

**WELCOME TO  
MANAGING NORTH COUNTY  
GROUNDWATER WORKSHOP**

**Focus: South System Groundwater  
Improvement Project**

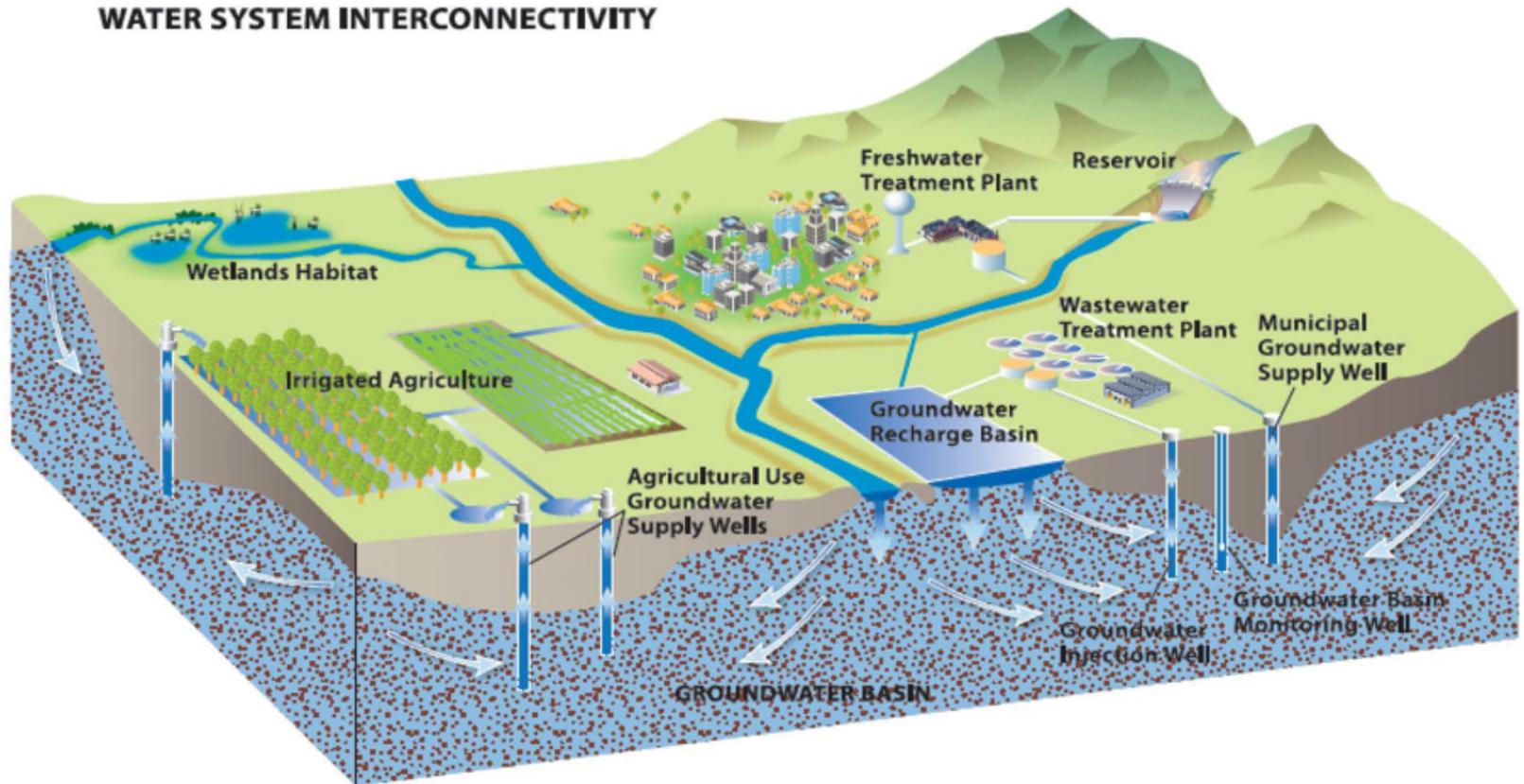
**February 15, 2018**

# Workshop Agenda

- Welcome and Introductions
- Roundtable Discussions
- Presentations
- Questions and Answers

