



Napa County Regional Climate Action and Adaptation Plan

Climate Action Committee Meeting
August 23, 2024





Agenda

- Preliminary Draft Climate Adaptation Measures
- Next Steps
- Q&A

RESILIENCE

MITIGATION

reduce GHG emissions



Zero Emission Vehicles



Building Electrification



Waste Reduction



Renewable Electricity



Water Conservation



On-site Renewable Energy

Natural & working lands



Tree Planting

ADAPTATION

address climate change impacts

Minimize Wildfire Hazards



Heat Island Mitigation



Evacuation Routes



Climate Change Impacts in Napa

- Increased Temperatures and Extreme Heat
- Drought and Water Supply Impacts
- Increased Wildfire Risk and Smoke Impacts
- Increased Extreme Precipitation and Flooding Risk
- Sea Level Rise
- Strain on Energy Grid



Climate Adaptation Framework

Three-pronged adaptation framework

- **Strategies:** overarching goals.
- **Measures:** more specific policies or categories of action intended to achieve strategies.
- **Actions:** the detailed steps that various actors will take to implement the measures (e.g., programs, projects).

Avoid redundancy with existing hazard mitigation plans, safety elements, etc., where possible


Focus on alignment with adopted plans, additive measures and actions that address gaps or needs at the regional scale.



Overall Climate Resiliency

Adaptation Measures:

- Implement, monitor effectiveness, and work towards alignment of existing plans
- Incorporate climate & health equity across governmental initiatives & functions, prioritizing most vulnerable
- Accelerate strengthening and hardening of existing development and infrastructure for multiple climate stressors
- Enhance agricultural industry resilience.
- Guard biodiversity and ecologic habitats.
- Bolster emergency response & management - community resilience centers or “resilience hubs”



Extreme Heat and Increasing Temperatures

Adaptation Measures:

- Protect outdoor workers and other vulnerable community members during extreme heat conditions.
- Urban greening & agriculture programs.
- Focus on populations dependent on walking & public transportation.
- Protect critical infrastructure vulnerable to extreme heat events.
- Promote cool roofs, cool pavement, passive solar home design, green roofs, and rooftop gardens.

Co-benefits:

- Carbon sequestration benefits through more vegetation.
- Support active transportation and associated GHG reductions.
- Renewable energy & energy cost savings.



Drought & Water Supply Impacts

Adaptation Measures:

- Water conservation, graywater, recycled water.
- Support the agriculture in adapting to more frequent and severe drought events.
- Evaluate vulnerabilities of water supply systems & develop strategies to improve water supply resilience.
- Identify future water supplies & improve capacity.

Co-benefits:

- Reducing water demand = energy & GHG reductions
- Improved ecosystem health & biodiversity
- Protects jobs and sustains regional economy



Wildfire

Adaptation Measures:

- Structural hardening and defensible space
- Vegetation management, including post-fire ecological recovery
- Map and identify newly-at-risk & higher risk areas.
- Reduce development risks in High or Very High FHSZs.
- Implement wildfire mitigation best practices regionally.
- Enhance forest resiliency & reduce tree mortality.
- Improve public awareness & community resilience through wildfire preparedness (evacuation readiness, wildfire smoke, etc.)

Co-benefits:

- Enhance carbon sequestration, reduce black carbon emissions
- Improved landscape health and protect biodiversity
- Protect jobs and sustain regional economy



Extreme Precipitation and Flooding

Adaptation Measures:

- Evaluate and improve stormwater infrastructure capacity, implement low-impact development (LID).
- Improve sewage & solid-waste management infrastructure.
- Identify new flood control locations, prioritizing green infrastructure solutions.
- Upgrade and/or relocate flooding-prone infrastructure and critical facilities.
- Replant bare or disturbed areas (see also wildfire measures).
- Flood warning and information dissemination.

