



Chelan County Planning Commission

Chair: Cherié Warren Vice Chair: Doug England

Commissioners District 1: Tammy Donaghue, James Wiggs, Nik Moushon

Commissioners District 2: Cherié Warren, Mike Sines, Ken Hemberry

Commissioners District 3: Christopher Willoughby, Jesse Redell, Doug England

Meeting Agenda

Wednesday, July 22nd, 2026 at 6:30 PM

Chelan County Community Development

400 Douglas Street,

Wenatchee WA, 98801

Or via Zoom - details listed below:

Join Zoom Meeting

In-Person Only – will update once public ZOOM capabilities resume

Meeting to Order

I. Administrative

- A.** Review/Approval of Minutes from June 24th, 2026 Planning Commission Meeting.

II. Public Comment Period

- A.** Comment for any matters not identified on the agenda (limit 2 minutes per person)

III. Old Business

IV. New Business

WORKSHOP:

- A.** ZTA 26-163 Co-living housing (see attached)
- B.** ZTA 26-164 STEP housing (see attached)
- C.** Climate Resiliency Assessment (see attached)
- D.** Transportation Element

V. Discussion, at the Chair's discretion

VI. Adjournment *Meeting will go no longer than 8:30 PM.*

Materials available on the Community Development website

Any person may join this meeting via Zoom Video conference, of which the link is provided on the Chelan County Website. A Copy of the Agenda may be reviewed online
<https://www.co.chelan.wa.us/community-development/pages/planning-commission>

Chelan County has been recording Planning Commission meetings which will continue to be accessible on the Community Development Planning Commission web page shortly after the meeting takes place.

**Next Regular Meeting
August 26th, 2026 at 6:30 PM**

** All Planning Commission meetings and hearings are open to the public.*

Co-living Housing

14.98.403 “Co-living housing” means a residential development with sleeping units that are independently rented and lockable and provide living and sleeping space, and residents share kitchen facilities with other sleeping units in the building.

Peshastin District Use Chart (residential portion)

11.22.030 Permitted, accessory and conditional uses

Land Uses	R-1	R-2	R-3	C-D	C-H	I	I-C	P-U
RESIDENTIAL USES								
Accessory Dwelling, Detached	PRM	PRM	PRM	CUP			CUP	CUP
Accessory Dwelling, Attached	PRM	PRM	PRM					
Accessory Structure, Residential 1,500 Square Feet or Less	PRM	PRM	PRM	ACC	ACC		ACC	
Accessory Structure, Residential Greater than 1,500 Square Feet	ACC	ACC	ACC	ACC	ACC		ACC	
Bed and Breakfast	CUP	CUP	CUP	PRM ¹	PRM ¹			
Boarding ³	ACC	ACC	ACC	ACC ¹	ACC ¹			
Caretaker's Residence				ACC	ACC	ACC	ACC	ACC
Condominiums—Residential (Full-Time Ownership)		PRM	PRM	PRM	PRM		CUP	
Assisted Living Facility	PRM	PRM	PRM	PRM	PRM			
Convalescent Home/Nursing Home		CUP	CUP	PRM	PRM			
Daycare Center, Preschool	CUP	CUP	CUP	PRM	PRM	PRM	PRM	PRM
Daycare Home	ACC	ACC	ACC	ACC ¹	ACC ¹			
Duplex Dwelling	PRM	PRM	PRM	PRM	PRM		CUP	
Foster Home/Group Home	ACC	ACC	ACC	ACC ¹	ACC ¹			
Home Occupation	ACC	ACC	ACC	ACC ¹	ACC ¹			
Home-Based Business	CUP	CUP	CUP	CUP ¹	CUP ¹			
Manufactured Home, Designated	PRM	PRM	PRM					
Manufactured/Mobile Home Park		PRM	PRM					
Manufactured Home	PRM	PRM	PRM					
Mobile Home								
Modular Home	PRM	PRM	PRM					
Multifamily Dwelling		PRM	PRM	PRM	PRM		CUP	
<u>Co-living Housing</u>		<u>PRM</u>	<u>PRM</u>	<u>PRM</u>	<u>PRM</u>			

Land Uses	R-1	R-2	R-3	C-D	C-H	I	I-C	P-U
Single-Family Dwelling	PRM	PRM	PRM					
Existing Single-Family Dwelling as of July 1, 2008				PRM	PRM			

Manson District Use Chart

11.23.030 District use Chart

Table 9.1 – District Use Chart

USE/ACTIVITY	UR1	UR2	UR3	CT	CD	MLI	UP
Accessory Dwelling Unit	A	A	A				
Accessory Buildings, Agricultural	A	A	A	A	A	A	
Accessory Uses to Permitted Uses	A	A	A	A	A	A	A
Fences	P	P	P	P	P	P	P
Recreation/Tourist Uses				P			
Signs	A	A	A	A	A	A	A
Adult Family Home	P	P	P				
Bed and Breakfast (3 or Fewer Rooms)	A	A	A		P		
Caretaker Dwelling Unit					P	P	
Detached Garages	P	P	P				
Duplex Dwellings		P	P				
Guest Inn—4 to 6 Rooms			CUP		P		
Home-Based Business							
Home Occupations	A	A	A				
In-Home Daycare	A	A	A				
Mobile/Manufactured Home Park			CUP				
Multifamily Dwellings (Apartments)			P				
<u>Co-living Housing</u>			<u>P</u>				
Private Greenhouses	P	P	P				
Dependent Care Housing	CUP	CUP	CUP				
Residential Dwelling Units, Above Ground Floor				A	P	A	
Boarding House	P	P	P				
Single-Family Dwelling	P	P	P				
Single-Family Dwelling, as of December 31, 2017, excluding parcels adjacent to Wapato Way				P ¹	P ¹		

11.23.030 District use Chart

Table 9.1 – District Use Chart

USE/ACTIVITY	UR1	UR2	UR3	CT	CD	MLI	UP
Accessory Uses That Support, Promote or Sustain Agricultural Operations							
Agricultural Uses	P	P	P				
Agricultural Worker Housing, Off-Site							
Agricultural Worker Housing, Permanent	A	P	P				
Agricultural Worker Housing, Temporary							
Agriculturally Related Industry				CUP	CUP	P	
Agricultural Processing Facility						P	
Agricultural Support Services							
Animal Boarding Facilities				CUP			
Kennels							
Farm Visit, U-Pick and Rent-A-Tree Operation	P	P	P				
Roadside Stands, Nursery Greater Than 1,500 sq. ft. Retail							
Roadside Stands, Nursery Less Than 1,500 sq. ft. Retail				P	P		
Winery Less Than 1,500 sq. ft. of Retail Space				P	P	P	
Winery Greater Than 1,500 sq. ft. of Retail Space				P	P	P	
Farm/Agricultural Supply Sales				P	P	P	
Agricultural Theme Market							
Airport/Heliport, Single Engine Crop Dusting/Spraying						CUP	
Commercial Amusement/Recreational Facilities				P	P		
Commercial Feedlot							
Short-Term Rentals Tier 1 or Tier 2	P ¹	P ¹	P ¹	A ¹	A ¹		
Short-Term Rentals Tier 3				P ¹	P ¹		
Lodging Facilities				P	P		
Neighborhood-Oriented Commercial				P	P		
Restaurants and Drinking Establishments				P	P		
Restaurants and Drinking Establishments, Less Than 1,500 sq. ft.				P	P	P	
Tavern					P		
Chemical, Fuel or Fertilizer Distribution, Sales, Bulk Storage						P	
Contractor Storage Yard						P	
Explosives Manufacture and Storage							
Farm Equipment/Machinery Sales and Service						P	

11.23.030 District use Chart

Table 9.1 – District Use Chart

USE/ACTIVITY	UR1	UR2	UR3	CT	CD	MLI	UP
Hazardous Waste Treatment/Storage Facilities, Off-Site							
Heliport, Temporary Emergency and Forest-Related Management Support	P	P	P	P	P	P	P
Inert Waste Site						CUP	
Junkyard/Auto Wrecking Yard/Impound Yard							
Machine Shop—Artisan Goods (behind retail frontage)				CUP	CUP		
Manufacturing, Assembly, Fabrication of Artisan Goods				CUP	CUP	P	
Mineral Extraction, Long-Term							
Mineral Extraction, Short-Term							
Mini Storage						P	
Portable Sawmills and Chippers, Log Sorting and Storage Temporary Installation							
Recycling Inert Waste						CUP	
Remote Industrial Use							
Research Facilities					P	P	
Rock Crusher, Temporary Placement							
Rock Crushing, Sorting, Batching of Concrete or Asphalt							
Sanitary Landfill							
Short-Term Stockpiling of Inert Waste							
Transportation/Shipping Terminal						P	
Vehicle Sales					P	P	
Veterinarian/Animal Hospital—Small animal					P	P	
Warehousing						P	
Wholesale Trade					P	P	
Stockpiling of Sand and Gravel, Etc.							
Retail Sales				P	P		
Retail Trade Serving Industrial Uses						P	
Developed Open Space	P	P	P	P	P	P	P
Educational Institutions, Public or Private	CUP	CUP	CUP				CUP
Educational/Administrative Facilities Associated with Permitted Use	A	A	A	A	A	A	A
Parking Garage				P	P	P	
Parking Lots				P	P	P	
Public Facilities, High Impact	CUP	CUP	CUP	CUP	CUP	CUP	CUP

11.23.030 District use Chart

Table 9.1 – District Use Chart

USE/ACTIVITY	UR1	UR2	UR3	CT	CD	MLI	UP
Public Facilities, Low Impact	P	P	P	P	P	P	P
Recreational Vehicle Park/Campground, Major				P			CUP
Recreational Vehicle Park/Campground, Minor				P			CUP
Schools, Business, Technical or Trade (L)				P	P	P	
Utilities, High Impact	CUP	CUP	CUP	CUP	CUP	CUP	CUP
Utilities, Low Impact	P	P	P	P	P	P	P
Swimming Pools	P	P	P	P	P		P
Churches and Religious Facilities	CUP	CUP	CUP	CUP	CUP	CUP	P
Daycare Center/Preschool	CUP	CUP	CUP	P	P	A	
Food and Beverage Services				P	P	P	P
Personal and Professional Services				P	P	P	
Places of Public and Private Assembly				P	P	P	P
Service Station, Including Automotive Repair				P	P	P	
Cemetery	CUP	CUP	CUP	A	A		P

STEP Housing

14.98.646 "Emergency housing, indoor" means temporary indoor accommodations for individuals or families who are homeless or at imminent risk of becoming homeless that is intended to address the basic health, food, clothing, and personal hygiene needs of individuals or families. Emergency housing may or may not require occupants to enter into a lease or an occupancy agreement.

14.98.647 "Emergency shelter, indoor" means a facility that provides a temporary shelter for individuals or families who are currently homeless. Emergency shelter may not require occupants to enter into a lease or an occupancy agreement. Emergency shelter facilities may include day and warming centers that do not provide overnight accommodations.

14.98.1399 "Permanent supportive housing" is subsidized, leased housing with no limit on length of stay that prioritizes people who need comprehensive support services to retain tenancy and utilizes admissions practices designed to use lower barriers to entry than would be typical for other subsidized or unsubsidized rental housing, especially related to rental history, criminal history, and personal behaviors. Permanent supportive housing is paired with on-site or off-site voluntary services designed to support a person living with a complex and disabling behavioral health or physical health condition who was experiencing homelessness or was at imminent risk of homelessness prior to moving into housing to retain their housing and be a successful tenant in a housing arrangement, improve the resident's health status, and connect the resident of the housing with community-based health care, treatment, or employment services. Permanent supportive housing is subject to all of the rights and responsibilities defined in chapter 59.18 RCW.32 33.

14.98.1873 "Transitional housing" means a project that provides housing and supportive services to homeless persons or families for up to two years and that has as its purpose facilitating the movement of homeless persons and families into independent living.

Peshastin District Use Chart

Land Uses	R-1	R-2	R-3	C-D	C-H	I	I-C	P-U
RESIDENTIAL USES								
Accessory Dwelling, Detached	PRM	PRM	PRM	CUP			CUP	CUP
Accessory Dwelling, Attached	PRM	PRM	PRM					
Accessory Structure, Residential 1,500 Square Feet or Less	PRM	PRM	PRM	ACC	ACC		ACC	
Accessory Structure, Residential Greater than 1,500 Square Feet	ACC	ACC	ACC	ACC	ACC		ACC	
Bed and Breakfast	CUP	CUP	CUP	PRM ¹	PRM ¹			
Boarding	ACC	ACC	ACC	ACC ¹	ACC ¹			
Caretaker's Residence				ACC	ACC	ACC	ACC	ACC
Condominiums—Residential (Full-Time Ownership)		PRM	PRM	PRM	PRM		CUP	

[illegible]

Land Uses	R-1	R-2	R-3	C-D	C-H	I	I-C	P-U
Public/Private Corporate, Regional Headquarters, Admin. Offices for Commercial, Industrial, Noncommercial Uses				PRM	PRM	PRM	PRM	CUP
Recycling Center						PRM	CUP	CUP
Telecommunication Facilities (Cell Towers)				CUP	CUP	CUP	CUP	CUP
Trade/Vocational School				CUP	CUP	PRM	PRM	CUP
Utility Uses/Structures					CUP	PRM	PRM	CUP
Wastewater Treatment Facilities						PRM	CUP	CUP
AGRICULTURAL USES								
Agricultural Uses	PRM	PRM	PRM			PRM	PRM	
Agriculturally Related Industry					PRM	PRM	PRM	
Agricultural Processing Facility						PRM	PRM	
Agriculture Building	PRM	PRM	PRM	PRM	PRM	PRM	CUP	PRM
Animal Clinic, Hospital				CUP	CUP	CUP	CUP	
Commercial Composting								
Farm Equipment Sales/Service				PRM	PRM	PRM	PRM	
Feed Lot								
Feed Store				PRM	PRM	PRM	PRM	
Food Processing, Canning, Packing Greater Than 5,000 sq. ft.					CUP	PRM		
Food Processing, Canning, Packing Less Than 5,000 sq. ft.				CUP	PRM	PRM	PRM	
Home Fruit Stand	ACC	ACC	ACC	PRM	PRM	PRM	PRM	
Horse Boarding/Training, Riding Stable								
Kennels, Commercial					PRM	PRM	PRM	
Kennels, Hobby	ACC	ACC	ACC	ACC	ACC		ACC	
Livestock, Commercial								
Livestock/Poultry for Personal Use Only	ACC	ACC	ACC		ACC			
Nursery, Commercial/Retail/Wholesale	CUP	CUP	CUP	PRM	PRM	PRM	PRM	
Poultry, Commercial								
Slaughterhouse								
COMMERCIAL USES								
Accessory Structure, Commercial				ACC	ACC	ACC	ACC	
Arts and Crafts, Antique Sales				PRM	PRM		PRM	
Auto Towing—Secured					CUP	PRM		
Bakery, Retail				PRM	PRM	PRM	PRM	
Big Box Retail					PRM			

