SVBGSA

New Seawater Intrusion Protection (NSIP) Project

## Presentation

MCWRA Board of Directors

February 2026

carollo®

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.
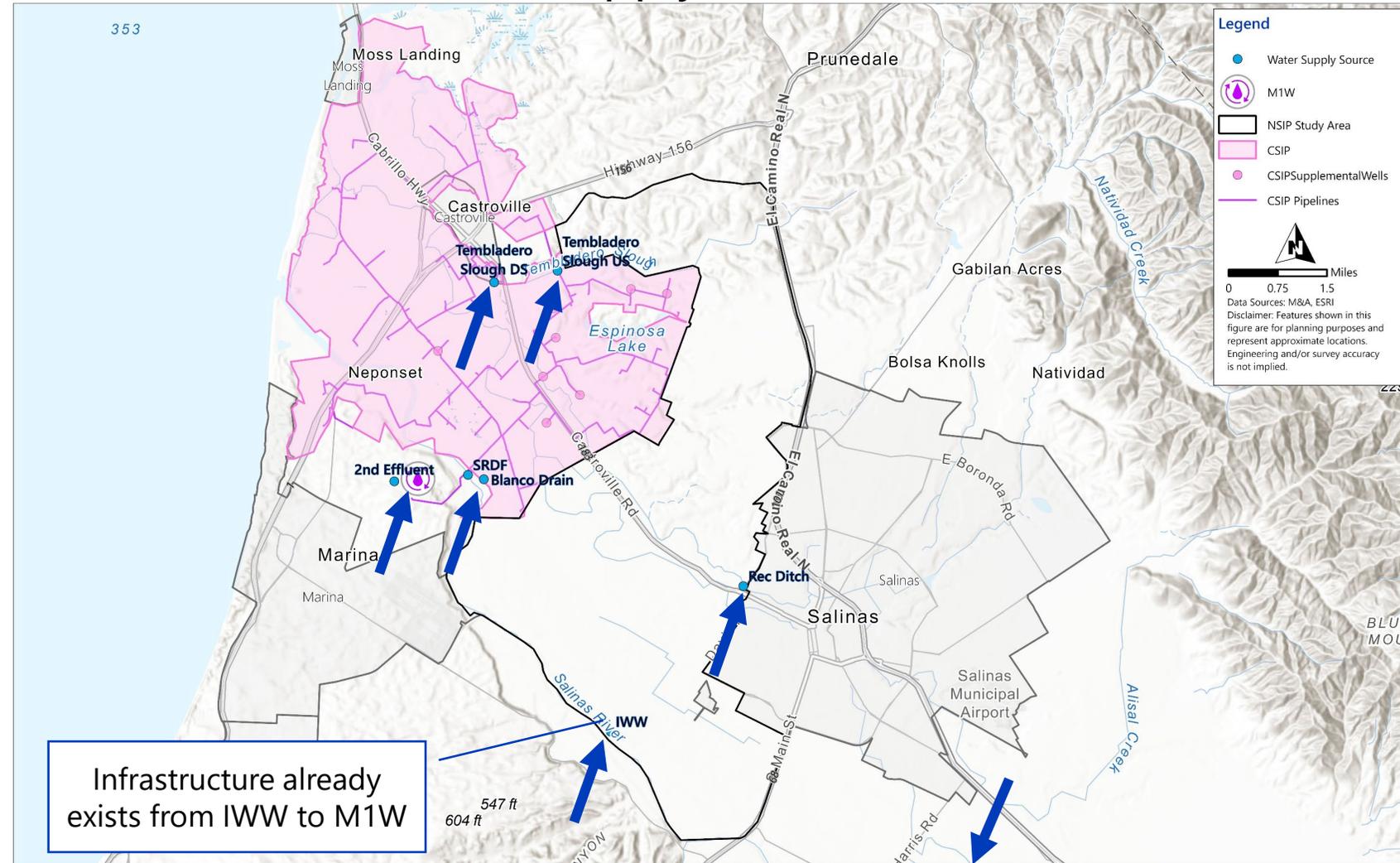
Area of NSIP Focus
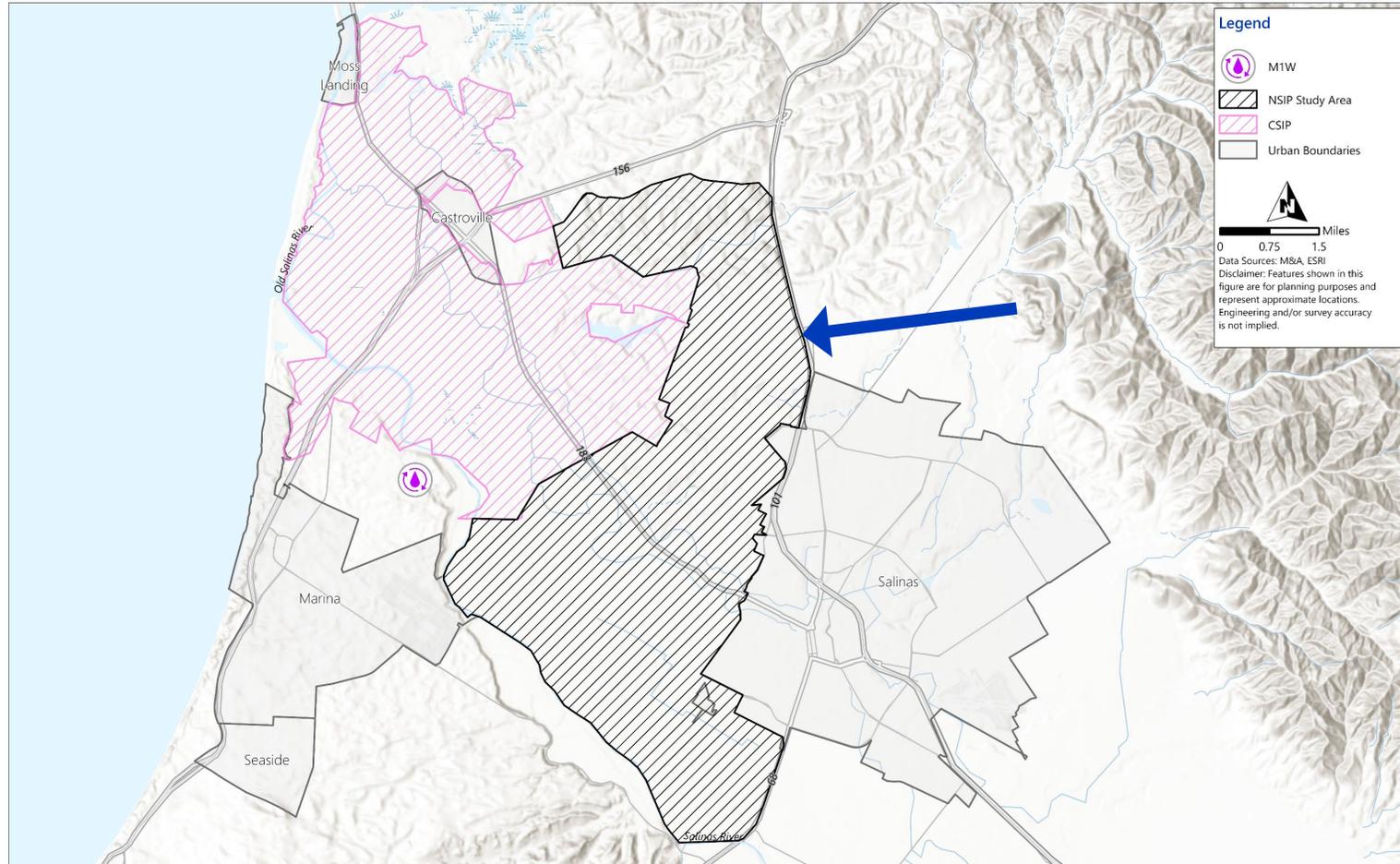
Source Water Usability

