

A wide-angle photograph of a calm body of water, likely a lake or reservoir, reflecting the sky. The sun is low on the horizon, creating a bright reflection on the water's surface. The sky is filled with soft, grey clouds. In the foreground, a sandy beach is visible on the right side, and some dark vegetation is on the left.

IWRB Recharge Projects – Upper Valley

Henry's Fork Watershed Council

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IWRB Recharge Program Manager

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ESPA Managed Recharge Locations & Capacity

Lower Valley Recharge Capacity - 2020

Canals - 300 cfs
Sites - 2,100 cfs

Upper Valley Recharge Capacity - 2020

Canals - 2,000 cfs
Sites - 450 cfs

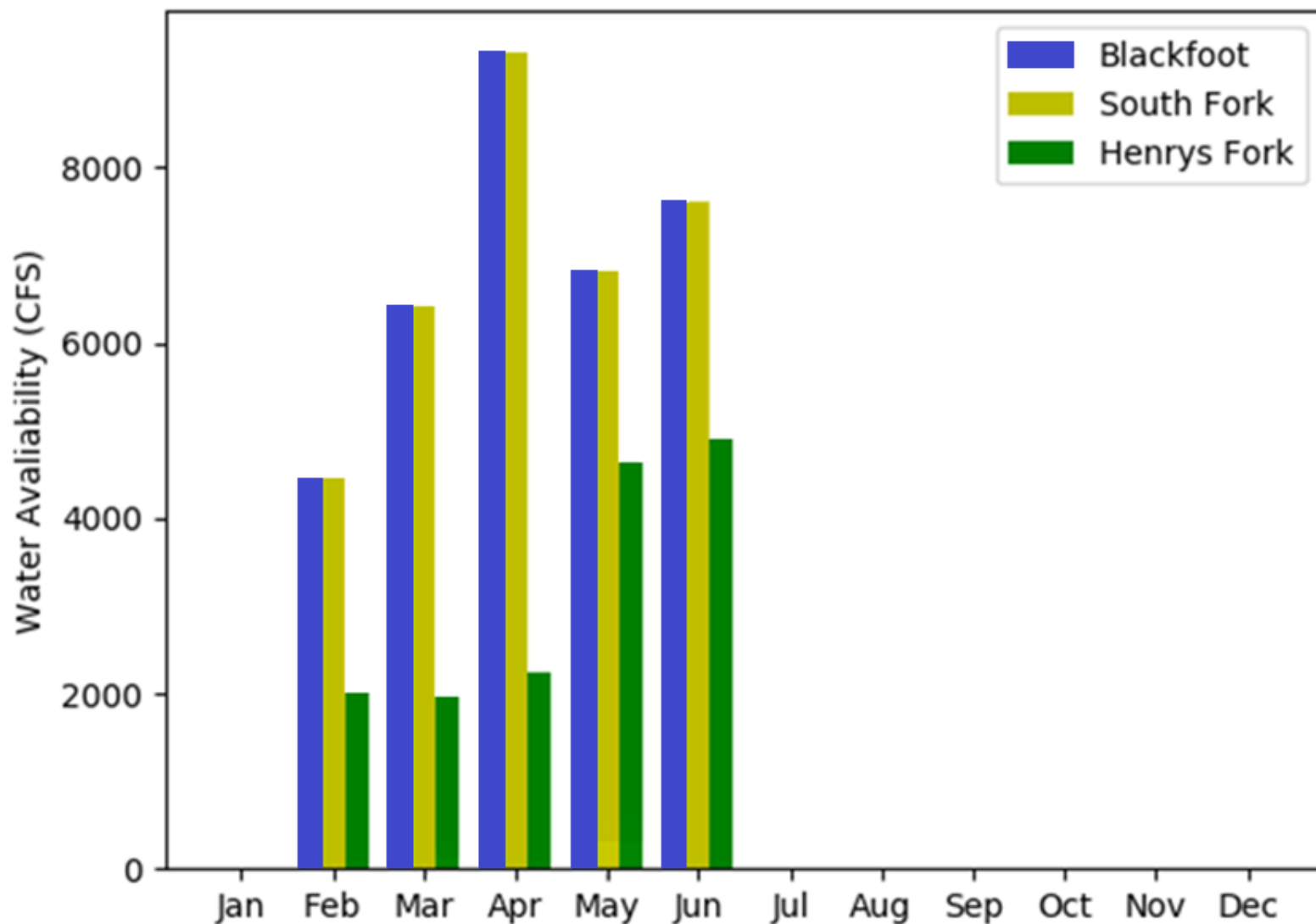
Recharge Sites

- IWRB
- Private

Canals

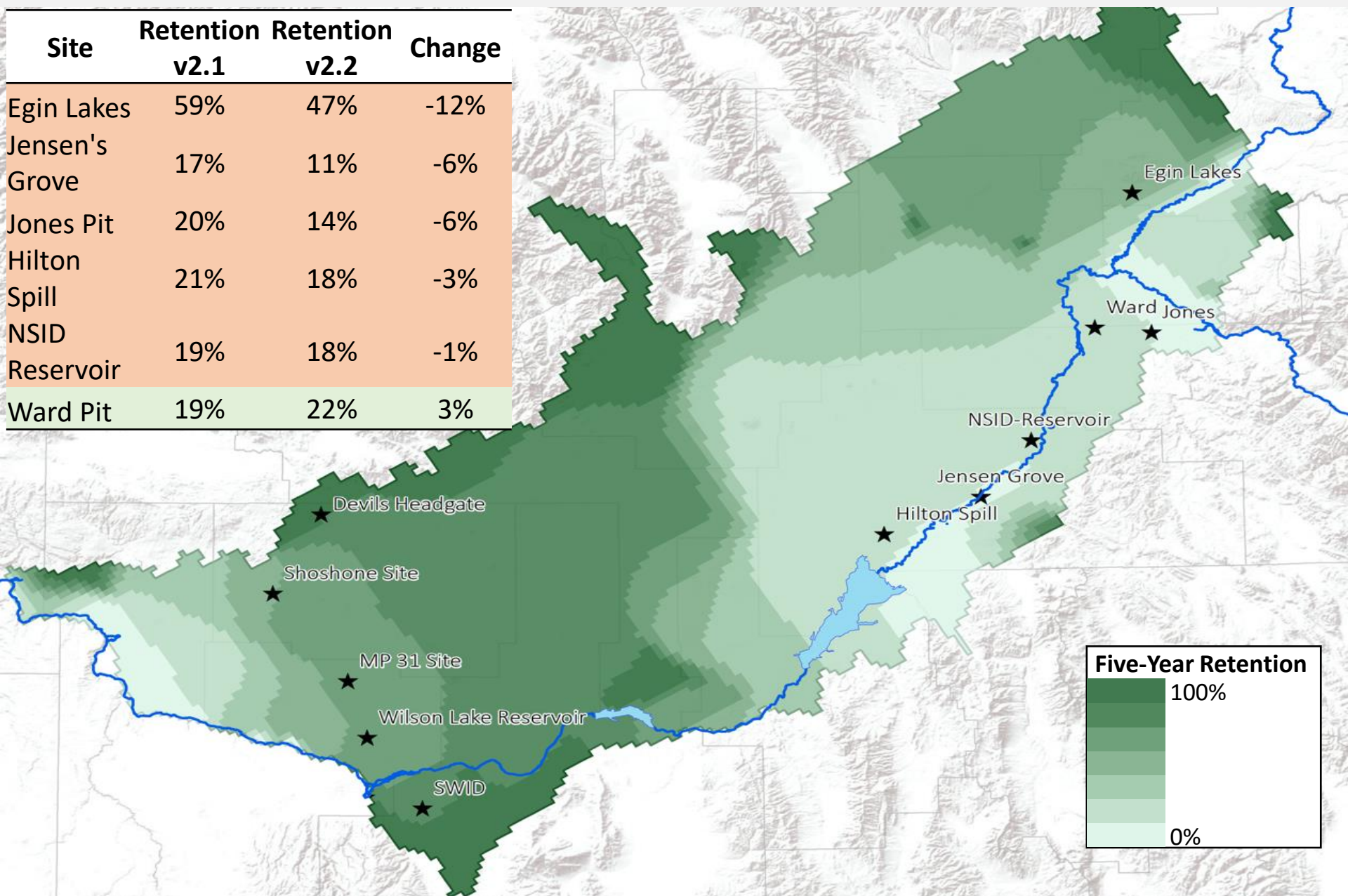
Sources: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, IGN, the GIS User Community

