

DRAFT Climate Resilience Element (CRE) Workbook

Contents

About This Document.....	2
Introduction.....	3
Background.....	3
Steps to Resilience Framework	3
How to Use This document	4
Resources.....	4
Resources Supporting Water System Plan Climate Resilience Element Development	4
A.1. Understand Exposure	4
Background	4
Approaches and Tools for Identifying Significant Extreme Events.....	5
Water System Plan Template Table: Understand Exposure	7
A.2. Assess Vulnerability and Risk	10
Background	10
Scenario Planning.....	10
Water System Plan Template Table: Assess Vulnerability and Risk	10
B. Investigate Options.....	13
C. Prioritize and Plan.....	13
Appendix A. Blank Copies of Climate Resilience Element Workbook Tables.....	14
Appendix B. Reflection Questions by WSP Guidebook Chapter	14
Appendix C. References	20

About This Document

Important: This is an early draft version of this document and will undergo substantial editing before release of the final version. Please feel free to share any feedback on how to increase the utility of this document (e.g., additional information or resources that would aid completion of the WSP CRE, document structure, sections that are unclear/not useful).

Sections in progress are flagged as 'TO BE COMPLETED' with blue text.

TO BE COMPLETED – Describe link to WSP Guidebook; Clarify role as optional supporting document.

Introduction

Background

TO BE COMPLETED - Add brief motivation/background

Beginning June 30, 2025, water systems serving 1,000 or more connections must include a Climate Resiliency Element in their Water System Plans. The requirements are outlined in [RCW 43.20.310](#) and include that water systems must:

- A. Determine which extreme weather events pose significant challenges to their system and build scenarios to identify potential impacts;
- B. **Assess critical assets** and the actions necessary to protect the system from the consequences of extreme weather events on system operations; and
- C. Generate reports describing the **costs and benefits** of the system's risk reduction strategies and capital project needs.

Steps to Resilience Framework

TO BE COMPLETED: Brief background on aims of the 'Steps to Resilience Framework'

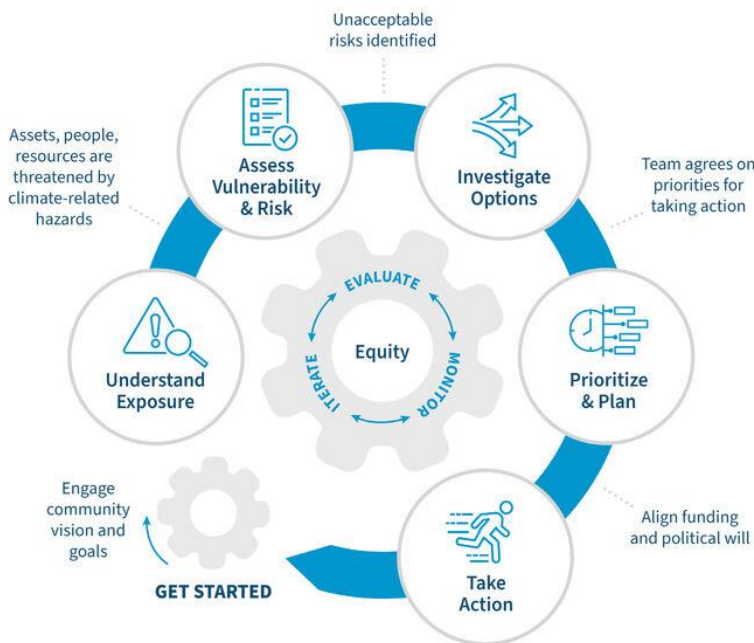


Figure 1. Steps to Resilience Framework

Source: U.S. Climate Resilience Toolkit

How to Use This document

The structure of this document parallels the ‘Climate Resilience Element’ (Chapter 2.8) of the Water System Planning Guidebook which is modeled after the U.S. Climate Resilience Toolkit’s ‘Steps to Resilience Framework’ (Figure 1). Water systems seeking general information on extreme events and climate change in Washington are encouraged to refer to the resources discussed in the following section.