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

Supply locations

Infrastructure already exists from IWW to M1W

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**
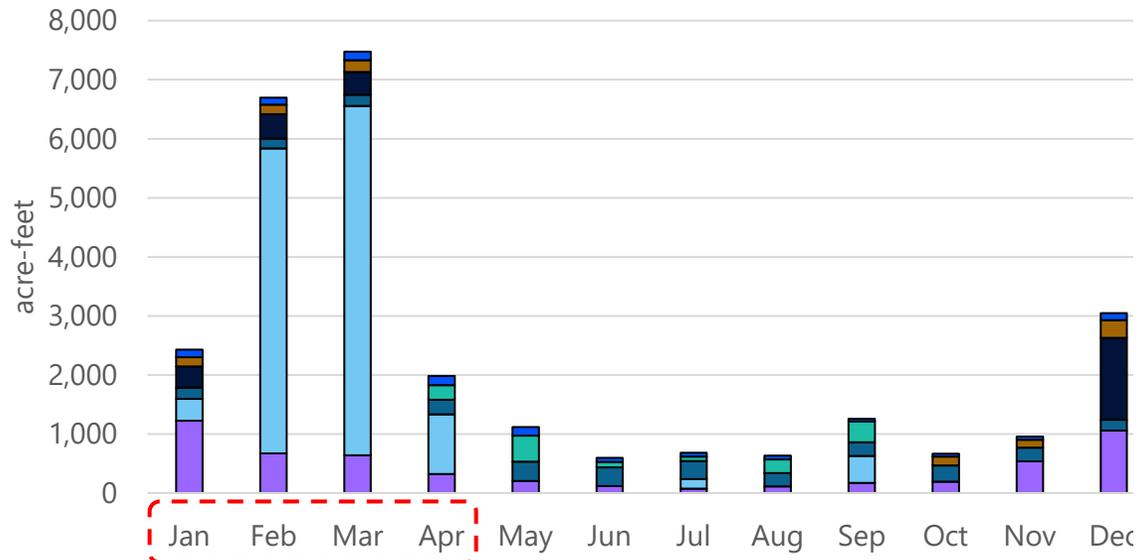 - » Tembladero Slough: **1,135 AF**

*Sum total of monthly averages between 2019 - 2022

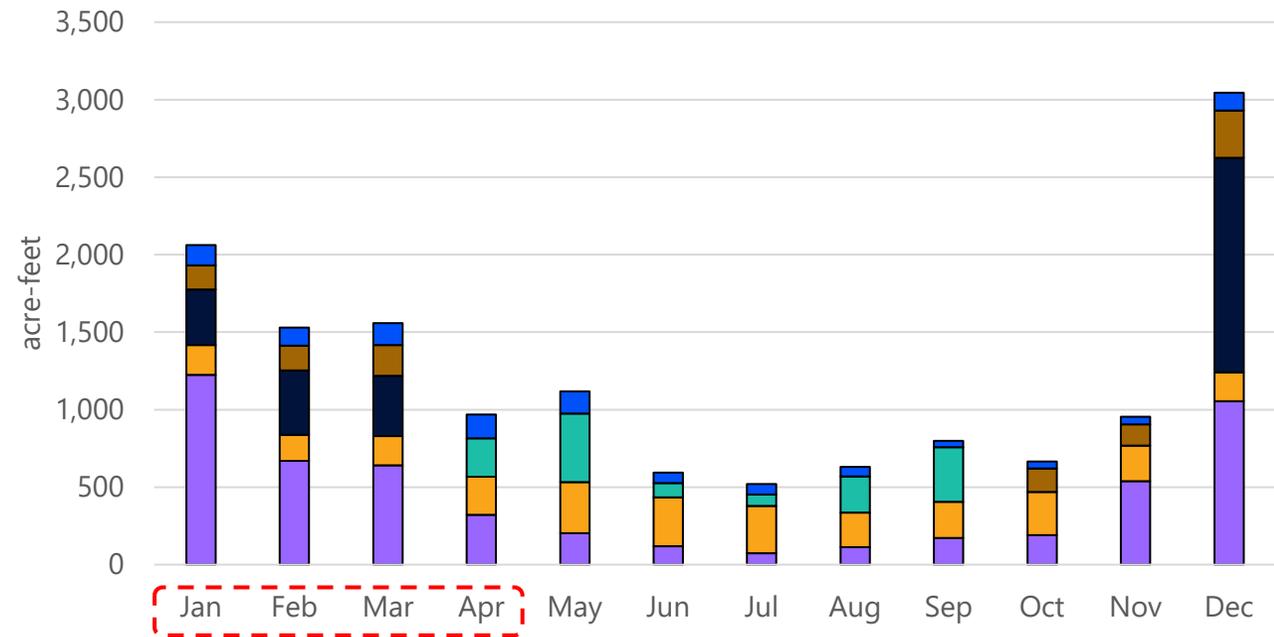Supply Sources – When is it available? (2019 – 2024 Monthly Ag.)

