

Local Agency Formation Commission of Napa County

Napa Valley Drought Contingency Plan Update

December 5, 2022



What is a Drought Contingency Plan?

Drought Contingency Plan

- Drought Contingency Plans address
 - How will we recognize the next drought in early stages?
 - How will drought affect us?
 - How can we protect ourselves from the next drought?
- Drought Resiliency Projects
 - These projects are referred to as "mitigation actions" in the DCP
 - Are implemented to mitigate effects of drought



— BUREAU OF —
RECLAMATION

The Six Required Elements of a DCP

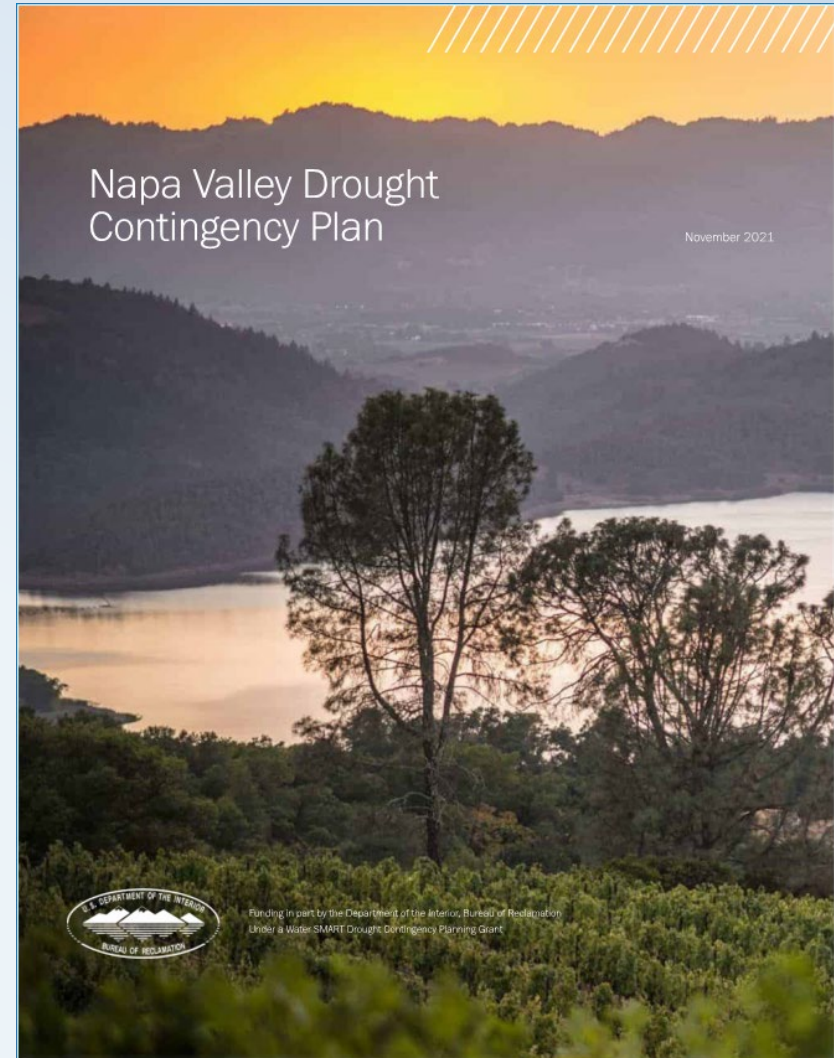
- **Drought Monitoring** – process for identifying drought
- **Vulnerability Assessment** – evaluate and assess the risks and impacts of drought
- **Mitigation Actions** – projects to built long term water supply resiliency
- **Response Actions** – projects/actions implemented during a drought to provide quick benefits
- **Operational and Administrative Framework** – who does what?
- **Plan Update Process** – process to keep DCP up to date



