WATER REPLENISHMENT DISTRICT

Climate Resiliency Plan

Preliminary Findings

January 28, 2026

SECURING OUR WATER FUTURE TODAY

GUIDES FOR PRODUCTIVE MEETINGS

Welcome & Introductions

Esther Rojas, Manager of Watermaster and Water Resources

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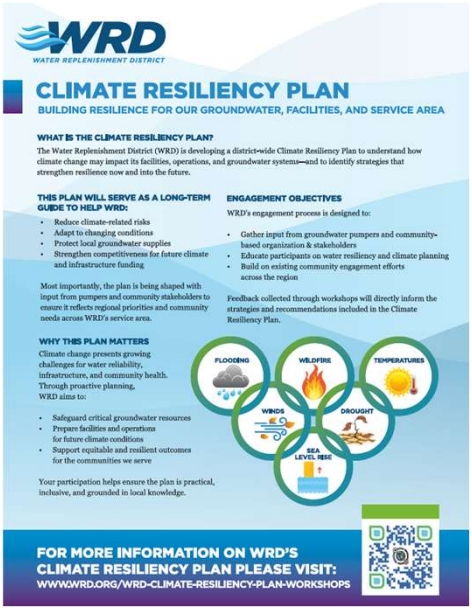
MEETING OBJECTIVES

- Learn about WRD's Climate Resiliency Plan and its impact on operations and communities.
- Provide feedback on preliminary findings for climate adaptation and mitigation.
- Collaborate on solutions that strengthen water resiliency for the region.

MEETING AGENDA

Agenda Item
Welcome and Introductions
Meeting Objectives and Agenda Overview
Presentation on Climate Resiliency Plan Preliminary Findings
Q&A
Breakout Groups: Input on Climate Resiliency Plan Preliminary Findings
Breakout Groups Report Back
Next Steps

FACTSHEET



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CLIMATE RESILIENCY PLAN
BUILDING RESILIENCE FOR OUR GROUNDWATER, FACILITIES, AND SERVICE AREA

WHAT IS THE CLIMATE RESILIENCY PLAN?

The Water Replenishment District (WRD) is developing a district-wide Climate Resiliency Plan to understand how climate change may impact its facilities, operations, and groundwater systems—and to identify strategies that strengthen resilience now and into the future.

THIS PLAN WILL SERVE AS A LONG-TERM GUIDE TO HELP WRD:

- Reduce climate-related risks
- Adapt to changing conditions
- Protect local groundwater supplies
- Strengthen competitiveness for future climate and infrastructure funding

Most importantly, the plan is being shaped with input from pumpers and community stakeholders to ensure it reflects regional priorities and community needs across WRD's service area.

ENGAGEMENT OBJECTIVES

WRD's engagement process is designed to:

- Gather input from groundwater pumpers and community-based organization & stakeholders
- Educate participants on water resiliency and climate planning
- Build on existing community engagement efforts across the region

Feedback collected through workshops will directly inform the strategies and recommendations included in the Climate Resiliency Plan.

WHY THIS PLAN MATTERS

Climate change presents growing challenges for water reliability, infrastructure, and community health. Through proactive planning, WRD aims to:

- Safeguard critical groundwater resources
- Prepare facilities and operations for future climate conditions
- Support equitable and resilient outcomes for the communities we serve

Your participation helps ensure the plan is practical, inclusive, and grounded in local knowledge.

FOR MORE INFORMATION ON WRD'S CLIMATE RESILIENCY PLAN PLEASE VISIT:
WWW.WRD.ORG/WRD-CLIMATE-RESILIENCY-PLAN-WORKSHOPS

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CLIMATE RESILIENCY PLAN
Building Resilience for Our Groundwater, Facilities, and Service Area

PRELIMINARY FINDINGS & RECOMMENDATIONS

WRD facilities face a range of climate-related vulnerabilities, varying based on location, infrastructure design, and operations. Understanding these vulnerabilities helps WRD prioritize investments, strengthen adaptive capacity, and ensure continued protection of groundwater resources. The table below summarizes the risk levels of the evaluated climate impacts.

