

SVBGSA

New Seawater Intrusion Protection (NSIP) Project

Presentation

MCWRA Board of Directors

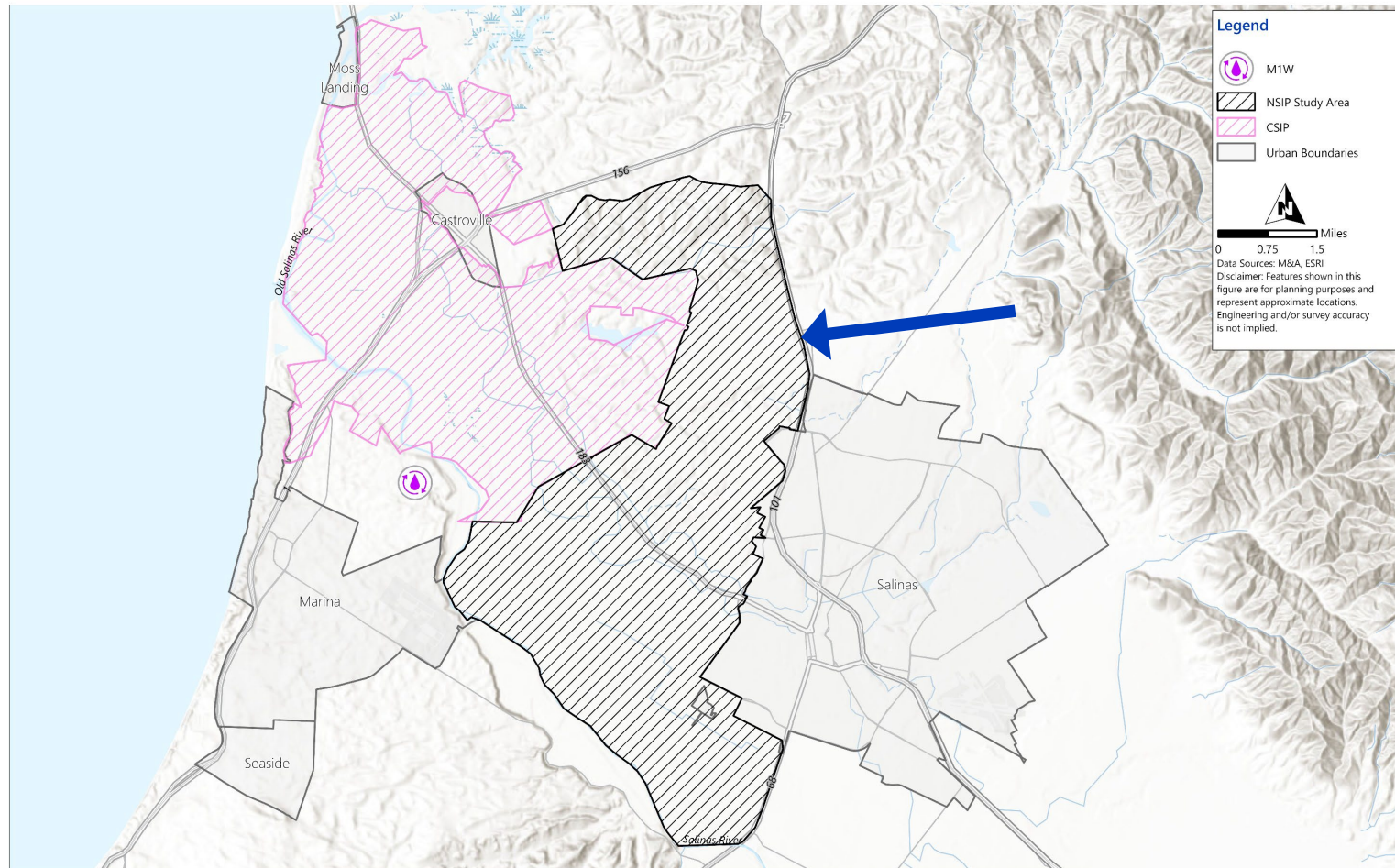
February 2026



Project Goals

1. Investigate potential source water that can be utilized to offset groundwater pumping.
2. Identify and prioritize areas/users that could be served by potential sources – focused on demands in areas at risk of SWI.
3. Identify infrastructure needs and siting for serving new users.
4. Develop alternatives for paired source waters and infrastructure systems that will be used to estimate project costs.

