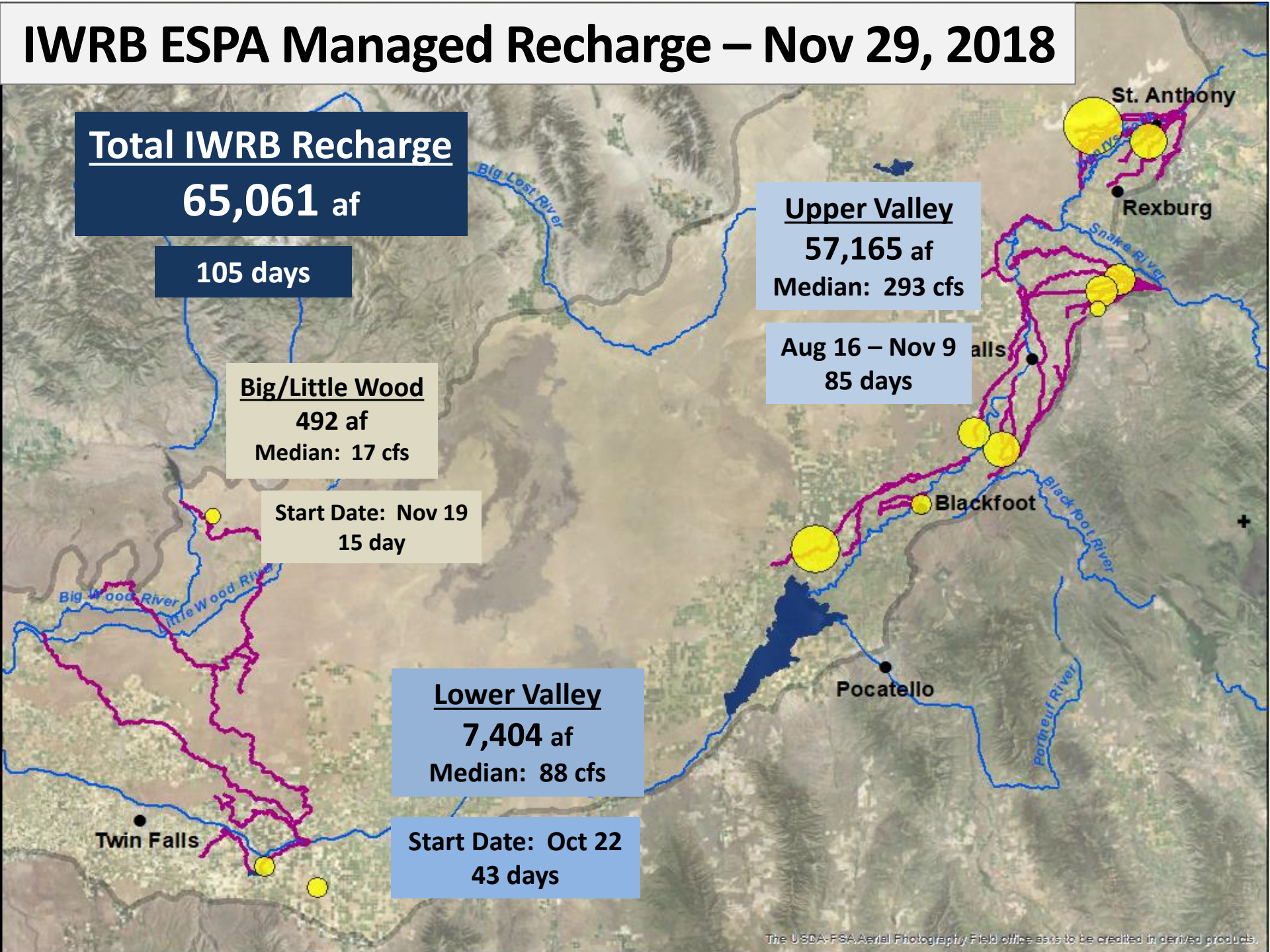
**Aug 16 – Nov 9
85 days**

Lower Valley

7,404 af

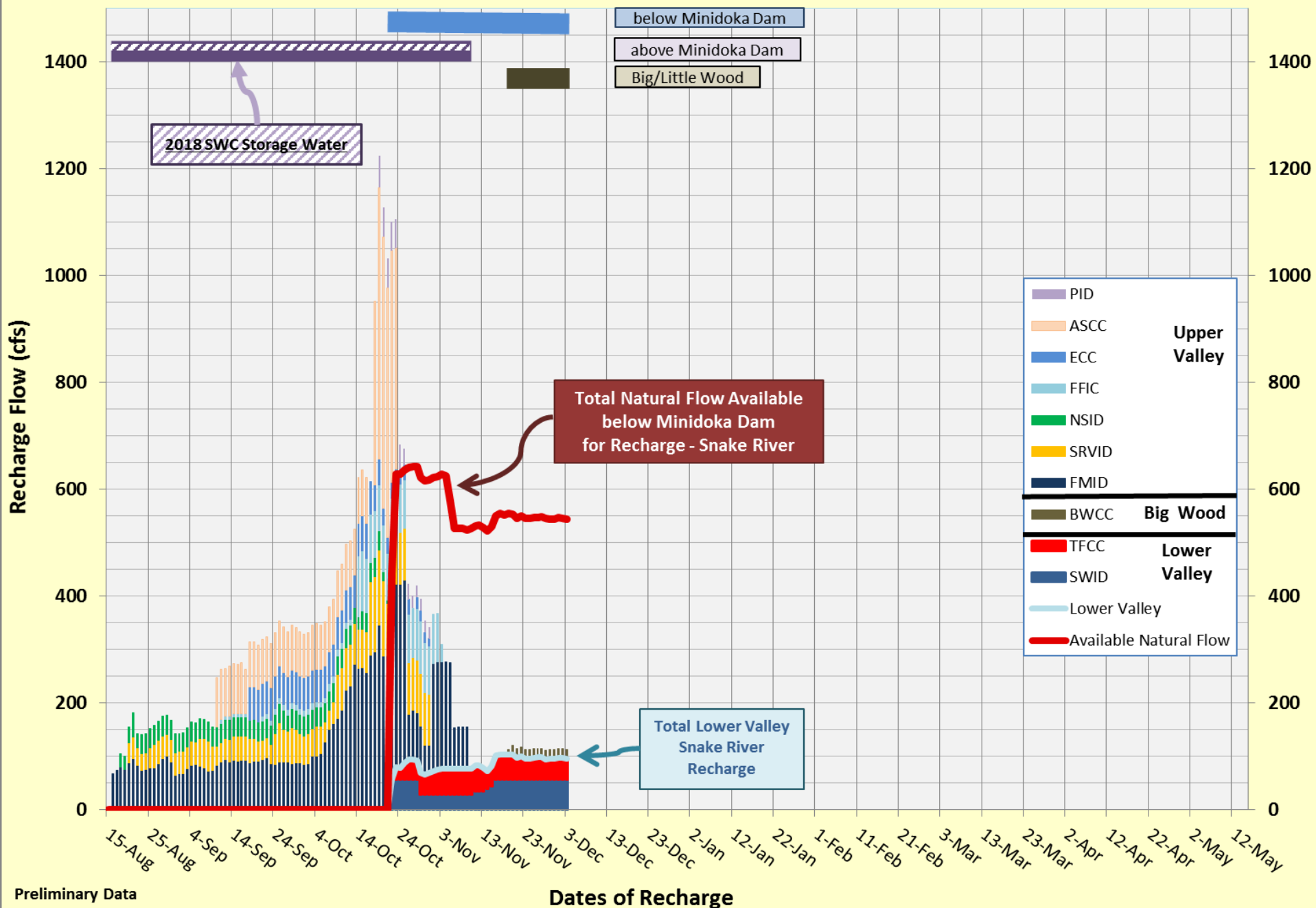
Median: 88 cfs

**Start Date: Oct 22
43 days**

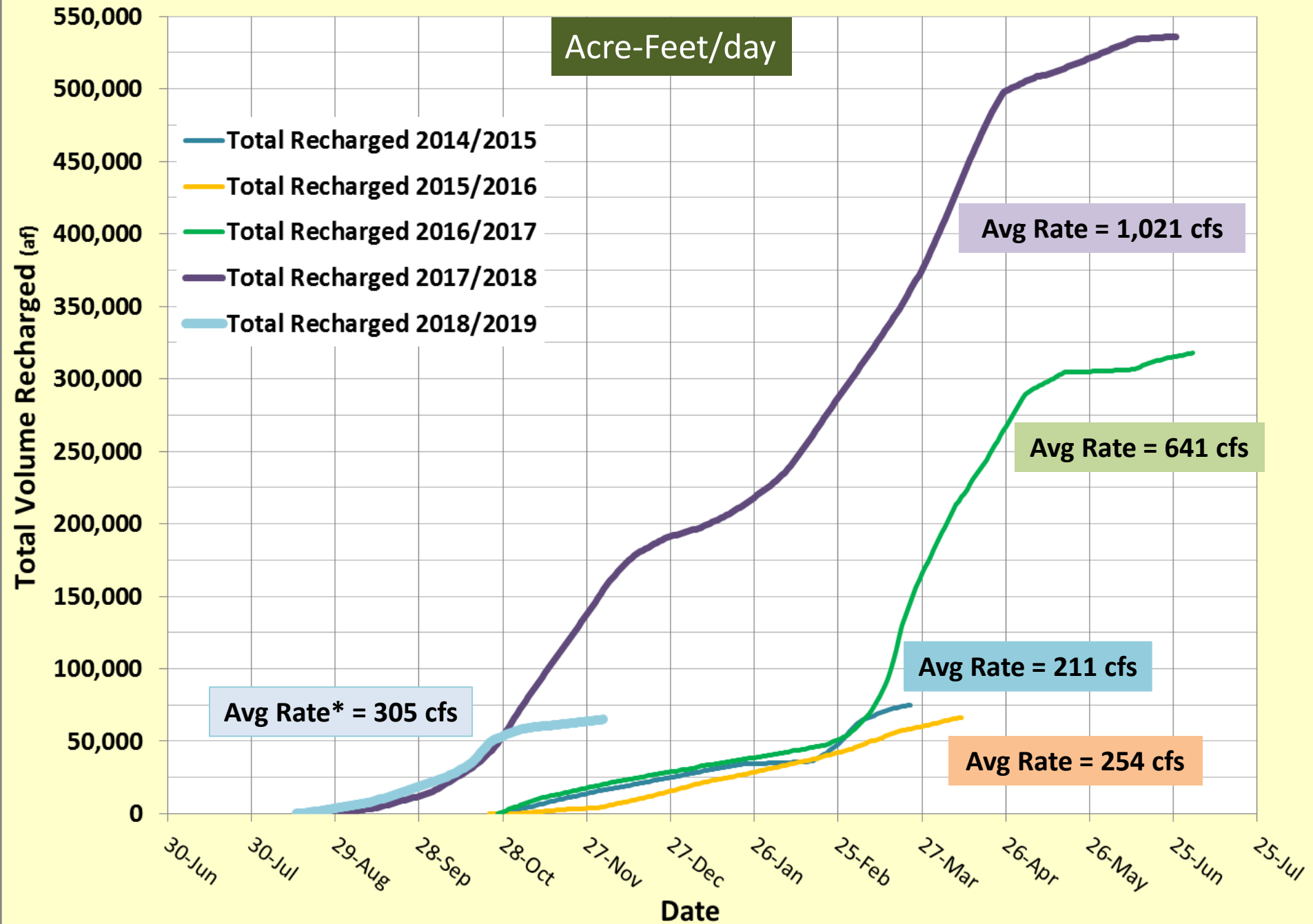


Total IWRB Managed Recharge Rates During 2018 - 2019 Season

Total Volume of Recharge = **65,061** af (August 16, 2018 to December 3, 2018)

