

COMPREHENSIVE PLAN ADDENDUM

CLIMATE RESILIENCE (CR)

Purpose

The City of Woodland worked with the Washington State Department of Commerce on a pilot project to develop tools for integrating climate impacts and climate vulnerability into local comprehensive plans.

The city recognizes that changes to state laws, including the Growth Management Act (GMA), are making "climate change" a mandatory feature of future planning decisions. However, the City of Woodland is not prepared to accept either "climate change" or the current underlying science of mankind's effect on the climate as fact.

Instead, the City Council is accepting that it should be making good planning decisions to make the city more resilient in the face of natural disasters. As a result, the council is prepared to adopt a Climate Resilience Element as an addendum to the City's Comprehensive Plan.

This addendum will be integrated into the next periodic update of the City's Comprehensive Plan.

Guiding Vision and Principles

- The city seeks to provide future generations with a quality of life equal to or better than the quality of life we now are experiencing.
- The city seeks to bring people and stakeholders together to co-create solutions and move our community towards resilience in the face of possible changes to our climate.
- In a time of uncertainty, we seek to help prepare our community as best we can for the challenges to come.
- We believe that sustainable planning decisions will consider an equitable effect throughout the community. This includes benefits to vulnerable and overburdened members of the community.
- We seek equally to protect the rights of all members of our community, including their rights to a healthy environment.
- We seek to increase resilience through achievable, flexible, and, where possible, measurable and replicable adaptation strategies and actions that will help the city and the region prepare for and cope with the impacts of future natural disasters.

Consistency & Integration

This element is recognition that the city is prepared to adopt goals and policies related to the city's climate resilience.

The element, largely consisting of changes to our existing goals and policies, was drafted in cooperation with the Department of Commerce as part of the pilot project. This fact should make the city compliant with the GMA in regards to the state's climate response laws because it is consistent with the Climate Element Planning Guidance document developed by the pilot project team.

This consistency is required by state laws, including the GMA, but also by the Growth Management Element (Chapter 11) of the 2016 City of Woodland Comprehensive Plan as adopted and amended.

The goals and policies are intended to make the city more resilient in terms of Agriculture; Building & Energy; Cultural Resources & Practices; Economic Development; Emergency Management; Human Health; Ecosystems; Transportation; Waste Management; Water Resources; and Zoning & Development.

The following goals and policies are collected from throughout the existing plan and incorporate both new content and modification of currently adopted text from the following chapters:

- Economic Development (EC)
- Land Use (LU)
- Transportation (T)
- Environment (E)
- Energy & Utilities (EU)
- Capital Facilities (CF)

The Climate Change pilot project used the five steps outlined in the planning guidance toolkit developed by Commerce.

Step 1 – Exploration of Climate Hazards. (See Local Resiliency section below.)

Step 2 – Audit Plans and Policies. (See the Goals and Policies section below.)

Step 3 – Assess Vulnerability & Risk. (This is an optional step and the pilot project opted not to exercise this step as part of the process.)

Step 4 – Pursue Pathways. For the City of Woodland, this included the review of existing goals and policies from the city's various adopted planning documents. (Toolkit Path 2) These were compared to the menu of hazards the community faces for the purposes of preparing new and updated goals and policies that will make Woodland more hazard-resilient.

Step 5 – Integrate Goals & Policies. (See the Goals and Policies section below.)

This document will serve as a Hazard Mitigation Plan for the purpose of helping guide city hazard planning decisions in the future.

Plan Amendments

As stated in Section 11.2 of the 2016 City of Woodland Comprehensive Plan, the City Council shall consider amendments to the plan on a regular basis and is obligated to ensure that the plan remains consistent with the Growth Management Act.

Greenhouse Gas Reduction Sub-element

The City of Woodland plans under the Growth Management Act because of an Attorney General Opinion (AGO), not because there is clear regulatory responsibility as outlined in RCW 36.70A. RCW 36.70A.070 outlines the mandatory elements for comprehensive plans under the GMA and subsection (9) identifies that a Climate Change and Resiliency Element is required. It also states that fully planning jurisdictions are required to have a “greenhouse gas reduction sub-element”. Being a Cowlitz County community, the City of Woodland is declining to adopt a greenhouse gas reduction sub-element as part of the climate resilience addendum to the city plan. Such an element may be revisited as a future project.