Overview of the Napa Valley DCP

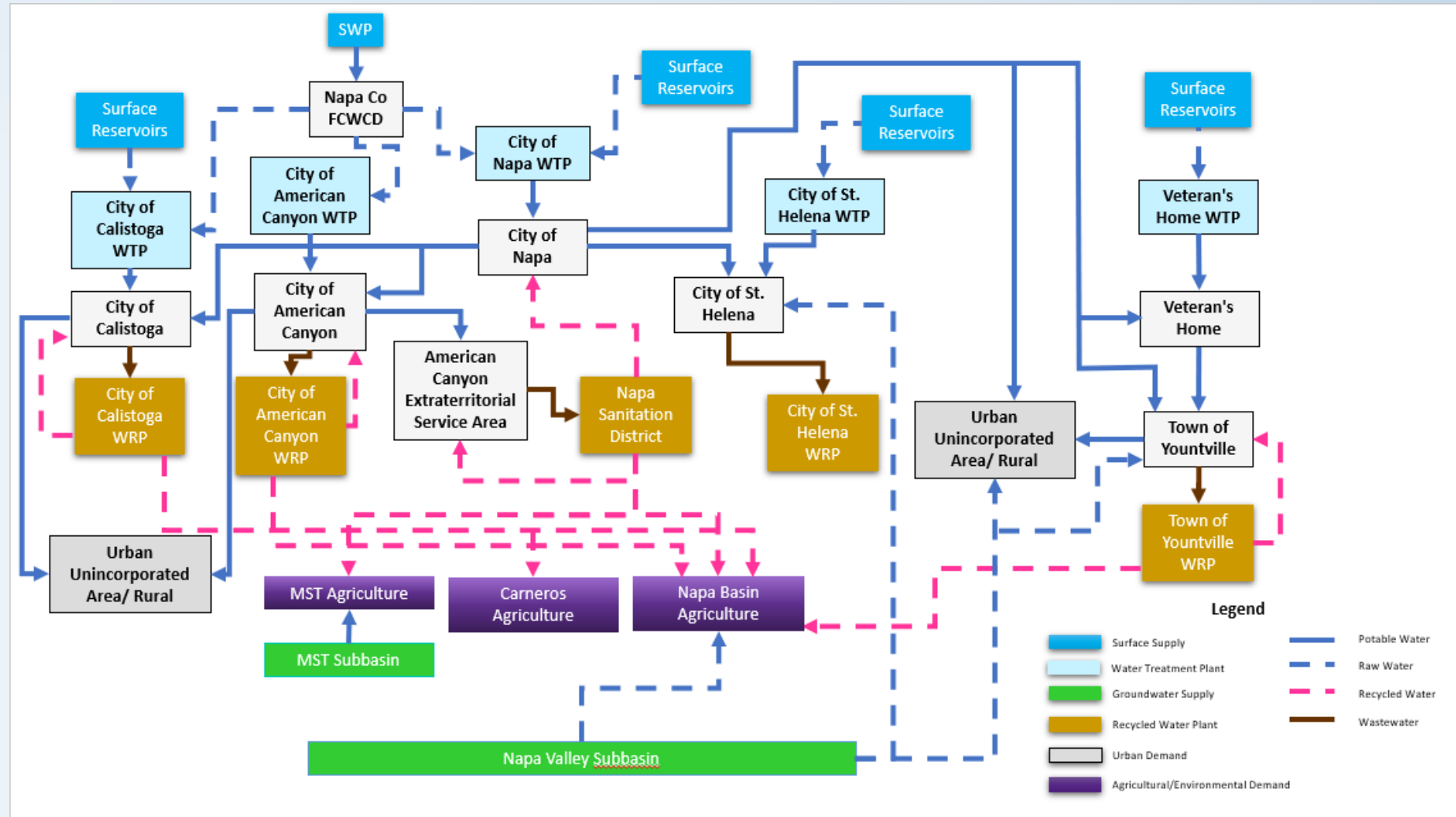
The DCP: Addressing Regional Vulnerabilities