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

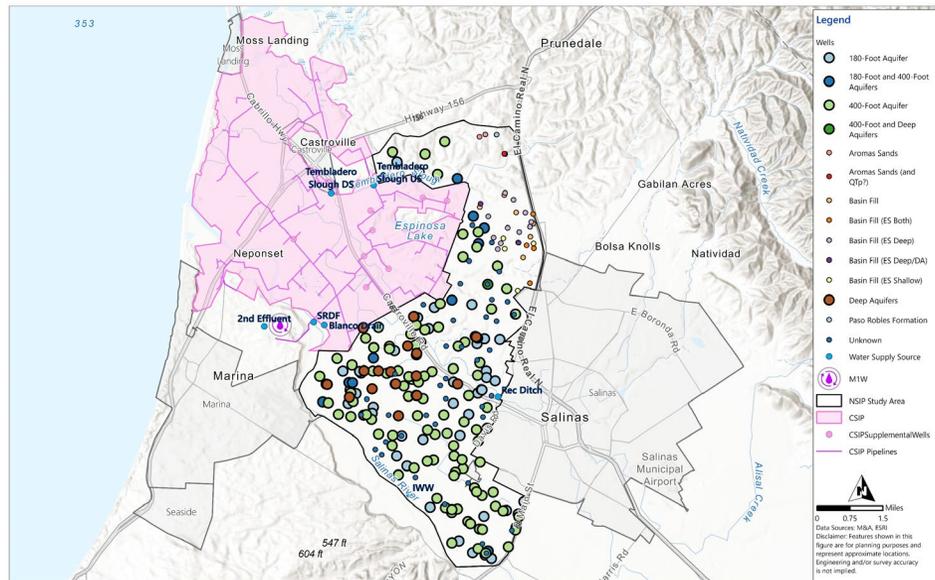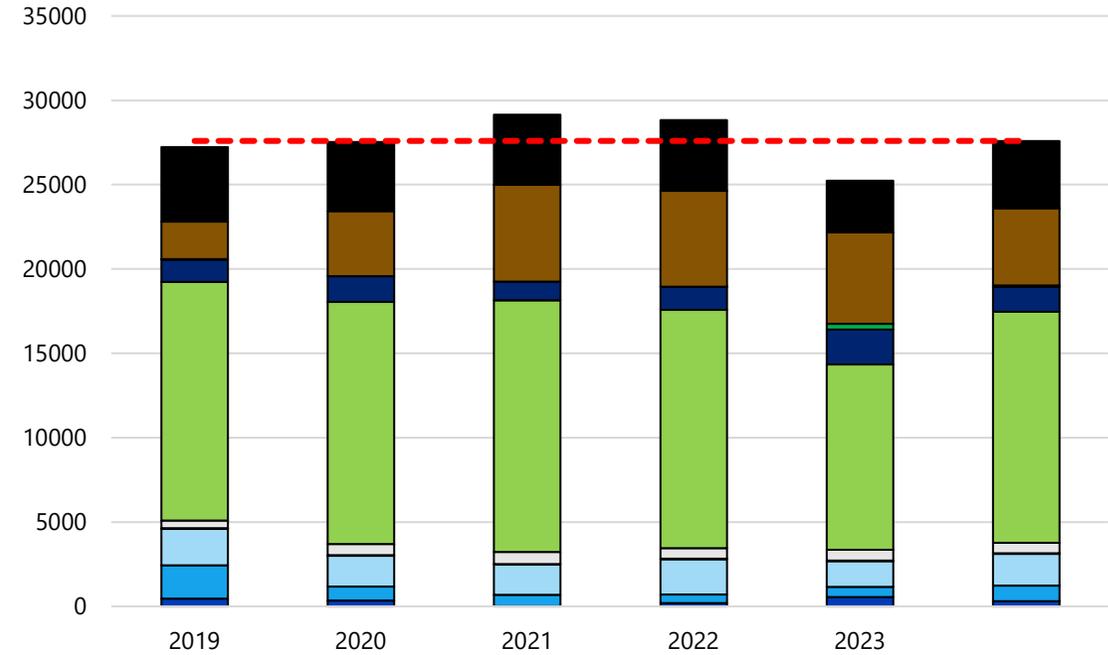- 5-Year average pumping is about 28,000 AF.
