

San Luis Obispo County Multi-Jurisdictional Hazard Mitigation Plan 2025 Update

Water Resources Advisory
Committee (WRAC) and
SB 552 Coordination

March 5th, 2025

1:30 pm

San Luis Obispo County
Multi-Jurisdictional Hazard Mitigation Plan



Introductions

- San Luis Obispo County Water Resources Advisory Committee
- WSP - Project Consultants
 - Jeff Brislawn, CFM – Project Manager
 - Juliana Prosperi, AICP – Deputy Project Manager
 - Melissa Baum – Planner
 - Brian Neff - Hazard Mitigation and Resilience Specialist

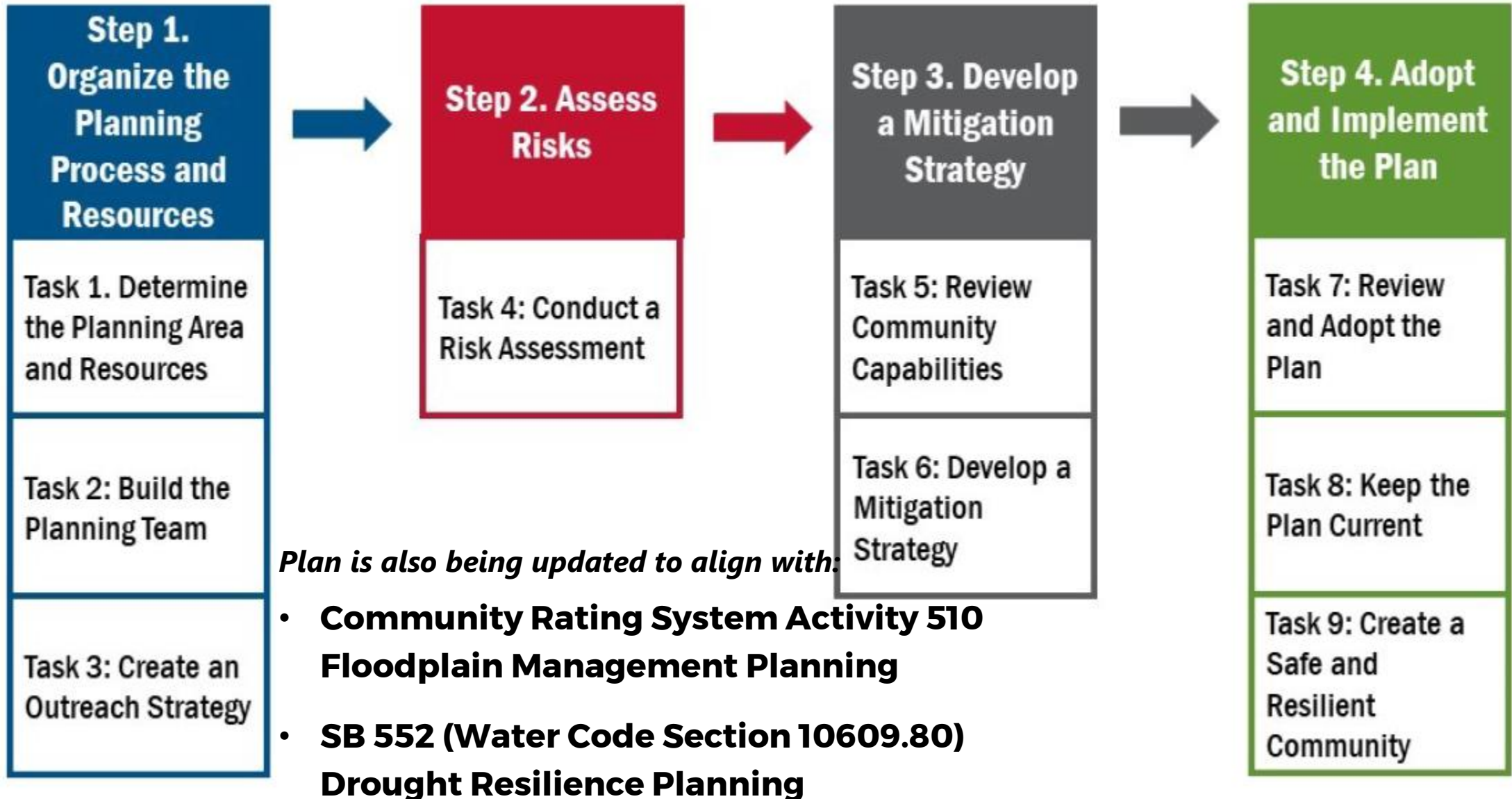
***Please Type Your Name, Title,
and Affiliation in Chat Box -
Or Sign in Sheet***



Agenda

- Overview of HMP Update with focus on drought and flood hazards
- SB 552 compliance and the HMP
- Mitigation strategies and actions
- Q&A