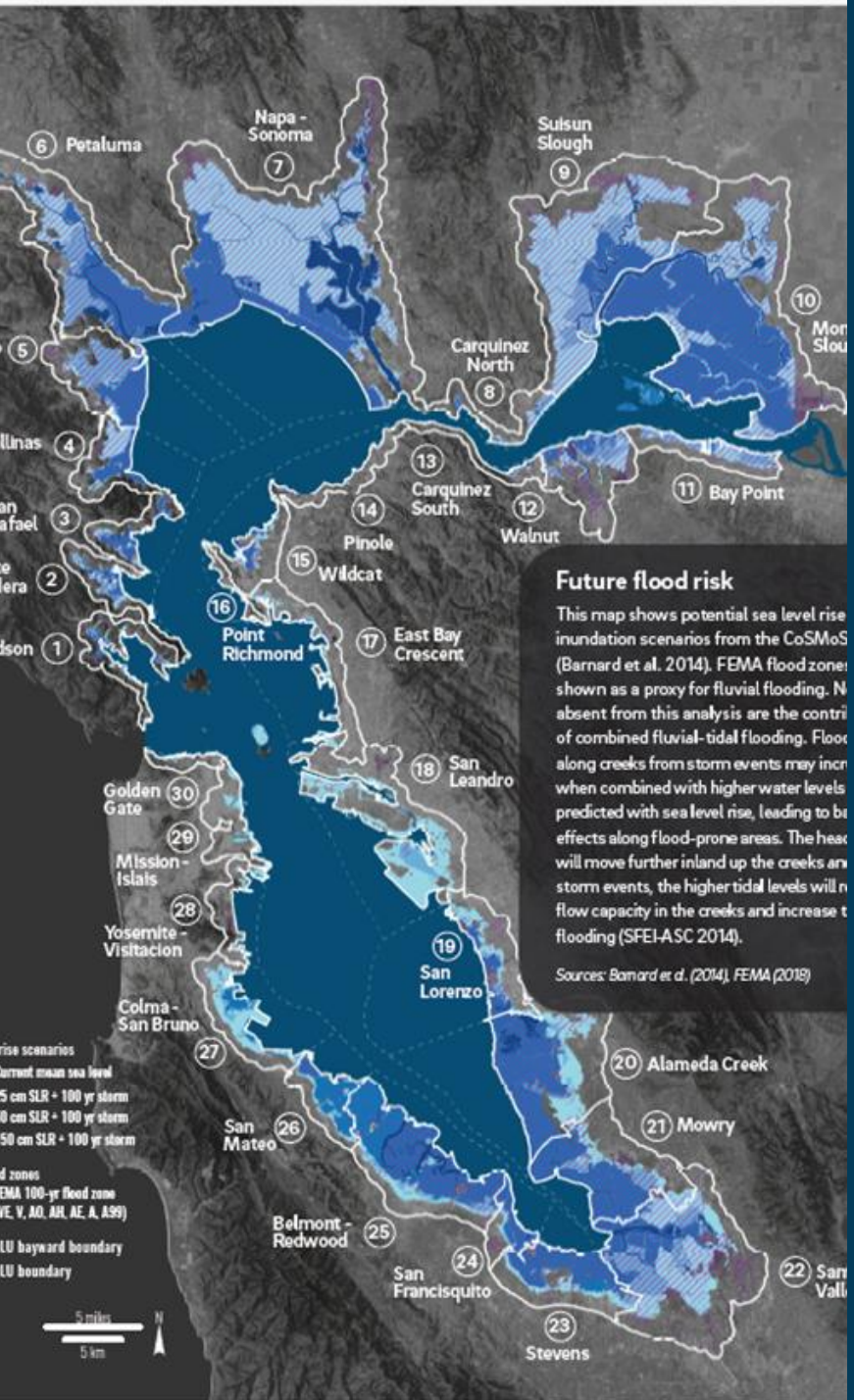
Sea Level Rise

Adaptation Measures:

- Address short- and long-term sea level rise impacts to critical facilities and infrastructure (asset level assessments)
- Ongoing analysis of sea level rise data -- plan future development and capital improvement projects accordingly.
- Preserve undeveloped land -- support ecosystem adaptation to sea level rise impacts.

Co-benefits:

- Carbon sequestration via land preservation and management.
- Improved ecosystem health & biodiversity





Strain on Energy Grid

Adaptation Measures:

- Transition to climate-smart energy sources.
- Collaborate with PG&E and MCE to bolster redundancy in the region's energy network.
- Minimize energy grid stress during extreme heat.
- Install backup batteries, generators, or microgrids at critical facilities, community resilience centers, and similar sheltering locations.

Co-benefits:

- GHG reductions from using climate-smart energy sources, battery storage, or other integrated solutions.
- Protect most vulnerable from health impacts
- Protect jobs and sustain local economy



Priority Adaptation Measures



- #1 – Measure All-3: Structural strengthening and hardening of existing development.
- #2 – Measure All-5: Improve transportation infrastructure resilience.
- #3 – Measure All-7: Guard the region’s biodiversity and ecologic habitats.
- #4 – Measure All-8: Bolster emergency management planning and response processes, develop resilience hubs.
- #5 – Measure Fire-5: Enhance forest resilience, reduce tree mortality, and manage beetle infestations.