The primary aims of this document are to:

- Share resources water systems may find helpful in fulfilling the requirements of RCW [43.20.310](#); and
- Provide template tables water systems can use to share findings in their Water System Plan.

The ‘objectives’ in each section align with requirements A-C of [RCW 43.20.310](#).

Section A (‘Understand Exposure’ and ‘Assess Vulnerability and Risk’) of this workbook shares resources to help water systems understand how their exposure to extreme weather events may change or vary in a changing climate (A.1) and identify priority impacts on system operations that should be incorporated into other sections of their Water System Plan (A.2).

Sections B (‘Investigate Options’) and C (‘Prioritize and Plan’) focus on integrating findings from Section A (‘Understand Exposure’ and ‘Assess Vulnerability and Risk’) into existing sections of Water System Plans (e.g., identifying critical assets, Capital Improvement Program) and are not a primary focus of this document.

Resources

TO BE COMPLETED: Focus on high level (collections) of resources (e.g., EPA CRWU, WUCA, CIG, WA State Climate Strategy) with short description of the types of resources included under each of the links included

Resources Supporting Water System Plan Climate Resilience Element Development

A.1. Understand Exposure

Objective: Determine which extreme weather events pose significant challenges to your system.

Background

Water system’s exposure to extreme weather events and their impacts varies widely across Washington. There are many tools and resources available to help systems better understand the magnitude and geography of climate-related changes in Washington. However, what approaches, tools, and resources are of greatest use for a given water system will vary with the level of exposure to extreme events, geography, system characteristics, risk tolerance, and other factors.

Approaches and Tools for Identifying Significant Extreme Events

There is no singular ‘right way’ to consider the impacts of climate change. Decisions on which approach(es) to use to identify priority climate impacts should take into consideration the requirements of [RCW.43.20.310](#), a water system’s level of risk tolerance, priorities, and other context specific factors. This section includes a brief overview of approaches, tools, and resources for assessing exposure to extreme events, including hypothetical examples of how water systems might go about identifying relevant extreme events and why they might choose to pursue a given approach. Additional resources can be found on the UW Climate Impacts Group’s ‘Water System Planning Resources’ webpage ([link](#)).

Extreme Weather Events in Existing Planning Documents

Extreme weather events and their impacts are often considered both directly and indirectly in existing planning efforts such as an Emergency Response Plan or a city’s comprehensive plan (Table 1). Likewise, several existing sections in the WSP Guidebook require consideration of extreme events (Table 2).

Reviewing existing planning documents to identify what extreme weather events and impacts have been identified and the management strategies being planned or implemented is an important first step in preparing the WSP climate resilience element. That said, the aims of existing planning efforts may be slightly different than the intent of the climate element (e.g., emergency response to an acute water shortage versus managing for increasing costs of procuring water due to multi-year declines in supply availability). It is important to both assess the relevance of extreme events identified in other planning documents for water system planning while also thinking holistically about climate-related changes that may present chronic challenges for a water system’s infrastructure, operations, finances, supply, water quality, etc.

A list of some common planning documents and how extreme weather events may be included in these documents is included in Table 1. Table 2 highlights existing sections of the WSP Guidebook that may include consideration of extreme events.

Table 1. Examples of Other Planning Documents to Review for Extreme Events When Preparing a Water System Plan (TO BE COMPLETED)

Example Table 1 Items:

- Emergency Response Plan (ERP)
- Hazard Mitigation Plan (HMP)
- Risk and Resilience Assessments (America’s Water Infrastructure Act)
- City and county comprehensive plans
- Coordinated Water System Plans (CWSP)
- Abbreviated Coordinated Water System Plans (ACWSP). See RCW 70.116.050
- County water and sewer general plans. See RCW 36.94.030
- Groundwater management plans
- Watershed plans for Water Resource Inventory Areas (WRIA)
- Regional water supply plans
- Other?