- Average well usage is about 10 AF/month
  - » Max of avg. use 127.2 AF/month
  - » Min of avg. use <1 AF/month
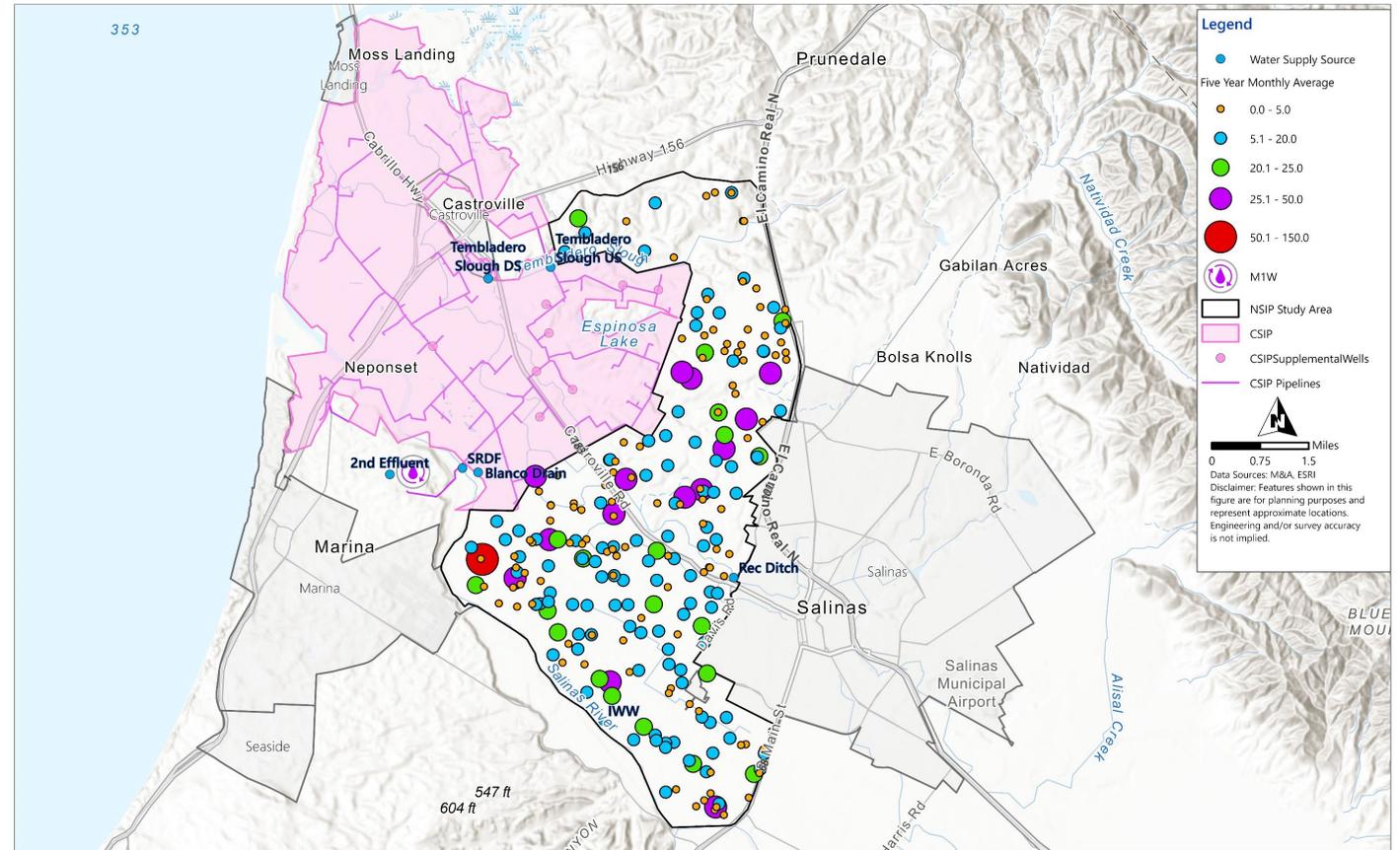
Demand Evaluation

