

SEPT. 2026

SCIENCE TO
POLICY SUMMIT

*Irrigation Modernization At Speed &
Scale: A Farmer-First First Model that
Solves Western Water Challenges*



MULTIPLE PROBLEMS CAN BE SOLVED BY A SINGLE PRACTICE CHANGE

Flood
irrigation
= excess
runoff



*Business as
usual leads
to...*

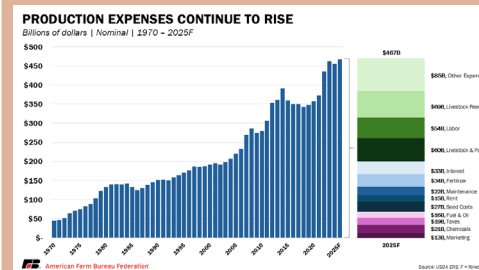
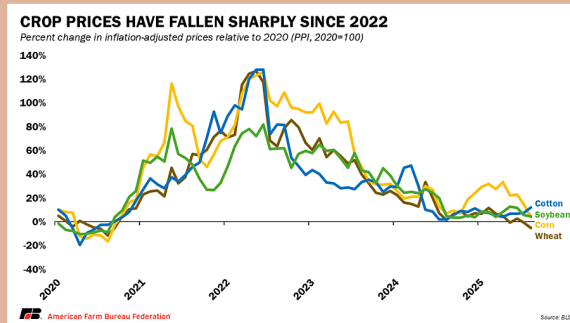


Harmful algal blooms
+ methylmercury

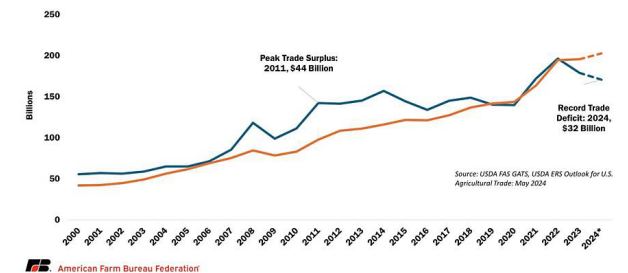


Dried up
farms

Farmers
stuck: prices
down + costs
up + labor
shortages



U.S. Agricultural Trade: Exports and Imports (Fiscal Year)