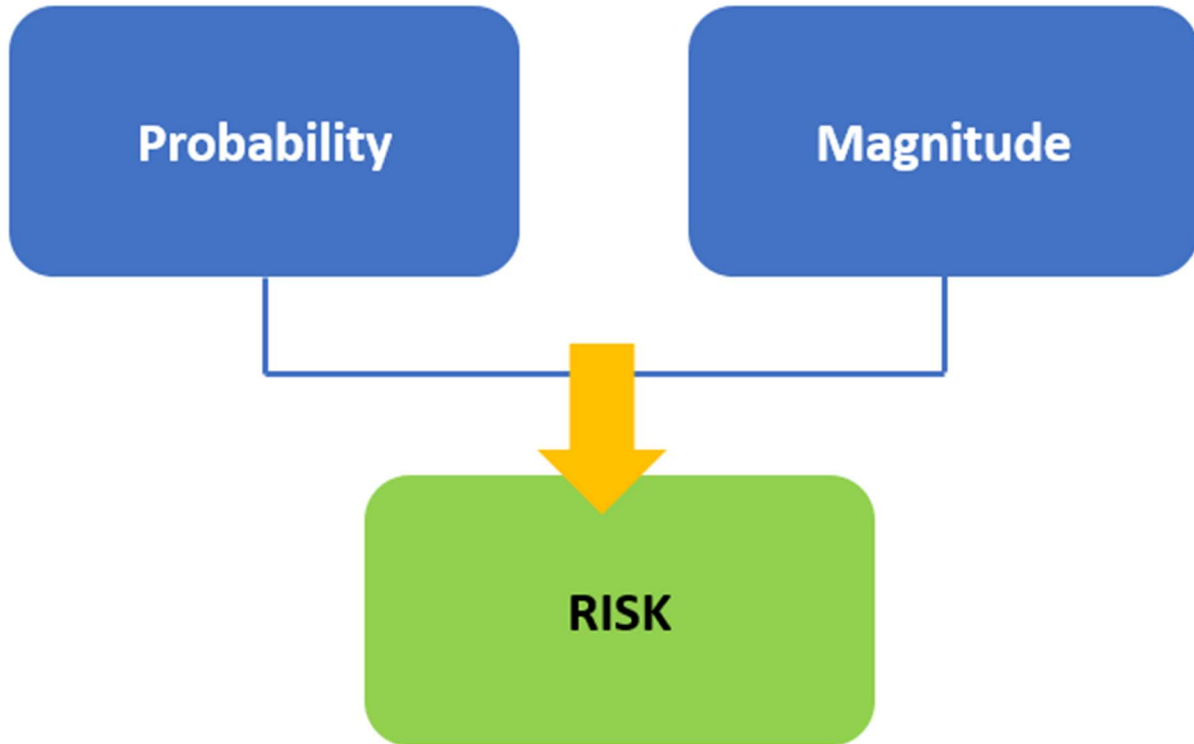
Resilience Factors

For the purpose of resiliency planning, state guidance asks communities to consider the following sectors of potential climate and development related impacts:

- Agriculture (includes production & distribution)
- Buildings & Energy (includes generation, transmission & consumption)
- Cultural Resources & Practices (includes historic sites, cultural resources & practices)
- Economic Development (includes business continuity & opportunities)
- Emergency Management (includes preparedness, response, recovery)
- Human Health (includes community well-being & engagement)
- Ecosystems (includes terrestrial & aquatic species, habitats & services)
- Transportation (includes multi-modal travel & infrastructure)
- Waste Management (includes materials recycling & disposal)
- Water Resources (includes water quality & quantity)
- Zoning & Development (includes site use, design & other development facets)

Risk

Planning for risk is a part of life. For the purpose of natural hazards, the city accepts the following model: (from the U.S. Climate Resilience Toolkit)