- 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

Legend:
- 180 and 400-Foot Aquifer Equivalent
- 180-Foot and 400-Foot Aquifers
- 180-Foot Aquifer
- 180-Foot Aquifer Equivalent
- 400-Foot and Deep Aquifers
- 400-Foot Aquifer
- 400-Foot Aquifer Equivalent
- 400-Foot or Deep Aquifer Equivalent
- Deep Aquifers
- Unknown
- 5-Year Average

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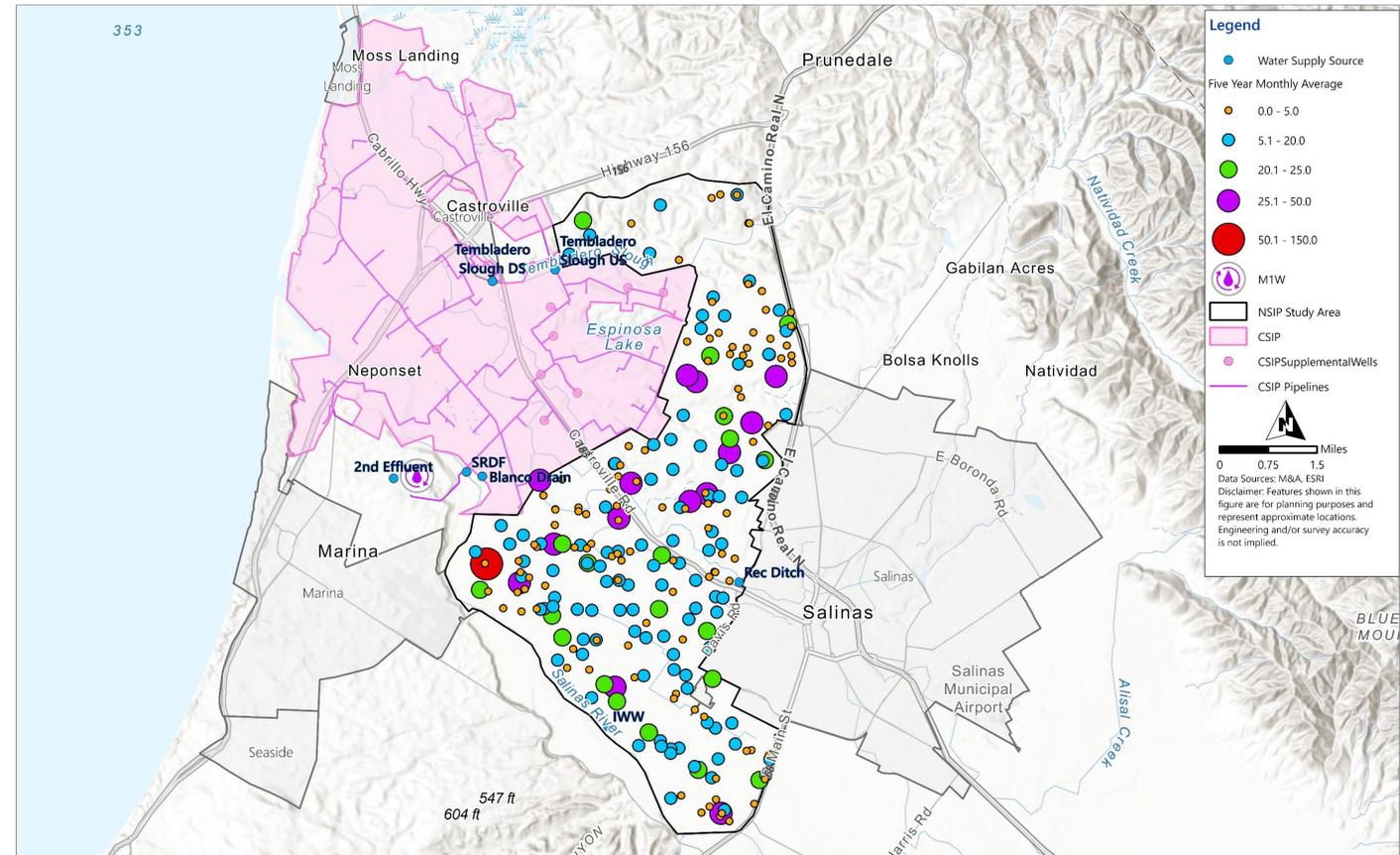
Scenario 2 – All Wells within 500 mg/L Intruded Zone

- Approx. 88 wells within 500 mg/L intruded zone.