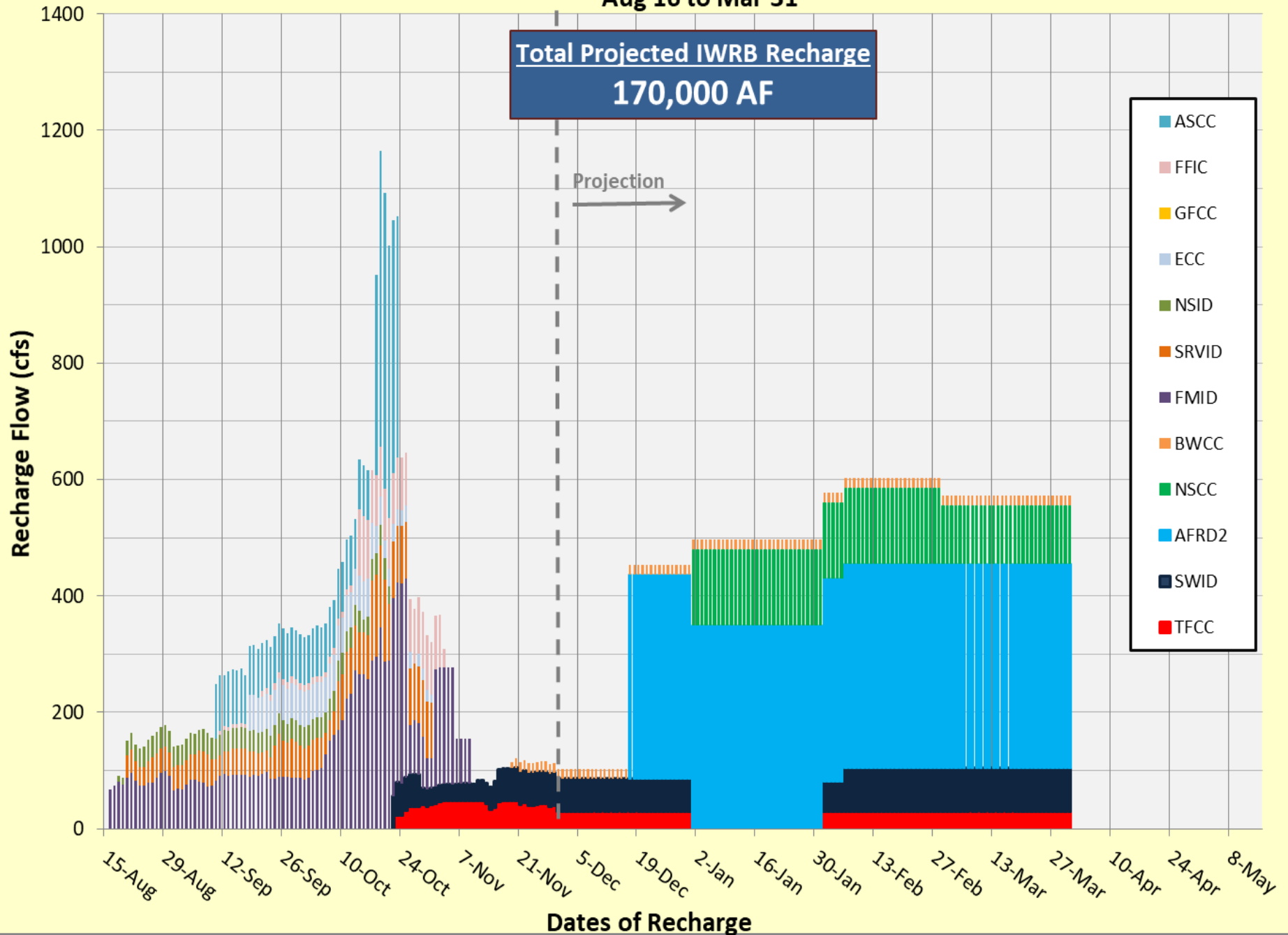


ESPA Managed Recharge - Cumulative



Projected IWRB Recharge - During 2018/2019

Aug 16 to Mar 31



ESPA Managed Recharge

Big/Little Wood River

IWRB Capacity

Winter = 70 cfs

Snake River

Upper Valley

IWRB Capacity

Canal ~ 1,500 cfs

Off-Canal = 190 cfs

Snake River

Lower Valley

IWRB Capacity

Winter = 920 cfs

LEGEND

Recharge Sites

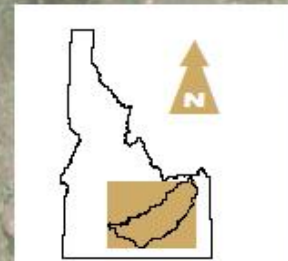


IWRB



Private

Canals



0 10 20 Miles

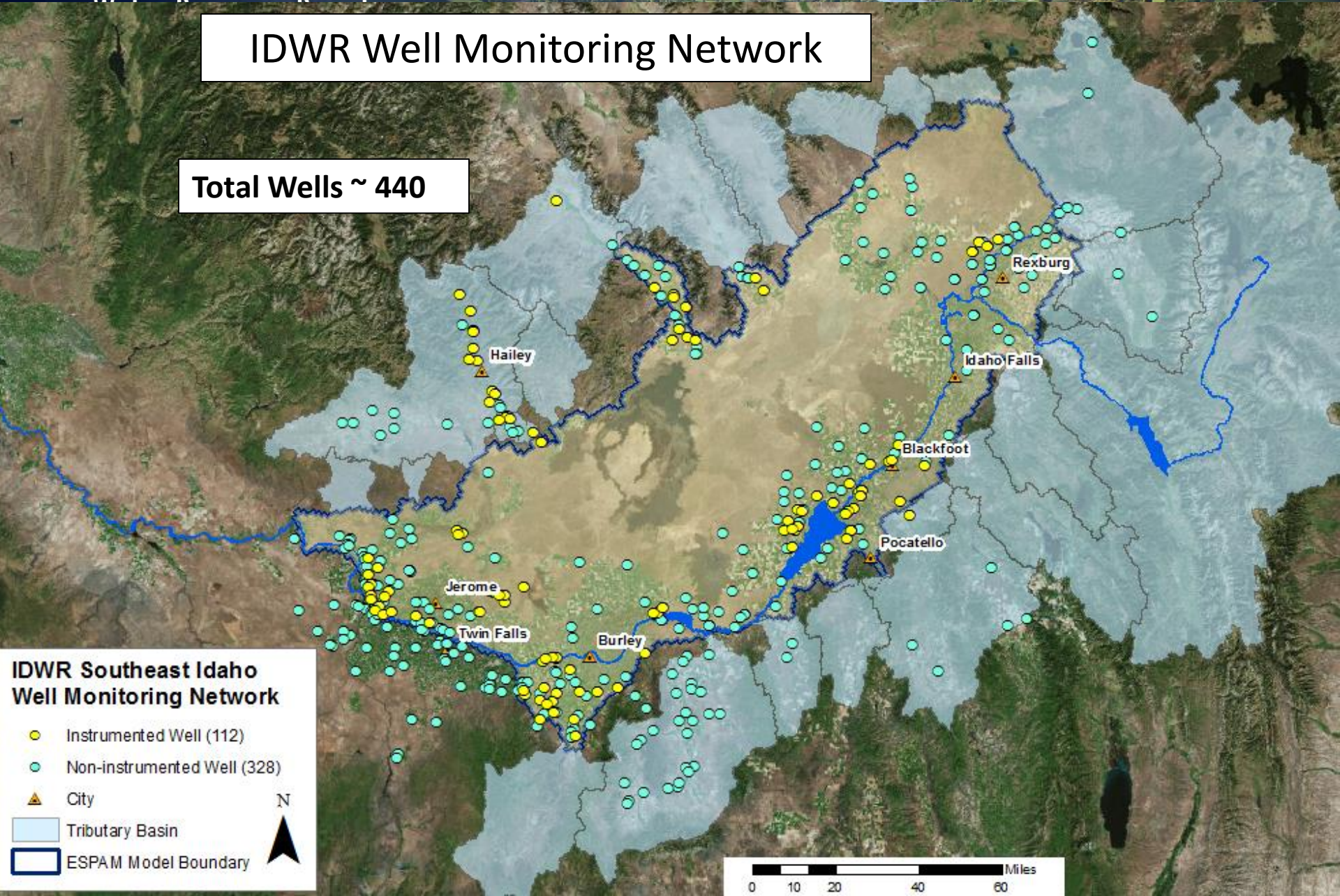
IWRB Managed Recharge Program



- **ESPA Managed Recharge**
- **IWRB Recharge Monitoring**
- **IWRB Current Recharge Projects**
- **Other Managed Recharge Projects**

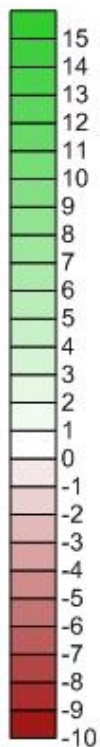
IDWR Well Monitoring Network

Total Wells ~ 440

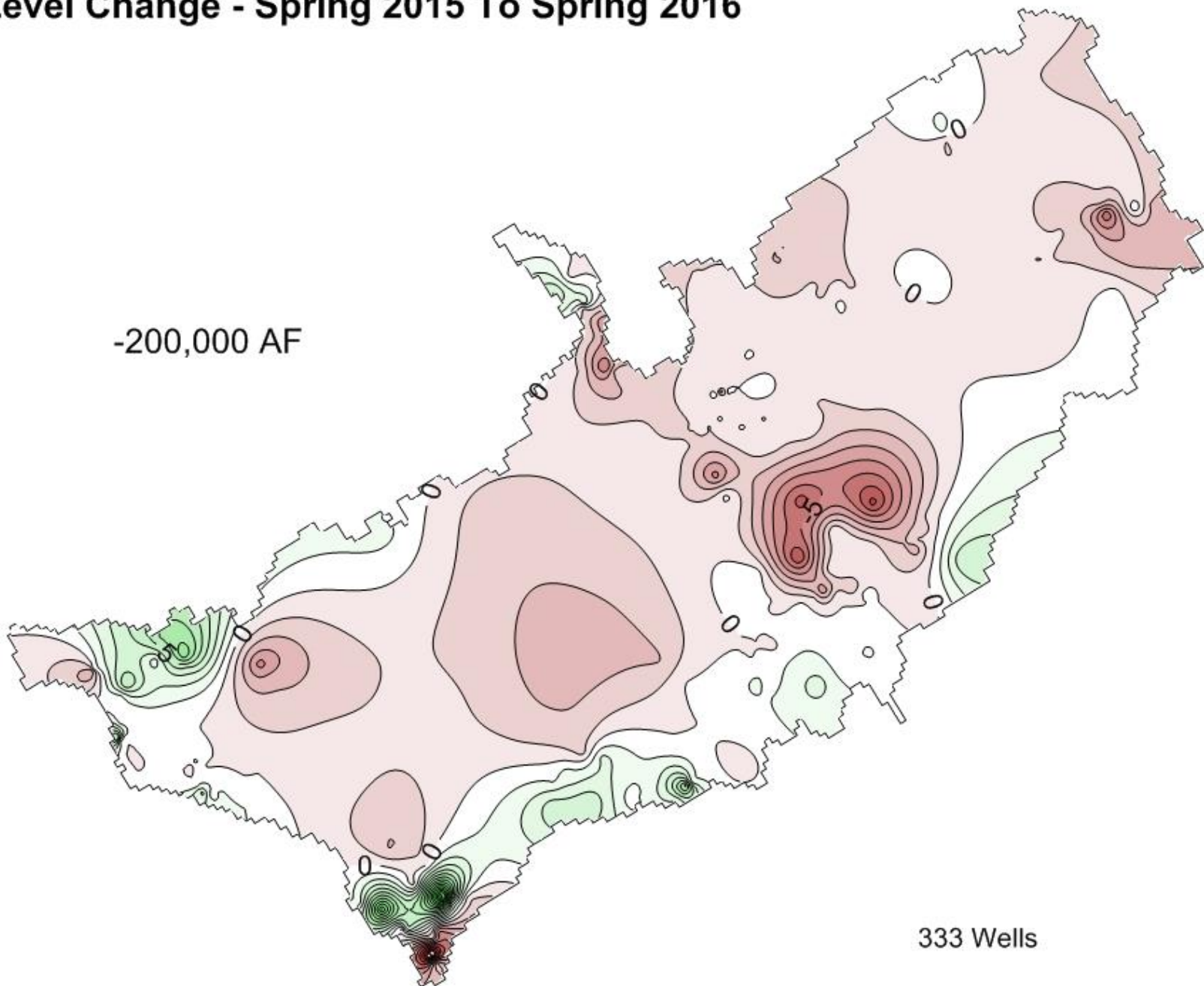


Water Level Change - Spring 2015 To Spring 2016

Water Level
Change (ft)



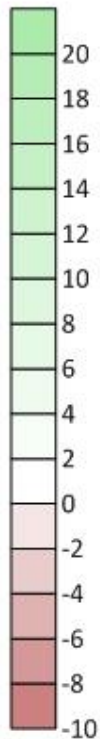
-200,000 AF



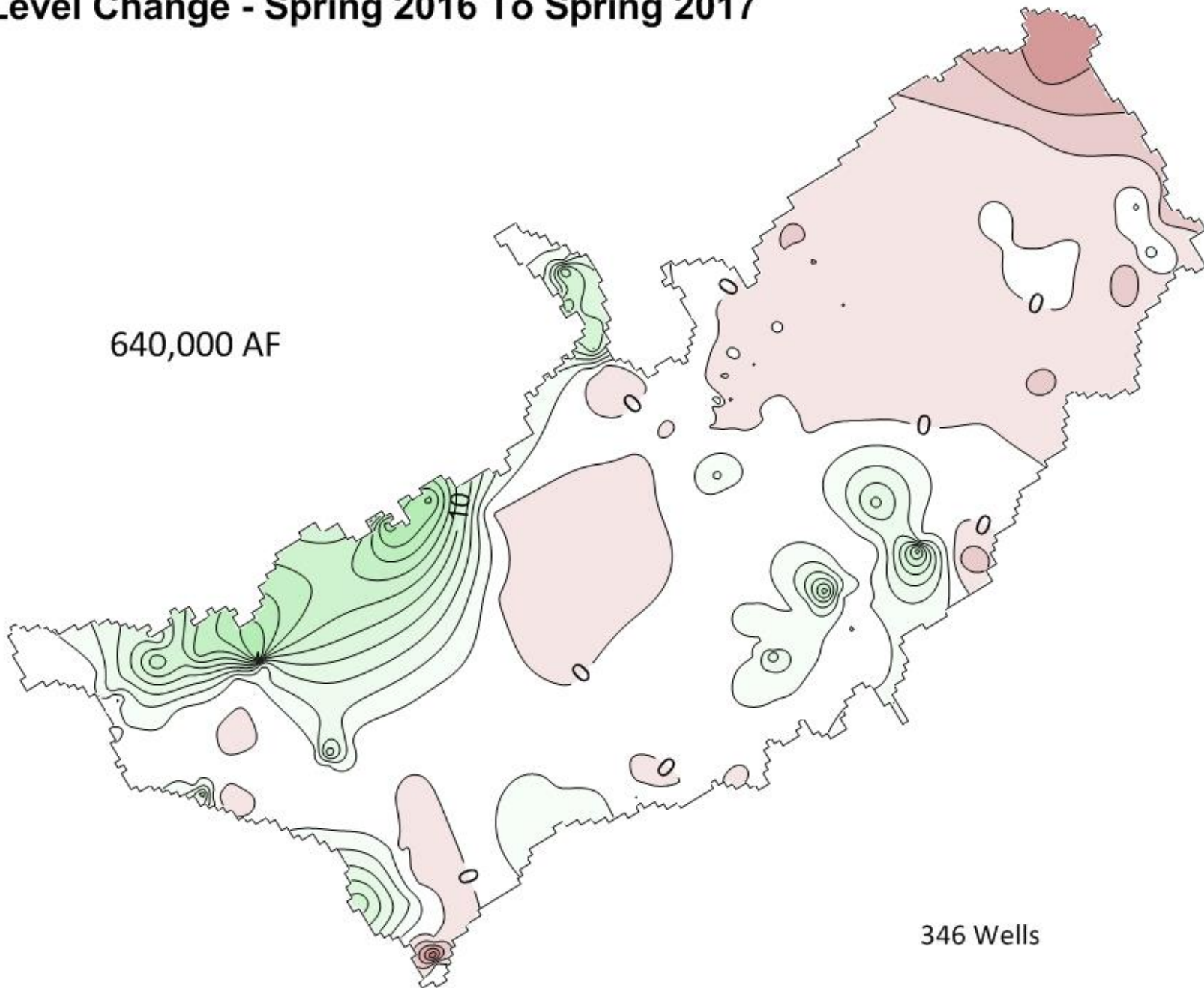
333 Wells

Water Level Change - Spring 2016 To Spring 2017

Water Level
Change (ft)