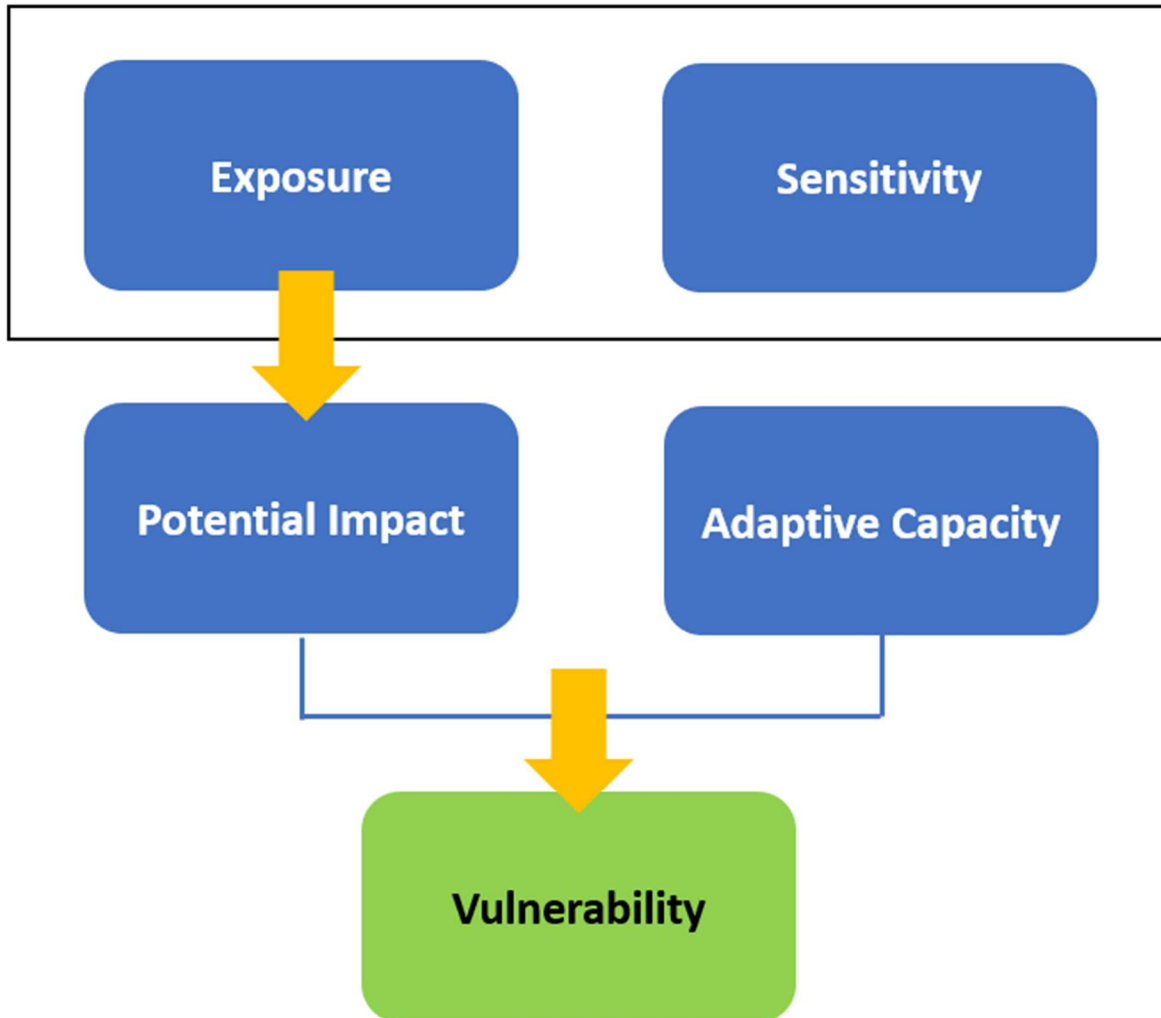


With this model, the city accepts that it must face the probability that natural disasters will occur and that the magnitude of each disaster represents a clear and present danger to the City of Woodland and its citizens.

This chapter of the comprehensive plan is intended to provide the vision and guidance for how the city will integrate hazard resilience into the city's planning decisions. The goals and policies within this chapter mitigate for the risks the city faces.

Vulnerability

In order to prepare for hazards, as part of the Climate Resiliency pilot project, the following model for assessing the city's vulnerability was used: (from the U.S. Climate Resilience Toolkit)



This model recognizes that Woodland is not exposed to many of the climate hazards that are being publicly discussed but also recognizes that the city is sensitive to some of the hazards resulting from potential natural disasters regardless of their cause or frequency.

This chapter considers how vulnerable the city is to the potential impacts of those hazards and includes goals and policies that mitigate for that vulnerability.