Table 2. Existing Guidebook Sections Directly or Indirectly Referencing Extreme Weather Events (TO BE COMPLETED)

Section	Title	Description
1.2	System History and Background	Consideration of floodplain and other natural hazard zones; Rainfall (as it relates to outdoor water use)
2.4	Water Supply Characteristics	Provide a narrative description of factors that may affect availability and suitability of water source to reliably supply near- and long-term water supply requirements.
TO BE COMPLETED		

Example Use Case:

TO BE COMPLETED

Consideration of the Impacts of Past Extreme Events (Past Events as an Analog for Future Change)

Considering how extreme events have impacted your system in the past can be a useful starting point for envisioning which future changes may present significant challenges for your water system. Past events can also serve as analogs for future conditions. For example, the magnitude of today’s 25-year storm may look more like the magnitude of 2050’s 10-year storm event. Examples of the types of questions that may be helpful when reflecting on impacts from past events include:

- What types of extreme weather have caused significant challenges for your water system?
- In the past, how frequently have extreme weather events caused significant challenges to your water system (e.g., monthly, seasonally, yearly, decade)?
- What kinds of significant challenges have these events caused for your system?
- Do you anticipate the frequency, severity, and/or impacts of these types of extreme events changing with climate change?

Example Use Case:

TO BE COMPLETED

Climate Mapping for a Resilient Washington Mapping Tool (TO BE COMPLETED)

The Climate Mapping for a Resilient Washington (CMRW) Tool¹ is a Washington-specific tool developed by the University of Washington Climate Impacts Group to support communities in identifying climate-related changes relevant to their community and the predicted range of change under different climate scenarios. This tool was developed, in part, to support the Washington

¹ <https://data.cig.uw.edu/climatemapping/>

Department of Commerce’s incorporation of a climate element into the Growth Management Act comprehensive planning requirements (reference).

The [CMRW Guide for Water Systems \(TO BE COMPLETED\)](#) provides more specific examples and guidance on applying the CMRW tool for water system planning while the CMRW User Guide provides a broader overview of the CMRW tool.²

Example Use Case:

TO BE COMPLETED

Modeling

(TO BE COMPLETED)

At times, more detailed or geographically specific information is needed to consider the impacts of climate change. In these cases, modeling approaches can be used to more directly assess the impacts of climate change.

(TO BE COMPLETED Add discussion, links to CIG, WUCA resources on pros/cons of modeling approaches)

Example Use Case:

TO BE COMPLETED

Additional Approaches and Resources

TO BE COMPLETED

Water System Plan Template Table: Understand Exposure

(TO BE COMPLETED)

Table 3 can be used to document your system’s holistic consideration of a range of potential extreme weather events and natural hazards, though its use is not required in WSPs. In this table, please note the extreme weather events relevant to your water system, briefly describe the change you expect and related challenges, the relative significance of those challenges, and how you evaluated your system’s potential exposure to each extreme event or natural hazard.

TO BE COMPLETED: [Example completed table](#)

² <https://cig.uw.edu/wp-content/uploads/sites/2/2023/04/Users-Guide-Climate-Mapping-for-a-Resilient-Washington-0420.pdf>

Table 3. Example template table summarizing findings from Section A.1 – Understand Exposure. (TO BE COMPLETED)

Extreme Weather Event/ Natural Hazard	Identify Extreme Events/Natural Hazards Relevant to Your System (Yes/No/ Maybe)	Brief Description of Potential Change and Challenges or Risks (Describe for all ‘Yes’ or ‘Maybe’ events)	Relative Significance of Challenge or Risk Posed by Event (High/Med/ Low)	How was your system’s exposure to this extreme event/natural hazard evaluated?
Changes in Air Temperature				_ Existing Planning Effort _ ERP _ HMP _ AWIA RRA _ Comp Plan _ Other Planning Effort____ _ Local Knowledge/ Historical Data _ CMRW Tool _ Modeling/Analysis _ Other_____ _ Not Applicable
Changes in Precipitation Intensity				
Changes in Surface Runoff				
Changes in Snowpack				
Changes in Groundwater Recharge				
Sea Level Rise				
Extreme Heat				

Extreme Weather Event/ Natural Hazard	Identify Extreme Events/Natural Hazards Relevant to Your System (Yes/No/ Maybe)	Brief Description of Potential Change and Challenges or Risks (Describe for all 'Yes' or 'Maybe' events)	Relative Significance of Challenge or Risk Posed by Event (High/Med/ Low)	How was your system's exposure to this extreme event/natural hazard evaluated?
Riverine Flooding				
Coastal Flooding				
Drought				
Wildfire				
Changes in Source Water Quality				
Other _____				

A.2. Assess Vulnerability and Risk

Objective: Build scenarios to identify potential impacts.