Upper Valley Recharge Water Availability



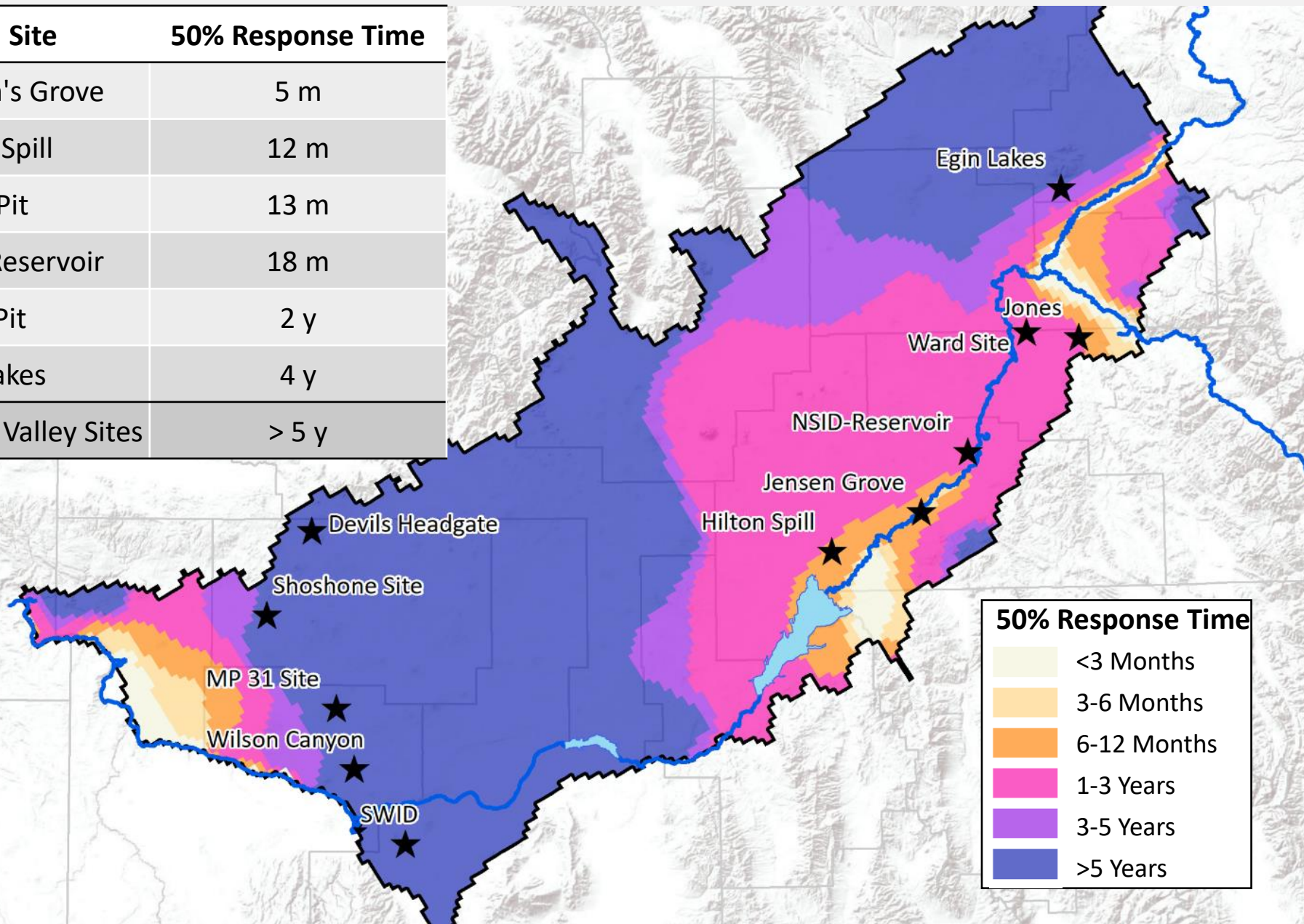
5-Year Retention - ESPAM v2.2

Site	Retention v2.1	Retention v2.2	Change
Egin Lakes	59%	47%	-12%
Jensen's Grove	17%	11%	-6%
Jones Pit	20%	14%	-6%
Hilton Spill	21%	18%	-3%
NSID Reservoir	19%	18%	-1%
Ward Pit	19%	22%	3%



Managed Recharge Area Response Times

Site	50% Response Time
Jensen's Grove	5 m
Hilton Spill	12 m
Jones Pit	13 m
NSID Reservoir	18 m
Ward Pit	2 y
Egin Lakes	4 y
Lower Valley Sites	> 5 y



Finding a Potential “Large” Recharge Facility

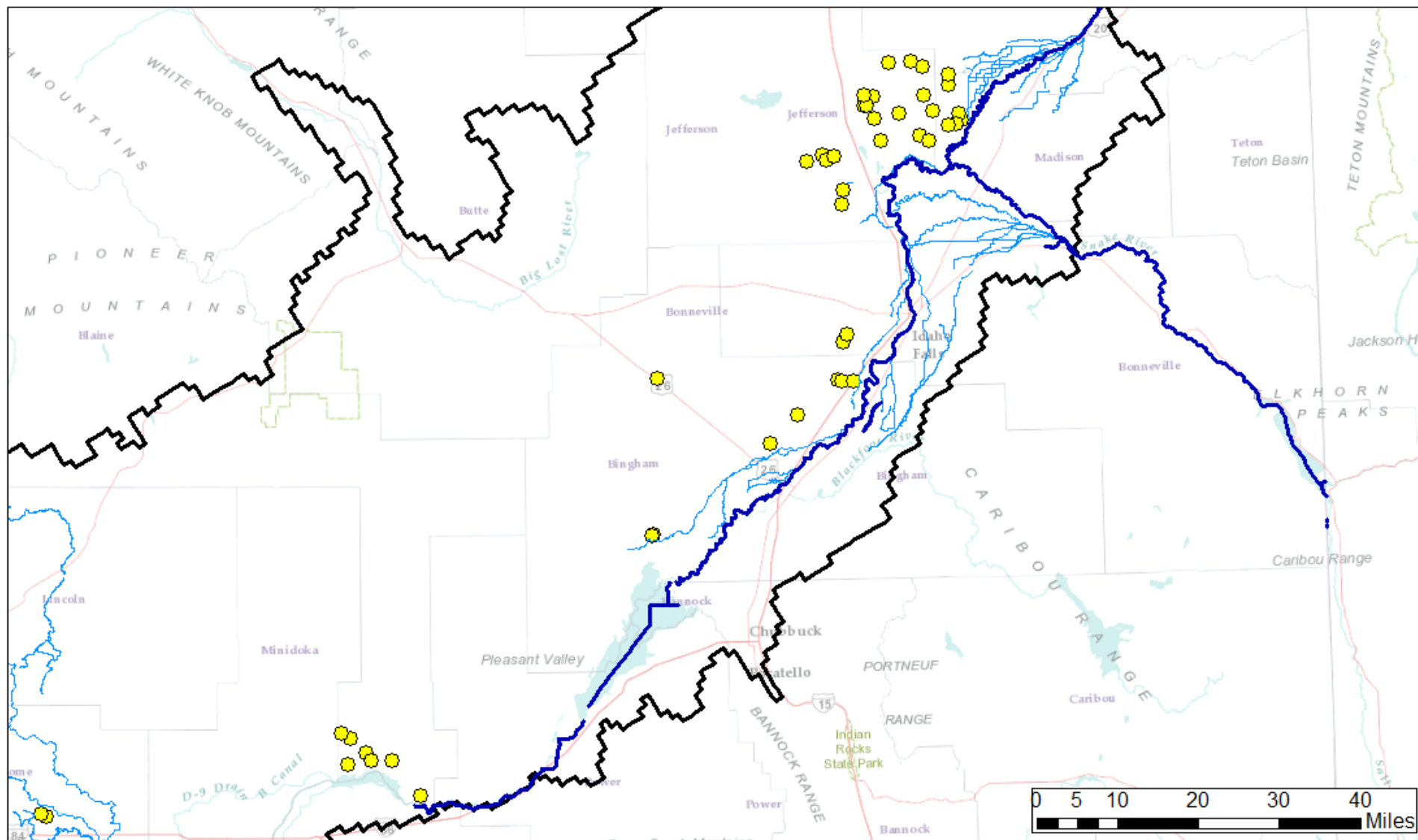
Large Recharge Facility - greater than 100 cfs