Land Uses	R-1	R-2	R-3	C-D	C-H	I	I-C	P-U
Off-Premises Signs, 18 Square Feet or Less With No Lighting				PRM	PRM	PRM	PRM	
Off-Premises Signs, Larger Than 18 Square Feet or With Lighting				CUP	CUP	CUP	CUP	
Boat Sales and Service				PRM	PRM	PRM	PRM	
Brewery				CUP	CUP	CUP	CUP	
Business Offices				PRM	PRM	PRM	PRM	
Car Rental					PRM	PRM	PRM	
Car Wash					CUP	CUP	CUP	
Catering	ACC	ACC	ACC	PRM	PRM	PRM	PRM	
Commercial Copiers/Printers				PRM	PRM	PRM	PRM	
Clinic, Medical, Dental, Etc.				PRM	PRM	PRM	PRM	CUP
Condominium, Time Share/Fractional Ownership			CUP	PRM	PRM			
Convenience Store, Excluding Fuel Sales		CUP	CUP	PRM	PRM	PRM	PRM	
Convenience Store, Including Fuel Sales					PRM	PRM	PRM	
Cultural and/or Historical Facilities	CUP	CUP	CUP	PRM	PRM			PRM
Drive-Up Food Service, Includes Coffee Stands				PRM	PRM	PRM	PRM	
Dry Cleaners, Laundromats				PRM	PRM	PRM	PRM	
<u>Emergency Housing, Indoor</u>				<u>PRM</u>	<u>PRM</u>			
<u>Emergency Shelter, Indoor</u>				<u>PRM</u>	<u>PRM</u>			
Farmer's Market				PRM	PRM	PRM	PRM	PRM
Financial/Lending Institution (Bank, Etc.)				PRM	PRM	PRM	PRM	
Funeral Home/Crematorium				PRM	PRM	PRM	PRM	
Gas/Service Station					PRM	PRM	PRM	
Grocery Store				PRM	PRM	PRM	PRM	
Hardware/Garden Store—Lumber Yard				PRM	PRM	PRM	PRM	
Heating and Plumbing Sales and Services				PRM	PRM	PRM	PRM	
Hotels/Motels/Lodging Facilities				PRM	PRM	PRM	PRM	
Manufactured Home, Sales					PRM	PRM		
Merchandise, Furniture, Home Furnishings, Department Retail Sales and Service				PRM	PRM	PRM	PRM	
Microbrewery, Small Scale; 250,000 Gallons/Year or Less				CUP	CUP	CUP	CUP	
Mini-Storage				ACC	PRM	PRM	ACC	
Mobile Food Service					PRM	PRM	PRM	
Museums, Art Galleries				PRM	PRM	PRM	PRM	PRM
Newspaper Publishing				PRM	PRM	PRM	PRM	

Land Uses	R-1	R-2	R-3	C-D	C-H	I	I-C	P-U
Office Supplies and Equipment				PRM	PRM	PRM	PRM	
Parking Lots/Garages—Commercial or Public				PRM	PRM	PRM	PRM	PRM
Permanent Supportive Housing	PRM	PRM	PRM	PRM	PRM			
Personal Services (Barber, Salon, Etc.)	CUP	CUP	CUP	PRM	PRM	PRM	PRM	
Pet Services	CUP	CUP	CUP	PRM	PRM	PRM	PRM	
Pharmacies				PRM	PRM	PRM	PRM	
Professional Services (Lawyer, Psychiatrist, Etc.)	CUP	CUP	CUP	PRM	PRM	PRM	PRM	
Repair Services, Electronics/Appliances	CUP	CUP	CUP	PRM	PRM	PRM	PRM	
Restaurant				PRM	PRM	PRM	PRM	PRM
Retail—Textiles, Sporting Goods				PRM	PRM	PRM	PRM	
Retail Stores				PRM	PRM	PRM	PRM	
RV Sales and Service					PRM	PRM	PRM	
Short-Term Rentals Tier 1 or Tier 2				PRM	PRM			
Short-Term Rentals Tier 3				PRM	PRM			
Taverns, Bars, Cocktail Lounges				PRM	PRM	PRM	PRM	
Tractor, Trailer Sales					PRM	PRM	PRM	
Transitional Housing	PRM	PRM	PRM	PRM	PRM			
Truck Stops					CUP	CUP		
Vehicle Repair, Service Shops and Auto Sales				PRM	PRM	PRM	PRM	
Video Rental		CUP	CUP	PRM	PRM	PRM	PRM	
Winery	ACC	CUP	ACC	PRM	PRM	PRM	PRM	
Winery, Small Scale	ACC	CUP	ACC	PRM	PRM	PRM	PRM	
INDUSTRIAL USES								
Above/Below Ground Storage of Critical Material					ACC	ACC	ACC	
Accessory Structure, Industrial					ACC	ACC	ACC	
Airports and Supporting Aviation Activities						CUP	CUP	CUP
Apparel Manufacture				PRM	PRM	PRM	PRM	
Asphalt Paving Plant								
Bakery, Wholesale				PRM	PRM	PRM	PRM	
Beverage Industry				PRM	PRM	PRM	PRM	
Building/Construction Materials, Manufacture/Assembly/Fabrication Lumber Yard					PRM	PRM		
Bulk Fuel Distributor						PRM		
Cement/Concrete Plant								
Chemical, Pharmaceuticals, Cosmetics Manufacture/Processing/Packaging						PRM	CUP	

Land Uses	R-1	R-2	R-3	C-D	C-H	I	I-C	P-U
Communications, TV/Radio Stations, Telephone Exchanges				PRM	PRM	PRM	PRM	
Construction Contractor's Yards				CUP	PRM	PRM		
Controlled Atmosphere (CA) Storage					PRM	PRM		
Electronic Product Manufacture/Assembly				PRM	PRM	PRM	PRM	
Fabricated Metal Products, Sheet Metal, Welding				PRM	PRM	PRM	PRM	
Furniture Products Manufacture/Assembly				CUP	PRM	PRM	PRM	
Glass Products Manufacture/Assembly				CUP	PRM	PRM	PRM	
Hardware Products Manufacture/Assembly				CUP	PRM	PRM	PRM	
Hazardous Waste Storage, On-Site				ACC	ACC	ACC	ACC	
Hazardous Waste Treatment, On-Site								
Heliports					CUP	CUP	CUP	ACC
Leather Products Manufacture/Assembly								
Machinery/Heavy Equipment Manufacture/Assembly						PRM	PRM	
Manufactured Homes, Travel Trailers, Campers, Manufacture/Assembly/Fabrication						PRM	PRM	
Medical/Scientific Research, Product Manufacture/Assembly				PRM	PRM	PRM	PRM	
Mineral Extraction, Crushing, Screening, Etc.								
Paper Products Manufacture/Assembly								
Paperboard Containers Manufacture								
Parcel Delivery Service, Packaging, Crating				PRM	PRM	PRM	PRM	
Plastic Products Manufacture/Assembly						PRM	PRM	
Prefabricated Wood Products								
Printing, Publishing, Binding				PRM	PRM	PRM	PRM	
Rendering Plants								
Research and Development, Nonmedical				PRM	PRM	PRM	PRM	
Rubber Products								
Technology Centers				PRM	PRM	PRM	PRM	
Technology Storage Facilities				PRM	PRM	PRM	PRM	
Vehicle, Boat Building						PRM	PRM	
Warehousing, Storage				ACC	ACC	PRM	ACC	
Wrecking/Junk Yard								
RECREATIONAL USES								
Arboretums and Gardens	PRM	PRM	PRM	PRM	PRM	PRM	PRM	PRM
Bowling Alleys				PRM	PRM			
Drive-In Theater								

Land Uses	R-1	R-2	R-3	C-D	C-H	I	I-C	P-U
Exercise Facility			CUP	PRM	PRM	PRM	PRM	
Golf Course	CUP	CUP	CUP					PRM
Driving Range								
Gun/Sportsmen's Club				PRM ²	PRM	PRM	PRM ²	PRM
Miniature Golf				PRM	PRM		PRM	PRM
Mini-Casinos, Game, Card Rooms				PRM	PRM	PRM	PRM	
Playfields	CUP	CUP	CUP	PRM	PRM	PRM	PRM	CUP
Parks and Recreation Facilities	CUP	CUP	CUP	PRM	PRM	PRM	PRM	CUP
Racetrack/Speedway (Horse, Mini-Sprint, Etc.)								
Recreational Vehicle Park or Tent Campground					CUP			CUP
Roller/Ice-Skating Rink				PRM	PRM		PRM	PRM
Theaters				PRM	PRM		PRM	CUP
Trail Systems	CUP	CUP	CUP	PRM	PRM	PRM	PRM	CUP

¹ In existing single-family residences only, as of July 1, 2008.

² Indoor facility only.

³ Per Section [11.88.170\(4\)](#) in any district that permits single-family residences, the renting of rooms to not more than two boarders, roomers, or lodgers is permitted as an accessory use.

Manson District Use Chart

Table 9.1 – District Use Chart

USE/ACTIVITY	UR1	UR2	UR3	CT	CD	MLI	UP
Accessory Dwelling Unit	A	A	A				
Accessory Buildings, Agricultural	A	A	A	A	A	A	
Accessory Uses to Permitted Uses	A	A	A	A	A	A	A
Fences	P	P	P	P	P	P	P
Recreation/Tourist Uses				P			
Signs	A	A	A	A	A	A	A
Adult Family Home	P	P	P				
<u>Permanent Supportive Housing</u>	<u>P</u>	<u>P</u>	<u>P</u>	<u>P</u>	<u>P</u>		
<u>Transitional Housing</u>	<u>P</u>	<u>P</u>	<u>P</u>	<u>P</u>	<u>P</u>		
Bed and Breakfast (3 or Fewer Rooms)	A	A	A		P		

Table 9.1 – District Use Chart

USE/ACTIVITY	UR1	UR2	UR3	CT	CD	MLI	UP
<u>Emergency Shelter, Indoor</u>				<u>P</u>	<u>P</u>		
<u>Emergency Housing, Indoor</u>				<u>P</u>	<u>P</u>		
Caretaker Dwelling Unit					P	P	
Detached Garages	P	P	P				
Duplex Dwellings		P	P				
Guest Inn—4 to 6 Rooms			CUP		P		
Home-Based Business							
Home Occupations	A	A	A				
In-Home Daycare	A	A	A				
Mobile/Manufactured Home Park			CUP				
Multifamily Dwellings (Apartments)			P				
Private Greenhouses	P	P	P				
Dependent Care Housing	CUP	CUP	CUP				
Residential Dwelling Units, Above Ground Floor				A	P	A	
Boarding House	P	P	P				
Single-Family Dwelling	P	P	P				
Single-Family Dwelling, as of December 31, 2017, excluding parcels adjacent to Wapato Way				P ¹	P ¹		
Accessory Uses That Support, Promote or Sustain Agricultural Operations							
Agricultural Uses	P	P	P				
Agricultural Worker Housing, Off-Site							
Agricultural Worker Housing, Permanent	A	P	P				
Agricultural Worker Housing, Temporary							
Agriculturally Related Industry				CUP	CUP	P	
Agricultural Processing Facility						P	
Agricultural Support Services							
Animal Boarding Facilities				CUP			
Kennels							
Farm Visit, U-Pick and Rent-A-Tree Operation	P	P	P				
Roadside Stands, Nursery Greater Than 1,500 sq. ft. Retail							
Roadside Stands, Nursery Less Than 1,500 sq. ft. Retail				P	P		
Winery Less Than 1,500 sq. ft. of Retail Space				P	P	P	
Winery Greater Than 1,500 sq. ft. of Retail Space				P	P	P	

Table 9.1 – District Use Chart

USE/ACTIVITY	UR1	UR2	UR3	CT	CD	MLI	UP
Farm/Agricultural Supply Sales				P	P	P	
Agricultural Theme Market							
Airport/Heliport, Single Engine Crop Dusting/Spraying						CUP	
Commercial Amusement/Recreational Facilities				P	P		
Commercial Feedlot							
Short-Term Rentals Tier 1 or Tier 2	P ¹	P ¹	P ¹	A ¹	A ¹		
Short-Term Rentals Tier 3				P ¹	P ¹		
Lodging Facilities				P	P		
Neighborhood-Oriented Commercial				P	P		
Restaurants and Drinking Establishments				P	P		
Restaurants and Drinking Establishments, Less Than 1,500 sq. ft.				P	P	P	
Tavern					P		
Chemical, Fuel or Fertilizer Distribution, Sales, Bulk Storage						P	
Contractor Storage Yard						P	
Explosives Manufacture and Storage							
Farm Equipment/Machinery Sales and Service						P	
Hazardous Waste Treatment/Storage Facilities, Off-Site							
Heliport, Temporary Emergency and Forest-Related Management Support	P	P	P	P	P	P	P
Inert Waste Site						CUP	
Junkyard/Auto Wrecking Yard/Impound Yard							
Machine Shop—Artisan Goods (behind retail frontage)				CUP	CUP		
Manufacturing, Assembly, Fabrication of Artisan Goods				CUP	CUP	P	
Mineral Extraction, Long-Term							
Mineral Extraction, Short-Term							
Mini Storage						P	
Portable Sawmills and Chippers, Log Sorting and Storage Temporary Installation							
Recycling Inert Waste						CUP	
Remote Industrial Use							
Research Facilities					P	P	
Rock Crusher, Temporary Placement							
Rock Crushing, Sorting, Batching of Concrete or Asphalt							

