

# Hazards Mitigation Plan City of Tumwater Annex 2023



**HAZARDS**  
MITIGATION PLAN  
FOR THE THURSTON REGION



General Government Committee, August 9, 2023

# Issue

- Earthquakes, landslides, severe storms, floods, wildland fires, volcanic events, and other hazards cause lengthy disruptions and are costly to communities
- Hazards mitigation planning is intended to identify and implement sustained actions that eliminate long-term risks to life and property

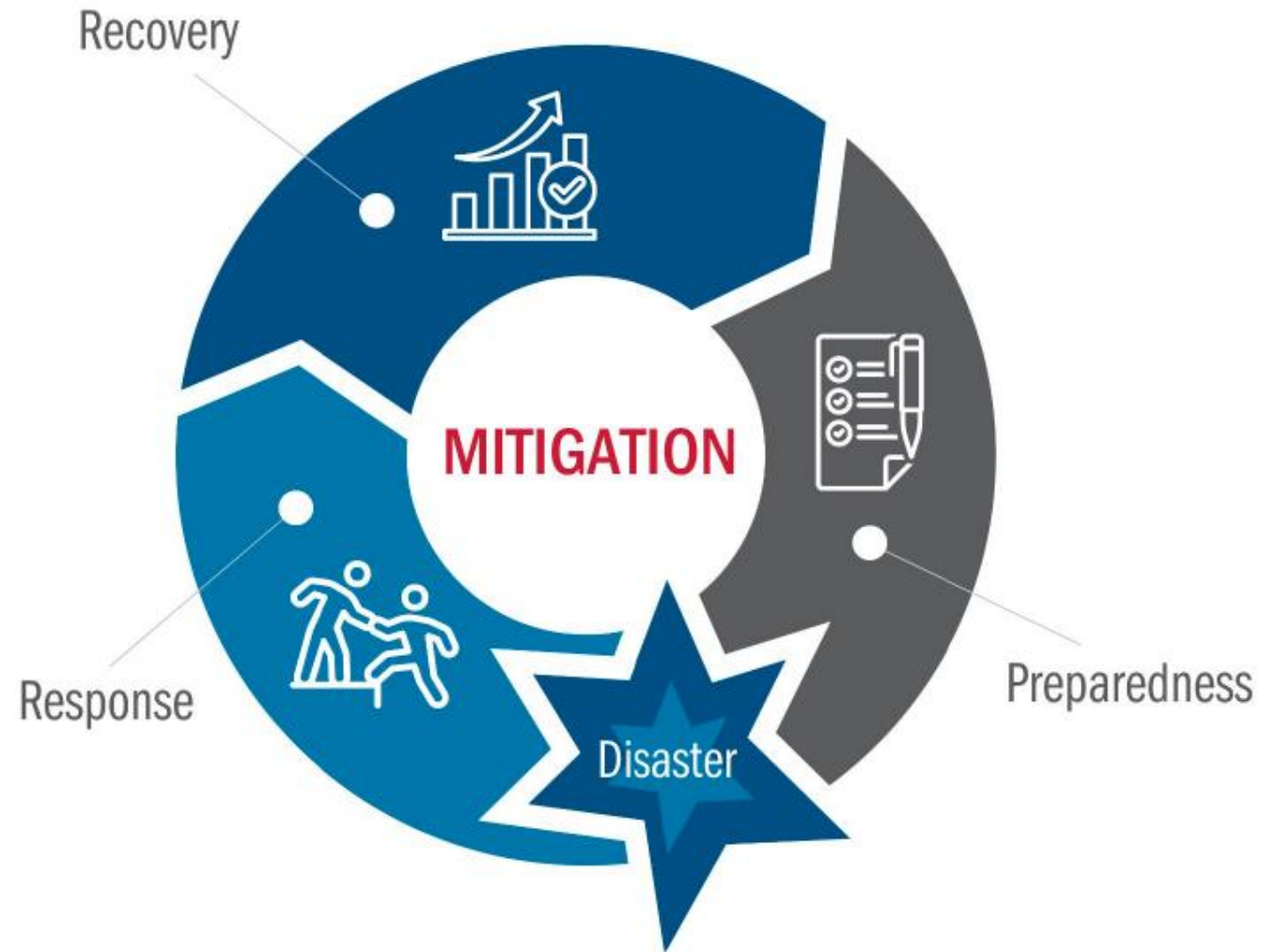


# Background

- The federal hazard mitigation requirements are outlined in the Disaster Mitigation Act of 2000
- Jurisdictions must adopt a federally approved Hazards Mitigation Plan to apply for or to receive federal mitigation assistance program grants
- Federal mitigation planning requires the plan to be updated and reapproved every five years
- The current Hazards Mitigation Plan was last substantially updated in 2017