Growing
water
scarcity



*Irrigation
modernization
enables...*

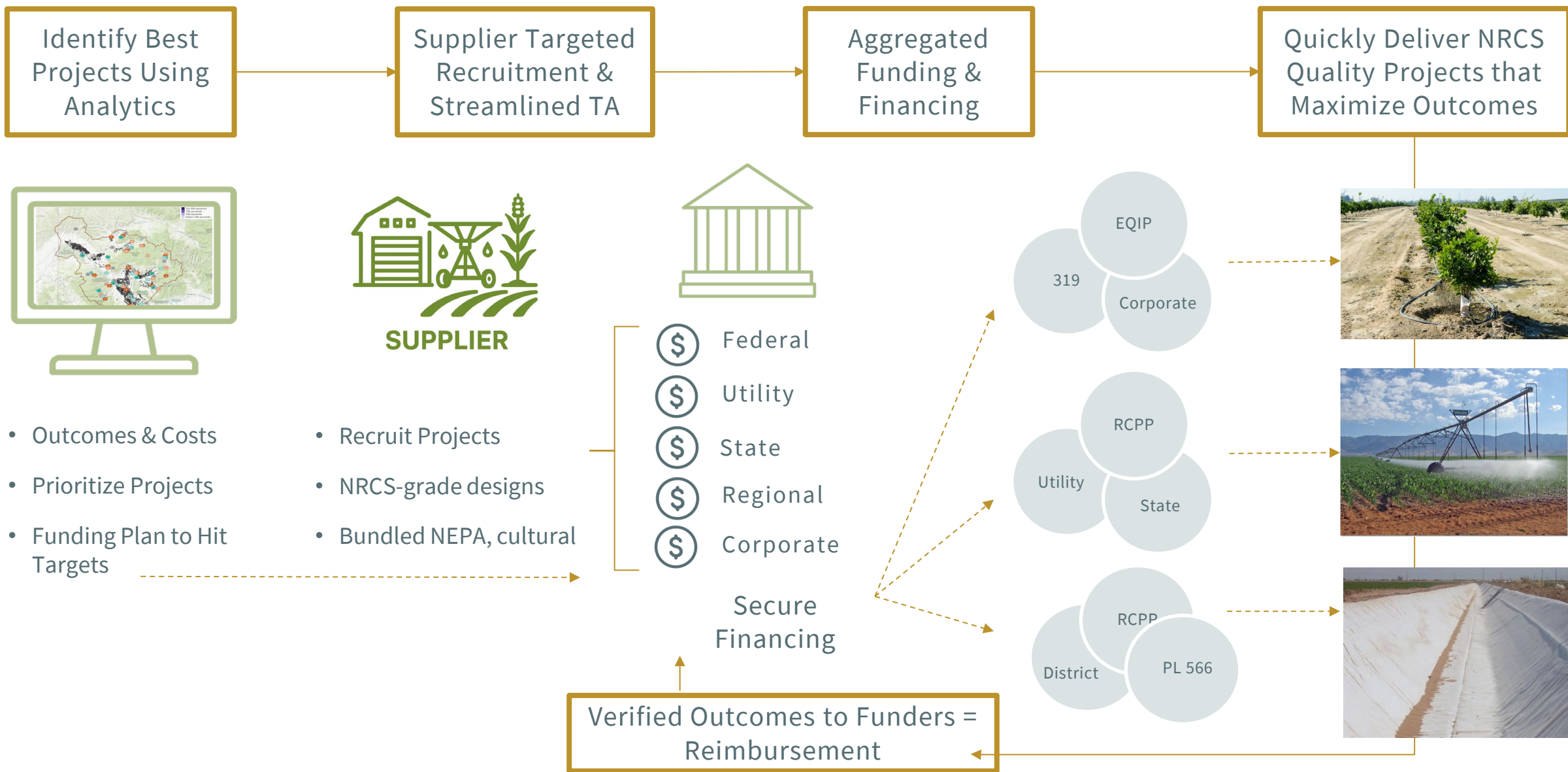


More efficient water use,
more storage, reduced runoff,
& resilient ag. operations