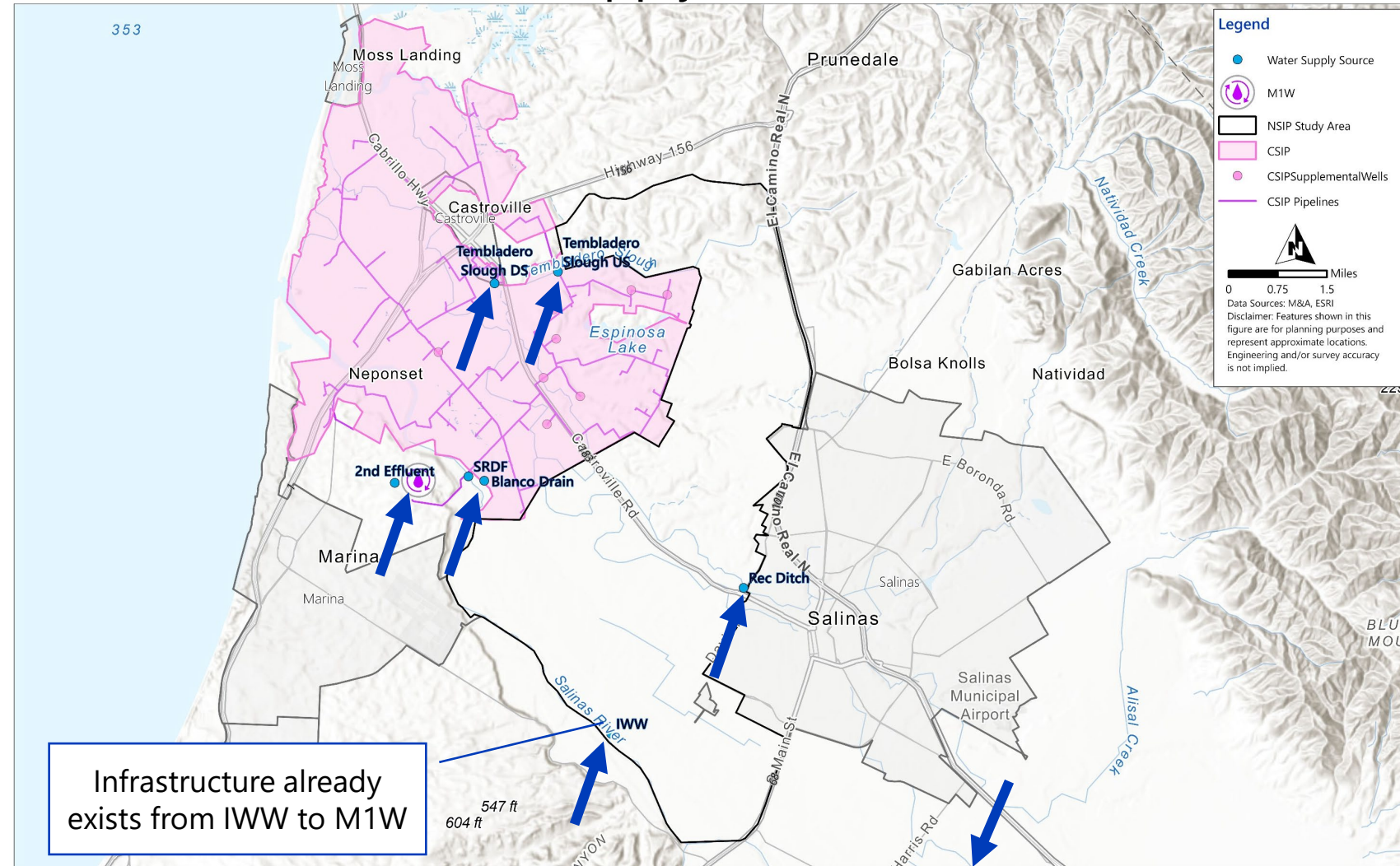
Area of NSIP Focus



Source Water Usability

Supply locations

- Where is it located?
- What is available when?
- How does the quality look



Source Water Investigation

- MCWRA evaluated existing water sources and their seasonal availability and water right restrictions.
- Sources with average total acre-foot volume available*:
 - » Secondary effluent from M1W: **5,320 AF**
 - » Permit 11043: **13,080 AF**
 - » Salinas Industrial Wastewater: **2,890 AF**
 - » Reclamation Ditch: **800 AF**
 - » Blanco Drain: **1,110 AF**
 - » Salinas River Diversion Facility (SRDF): **1,440 AF**
 - » Tembladero Slough: **1,135 AF**