FEMA's 4-Step/Nine-Task Planning Process

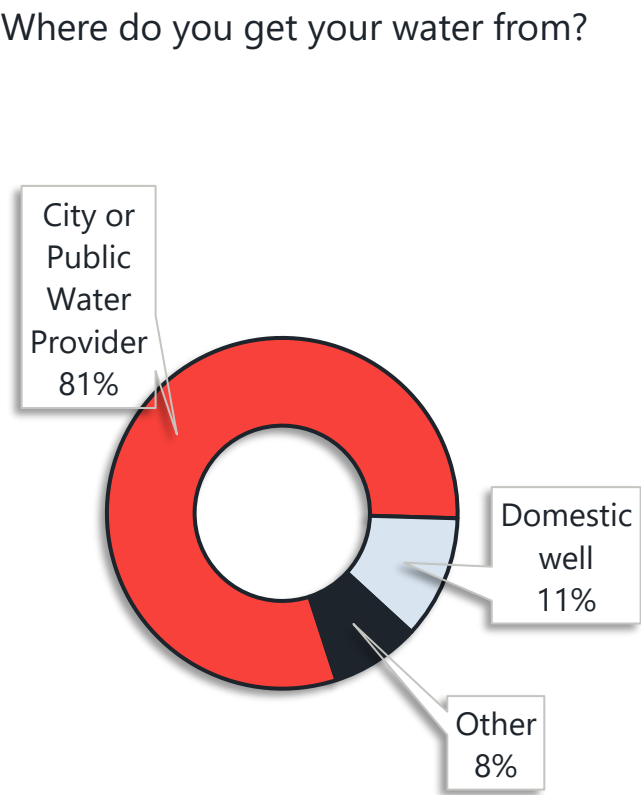
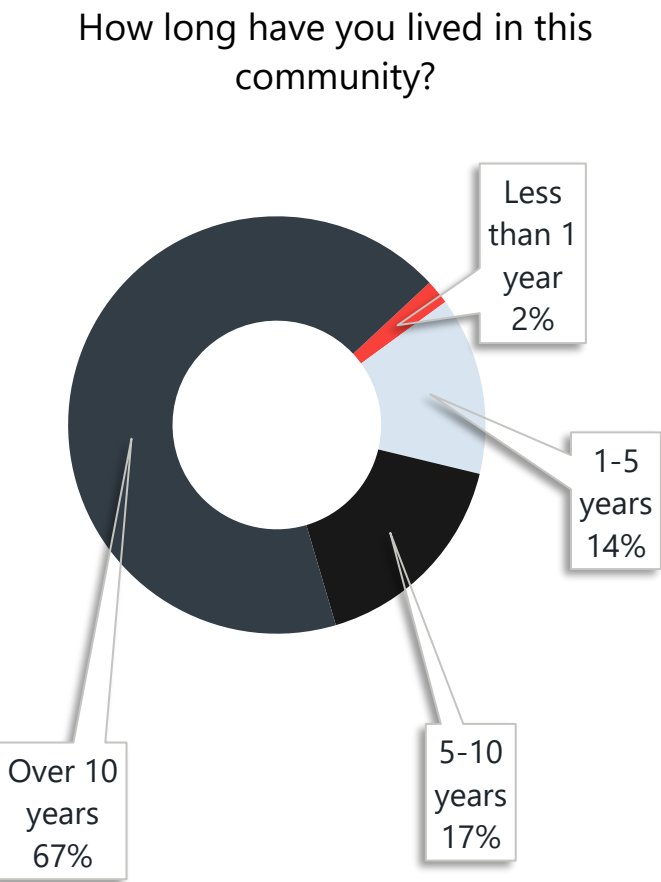
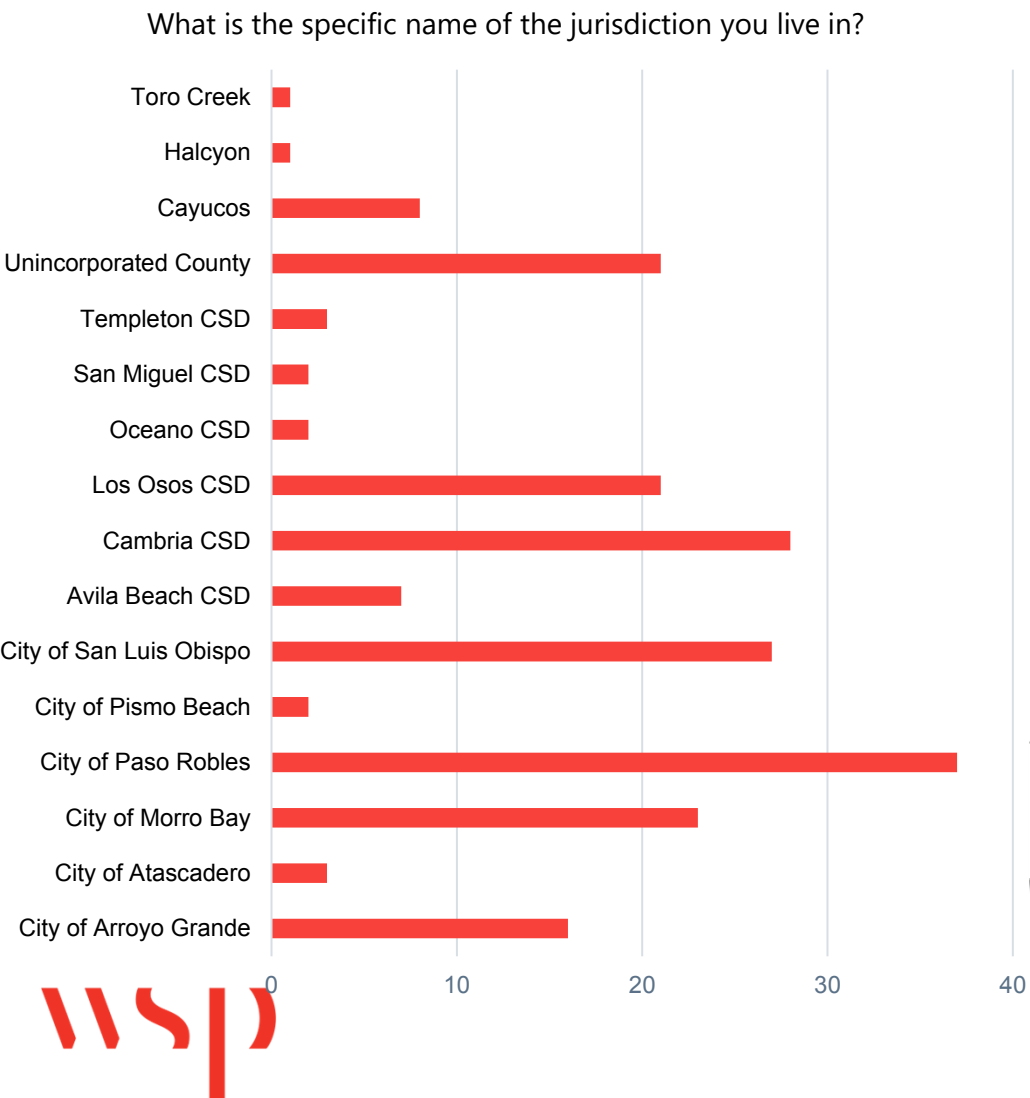