Search Criteria:

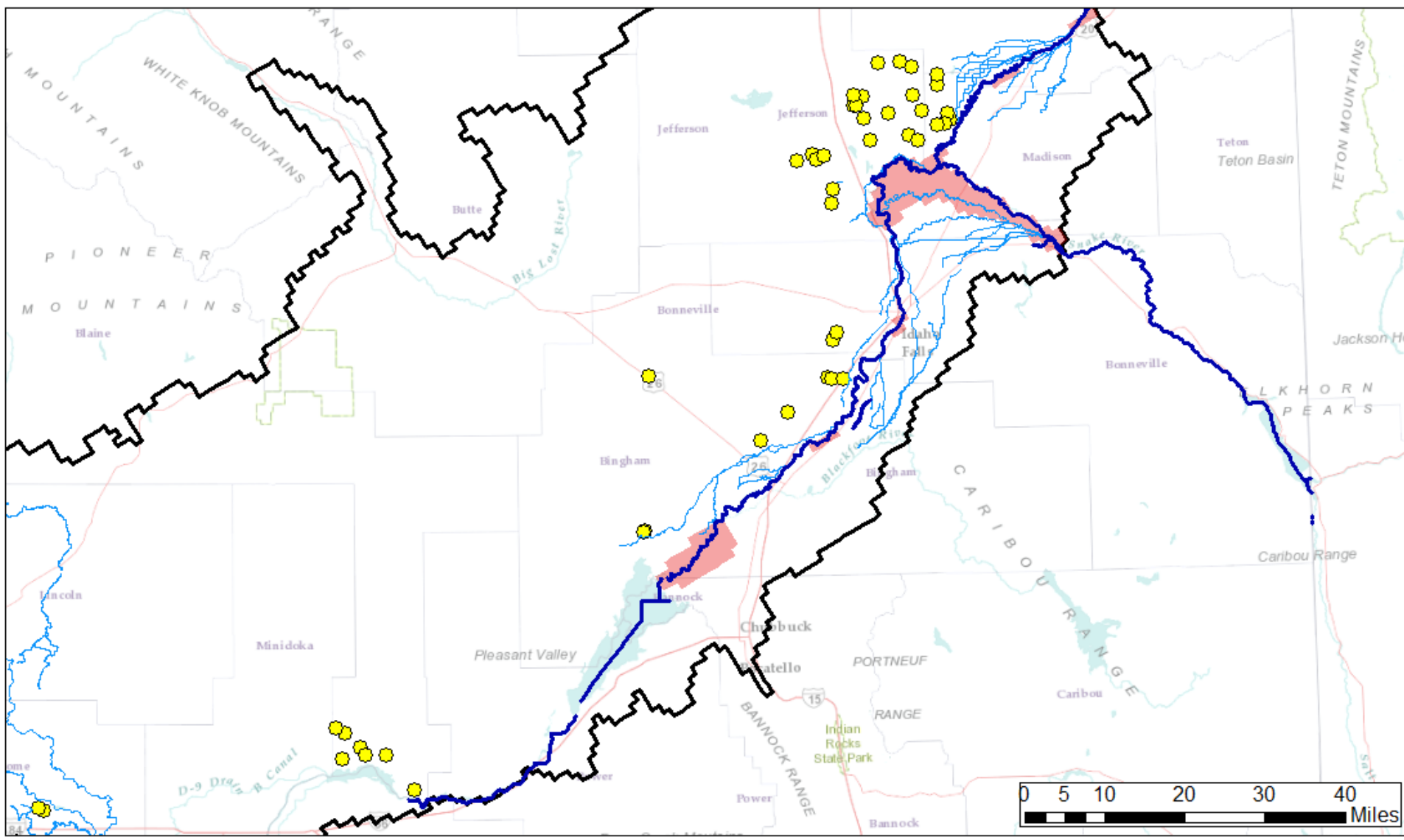


- Natural Basin
- Retention > 15%
- Depth to Water > 50'
- Land Not in Use – Ag or Municipal
- Not Restricted Access