- Participating Agencies:
 - City of American Canyon
 - City of Calistoga
 - City of Napa
 - City of St. Helena
 - Napa County
 - Napa Sanitation District
 - Town of Yountville
- Funded in part by the U.S. Bureau of Reclamation
- Key elements:
 - Assesses vulnerability of supply sources
 - Proposes regional drought response actions and mitigation measures (i.e., projects)



The Task Force Partner Agencies are Physically Linked

- Each of the water supply agencies has shared water supplies or linkages
- Understanding the linkages is critical to addressing drought responses



Water Supply and Demand Assessment

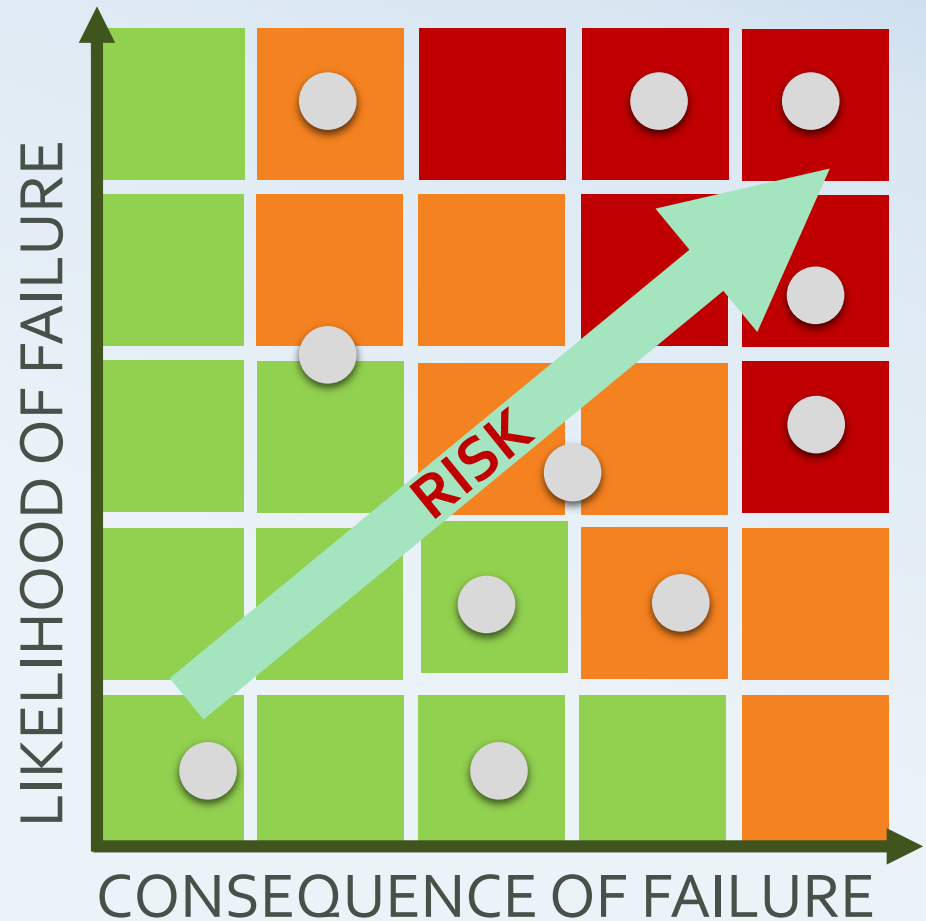
- Water supply and demand assessment identified a heavy reliance on limited number of supply sources
- **As a region, there is enough water supply across all year types**
 - *However, some municipalities face supply deficits during drought conditions*