# Integrated Water Management

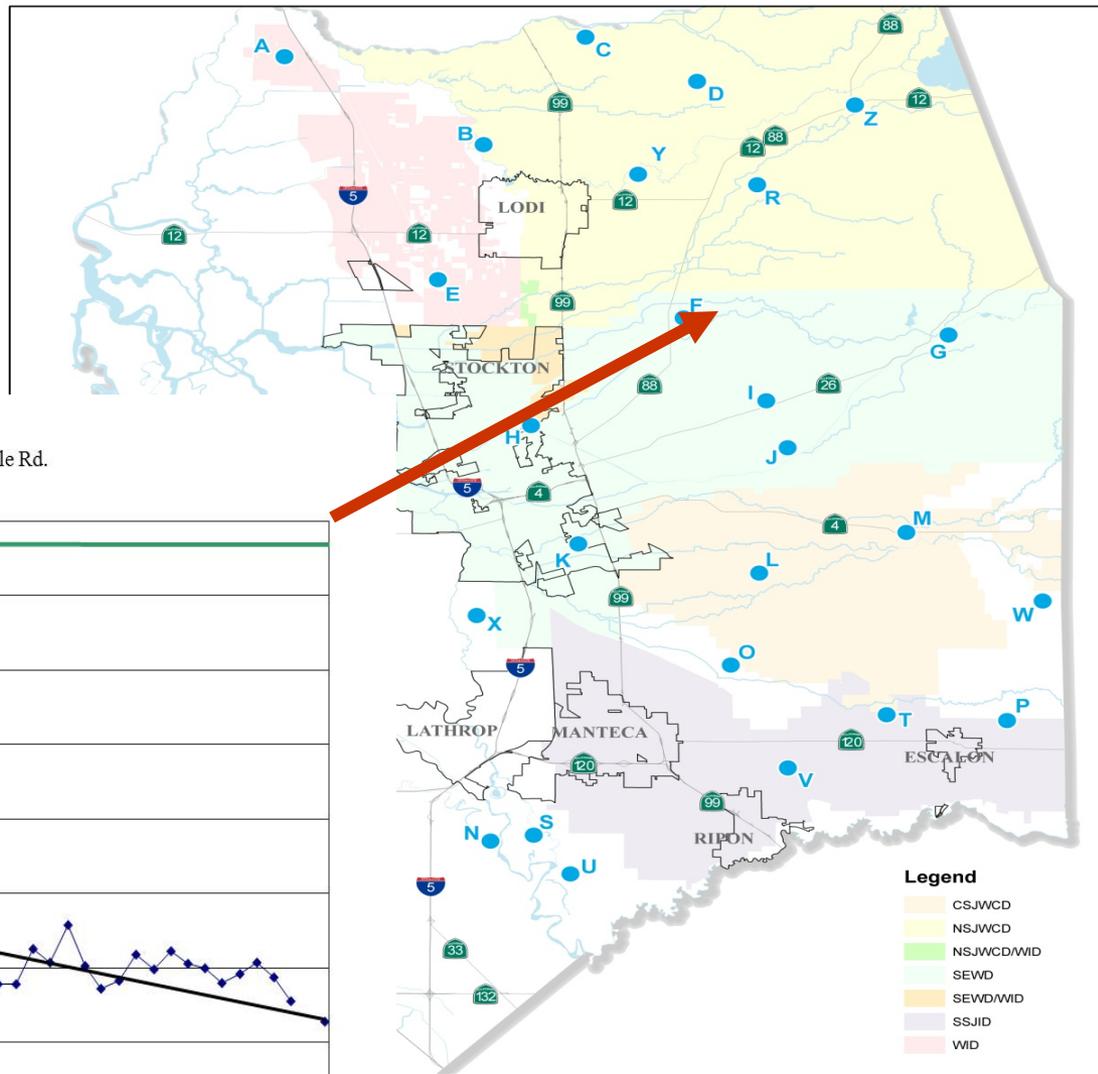
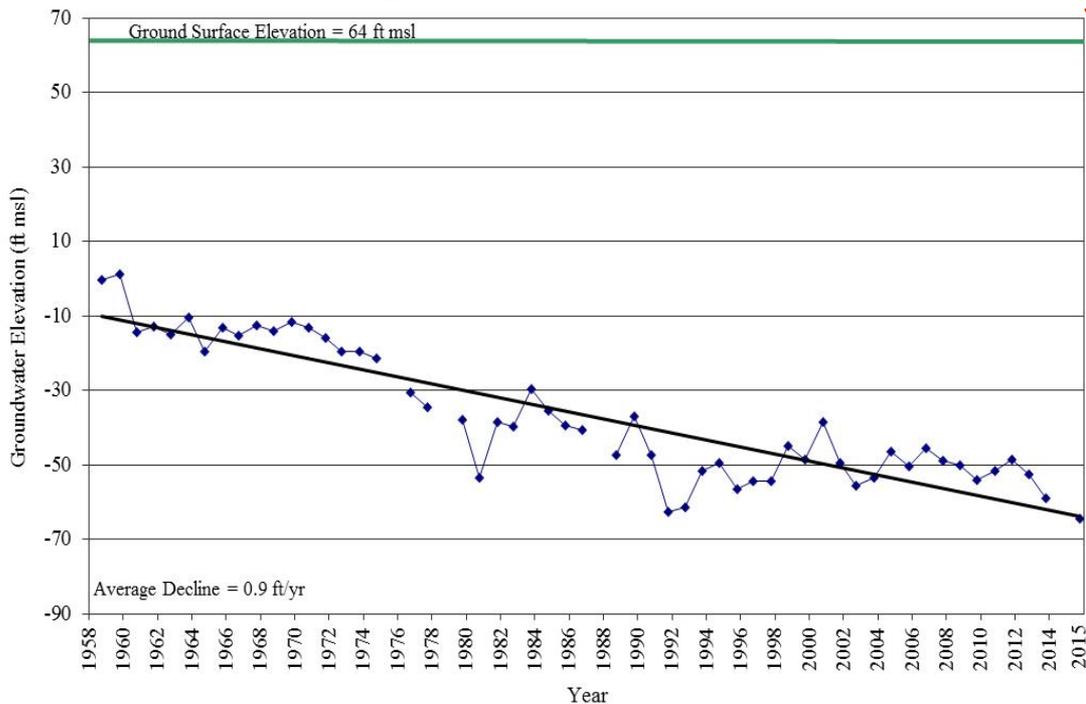
## WATER SYSTEM INTERCONNECTIVITY