BUT IT ISN'T HAPPENING AT SPEED & SCALE BECAUSE THE
CONSERVATION SYSTEM DOESN'T WORK FOR FARMERS



EPA TRL GRANT: BUILT & LAUNCHED A REGIONAL FUNDING & DELIVERY MODEL TO SOLVE THESE PROBLEMS



SNAKE RIVER: SUCCESSFUL PROOF OF CONCEPT



TFT BasinScout® Analytics identify the solution

445,000 lbs

Phosphorus reduction target

2,000 of 36,000

Of “best” projects could hit target

\$200M

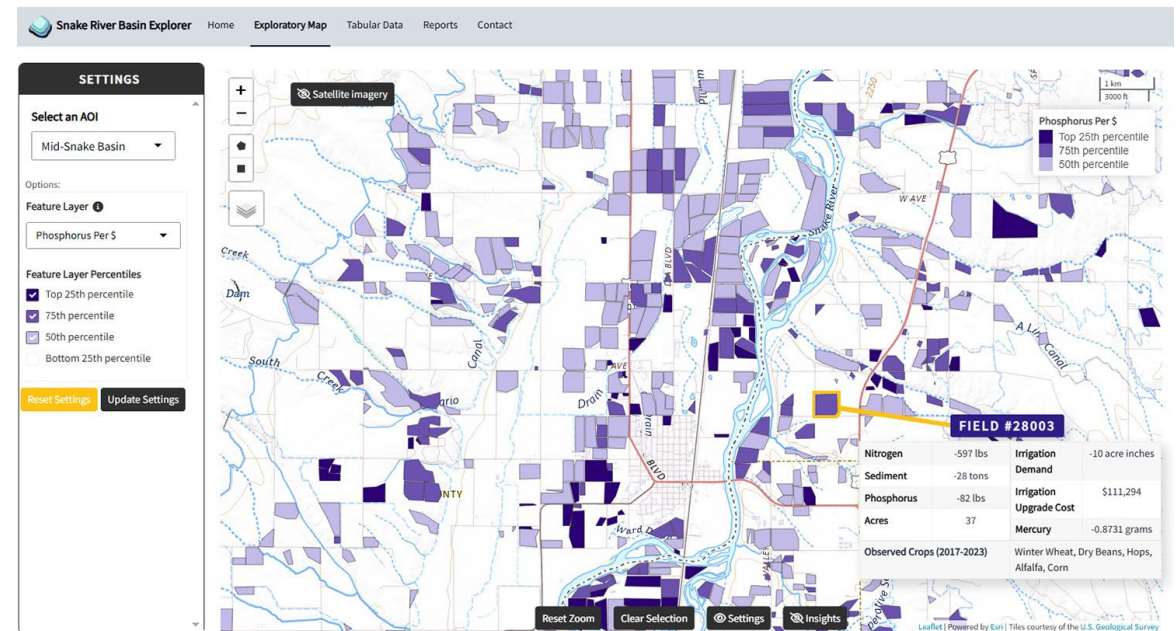
Cost of efficient program

\$450/lb

The price we pay farmers

Leveraging the supply chain to unlock speed & scale

- Contracts with all 6 regional equipment suppliers to recruit, design, implement high impact projects
- All projects managed via TFT’s integrated [prioritization and project mgmt. tools](#)
- TFT + partners (suppliers, TSPs & archaeology) complete accelerated NRCS-grade technical assistance
- Able to complete full project cycles in ~1 year without compromising on quality



SNAKE RIVER: FUNDING & FINANCE MODEL



FUNDING SOURCES



~\$100M to buy
P reductions



\$5.6M award



\$1-2M/yr in
EQIP funds



\$300-500k/yr in
319/WQPA funds



25-50%
cost share

FINANCING SOURCES



\$5M
2-year Line of
Credit (~6%)



Loan
Guarantee



50% of \$/lb payment
made upfront

SNAKE RIVER: RESULTS SO FAR + NEXT STEPS



Early Results Show the Model Works:

- On track to implement 52 projects in just 2 years
- \$17M in total projects (\$3.6M EPA matched to \$3.5M IPC + \$3.1M EQIP + \$430K 319/ID WQPA)
- 20,000 lbs phosphorus runoff avoided
- 100+ queue of vetted projects
- Quantifying runoff reductions + \$1.8M EPA MeHg trends monitoring grant + IPC river/reservoir/fish tissue sampling

Now It's Time to Scale Up Over the Next 5 Years:

- Submitted \$26M in RCPP applications for Snake, matched with \$20M in commitments from IPC → 100s of new projects would remove an additional ~75,000 lbs of phosphorus runoff
- Working with OR NRCS to add a new NWQI priority area
- Now replicating the model in other key western watersheds (Upper Colorado, Lower Rio Grande, Sacramento/SF Bay)

UPPER COLORADO RIVER: REPLICATING WITH UVWUA

We don't need \$Bs to upgrade the whole system:

6% $\Rightarrow$ 50%

Line 6% of canals to save 50% seepage

2x

Reduced irrigation demand - top 25% fields v. bottom

We need an integrated, data-driven project:

\$185M

40 miles canal lining + 6000-acre on-farm upgrades
+ 5-year voluntary conservation program

The highest impact, most cost-effective projects deliver:

100,000 AF

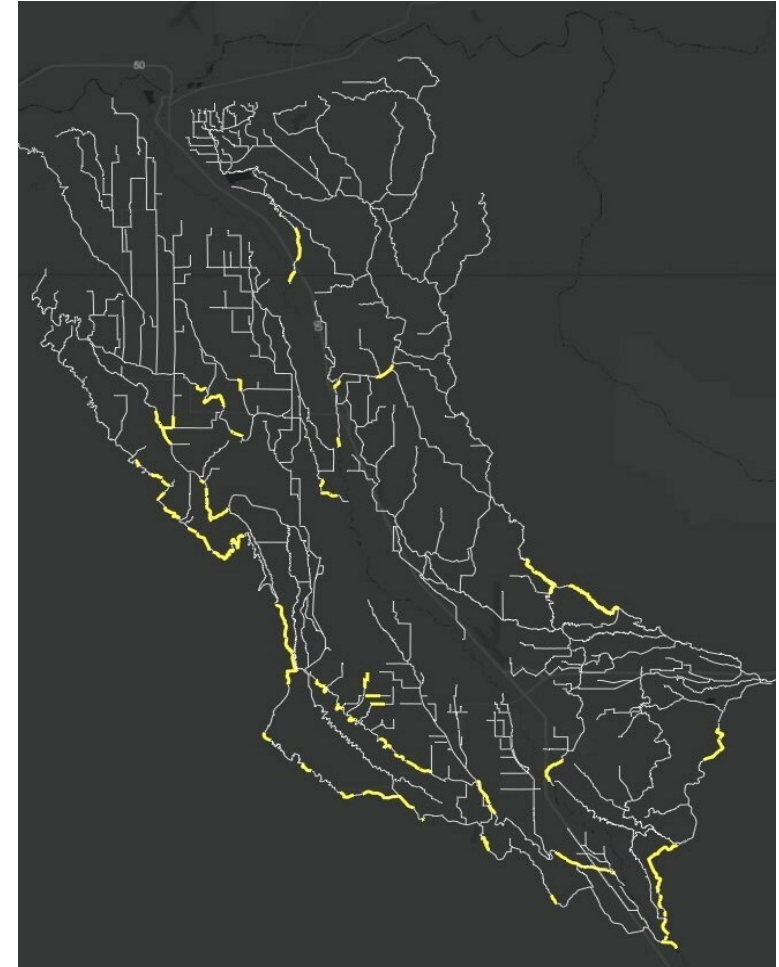
Consumptive water savings (over 5 yrs)

600,000 AF

Efficiency savings over 20 years: 400 KAF
canal lining + 200 KAF on-farm

New banking
options

Bank savings upstream into Blue Mesa to overcome
dead pool/dewatering risks + support Lake Powell



Actively seeking funding: \$57M request to BOR, \$7.4M RCPP submitted, pursuing UCRC \$ for CCU



SETTINGS

Historic Baseline

Historic Baseline

Infrastructure

Conservation

Canal/Lateral

All

All

Water Rights

Shareholder, Carriage Contract

Delivery

☒ Prioritization: On

Rankings

☒ Top 25th percentile

☒ 75th percentile

☒ 50th percentile

☒ Bottom 25th percentile

Metric

Infiltration (af)