Table 9.1 – District Use Chart

USE/ACTIVITY	UR1	UR2	UR3	CT	CD	MLI	UP
Sanitary Landfill							
Short-Term Stockpiling of Inert Waste							
Transportation/Shipping Terminal						P	
Vehicle Sales					P	P	
Veterinarian/Animal Hospital—Small animal					P	P	
Warehousing						P	
Wholesale Trade					P	P	
Stockpiling of Sand and Gravel, Etc.							
Retail Sales				P	P		
Retail Trade Serving Industrial Uses						P	
Developed Open Space	P	P	P	P	P	P	P
Educational Institutions, Public or Private	CUP	CUP	CUP				CUP
Educational/Administrative Facilities Associated with Permitted Use	A	A	A	A	A	A	A
Parking Garage				P	P	P	
Parking Lots				P	P	P	
Public Facilities, High Impact	CUP	CUP	CUP	CUP	CUP	CUP	CUP
Public Facilities, Low Impact	P	P	P	P	P	P	P
Recreational Vehicle Park/Campground, Major				P			CUP
Recreational Vehicle Park/Campground, Minor				P			CUP
Schools, Business, Technical or Trade (L)				P	P	P	
Utilities, High Impact	CUP	CUP	CUP	CUP	CUP	CUP	CUP
Utilities, Low Impact	P	P	P	P	P	P	P
Swimming Pools	P	P	P	P	P		P
Churches and Religious Facilities	CUP	CUP	CUP	CUP	CUP	CUP	P
Daycare Center/Preschool	CUP	CUP	CUP	P	P	A	
Food and Beverage Services				P	P	P	P
Personal and Professional Services				P	P	P	
Places of Public and Private Assembly				P	P	P	P
Service Station, Including Automotive Repair				P	P	P	
Cemetery	CUP	CUP	CUP	A	A		P

P¹ = Permitted with Standards

OPTIONAL

11.88.300 Emergency Shelter, Indoor and Emergency Housing, Indoor

For any indoor emergency shelter or indoor emergency housing, the sponsor or managing agency of the property must certify in writing that it has, between the date the permit application was approved and the date the certificate of occupancy was issued:

- (1) Provided the name, if any, of the facility and the name and headquarters address of the managing entity;
- (2) Provided a description of any other programs operating in the building and copies of the applicable licenses and certifications held by the program;
- (3) Notified residents within 500 feet of the indoor emergency shelter or indoor emergency housing;
- (4) Conducted more than one community meeting;
- (5) Designated at least one point of contact authorized to make decisions and take corrective action in the case of an emergency, and provided at least one telephone number to be used in emergencies; and
- (6) Provided documentation of the sponsor's or managing agency's operational policies or procedures for:
 - (A) Promoting and addressing health and safety inside the building and in areas immediately adjacent to the building;
 - (B) Admissions, including a description of the populations the project will serve and potential sources of referral;
 - (C) Program exit or transfer;
 - (D) Handling complaints and grievances from occupants;
 - (E) Health, fire, safety, and occupancy; and
 - (F) Staffing to provide services and resources to the population being served comparable to standard or customary practices for the particular type of housing being provided. The staffing policy or procedure may include, but is not limited to, the number of staff or volunteers present during daytime and nighttime operations, staff or volunteer training, and other processes to provide services and resources to the populations being served.

Chelan County Climate Resilience Assessment

July 2026 - DRAFT

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Introduction

Executive Summary

Chelan County sits at the intersection of mountain snowpack, river systems, productive agricultural land, and growing communities—a geography that makes it both ecologically rich and increasingly exposed to the effects of a changing climate. This Climate Resilience Assessment represents the County's most comprehensive effort to date to understand how a changing climate is reshaping the conditions on which residents, businesses, and ecosystems depend, and to chart a path forward.

Key takeaways

Climate-exacerbated natural hazards are a present and ongoing threat to Chelan County. Residents and land managers have already witnessed its effects: shrinking snowpack that feeds irrigation systems and rivers, more frequent and severe wildfires that blanket communities in smoke and consume forests, extreme heat events that stress crops and outdoor workers, and flooding that damages roads, homes, and infrastructure. The findings of this assessment confirm that these trends will intensify in the decades ahead.

Several themes emerge consistently across the assessment:

- **Wildfire and wildfire smoke represent the most pervasive climate risk** facing the county. 99% percent of properties in Chelan County face some risk from wildfire over the next 30 years (First Street, 2026). Wildfire emissions from county lands averaged approximately 1.44 million metric tons of CO₂-equivalent per year between 2016 and 2024—by far the largest single source of the county's greenhouse gas inventory (Parametrix, 2025).
- **Drought and snowpack decline threaten the foundation of the county's economy and ecology.** Agriculture, hydropower, fisheries, recreation, and municipal water supplies all depend on reliable snowmelt. Spring snowpack in the Cascades has declined by 30–60% since the 1950s, and projections suggest continued and accelerating loss.
- **Flooding poses serious risks to infrastructure, housing, and community safety,** particularly in low lying areas along rivers, steep canyons, and downhill of recent wildfires. 73 county-owned bridges are located in floodplains; 14.9% of residential land sits within 100-year floodplains; peak streamflows are projected to increase by 7–30% by mid-century; and rainstorms are projected to become more intense (Raymond & Rogers, 2022).
- **Vulnerable populations bear disproportionate risk.** Farm workers, unsheltered individuals, people with disabilities, low-income residents, and those living in inadequately heated or cooled housing face the greatest exposure and have the least capacity to adapt. Nearly a third of county residents earn less than \$49,999 per year; 29.2% identify as Hispanic or Latino, many of whom work in outdoor agricultural settings (U.S. Census Bureau ACS 5-Year Estimates, 2019–2023).

- **The county has significant existing resilience assets**, including strong natural resources management programs, an engaged stakeholder community, active hazard mitigation planning, and a public utility committed to long-term climate adaptation (Vision 2075).

History of climate resilience efforts in the County

Chelan County's engagement with climate and resilience planning has grown substantially in recent years. In 2020, Chelan County developed a Climate Resiliency Strategy in partnership with the University of Washington and many stakeholders. In 2022, the Board of County Commissioners adopted Resolution 2022-09, amending the 2017 Comprehensive Plan to integrate climate resilient goals and policies across multiple plan elements. The county has maintained active Hazard Mitigation Plans, updated in 2019 and 2024, and adopted an updated Community Wildfire Protection Plan in 2025. The county has also participated in collaborative regional efforts, including watershed planning, the Voluntary Stewardship Program, and the Our Valley Our Future regional sustainability initiative, which produced the Community Greenhouse Gas Inventory published in July 2025.

The development of this Climate Resilience Assessment in support of the 2026 Comprehensive Plan update represents the next step in that ongoing arc of work.

How to use this information

This assessment is designed to serve multiple audiences and purposes. For county planners and department staff, it provides a systematic foundation for incorporating climate risk into capital facilities planning, transportation investment decisions, land use regulations, and emergency preparedness. For elected officials, it offers a clear picture of where the county's greatest exposures lie and what actions and policy responses are most urgently needed. For community members, agricultural producers, businesses, nonprofit organizations, and tribal partners, it provides shared language and shared facts from which collaborative action can grow. For all audiences, it is intended as a living document—one that should be revisited as conditions evolve, and new science becomes available.

Hopes for this work moving forward

This assessment is intended to catalyze meaningful, coordinated action across sectors and communities. The hazards documented here do not respect jurisdictional boundaries or economic sectors. Effective responses will require sustained partnership between county departments, municipal governments, tribal partners, agricultural producers, conservation organizations, utilities, businesses, and residents. This document is offered in that spirit—as a shared foundation for building a more resilient Chelan County.

Acknowledgments

This Climate Resilience Assessment was developed by Perteet Inc. and EK Consulting, working in close partnership with the Chelan County Natural Resources Department and a broad coalition of community stakeholders.

Core Project Team: Elle Robinson and Mike Kaputa (Chelan County Natural Resources), Jason Detamore (Chelan County Public Works), Stan Smoke (Chelan County Emergency Management), and Susan Dretke (Chelan County Community Development).

Climate Advisory Team: Many individuals contributed time, expertise, and community perspective to the development of this assessment. Advisory team details are listed in Appendix C: Community Engagement and Public Outreach.

Consultant Team: Christina Wollman (Perteet Inc.) and Mandy Maxwell (EK Consulting).

GHG Inventory: The Community Greenhouse Gas Inventory was conducted by Parametrix, with support from Sustainable NCW, Chelan County Natural Resources, and Our Valley Our Future.



The Climate Resilience Assessment was supported with funding from Washington's Climate Commitment Act. The CCA supports Washington's climate action efforts by putting cap-and-invest dollars to work reducing climate pollution, creating jobs, and improving public health.

The Greenhouse Gas Inventory was supported by Grant No. DE-SE0000236 awarded by U.S. Department of Energy, State and Community Programs. The points of view in this inventory are those of the author and do not necessarily represent the official position or policies of the U.S. Department of Energy, State and Community Programs. Grant funds are administered by the Clean Buildings Program, Washington State Department of Commerce.

Relationship with the 2026 Comprehensive Plan Update

This Climate Resilience Assessment is a foundational document supporting the development of resilient goals and policies in the 2026 Chelan County Comprehensive Plan. It is prepared in accordance with Washington State's Growth Management Act (GMA) as amended by House Bill 1181 (2023), codified at RCW 36.70A.070(9), which requires all fully planning counties and cities to incorporate a Climate Element into their Comprehensive Plans.

The GMA requires that the climate element address climate resilience across the required plan elements, including Land Use, Housing, Capital Facilities, Utilities, Rural (for counties), and Transportation. This assessment provides the evidence base—climate hazard analysis, asset inventory, vulnerability and risk assessment, and policy audit—that informs goals, policies, and actions incorporated into those plan elements.

This Climate Resilience Assessment was developed in parallel with the Comprehensive Plan update, coordinating where possible, and sharing a public participation framework. Climate

resilient measures will be adopted as part of the 2026 Comprehensive Plan update, subject to approval by the Chelan County Board of Commissioners.

Assessment Process

This assessment was developed through a structured, five-step planning process guided by the Washington State Department of Commerce's (WA Commerce, 2025).

Step 1 – Explore Climate Impacts: The consulting team, working with the Climate Advisory Team, identified and analyzed climate hazards, indicators, and impacts specific to Chelan County.

Step 2 – Audit Plans and Policies: Existing County plans and policies were reviewed for their treatment of climate resilience and hazard mitigation, identifying both strengths and gaps that should be addressed in the 2026 Comprehensive Plan update.

Step 3 – Assess Vulnerability and Risk: Asset-hazard pairs were evaluated for sensitivity and adaptive capacity to determine vulnerability ratings. Vulnerability was combined with hazard probability and consequence data to produce risk scores.

Step 4 – Pursue Pathways: Based on the vulnerability and risk assessment, the team identified priority areas for action and developed directional policy recommendations.

Step 5 – Draft Plan with Goals and Policies: Resilient goals and policies were developed for each Element in the 2026 Comprehensive Plan.

Glossary of Key Terms

Adaptive capacity: A system's ability to adjust to climate change and minimize damage, influenced by governance, available resources, technologies, and social networks.

Air Quality Index (AQI): A system used by the EPA to communicate how clean or polluted the air is and whether it poses any health concerns.

Asset-hazard pair: A combination of a specific asset category (e.g., transportation infrastructure) and a specific climate hazard (e.g., extreme precipitation and flooding) that is analyzed for climate impacts, vulnerability, and risk.

Chill hour loss: Chill hours are the number of hours spent below 45°F. Chill hour loss is the cancellation of accumulated winter cold hours due to unseasonably warm daytime temperatures. When winter or early spring days heat up, deciduous fruit trees temporarily reverse their dormant state, throwing off their internal clocks and negatively impacting the upcoming season's blossoming and fruit set.

Climate Element: A required element of the Comprehensive Plan under RCW 36.70A.070(9), addressing climate resilience across land use, housing, capital facilities, utilities, rural lands, and transportation.

Exposure: The degree to which a system or asset is subject to climate-related hazards, such as rising temperatures or extreme weather events.

Greenhouse gas (GHG): Gases that trap heat in the atmosphere, contributing to climate change. Measured in metric tons of carbon dioxide equivalent (MT CO₂e).

Hazard: A climate-related event or condition that poses a threat to people, property, or ecosystems. In this assessment, the priority hazards are drought and snowpack decline, extreme temperatures and severe weather, extreme precipitation and flooding, and wildfire and wildfire smoke.

HB 1181: Washington's 2023 House Bill 1181 updates the state's Growth Management Act, requiring local governments to integrate climate change adaptation and emissions reduction into their comprehensive plans.

Magnitude: The extent of damage or loss associated with a climate hazard event, factoring in vulnerability, redundancy, cost, and criticality.

MT CO₂e: Metric tons of carbon dioxide equivalent. The standard unit for measuring greenhouse gas emissions.

Priority hazard: A climate hazard identified as most relevant to Chelan County based on frequency, consequence, and alignment with existing planning documents.

Probability: The likelihood of a climate hazard event occurring, based on historical data and future projections.

RCP 8.5: A higher greenhouse gas concentration scenario used in climate modeling, representing continued high emissions through the end of the century. Used as the primary scenario for this assessment because it does not differ significantly from RCP 4.5 prior to 2050.

Redundancy: The duplication of systems or components to ensure continued operation in the event of a failure.

Resilience:

Risk: The product of probability (likelihood of an event occurring) and magnitude (the extent of damage). Risks are categorized as Low, Medium, or High.

Scour Critical: A bridge that has been evaluated as having foundations that are unstable or at risk due to scour—the erosion of riverbed sediment by fast-flowing water.