Progress So Far

- Established and convened a Hazard Mitigation Planning Committee (HMPC) at three meetings
- Draft Hazard Identification and Risk Assessment update
- Developed and solicited input on an online Public Survey
- Hosted first of 2 Public Workshops
- Coordination with County Public Works on SB 522 Drought Resilience Planning elements
- 4th and final HMPC meeting targeted for early April (virtual)

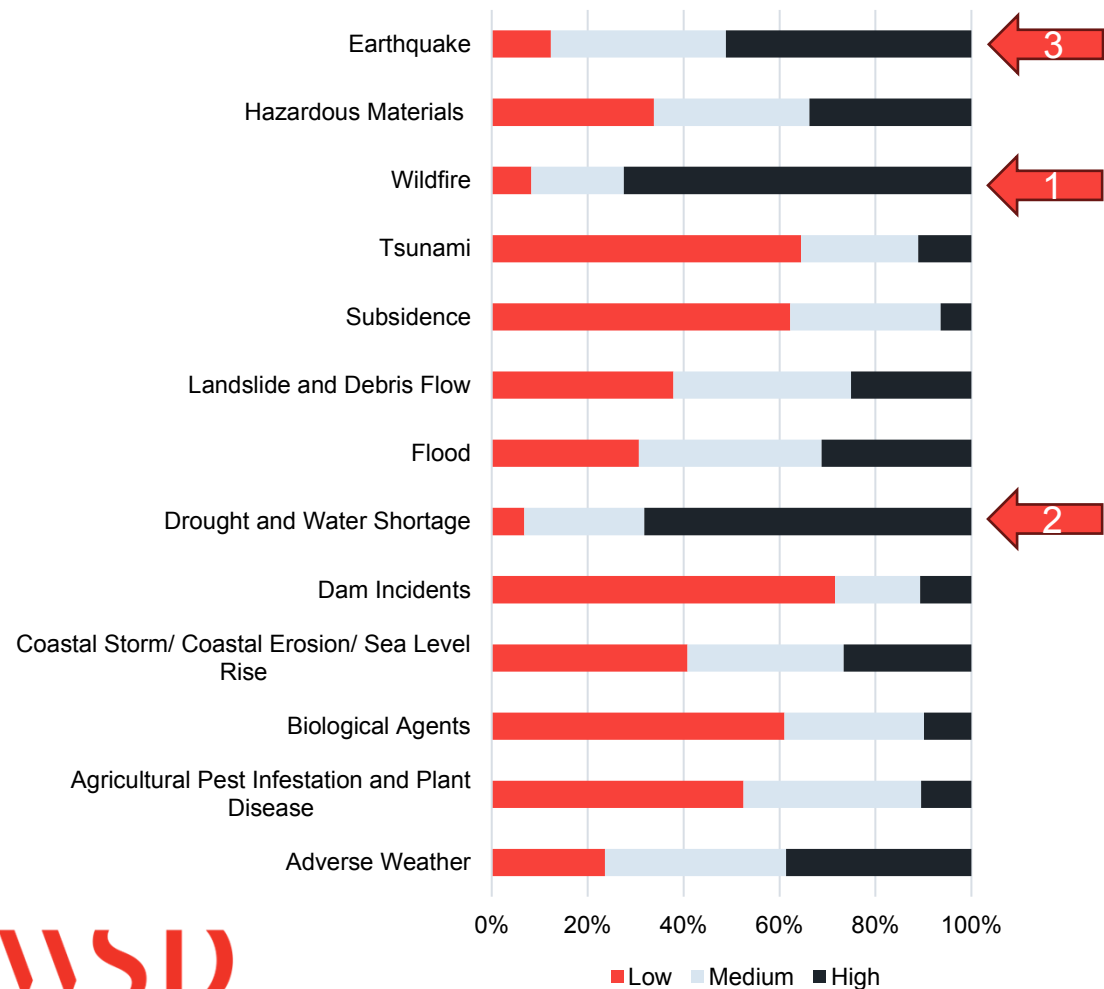


Public Survey Results – 224 Responses

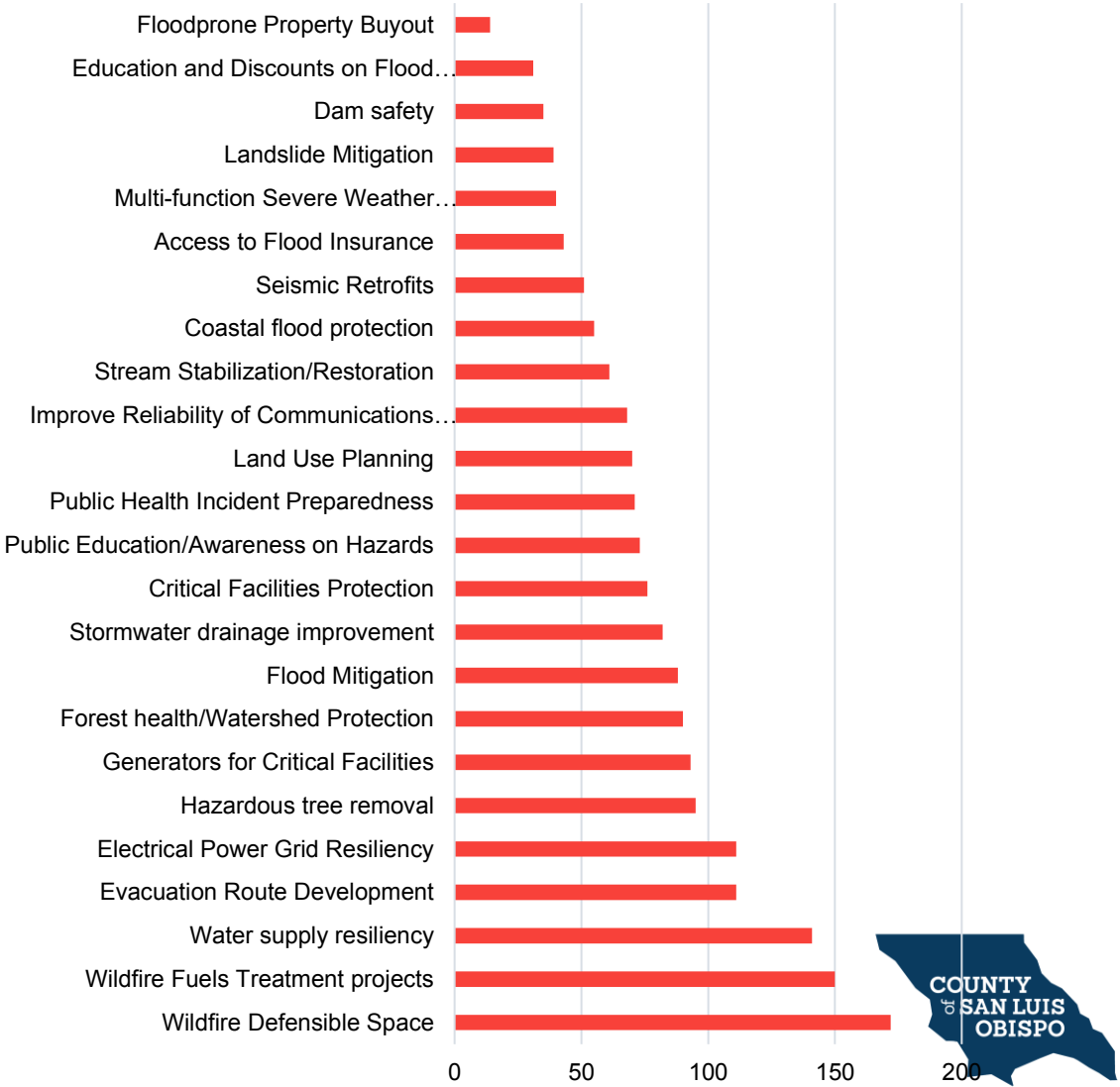


Public Survey Results – 224 Responses

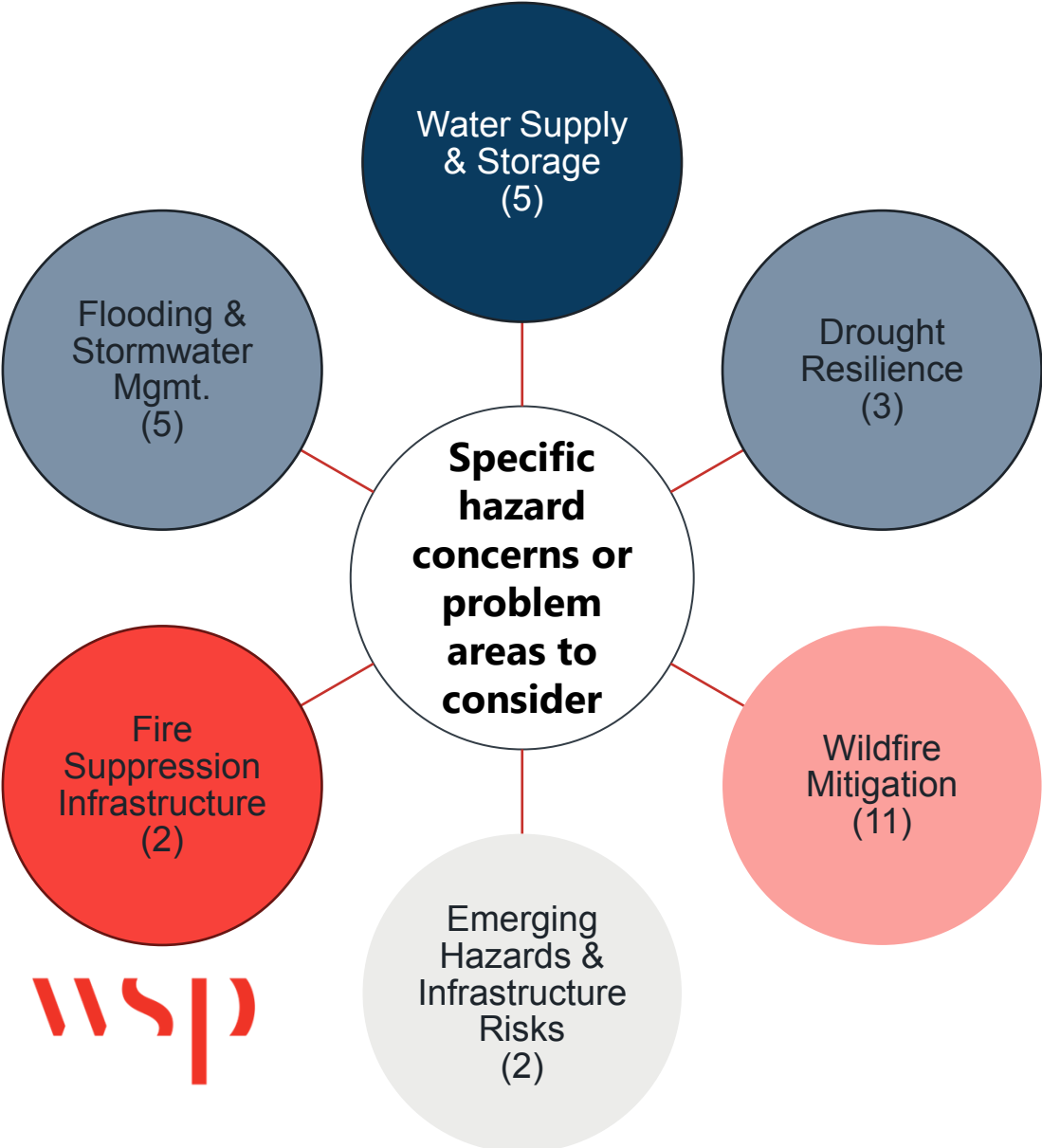