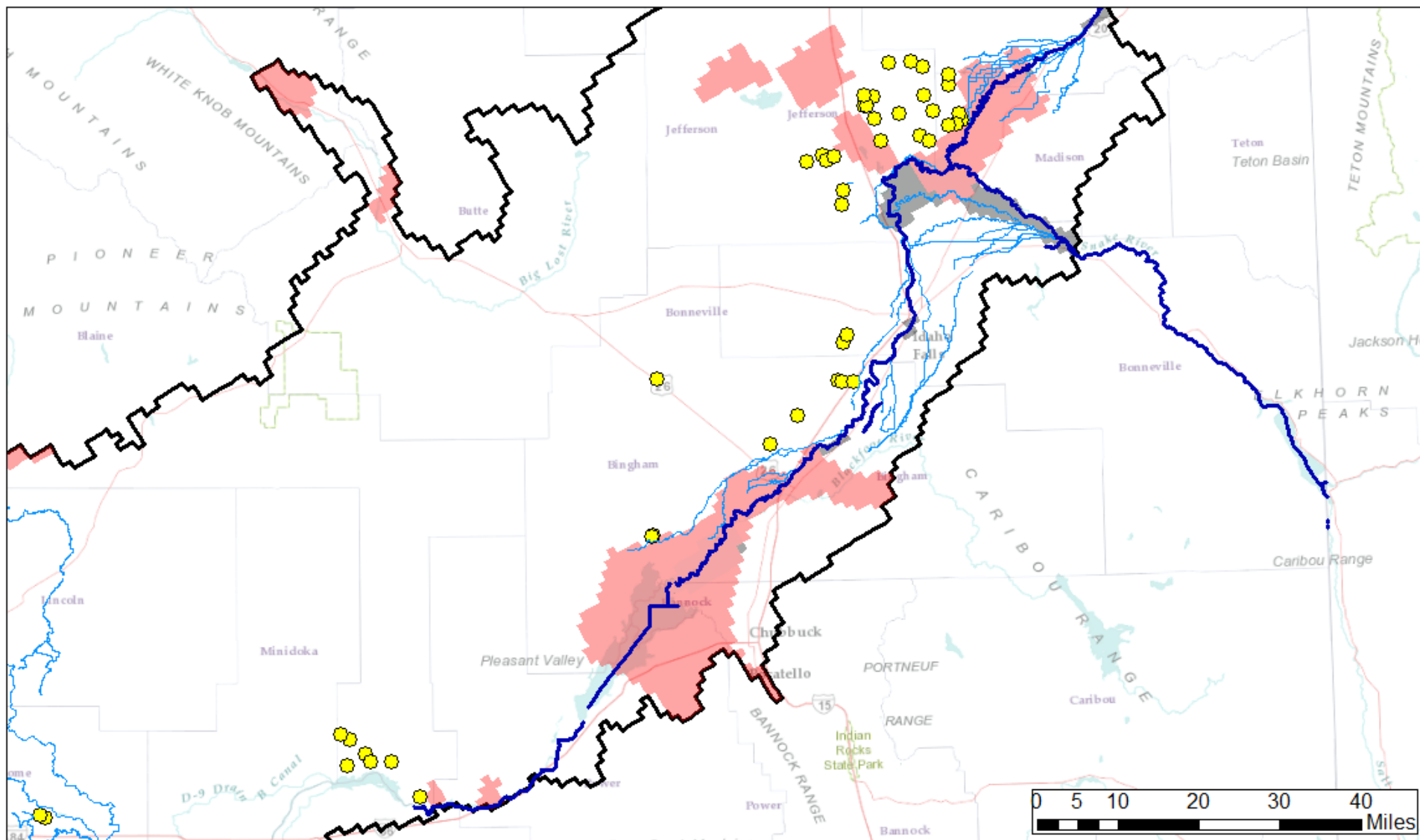
Potential “Large” Recharge Facility - Basins



