

Demonstration Recharge Extraction
and Aquifer Management Project

DREAM Project

NSJWCD

Board Meeting

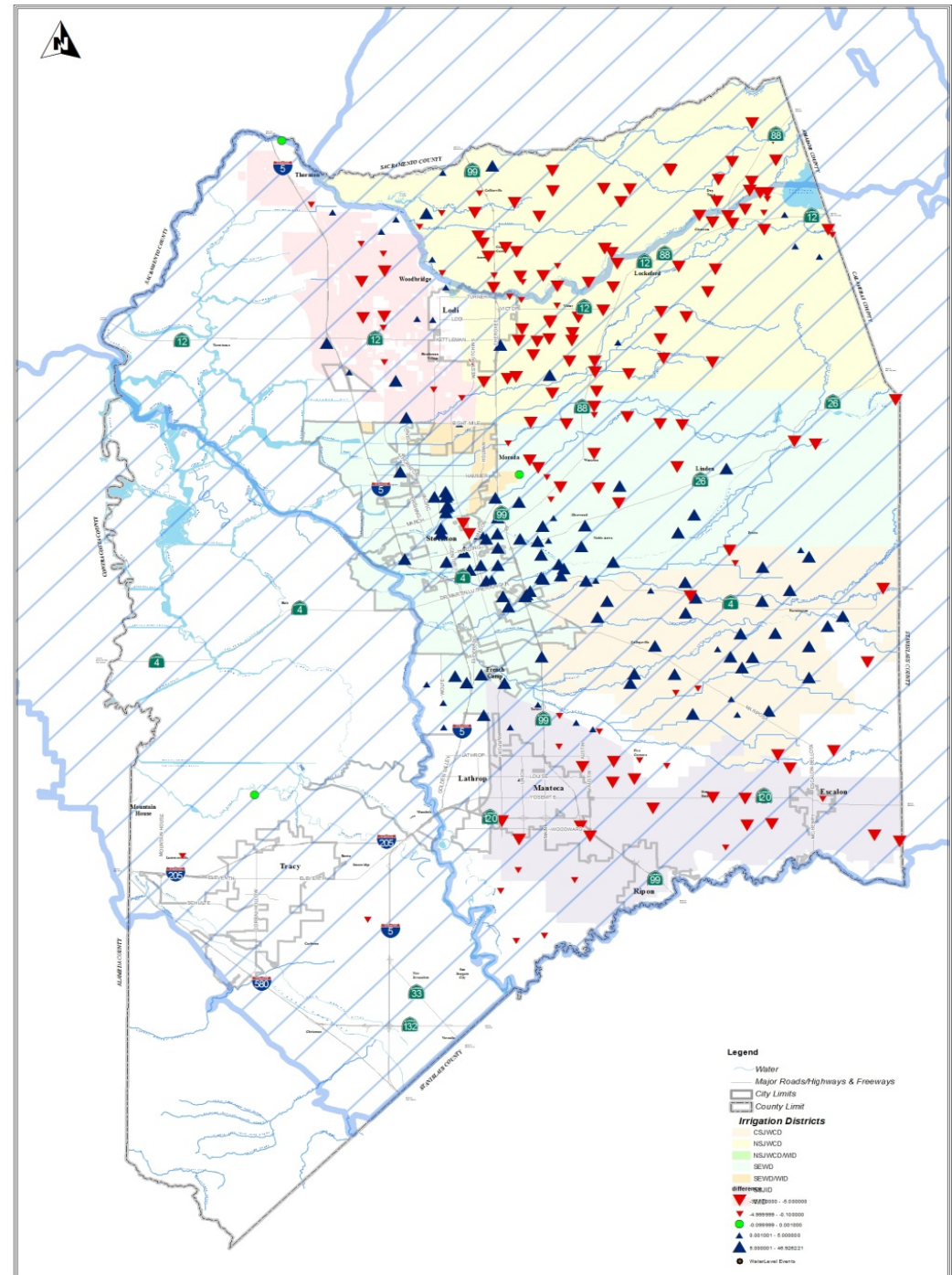
April 25, 2016

What is the **DREAM** Project?