Vulnerability Assessment

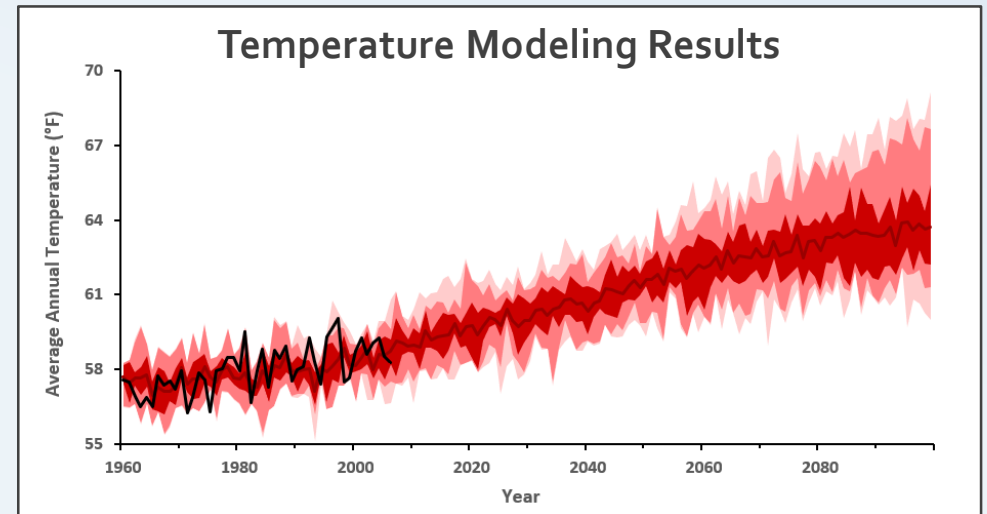
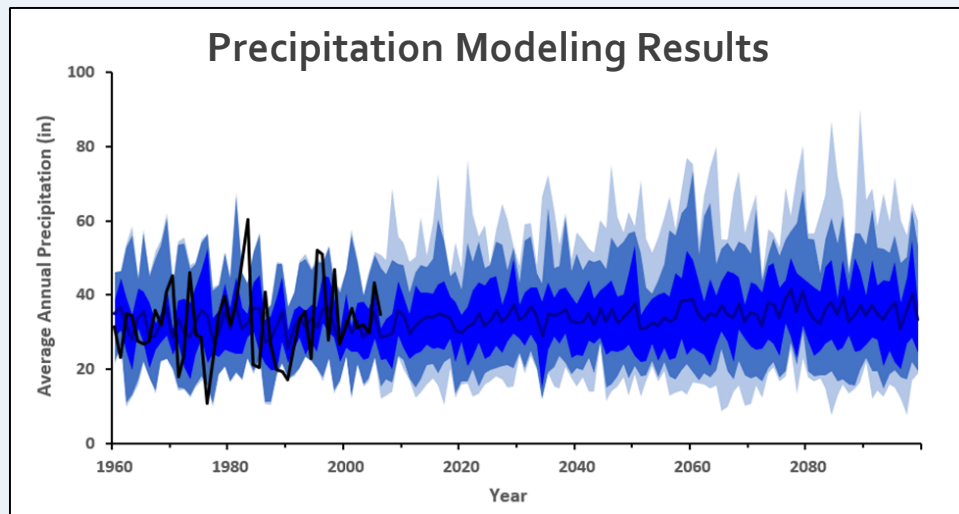
Risk to water supply is a combination of Consequence and Likelihood

- Consequence = significance of the supply source (both regional and local)
- Likelihood = uncertainty factors that contribute to loss of supply



Climate Change is also Considered

- High level assessment of climate change in the Napa Valley
- Climate Change is projected to make planning for water supply and demand imbalances even more challenging



Summary of Vulnerability Assessment

- There are different risks for different agencies, depending on the supply
- Each agency's level of exposure is dependent on their level of reliance on any one given supply source
- The likelihood of supply reduction is based on uncertainty factors and regional significance of each supply
- Mitigation and response actions (i.e., projects) focus on reducing consequence and/or reducing likelihood