Sensitivity: How inherently affected a system or asset is by climate impacts, considering characteristics such as age and condition of infrastructure, or socioeconomic factors like poverty.

Vulnerability: A function of a system's exposure, sensitivity, and adaptive capacity to climate change.

Wildland-Urban Interface (WUI): The geographical zone where human development and structures meet or intermingle with undeveloped wildland vegetation.

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Chelan County Profile

Economic Base

Chelan County's economy is closely tied to its natural environment. Agriculture—centered on tree fruit production including apples, pears, and cherries—has historically defined the county's economic identity and continues to employ thousands of residents, including a significant seasonal farm worker population. The county is home to orchards, ranches, vineyards, and a growing array of food and beverage producers who depend on reliable water supplies, predictable growing seasons, and stable workforce conditions.

Hydropower is a major economic and environmental pillar of the county. The Chelan County Public Utility District (PUD) operates hydroelectric facilities on the Columbia River, Lake Chelan, and Company Creek, generating power that serves the county and the regional grid. Approximately 80% of the PUD's grid mix is supplied by hydropower, providing residents and businesses with some of the lowest electricity rates in the nation and a relatively low-emissions electricity supply. A privately owned natural gas distribution system serves the Wenatchee area, operated by Cascade Natural Gas Corporation.

Tourism and outdoor recreation form a significant and growing sector. Lake Chelan, the Wenatchee River, Mission Ridge, Leavenworth, Stehekin, and the extensive trail networks and wilderness areas of the North Cascades draw visitors from across the Pacific Northwest and beyond. The county's fairgrounds, parks, and open spaces support recreation for residents and visitors alike. Four-season recreation creates jobs but also exposes the economy to climate-related disruptions, including snowpack loss, wildfire and smoke, heat, and flooding.

The broader Wenatchee Valley serves as a regional commercial and services hub, with healthcare, retail, education, and government employment anchoring the local economy alongside agriculture, energy, and tourism.

Community Demographics and Social Vulnerability

Understanding who lives in Chelan County and which residents face the greatest barriers to adapting to worsening natural hazards is essential for designing equitable and effective resilience strategies. The following demographic profile draws on data from the Washington Office of Financial Management (2024) and the U.S. Census Bureau.

Key Demographics

Age distribution

Chelan County has a broadly distributed age profile, with notable concentrations in the working-age and older adult categories. Approximately 28% of residents are age 60 or older—a population segment that faces elevated health risks from extreme heat, wildfire smoke, and other climate

stressors. Children and youth (under 20) make up approximately 24% of the population. Full demographic data are provided in Appendix A: Community Demographics and Social Vulnerability.

Race and ethnicity

According to U.S. Census Bureau estimates, 92.8% of residents identify as White alone. Notably, 29.2% of residents identify as Hispanic or Latino—a population that is concentrated in the county's agricultural areas and includes many farm workers who face elevated occupational exposure to extreme heat and wildfire smoke.

Income and poverty levels

Poverty levels are moderate to high across the entire county, with the highest concentrations in the southern and eastern portions. Low-income residents face particular challenges in retrofitting housing for temperature resilience, relocating from flood-prone areas, or absorbing economic losses from climate-related disruptions to employment.

- 31.6% of households earn less than \$49,999 per year
- 30.7% earn between \$50,000 and \$99,999
- 37.7% earn over \$100,000

Rural characteristics

Chelan County is largely rural, with the majority of its 2,920 square miles consisting of agricultural lands, forests, and mountainous terrain outside of urban growth areas. While the Wenatchee Valley serves as the county's primary population and services hub, a significant share of residents live in smaller agricultural communities or dispersed rural settings where access to emergency services, healthcare, and public transportation is limited—factors that increase vulnerability to climate hazards like wildfire, extreme weather, and flooding.

Disability status

Residents with disabilities face heightened vulnerability to climate hazards, particularly during emergency events. Among county residents:

- 8.7% report cognitive difficulty
- 7.4% report ambulatory difficulty
- 6.1% report independent living difficulty
- 4.5% report hearing difficulty
- 3.7% report self-care difficulty
- 3.2% report vision difficulty

Primary language

Over 23% of Chelan County residents report Spanish as the language spoken at home. The prevalence of non-English speakers is highest in the agricultural portions of the county, where Spanish is the primary language for many residents and farm workers. This population may face

barriers to accessing emergency information, resources, and public engagement opportunities that are available only in English. All public engagement materials for this planning process were made available in both English and Spanish.

Housing tenure

Renters typically have less control over the physical condition of their housing and may face greater difficulty making energy efficiency improvements or weatherization upgrades.

- 65.3% of housing units are owner-occupied
- 34.7% are renter-occupied

Environmental Health Disparities

The Washington Department of Health's Environmental Health Disparities (EHD) Map provides a census-tract-level picture of how environmental burdens, socioeconomic factors, and sensitive population characteristics overlap across the county. Key findings relevant to this assessment include:

- **PM2.5 concentration:** Particulate matter, including wildfire smoke, presents a greater burden in the more populated areas of the county, where higher concentrations of residents face respiratory health risks during smoke events.
- **Ozone concentration:** Ozone concentration presents a greater burden across the entire county, affecting air quality and respiratory health broadly.
- **Proximity to risk management plan facilities:** Burden is moderate to high in the southern and eastern portions of the county, where industrial facilities are located.
- **Proximity to hazardous waste storage/disposal:** Burden is moderate to high in the southeast portion of the county.
- **Primary language not English:** The predominance of non-English speakers is highest in the agricultural portions of the county, overlapping with areas of high farm worker concentration and outdoor occupational exposure.
- **People of color:** All areas of Chelan County are racially diverse, which creates the potential for climate-related environmental justice concerns throughout the county.
- **Populations living in poverty:** Poverty levels are moderate to high across the entire county, with the highest levels in the south and east areas that may also face elevated flood and wildfire exposure.

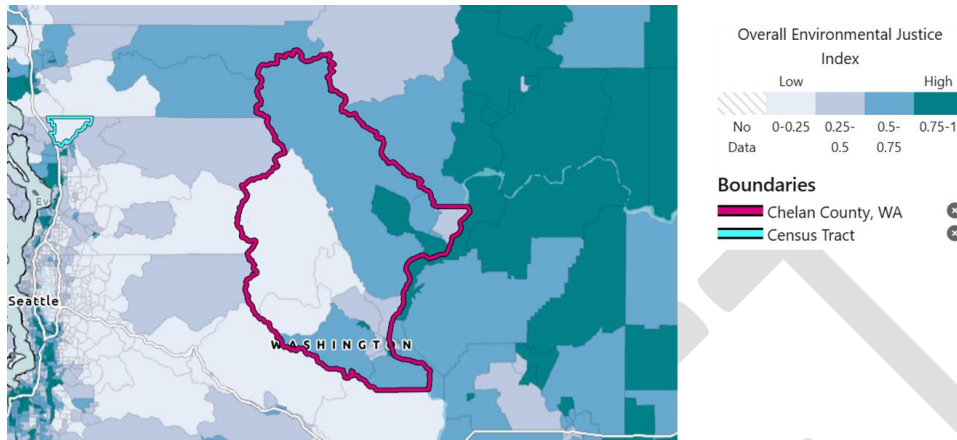
These overlapping vulnerabilities reinforce the importance of ensuring that actions and resources reach the populations with the greatest need.

Environmental Justice Index

The Environmental Justice Index (EJI) is a national, place-based tool developed by the Centers for Disease Control and Prevention (CDC) and the Agency for Toxic Substances and Disease Registry (ATSDR) to measure the cumulative impacts of environmental burdens on human health. In Chelan

County, the EJI highlights specific, localized vulnerabilities, with higher environmental and health burdens typically concentrated in the lower-elevation, heavily agricultural, and urbanized areas near the Wenatchee and East Wenatchee corridors (Ecology, 2025).

Exhibit 1 Environmental Justice Index for Chelan County (ATSDR, No Date)



Key Assets and Industries at Stake

The following categories of community assets and economic sectors face significant exposure to climate impacts and are analyzed in detail in the

Climate Hazard Assessment:

- Agriculture dependent on irrigation supplied by surface water, including orchards, vineyards, and ranches
- Agriculture-related businesses, including fruit processing, cold storage, and equipment supply
- Hydroelectric generation and power infrastructure
- Transportation networks, including roads, bridges, and culverts vulnerable to flooding and heat/cold damage
- Water supply systems and irrigation infrastructure dependent on snowpack
- Residential and farm worker housing vulnerable to flooding, wildfire, and extreme weather
- Public and commercial buildings, schools, and medical facilities
- Cultural sites and resources of significance to Indigenous communities
- Sensitive aquatic and terrestrial habitats, including salmonid-bearing streams, wetlands, shrub-steppe, and forest ecosystems
- Tourism, recreation, and the businesses that depend on these industries
- Emergency services, communications infrastructure, and public safety facilities

Climate Hazard Assessment

Planning Horizon and Greenhouse Gas Scenarios

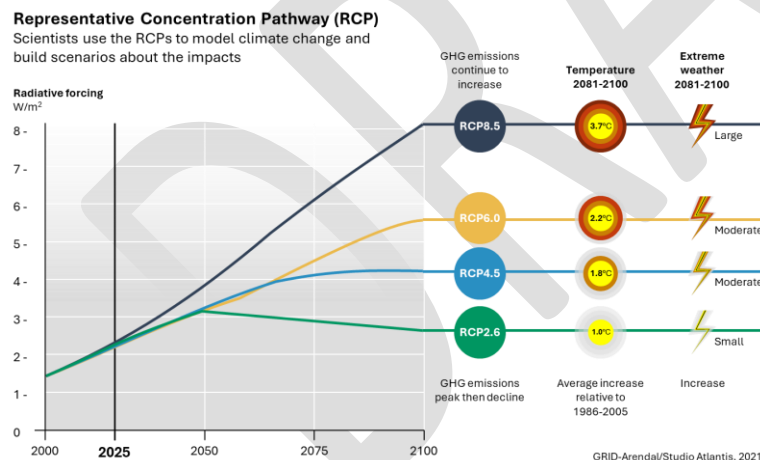
This assessment analyzes climate impacts across two primary timeframes:

- **Near-term (2020–2049):** The period most relevant to near-term capital investments, land use decisions, and policy development.
- **Mid-term (2050–2079):** The horizon for longer-range infrastructure and planning decisions.

Climate projections are drawn primarily from the **Climate Mapping for a Resilient Washington (CMRW)** webtool, which the Washington State Department of Commerce recognizes as a source of best-available science and scientifically credible projections. This assessment uses the **higher greenhouse gas scenario (RCP 8.5)** as the primary planning scenario. The higher and lower scenarios (RCP 8.5 and RCP 4.5) do not differ significantly prior to 2050, making RCP 8.5 the more appropriate planning scenario for the near-term period. RCP 8.5 also represents conditions consistent with current global emissions trajectories and provides a more conservative foundation for infrastructure and policy decisions.

Additional data sources are described below and listed in full in Appendix B: Primary Information Sources.

Exhibit 2 Representative Concentration Pathways



Primary Data Sources

The following primary sources informed the climate hazard analysis:

UW Climate Mapping for a Resilient Washington (CMRW): Climate projections database covering 11 sectors and providing indicators for Chelan County across temperature, precipitation, snowpack, streamflow, and fire conditions.

Washington Department of Health Environmental Health Disparities Map: Census-tract-level data on environmental burdens and population vulnerability.

NOAA National Centers for Environmental Information (NCEI): Historical climate data, severe weather records, and federal disaster declarations.

FEMA National Risk Index: Community-level risk data for 18 natural hazards.

Western Regional Climate Center (WRCC): Historical climate data for the western United States.

CDC Social Vulnerability Index: Place-based index identifying communities experiencing social vulnerability.

First Street: Property-level wildfire and flood risk data and projections.

Wildfire Risk (USDA Forest Service): Community-scale wildfire risk maps and planning tools.

2024 Chelan County Hazard Mitigation Plan: County-specific hazard data, historical event records, and risk assessments approved by FEMA on December 6, 2024.

2025 Chelan County Community Wildfire Protection Plan: Wildfire risk assessment and mitigation strategies adopted by the Board of County Commissioners on March 31, 2025.

Wildfire and Wildfire Smoke

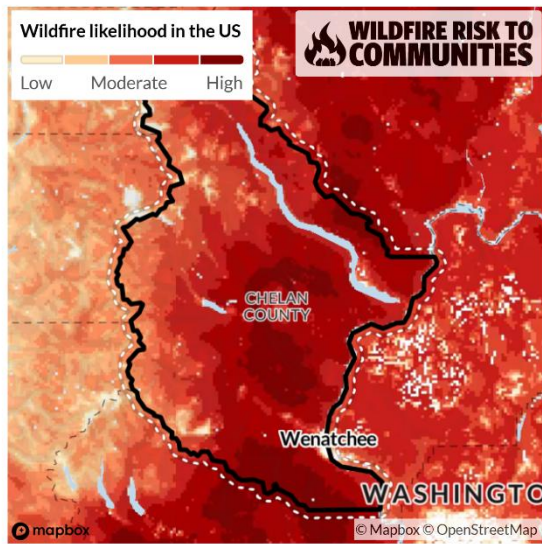
Historical Conditions

Chelan County experiences up to 70 wildfire ignitions each year (Chelan County, 2024), with an average of 1–6 major wildfires. The county has seen devastating fire seasons in recent years. In September 2025 alone, five fires started from dry lightning.

The 2023 Community Greenhouse Gas Inventory found that wildfire accounted for approximately 59% of the county's total local greenhouse gas emissions—far exceeding all other emission sources combined. From 2016 to 2024, annual wildfire emissions averaged approximately 1.44 million MT CO₂e, with 2018, 2021, 2022, and 2024 all exceeding 1.5 million MT CO₂e (Parametrix, 2025). More information on wildfire emissions can be found in the Greenhouse Gas Inventory.