- **One-time**, demonstration level
- Groundwater banking/extraction project
- Bank **EBMUD water** in NSJWCD Service Area
- EBMUD later extract and export part of banked water
- “**Two for one**” rule
- County issue one-time groundwater **export permit**

Why do banking projects?

- Need more water in basin – continuing overdraft
- Banking partners bring water and money for infrastructure
- Sustainable Groundwater Management Act
 - Requires Sustainability by 2040
 - State Intervention if no Local Management
 - Pumping restrictions looming if we fail to correct overdraft



The Math

- NSJWCD acreage = 150,000 acres
- Estimated annual overdraft in NSJWCD = 70,000 af+
- NSJWCD water right = 20,000 af
 - Only available in wet years
- NSJWCD does not have enough surface water available to it to address overdraft
- Options:
 - Reduce pumping
 - Bring in more surface water
 - Some of both

Whose Water is Involved?

- EBMUD will deliver EBMUD surface water to NSJWCD that would not otherwise come into our area.

How is it “Banked”?

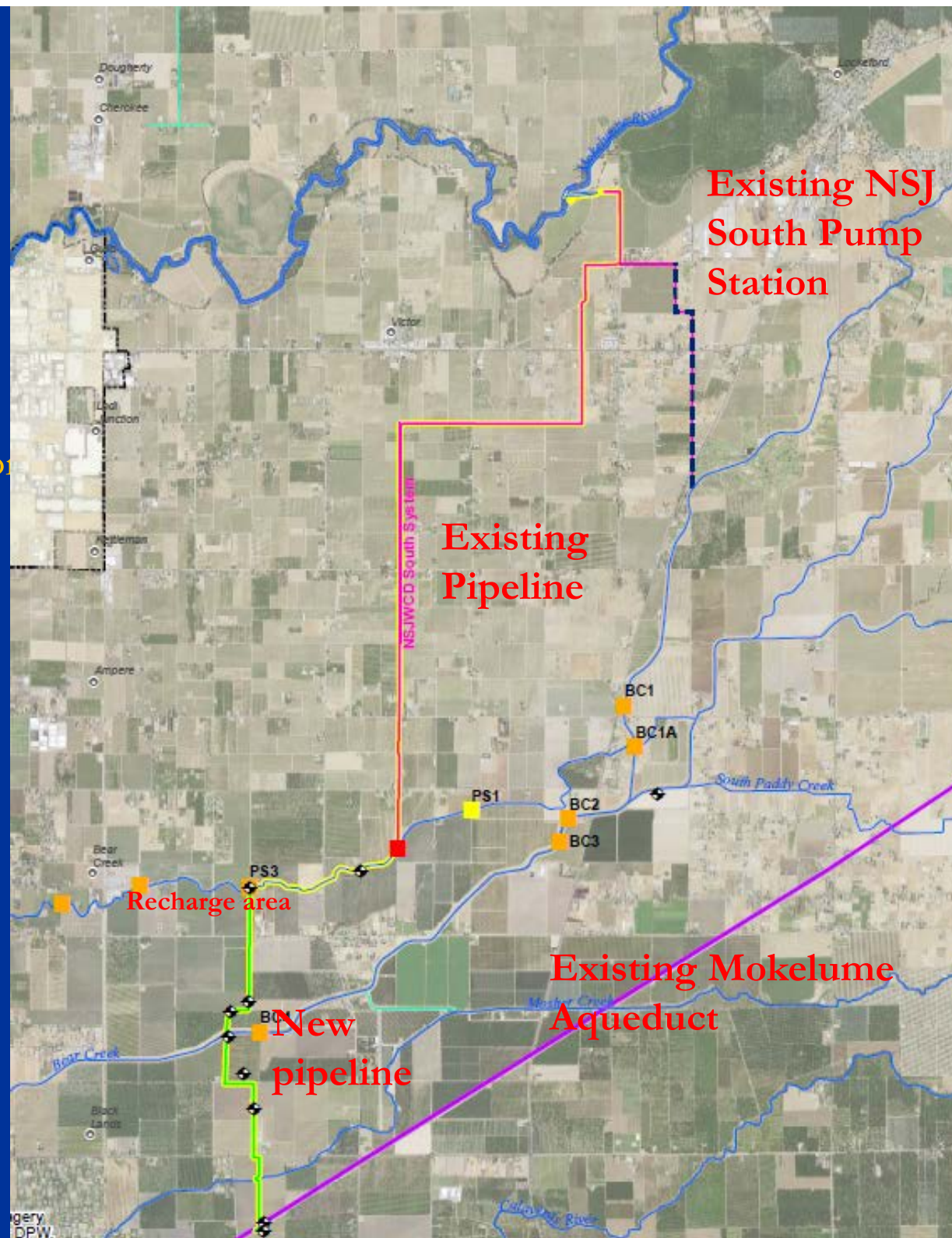
- NSJWCD delivers the EBMUD surface water to NSJWCD farmers who use it for irrigation instead of pumping groundwater
- Saved groundwater is a “credit” in the bank
- Called “in-lieu recharge”