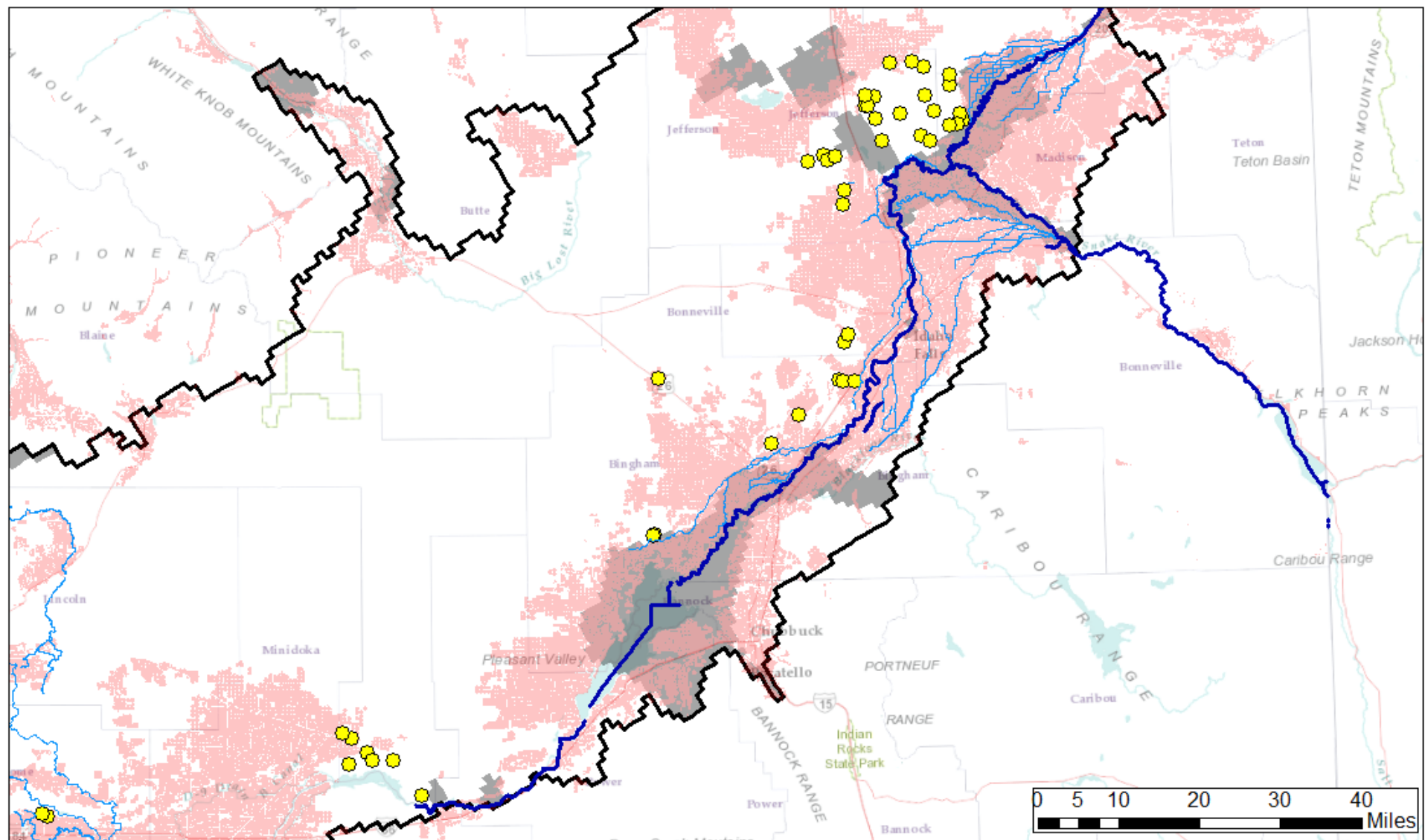
Five-year Retention > 15%



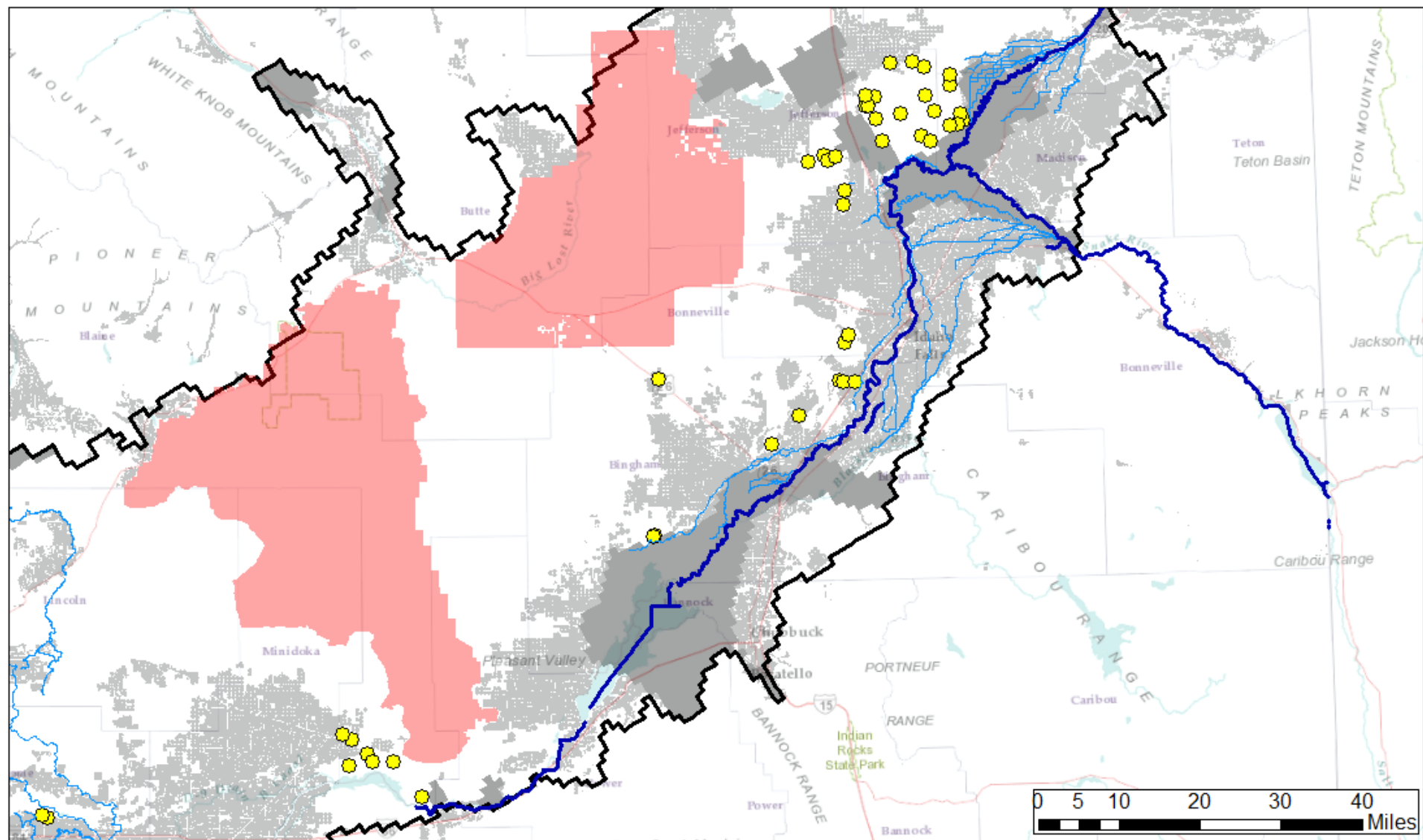
Depth to Water > 50'