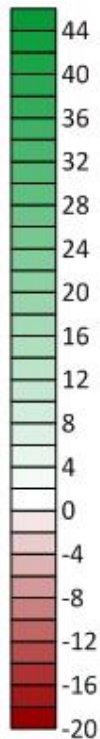
640,000 AF



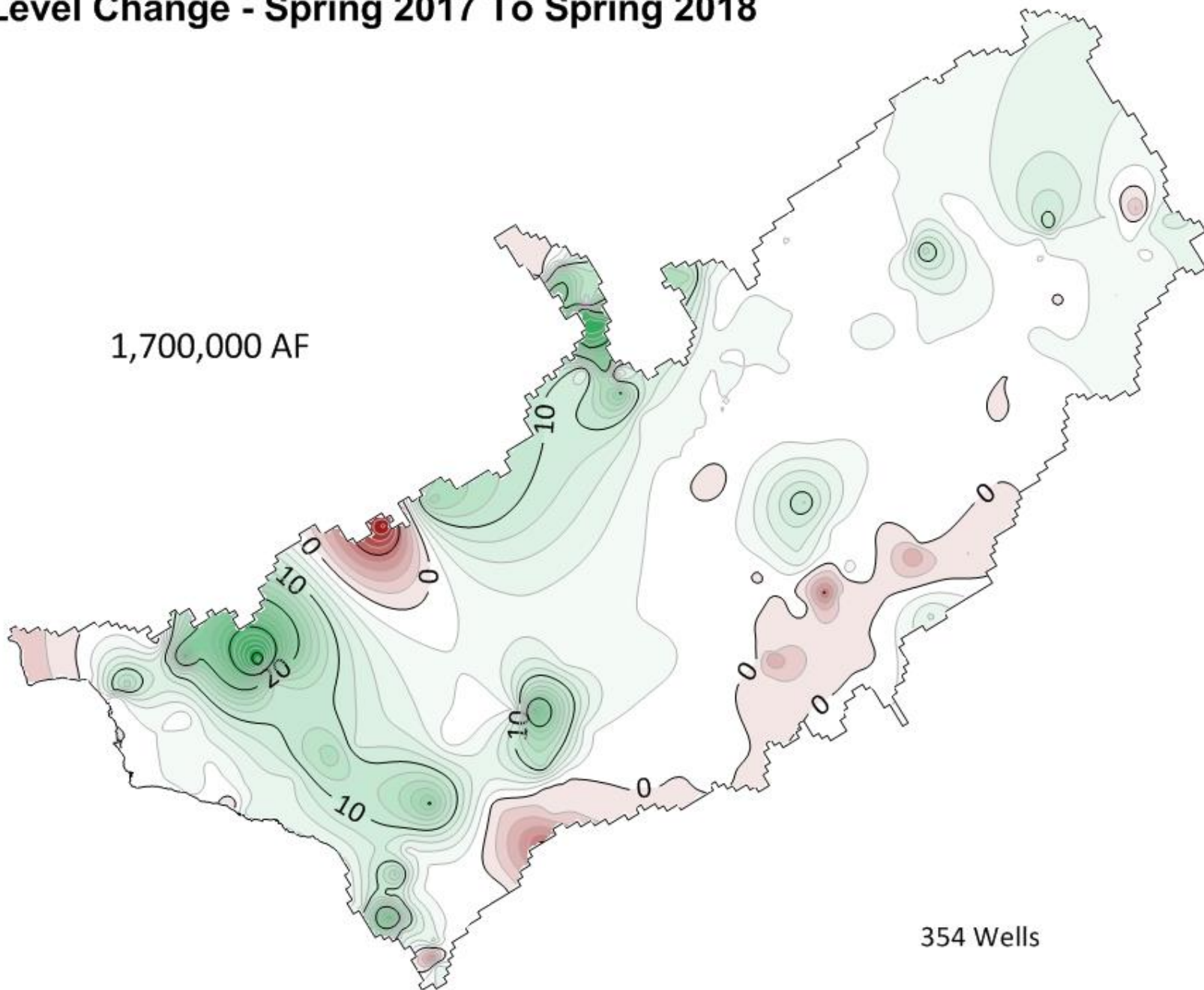
346 Wells

Water Level Change - Spring 2017 To Spring 2018

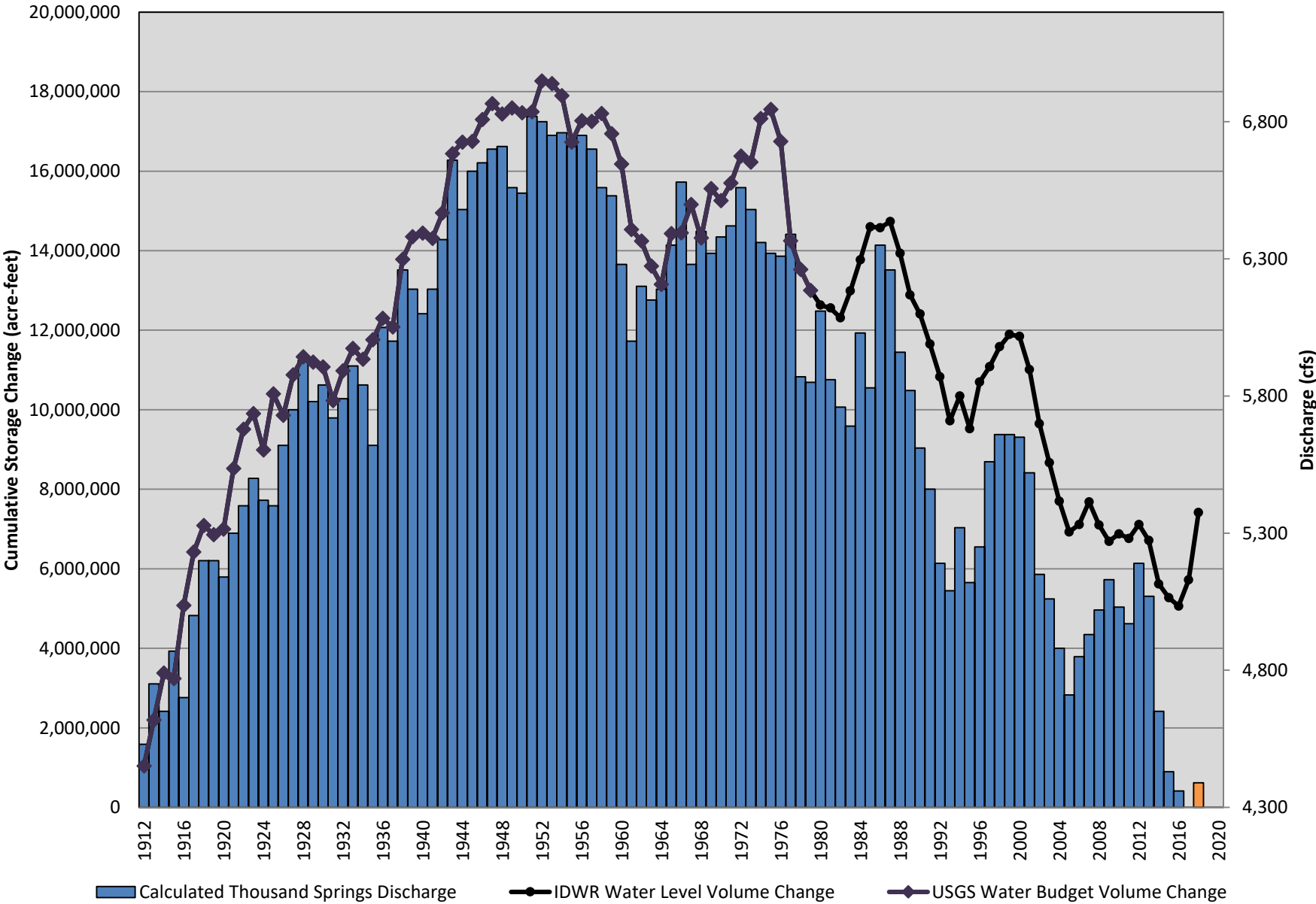
Water Level
Change (ft)



1,700,000 AF



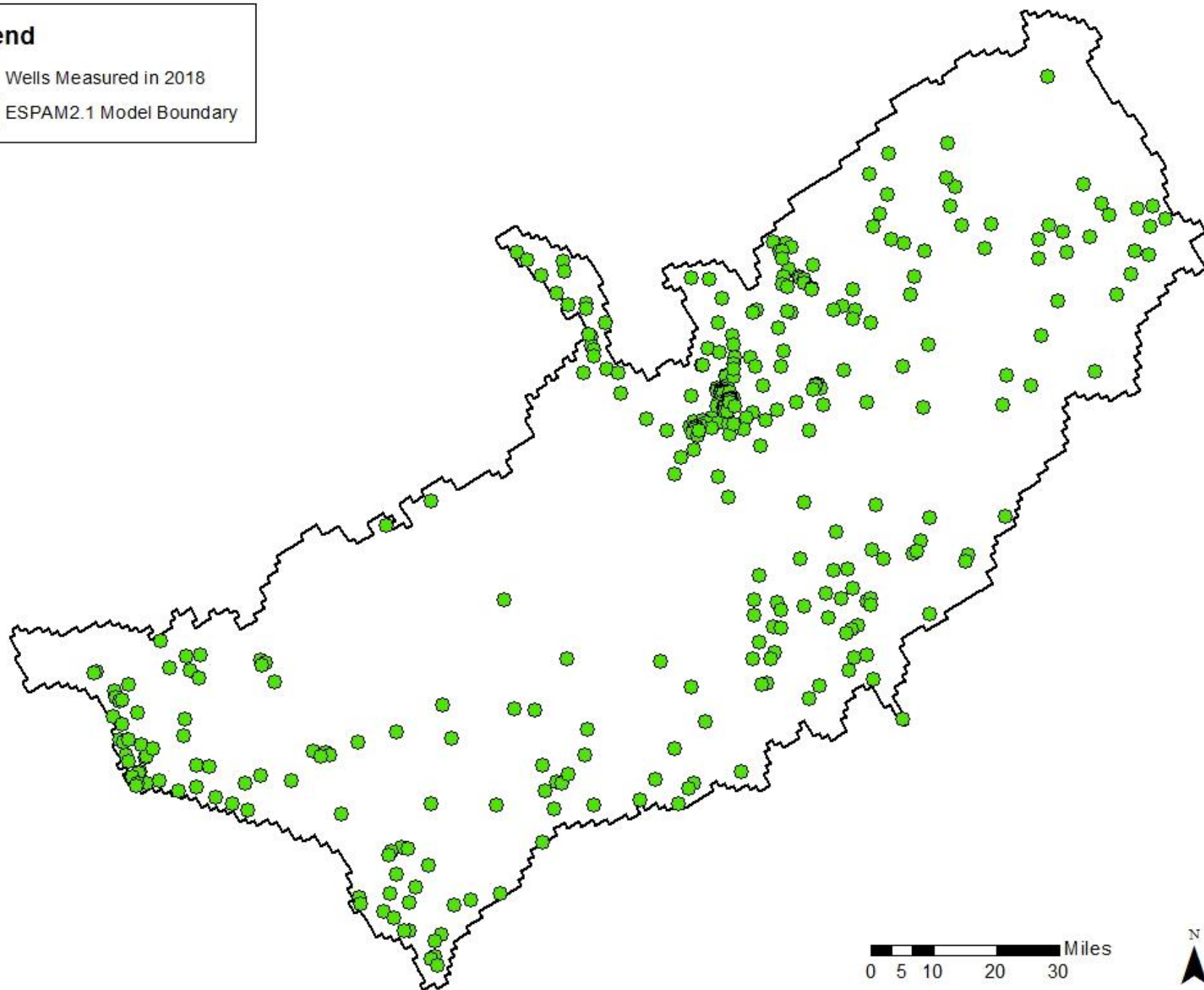
ESPA Volume of Water and Thousand Springs Discharge