# Groundwater Elevations

**WELL F - 03N07E35L001M**

Location: West of Route 88 & North Eight Mile Rd.  
Irrigation District: SEWD

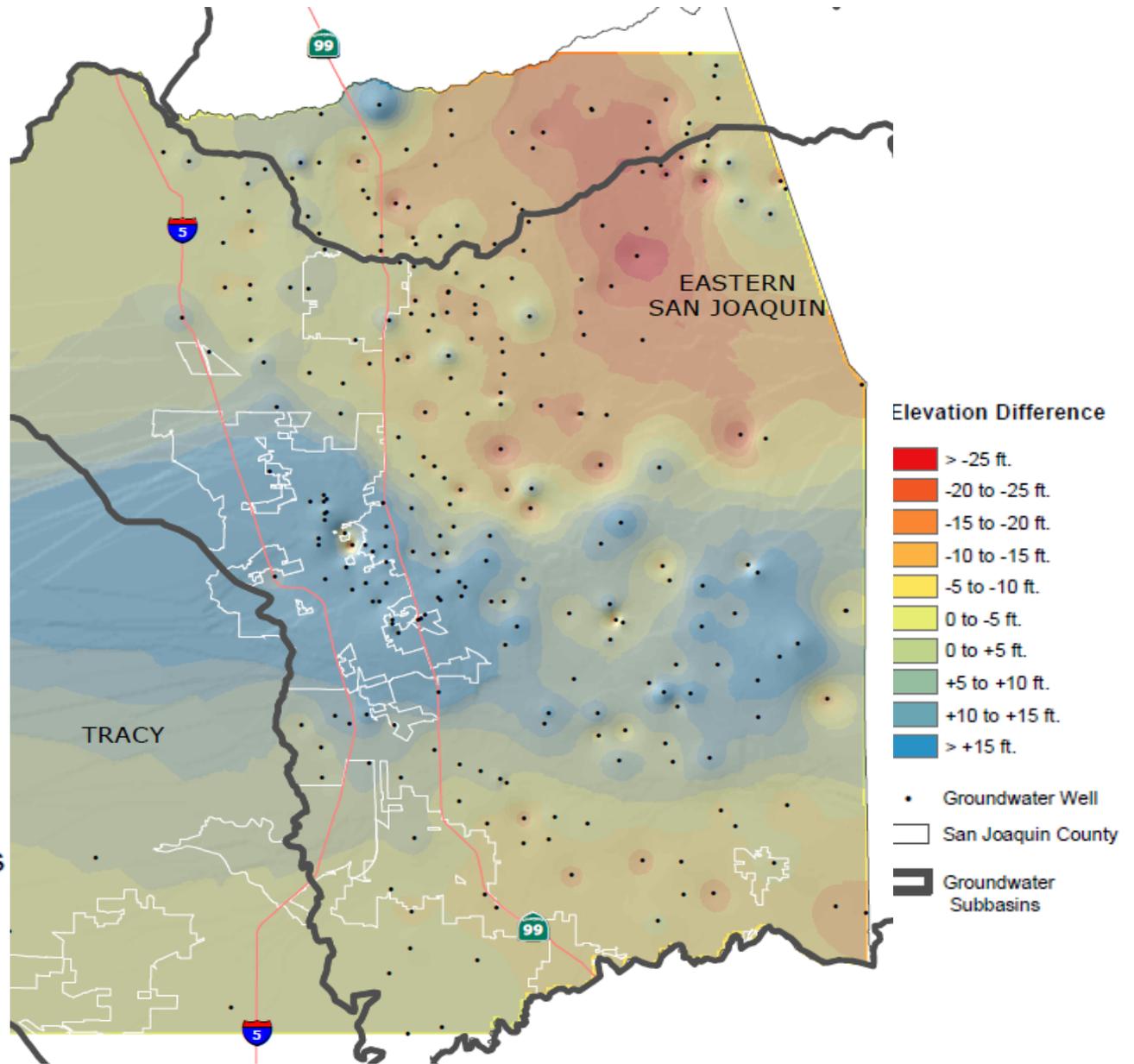


## DROGRAPH LOCATIONS

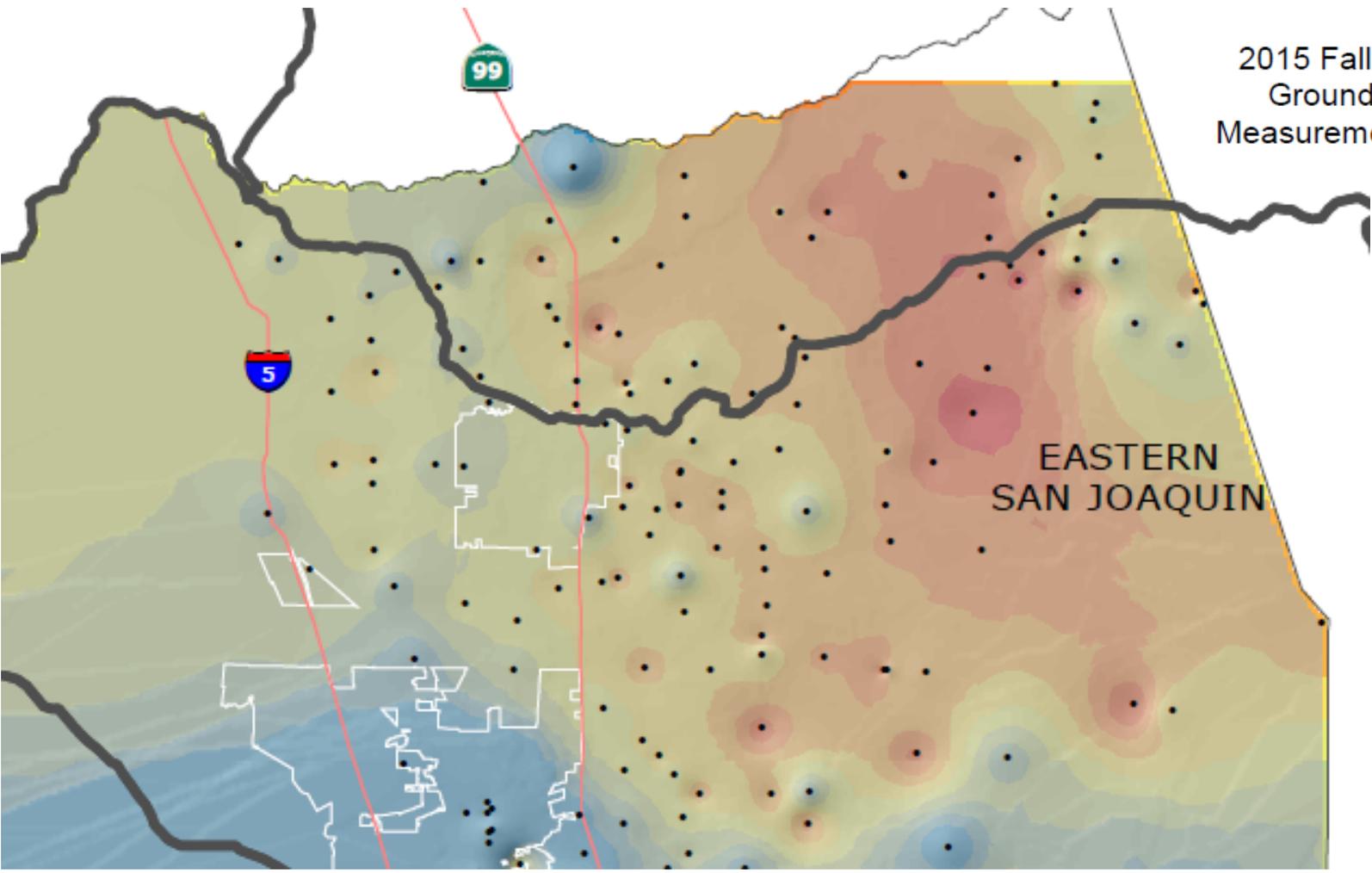
In Joaquin County Public Works Water Resources  
1810 E Hazelton Ave Stockton CA 95205  
based on the most current information available to San Joaquin County Public Works  
equin does not warrant the accuracy or suitability for any particular purpose,  
ap is not intended to replace engineering, financial or primary records research.