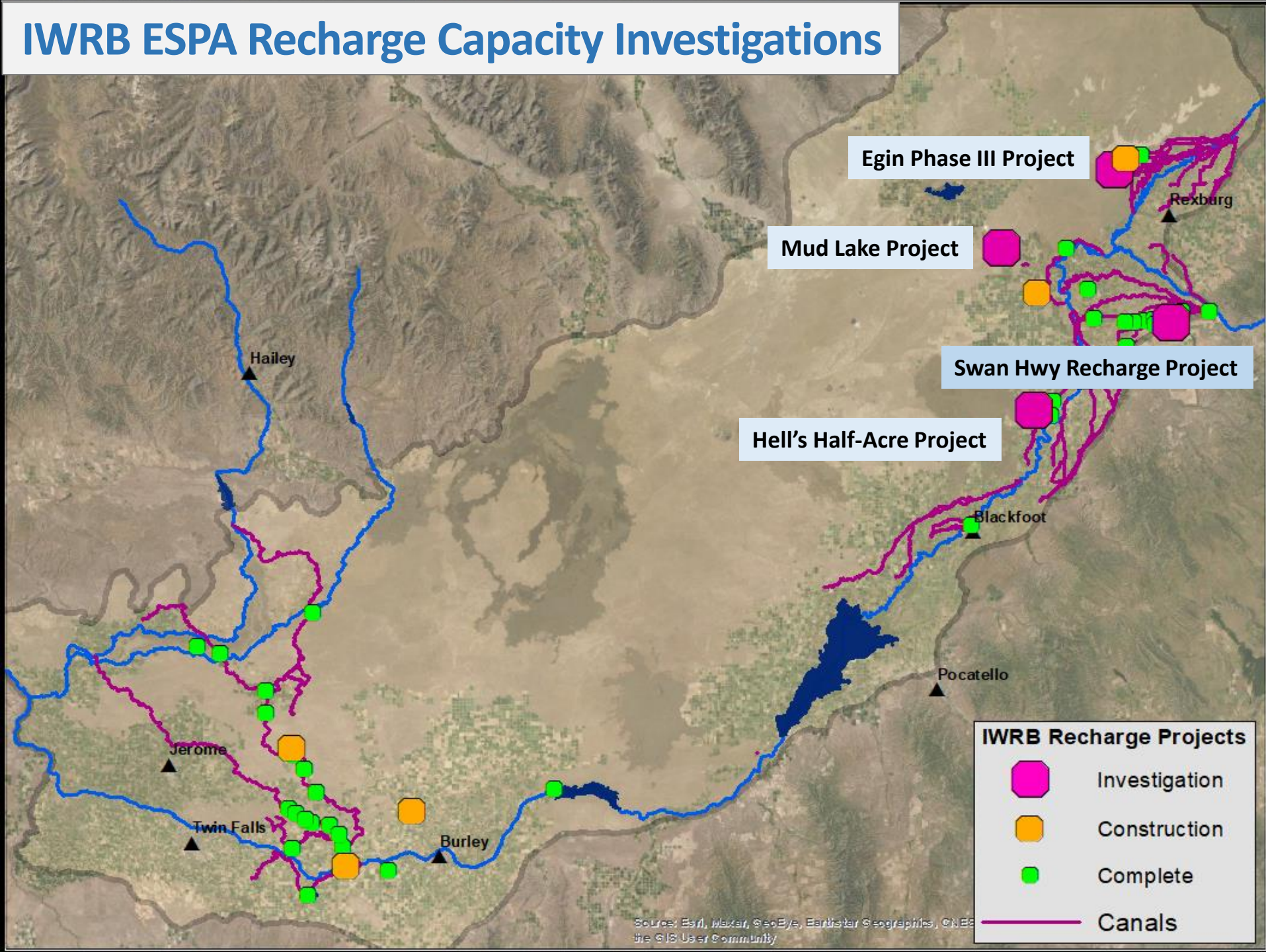
Land Use - Agricultural



Land Use – Restricted Access



IWRB ESPA Recharge Capacity Investigations



Egin Lake Recharge Projects

Egin Phase I & II

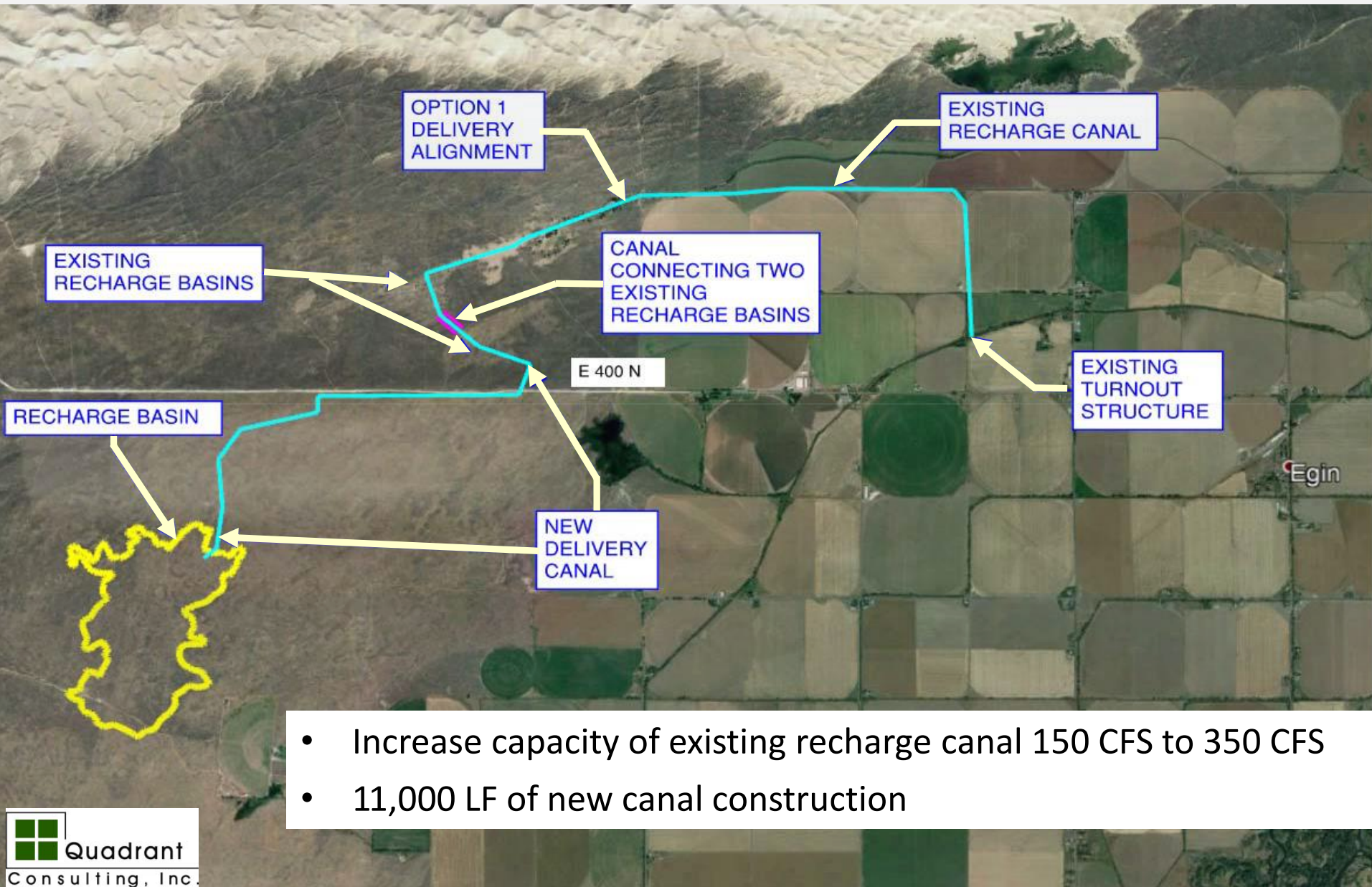
303 acres
~150 cfs