Background

The aim of this section is to identify assets and operations most likely to be impacted by the extreme weather events and natural hazards identified as significant risks in the previous section. Appendix B includes a list of reflection questions organized by WSP Guidebook chapter and section that may be helpful in completing this section. The aim of these questions is to help systems identify which water system components, operations, and other elements may be impacted by the extreme events identified in the previous section. These questions are intended as a starting point. Not all questions will be relevant to all systems and, likewise, there may be topics that warrant deeper investigation depending on a system's level of exposure, risk tolerance, and other factors.

More detailed information on the impacts of extreme weather events and natural hazards on water systems can be found on CIG's Water System Planning Resources webpage ([link](#)).

Scenario Planning

TO BE COMPLETED – Basics of scenario planning in assessing vulnerability and risk

Example Use Case(s):

TO BE COMPLETED

Reflection Questions by WSP Guidebook Chapter

TO BE COMPLETED

The impacts of extreme events on water systems can be varied and wide reaching – impacting water supply, water quality, staffing, finances, and other utility functions. As such, Appendix B includes a series of potential reflection questions relating the extreme weather events or natural hazards identified in the previous section to existing water system planning activities. These questions are intended as a starting point for facilitating holistic consideration of potential climate-related impacts across the Water System Plan. Not all questions will be relevant to all systems and their use is not required as long as systems demonstrate holistic consideration of potential impacts from extreme weather events and natural hazards across each area of their operations.

TO BE COMPLETED: Additional background/notes on use; Reference out to Appendix B

Water System Plan Template Table: Assess Vulnerability and Risk

(TO BE COMPLETED)

Using the extreme weather events and natural hazards identified in Table 3, use the Table 4 to summarize which water system components may be impacted by significant extreme events and/or natural hazards.

TO BE COMPLETED: Using this table

TO BE COMPLETED: Example use of this table

Table 4. Example template table summarizing findings from Section A.2 – Assess Vulnerability and Risk. (TO BE COMPLETED)

Extreme Weather Events/Natural Hazards	Extreme Event/Natural Hazard Identified as Significant (Risk) in Section A.1 (Y/N/M)	Which system components would you anticipate being impacted by the extreme events/natural hazards identified in Section A.1? What is the level of potential impact you anticipate associated with each of these events or changes (High/Med/Low/NA)?								
		Water Supply	Water Demand	Source Water Quality and Monitoring	Water Treatment and Monitoring	Physical Infrastructure	Supply Chains/ Procurement	Workforce	Finance	Other
Changes in Air Temperature										
Changes in Precipitation Intensity										
Changes in Surface Runoff										
Changes in Snowpack										
Sea Level Rise										
Extreme Heat										
Riverine Flooding										
Coastal Flooding										

Extreme Weather Events/Natural Hazards	Extreme Event/Natural Hazard Identified as Significant (Risk) in Section A.1 (Y/N/M)	Which system components would you anticipate being impacted by the extreme events/natural hazards identified in Section A.1? What is the level of potential impact you anticipate associated with each of these events or changes (High/Med/Low/NA)?								
		Water Supply	Water Demand	Source Water Quality and Monitoring	Water Treatment and Monitoring	Physical Infrastructure	Supply Chains/ Procurement	Workforce	Finance	Other
Drought										
Wildfire										
Degraded Source Water Quality										
Changes in Groundwater Recharge										
Other_____										
Inclusion of Extreme Weather Events in Asset Inventory and CIP (Indicate Y/N/NA by system component class)										
Impacts of Extreme Events Included in Identification of Critical Assets										
Impacts of Extreme Events Included in CIP planning										

B. Investigate Options

Objective: Assess critical assets and the actions necessary to protect the system from the consequences of extreme weather events on system operations.