# 2015 Fall vs. 1992 Fall Groundwater Well Measurement Differences



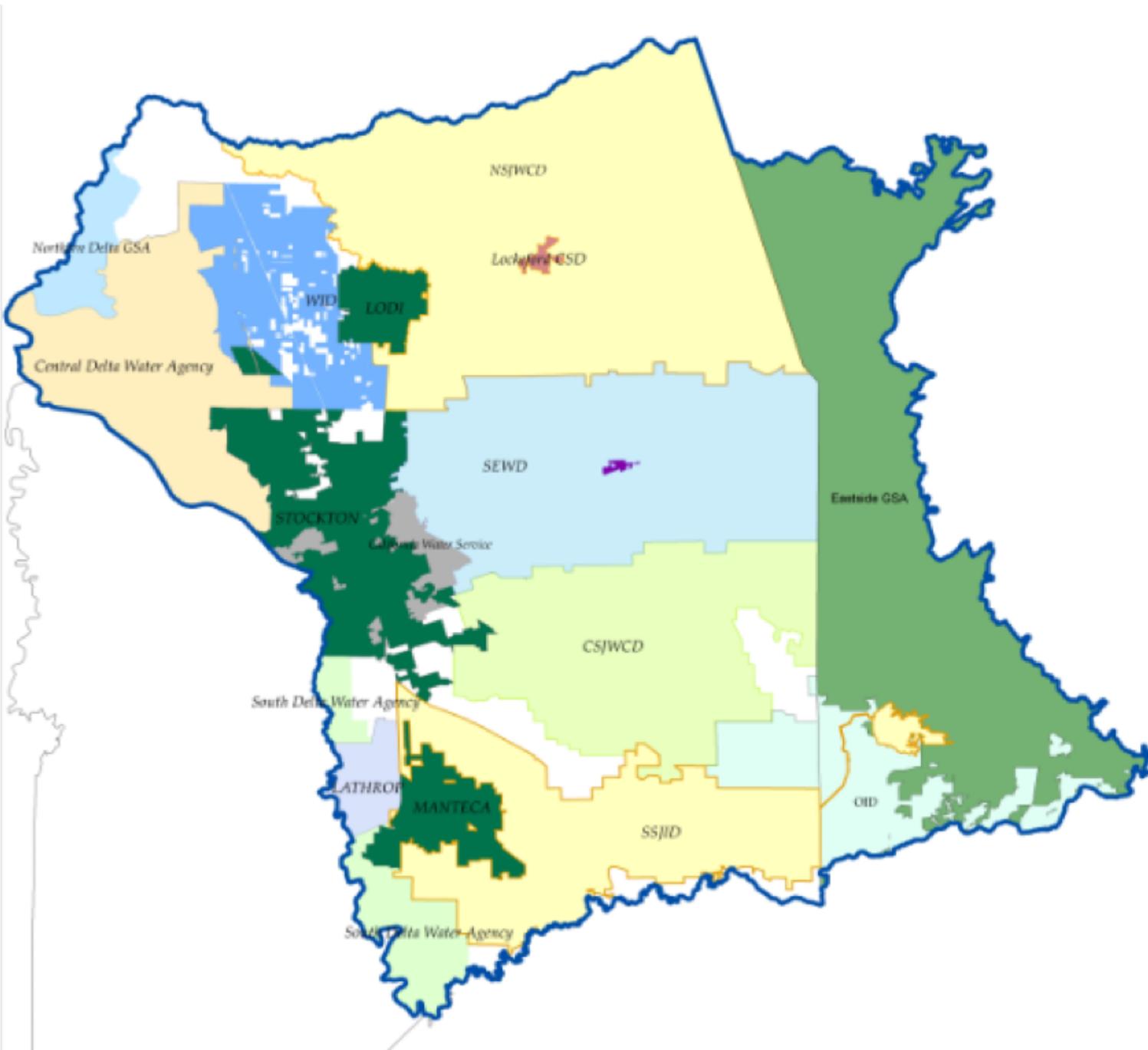
# 2015 Fall vs. 1992 Fall Groundwater Well Measurement Differences