On-Farm

Update

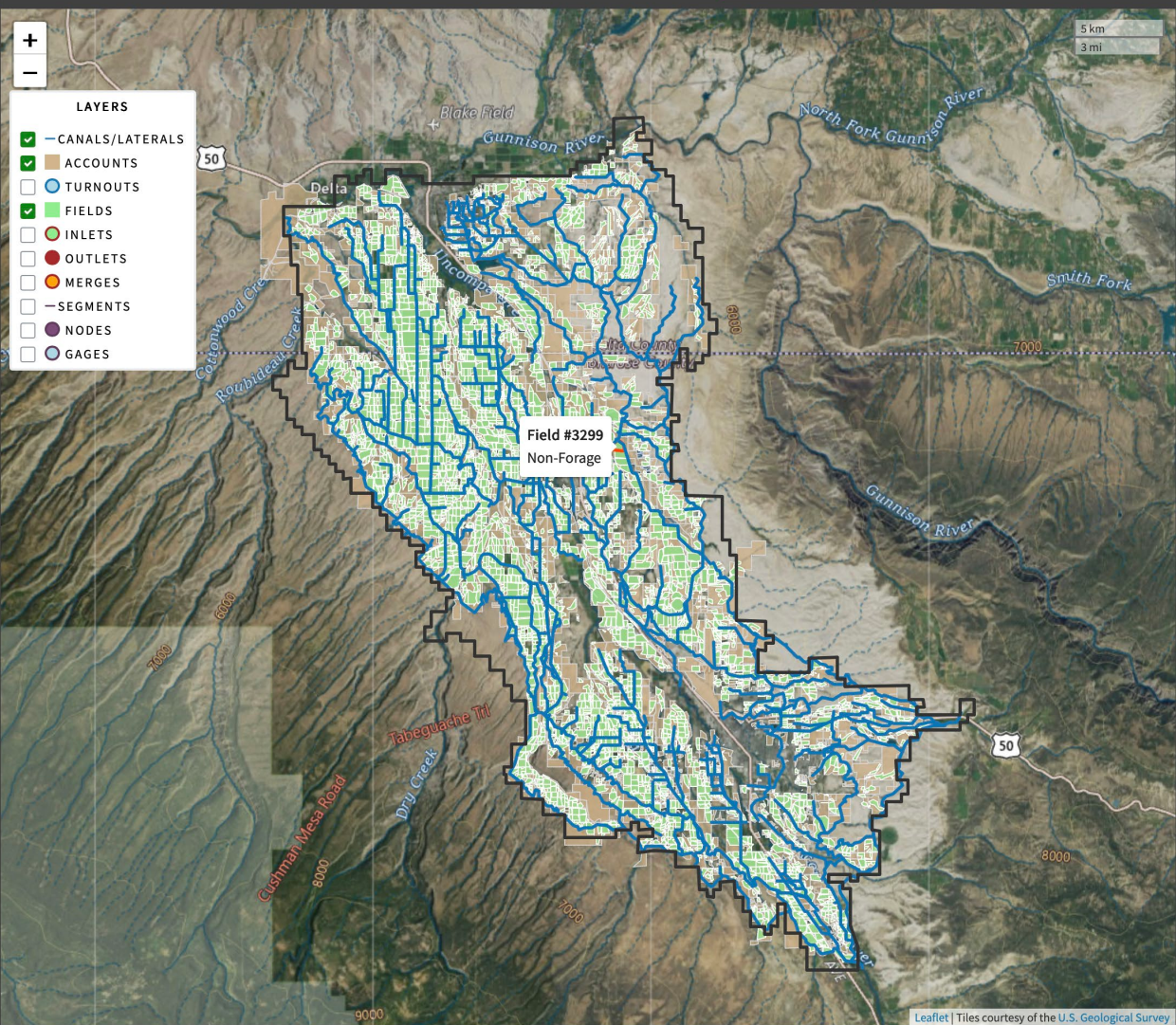
Reset

☒ Map & Insights

Satellite

Find Account:

Saved Settings



SETTINGS

INSIGHTS

INSIGHTS

HISTORIC BASELINE: 7275

Summary

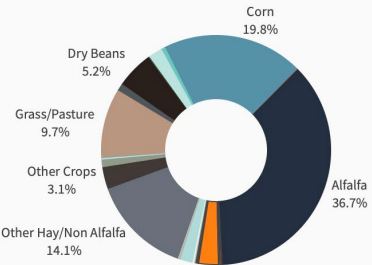
Details

Delivery	All	Irr. Dem.	240k acft
System Dem.	423k acft	Irr. Eff.	57.2%
→ Obligated	376k acft	CU	134k acft
→ Tr. Loss	47k acft	N. Load	1582k lbs
Accounts	1936	Se. Load	235k lbs
Fields	4475	P. Load	336k lbs
Irr. Area	70k ac	Sed. Load	282k tons
		Sal. Load	36k tons
		Runoff	91k acft