# Mitigation



# Benefits of Hazard Mitigation

- It saves lives and reduces property losses.
- It safeguards critical community lifelines, so that key services (like water, power, medical, law enforcement, fire response, and communication) can continue to function after a disaster.
- It helps people and communities recover more quickly.
- It reduces short- and long-term impacts to the local economy and environment.
- It reduces the cost of disaster recovery and reconstruction. A 2017 report from the National Institute of Building Sciences estimates that every dollar invested in hazard mitigation saves four dollars in loss prevention.



# Plan Update

- Over 20 local agencies in Thurston County are working together to update the Thurston Regional Plan
- Several workgroup meetings are being held, and other opportunities for public engagement will be publicized on the project website:  
<https://trpc.org/160/Hazards-Mitigation-Plan>
- Plan adoption is projected to start December 2023



# Plan Update Participants

## Public & Community Stakeholders

## Plan Partners

Agencies seeking plan adoption: Thurston County, towns, cities, special districts, colleges, and others

## Steering Committee

The Emergency Management Council of Thurston County (EMC)

## Project Manager

Thurston Regional Planning Council (TRPC)

## Hazard Mitigation Planning Workgroup

Representatives from each plan partner and other interested stakeholders

## Technical Partners

Local, state, and federal government staff and academic support for development of the risk assessment