- Elevation Difference**
- > -25 ft.
  - 20 to -25 ft.
  - 15 to -20 ft.
  - 10 to -15 ft.
  - 5 to -10 ft.
  - 0 to -5 ft.
  - 0 to +5 ft.
  - +5 to +10 ft.
  - +10 to +15 ft.
  - > +15 ft.
- Groundwater Well
- San Joaquin County
- ▭ Groundwater Subbasins

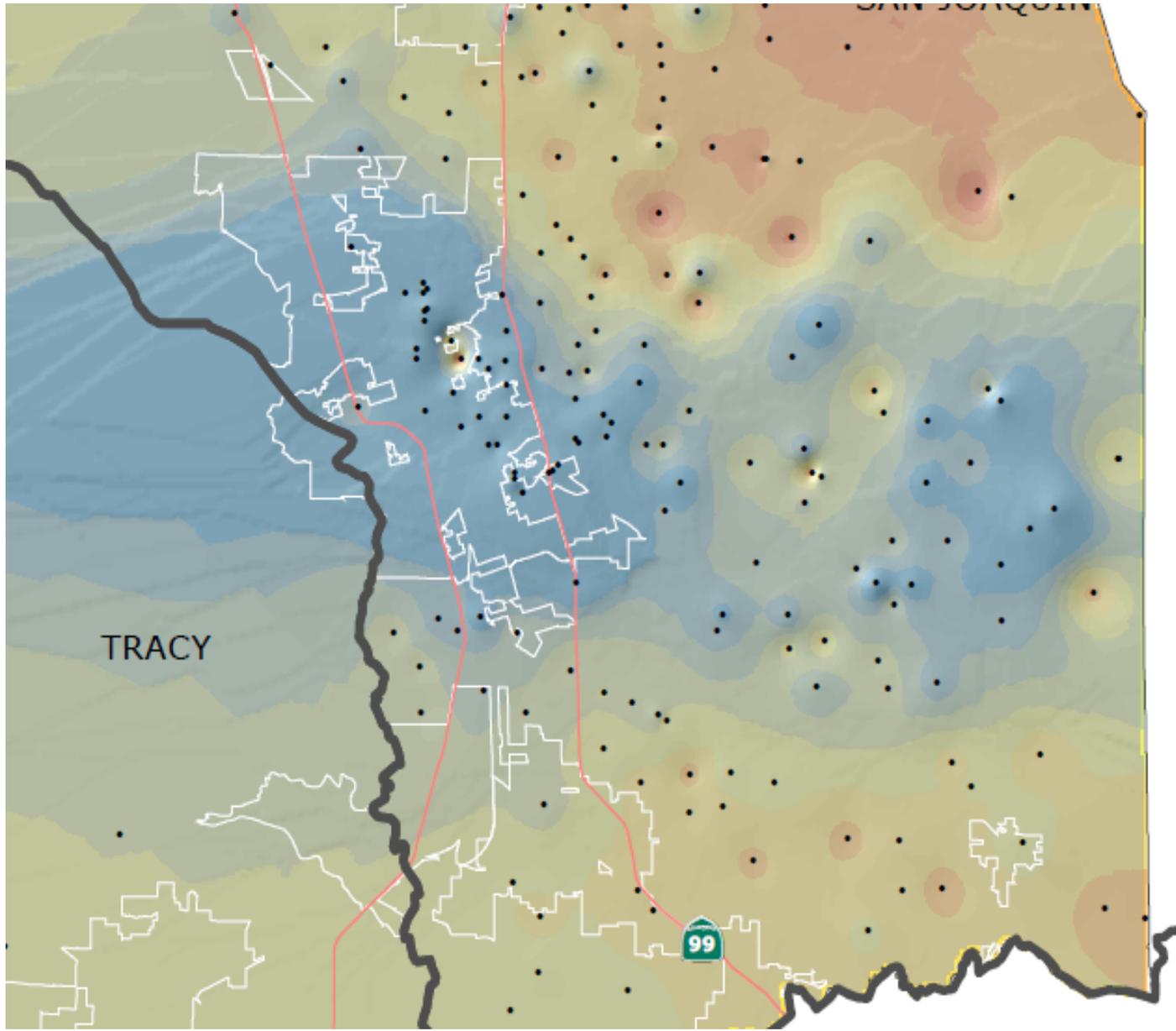
## 2014 Sustainable Groundwater Management Act (SGMA)