This section builds on system's existing assessment of critical assets. The aim of this requirement is to ensure the potential impacts identified in the previous sections are incorporated into a WSP's identification of critical assets. The reflection questions included in Appendix B may be a helpful starting point.

In this section, systems should also identify any adaptation and resilience actions needed to reduce risks and/or protect critical assets from the consequences of extreme weather events on system operations. Case studies, tools and resources supporting identification and evaluation of climate adaptation and resilience strategies are included in the [Water System Planning Resources](#) section of CIG's website. Systems should include a brief description of how they addressed this requirement in their WSP and incorporate the substance of their work integrating these findings in applicable activities/sections of their plan (e.g., asset criticality, capacity analysis).

C. Prioritize and Plan

Objective: Generate reports describing the costs and benefits of the system's risk reduction strategies and capital project needs.

Capital improvement planning activities should incorporate the risk reduction strategies identified in Section B. Systems should include a brief description of how they addressed this requirement in their WSP and incorporate the substance of their work integrating these findings in applicable activities/sections of their plan (e.g., capital improvement program, financial program).

Appendix A. Blank Copies of Climate Resilience Element Workbook Tables

TO BE COMPLETED once tables/approaches finalized

Appendix B. Reflection Questions by WSP Guidebook Chapter

Chapter 1: Description of the Water System

1.3 Related Plans

What existing, adopted plans consider impacts from extreme weather events and/or climate change?

- City and county comprehensive plan.
- Local land use and zoning.
- Coordinated Water System Plans (CWSP).
- Abbreviated Coordinated Water System Plans (ACWSP). See RCW 70.116.050.
- County water and sewer general plans. See RCW 36.94.030.
- Groundwater management plans.
- Watershed plans for Water Resource Inventory Areas (WRIA).
- Regional water supply plans.
- Water system plans for:
 - Water systems located within and adjacent to the service area
- Other?

(Add: Table with list?)

1.4 Service Area, Maps, and Land Use

1.7 Local Government Consistency

Chapter 2: Basic Planning Data

2.2 Water Production and Usage

- How might the climate related changes identified in your Climate Resilience Element (CRE) impact monthly and annual production from each source, including interties? (e.g., change in surface water availability in summer months, decrease in yield from groundwater wells)
- How might the climate related changes identified in your CRE impact annual usage totals by each customer class? (e.g., change in summer outdoor residential water demand)

- Are there seasonal differences in usage by different customer classes that could result in greater impacts from the climate related changes and extreme events identified in your CRE (e.g., higher residential demand during dry summer months)?
- How might the climate related changes identified in your CRE impact the quantity of water supplied to other public water systems?

2.4/2.5 Water Supply Characteristics and Water Supply Reliability

How might the climate related changes identified in your CRE impact supply availability and reliability for each of the sources used by your water system?

Surface Water

- Will projected changes in streamflow (in general, during the summer months, and during periods of drought) impact the timing or quantity of water available to your water system in a significant way? How so?
- How might projected changes in streamflow impact other water rights holders within your source watershed? Will these impacts change the amount of water available to your system (e.g., interruptible rights)?
- Will projected changes in snowpack impact the amount and/or timing of water available to your water system? How so?
- Is your water system dependent on groundwater under the influence of surface water? If so, how might anticipated changes in surface water flows impact your system?