Exhibit 3 Wildfire Likelihood and Risk to Homes (USDA Forest Service, 2026)

Wildfire Likelihood in Chelan County, WA

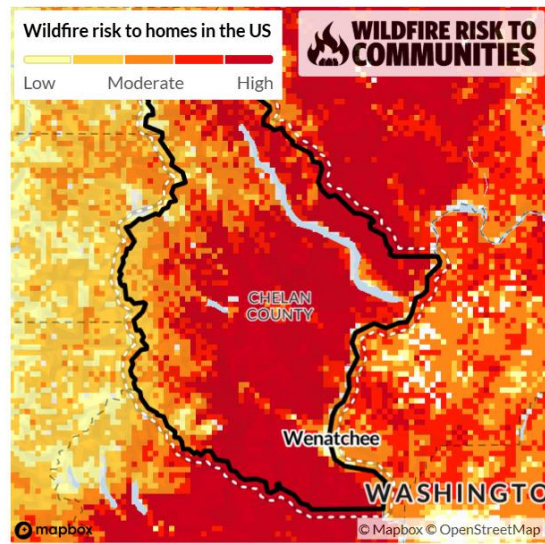


Selected place Risk calculation area

County line State line

Sources: USDA Forest Service. Wildfire Risk to Communities v2. 2026.

Wildfire Risk to Homes in Chelan County, WA



Selected place Risk calculation area

County line State line

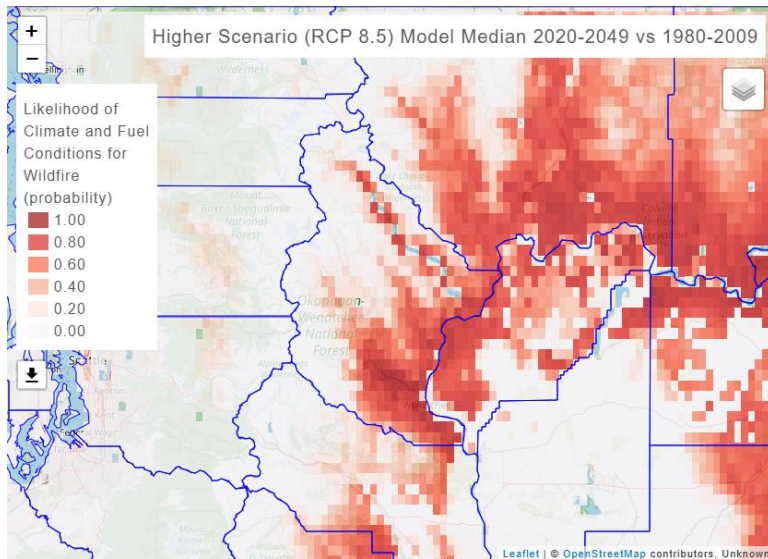
Sources: USDA Forest Service. Wildfire Risk to Communities v2. 2026.

Projected Future Conditions

Building on an already active fire history, the county can expect more frequent and severe wildfire conditions in the coming decades:

- Up to a 100% chance that any given year (2020–2049) will have climate and fuel conditions favorable for wildfire (Raymond & Rogers, 2022)
- Up to 20% more high fire days in some areas of the county (Raymond & Rogers, 2022)
- Up to 201 dry days per year, with up to 31 consecutive dry days (NOAA, No Date)
- The number of smoke days is projected to increase across the county, exacerbated by smoke from other states and Canada
- More unpredictable weather patterns can increase winds that spread fires and embers, accelerating fire behavior
- 99% of properties in Chelan County are at risk of wildfire over the next 30 years (First Street, 2026)

Exhibit 4 Wildfire Likelihood 2020-2049, RCP8.5 (Raymond & Rogers, 2022)



Implications for Chelan County

Hot, dry spells create the highest fire risk, and increased temperatures and drought intensify wildfire danger by warming and drying out vegetation. As climate changes fuel loads and moisture conditions, the landscape's susceptibility to wildfire changes as well. Development in the wildland-urban interface increases both wildfire potential and the probability of fire starts. Faster-moving fires are more likely to expand into residential neighborhoods. The risk to human health, especially for vulnerable and exposed populations, will increase as the county faces more smoke days. Agricultural producers face crop damage, market disruption, and labor challenges during active fire and smoke events. Wildfire smoke also disrupts tourism, recreation, and outdoor events. Natural ecosystems, including wildlife habitats, watersheds, and culturally significant sites, face recurring damage.

Drought and Snowpack Decline

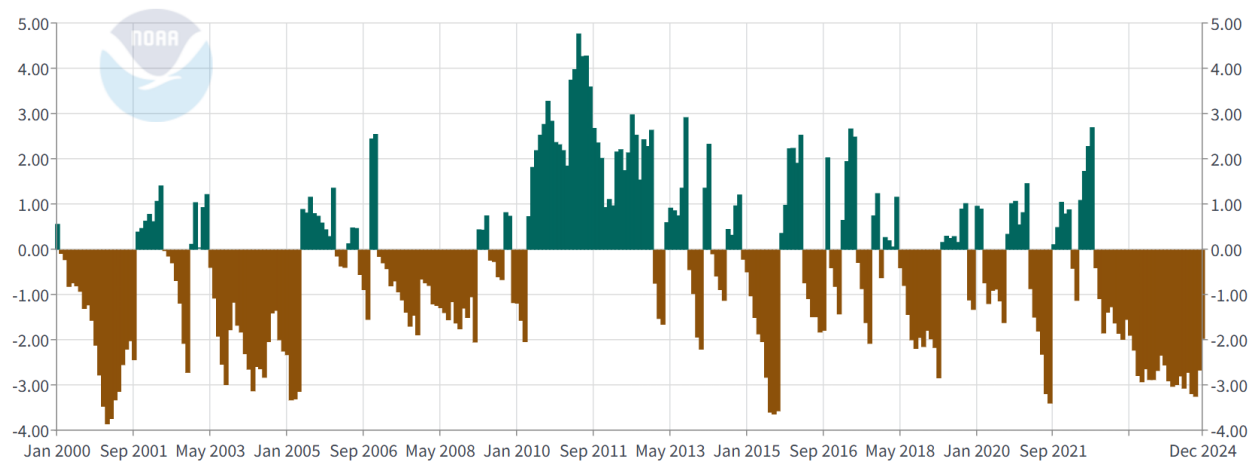
Historical Conditions

Chelan County has experienced significant and measurable changes in snowpack over the past several decades. Between 1955 and 2016, spring snowpack in the Cascades declined by an average of approximately 30% (Roop, 2020). In Chelan County and other parts of the Cascades, declines ranging from 50% to 60% have been recorded since the 1950s. Extreme drought (D3) conditions have affected Chelan County in 8 of the last 25 years (2000–2025).

The county faces a probability of more than one drought occurrence per year. Drought conditions threaten forested and grassland areas, drive up water demand, and stress both agricultural producers and natural ecosystems.

Exhibit 5 Palmer Drought Severity Index for Chelan County (Drought.gov, No Date)

Chelan County, Washington Palmer Drought Severity Index (PDSI)



Projected Future Conditions

Looking ahead, drought and snowpack decline are expected to intensify (Raymond & Rogers, 2022):

- A 20% annual chance of snowpack drought on average, with some areas of Chelan County facing a 100% likelihood in any given year
- Up to a 37% chance of a summertime precipitation drought in any year
- Some parts of the county may experience up to 18% less late summer precipitation
- More streamflow will occur in winter and early spring rather than the summer months, changing the availability of surface water historically relied upon for irrigated agriculture and hydropower

Exhibit 6 Projected Change to April 1st Snow Water Equivalent (Climate Toolbox, No Date)

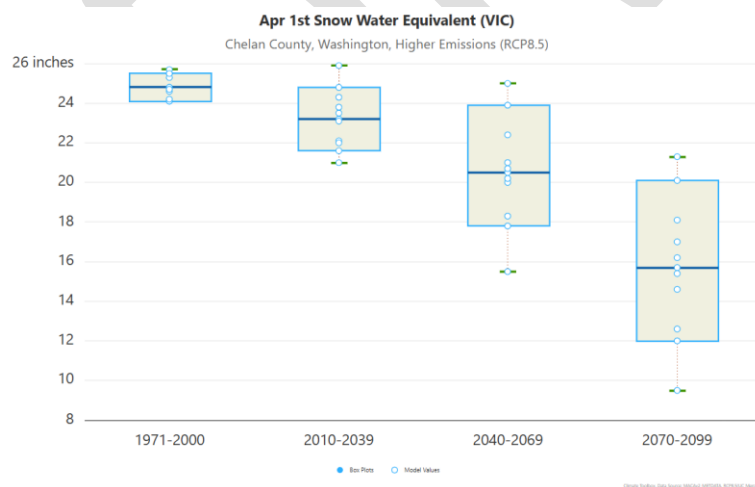


Exhibit 7 Projected Change to Spring Snow Water Equivalent (Climate Toolbox, No Date)

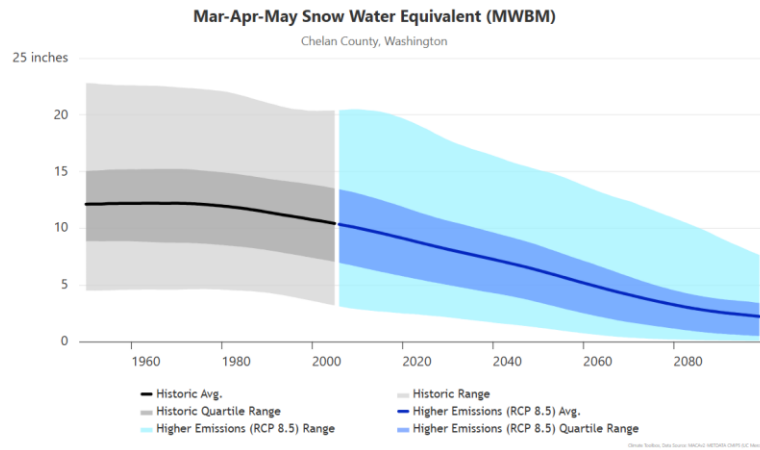


Exhibit 8 Map of Projected Change to April 1st Snow Water Equivalent (Raymond & Rogers, 2022)

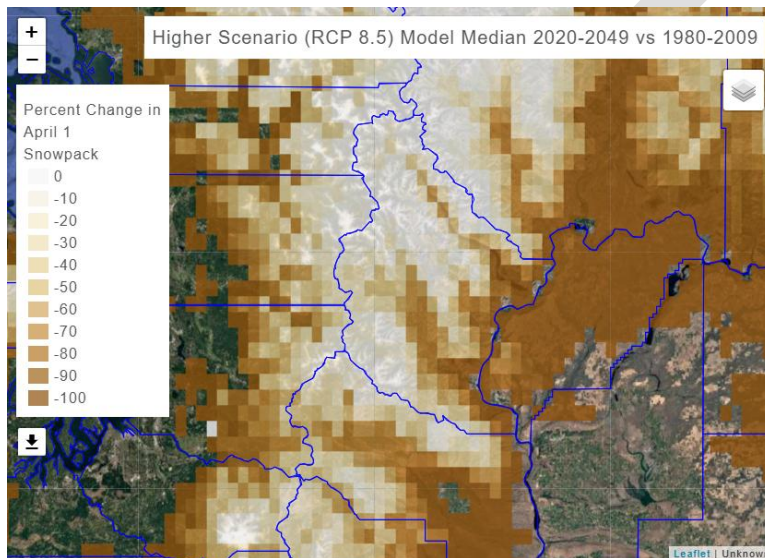
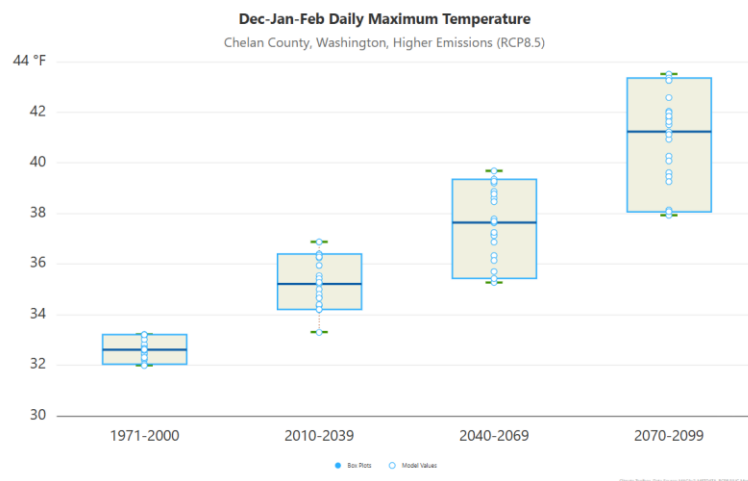


Exhibit 9 Project Change to Winter Daily Maximum Temperature (Climate Toolbox, No Date)



Implications for Chelan County

The shift in snowpack and streamflow timing has cascading consequences across the county's economy and ecology. Irrigated orchards and farms dependent on surface water supplied by snowmelt face increased water scarcity during peak growing season demand. Hydropower production capacity at PUD facilities may decrease as river flows decline and timing shifts. Freshwater temperatures may rise, increasing mortality of salmonids and other aquatic species. Groundwater recharge is projected to be offset by precipitation droughts during summer months. The growing potential for heat stress on crops, greater pest survival rates, and increased irrigation demand further compound the agricultural challenge.

Extreme Temperatures and Severe Weather

Historical Conditions

Over a 55-year period, Chelan County has experienced 153 severe weather events, averaging 2–3 per year (Chelan County, 2024). Common event types include thunderstorms, hail, wind, and winter-related events. Between 1953 and 2023, the county experienced seven severe storm-classified federal disaster or emergency declarations. The current average cooling degree-day baseline for Chelan County stands at 444—a measure of air-conditioning demand that will grow substantially under warmer conditions (NOAA, No Date).