Legend

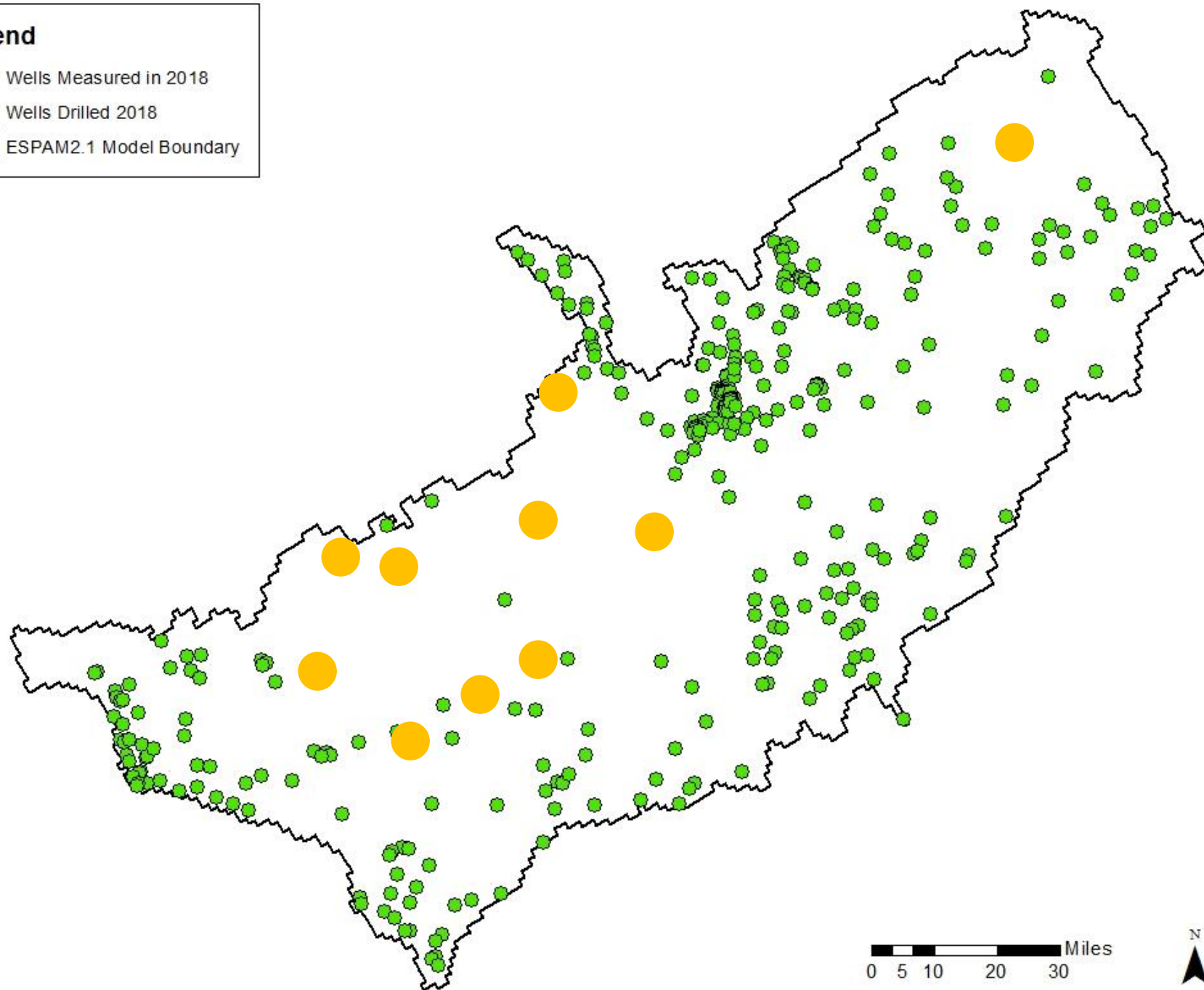
● Wells Measured in 2018

□ ESPAM2.1 Model Boundary



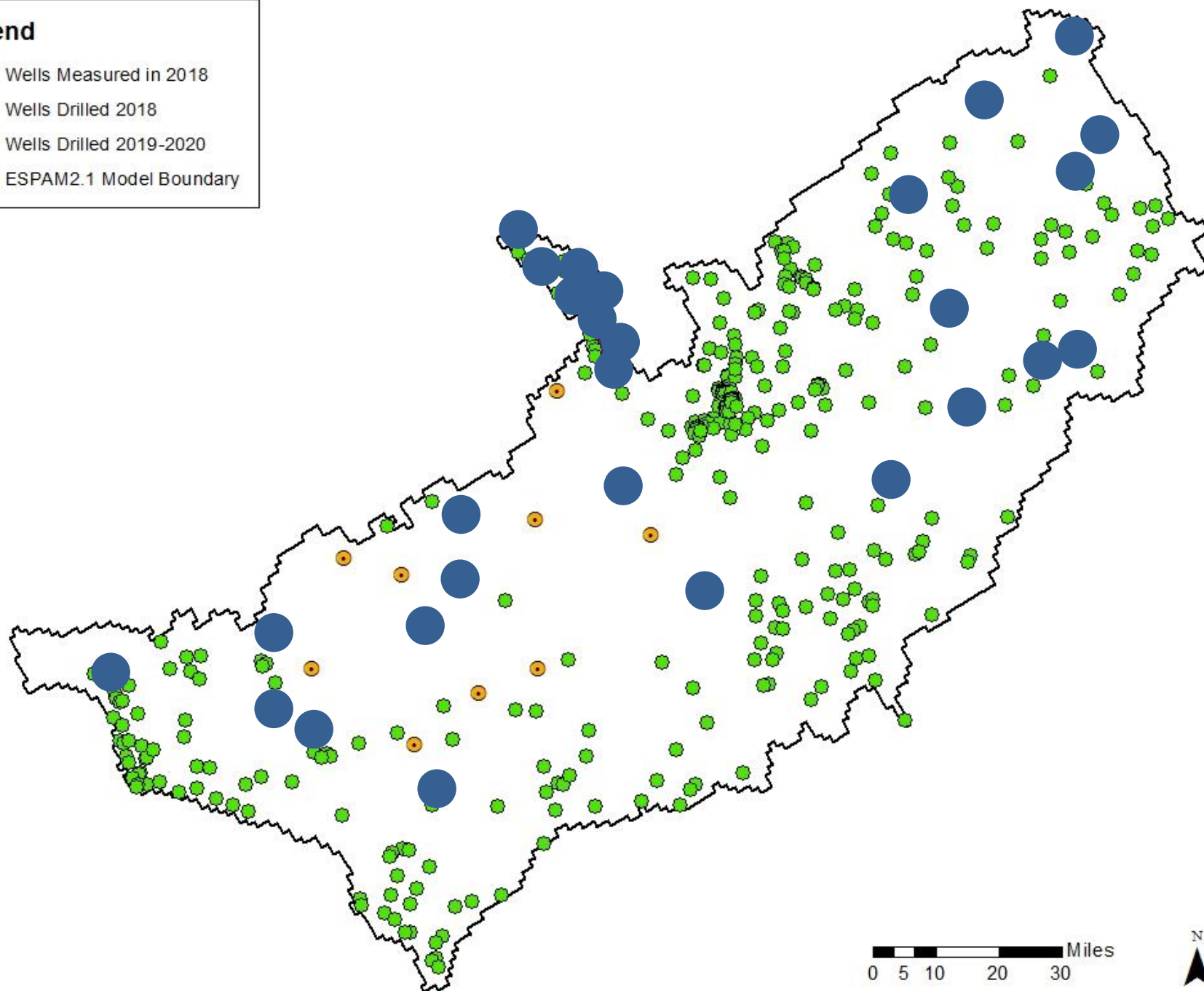
Legend

- Wells Measured in 2018
- Wells Drilled 2018
- ESPAM2.1 Model Boundary



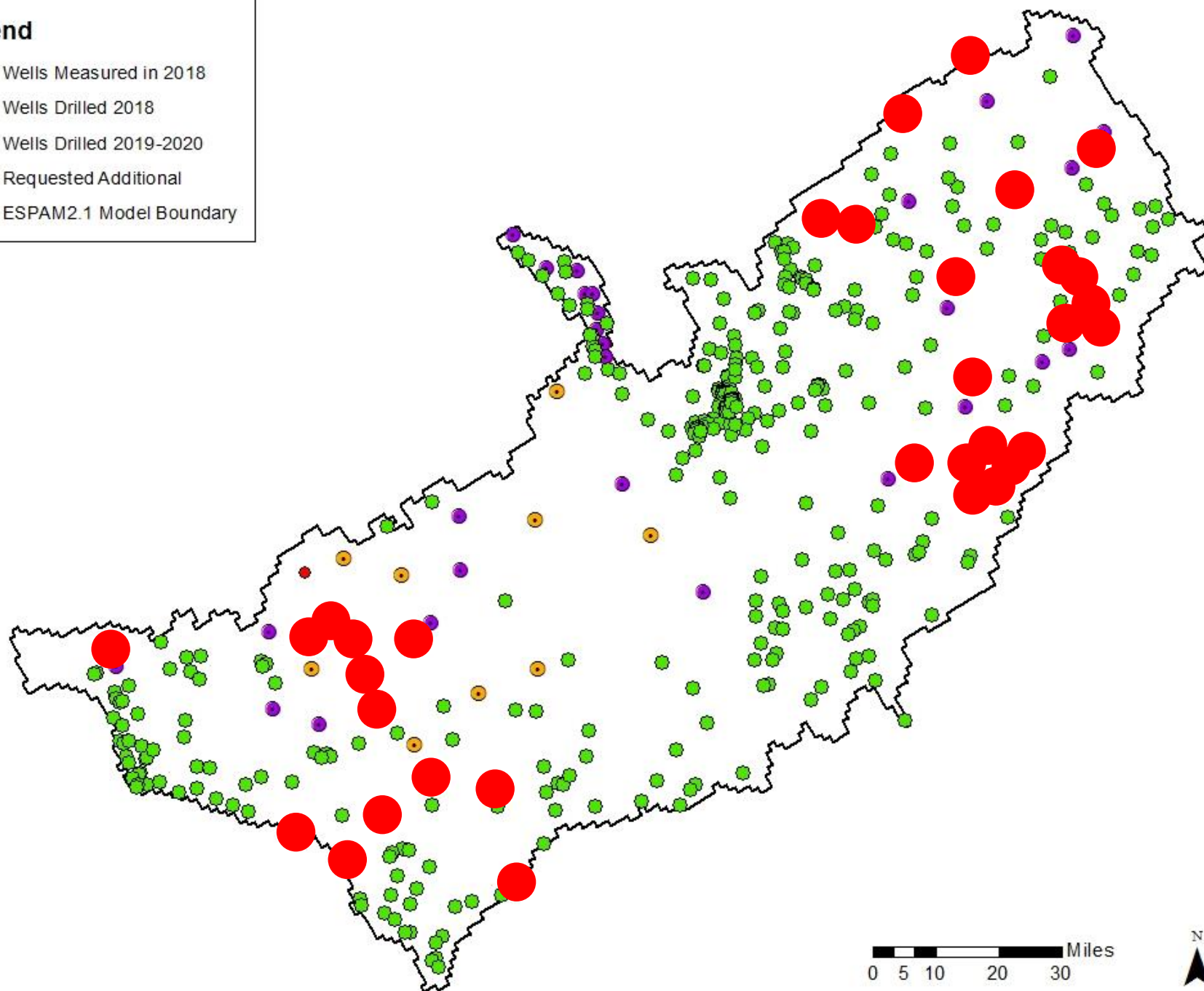
Legend

- Wells Measured in 2018
- Wells Drilled 2018
- Wells Drilled 2019-2020
- ESPAM2.1 Model Boundary



Legend

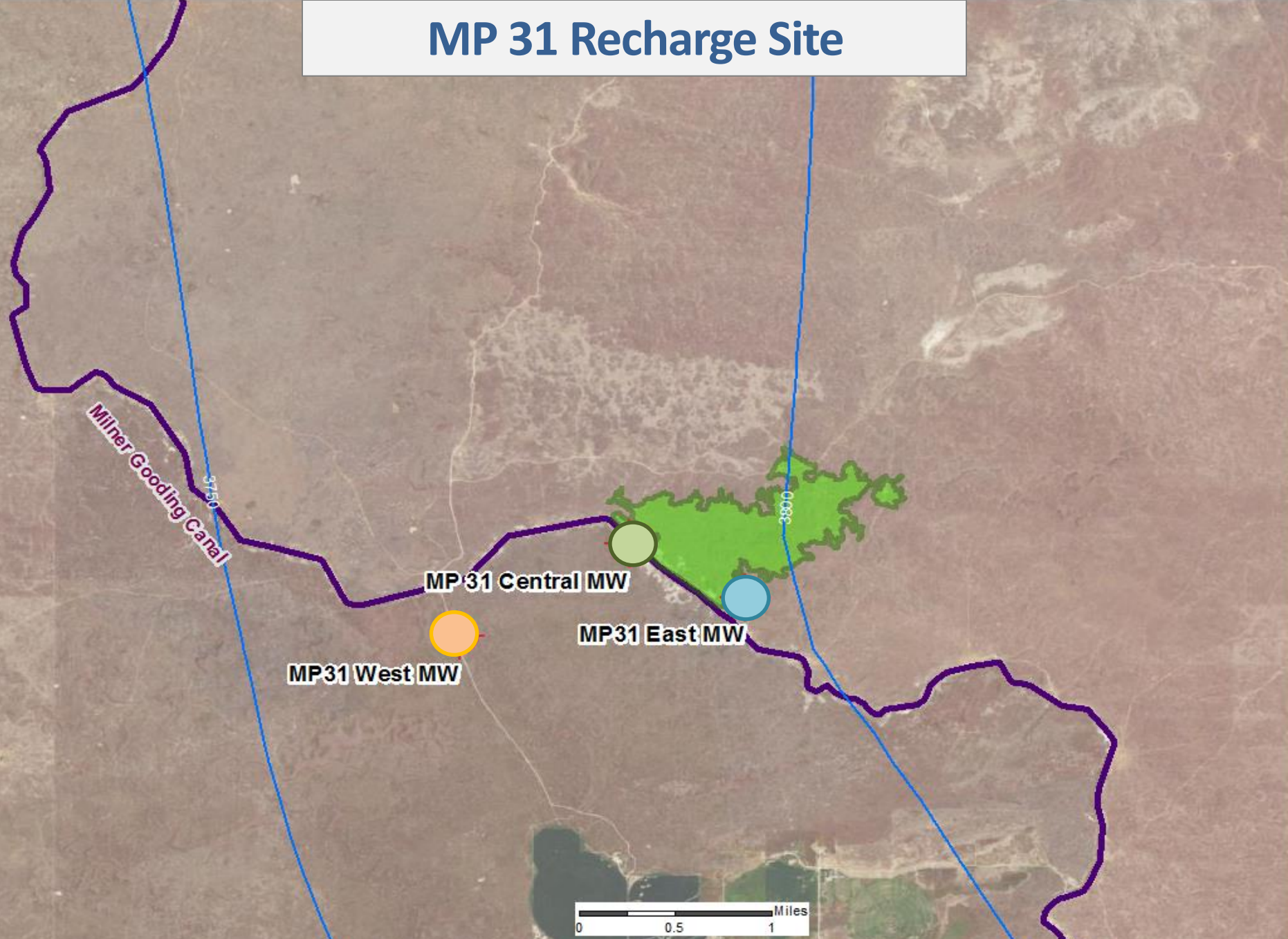
- Wells Measured in 2018
- Wells Drilled 2018
- Wells Drilled 2019-2020
- Requested Additional
- ESPAM2.1 Model Boundary