- Mandates action to achieve “sustainability” in sub-basins identified as overdrafted
- Requires basin-wide coordination and planning



# Solutions

- Get more water
- Use less water
- Improve efficiency of existing infrastructure
- Use in-lieu recharge



2015 Fall vs. 1992 Fall  
Groundwater Well  
Measurement Differences

Elevation Difference

- > -25 ft.
- 20 to -25 ft.
- 15 to -20 ft.
- 10 to -15 ft.
- 5 to -10 ft.
- 0 to -5 ft.
- 0 to +5 ft.
- +5 to +10 ft.
- +10 to +15 ft.
- > +15 ft.

- Groundwater Well
- San Joaquin County
- Groundwater Subbasins

# NSJWCD Challenges

- Declining Elevations = Increased Costs/Not sustainable
- Failure to use our water = loss of water right
- Failure to stabilize groundwater = State control

# NSJ Water Right Background

- **20,000** in Normal/Wet years
- “use it or lose it”
  - Substantial progress by 2025
  - Use maximum amount by 2040
- **10 to 12,000** for South System
- **3 to 6,000** in dry years from EBMUD Settlement

# Current Conditions

Essential surface water availability



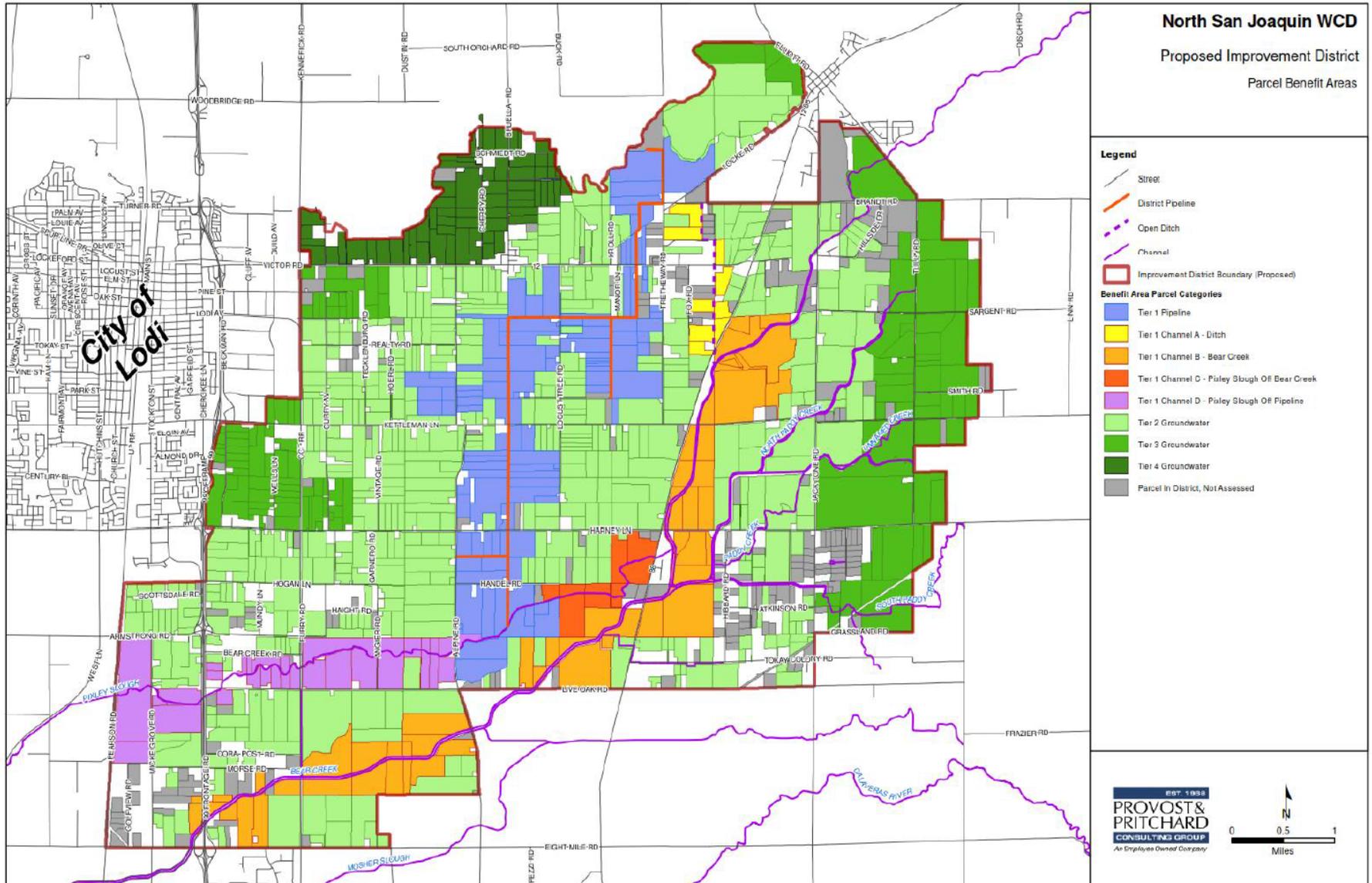
Inefficient and aging pumps and pipes



Limited financial resources



# South System Improvement District



# Engineers Report Conclusions

- District for benefitting irrigated properties
- Assessment based on benefits
- Exclude non-irrigated lands and small parcels
- Fully fund capital improvements only

# In-Lieu Recharge Benefits

- Improved groundwater conditions
- Those closest to the distribution system will benefit most
- Assessments decline with distance from the pipeline and channels

# Basis of Assessments

- Energy savings
- Reduced need for well improvements
- Channel users additional Costs

# List of assessments

## Maximum Assessment Rate Schedule:

<u>Category of Benefit</u>	<u>Basic Assessment per Acre</u>	<u>Maximum Assessment per Acre (125% of Basic)</u>