Resiliency Hazards

As part of the Climate Resiliency pilot project, the team identified the local hazards that Woodland has experienced and will continue to experience. Specifically for our community, Woodland should expect to plan for the following hazards:

- Increased Heat: Warmer summers and longer and more intense heat waves.
- Heavy Rains, Flooding, and Landslides: Characterized by more frequent and intense precipitation and storms that cause extreme flooding and increase landslide risk. Changes in the timing of hydrologic conditions in rivers.
- Summer Drought, Reduced Snowpack, and Wildfire: Less rain in the summer and warmer winters with reduced snowpack may create drought conditions. Drier summers may create more wildfire risk and smoke.

Hazard Mitigation

The Federal Emergency Management Agency (FEMA) defines **hazard mitigation** as “any sustained action to reduce or eliminate long-term risk to people and property from natural hazards and their effects”

In the context of climate change, the guidance document from the Department of Commerce notes:

The closely-related concept of adaptation is “the process of adjusting to new (climate) conditions in order to reduce risks to valued assets,” which can include everything from roads and buildings, to health and well-being, to forests and streams. (Quoting NOAA website (2022), U.S. Climate Resiliency Toolkit glossary)

The city recognizes that it needs to plan to mitigate for natural disasters as part of its planning processes and commits to integrating hazard mitigation into future planning discussions and as changes to development regulations occur.

Co-Benefits

Good planning decisions can have multiple benefits. As stated, the city does not accept that climate change is caused by human activities, however, it does accept that good planning decisions can have co-benefits that address climate change concerns. Some of those co-benefits that can result from good planning are:

- Reduced emissions
- Carbon sequestration
- Resilience enhancement
- Improved salmon recovery

- Improved economic development
- Promotion of equity and justice
- Improved cost saving
- Promotion of energy savings
- Improved ecosystem functions
- Protection of tribal treaty rights
- Improved public health and well-being
- Improved air quality
- Reduced run-off and flooding
- Building of community knowledge and engagement

For all practical purposes, the city is committed to making good decisions and is willing to consider these co-benefits when making decisions. For example, when making improvements to the city's transportation system, while the primary factors in making capital project investments will be financial considerations and the desire to reduce traffic congestion, the city will consider the need for sidewalks (as a multi-modal co-benefit) and the fact that reduced traffic congestion could reduce green-house gas emissions, even if those co-benefits may not be a major deciding factor in the investment.

Where possible, the city is committed to making decisions that will have as many climate co-benefits as can be managed while accomplishing the primary purpose of the action being taken.

Goals & Policies

The intent of this element is to provide the City of Woodland with a consolidated policy framework related to changes in the climate, that is essential to facilitating planning for our community and to assist in meeting the planning goals of the Growth Management Act.

These goals and policies represent the city's vision and commitment to making Woodland more resilient to natural disasters and our desire to make decisions that will protect our community from all such disasters, regardless of their root cause. The city hereby adopts the new and revised goals and policies as follows.

1. AGRICULTURE (includes production & distribution)

Goal CR-1 – Support Urban Agriculture.

Policy CR 1.2 - Allow for small-scale farms, community gardens, community kitchens, or other efforts to promote local food security. Work in partnership with the school district, local non-profits and other entities that support local food systems.

In support of Economic Development Goal EC-4 – “Create a stable and diversified economy offering a wide variety of employment opportunities.” the city adopts:

Policy CR 1.1 - Promote processing and distribution of agricultural goods in city industrial areas to advance the regional natural resource economy and food system.

2. BUILDINGS & ENERGY (includes generation, transmission & consumption)

Land Use Policy LU 1.3 is hereby amended as follows:

~~LU 1.3 Place utilities underground where possible.~~ “Implement development regulations to require new development to underground power and telecommunication infrastructure. Prioritize and incentivize underground utilities in existing developed areas.”

Energy & Utilities Goal EU-6 is revised to read “EU-6 - ~~Reduce energy demands by developing and implementing energy conservation measures.~~ Enhance energy resilience.”

Policy CR 2.1 - Encourage design features in commercial and employment districts to integrate exterior building features (e.g., awnings, cool roofs, solar panels) that reduce the impacts of climate change.

Policy CR 2.2 - Promote the use of electric heat pumps and heat pump water heaters in new commercial construction consistent with the state’s building code.

Policy CR 2.3 - Diversify the grid to build resilience and capacity to prepare for increased energy demand. Increase resiliency of utilities to extreme precipitation, fire danger, or other events.