Please rate the significance of each hazard in San Luis Obispo County.



Please indicate the types of mitigation actions that you think should have the highest priority.



Public Survey Results – 224 Responses



What additional pre-disaster mitigation actions should be considered to reduce future disaster losses?



Stormwater capture and aquifer recharge



Water allocation priorities



Better forest and hillside fuel management



More water storage for fire suppression



Public awareness campaigns



Better emergency alert systems and evacuation drills



Drought and Water Shortage Overview

- Groundwater is the primary water source for the County, supplemented by surface water from the Salinas and Estrella Rivers.
- Additional sources include the State Water Project, Nacimiento Water Project, and Whale Rock, Chorro, Lopez Lake, and Salinas reservoirs.
- Drought increases reliance on groundwater.
- Climate change is projected to worsen water supply challenges with prolonged extreme droughts.



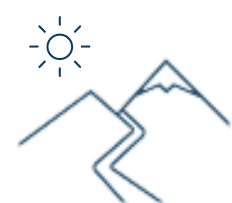
Meteorological:

Below normal precipitation



Agricultural:

Soil moisture deficits impacts crops/livestock



Hydrological:

Decreased surface/groundwater levels



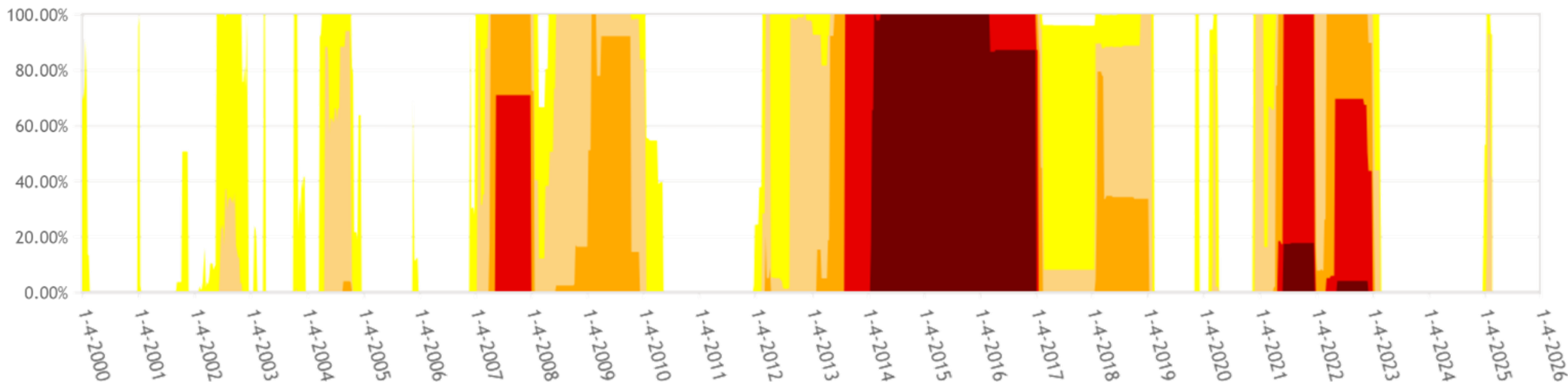
Socioeconomic:

Shortages affect human & economic activity

Area	Extensive
Likelihood	Likely
Magnitude	Critical
Significance	High

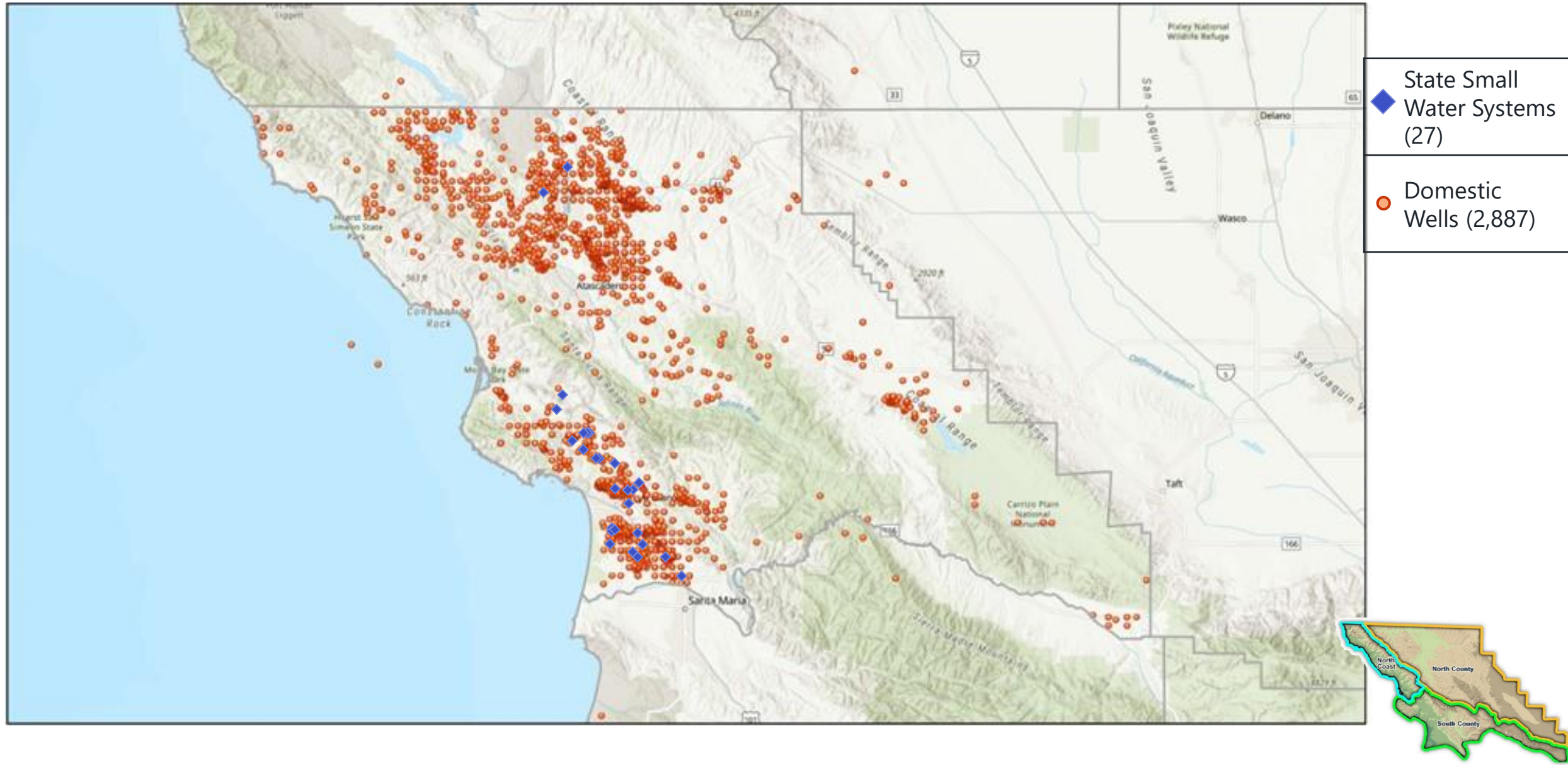
Recent Drought History in SLO County

San Luis Obispo County (CA) Percent Area in U.S. Drought Monitor Categories



D0	D1	D2	D3	D4
Agricultural ponds and creeks decline; forage crops and pastures are stressed; livestock feeding starts early; ground is hard.	Cash crop yields drop; fire activity increases; national forests ban campfires and fireworks; streams and ponds are low.	Burn bans begin; dryland crops suffer; hydroelectric power declines; surface water drops; saltwater intrusion affects rivers.	Air quality worsens; cracks appear in roads and homes; hay shortages force livestock sales; water mains break frequently; wildfires increase.	Lakes and reservoirs are critically low; water restrictions take effect; trees and grass dry out; wildfire risk is extreme.

State Small Water Systems and Domestic Wells



Drought Issues and Challenges by Sub-Region

Highest Risk: North County Sub-Region

- Urgent need for groundwater sustainability measures.
- Critical overdraft, well failures, and water quality degradation.

High Risk: South County Sub-Region

- Agricultural water use is driving moderate overdraft and nitrate contamination.
- Needs groundwater and water quality protections.

Moderate Risk: North Coast Sub-Region

- Saltwater intrusion is a growing concern.
- Needs coastal water management solutions.



SB 552 Compliance – Drought Resilience Plan

Develop a Countywide Drought Resilience Plan that includes:

(1) Potential drought and water shortage risk with proposed interim and long-term solutions

(2) Consolidations for existing water systems and domestic wells.