Egin Phase III

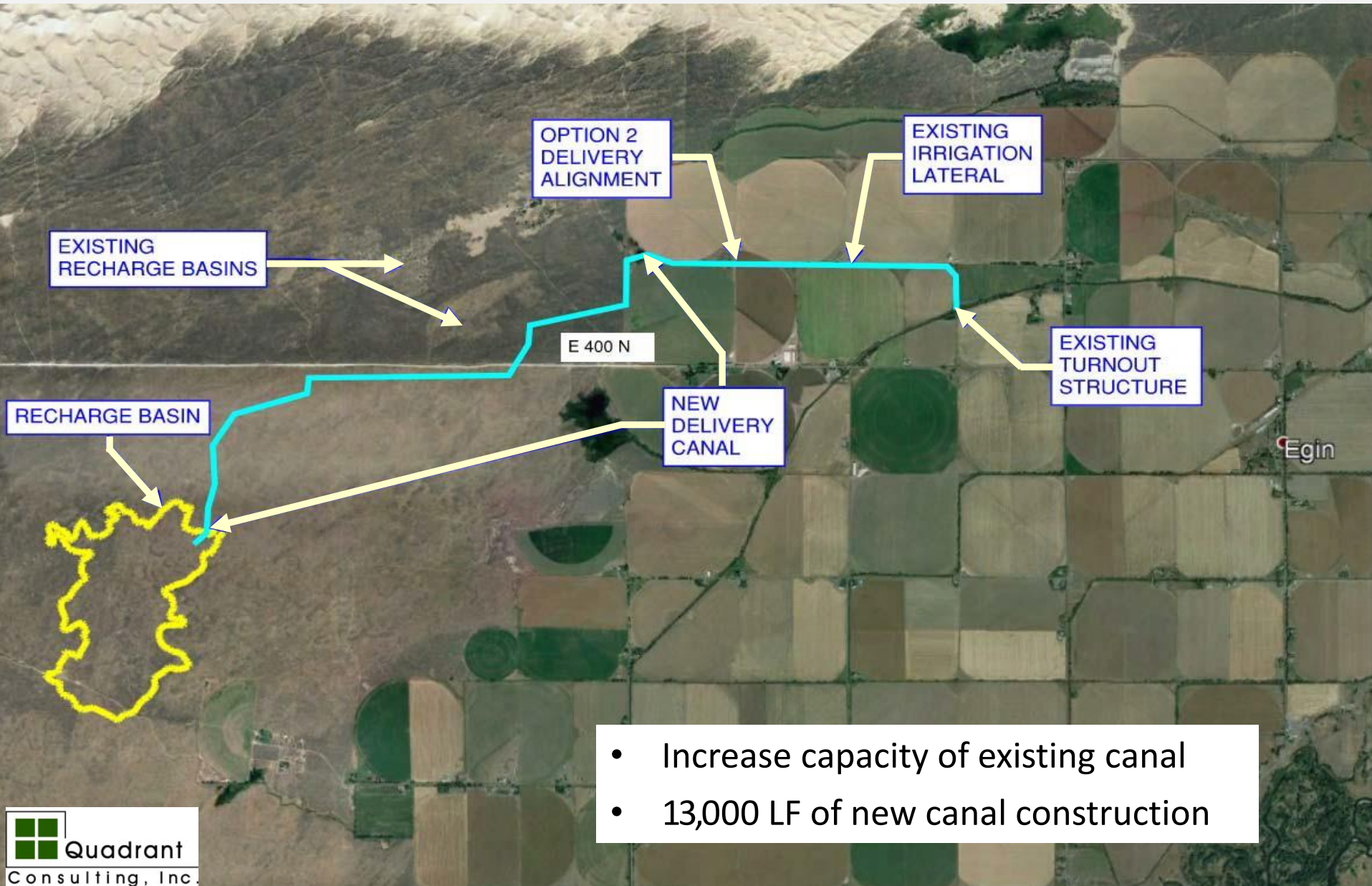
291 acres
150-250 cfs

Henrys
Fork

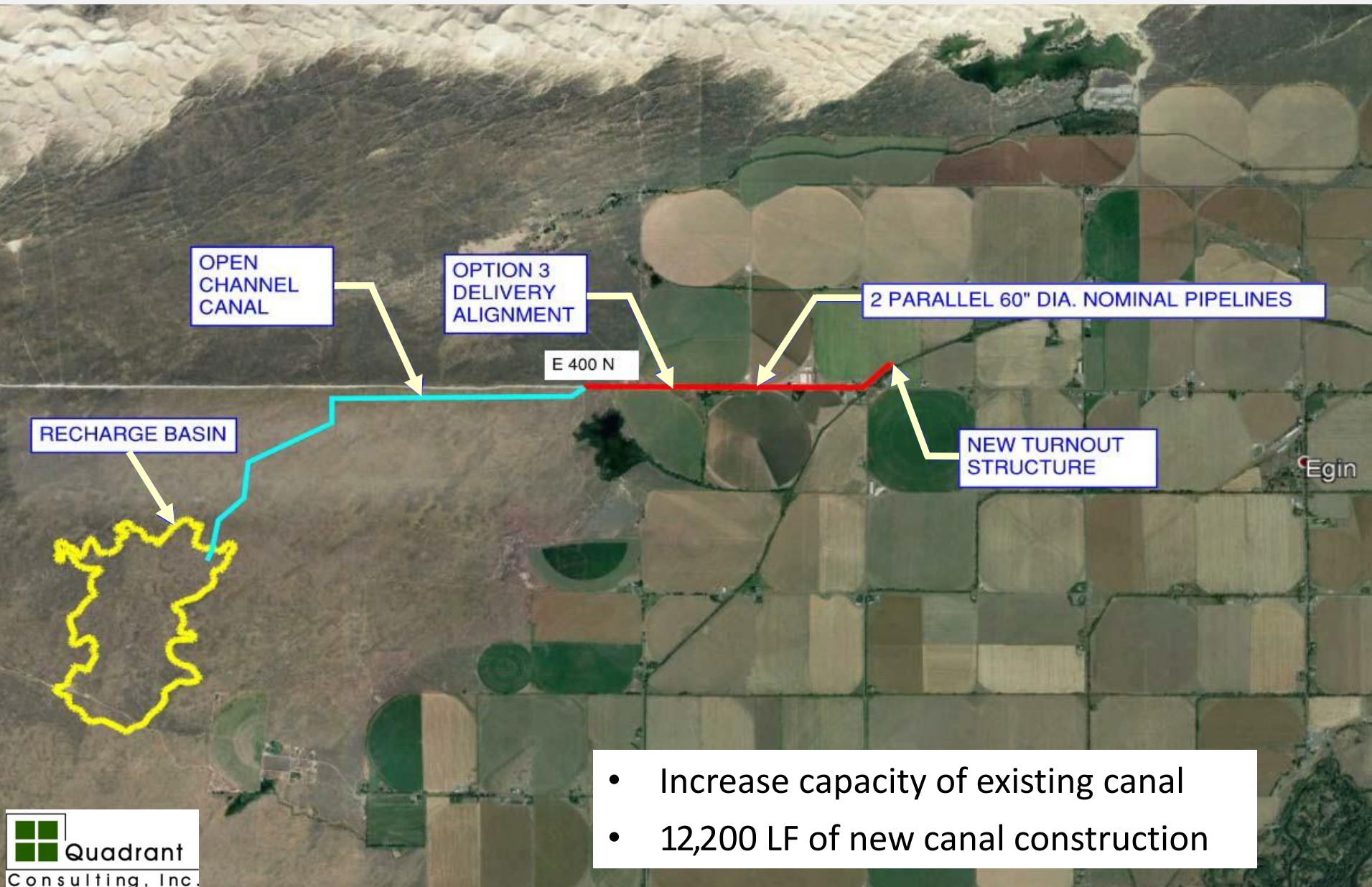
Egin Lakes – Option 1 Delivery Alignment



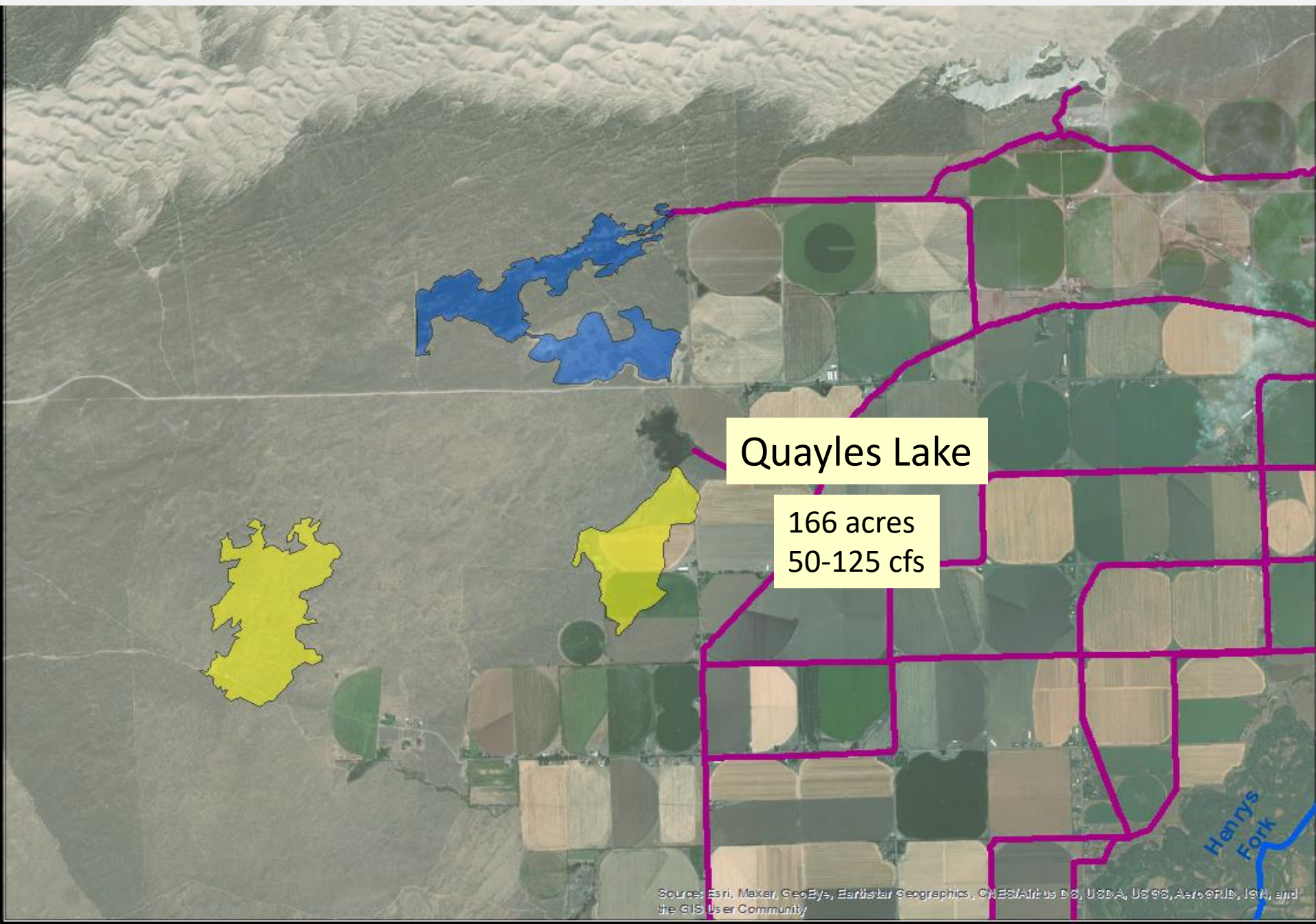
Egin Lakes – Option 2 Delivery Alignment