0 5 10 20 30 Miles

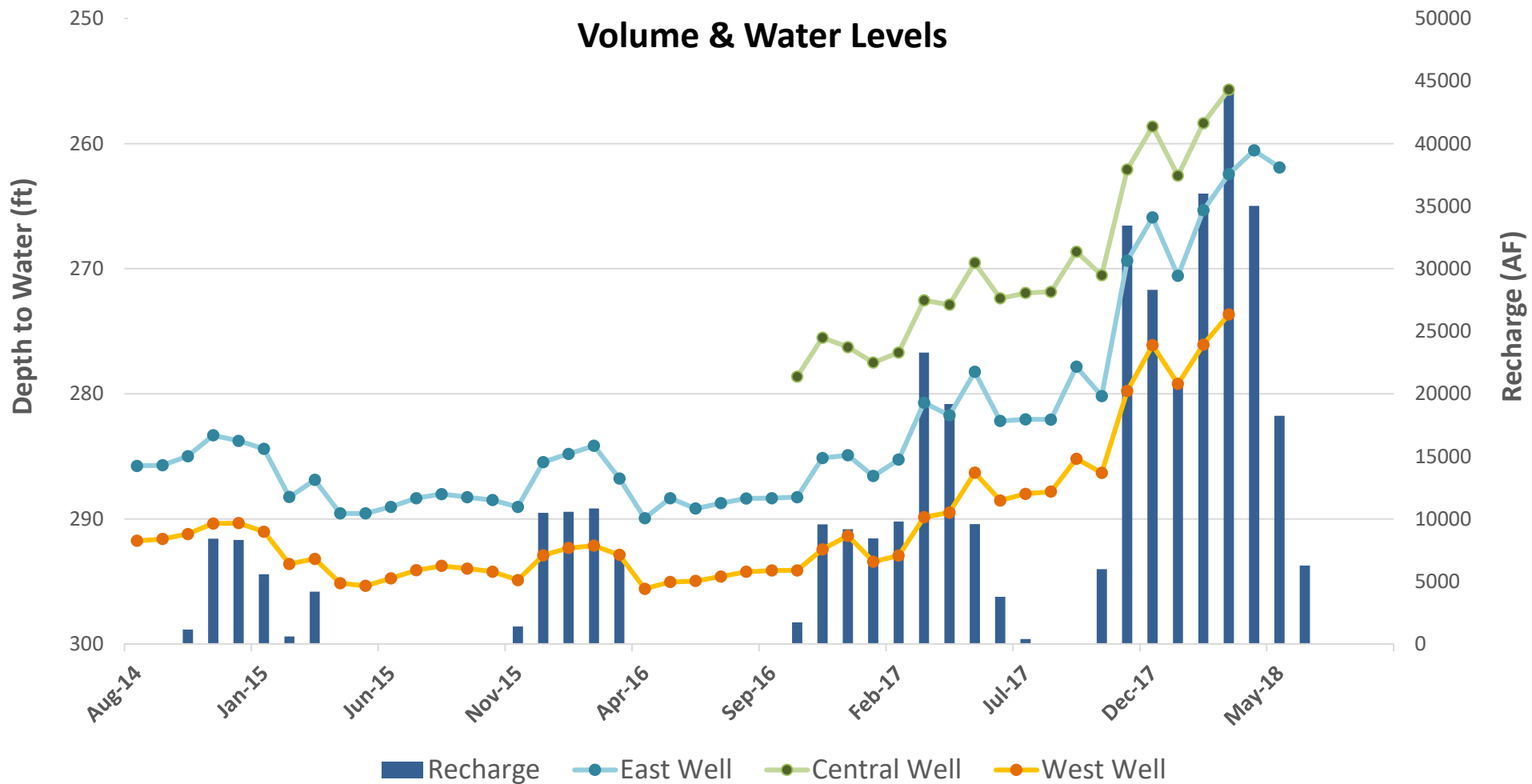


MP 31 Recharge Site





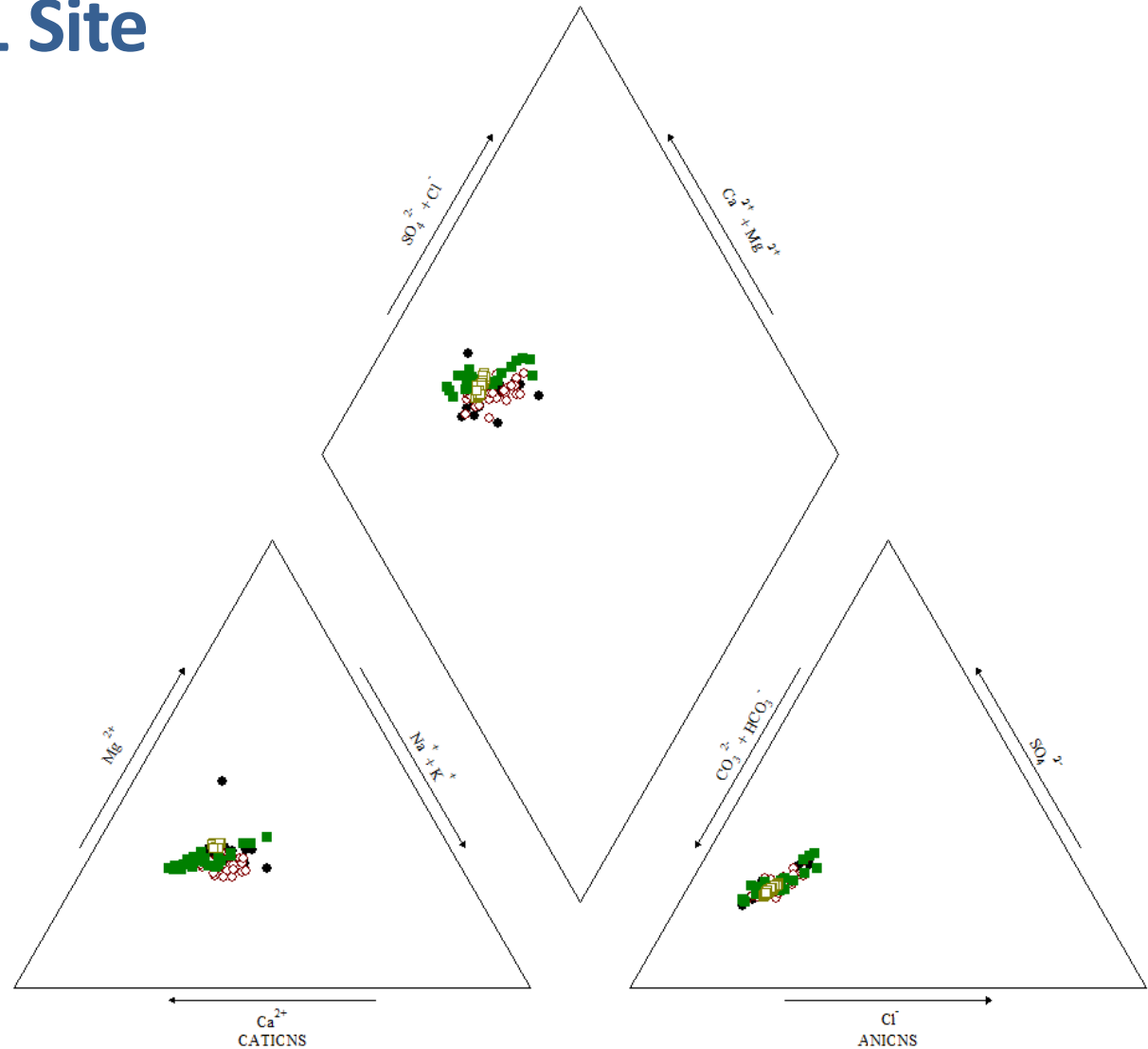
Mile Post 31 Volume & Water Levels



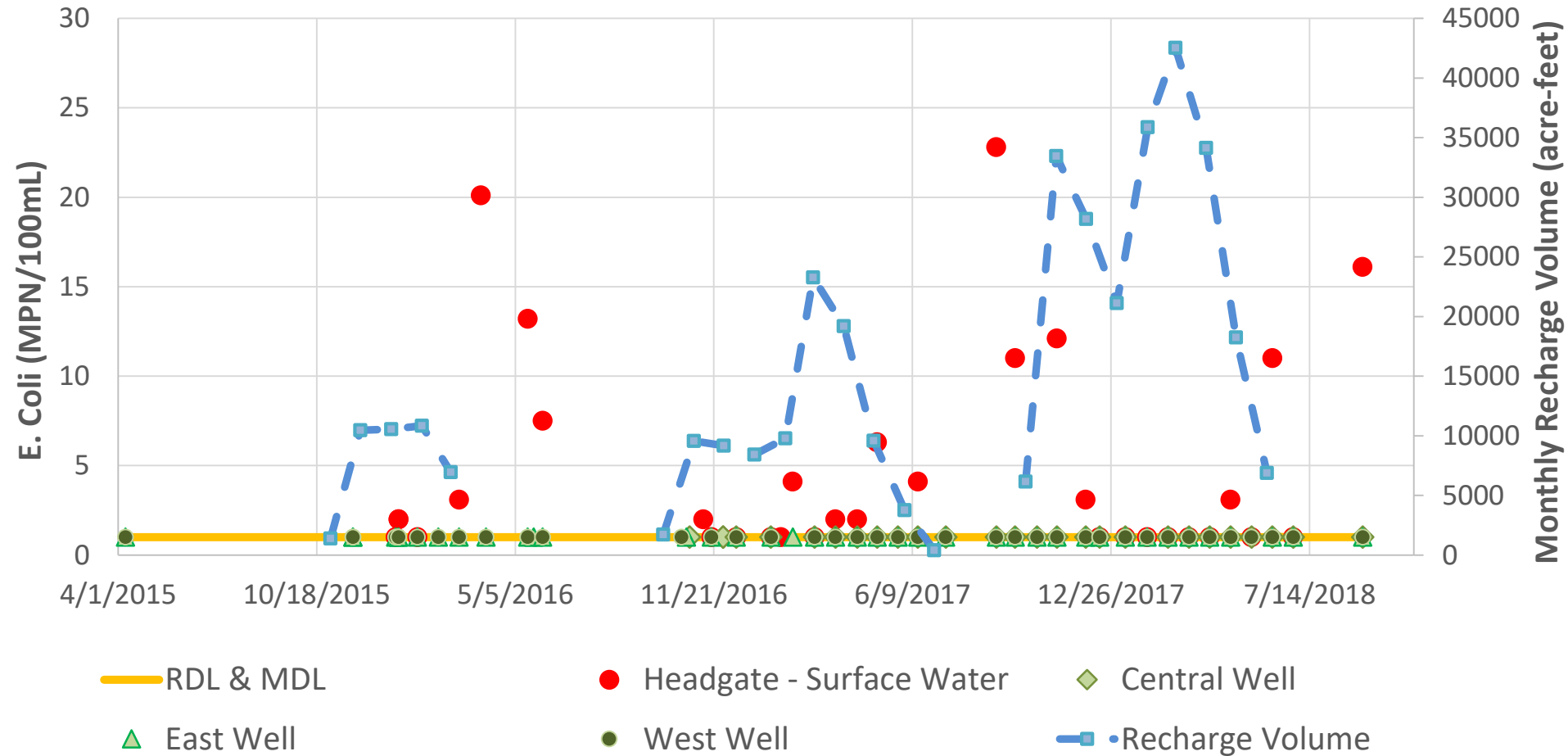
Mile Post 31 Site

Mile Post 31

- Headgate - Surface Water
- West Well
- East Well
- Central Well



Mile Post 31 - E. Coli Results



Egin Lakes Recharge Sites

Egin Lakes

07N 39E 07BDA4

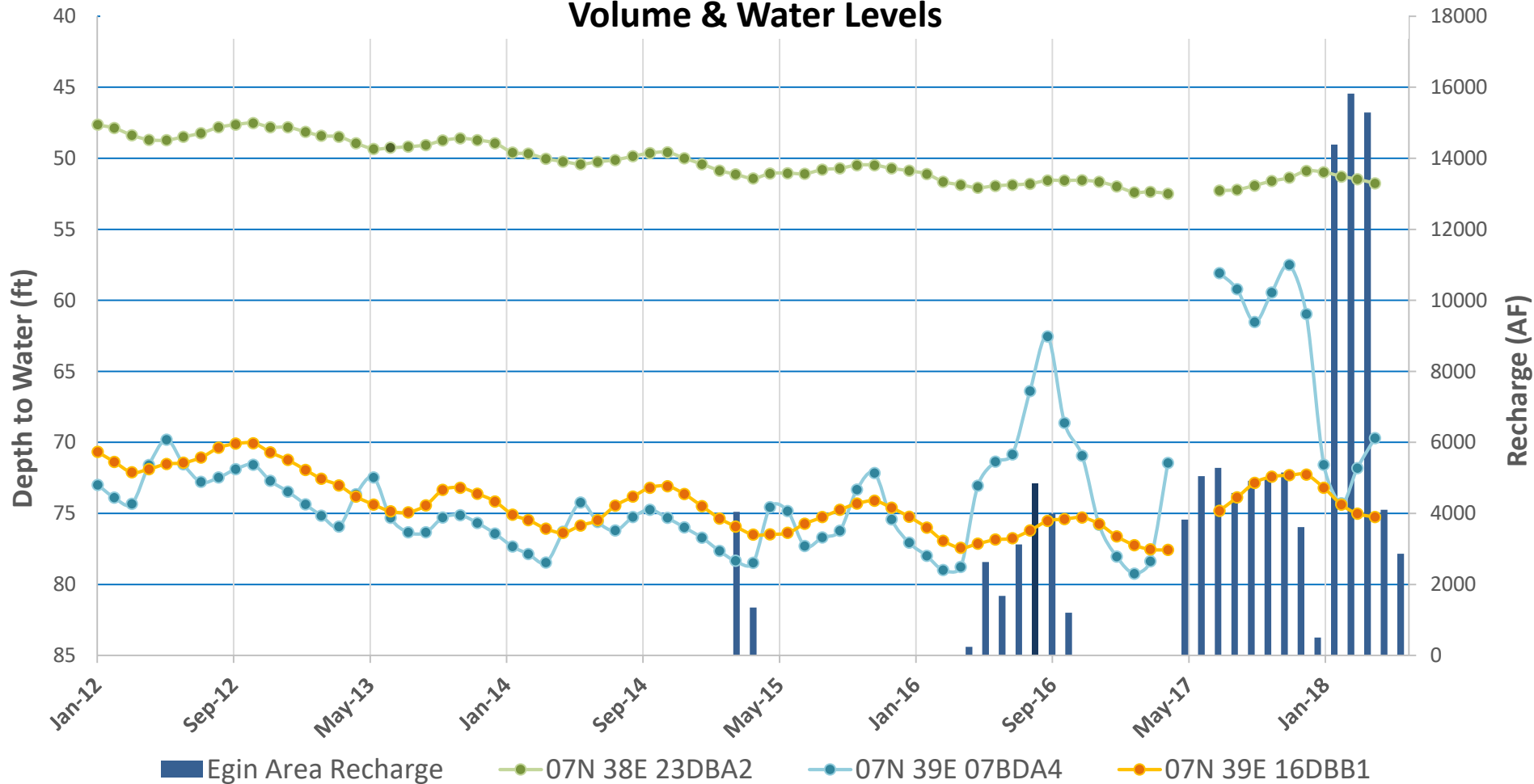
07N 39E 16DBB1

07N 38E 23DBA2

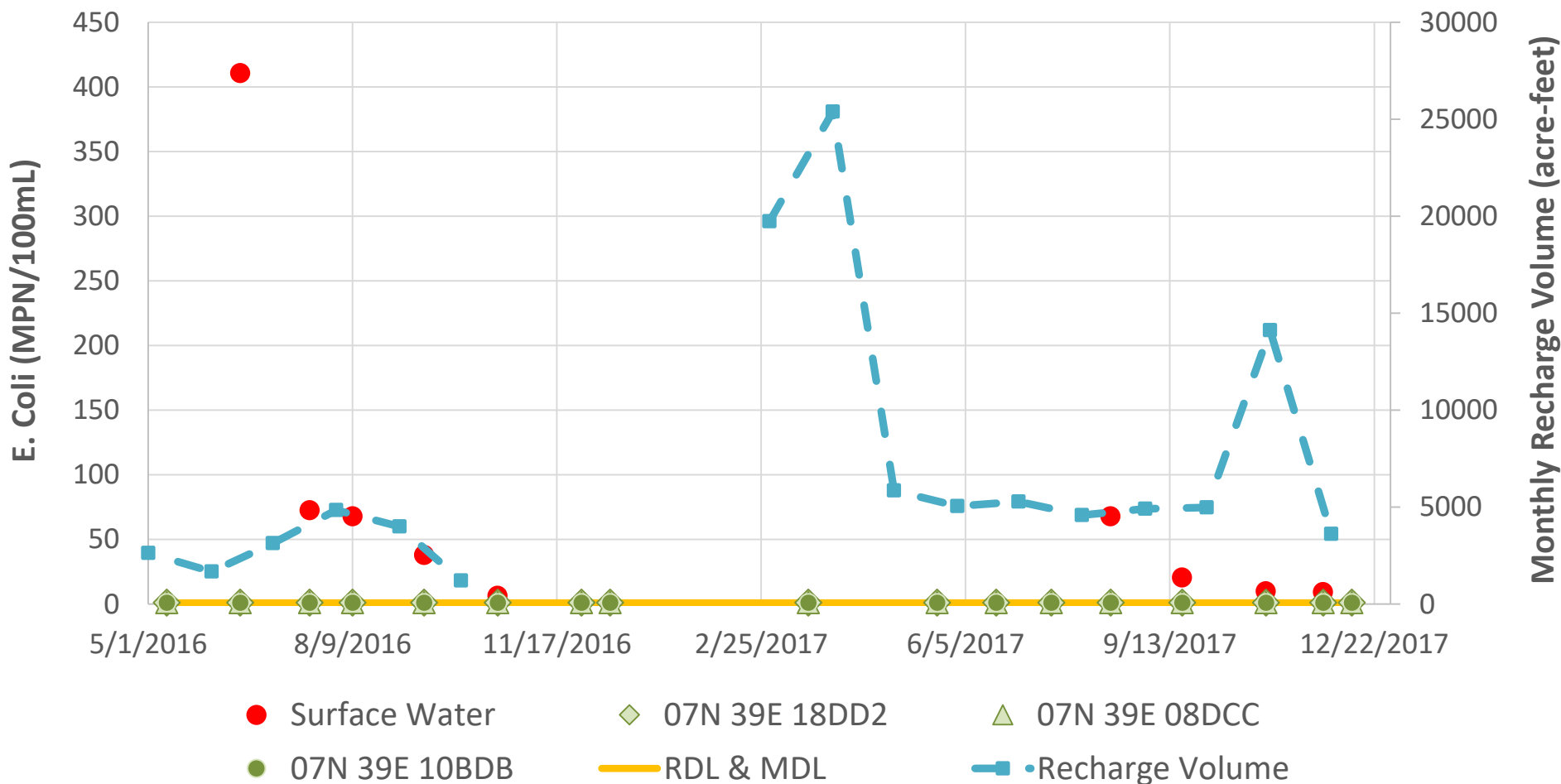


Egin Lakes Site

Volume & Water Levels



Egin Lakes Recharge - E.coli Results



Jones Recharge Site Proposed Water Quality Monitoring



USDA FSA, ISU GIS TRC



0 250 500 1,000 Feet

Legend

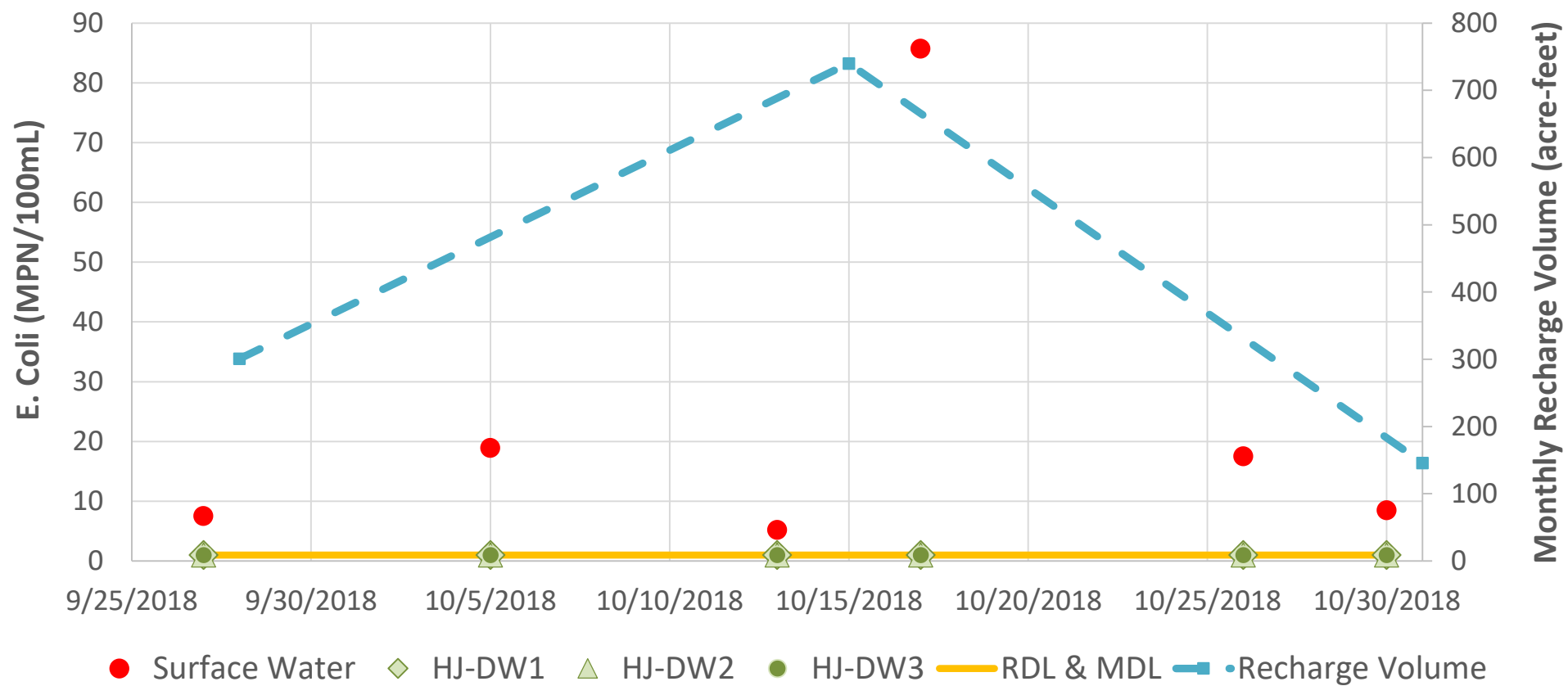
-  Managed Recharge Basin
-  Canal
-  River / Stream
-  Proposed Monitoring Well
-  Domestic Well
-  Headgate - Surface Water

Figure 6.