CLIMATE IMPACT	DISTRICT-WIDE RISK LEVEL	KEY DRIVERS OF RISK
Flooding	Low to Medium	Localized flooding at select facilities, proximity to FEMA flood zones, limited drainage in certain areas, storm intensity increasing.
Extreme Heat	Medium	Rising extreme heat days, HVAC and equipment overheating, worker safety concerns, process sensitivity to temperature.
Wildfire	Low	Facilities generally outside high-risk wildfire zones, but smoke or ash may affect spreading grounds and air quality.
Sea Level Rise	Low	Increased seawater intrusion risk at coastal barriers; potential need for increased injection pumping as sea levels rise.
Drought	Medium	Likelihood of prolonged drought, reduced imported water availability, increased groundwater pumping, reliance on recycled water.
Wind	Low	Exposure to Santa Ana wind conditions, dust impacts, and potential Public Safety Power Shutoffs that affect reliability of power-dependent operations.

WRD uses a combination of existing practices and new recommended strategies to reduce climate-related risks across its facilities. Together, these measures strengthen operational resilience, protect groundwater supplies, and enhance the District's ability to adapt to future climate conditions.

CLIMATE IMPACT	EXISTING MEASURES	RECOMMENDED
Flooding	Site grading, storm drains, turnout structures, and Emergency Action Plans; levee protection at several facilities.	Maintain drainage channel efficiency; stay updated on FEMA flood maps; maintain communication with LA County agencies
Extreme Heat	HVAC and SCADA cooling upgrades, temperature monitoring, shaded equipment, ventilated buildings, and fire suppression systems.	Regular electrical inspections; install portable cooling or fans where needed; replace aging A/C units; evaluate cooling performance.
Wildfire	Coordination with local agencies during smoke events; air quality monitoring; no historical on-site wildfire incidents.	Add wildfire-specific response procedures to Emergency Action Plans; maintain agency coordination during wildfire events.
Sea Level Rise	Continuous groundwater level monitoring, flow modeling, and coordination on barrier operations.	Maintain protective elevations at seawater barriers; use updated sea-level projections in long-term planning.
Drought	Recycled water programs (WIN, WISAH), Safe Drinking Water Program, groundwater remediation, and seawater barrier contributions.	Strengthen partnerships to support recharge and replenishment; plan for reduced imported water availability; enhance local supply capacity.
Wind	Weather-rated equipment, on-site backup power, PSPS operating procedures.	Ensure redundancy during PSPS events.

BOARD OF DIRECTORS

Joy Langford, Division 1 | Robert Katherman, Division 2 | John D. S. Allen, Division 3 | Sergio Calderon, Division 4 | Vera Robles DeWitt, Division 5 | Stephan Tucker, General Manager

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But First. . . A Pop Quiz!

How to Participate:

- Select your answer (A, B, C, or D) and write it down on your index card.

POP QUIZ: Climate Resiliency

Climate resiliency is best defined as:

A. Convincing the climate to behave

B. Preparing for, adapting to, and recovering from climate-related impacts

C. Pretending extreme weather is a phase

D. Waiting to respond until after damage occurs

POP QUIZ: Climate Change Vulnerabilities

Which of the following could be a vulnerability associated with climate change on water systems?

A. Cities floating away into space because of rising temperatures

B. Penguins migrating to city parks

C. Increased risk of flooding due to more intense storms

D. Water pipes melting like chocolate during heat waves

POP QUIZ: Drought and Groundwater

During an extended drought, what scenario may happen to groundwater supplies?

A. Declining water levels as pumping may exceed recharge

B. Aquifers start producing free milkshakes

C. Wells become portals to Atlantis

D. Subsurface water turns into glitter for aesthetic purposes

POP QUIZ: Resiliency Measures

Which action best demonstrates a proactive resiliency measure?