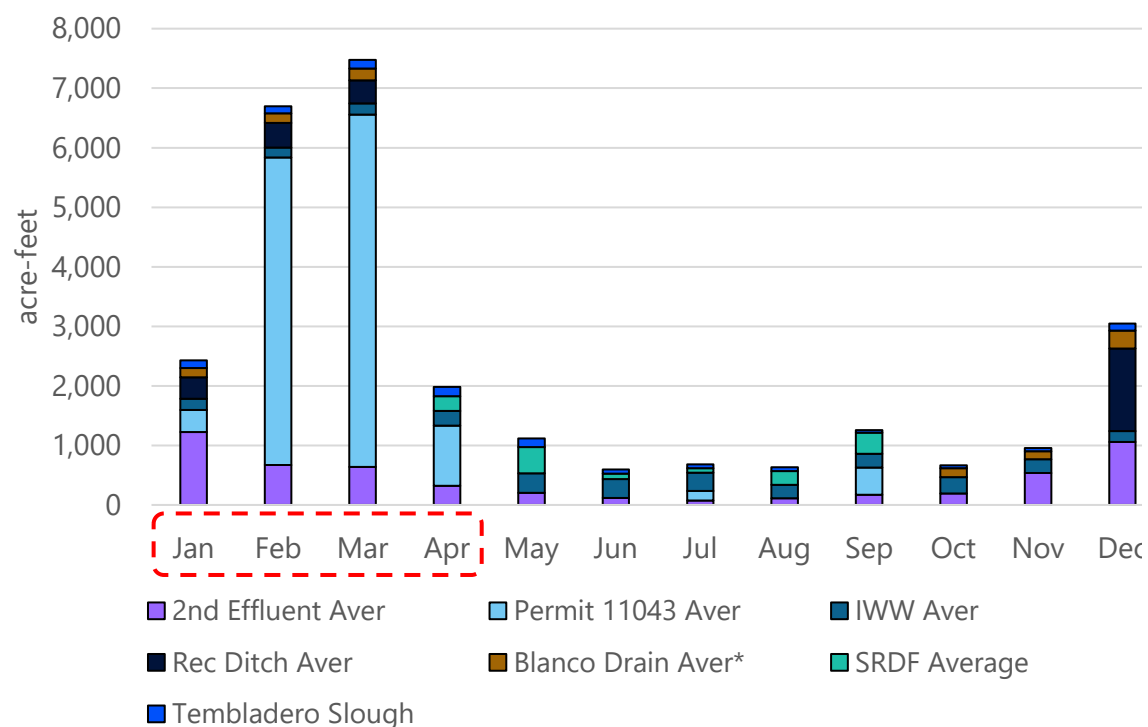
*Sum total of monthly averages
between 2019 - 2022

Supply Sources – When is it available? (2019 – 2024 Monthly Ag.)