(3) Domestic well drinking water mitigation programs.

(4) Provision of emergency and interim drinking water solutions.

(5) An analysis of the steps necessary to implement the plan.

(6) An analysis of local, state, and federal funding sources available to implement the plan.



SB 552 Compliance – continued

(1) Potential drought and water shortage risk with proposed interim and long-term solutions

Well-dependent communities need alternative water supplies and contingency planning.

North County: Overdraft mitigation, groundwater recharge, well assistance programs.

South County: Well testing, nitrate remediation, groundwater sustainability programs.

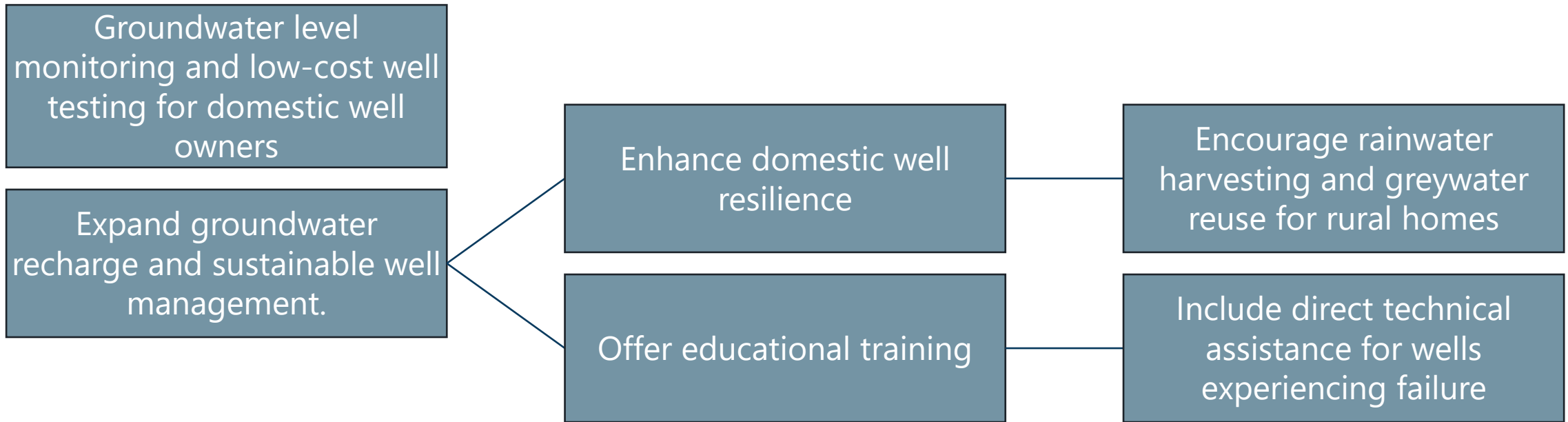
Coastal regions may need desalination or saltwater intrusion barriers.

Coastal Areas: Saltwater intrusion prevention, desalination feasibility studies.



SB 552 Compliance – continued

(3) Domestic well drinking water mitigation programs.



SB 552 Compliance – continued

4) Provision of emergency and interim drinking water solutions.

Provide drinking water assistance

Short-Term Solutions: Bottled water distribution, bulk water delivery, storage tanks

Interim Solutions: Mobile treatment units, water refill stations

Long-Term Solutions: Well assistance programs, groundwater recharge, municipal water connections

Summary of SB 552 Compliance

Findings:

- **North County** → Highest well failure & overdraft risk
- **South County** → Nitrate contamination & moderate overdraft
- **Coastal Areas** → Saltwater intrusion risk