A. Ignoring flood map updates because past floods never happened

B. Upgrading HVAC and cooling systems for critical equipment impacted by extreme heat

C. Waiting for aquifers to fill naturally without intervention

D. Relying on luck to avoid equipment failure during extreme events

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Climate Resiliency Plan Preliminary Findings

Michelle Chebeir, Project Manager

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WHY CLIMATE RESILIENCY MATTERS

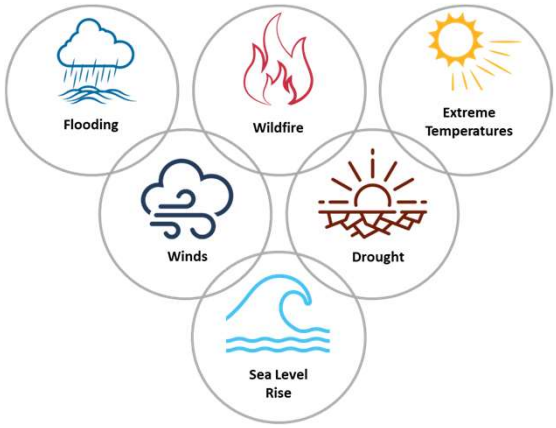
WRD is developing a district-wide climate resiliency plan to:

- Anticipate and manage risks to operations, facilities, and groundwater recharge activities
- Identify mitigation measures for vulnerabilities
- Engage stakeholders in protecting local water reliability
- Ensure that communities have safe, sustainable water for the future

CLIMATE CHANGE TRENDS FOR LOS ANGELES REGION

Climate Impact	Historical Trend	Future Direction of Change	Confidence for Future Change
Temperature	Warming (last 100+ years)	Warming ↑	Very High
Intensity of heavy precipitation events	No significant trends in data (last 100+years)	Increasing ↑	Medium-High
Sea Levels	Rising (last 100+ years)	Rising ↑	Very High
Snowpack	Declining (last 100+ years)	Declining ↓	Very High
Acres Burned by Wildfire	Increasing (last 30+ years)	Increasing ↑	Medium-High

CLIMATE CHANGE IMPACTS EVALUATED



Classification of Risk

Term	Definition
Low Risk	Minimal chance of posing a risk to the health and safety of staff and the integrity/functionality of facility equipment.
Medium Risk	Issues likely to occur again, but do not pose a significant threat to the health and safety of staff or permanently destroy equipment. May cause temporary shutdowns.
High Risk	Issues likely to occur again and pose a threat to the health and safety of staff. Could cause an extended shutdown of facility.

WRD SERVICE AREA

- 43 Cities in Southern L.A. County
- 420 Square Miles
- 4 Million People
- Over 10% of California's Population
- Second Largest Water District by Population in California
- Groundwater Makes up Nearly 50% of the Region's Water Demand
- 450,000 Acre-Feet (150 Billion Gallons) of Useable Groundwater Storage

WRD FACILITIES

Albert Robles Center for Water Recycling & Environmental Learning

WRD's Albert Robles Center purifies 14 million gallons of water per day, providing a locally sustainable water supply for groundwater replenishment while bolstering drought-resiliency.

Leo J. Vander Lans Advanced Water Treatment Facility

The Leo J. Vander Lans Facility purifies 8 million gallons of water per day for use in coastal injection wells, preventing seawater intrusion and providing supplemental groundwater replenishment.

Robert W. Goldsworthy Groundwater Desalter

The Goldsworthy Desalter uses reverse osmosis to treat 5 million gallons of brackish (salty) groundwater that is trapped inland due to historical seawater intrusion.

Perchlorate Cleanup Project in the Los Angeles Forebay

WRD is leading efforts to clean up one of the state's highest concentrations of perchlorate in groundwater within the Los Angeles Forebay to protect the basin from further contamination and secure safe drinking water for the region.