Proposed Monitoring Locations
Harold Jones Managed Recharge Basin



Harold Jones Site - E.Coli Results



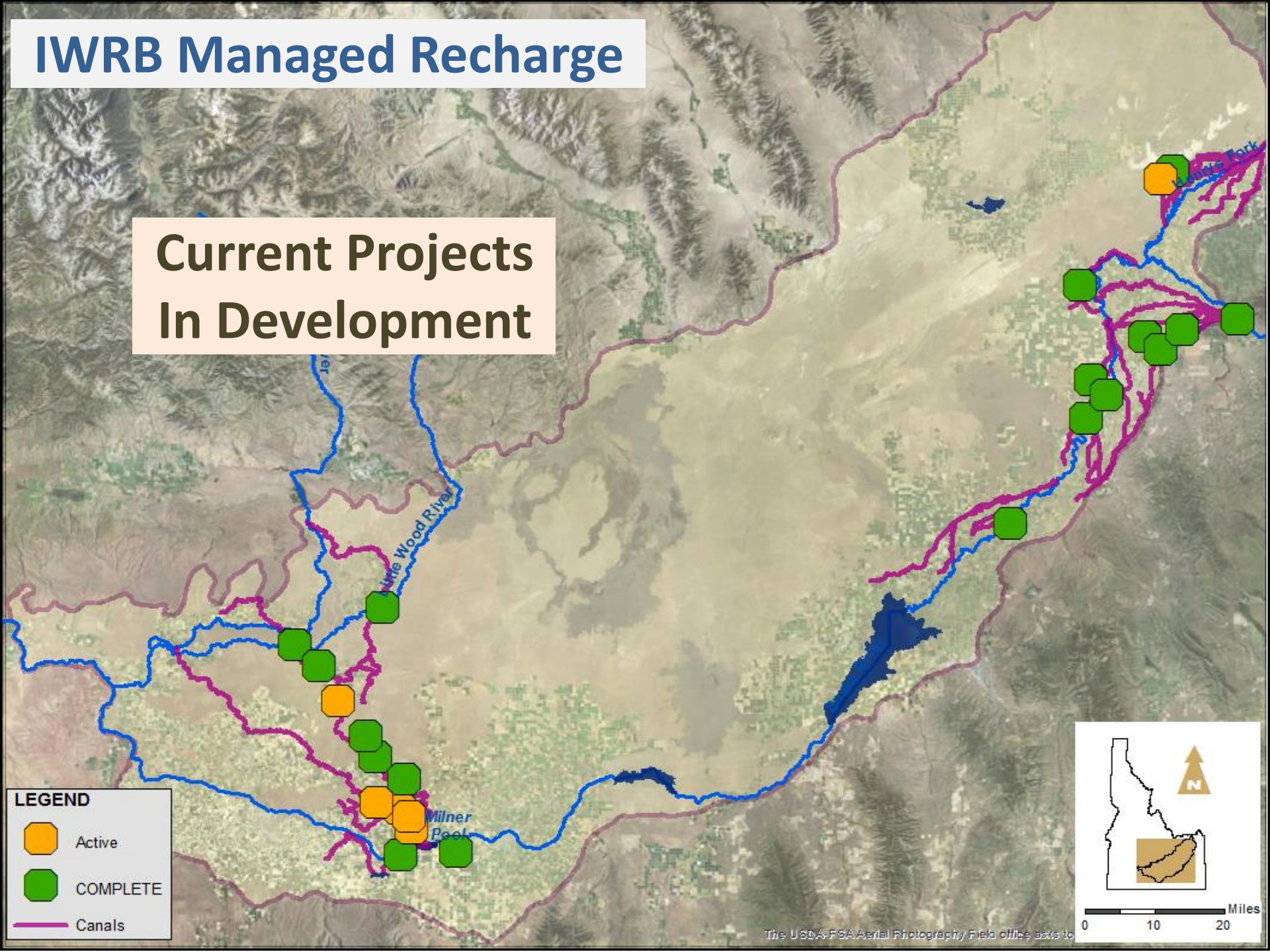
IWRB Managed Recharge Program



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IWRB Managed Recharge

Current Projects In Development



IWRB Managed Recharge Projects

AFRD2 / Big Wood Canal Projects



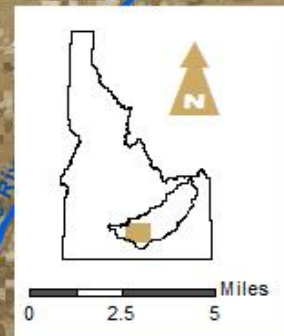
BWCC MP28 Hydro Plant

- Complete In-Canal Work – Dec 2018
- Project Complete – Spring/Summer 2019

LEGEND

IWRB Recharge Projects

-  DESIGN
-  CONSTRUCTION
-  Recharge Site
-  Canals

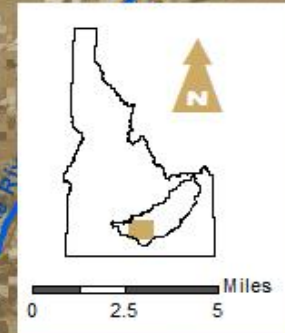


IWRB Managed Recharge Projects

AFRD2 / Big Wood Canal Projects

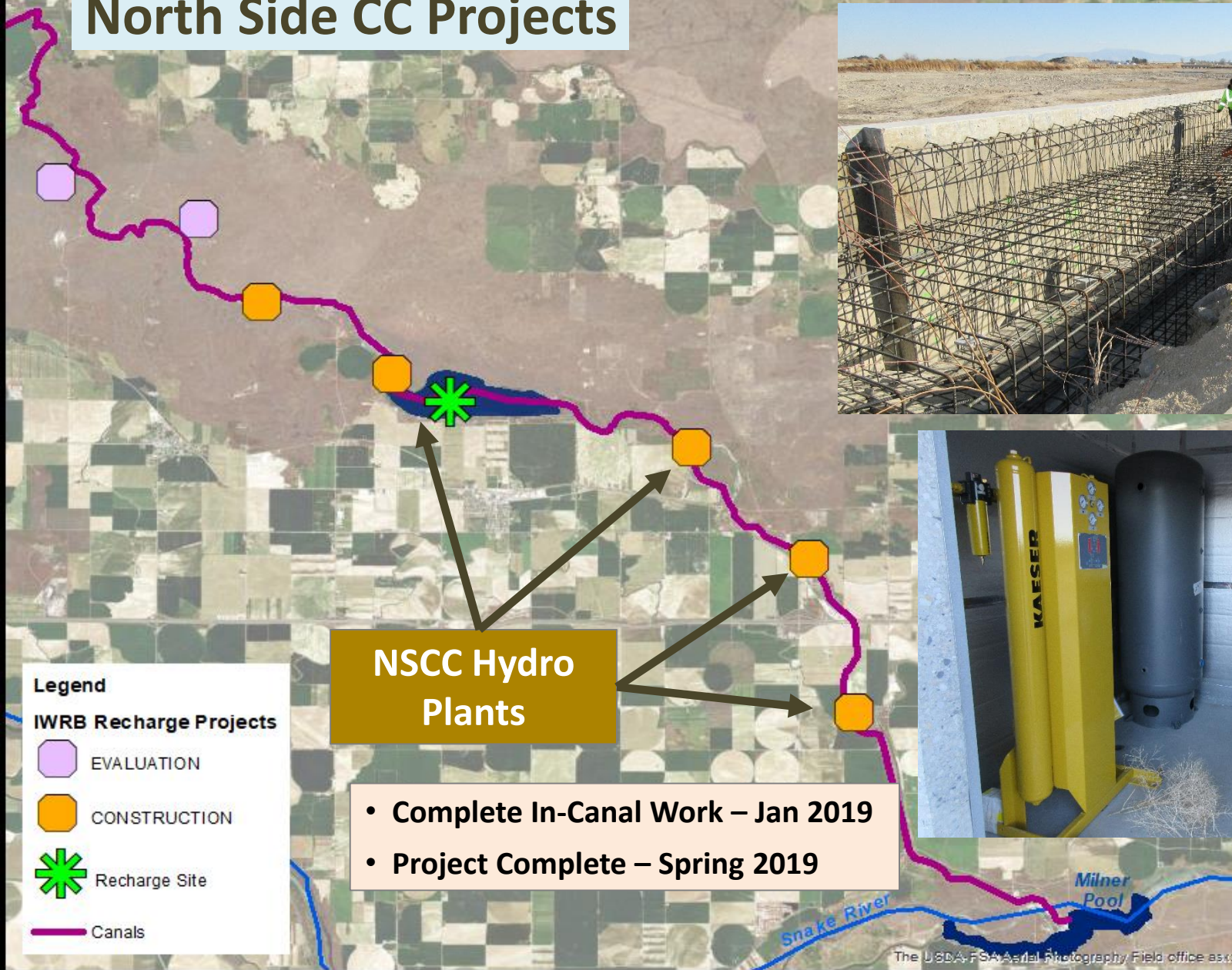
- Tailbay Improvements Complete - Jan 2019
- Forebay Improvements Complete - Fall 2019

**BWCC Dietrich Drop
Hydro Plant**



IWRB Managed Recharge Projects

North Side CC Projects



0 1 2 Miles

The USDA-FSA Aerial Photography Field office axis were created in 1999 and are not to be used for navigation purposes.