Development of Mitigation and Response Actions

- The findings of the vulnerability assessment were critical to identify and develop potential Mitigation and Response actions (i.e., projects)
- Projects were broken out into one of two stages:
 - **Implementation Ready Projects** – well defined and physically implementable projects
 - **Planning Projects** – concept level projects or implementable studies
- DCP metrics were used to evaluate a total of 22 projects
 - List of projects included Groundwater Management, Conveyance, Storage, Treatment, and Operations type projects

Development of Mitigation and Response Actions

Project Category	Number	Drought Mitigation Measure	Project Timing		
			Near Term (0-5 years)	Medium Term (5-10 years)	Long Term (>10 years)
Groundwater Management	1	Aquifer Storage and Recovery			
	2	IPR via GWR or SWA			
	3	Integrated Water Supply Wells			
Conveyance	4	Phase 1 Recycled Water Distribution System Expansion			
	5	Phase 2 Recycled Water Distribution System Expansion			
	6	Milliken-Sarco-Tulocay Northern Loop			
	7	Milliken-Sarco-Tulocay Eastern Extension			
Storage	8	Additional Soscol WRF Covered Storage			
	9	Napa State Hospital Storage Tank			
	10	NapaSan Seasonal Storage			
	11	Lake Curry Purchase (Vallejo Lakes System)			
	12	Sites Reservoir Allocation Purchase			
Treatment	13	WRF Phase 2 Treatment Plant Upgrades			
	14	Soscol WRF Phase 2 Treatment Plant Upgrades			
	15	Purified Water Feasibility Study			
	16	Mitigation Strategies for Boron Reduction			
Operations	17	Dwyer Road Pump Station Project			
	18	Dunaweal Pump Station Replacement Project			
	19	Putah South Canal Intertie			
	20	North Bay Aqueduct Expansion			
	21	Regional Water Conservation Program			
	22	Integrated Supply and Operations Study			

Mitigation and Response Actions of Special Interest

Based on evaluation of project, DCP Task Force was interested in further examining three of the identified mitigation measures:

- **Sites Reservoir Allocation Purchase**

- Developed high level assessment of the opportunity and coordinated preliminary discussions between DCP agencies and the Sites Project Authority

- **Integrated Supply and Reservoir Operations Study**

- Identified projects that would help the region maximize and optimize the use of existing water supplies and developed concept of future study to further examine operational flexibilities and opportunities in the Napa Valley

- **Purified Water Assessment**

- Developed a high-level assessment that considers several alternatives for advancing potable reuse projects in the region and identifies areas that need to be further evaluated in a future feasibility study

Administrative and Organizational Framework

- Describes the Structure and Identifies who Implements the DCP Tasks
- Includes roles, responsibilities, and procedures necessary to:
 - Conduct drought monitoring
 - Initiate response actions, including emergency response actions
 - Initiate mitigation actions
 - Describe a process and schedule for monitoring, evaluating, and updating the DCP (generally every 5 years)
- **DCP Task Force plans on leveraging existing WaterTAC to further advance plans, explore funding options, and study feasibility for the projects and programs described in this DCP**



DCP Development and Outcomes

- Local Agency and Stakeholder Engagement
 - 10 DCP Task Force Meetings (includes worksession for Mitigation and Response Actions)
 - 6 Outreach Meetings (includes WICC and GSPAC presentation)
- DCP Summarized the results of the DCP Task Force's work:
 - Provided an overview of the region's water supply and demand conditions
 - Identified regional vulnerabilities to critical resources
 - Mitigation and Response Actions were evaluated and next steps for studies and projects were identified
 - A framework to support implementation of the various components of the DCP was developed
- Final DCP can be found online at the Watershed Information & Conservation Council Website: <https://www.napawatersheds.org/dcp>
- **Projects listed in the DCP are well-positioned for Federal Grant Funding**