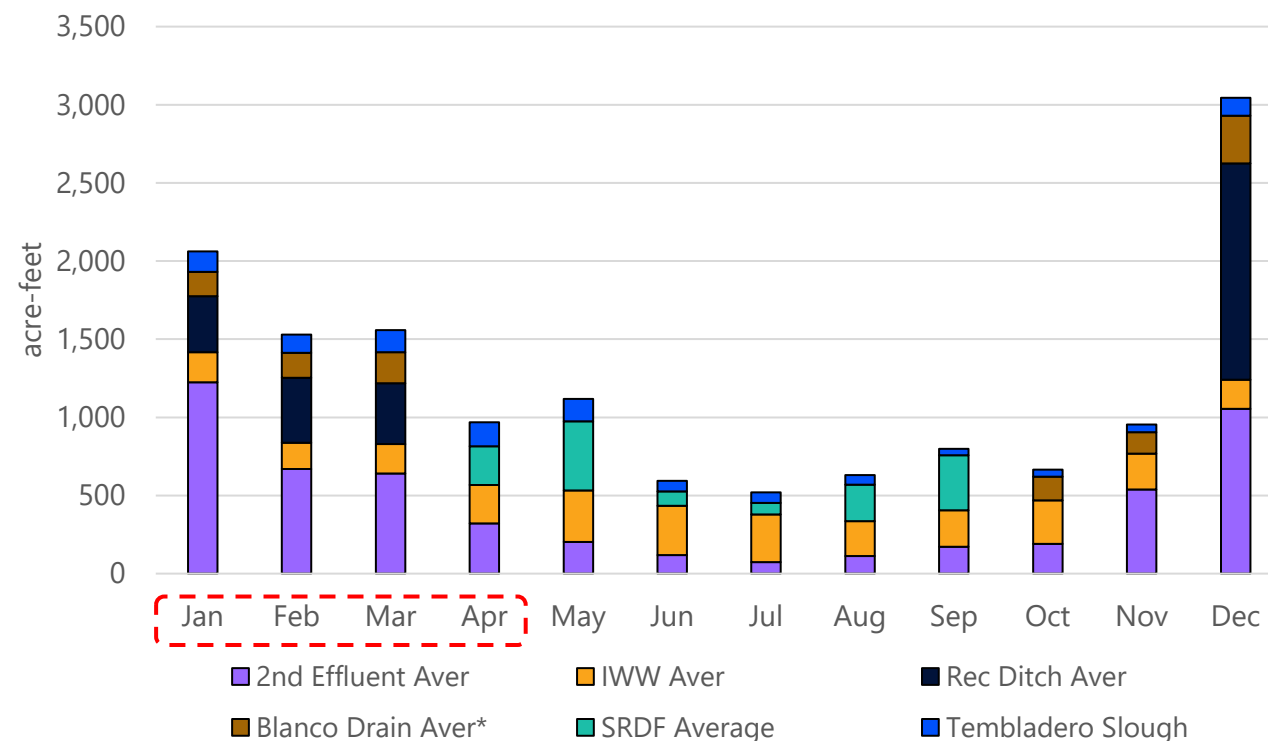
Order of
Magnitude



**Available Water Stats
By Month & Source
Calendar Year
2019 - 2024**



**Available Water Stats
By Month & Source
Calendar Year
2019 - 2024**

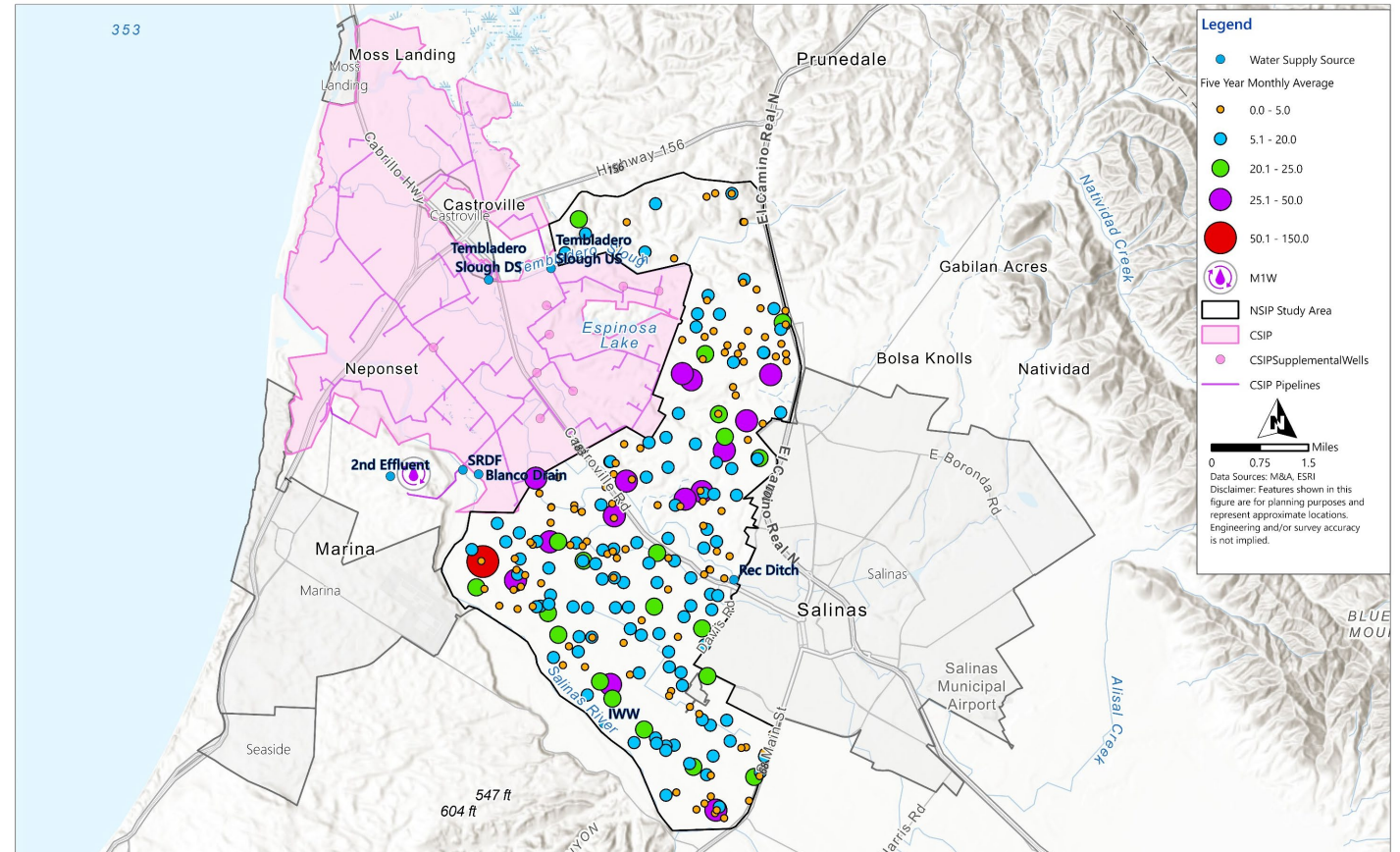


Quality Concerns

- Elevated levels of:
 - » TDS (Chlorides/Sulfates)
 - » Nitrate
 - » Arsenic
 - » Manganese
 - » Iron
- Assumption is to match CSIP existing quality