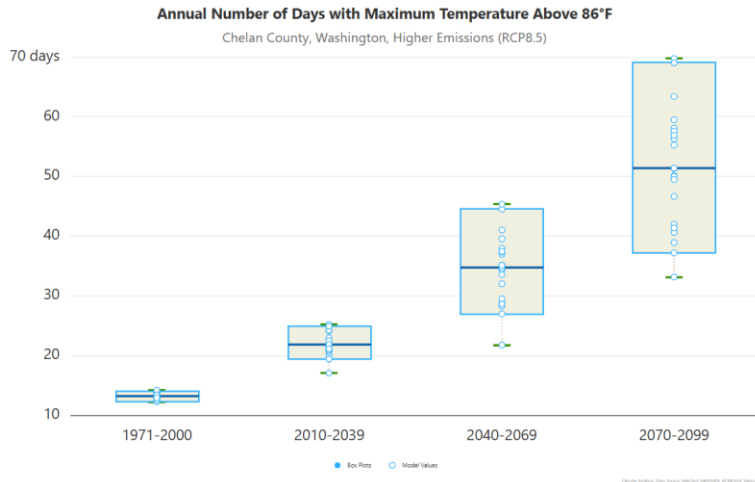
Exhibit 10 Cooling and Heating Degree Day Averages (NOAA, No Date)

	CDD Long-term Average (1981-2010)	HDD Long-term Average (1981-2010)
Wenatchee, WA US	841	5444
Leavenworth 3 S, WA US	444	6559
Chelan, WA US	684	5865
Entiat Fish Hatchery, WA US	460	6245
Plain, WA US	169	7223
Holden Village, WA US	61	8791
Stehekin 4 NW, WA US	455	6474
County Average	444.8571429	6657.285714

Projected Future Conditions

- Summer maximum temperatures in some parts of the county may increase by up to 5.2°F (Raymond & Rogers, 2022)
- Demand for air conditioning is projected to more than double during mid-century (Raymond & Rogers, 2022)
- Frequency and duration of heatwaves will increase
- More unpredictable storms and severe weather events, including wind, are projected

Exhibit 11 Days with a Maximum Temperature above 86 °F (Climate Toolbox, No Date)



Implications for Chelan County

Extreme heat poses direct risks to human health, particularly for outdoor agricultural workers, elderly residents, unsheltered individuals, and those without access to adequate cooling. The urban heat island effect will intensify in areas that lack shade and tree coverage. Heat stress on crops and increased pest survival rates threaten agricultural productivity. Power infrastructure—designed primarily for winter peak loads—faces growing strain from summer cooling demand, and extreme heat can slow maintenance and restoration efforts. Roads and bridges are vulnerable to heat-related damage, while freeze-thaw cycles also degrade pavement and structure integrity.

Extreme Precipitation and Flooding

Historical Conditions

Chelan County has received six presidential disaster declarations for flooding since 2000 including the December 2025 storm. Large, damaging floods typically occur every 2–5 years. Flash flooding occurs regularly, especially in the county's steep canyon areas where rapid runoff and debris flows are common. Areas that have been recently burned by wildfire face elevated flash flood risk due to the loss of ground cover and the accumulation of loose debris. December 2025's Pineapple Express atmospheric river caused record-setting rainfall and subsequent damage across the county. Rapid snowmelt, severe flooding, and dangerous mudslides impacted communities including Wenatchee, Leavenworth, Cashmere, and Stehekin.

Projected Future Conditions

- Peak streamflow in Chelan County rivers and streams is anticipated to increase 7–30% by mid-century (Raymond & Rogers, 2022)
- The likelihood of a 2-year storm event rises to 11% by mid-century (Raymond & Rogers, 2022)
- Up to 63% of rivers and streams may flood more frequently (Raymond & Rogers, 2022)

- Precipitation and runoff patterns are changing, increasing uncertainty for water supply, flood management, and ecosystem functions
- Atmospheric rivers are predicted to become longer, wider, and more intense

Exhibit 12 Change in 2-Year Storm Magnitude, 2020-2049 RCP8.5 (Raymond & Rogers, 2022)

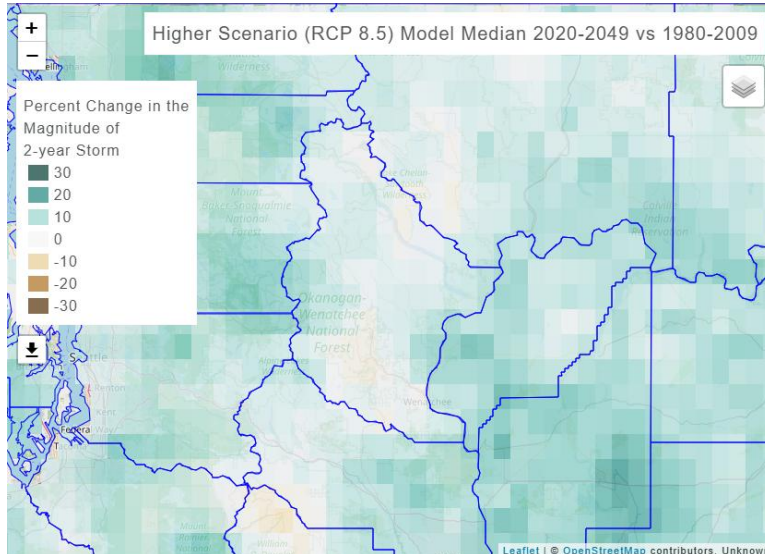
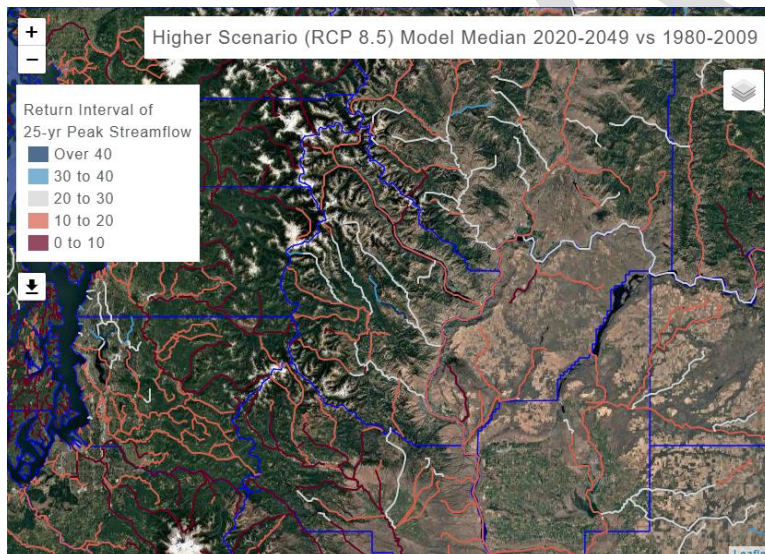


Exhibit 13 Change in 25-Year Return Interval, 2020-2049, RCP8.5 (Raymond & Rogers, 2022)



Implications for Chelan County

Flooding threatens a wide range of county assets. Seventy-three county-owned bridges—including ten identified as scour critical—are located in floodplains, increasing their risk during storms. Steep canyons and canyon mouths throughout the county are at elevated risk of flash flooding and debris flows. Development in floodplains reduces natural water storage capacity and increases runoff. Natural, historic, and cultural resources in floodplain areas are repeatedly exposed to flooding. Infrastructure, including stormwater and sewer, faces flood damage risks. Communities including

Cashmere, Leavenworth, and Wenatchee face the highest cumulative flood exposure. Increases in impervious surfaces—roads, buildings, and paving—continue to amplify flood risk during heavy rainfall events.

DRAFT

Asset Inventory and Climate Impacts

The following matrix summarizes the 16 asset categories analyzed in this assessment and the climate hazards to which each is exposed. An "X" indicates that the asset category was found to be exposed to climate change exacerbated impacts from that hazard.

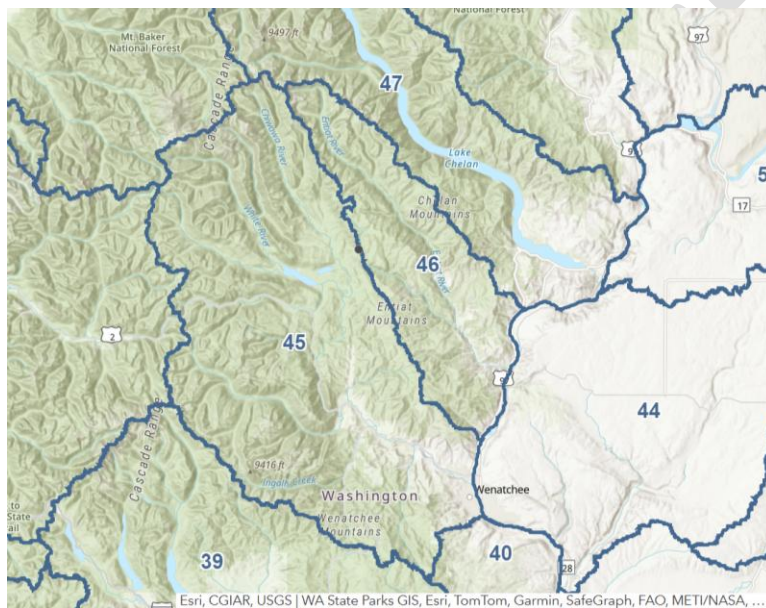
Asset Categories	Drought & Snowpack Loss	Extreme Temps	Flooding & Precipitation	Wildfire & Smoke
Orchards, ranches, vineyards, and other food producers	X	X	X	X
Agriculture-related businesses (fruit processing, storage, equipment suppliers)	X	X	X	X
Power infrastructure (transmission lines, substations), hydroelectricity, natural gas system	X	X	X	X
Emergency radio and radio communications, other communication systems		X	X	X
Commercial buildings & businesses, county buildings, medical facilities, schools, churches, community centers, historical buildings		X	X	X
Cultural sites, culturally significant activities	X	X	X	X
Recreation areas, tourism, fairgrounds, open spaces, parks	X	X	X	X
All sensitive aquatic and terrestrial species and habitats, including waterways, water bodies, wetlands, shrub-steppe, ESA, forest ecosystems	X	X	X	X
Sheriff Department, Fire Stations, Emergency Management		X	X	X
Community members, vulnerable populations, visitors, farm workers	X	X	X	X
Transportation infrastructure including roads, sidewalks/pathways, bridges/culverts		X	X	X
Waste hauling, waste management, recycling			X	X
Water supply, water infrastructure, irrigation infrastructure	X		X	X
Sewer and wastewater infrastructure, stormwater infrastructure			X	X
Industrial land, undeveloped land, LAMIRDS			X	X
Residential buildings, farm worker housing		X	X	X

Natural Resources

Sensitive Aquatic and Terrestrial Species and Habitats

Description: This category includes waterways, water bodies, wetlands, shrubsteppe habitat, riparian habitat, ESA-listed species and state priority species and their habitats, and forest ecosystems throughout Chelan County. Chelan County contains the Wenatchee, Entiat, Lake Chelan, and Stemilt-Squilchuck watersheds, defined as WRIA 45, 46, 47, and 40A, respectively. Many of these habitats hold deep cultural significance for Native American communities, particularly the Yakama Nation, whose ceded lands include Chelan County, the Confederated Tribes of the Colville Reservation, and Wenatchi-P'Squosa people.

Exhibit 14 Map of Water Resource Inventory Areas (WA Ecology, No Date)



Climate Hazards: Wildfire and Wildfire Smoke, Drought and Snowpack Decline, Extreme Temperatures and Severe Weather, Extreme Precipitation and Flooding

Non-Climate Stressors: Development pressure in and adjacent to sensitive habitat areas, invasive species, historic land use changes, and agricultural water withdrawals increase baseline vulnerability.

Consequences: Non-irrigated ecosystems and riparian communities are highly sensitive to decreased precipitation, streamflow, and increased temperatures. Drought and snowpack loss threaten habitat complexity and species survival—particularly for aquatic species and migratory fish—while promoting the spread of invasive species over native flora and fauna with low adaptive capacity. Earlier spring snowmelt and changes in streamflow timing may alter migration timing and survival rates for salmonids. Flooding can introduce pollutants into rivers and soils, disrupt natural stream courses, and endanger critical habitats and life stages of fish. Lower stream flows and increased temperatures can increase fish mortality.

Existing Adaptive Measures: The county manages the impacts of development on riparian and upland habitat through the critical areas ordinance and Shoreline Management Program. Collaborative efforts in watershed planning, such as the Icicle Strategy, identify and support multiple-benefit projects. Organizations such as the Cascadia Conservation District, Cascade Fisheries, and the Yakama Nation are implementing habitat restoration and enhancement projects. Active habitat projects include the Peshastin Fishway, Cashmere Pond, and Nason Creek Oxbow. Local fish hatcheries support salmonid populations. The Voluntary Stewardship Program supports conservation of agricultural land with habitat value.

Cultural Sites and Culturally Significant Activities

Description: Riparian areas, culturally significant sites, and sensitive habitats including Stehekin, The Icicle, Peshastin Pinnacles, Lake Chelan, the Wenatchee Foothills, and Mission Ridge. This category includes archaeological sites, historic structures, and activities such as tribal fishing, gathering of culturally important plants, and traditional land stewardship.

Climate Hazards: Wildfire and Wildfire Smoke, Drought and Snowpack Decline, Extreme Temperatures and Severe Weather, Extreme Precipitation and Flooding

Non-Climate Stressors: Development pressure, recreational overuse, limited resources for site documentation and monitoring, and the inherent irreplaceability of cultural resources increase vulnerability.

Consequences: Drought, reduced streamflow, snowpack loss, and changing water temperatures stress plant and animal species (such as huckleberry, balsamroot, and deer) and impact salmonid migration and tribal fishing. Extreme weather events increase the risk to archaeological sites and historic structures, particularly those in floodplains. Wildfire can damage or destroy irreplaceable cultural sites and disrupt traditional gathering and fishing activities.