Priority Adaptation Measures (cont'd)

- #6 – Measure Temp-2: Expand urban greening and urban agriculture.
- #7 – Measure Flood-2: Evaluate and improve the capacity of stormwater infrastructure for high-intensity rainfall events.
- #8 – Measure Drought-3: Evaluate climate vulnerabilities of water supply systems and develop water supply reliability strategies.
- #9 – Measure Energy-2: Enhance the resilience of energy infrastructure and collaborate with PG&E and MCE to bolster redundancy in the energy network.
- #10 – Measure Energy-4: Install backup batteries, generators, or microgrids at critical facilities (e.g., fire stations, hospitals, campuses), resilience hubs/centers, or similar sheltering locations

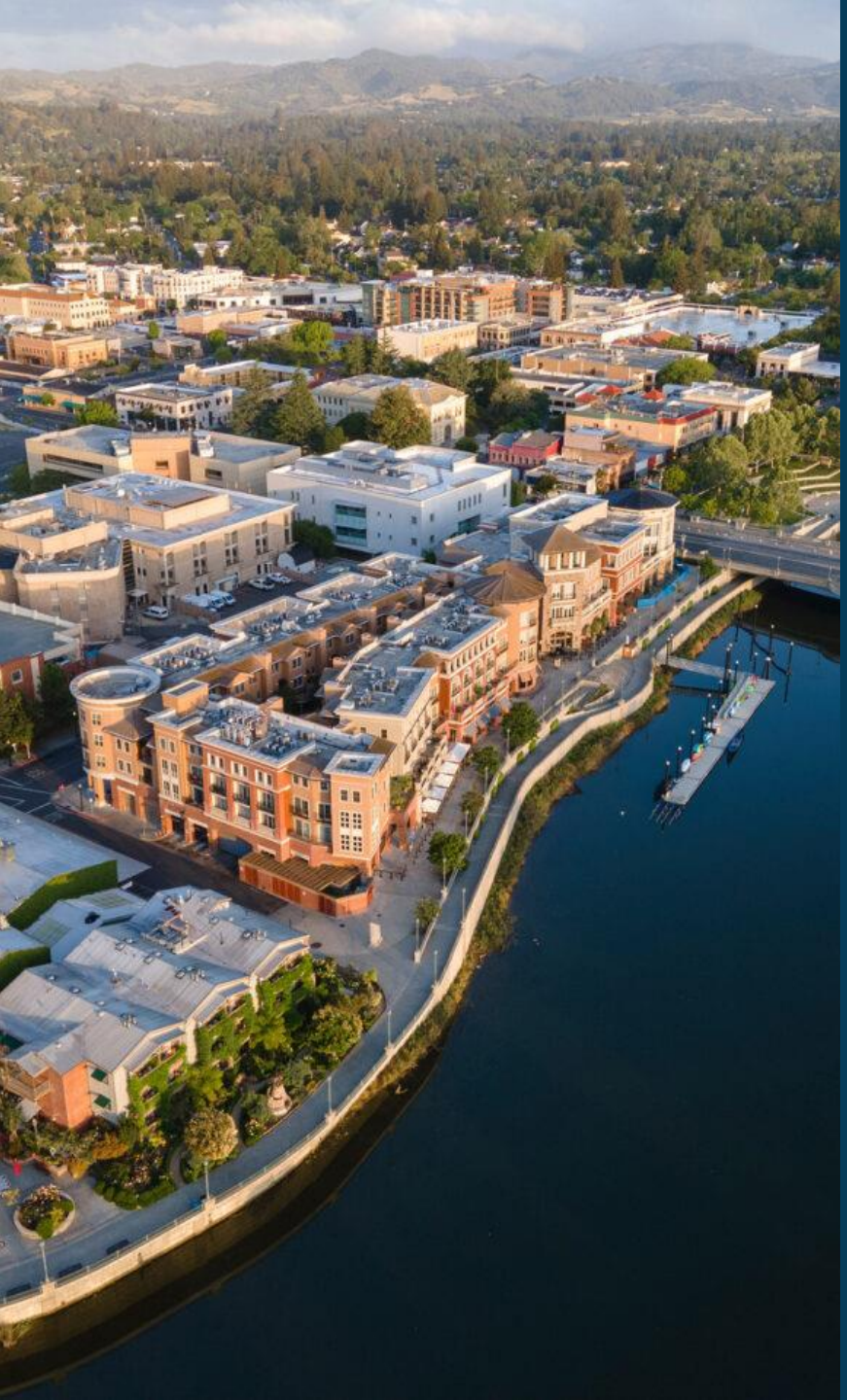


Community input re: Adaptation

- Wildfire hazard severity and community risk is a top concern
- Extreme heat & air quality concerns – need better protection and resource allocation for vulnerable populations; smoke/extreme heat impacts on tourism and tax revenue.
- Too many “hot surfaces” - need more cooling infrastructure (e.g., green/cool roofs, cool pavement).
- Need more tree canopy but need to do it responsibly to not increase wildfire risk.
- Drought and water supply – Redundancy needed, more water conservation, rainwater catchment and water recycling systems.

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Next Steps

- Public comments accepted on preliminary draft RCAAP measures (both GHG and adaptation) through August 30
- Prepare technical studies (costs, funding & financing, GHG quantification), further evaluation and refinement, in Fall 2024
- Draft RCAAP – late 2024 / early 2025