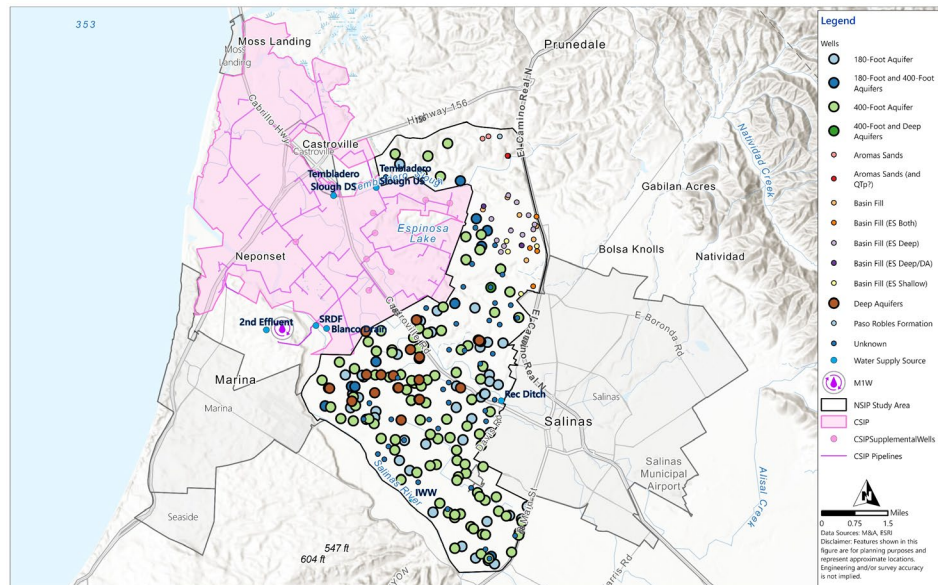
Total NSIP Study Area Current Well Pumping

- 5-Year average pumping is about 28,000 AF.
- Average well usage is about 10 AF/month
 - » Max of avg. use 127.2 AF/month
 - » Min of avg. use <1 AF/month