## Regulatory Partners

FEMA, Washington Emergency Management Division, other state agencies



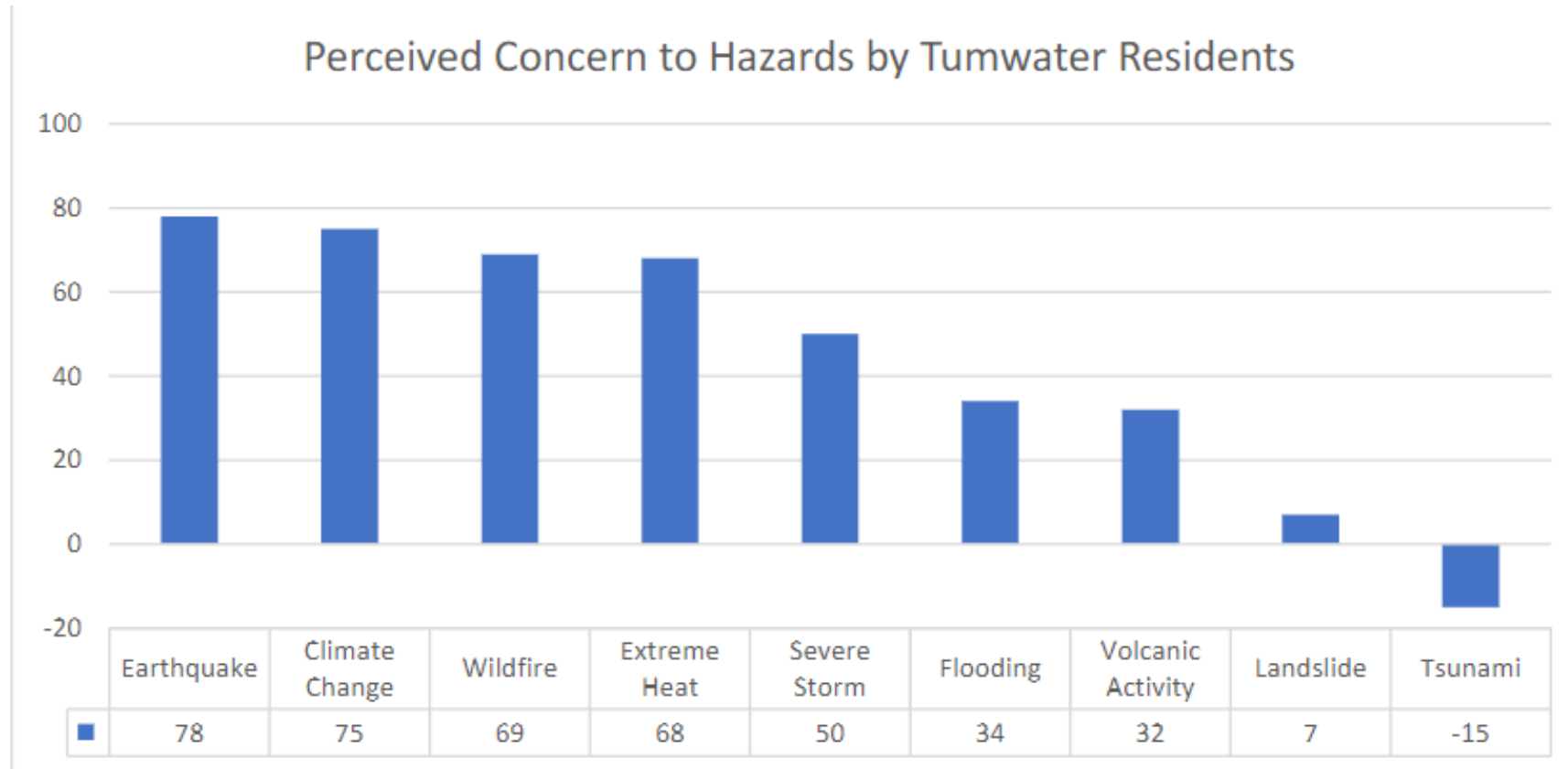
# Measuring Risk

## Hazard Risk Rating Model

Probability  $\times$  (Sum of impacts on Population, Property, and the Economy)  $=$  risk score



# Thurston County Communities Natural Hazards and Resiliency Survey

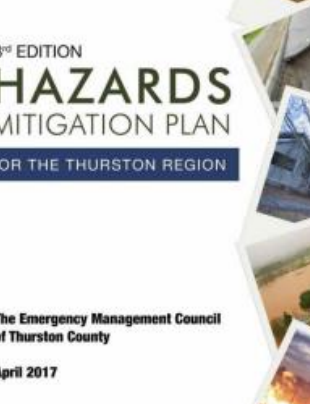


Responses are weighted +2 for "Very Concerned", +1 for "Somewhat Concerned", and -1 for "Not Concerned". Responses of "No Opinion" did not add or subtract from the total.

# City of Tumwater Hazards

Municipalities	Dam Failure (1)		Earthquake (2)		Flooding (3)		Landslide (4)		Sea Level Rise (5)		Severe Weather (6)		Tsunami (7)		Volcano/Lahar (8)		Wildfire (9)	
	Risk Ranking Score	Category	Risk Ranking Score	Category	Risk Ranking Score	Category	Risk Ranking Score	Category	Risk Ranking Score	Category	Risk Ranking Score	Category	Risk Ranking Score	Category	Risk Ranking Score	Category	Risk Ranking Score	Category
Bucoda	18	Medium	36	High	48	High	0	Low	0	Low	21	Medium	0	Low	0	Low	18	Medium
Lacey	0	Low	34	High	0	Low	18	Medium	0	Low	21	Medium	0	Low	0	Low	14	Low
Olympia	0	Low	34	High	18	Medium	18	Medium	18	Medium	21	Medium	6	Low	0	Low	14	Low
Rainier	0	Low	32	Medium	0	Low	18	Medium	0	Low	21	Medium	0	Low	0	Low	18	Medium
Tenino	0	Low	32	Medium	18	Medium	18	Medium	0	Low	21	Medium	0	Low	0	Low	18	Medium
Tumwater	0	Low	36	High	15	Low	18	Medium	0	Low	21	Medium	0	Low	0	Low	17	Medium
Yelm	0	Low	32	Medium	15	Low	18	Medium	0	Low	21	Medium	0	Low	0	Low	18	Medium
Unincorporated	6	Low	34	High	18	Medium	18	Medium	18	Medium	21	Medium	6	Low	6	Low	51	High
Total	6	Low	34	High	18	Medium	18	Medium	18	Medium	21	Medium	6	Low	6	Low	51	High