IWRB Managed Recharge Projects

North Side CC Projects

- Start Construction – Nov 2018
- Project Complete – Spring 2019

NSCC Wilson
Canyon



Legend

IWRB Recharge Projects

 EVALUATION

 CONSTRUCTION

 Recharge Site

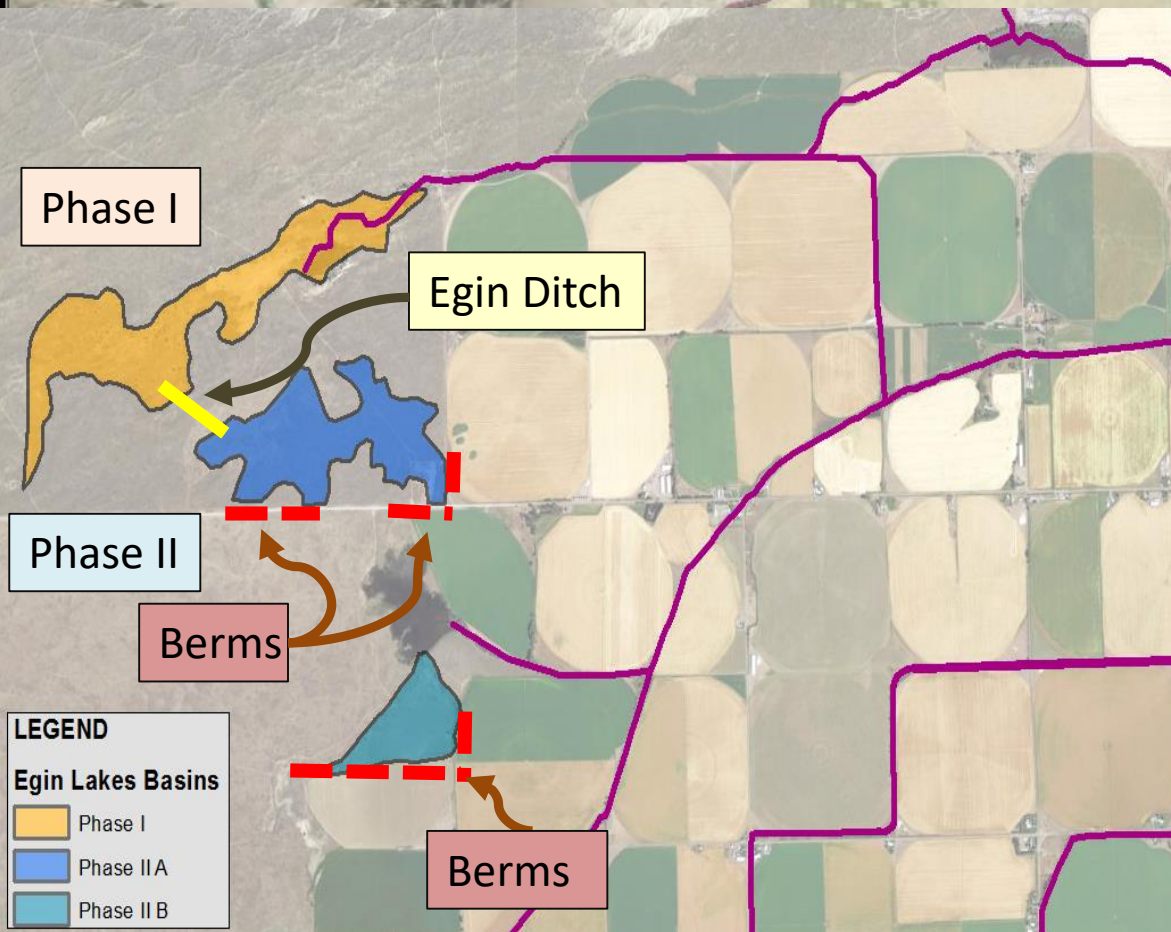
 Canals



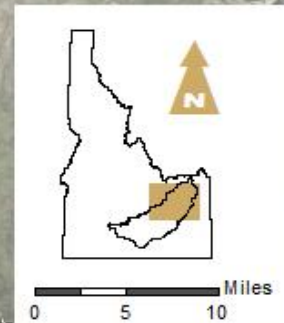
IWRB Managed Recharge Projects

FMID Project

FMID Egin Lakes Phase II

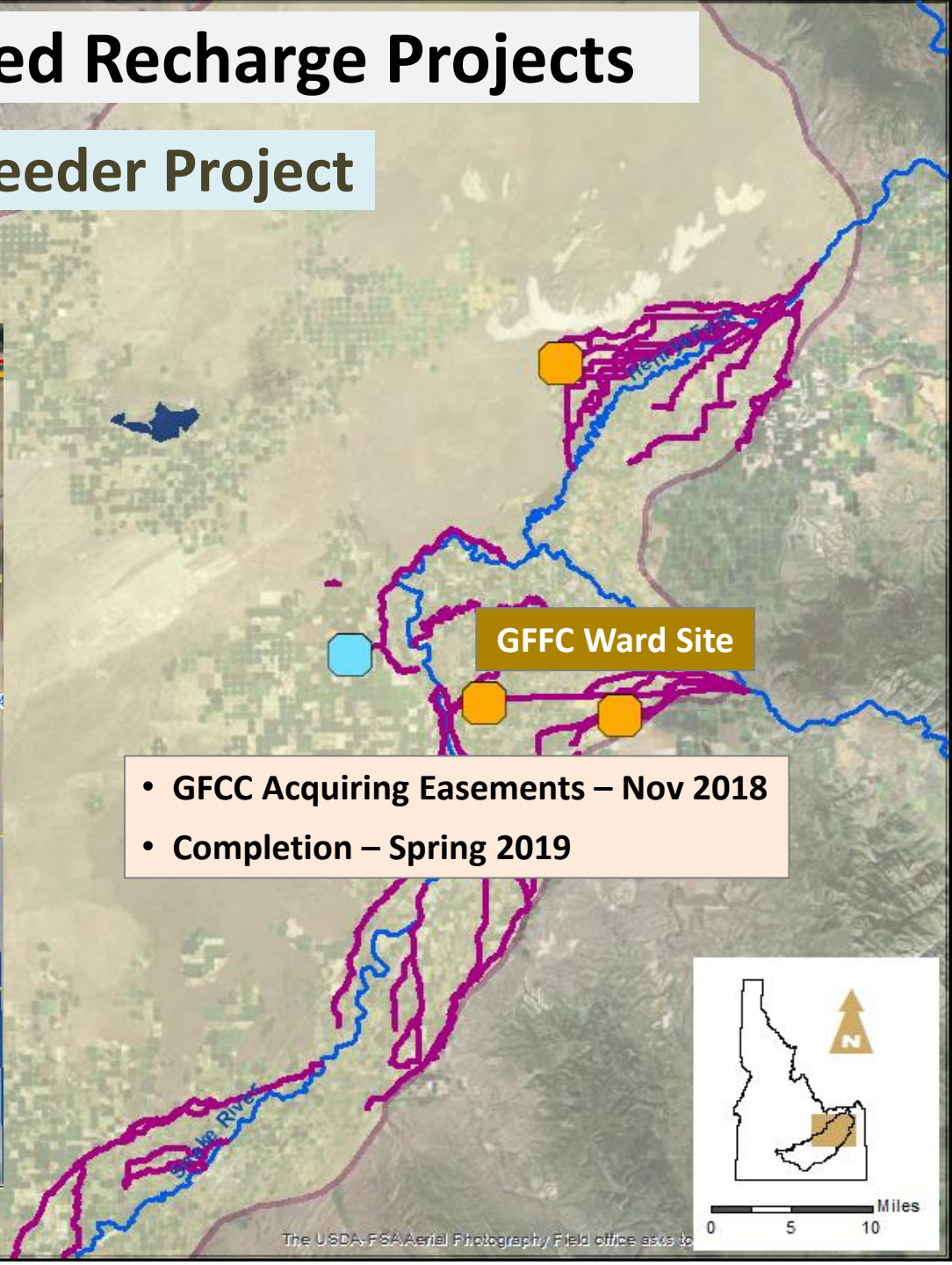


- BLM EA Approval – Oct 2018
- Construction Start Dependent on BLM ROW
- Completion – Spring/Summer 2019

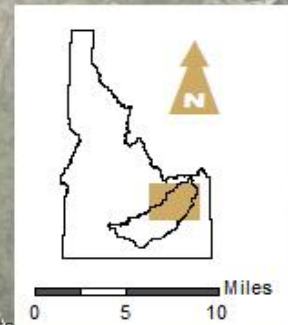


IWRB Managed Recharge Projects

Great Feeder Project

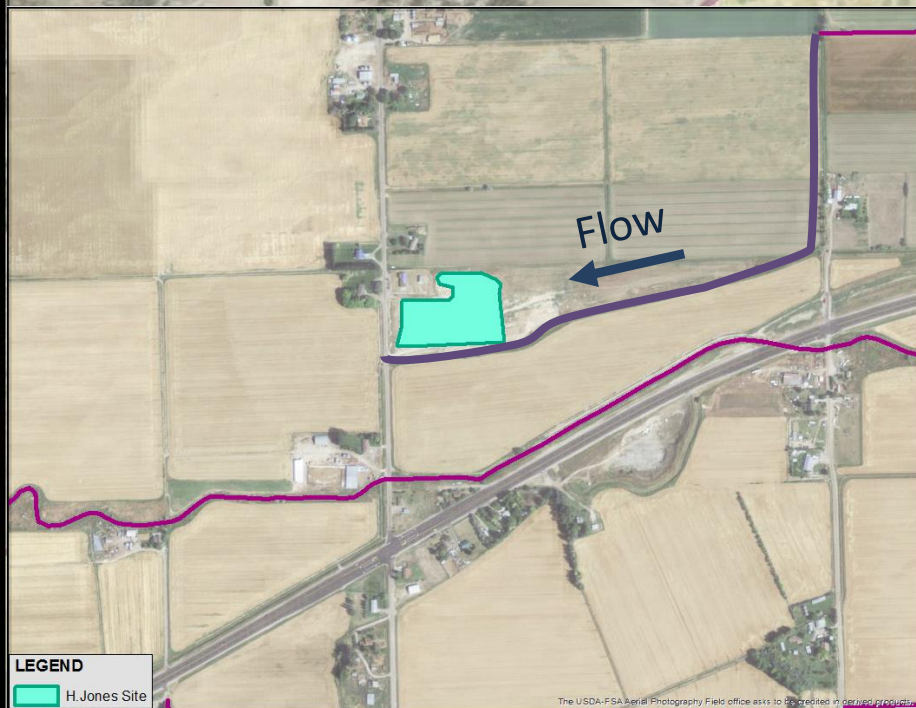


- GFCC Acquiring Easements – Nov 2018
- Completion – Spring 2019

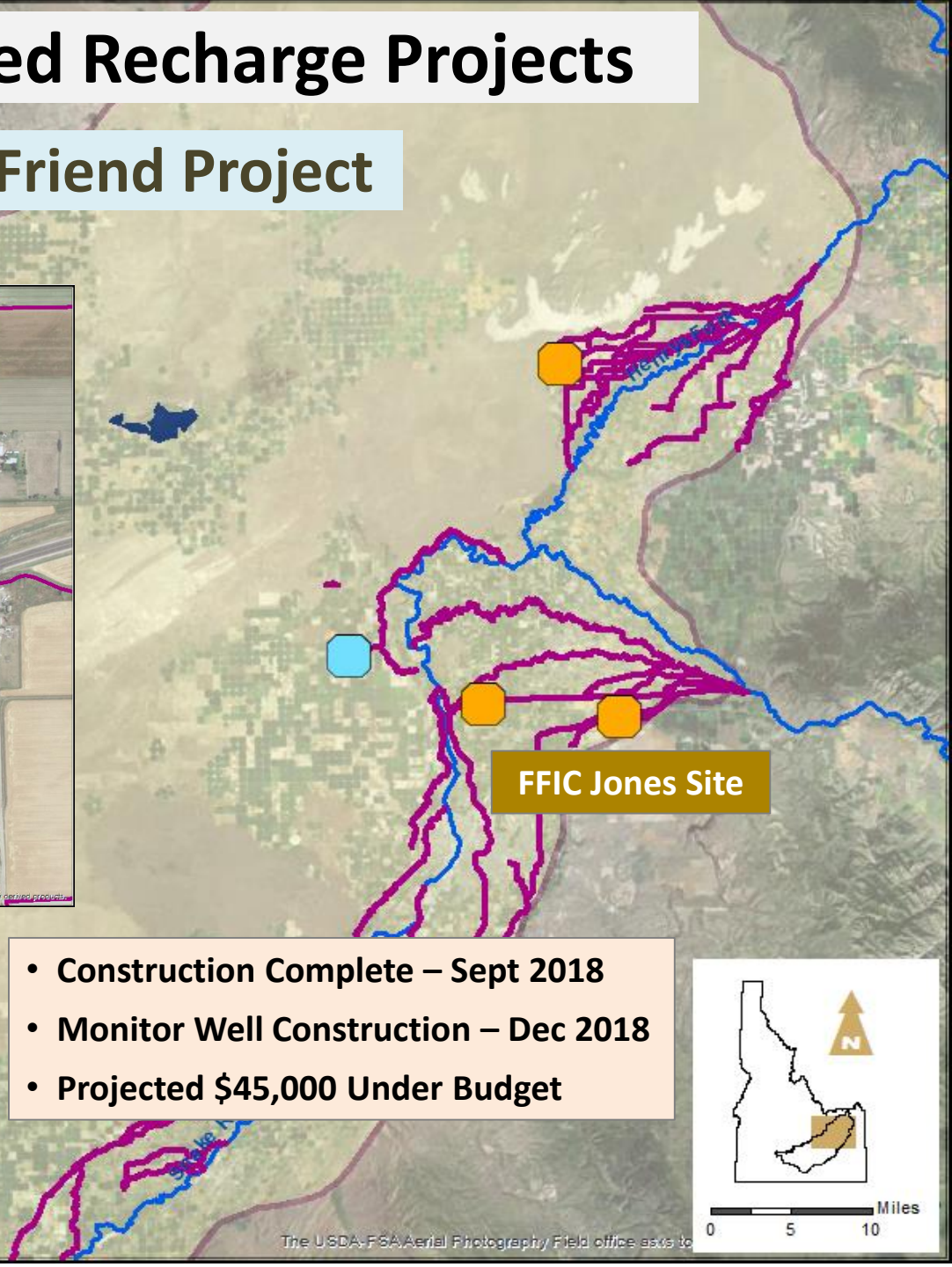
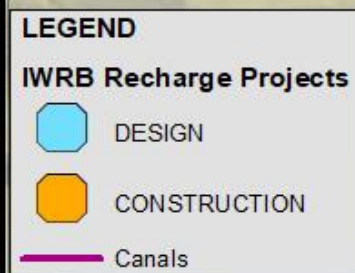


IWRB Managed Recharge Projects

Farmers Friend Project



- Construction Complete – Sept 2018
- Monitor Well Construction – Dec 2018
- Projected \$45,000 Under Budget

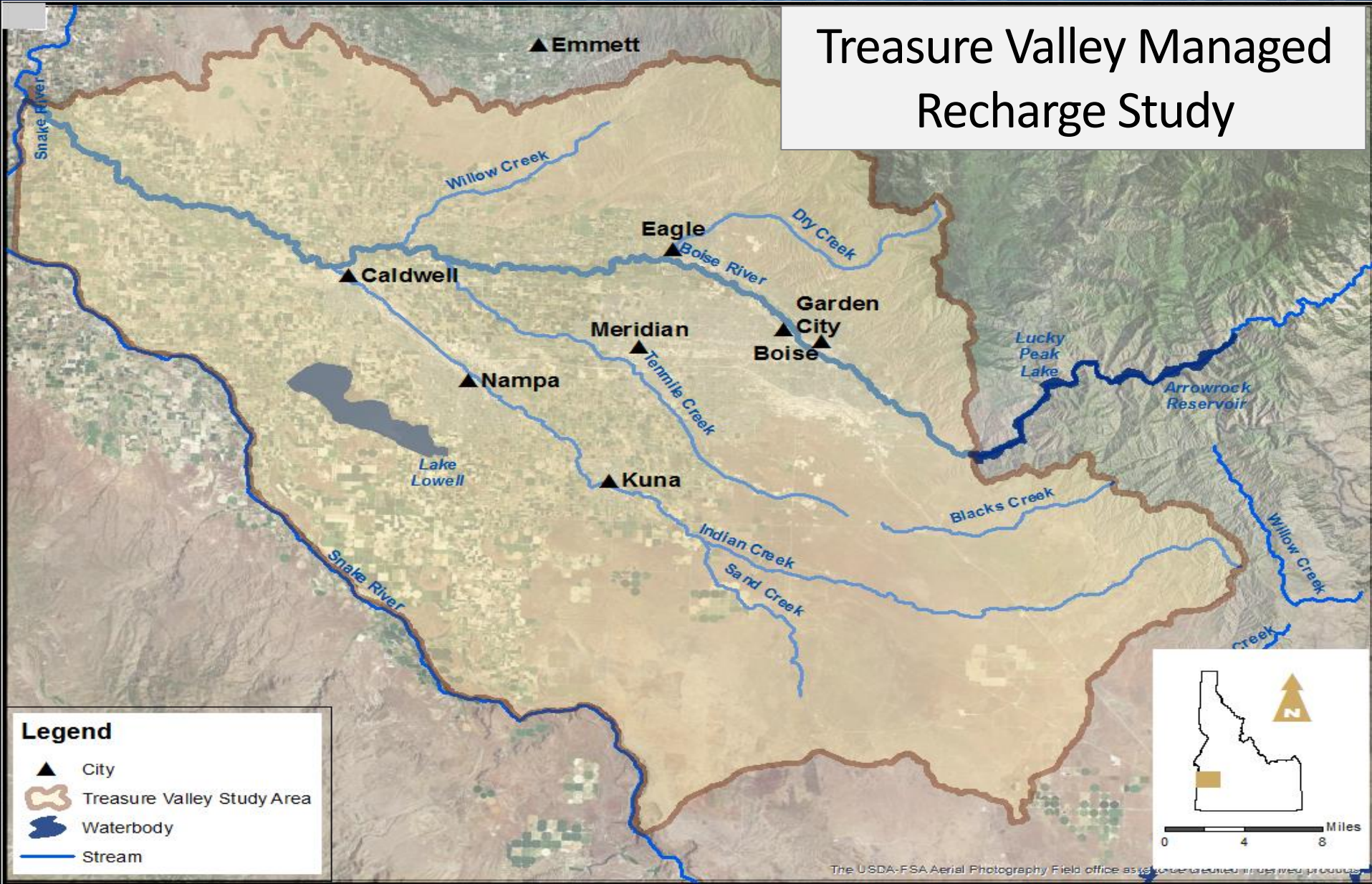


IWRB Managed Recharge Program



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Treasure Valley Managed Recharge Study

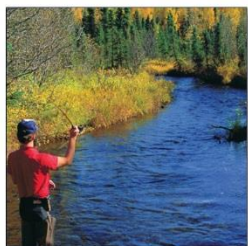
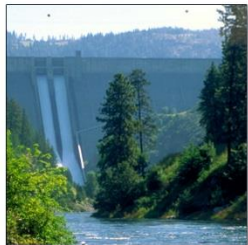


Treasure Valley Managed Recharge Feasibility Study

Background

Increasing/Changing Water Supply Demands

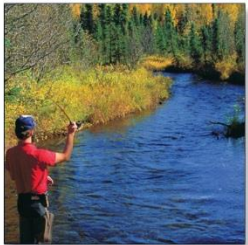
- Projected Treasure Valley population growth
- Climate variability
 - Magnitude and timing of surface water flows are increasingly uncertain
- Decreasing groundwater supplies in some areas