Why Not Use Recharge Ponds?

- In-lieu recharge more efficient (no evaporation, seepage losses)
- Want to avoid taking land out of production
- Want to avoid spending money on facilities that are only used for banking.
- Prefer to build facilities that are dual use – can be used help farmers use more NSJ surface water for irrigation and can also be used for banking.

DREAM Project location

- Surface Water Delivery
 - Use NSJWCD Pump Station, pipeline, Pixley Slough
 - Convey Surface Water for Irrigation
- In-lieu recharge 1000 af
 - ~350 acres along Pixley Slough; ~1000 acre-feet
- Extract/export up to 500 af
 - 1 to 5 years after recharge
 - Use existing farm well/pump
 - Pump in winter months
 - Strict monitoring; no adverse impacts
- New 2.8 mile return pipeline

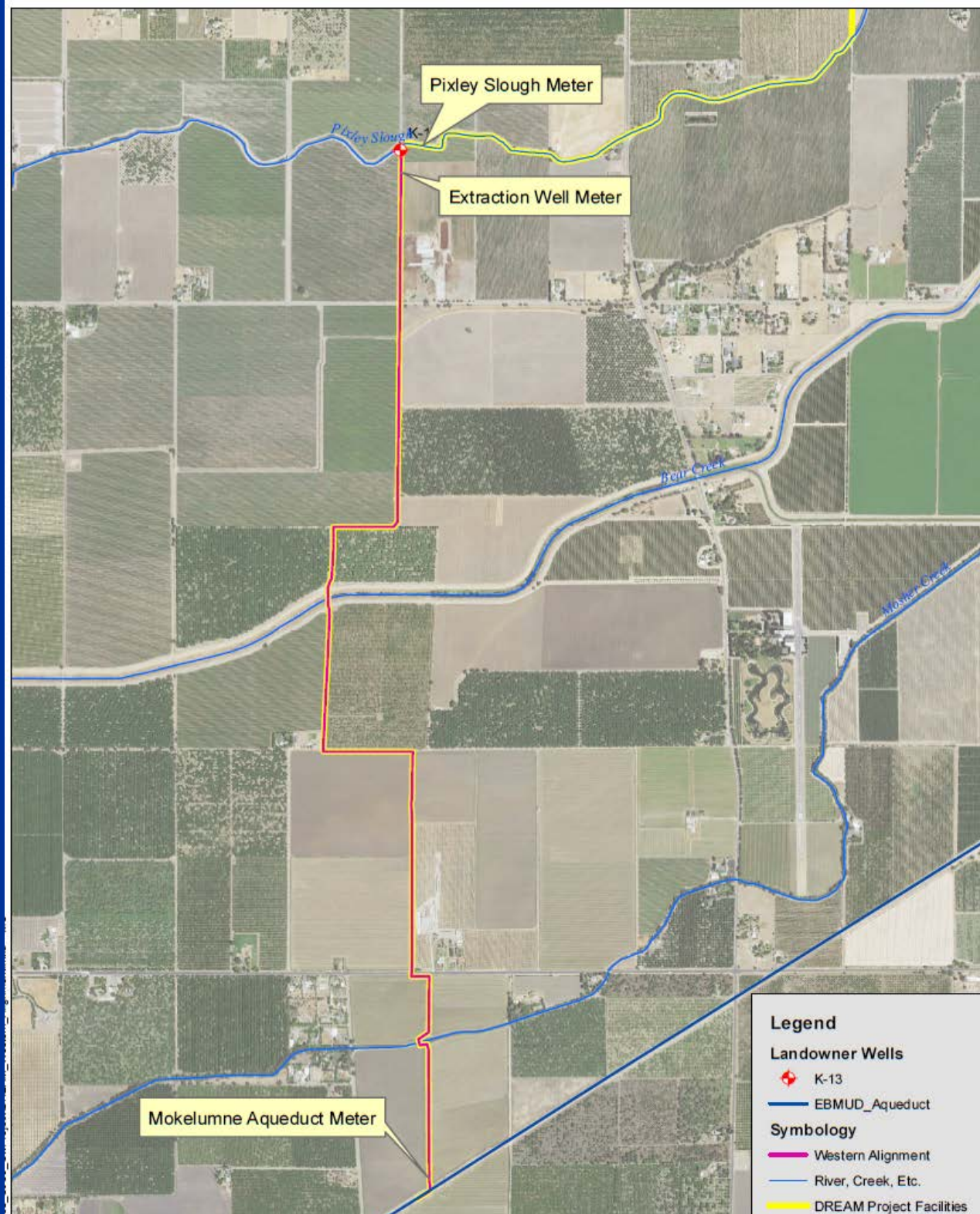


Two for One Concept

- 1,000 af of surface water provided by EBMUD
- “Credit” of 1,000 af split between EBMUD and NSJWCD
 - 500 af EBMUD
 - 500 af NSJWCD
- EBMUD “credit” further reduced by 5% annual loss factor in SJC export ordinance over time
- NSJWCD “credit” used to help correct overdraft