Tables & Figures

Land Use: Latest Crop

☒ Pie ☐ Table



LOWER RIO GRANDE: REPLICATION WITH DISTRICTS & FUNDERS



TFT BasinScout® Analytics identify the solution

Huge system

3300 miles of conveyance infrastructure; 440 miles unlined earthen canals

171,500 AF/yr

Seepage loss via unlined canals

\$3,800/AF

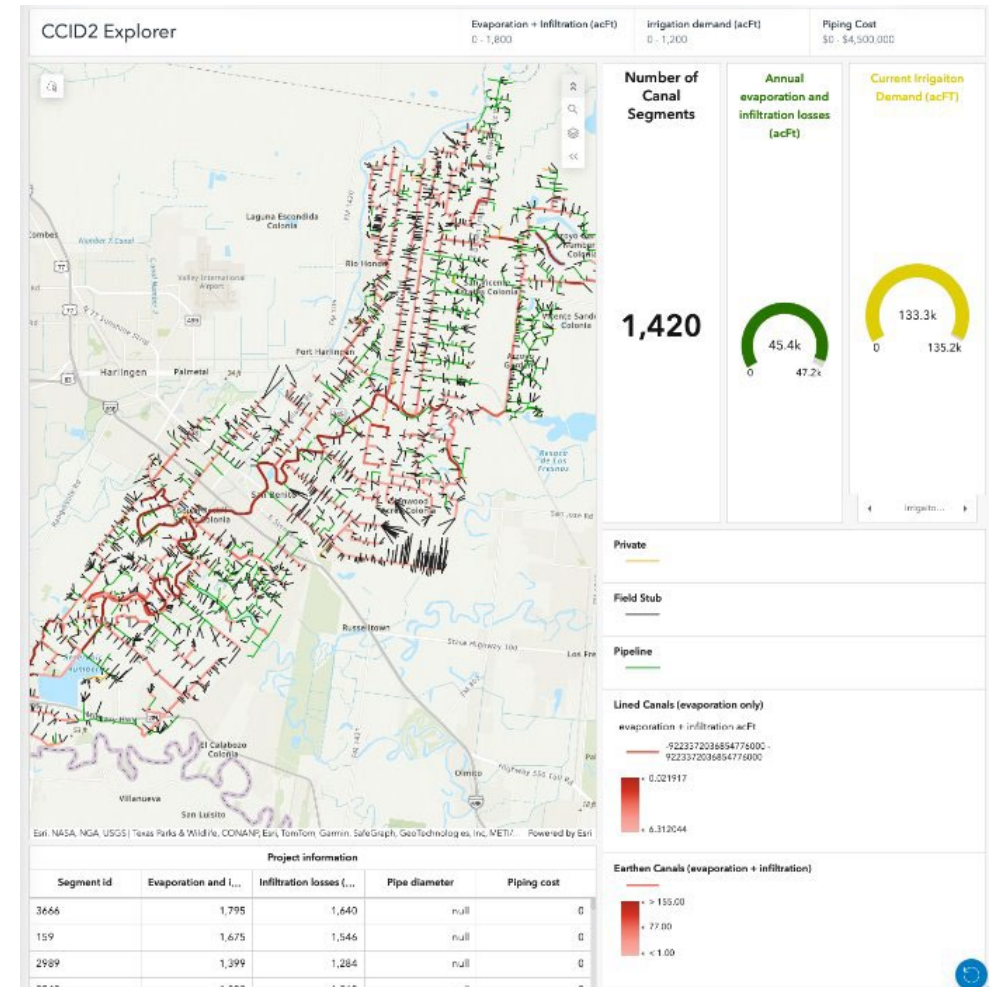
Cost per AF of most efficient initial projects