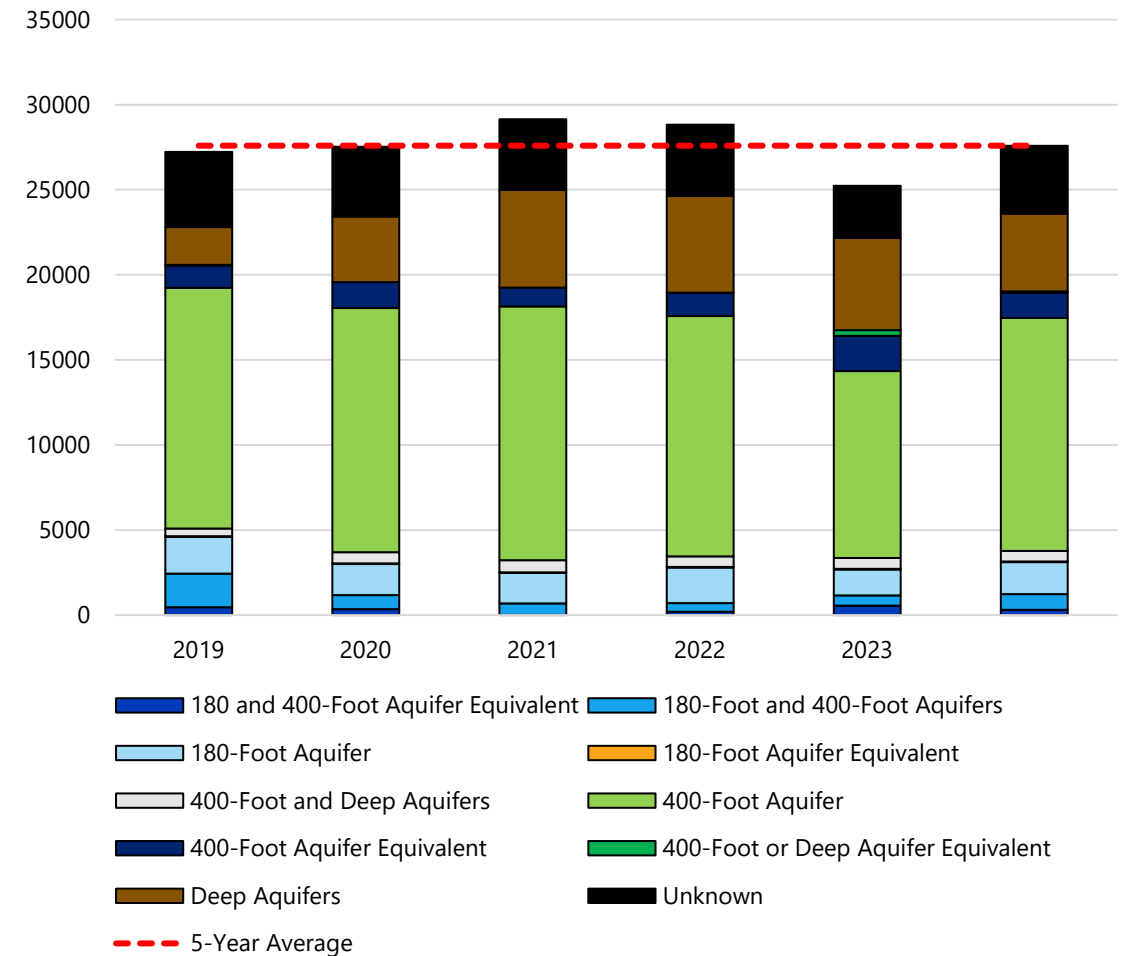


Demand Evaluation

- Where is the Demand?
 - » 180-foot Aquifer = 1,880 AF
 - » 400-foot aquifer = 13,700 AF
 - » Deep Aquifers = 4,600 AF
- Avg. Usage for Deep/400-foot
- “Unknown” aquifers, represent wells with poor screening data therefore unable to identify which aquifer they’re in.



5-Year Avg. Demands TOTALS by Aquifer

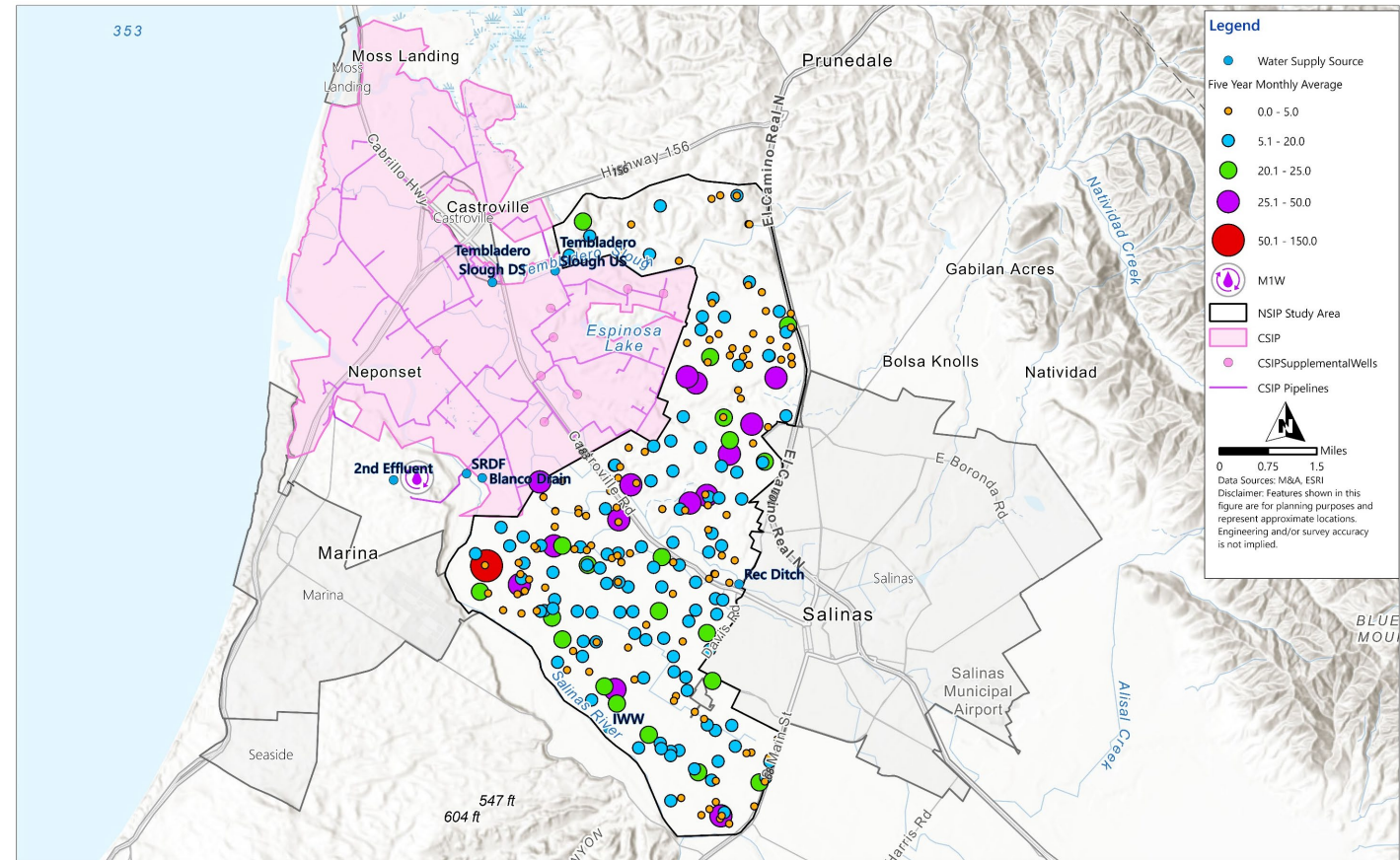


NSIP Scenarios

1. Maximum system size, serving all wells within NSIP Area
2. Serving all wells within 500 mg/L intruded zone
3. Expansion of CSIP, serve what we can.