- Average Annual Demand ≈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
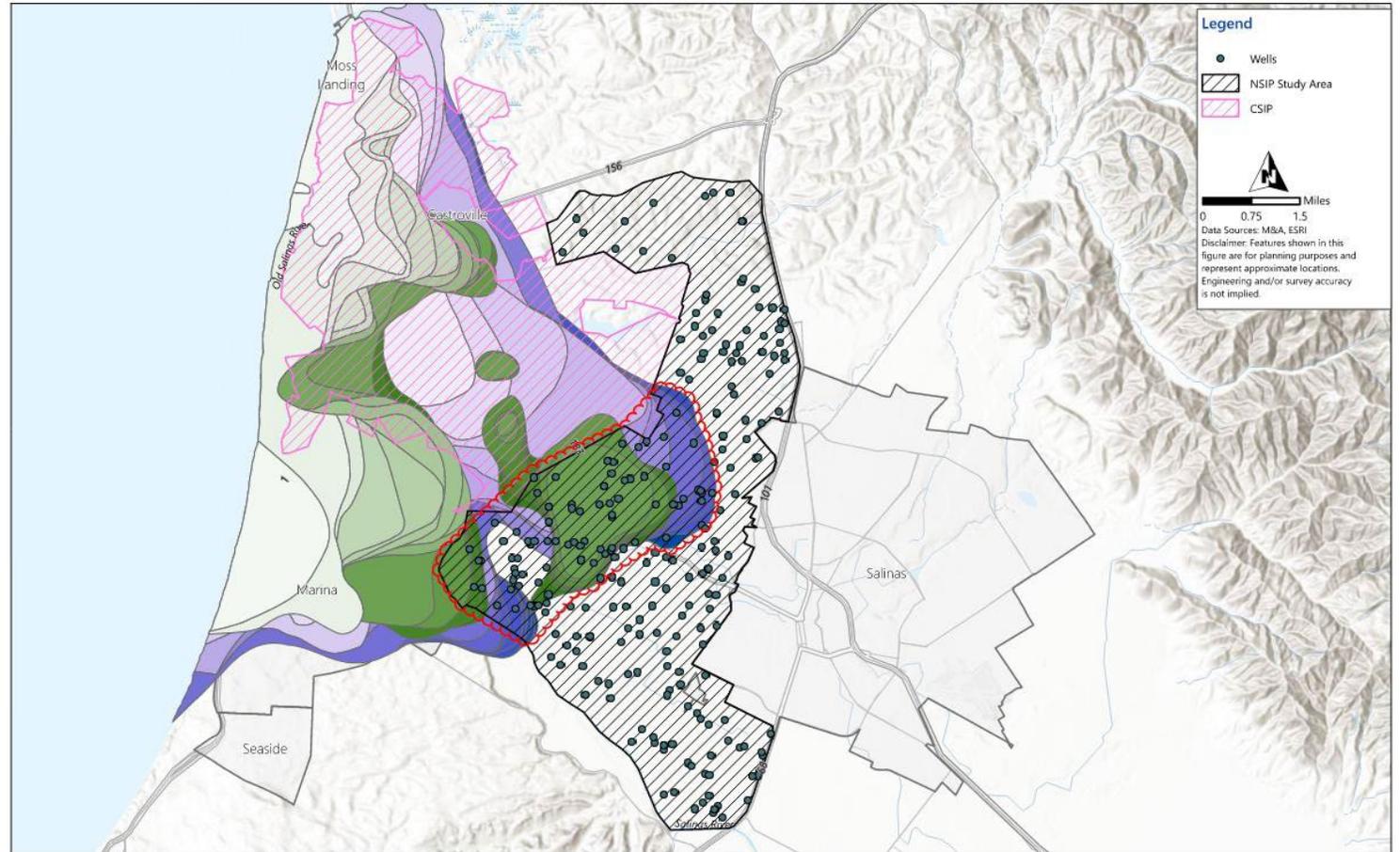
Scenario 3 – CSIP Expansion