Groundwater

- Is your water system dependent on groundwater under the influence of surface water? If so, how might anticipated changes in surface water flows impact your system?
- What does recharge look like in your source aquifer? (e.g., confined aquifer with minimal recharge, alluvial aquifer with extensive recharge)
- How might extreme weather events and/or climate related changes impact recharge within your source aquifer?
- What changes in groundwater supply, if any, have you observed occurring within your system's source aquifer in response to past extreme events (e.g., drought) and/or climate related changes (e.g., sea level rise)?
- What trends in groundwater levels within your source aquifer have been observed by your system over the past XX years?
- Would you anticipate changes in groundwater level trends in response to future extreme events and/or climate related changes?
- How might projected changes in aquifer conditions impact other water rights holders within your source aquifer and surrounding watershed? Will these impacts change the amount of water available to your system (e.g., curtailments, greater dependence on groundwater in agricultural sector)?
-

Interties/Purchased Water

- Are the water systems you have intertie(s) with planning for any significant impacts from climate change or extreme events that could impact your system?
- Are the climate-related exposures of the system you have an intertie with similar to or different than those of your system?

TO BE COMPLETED Other - As needed?

2.6 Future Population Projections and Land Use

- Do local comprehensive plans consider climate-related changes in population within your supply and/or service areas? Could these changes impact water system operations? How so? (e.g., projected development along wildland-urban interface, retreat from specific coastal areas)
- Do local comprehensive plans consider climate-related changes in land use within your supply and/or service areas? Could these changes impact water system operations? How so? (e.g., projected development along wildland-urban interface, retreat from specific coastal areas)

2.7 Future Water Demand

Water Rights Self-Assessment

- Are there characteristics of your system's water rights (e.g., interruptible rights, seniority) that could make your system more likely to experience reduced water availability associated with extreme weather events and/or climate-related changes? How so?

Water Demand Forecasts

TO BE COMPLETED: Consider adding some more specific questions aligned with demand projection requirements in WSDM

Chapter 3 System Analysis and Asset Management

3.1 Asset Management – Asset Inventory and Analysis

- Are there elements of your water system's source(s) condition that makes it/them more vulnerable to the extreme weather events and/or natural hazards identified in your CRE? (e.g., source watershed with high wildfire risk, erosion prone slopes in source watershed + increase in extreme precipitation events)
- Are there elements your water system's water treatment facilities condition that make them more vulnerable to the extreme weather events and/or natural hazards identified in your CRE? (e.g., currently operating with filtration waiver, limited capacity to address HAB)
- Are there elements of your water system's storage facilities condition that make them more vulnerable to the extreme weather events and/or natural hazards identified in your CRE?
- Are there identified 'critical assets' that are vulnerable to impacts from the extreme weather events and/or natural hazards identified in your CRE? (e.g., primary distribution line in area vulnerable to coastal flooding)
- Have 'critical assets' been impacted by past extreme events and/or natural hazards?

3.2 Water Quality

- What changes in source water quality, if any, have you observed following past extreme events and/or exposure to natural hazards (e.g., following 100-year storm, sea level rise)?
- What changes in source water quality do you anticipate could be associated with changing exposure to the extreme events and/or natural hazards you identified in your CRE?
- What changes in distributed water quality, if any, have you observed following past extreme events and/or exposure to natural hazards (e.g., following 100-year storm, sea level rise)?
- What changes in distributed water quality do you anticipate could be associated with changing exposure to the extreme events and/or natural hazards you identified in your CRE?

3.3 Design Standards

- Do existing design standards consider and adequately account for the potential changes associated with the extreme events and natural hazards identified in your CRE? How so?

3.4 Capacity Analysis

3.4.1 Water Rights

- Are the extreme events and/or natural hazards identified in your CRE likely to change your system's assessment of the sufficiency of existing water rights?

3.4.2 Physical Capacity Analysis

- Are the extreme events and/or natural hazards identified in your CRE likely to change your assessment of the sufficiency of your system's physical capacity?

3.4.3 New Source of Supply Analysis

- How might the new sources of supply identified by your water system be impacted by the extreme events and natural hazards identified in your CRE ?

3.5 Summary of System Deficiencies

TO BE COMPLETED: System deficiencies exacerbated or created as a result of anticipated extreme events and/or natural hazards

Chapter 4 Water Use Efficiency Program

TO BE COMPLETED: Potential contributions of WUE to climate resilience, role of conservation in responding to reduced supply availability.