Policy CR 2.4 - Retrofit all publicly owned buildings for energy efficiency at the end of their design life. Integrate alternative energy, such as solar panels and electric heat pumps.

3. CULTURAL RESOURCES & PRACTICES (includes historic sites, cultural resources & practices)

Policy CR 3.1 - Encourage the preservation and adoption of cultural resources and practices that are at risk due to more frequent and intense severe weather events.

Policy CR 3.2 - Establish and maintain government-to-government relations with Native American tribes for the preservation of archaeological sites and traditional cultural properties that are vulnerable to climate impacts.

Policy CR 3.3 - Preserve significant historic sites, e.g., via raising, retrofitting, or relocating buildings, prone to floods or other hazards worsened by climate change.

4. ECONOMIC DEVELOPMENT (includes business continuity, opportunities)

In support of the Economic Development Chapter and the Parks & Recreation Chapter, the city adopts:

Policy CR 4.1 - Support adoption of regional parks and trails to be resilient to extreme heat and precipitation.

Goal CR-2 – Prepare for changes in recreation due to heat, wildfire, and reduced snowpack.

Policy CR 4.2 - Promote the design of city parks and trails to be climate resilient. Utilize water conservation methods and technologies in development of irrigation infrastructure. Develop standards for native drought-resistant landscaping. Provide low-impact green infrastructure to support improved stormwater management. Allow parks to provide flood storage in winter and play and recreation in dry periods.

Goal CR-3 – Protect businesses, travel, and shipping routes with increased infrastructure resilience.

Policy CR 4.3 - With community partners implement the Cowlitz County (and Clark County) Comprehensive Emergency Management Plans and infrastructure resilience plans to help ensure continuity of business and a sustainable recovery.

Policy CR 4.4 - Encourage retrofitting of EV charging stations at existing commercial sites.

5. EMERGENCY MANAGEMENT (includes preparedness, response, recovery)

Goal CR-4 – Enhance emergency plans, resources, and response to minimize the impacts of emergencies and disasters on people, property, environment, and economy.

Policy CR 5.1 - Through emergency efforts with emergency services providers, identify safe areas for evacuation and assist in the implementation process with the city police and fire protection providers.

Policy CR 5.2 - Factor climate impacts into the planning and operations and coordination of preparedness, response, and recovery activities among first responders and partners, including public health, law enforcement, fire, school, and emergency medical services (EMS) personnel. Plan for emergency evacuations and post-damage evaluations of city buildings and infrastructure.

Policy CR 5.3 - Develop resilience hubs – community-serving facilities augmented to support residents and coordinate resource distribution and services before, during, and after a hazard event.

6. HUMAN HEALTH (includes community well-being & engagement)

Goal CR-5 – Plan for and respond to extreme heat and smoke hazards on human health such as vector-borne illnesses, increased pollution, and increased heat-related illnesses, deaths, and hospitalizations.

Policy CR 6.1 - Work with the fire districts and county health departments to address extreme heat and wildfire smoke planning and resources for homeowners, designating clean air or cooling centers, and planning for emergency medical responses for populations at risk (e.g., outdoor workers, older residents, very young residents, persons with preexisting health conditions, etc.).

Policy CR 6.2 - Develop a program to distribute cooling units and install heat pumps, prioritizing households with residents most vulnerable (e.g., low-income seniors) to extreme temperature events.

Policy CR 6.3 - Use integrated pest management on shorelines, stormwater facilities, parks, and open spaces to reduce exposure to vectors (e.g., mosquitos and standing water, etc.).

Policy CR 6.4 - Develop and implement a wildfire smoke resilience strategy in partnership with local residents, emergency management officials, regional clean air agency officials, and other stakeholders.

7. ECOSYSTEMS (includes terrestrial & aquatic species, habitats, & services)

In support of the Environment chapter, Policy E 1.4 is hereby amended to read:

E 1.4 “Ensure development is compatible with other environmental factors, such as groundwater, climate, scenic, historic, and cultural resources, and wildlife. Preserve, restore, and enhance critical areas considering climate resilience. Link open space and habitat within ecosystems through shoreline restoration plans, critical areas regulations, and conservation design of developments and subdivisions.”

The following new goals and policies are adopted:

Policy CR 7.1 - Adaptatively manage, monitor, and periodically amend the City’s critical areas regulations to promote resilience to extreme precipitation or heat and in coordination with other jurisdictions in watersheds.