Existing Adaptive Measures: Locations managed by local, state, or federal agencies—such as the Leavenworth National Fish Hatchery, Peshastin Pinnacles State Park, and Cashmere Museum—would benefit from adaptive management protocols. Tribal Nations maintain their own stewardship practices and have deep traditional ecological knowledge. More natural, undisturbed sites often have lower institutional adaptive capacity and may benefit from partnerships with Tribal Nations, conservation organizations, and county agencies. The 2025 Community Wildfire Protection Plan and the 2024 Hazard Mitigation Plan both identify cultural resource protection as a priority. New development, especially those occurring on undisturbed sites and areas with a high likelihood of encountering cultural sites, are often required to conduct a cultural resources study prior to ground disturbance activities.

Water Supply, Water Infrastructure, and Irrigation Infrastructure

Description: This category includes municipal water systems, rural domestic water systems, groundwater wells, surface water diversions, irrigation canals and ditches, dams and reservoirs, and the broader network of infrastructure that delivers water to farms, homes, and businesses

throughout Chelan County. These water systems are managed by major irrigation districts in the Wenatchee, Entiat, Lake Chelan, and Stemilt-Squilchuck watersheds, cities, water associations, special purpose districts, and private owners. The county's surface and groundwater supply are fundamentally dependent on snowpack accumulation in the Cascades and the timing and volume of spring and summer snowmelt.

Climate Hazards: Wildfire and Wildfire Smoke, Drought and Snowpack Decline, Extreme Precipitation and Flooding

Non-Climate Stressors: Aging infrastructure, population growth, increasing agricultural and industrial (e.g., datacenter) water demand, limited storage, groundwater depletion, inefficient water use, and competing water rights increase baseline vulnerability. The county's aging irrigation systems were built decades ago and were not designed to accommodate changes in the timing of snowmelt and increased winter rainfall.

Consequences: Water supply is among the most fundamental and far-reaching climate vulnerabilities in Chelan County. Reduced snowpack and earlier snowmelt will shift peak water availability to late winter and early spring, creating critical shortages during the summer months when agricultural and municipal demand is highest. Irrigation reservoirs designed to capture the slowly melting snowpack do not have sufficient storage to capture heavy winter rainfall and save it for late season irrigation needs. Groundwater recharge may increase in wet years but is offset by increased evapotranspiration and precipitation droughts. Flooding can damage dams and water intake structures, contaminate surface water supplies and wells, and breach irrigation canals. Post-wildfire runoff introduces sediment, ash, and debris into surface water sources, degrading water quality, overwhelming water treatment plants, and damaging intake infrastructure. Rising water temperatures threaten the suitability of surface water for both human consumption and aquatic ecosystems.

Existing Adaptive Measures: Chelan PUD's Vision 2075 initiative includes water resource planning and adaptation strategies for hydroelectric operations. Cities are updating and implementing water conservation programs. Local irrigation districts have begun evaluating system efficiency upgrades. The Washington State Department of Ecology administers water rights and has programs supporting water use efficiency. The USDA Natural Resources Conservation Service (NRCS) offers financial assistance for irrigation efficiency improvements through programs such as the Environmental Quality Incentives Program (EQIP). Some water purveyors have developed drought contingency plans.

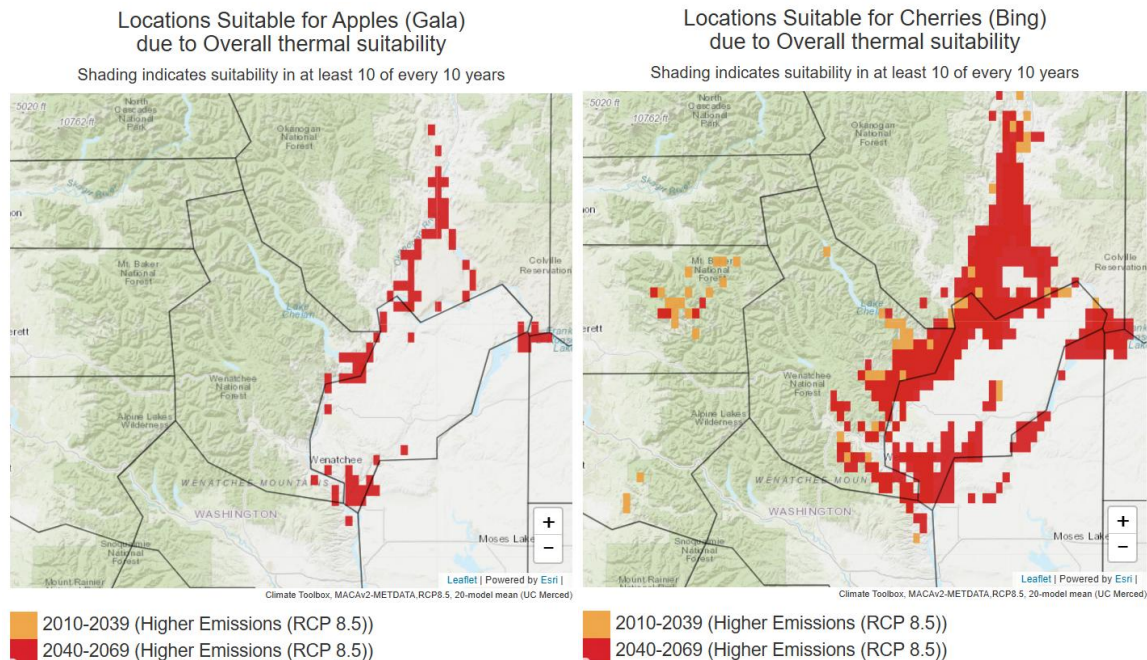
Agriculture and Economy

Orchards, Ranches, Vineyards, and Other Food Producers

Description: Chelan County's agricultural landscape is defined primarily by tree fruit—apples, pears, and cherries—grown on irrigated orchards throughout the Wenatchee, Chelan, and Entiat valleys. The county is one of the top pear- and apple-producing counties in the nation. Ranches, vineyards, and specialty crop producers round out a diverse agricultural economy that supports

thousands of direct and indirect jobs and defines the cultural identity of many communities in the county.

Exhibit 15 Projected Changes in Land Suitability for Gala Apples and Bing Cherries (Climate Toolbox, No Date)

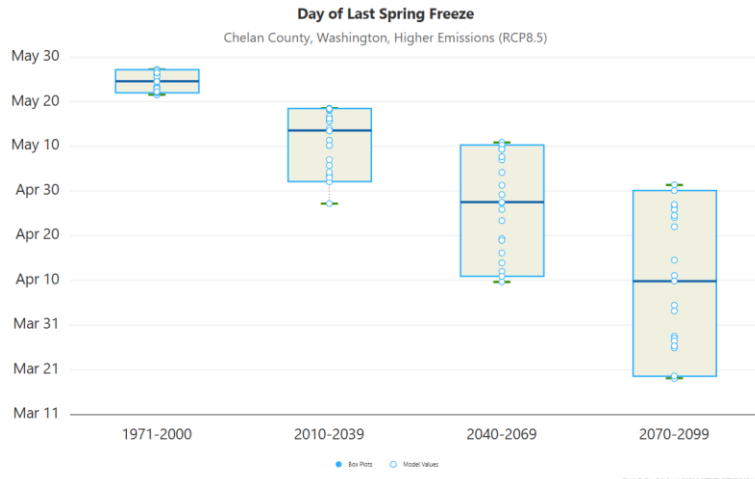


Climate Hazards: Wildfire and Wildfire Smoke, Drought and Snowpack Decline, Extreme Temperatures and Severe Weather, Extreme Precipitation and Flooding

Non-Climate Stressors: Labor availability and cost, market consolidation in the fruit industry, land conversion to non-agricultural uses, aging orchard infrastructure, and rising input costs all increase financial stress on agricultural producers and reduce their ability to invest in adaptation.

Consequences: Drought and snowpack decline directly reduce the water available for irrigation at the time it is most needed. Extreme heat during bloom or harvest can reduce fruit quality and yield, while late spring frosts—which may become more variable—can destroy entire harvests. Reduced chill hours (cold temperatures in winter needed for fruit tree dormancy) already pose a growing challenge for tree fruit producers and will worsen significantly as winter temperatures rise. Flooding can inundate orchards, deposit sediment, and damage farm roads and infrastructure. Hailstorms can bruise tree fruit. Wildfire smoke can interfere with fruit photosynthesis, affecting fruit flavor, market access, and labor productivity. Farm workers who perform outdoor labor face severe heat and smoke exposure, creating health risks and labor availability challenges. Agricultural insurance costs are rising, and some producers report difficulty obtaining coverage for climate-related losses.

Exhibit 16 Projected Change in Last Day of Spring Freeze (Climate Toolbox, No Date)



Existing Adaptive Measures: Some producers have begun planting lower-chill-hour variety trees as a proactive adaptation strategy. Irrigation efficiency upgrades, including drip irrigation, have been adopted on some operations. The Cascadia Conservation District and WSU Extension provide technical assistance on irrigation management, soil health, and crop adaptation. USDA NRCS and EQIP programs support conservation practices on agricultural lands. Evaporative coolers and fans are used on some operations to reduce heat stress on workers and crops. The Voluntary Stewardship Program supports conservation alongside agricultural production.

Agriculture-Related Businesses

Description: This category includes the broader network of businesses that support agricultural production and the farm-to-market supply chain: fruit packing and processing facilities, cold storage warehouses, agricultural equipment suppliers, crop consultants, farm labor contractors, and related service providers. Many of these businesses are located in or adjacent to the agricultural valleys and are themselves exposed to climate hazards, while also experiencing indirect effects when farm production is disrupted.

Climate Hazards: Wildfire and Wildfire Smoke, Drought and Snowpack Decline, Extreme Temperatures and Severe Weather, Extreme Precipitation and Flooding

Non-Climate Stressors: Supply chain vulnerabilities, workforce availability, market competition, and dependence on continued agricultural production all affect resilience in this sector.

Consequences: When orchard production is disrupted by drought, wildfire smoke, flooding, or extreme temperatures, the downstream effects on packing sheds, cold storage facilities, and equipment dealers can be swift and significant. Processing facilities face direct exposure to flooding—many are located in lower valley areas near rivers—and may face power disruptions during extreme weather events. Smoke and heat events reduce worker productivity and increase health risks for indoor and outdoor workers alike. Cold storage facilities face increased energy costs as summer temperatures rise.

Existing Adaptive Measures: Many larger agricultural businesses have business continuity plans and some have invested in backup power systems. Industry associations such as the Washington State Tree Fruit Association provide resources on workforce safety and adaptation. Cold storage facilities have historically invested in energy efficiency.

Industrial Land, Undeveloped Land, and LAMIRDs

Description: This category includes industrially zoned and used land, industrial buildings, undeveloped parcels, and Limited Areas of More Intensive Rural Development (LAMIRDs)—clusters of rural development that exist outside of urban growth areas and are governed by specific development regulations under the GMA.

Climate Hazards: Wildfire, Extreme Precipitation and Flooding

Non-Climate Stressors: Development pressure in wildland-urban interface areas, inadequate fire-resistant building standards in rural areas, and aging stormwater infrastructure increase vulnerability, extent of existing impervious surfaces and stormwater facilities.

Consequences: Industrial sites located in floodplains face increasing flood risk and may store hazardous materials that pose contamination risks if flooded or burned. Undeveloped land and LAMIRDs in wildland-urban interface areas face elevated wildfire risk, and development in these areas can increase ignition potential and complicate evacuation. Impervious surface associated with industrial and commercial development increases stormwater runoff, and more intense precipitation may overwhelm stormwater systems and downstream flood risk.

Existing Adaptive Measures: Chelan County's critical areas ordinance provides some flood protection through development restrictions in floodplains. The 2025 Community Wildfire Protection Plan addresses ignition reduction in high-risk areas. New construction and reconstruction is required to comply with the county's stormwater regulations.

Recreation and Tourism

Description: Chelan County's recreation and tourism economy draws on a rich portfolio of natural assets: Lake Chelan, the Wenatchee River, the Icicle Corridor, North Cascades wilderness, Mission Ridge Ski Area, the Bavarian Village of Leavenworth, and an extensive network of trails, campgrounds, parks, and open spaces. Visitors come for skiing, rafting, fishing, wine tasting, biking, hiking, and a wide range of seasonal events and festivals. In 2024, the county drew in almost 2.6 million visitors who contributed \$675.5 million to the economy and supported 6,700 jobs, which is about 11% of the county's workforce (BERK Consulting, 2026).

Climate Hazards: Wildfire and Wildfire Smoke, Drought and Snowpack Decline, Extreme Temperatures and Severe Weather, Extreme Precipitation and Flooding

Non-Climate Stressors: Tourism infrastructure capacity constraints, potential water rights for recreation uses, housing availability and costs for seasonal and full-time workforce, and competition with other regional destinations all affect resilience.

Consequences: Reduced snowpack directly threatens winter recreation opportunities. Lower summer streamflows threaten whitewater rafting on the Wenatchee River and fishing in its tributaries. Wildfire smoke displaces visitors, cancels outdoor events, and creates negative perceptions that linger beyond the immediate fire season. Extreme heat deters some visitors from outdoor recreation and creates health risks at outdoor venues. Flooding can close parks, trails, campgrounds, and recreation facilities. Tourism-dependent businesses—lodging, restaurants, retail, and outfitters—face revenue losses that ripple through the local economy. The loss of natural scenic values due to repeated wildfire or drought stress on vegetation may have long-term effects on the county's appeal as a recreation destination.

Existing Adaptive Measures: Some recreation businesses have diversified their offerings across seasons to reduce dependence on any single activity. Tourism marketing organizations have begun developing messaging that acknowledges climate variability. Mission Ridge has explored snowmaking investments. The county and Washington State Parks have invested in recreation infrastructure resilience in some areas.

Built Environment

Residential and Farm Worker Housing

Description: This category includes single-family homes, multifamily housing, mobile homes, and farm worker housing throughout Chelan County. Approximately 14.9% of residential land is within 100-year floodplains. Farm worker housing, which may include employer-provided housing or temporary housing, mobile home parks, and informal arrangements, is often located in agricultural areas with elevated wildfire and heat exposure and may be of older construction with limited cooling capacity. Much of the county's rural housing is in areas that already have a high (2% annual chance) to very high (>2% annual chance) wildfire probability, and more development continues in these areas (WA DNR, 2026).