Chapter 5 Source Water Protection

5.1 Sanitary Control Area

- Could any of the extreme weather events and/or natural hazards identified in your CRE compromise maintenance of your water system's sanitary control area?

5.2 Wellhead Protection Program

- Would any of the extreme weather events and/or natural hazards identified in your CRE increase your water system’s risk of contamination? (e.g., chemical storage within wellhead protection area and increased flood or wildfire risk; changes in pollutant transport from known sources of in situ contamination associated with changes in groundwater recharge)
- Has your water system observed any changes in groundwater quality associated with extreme weather events and natural hazards in the past? How were these changes managed and/or what challenges did you face when managing these changes?

TO BE COMPLETED: Also consider something on contingency planning?

5.3 Watershed Control Program

Watershed Description

- Would any of the extreme weather events and/or natural hazards identified in your CRE result in changes in:
 - Annual precipitation patterns;
 - Streamflow characteristics (including maximum, average, and minimum flows);
 - Sediment loading as related to rainfall intensity;
 - Terrain/geologic features; and
 - Vegetation and soil type and any other characteristics detrimental to water quality such as areas subject to erosion or landslides?
- Has your water system observed any changes in surface water quality associated with extreme weather events and natural hazards in the past? How were these changes managed and/or what challenges did you face when managing these changes?

Identification of Activities and Land Uses Detrimental to Water Quality

- Do you anticipate any changes in land use associated with future extreme events and/or natural hazards that could increase the vulnerability of surface water source(s)? (e.g., forest die off due to extreme heat/wildfires, changes in agricultural practices, changes in urban development patterns)?

Watershed Management and Control Measures

- Do current watershed control measures address anticipated changes in extreme events and/or natural hazards?
- Will existing deficiencies in current watershed control measures be exacerbated by anticipated changes in extreme events and/or natural hazards?
- What watershed control measures is your system considering, planning for, or implementing in response (either entirely or in part) to anticipated changes in extreme events and/or natural hazards?
- Are current wildfire control measures aligned with anticipated changes in wildfire risk?

Chapter 6 Operation and Maintenance Program

6.3 Comprehensive Water Quality Monitoring

- Are changes in water quality monitoring programs needed to detect and respond to changes in source water quality associated with extreme events and/or natural hazards? (e.g., more frequent sampling after storm events, additional sampling locations, additional monitoring parameters)

6.4 Emergency Preparedness and Response

TO BE COMPLETED – Links between ERP/RRA and climate element.

6.8 Surface Water Treatment

TO BE COMPLETED: Any additional information related to management of extreme events not captured earlier?

6.9 Summary of O&M Deficiencies

- Are any of the identified O&M deficiencies likely to be exacerbated by the extreme weather events and/or natural hazards identified in your CRE ?
- Are there any additional O&M deficiencies that could be created as a result of the extreme weather events and/or natural hazards identified in your CRE ?

Chapter 7 Distribution Facilities Design and Construction Standards

7.3 Construction and Design Standards

- Do construction and design standards consider changes from historical norms resulting from extreme weather events and/or natural hazards? (e.g., design of distribution lines in coastal zones subject to increased flooding; distribution system piping materials and depth in high wildfire risk areas; fire resistant building materials)
- How can small changes in construction and design approaches provide resilience co-benefits?

Chapter 8 Capital Improvement Program

This chapter joins the project solutions list from “System Inventory and Analysis” and the needed action list from “Operations and Maintenance” into a comprehensive, prioritized summary

8.1 Prioritization

TO BE COMPLETED:

Project Assessment – consider prompt for climate resilience motivated projects

Value Planning – link to resources on co-benefits?

8.2 Capital Improvement Program Summary and Schedule

TO BE COMPLETED: Critical assets/O&M actions flagged as potentially impacted by extreme weather events/natural hazards or other means of calling out the inclusion of these items in the CIP plan.

Chapter 9 Financial Program

TO BE COMPLETED

Chapter 10 Miscellaneous Documents

TO BE COMPLETED: Potential inclusion of climate-related documents, plans in supporting documents list

Appendix C. References

TO BE COMPLETED