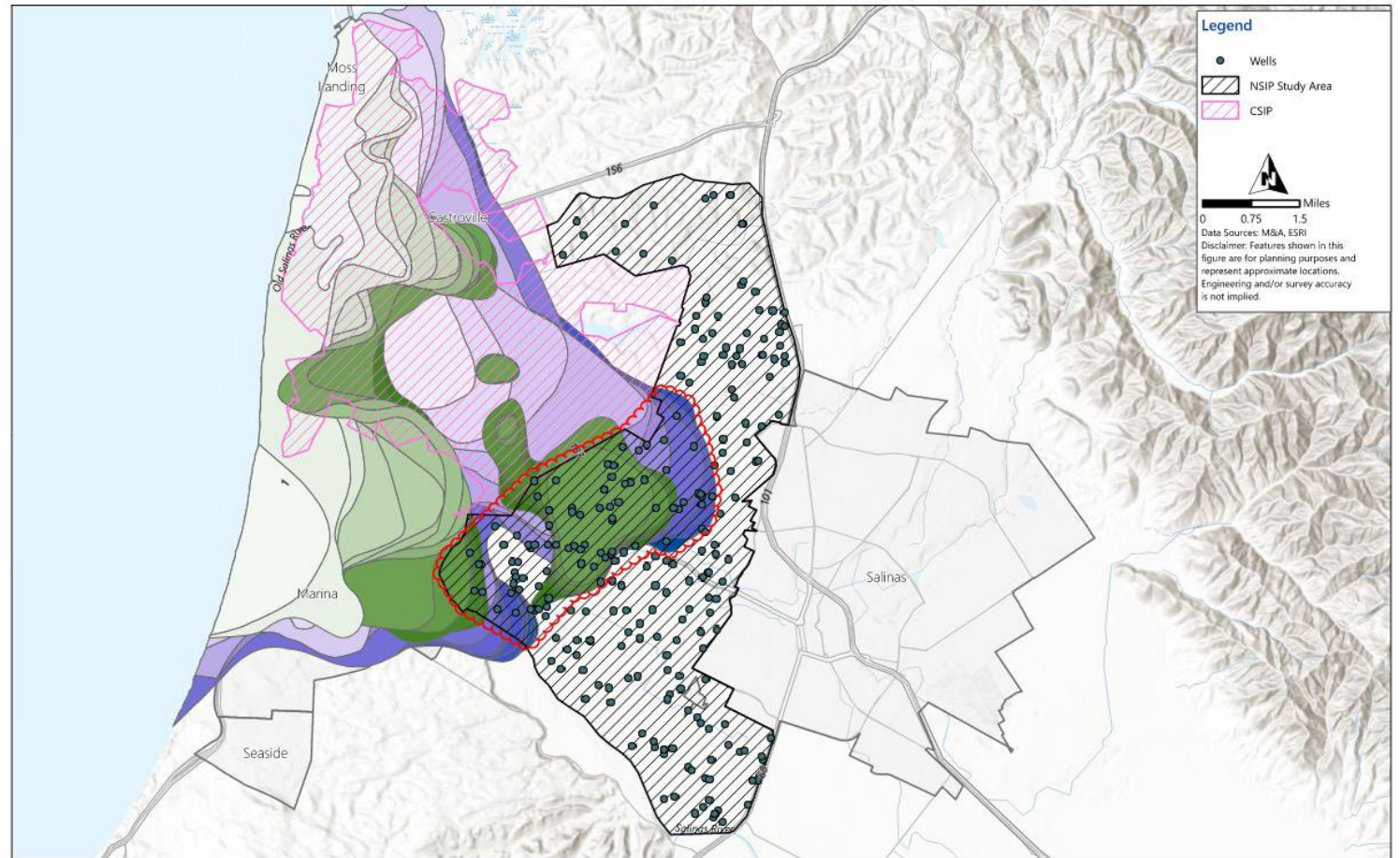
Scenario 1 – Max NSIP System

- Average annual demand $\approx 27,600$ AF.
- Approx 251 wells with average monthly usage <5 AF to 150 AF
- Approx. 31 miles of transmission main.
- Approx. 42 miles of laterals.
- Assumptions would offset all well usage within NSIP.
- Would require treatment and storage to meet seasonal demands.
- Total Storage requirement of approx. 18,000 AF to serve May through Dec. to break even in Nov.
- Use of all major sources + MCWRA Permit 11043