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

Three proposed connection points (24"-36" pipes)
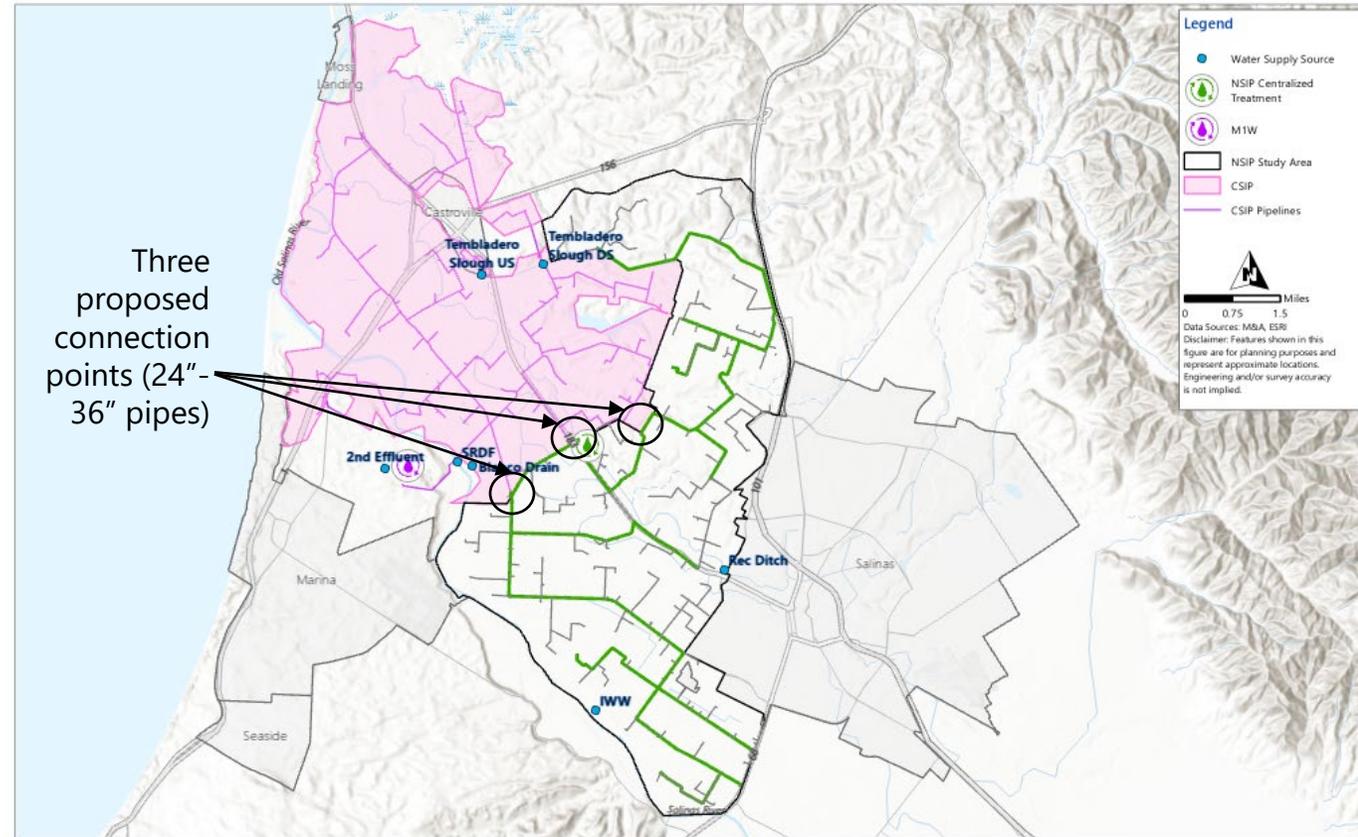
Next Steps for NSIP

- 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