Goal CR-6 – Protect and conserve ecosystems by increasing resilience to climate hazards such as heat, flooding, drought, and reduced snowpack, that pose a risk to forest productivity, pest outbreaks, fish and wildlife habitats, and water quality.

Policy CR 7.2 - Protect and Enhance tree canopy particularly native trees to provide shade and reduce heat islands, improve air quality, and support fish and wildlife habitat.

Policy CR 7.3 - Update landscape standards to promote native drought- and pest-resistant trees, shrubs, and grasses to support climate resilience.

Policy CR 7.4 - Encourage landscape enhancement on existing development sites to promote native drought- and pest-resistant trees, shrubs, and grasses to support climate resilience.

Policy CR 7.5 - Develop an identification and monitoring program for urban trees to analyze risks or impacts of pests and disease, factoring in climate impacts.

8. TRANSPORTATION (includes multi-modal travel & infrastructure)

Goal CR-7 – Increase the resilience of transportation structures to floods and changes in maintenance due to cold-season precipitation.

Goal CR-8 – Provide a convenient, safe, and efficient multi-modal transportation system that promotes the mobility of people and goods within and through the city.

Policy CR 8.1 - Maximize bicycle and pedestrian infrastructure and other active transportation systems.

Policy CR 8.2 - Encourage non-motorized routes to connect homes to work and other destinations.

Policy CR 8.3 - Expand and improve access to public transportation through transit system improvements and land use practices that support transit.

Policy CR 8.4 - Adapt community park and ride facilities to support improved transit service.

Policy CR 8.5 - Improve street connectivity and walkability, including sidewalks and street crossings, to serve as potential evacuation routes.

Policy CR 8.6 - Consider future climate conditions during the siting and design of capital facilities like roads, bridges, utilities, and other infrastructure. Address anticipated

changes to temperature, rainfall, and flooding, to help ensure they function as intended over their planning cycle.

9. WASTE MANAGEMENT (includes materials recycling & disposal)

Goal CR-9 – Increase municipal cleanup and refuse capacity to prepare for increased need following extreme precipitation events.

Policy CR 9.1 - Develop and implement a strategy to expedite the removal of waste (e.g., downed tree limbs and buildings blocking roads and streams) during and after disaster incidents to reduce the risks of subsequent fire, flood, injury, and disease vectors.

Policy CR 9.2 - Incentivize recycling of construction and demolition debris. Develop a program that will enable recycling of all construction and demolition debris.

10. WATER RESOURCES (includes water quality & quantity)

Goal CR-10 – Prepare conservation strategies to increase resilience to drought and reduce snowpack.

Policy CR 10.1 - Manage water resources sustainably in the face of climate change through smart irrigation, stormwater management, preventative maintenance, water conservation and wastewater reuse, plant selection, and landscape management.

Policy CR 10.2 - Encourage rainwater collection and recycling.

Policy CR 10.3 - Through the Water Supply System Plan and regional water supply coordination, encourage “smart” metering, groundwater monitoring, and other proven measures to conserve water and enhance drought resilience.

11. ZONING & DEVELOPMENT (includes site use, design, & other development facets)

Goal CR-11 – Utilize zoning and other development regulations to limit development in at risk areas, and resilience of existing and new developments.

Policy CR 11.1 - Encourage low-impact development techniques and green infrastructure that enhance climate resilience in proposals for new development, such as green roofs, rain gardens, and others.

Policy CR 11.2 - Require the use of green infrastructure and low-impact development to address increased storm intensities and stormwater runoff, and encourage beneficial use of stormwater.

Policy CR 11.3 - Improve the siting and design of housing and landscaping to promote climate resilience such as passive heating and cooling, natural lighting, solar panels and heat pumps, drought-resistant landscaping, and other techniques.

Policy CR 11.4 - Add infill code to encourage redevelopment of residential lots, accessory dwelling units, and other middle housing options to promote housing near amenities and increase multiple modes of transportation, improve resiliency, and reduce greenhouse gas emissions.

Policy CR 11.5 - Strengthen development regulations that promote compatible uses and protection of health and safety in geologic, flood, and other hazard areas including areas more prone to risks due to extreme precipitation and heat.

Policy CR 11.6 - Consider a flood adaptation hierarchy with strategies and interventions to protect, accommodate, or retreat from flood hazard areas that would be exacerbated with climate change. Where interventions are necessary for protection, prefer nature-based designs.