WHAT WE'VE LEARNED: FACILITY VULNERABLITIES

- Flooding
  - Most WRD facilities are protected by levees and/or not in a flood plain
  - Localized flooding may still occur
  - Overall **low to medium** risk
- Sea Level Rise (SLR)
  - No coastal facilities
  - WRD to maintain communications with Public works regarding sea water barriers
  - Overall **low** risk

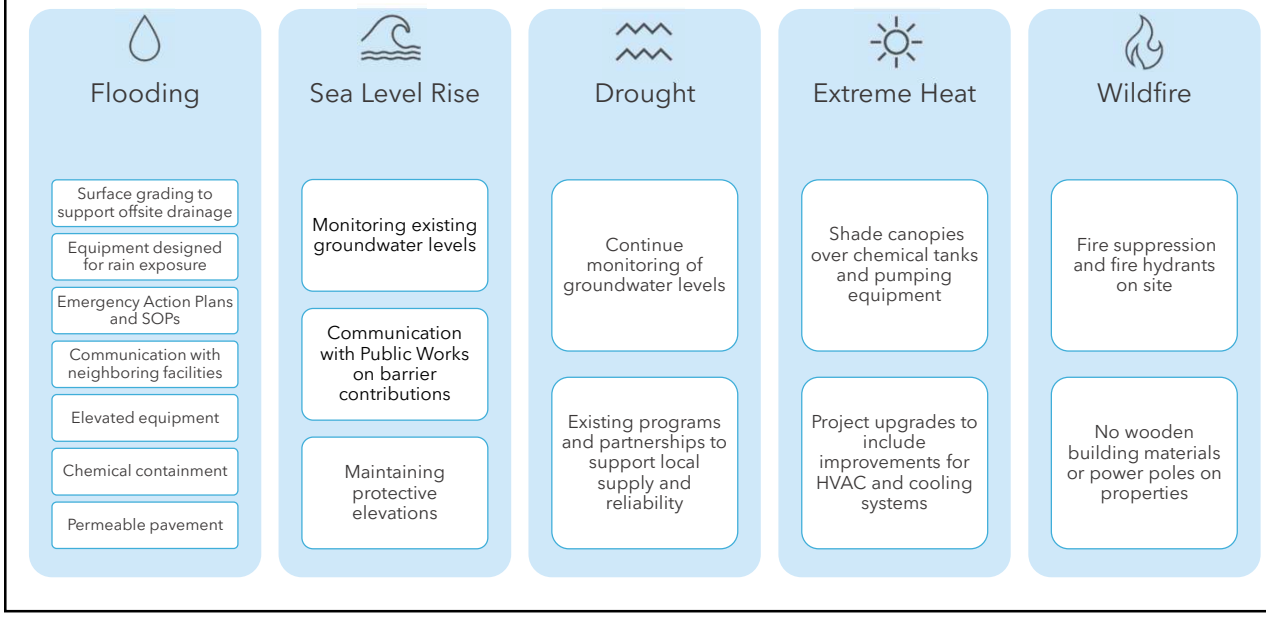
WHAT WE'VE LEARNED: FACILITY VULNERABLITIES

- Extreme Heat
  - Issues with HVAC/overheating at some facilities, but will be addressed in planned expansion projects
  - Overall **low to medium** risk
- Wildfire
  - No facilities are in areas of high risk for wildfire
  - WRD to monitor for indirect impacts from smoke and ash
  - Overall **low** risk
- Wind
  - No reported impacts from wind; potential dust impacts on employees and equipment
  - Overall **low** risk

