



Sonoma Water

Clean. Reliable. Essential. Every Day.

Sonoma Water Local Hazard Mitigation Plan 2023 Update

WAC/TAC 05-01-2023



Parastou Hooshialsadat, PE

Parastou.Hooshialsadat@scwa.ca.gov

Water Agency Engineer

Agenda



- LHMP Update Process
- LHMP Goal and Ranking Methodology
- 2018 LHMP Completed Mitigation Actions
 - Water Supply and Transmission
 - Sanitations
- 2023 LHMP New Mitigation Actions
- Next Steps
- Questions

LHMP Update Progress



- Review 2018 LHMP Mitigation Actions
 - July – September 2022
- Initial Stakeholders' Meetings
 - WAC/TAC – November 2022
 - Flood Control Zones – December 2022
- Launch Public Survey
 - December 2022 – January 2023
- Review Current LHMP Mitigation Actions
 - February 2023
- Finalize the Draft
 - March – April 2023
- Final Stakeholders' Meetings
 - WAC/TAC – May 2023
 - RRCSD – May 2023

LHMP Goal



- To maintain and enhance a disaster-resistant region by reducing the potential for loss of life, property damage, and environmental degradation from natural disasters, while accelerating economic recovery from those disasters.

Ranking Methodology

- **Tier 1:** Actions that provide the highest qualitative benefit/cost ratio, and once implemented will result in substantial improvement in the overall reliability of the system.
- **Tier 2:** Actions considered desirable and will further enhance system reliability once first tier objectives are achieved.
 - ❖ **Priority A:** Actions that are estimated to have the potential or likelihood to be completed or initiated within the 5-year life of this LHMP based on current projections of available resources, opportunities, and cost to implement.
 - ❖ **Priority B:** Actions for which the availability of dedicated resources or opportunities are not likely within the 5-year life of this LHMP, based on the estimated cost to implement and current projections of available resources.



2018 LHMP Completed Projects – Water Supply and Transmission

- Seismic retrofit of Cotati-Intertie at Russian River Creek crossing.
- Seismic retrofit of Cotati-Intertie at Mark West Creek crossing.
- Develop an alternate Emergency Operation Center location.
- Assess moving powerlines at Wohler-Mirabel site to underground.
- Repair the slide on the Wohler access road.
- Install flow measuring devices at key turnouts for real time monitoring of flow.



Sonoma
Water

2018 LHMP Completed Projects – Sanitation

- RRCSD:

- Seismic retrofit of secondary clarifiers at WWTP.
- Install equipment to protect the emergency generator against voltage spikes.
- Install quick connects at lift stations to allow emergency generator to be operated if loss of power occurs.



- Penngrove SZ:

- Mitigate the effects of flooding at the Penngrove SZ lift station.
- Mitigate the ground deformation effects of liquefaction hazard on the Penngrove SZ force main adjacent to the Petaluma River and crossing Lynch Creek.



2023 LHMP New Mitigation Actions

Water Supply and Transmission	1	A	Mitigate the liquefaction and lateral spread hazard at the Russian River crossing on the Wohler-Mirabel Intertie.
	1	A	Mitigate the liquefaction and lateral spread hazard at the Willow Brook Creek crossing of the Petaluma Aqueduct.
	1	A	Retrofit design for Collectors 1 and 2 against liquefaction and lateral spread hazard.
	1	A	Coordinate with Army Corps of Engineers to address operational reliability of the outlet works at Warm Springs Dam.
	1	A	Coordinate with PG&E to identify locations where buried electrical and high pressure gas lines overlap water transmission system.
	1	A	Conduct site specific geotechnical assessment of the portions of the water transmission system that are within the historic landslide occurrence zones.
	2	B	Mitigate water turbidity at Collector 5 from burn area runoff.
Sanitation System	1	A	Mitigate the effects of flooding for portions of the RRCSD collection system subject to inflow located within the 100-year floodplain of the Russian River.
	1	A	Update construction standards to address inflow and infiltration for the collection system.
	2	B	Study potential for vacuum system in RRCSD collection system
	2	B	Establish sanitation level planning
	2	B	Establish long-term solution for Occidental CSD treatment plant
	2	B	Establish property partnerships and ordinances to reduce sanitary sewer overflows
Flood Control Facilities	2	B	Identify critical watersheds or sub-watersheds that represent high fire risk and likely to represent high flood management impact (sediment) to agency's operations.



Next Steps

Public Review Period

May 2023: Public Comment Period

June 2023: Submit final draft LHMP to CalOES

October 2023: LHMP to be approved by FEMA, and Board of Directors



 Website: SonomaWater.org/lhmp



**Sonoma
Water**

Parastou Hooshialsadat, PE
Water Agency Engineer

Parastou.Hooshialsadat@scwa.ca.gov

LHMP@scwa.ca.gov