3<sup>rd</sup> EDITION

# HAZARDS MITIGATION PLAN

FOR THE THURSTON REGION

**The Emergency Management Council  
of Thurston County**

**April 2017**

Prepared by Thurston Regional Planning Council

- Goals and Objectives
- Countywide Mitigation Initiatives
- Risk Assessment
- Implementation & Maintenance
- Planning Process

- Countywide
- Affects all partners
- Adopted by all

- Jurisdiction's Proof of Adoption
- Local Planning Activities
- Community Mitigation Strategy
- Risk Assessment Variations
- NFIP Compliance

- Jurisdiction-specific
- Adopted with the Basic Plan
- Required for FEMA approval

# Primary Plan Contents

- Community Profile & Capability Assessment
- Risk Assessments

**Risk exists where vulnerable assets intersect with hazards**



# Primary Plan Contents – Continued

- City of Tumwater mitigation initiatives (actions)
  - Currently adopted
  - Completed
  - New
  - Future land use plans, zoning, and development regulations



# Draft Mitigation Initiatives – Earthquake

- Risk Ranking – High
- Four actions proposed:
  - Conduct a voluntary non-structural earthquake readiness inspection for all critical facilities on an annual basis (2017 HMP)
  - Have a professional engineer or otherwise qualified person assess infrastructure for earthquake vulnerability (2017 HMP)
  - Include retrofitting/replacement of critical system elements in Capital Improvement Plan (LOTT)/Capital Facilities Plan (City) (2023 Proposed)
  - Install auxiliary generator to power City main well/water supply (2023 Proposed)



# Draft Mitigation Initiatives – Wildfire

- Risk ranking- Medium
- Five actions proposed:
  - Establish fire breaks and routine maintenance on Tumwater Hill adjacent to City property, the newly created City park, and the elementary school (2017 HMP)
  - Adopt the Washington Wildland-Urban Interface Code (WWUIC), International Building Code (IBC) and International Residential Code (IRC) to meet WUI requirements (2023 Proposed)
  - Update the City of Tumwater map to show wildland urban interface map layers to coincide with the 2023 Building Code Update (2023 Proposed)
  - Routinely inspect the functionality of fire hydrants (2023 Proposed)
  - Develop a vegetation management plan, Incorporating proper species selection, planting, and maintenance practices into landscape code updates (2023 Proposed)



# Draft Mitigation Initiatives – Severe Storm/Weather

- Risk ranking- Medium
- Four actions proposed:
  - Inspect all trees within falling distance of the four City-owned critical facilities to determine if they pose a hazard to the facility or operation of the facility during a storm (2017 HMP)
  - Reduce heat islands by implementing urban forestry code updates (2023 Proposed)
  - Modify land use and environmental regulations to support vegetation management activities that improve reliability in utility corridor (2023 Proposed)
  - Assess feasibility of installing solar power and battery storage at City Hall and Tumwater Library (secondary emergency operations center) (2023 Proposed)



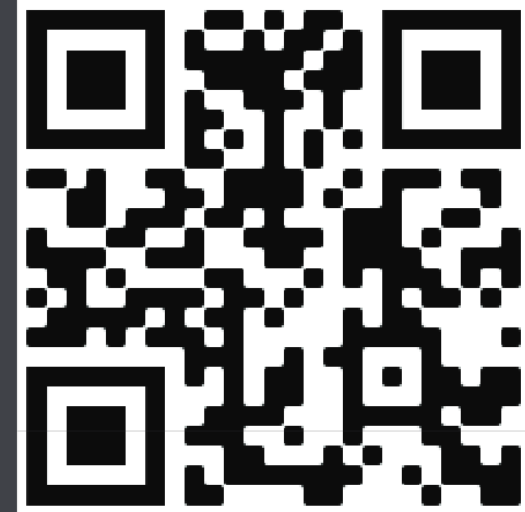
# Online Open House and Survey

Local governments are working together to make our communities safer from disasters, but we need your help.

Visit an online open house to learn which natural hazards pose the greatest risks to our communities.

Tell us what actions we should prioritize to reduce our risks. Take a short survey by August 25, 2023.

**[www.trpc.org/HAZARDS](http://www.trpc.org/HAZARDS)**



# Next Steps