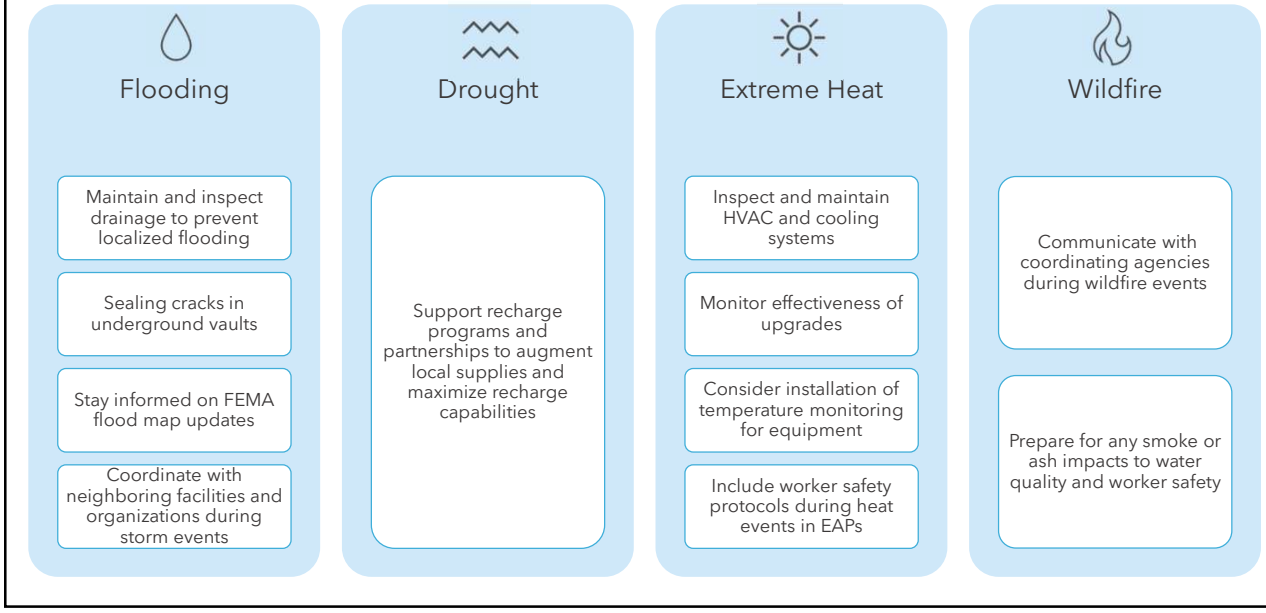
WHAT WE'VE LEARNED: FACILITY VULNERABLITIES

- Drought
  - Greater than 75% chance of multidecadal drought
  - Drought periods coincide with increased groundwater pumping and imported water availability
    - Increased reliance on recycled water
  - WRD's existing programs and activities:
    - WIN and WIN4All
    - Safe Drinking Water Program (SDWP) and DAC
    - Groundwater remediation
    - Contributions to barriers
  - Future programs to partnerships and programs to support groundwater replenishment and quality
  - Overall **medium** risk

OVERALL SUMMARY OF EXISTING MEASURES



GENERAL RESILIENCY RECOMMENDATIONS



ROLE OF PUMPERS AND COMMUNITY

- Report any vulnerabilities or incidents (flooding, drought impacts, equipment failures)
- Provide feedback on climate change impacts, facility needs, and strategies
- Feedback from this workshop will help inform risk assessments and resiliency measures

Q&A

- Raise your hand to ask a question
- Facilitator will mind the queue

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Breakout Groups

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BREAKOUT GROUPS

- Discussion questions:
  - What concerns does your organization or do your communities have about water supply for the future?
  - What programs related to water is your organization involved in?
  - What do you see as a top resiliency priority for WRD? What is a top equity priority?
  - What else should WRD be considering right now?

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Report Back

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Wrap Up

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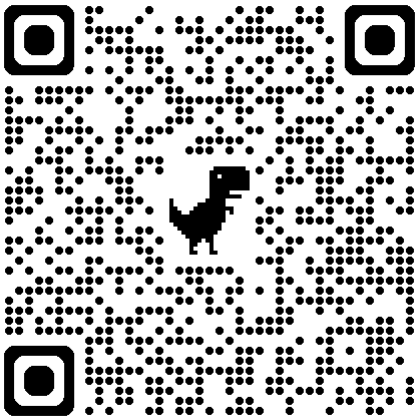
We want your feedback!



NEXT STEPS

- WRD will incorporate input received into a Climate Resiliency Plan
- In Spring 2026, the project team will report back on feedback received and how it was incorporated into the final strategies
- There will be a public comment period once we have a complete draft of the plan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THANK YOU
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