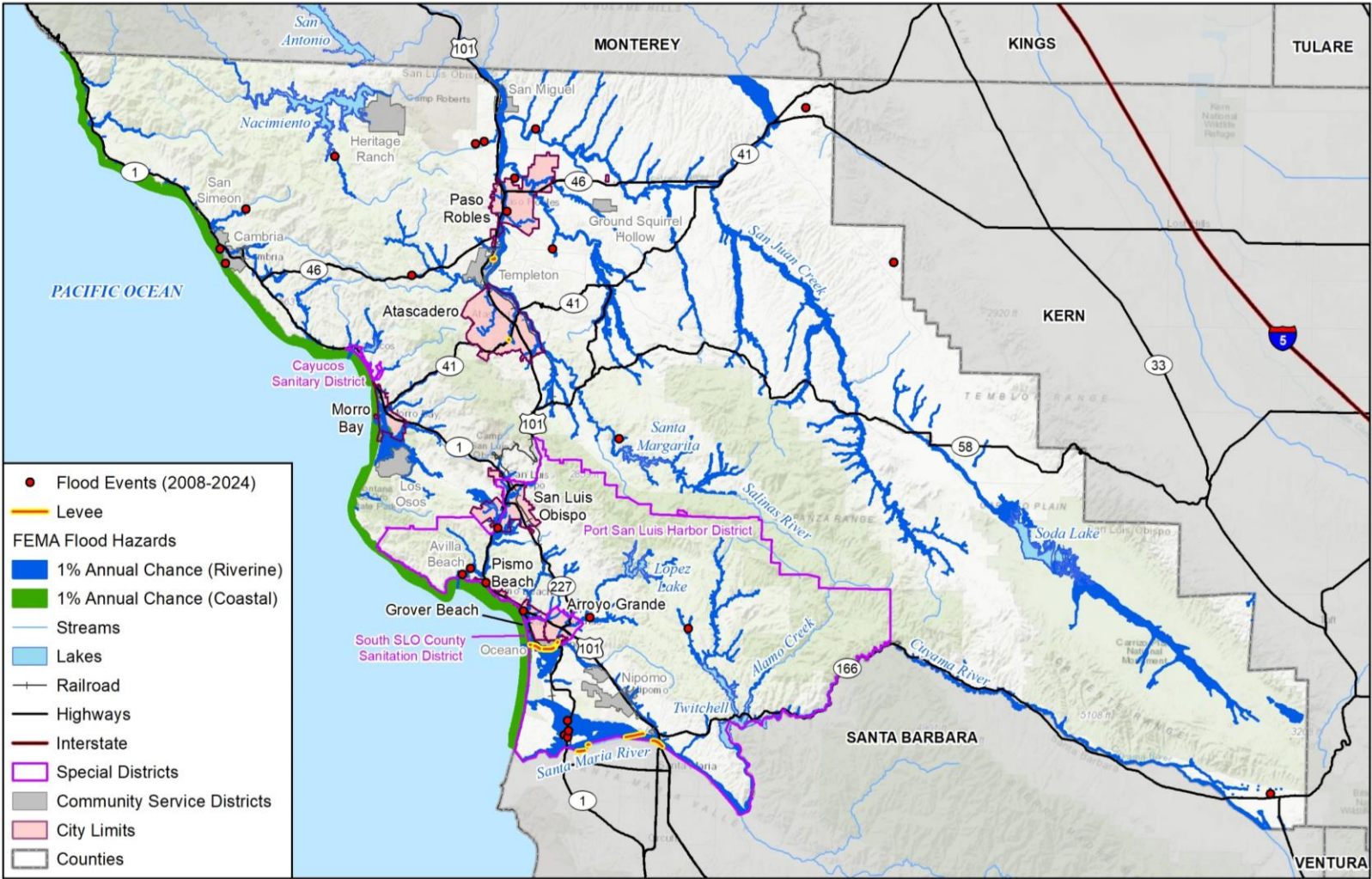
SB 552 Compliance Actions:

- ✓ Prioritize **North & South County** for well assistance & emergency planning.
- ✓ Establish a **monitoring program** for rural domestic wells.
- ✓ Create a **vulnerability inventory** for small water systems.

Related Planning Mechanisms: Groundwater sustainability plans



Flooding: 1% Annual Chance Flood



Updated risk analysis using new Flood Insurance Rate Maps effective 6/6/2024

Map compiled 12/2024;
Intended for planning purposes only.
Data Source: San Luis Obispo County,
FEMA NFHL Effective 6/6/2024, NCEI



Risk Summary: Flooding

- Significance of flooding: **Medium**
 - *HMPC recommends changing to **High***
- 2,991 structures valued at \$1.3B located within FEMA 1% mapped flood hazard areas.
- 12,069 structures valued at \$3.7B located within FEMA 0.2% mapped flood hazard areas.
- An estimated 4,736 people reside in areas exposed to 1% annual chance flood hazards.



2021 floodwater continues to cover First Street in Avila Beach, forcing some people out of their homes. **Source:** KSBY News, 2021



Sample Drought Mitigation Strategies & Actions

Increase Groundwater Recharge

- Managed Aquifer Recharge (MAR) projects.
- Stormwater capture and spreading basins.

Improve Agricultural Water Management

- More efficient irrigation systems (drip irrigation, deficit irrigation).
- Crop switching to less water-intensive crops.

Expand Surface Water & Alternative Supplies

- Utilize more surface water storage where available.
- Explore desalination or recycled water use in coastal areas.

Address Water Quality Risks

- Implement well water testing programs for rural households.
- Develop water treatment solutions where contamination is severe.

Saltwater Intrusion Barriers

- Reduce pumping near coastal aquifers.
- Implement seawater intrusion barriers or managed recharge zones.



Proposed New Drought and Flood Mitigation Actions from 2/26 HMPC meeting (additional actions due March 18th)

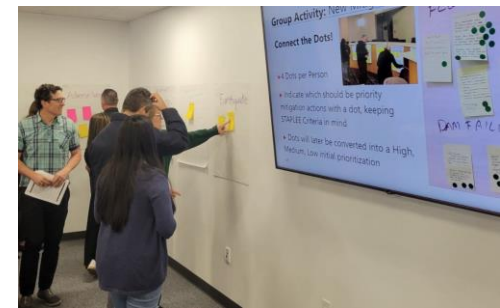
Drought

- 1 - List of places and agencies (program) to go for public to acquire bottled/hailed water with cost recovery & accounting
- 2 - Drought water use ordinance (specific watering days)
- 3 - Retrofit to Build, offset of water appliances
- 4 - "Cash for Grass" & other buy-back programs that pay public for installing more water conservative programs, projects, etc.
- 5 - Public Education on droughts (Water portfolio Education) based on: Location = vulnerability; Water use - Groundwater vs. Surface water; Groundwater Recharge Information; watershed information.
- 6 - Subsidence - Mapping of areas with potential subsidence

Flood

- 1 - Green Infrastructure options for new development in Grover Beach: Update Development code and building code.
- 3 - Update Grover Beach SWMP with outcomes:
 - Project prioritization in combination with infrastructure needs and design standards; consistency with regional requirements.

Dam Incident – several proposed around development standards in inundation zones



Questions and Answers





Thank you!

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