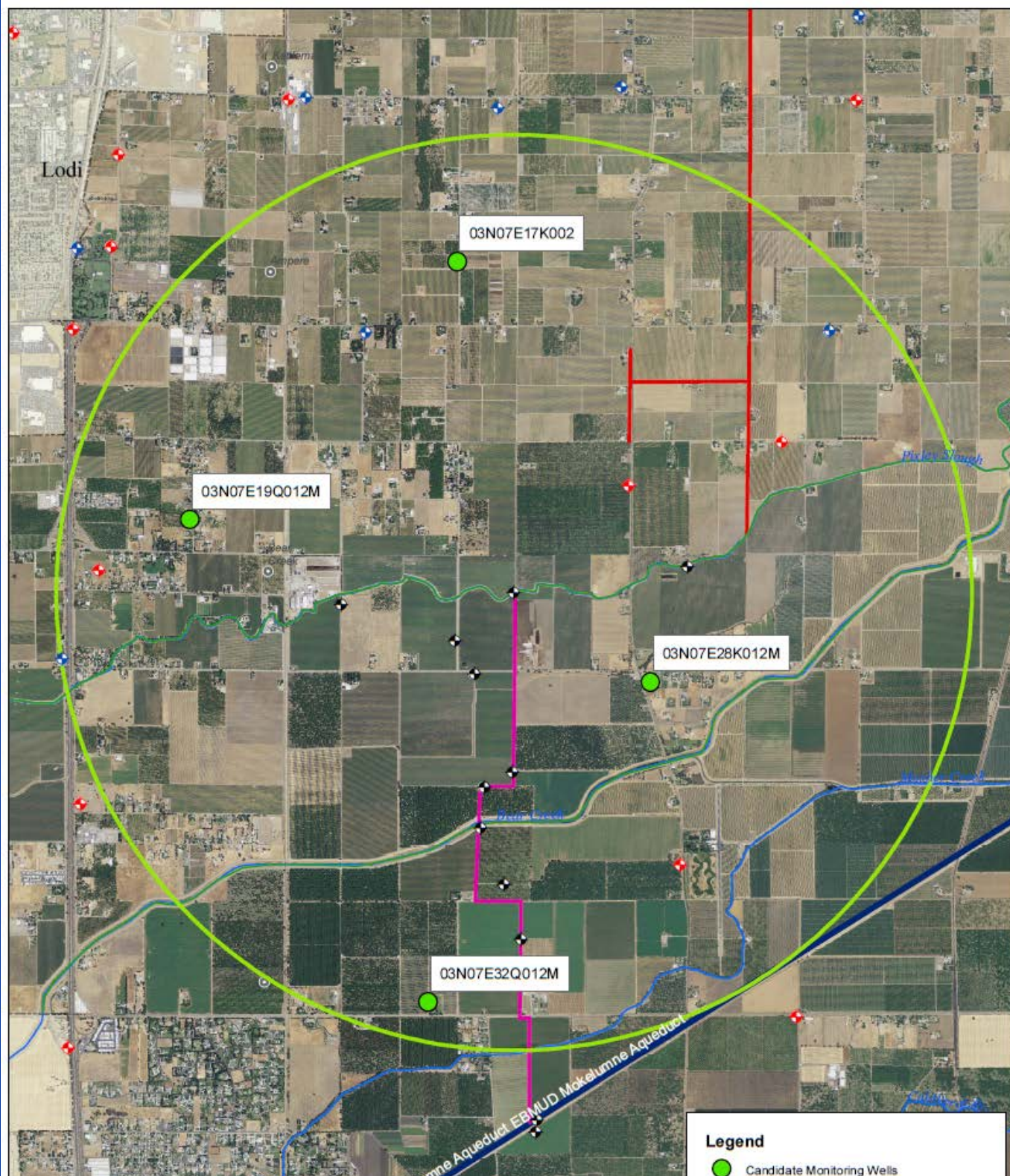
Dream Project Return Pipeline

- 2.8 mile pipeline
 - 12" diameter
 - Use farm roads
- 2 road crossings
- 2 stream crossings
 - 1 attached to farm bridge
 - 1 trenched
- \$1.85 M
 - With 20% contingency
- Dual use - can be used to deliver NSJ water in future



Dream Project Monitoring

- Use Existing Extraction Well – 1000 gpm
- Pumping for Export to Occur during Non-Irrigation Season
- Monitoring Network Of Existing Wells
- Local Monitoring Committee
- Local control on extractions



Who is paying for this?

- \$600,000+ from SJC, EBMUD for planning, environmental review.
- \$ 4 million from EBMUD as part of water rights settlement.
 - \$1.75 for NSJWCD South System improvements (pump station rehabilitation, pipeline repairs, repair Pixley Slough diversions)
 - **NSJ gets the \$1.75 whether or not the DREAM Project happens**
 - \$2.25 million for new 12-inch pipeline, monitoring wells, monitoring expense, operational costs, etc.
- Significant **in-kind** efforts by SJC staff, EBMUD staff, NSJ staff

Why Partner with Outsiders?

- Need additional water supply – rights held by outside entities
- Need funding for facilities to use our water – outsiders pay a fee to conduct banking here
- Success stories in other areas (Kern County, Madera Water Bank)
- Clock is ticking to get the basin in balance

How will we avoid impacts to groundwater pumpers?

- Two-for-one rule – more water in basin with project, than without.
- Extract in winter months when water levels higher
- 2-mile radius monitoring network – slow or stop pumping if see impacts.
- Local control – Outsiders do not own or control extraction/export facilities

Does DREAM include larger, future projects?

- NO.
- The SJC export permit will be limited to the one-time demonstration project, involving recharge of up to 1,000 af, extraction of no more than 500 af.
- EBMUD will need a temporary change to its water right for the DREAM project – that temporary change is also limited to the one-time project.

Schedule

- February 17 – Presented DREAM Project to Advisory Water Commission.
- February 24, 2016 – Public meeting inviting landowners within 2-miles of extraction well.
- Early March – Publish NOI to adopt MND (begins 30-day comment period, extended to May 4th).
- Mid April – Submitted Export Permit application to Director of PW w/proposed MND; Publish Notice of Permit Application (begins 30-day comment period).
- May 18th – Close public comment, prepare final MND.
- May 18th, 2016 – AWC to consider recommending GW Export Permit Approval.
- May 2016 – Board of Supervisors consideration of CEQA documents and sets public hearing date for GW Export Permit.
- June 2016– Public hearing on application; Board considers issuing GW Export Permit; NSJ consider banking contracts, CEQA documents