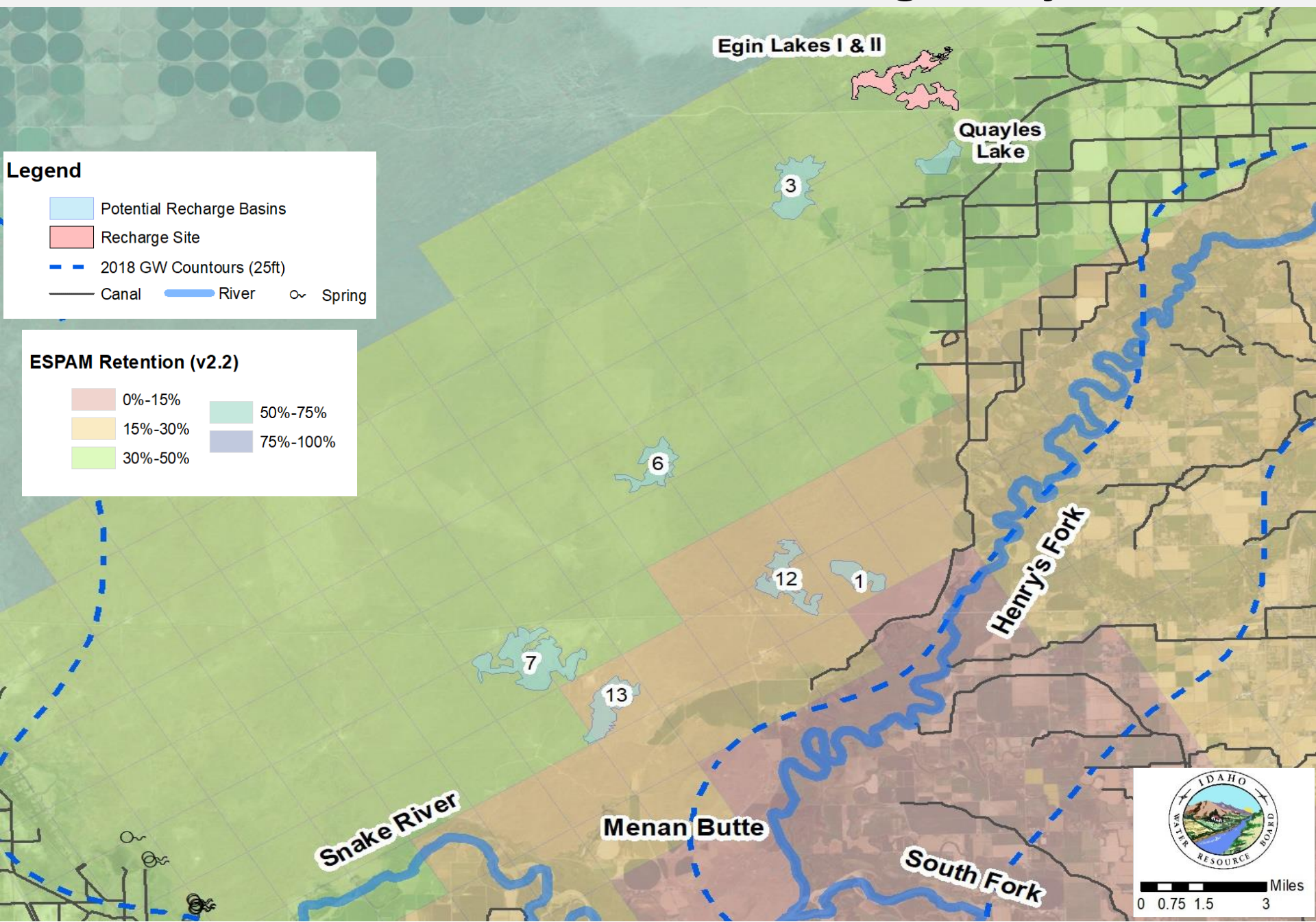
Egin Lakes – Option 3 Delivery Alignment



Egin Lake Recharge Projects



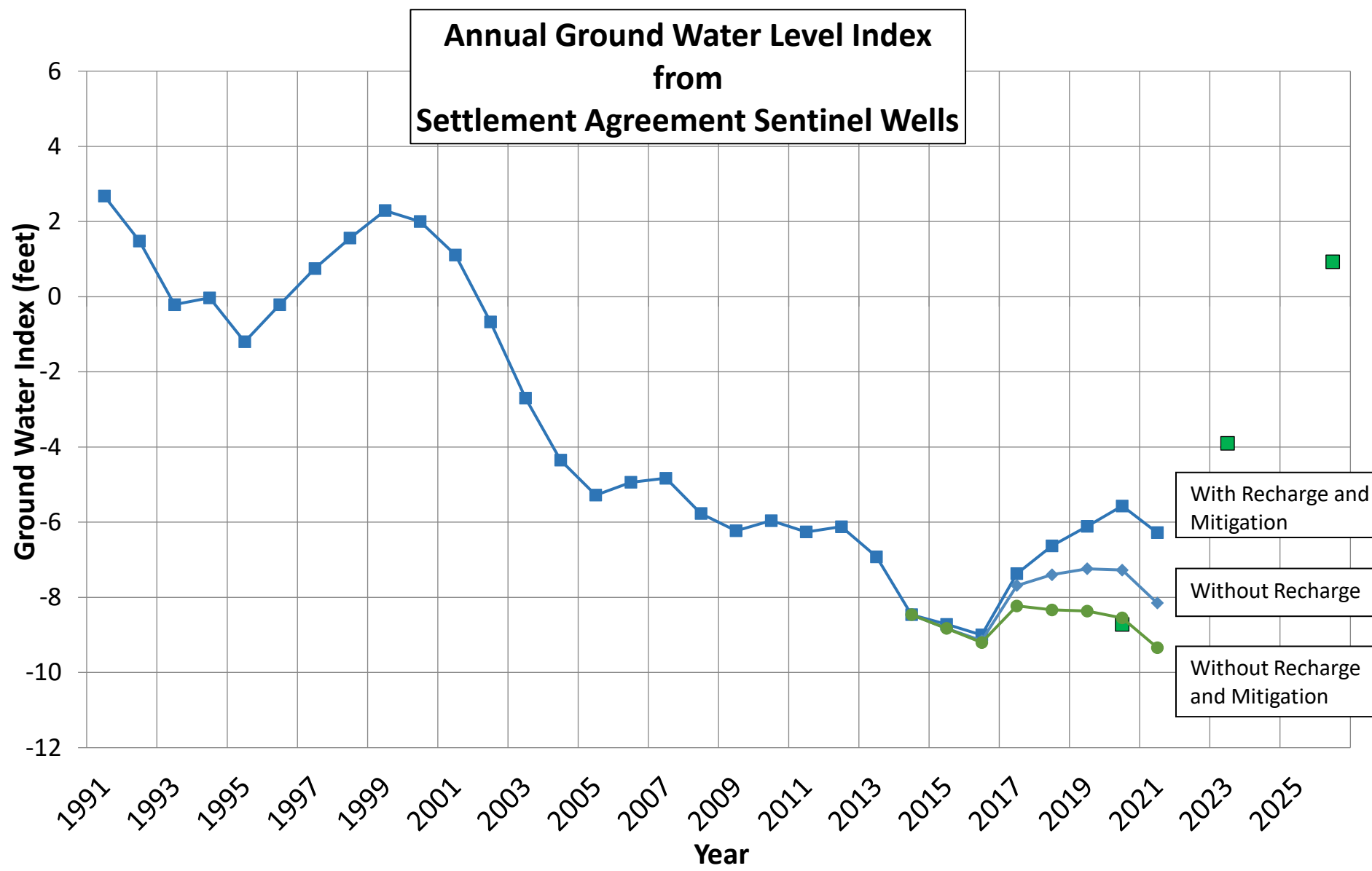
Menan Butte Potential Recharge Projects



Questions



A combination of wet years and changes in aquifer management have resulted in an increased sentinel index



Project Summary & HIGH Level Cost Estimate

Priority	Potential Managed Recharge Projects	Estimated Length (miles)	Conveyance System	Estimated Recharge Capacity (cfs)	Total Project Cost
1	Snake to Mud Lake Area	18	Pump / Gravity	250 - 500	\$36M - \$60M
2	Egin Lakes Phase III	2	Gravity	150 - 250	\$12M - \$20M
3	Hell's Half Acre	2	Pump	150 - 250	\$30M - \$50M
4	Aberdeen-Springfield Area	1	Pump	100 - 150	\$22M - \$36M