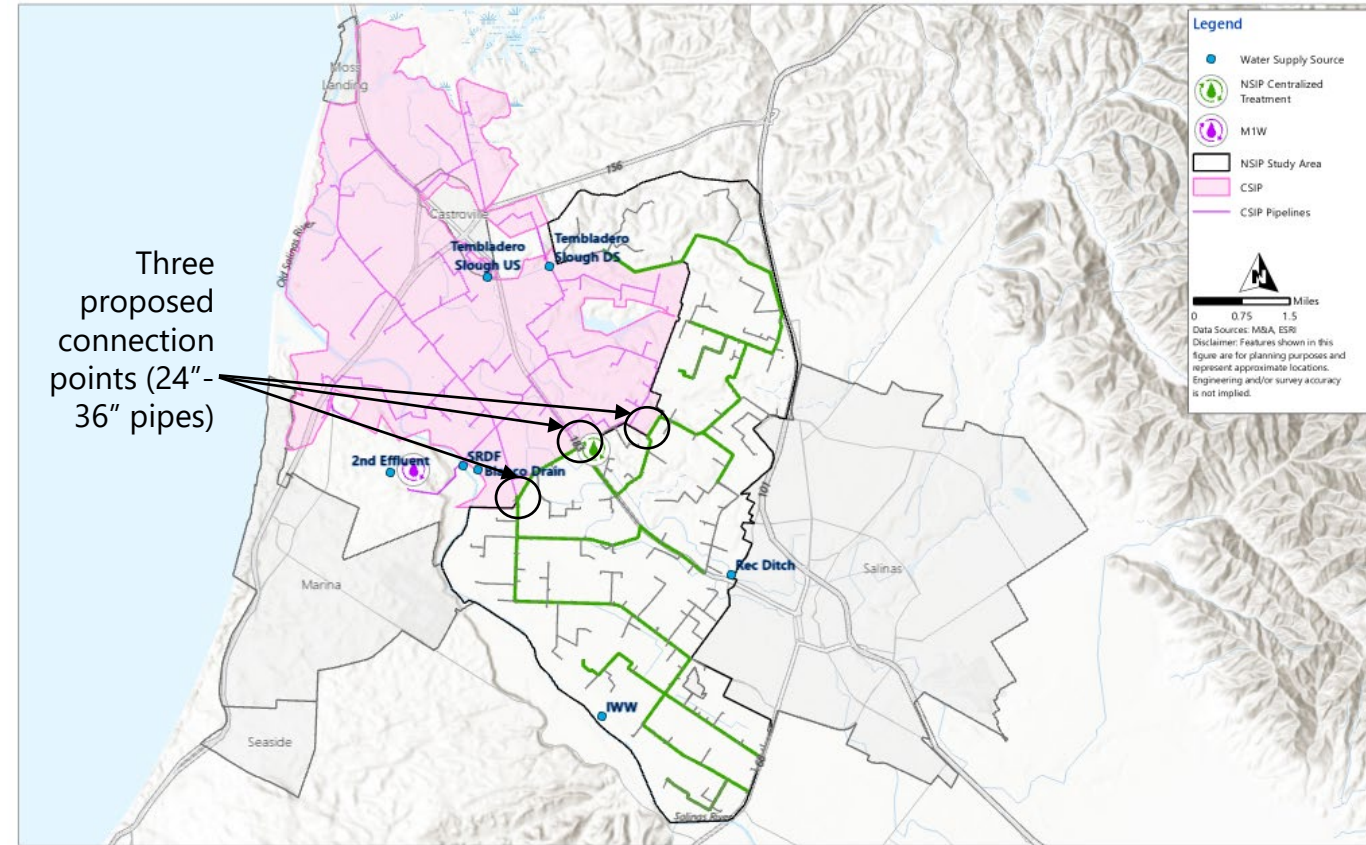
Scenario 2 – All Wells within 500 mg/L Intruded Zone

- Approx. 88 wells within 500 mg/L intruded zone.
- Average Annual Demand $\approx 11,000$ AF.
- Approx. 12 miles of transmission main.
- Approx. 10 miles of laterals.
- Direct delivery for partial groundwater offset. Approx. 60% of total AAD.
- Storage of approx. 4,500 AF
- Not using Permit 11043



Scenario 3 – CSIP Expansion

- CSIP System has extra supply during off-season.
- Estimated winter production capacity at M1W $\approx$ 10,000 gpm which is equivalent to the Recycled water supply available in November.
- Able to serve off season demands $\approx$ 860 AF in November.
- Potential intertie?



Next Steps for NSIP

- Preparing cost estimates:
 - » Treatment required
 - » Pipelines needed
 - » Storage required
- Report being prepared:
 - » Summary of what evaluated
 - » Issues related to each supply and scenario
 - » GW Modeling of one scenario
 - » Next steps for if want to implement