\$13,000/AF

Cost per AF of least efficient initial projects

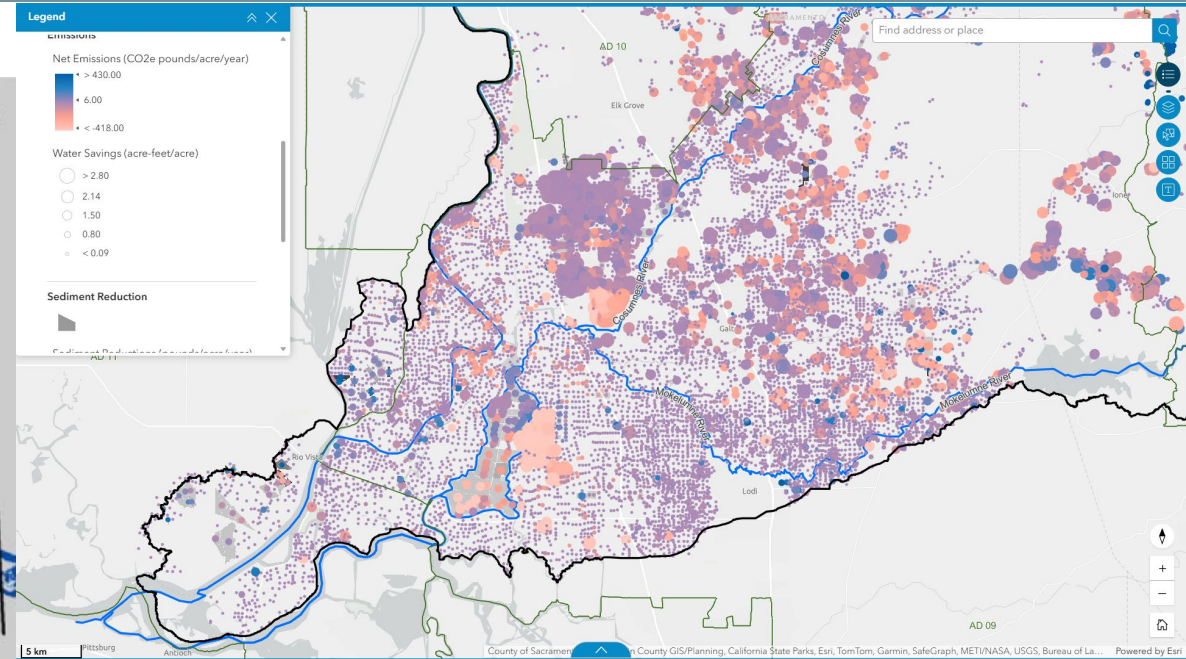
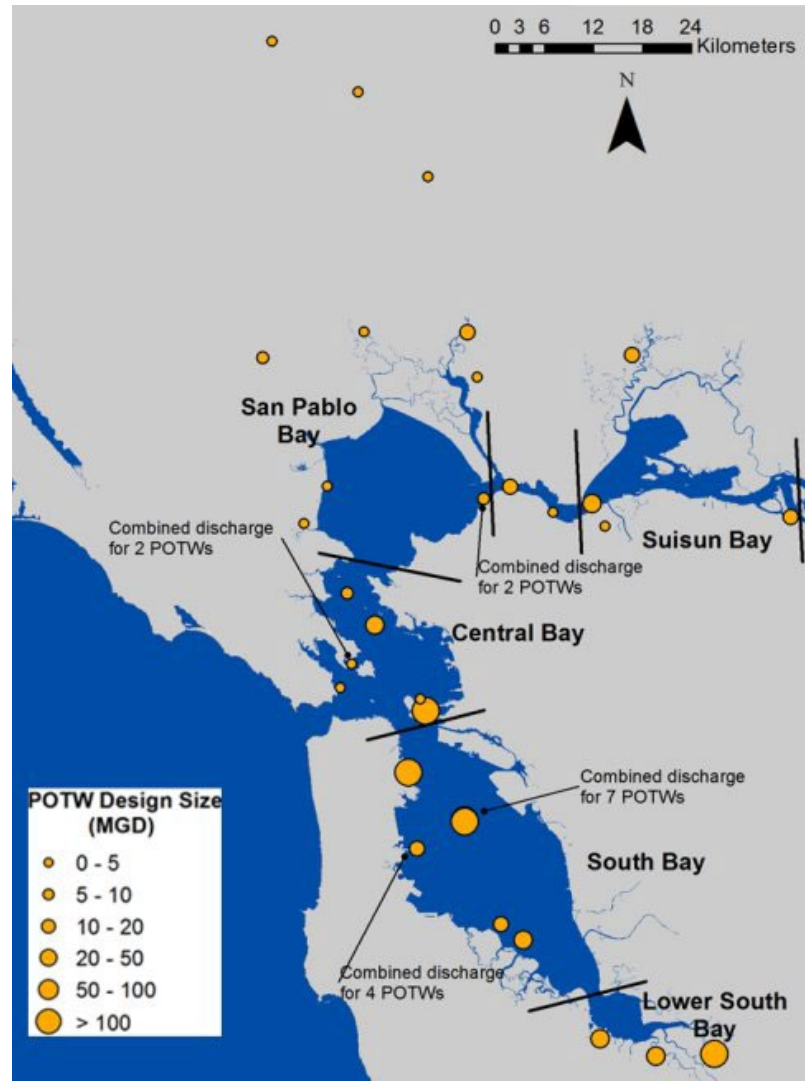
Building out the Pieces to Launch

- Supporting NADBank in prioritizing investment from their \$400M WRF
- Helping USDA, NADBank, and TX integrate funding to maximize results
- Building prioritization tool for each of the 23 water delivery districts



SACRAMENTO DELTA-SF BAY: REPLICATION WITH UTILITIES AND STATE

- SF Bay HABs → POTW nutrient permits to reduce 58K lbs/day TN
- TFT contracted by BACWA to design WQT program for 37 POTWs
- WQT converts price tag from \$11B to \$6-7B
- 30% of annual nutrient loading into Bay from upstream NPS
- Could further reduce price tag by upgrading priority Ag fields from flood to precision



- Estimated 1.8M lbs/day of upstream TN runoff gets to the end of drains
- If target top \$325M in irrigation upgrades:
 - Remove 1M lbs/day at end of drain
 - Reduce 117 KAF irrigation demand
 - Sequester 262K lbs/day of GHGs