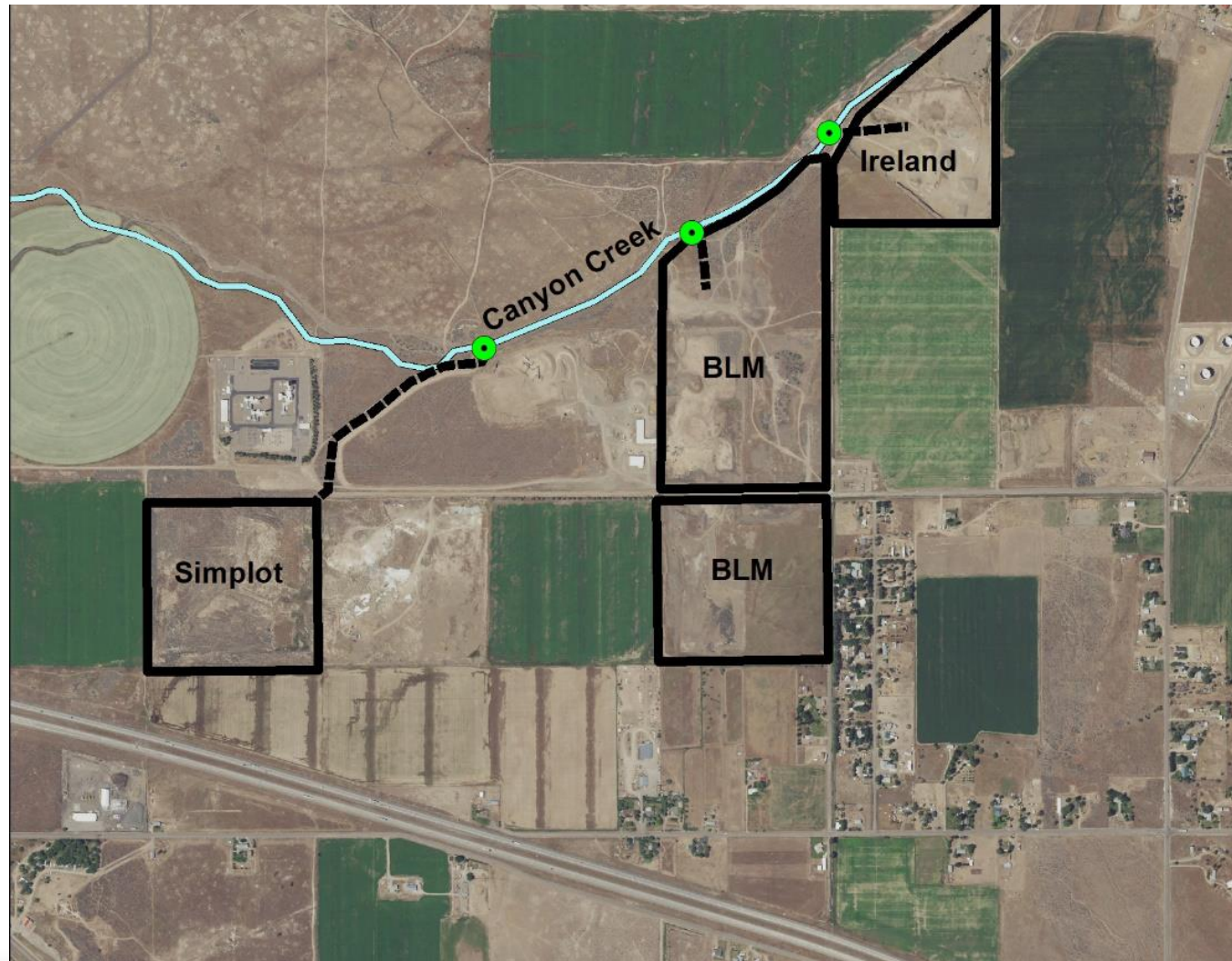
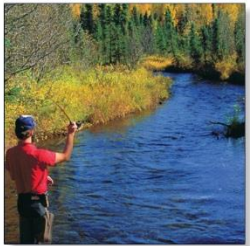
Treasure Valley Managed Recharge Feasibility Study

Intent & Objective

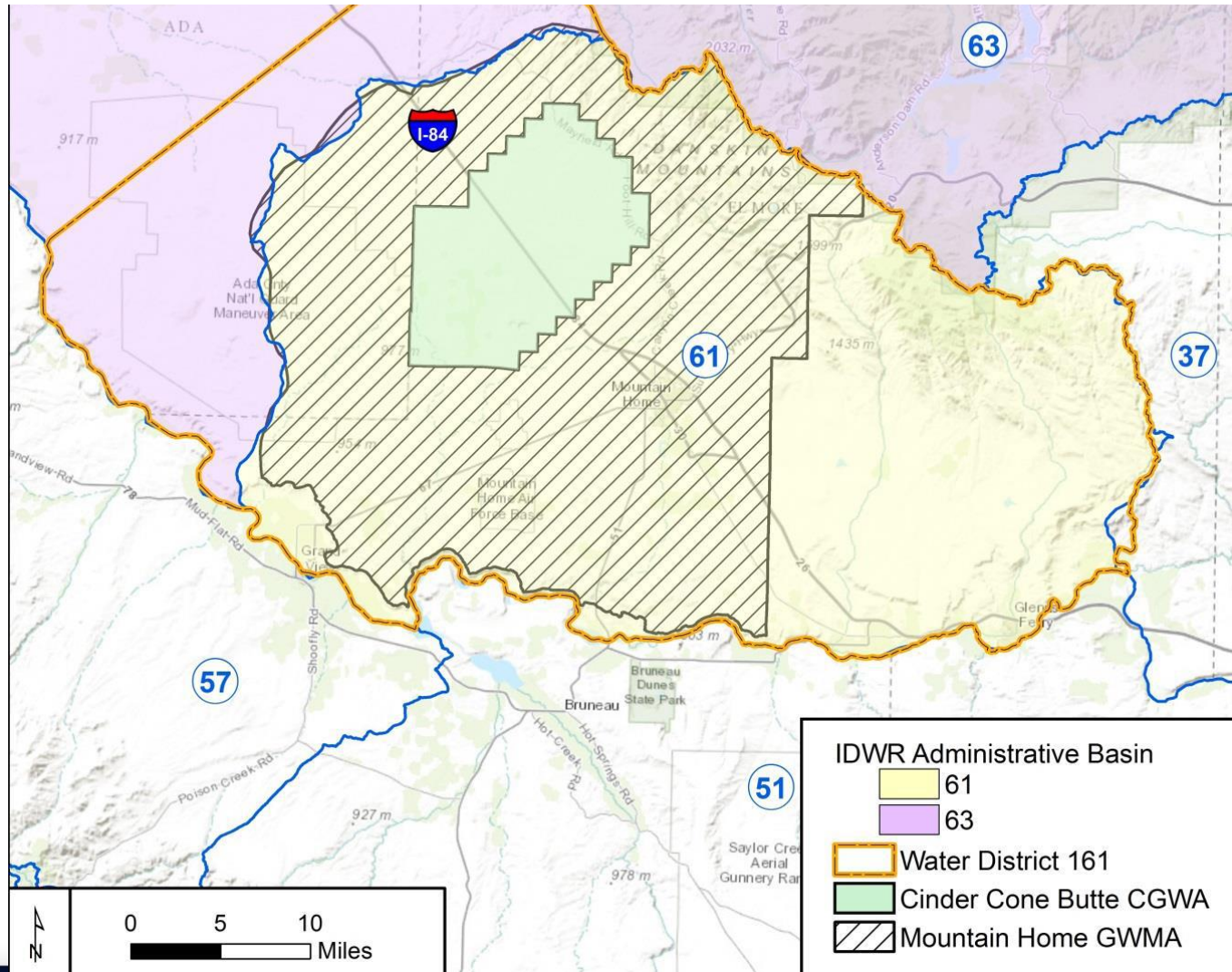
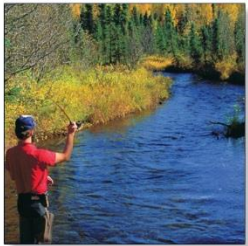
- Tool to assist in determining if managed recharge is a viable method to meet water management goals
- Assess the potential and viability of managed recharge
- Evaluate key issues associated with managed recharge
 - Volume and timing of available water
 - Identification of recharge potential
 - Costs of potential infrastructure to conduct managed recharge



Elmore County Recharge Site



Elmore County Recharge Site



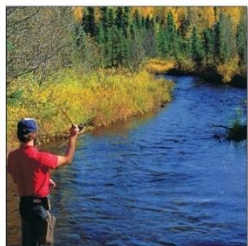
Elmore County Recharge Site

Background

- Areas of increase groundwater level reductions
- Elmore County is faced with a 43,000 af/yr estimated annual deficit in water supply

Project

- Infrastructure improvements to increase recharge capacity by 125 cfs

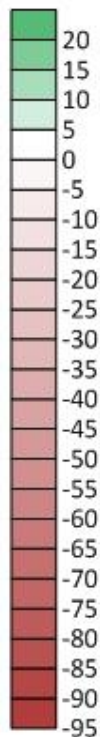


Questions

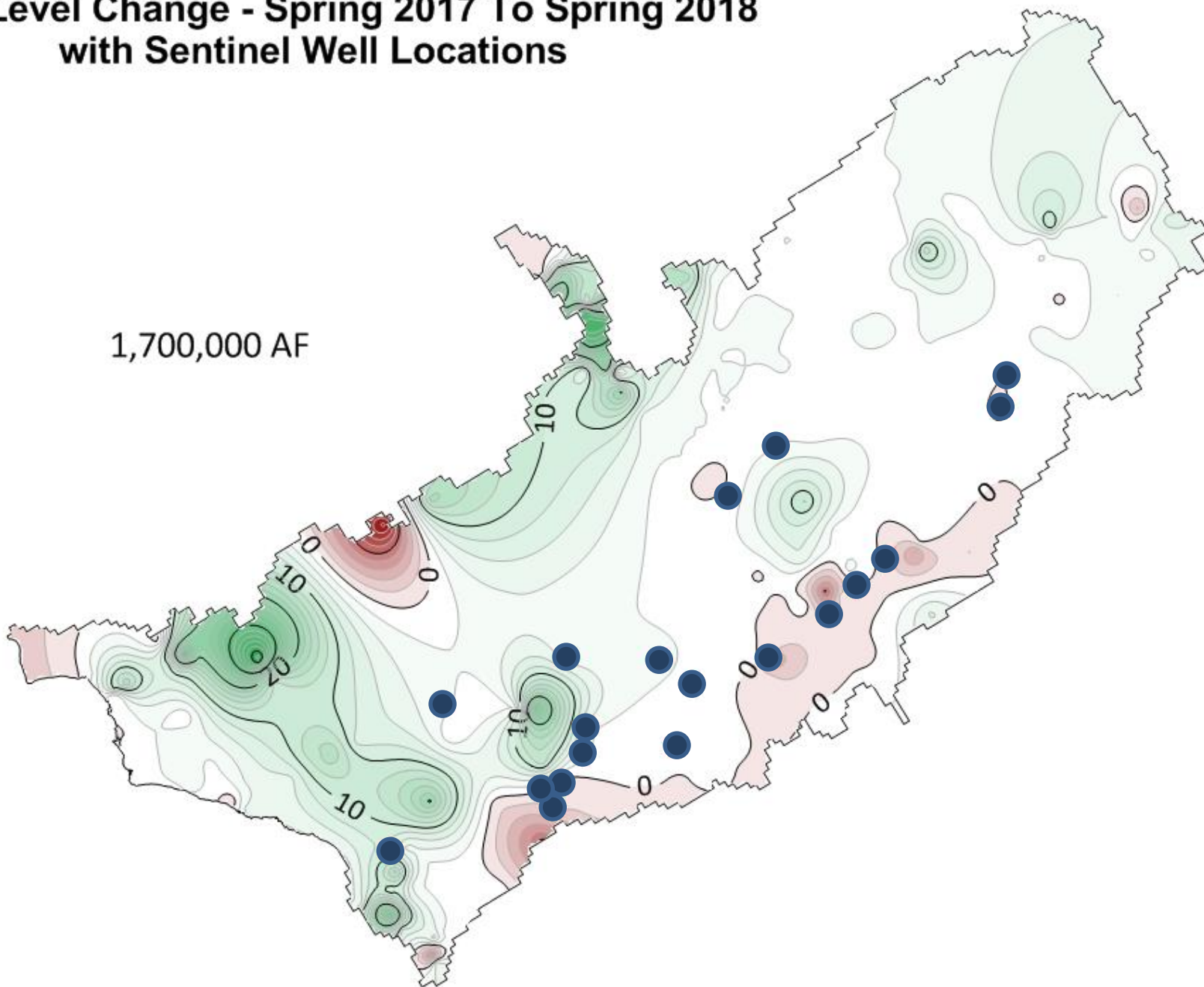


Water Level Change - Spring 2017 To Spring 2018 with Sentinel Well Locations

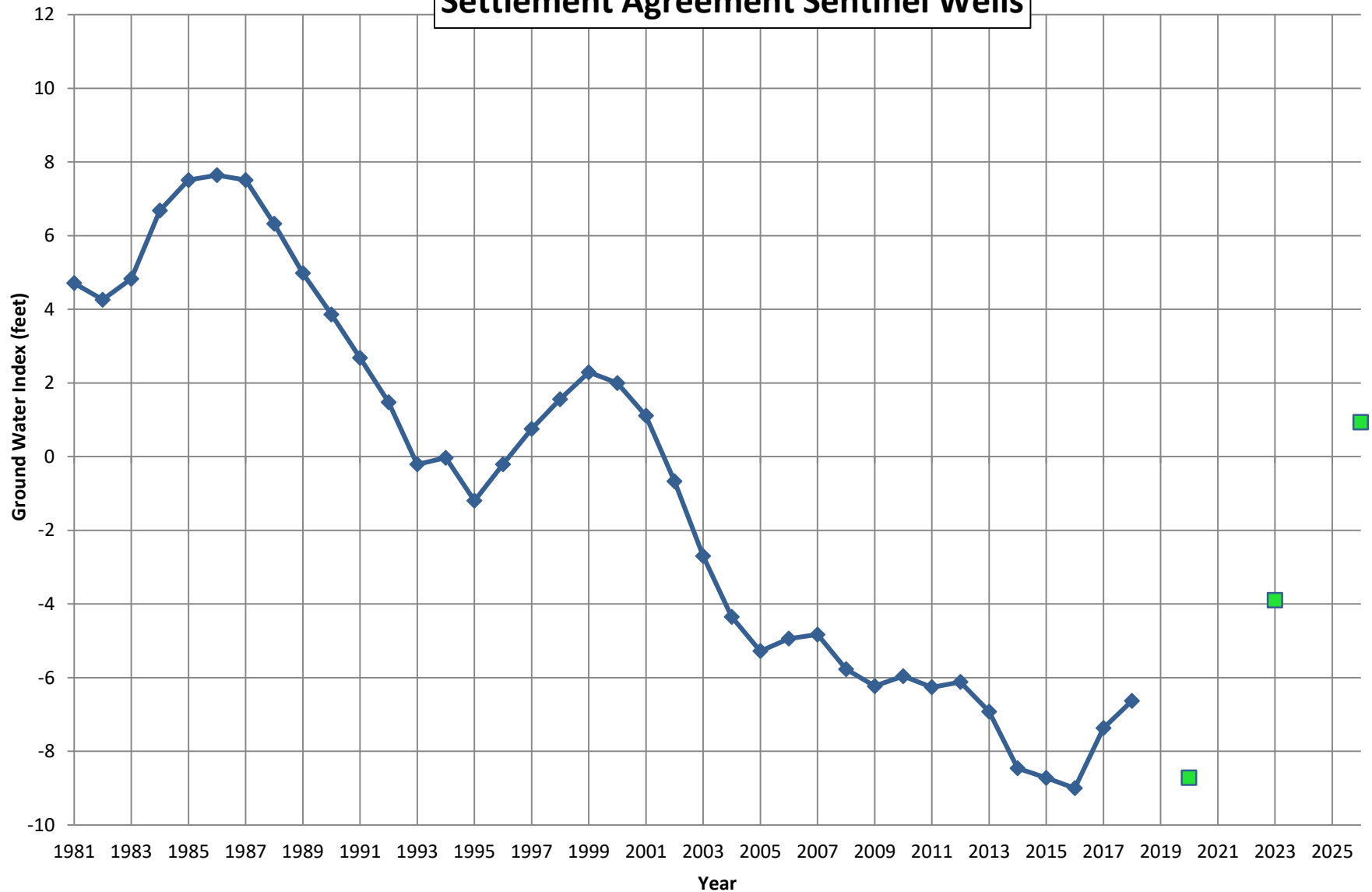
Water Level
Change (ft)



1,700,000 AF



Annual Ground Water Level Index: Settlement Agreement Sentinel Wells



IWRB Managed Recharge Projects – Lower Valley

Proposed Projects