Tier 1 Pipeline	\$98.75	\$123.44
Tier 1 Channel A - Open Ditch	\$40.81	\$51.01
Tier 1 Channel B - Bear Creek	\$43.54	\$54.42
Tier 1 Channel C - Pixley Slough off Bear Creek	\$41.92	\$52.40
Tier 1 Channel D - Pixley Slough off Pipeline	\$44.61	\$55.77
Groundwater Tier 2	\$40.51	\$50.64
Groundwater Tier 3	\$20.26	\$25.32
Groundwater Tier 4	\$4.07	\$5.09
Unirrigated Land 5 acres or larger	\$0/ac	\$0/ac

# Project Capital Budget

Item	Cost
Pump Station	\$3.75 mil
Pipeline & Channels	\$13.5 mil
Contingency	\$1.5 mil
Subtotal	\$18.75
<i>Less EBMUD Settlement</i>	<i>-\$1.75 mil</i>
<i>Less Grants Received</i>	<i>-\$4 mil</i>
<b>Total</b>	<b>\$13 mil</b>

# Financing Budget

Item	Cost
Project Cost	\$13 mil
Financing Cost	\$130,000
Debt Service Reserve	\$1.3 mil
<b>Total</b>	<b>\$14.43 mil</b>
<b>Likely Interest Rate</b>	<b>4 to 4.5%</b>
<b>Term</b>	<b>30 years</b>
<b>Likely Annual Payment = Amount that must be raised by acreage assessment</b>	<b>\$870,000</b>

# Public Outreach History

**Nov. 27&28, 2017** - Engineer's Report  
Workshop

**Nov. 28, 2017** – LDGG Assoc. Workshop

**Dec. 7&18, 2017** –Discuss Engineer's Report

**Jan. 8, 2018** –Approve Engineer's Report

**Feb 15, 2018** - Groundwater Workshop

**February 26, 2018** - Receive/count ballots

# Project supporters

- San Joaquin County Department of Public Works
- North San Joaquin Water Conservation District
- City of Lodi
- Woodbridge Irrigation District
- East Bay Municipal Utilities District
- San Joaquin Farm Bureau
- Lodi District Grape Growers Association
- California Department of Water Resources
- Federal Bureau of Reclamation
- League of Women Voters of San Joaquin County
  - Support SGMA
  - Interested in Project
- Howard Jarvis – No opposition

# QUESTIONS/DISCUSSION