Climate Hazards: Wildfire and Wildfire Smoke, Extreme Temperatures and Severe Weather, Extreme Precipitation and Flooding

Non-Climate Stressors: Housing affordability challenges, aging housing stock, limited financial resources to install cooling equipment, inadequate weatherization, and the vulnerability of farm workers to eviction or displacement all increase baseline vulnerability.

Consequences: Residential housing in floodplains faces increasing flood frequency, flood depth, and associated property damage. Wildfire threatens homes in the wildland-urban interface, especially those that are not constructed using fire-resistant materials and methods or that do not maintain defensible space. Extreme heat in homes without adequate cooling poses serious health risks, particularly for elderly residents, young children, and farm workers. Farm worker housing, often of lower construction quality and density, may concentrate heat exposure and smoke inhalation risks for one of the county's most climate-vulnerable populations. Mobile homes and manufactured housing are particularly vulnerable to both flooding and high winds during severe weather events.

Existing Adaptive Measures: FEMA's National Flood Insurance Program and private flood insurance providers offer financial protection for homeowners that are concerned about flooding or located within high-risk flood areas. The state's weatherization assistance programs support energy efficiency upgrades in lower-income housing. Some agricultural employers have invested in cooling upgrades for farm worker housing in response to state labor regulations. Outreach and educational programs teach homeowners how to reduce wildfire hazards on their homes and properties, and grant programs fund wildfire risk reduction projects. The 2024 Hazard Mitigation Plan identifies acquisition and elevation of flood-prone properties as a mitigation strategy.

All Public, Commercial, and Historic Buildings

Description: This category includes county government buildings and facilities, school buildings, medical and behavioral health facilities, libraries, houses of worship, commercial and industrial buildings, and historic structures. Historic buildings, many of which are in older downtown districts and agricultural communities, may lack the structural resilience of newer construction and face challenges in adapting to changing conditions.

Climate Hazards: Wildfire and Wildfire Smoke, Extreme Temperatures and Severe Weather, Extreme Precipitation and Flooding

Non-Climate Stressors: Deferred maintenance, limited capital budgets, historic preservation restrictions, and the age of many public buildings increase vulnerability. Existing impervious surfaces and stormwater system function.

Consequences: Public buildings that serve as cooling centers, emergency shelters, or medical facilities are critical to community resilience during extreme heat and smoke events—but only if they are adequately cooled, ventilated, and equipped with backup power and emergency supplies. Heavy rainfall can overwhelm stormwater systems, and flooding can cause structural damage to buildings, displace community services, and damage irreplaceable historic resources. Historic structures in floodplains face recurring exposure and may be constrained in the types of flood-proofing measures they can employ. Rising energy costs from increased cooling demand will strain public, commercial, and industrial building budgets.

Existing Adaptive Measures: Some county facilities have been designated as cooling centers and emergency shelters. The Washington State Historic Preservation Office provides guidance on climate adaptation for historic resources. Some commercial buildings have invested in energy efficiency upgrades. The county's emergency management program coordinates the activation of public facilities as emergency shelters. New construction and reconstruction is required to comply with the county's stormwater regulations.

Power Infrastructure

Description: This category includes the electrical generation, transmission, and distribution infrastructure operated by Chelan PUD and the natural gas distribution infrastructure operated by Cascade Natural Gas Corporation. The PUD serves approximately 52,000 customers in Chelan

County and provides power to the regional grid through its hydroelectric facilities on the Columbia River and Lake Chelan. The PUD provides power to the Stehekin area through a hydroelectric dam on Company Creek and diesel generators. Approximately 80% of the PUD's grid mix is supplied by hydropower, with wind and solar making up approximately 6% and 2%, respectively (Chelan PUD, 2025).

Climate Hazards: Wildfire and Wildfire Smoke, Drought and Snowpack Decline, Extreme Temperatures and Severe Weather, Extreme Precipitation and Flooding

Non-Climate Stressors: Aging transmission and distribution infrastructure, increasing peak demand, supply chain vulnerabilities for replacement equipment, and the geographic extent of the service territory increase baseline vulnerability.

Consequences: Drought and reduced river flows directly reduce hydroelectric generation capacity at a time when demand for cooling may be surging. Wildfire can damage transmission lines, substations, and distribution infrastructure across the county's vast rural service territory. High winds accompanying severe weather events can cause widespread outages. Extreme heat and slows outdoor maintenance and restoration work by line crews and increases the risk of equipment failure. Flooding can damage substations and other ground-level infrastructure. Power outages during extreme heat events create cascading life-safety risks for vulnerable populations dependent on electric cooling, electric powered medical devices, and refrigeration. Outages during wildfire can impede evacuation and emergency response. As electric vehicle adoption and electrification of heating and cooling systems grow, the grid will face increasing demand loads that must be managed alongside climate-related generation constraints.

Existing Adaptive Measures: Chelan PUD's Vision 2075 initiative is a comprehensive long-range planning effort that explicitly addresses climate adaptation for hydroelectric operations, including water resource planning, diversification of renewable energy sources, and grid resilience investments. The PUD has invested in vegetation management along transmission corridors to reduce wildfire ignition risk. Emergency mutual aid agreements with other utilities and on-call contracts support restoration following major events.

Transportation Infrastructure

Description: This category includes roads and bridges, state highways, airports, Link Transit facilities, and supporting infrastructure such as culverts, retaining walls, and signage. Chelan County's transportation network serves a geographically large and topographically complex service area, with many critical routes traversing steep canyons, river corridors, and mountainous terrain.

Climate Hazards: Wildfire and Wildfire Smoke, Extreme Temperatures and Severe Weather, Extreme Precipitation and Flooding

Non-Climate Stressors: Aging infrastructure, limited capital budgets, the geographic remoteness of many roads, and the difficulty of maintaining mountainous routes all increase baseline vulnerability.

Consequences: Flooding poses the most acute risk to transportation infrastructure in Chelan County. Seventy-three county-owned bridges are located in floodplains, including 10 identified as scour critical—meaning they are at risk of foundation failure due to flood-driven erosion. Roads within and at the mouth of canyons are vulnerable to flash flooding, debris flows, landslides, and erosion during extreme precipitation events. Post-wildfire terrain is particularly susceptible to debris flows that can overwhelm culverts and close roads for extended periods. Extreme heat softens and expands asphalt pavement causing buckles, warps, and rutting, damages steel bridge expansion joints, and impairs the structural integrity of roads and bridges. Freeze-thaw events cause severe pavement damage like potholes by allowing trapped water to repeatedly freeze and expand. During active wildfire events, wooden bridges, signposts, and guardrail can burn and evacuation route capacity and access for emergency responders may be compromised. The loss of key roads or bridges can isolate communities, particularly in the more rural areas of the county.

Existing Adaptive Measures: Chelan County Public Works performs regular bridge inspections and has prioritized scour-critical bridges for monitoring and remediation. The county has been awarded funding from FEMA's Hazard Mitigation Assistance grant programs for infrastructure mitigation projects. Road crews have protocols for responding to flooding, landslides, and wildfire-related closures. The 2024 Hazard Mitigation Plan identifies bridge scour and road flooding as priority mitigation actions.

Sewer, Wastewater, and Stormwater Infrastructure

Description: This category includes municipal sewer systems, septic systems, wastewater treatment plants, and stormwater collection and conveyance infrastructure serving urban and rural areas of Chelan County. Many of these systems were designed and built under historical precipitation and flow conditions that are likely to change significantly.

Climate Hazards: Wildfire and Wildfire Smoke, Extreme Precipitation and Flooding

Non-Climate Stressors: Aging infrastructure, undersized stormwater systems in developed areas, and the growth of impervious surfaces all increase vulnerability to flooding and system overload.

Consequences: Increased peak precipitation events can overwhelm stormwater systems designed to historical standards, causing flooding, erosion, and infiltration that can overwhelm sewer systems. Post-wildfire runoff carries significantly higher sediment loads that may overwhelm water quality treatment or conveyance in stormwater systems. Flooding can damage or inundate wastewater treatment facilities, potentially causing the release of untreated sewage into waterways. Septic systems in floodplain areas are subject to periodic inundation, which can impair function and pose public health risks. Long dry periods followed by intense precipitation events create episodic system stress that may be difficult to anticipate and manage.

Existing Adaptive Measures: The Washington State Department of Ecology regulates wastewater treatment and provides guidance on stormwater management. New construction and reconstruction is required to comply with the county's stormwater regulations. Some jurisdictions have invested in green infrastructure and low-impact development standards. The 2017

Comprehensive Flood Hazard Management Plan identifies stormwater management as a key flood mitigation tool.

Emergency Radio and Communications Infrastructure

Description: This category includes the county's emergency radio communications systems, public safety answering points (dispatch), cellular infrastructure, and broadcast media. Reliable communication is foundational to emergency response, evacuation, and public safety during all types of hazard events.

Climate Hazards: Wildfire and Wildfire Smoke, Extreme Temperatures and Severe Weather, Extreme Precipitation and Flooding

Non-Climate Stressors: Limited redundancy in some areas, topographic barriers to radio transmission, location of facilities, increasing use of internet phone services (VoIP) for homes and businesses, and the growing demand for communications capacity during large-scale emergencies increase vulnerability.

Consequences: Wildfire, landslides, debris flows, and wind can destroy radio repeater towers, communication nodes, and cell towers located in exposed locations. Flooding can damage communications infrastructure in valley bottoms. Power outages during any hazard event disable communications systems without backup power. Radio communication dead zones in canyon areas and remote portions of the county reduce the effectiveness of emergency response. During complex, multi-day events—such as a major wildfire combined with extreme heat—communication systems face peak demand at their most stressed moments.

Existing Adaptive Measures: The county's emergency management program maintains backup communications systems and participates in regional emergency communications networks. The county's emergency alert system can send messages to all cell phones within a targeted location or to all users who have signed up for the program. Some communications infrastructures have backup power provisions. The 2024 Hazard Mitigation Plan identifies communications resilience as a priority.

Community and Services

Community Members, Vulnerable Populations, Visitors, and Farm Workers

Description: This category encompasses the people of Chelan County—full-time residents, seasonal residents, visitors, and temporary workers—with particular attention to those who face the greatest barriers to protecting themselves from climate impacts. Vulnerable populations include elderly residents, children, people with disabilities or medical conditions, low-income households, people experiencing homelessness, non-English speakers, and farm workers. Farm workers represent a particularly significant and exposed population in Chelan County, given their outdoor work conditions, often limited access to cooling and medical care, and, in some cases, unstable housing and immigration status. Climate impacts on people extend beyond health and

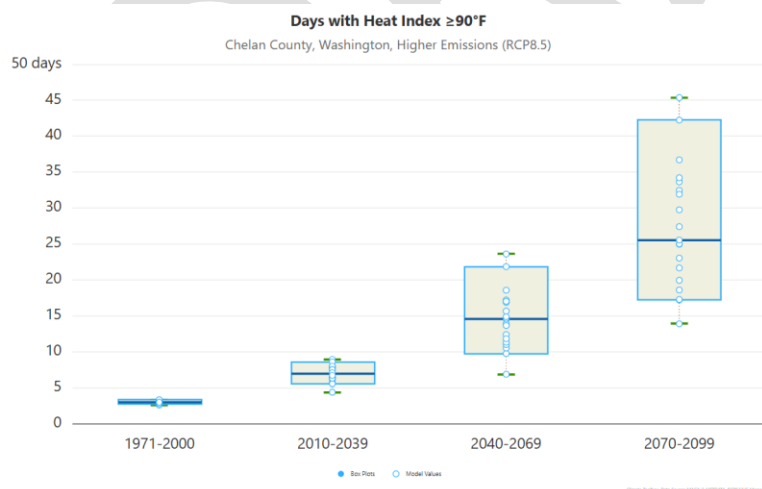
safety. They extend to economic security, livelihood stability, and the long-term vitality of the communities and workforce that underpin the county's economy.

Climate Hazards: Wildfire and Wildfire Smoke, Drought and Snowpack Decline, Extreme Temperatures and Severe Weather, Extreme Precipitation and Flooding

Non-Climate Stressors: Poverty, social isolation, language barriers, inadequate housing, lack of health insurance, limited transportation access, dependence on medical care, and lack of awareness of available resources all increase vulnerability and reduce adaptive capacity.

Consequences: Extreme heat poses direct threats to human health, with the greatest risks for outdoor workers, elderly residents, very young children, people with chronic medical or mental health conditions, and people without access to air conditioning. Heat-related illness and death can increase dramatically during prolonged heat waves. Wildfire smoke and poor air quality caused by drought causes respiratory illness and exacerbates cardiovascular disease and other pre-existing conditions; those who cannot avoid outdoor exposure or have poor indoor air quality face the greatest risk. Flooding displaces residents and visitors from homes, campgrounds, and recreational areas, with the highest risks for those in mobile homes or older housing in low-lying high risk flood areas. Power outages during extreme heat events create life-threatening conditions for people who depend on electric medical equipment or who lack the means to seek cooling elsewhere. Evacuation during wildfire or flood events creates disproportionate challenges for people without vehicles and people with disabilities. Hazard events can reduce worker productivity, disrupt tourism-dependent livelihoods, and can force temporary business closures, with economic losses concentrated on hourly and seasonal workers who have no paid sick leave or income replacement.

Exhibit 17 Projected Number of Days with a Heat Index over 90 °F (Climate Toolbox, No Date)



Existing Adaptive Measures: The Chelan-Douglas Health District operates public health programs addressing heat-related illness and air quality. The county and its partners maintain a network of cooling centers and air filtration sites that are activated during extreme events. Link Transit provides

free transportation access. The 2024 Hazard Mitigation Plan addresses vulnerable population protection as a priority. Outreach in Spanish and other languages supports non-English-speaking residents. Washington State's Farmworker Heat Rule establishes workplace protections for agricultural workers.

Sheriff Department, Fire Stations, and Emergency Management

Description: This category includes the Chelan County Sheriff's Office, county fire districts and volunteer fire departments, Chelan County Emergency Management, and mutual aid partners. These agencies serve as the county's primary institutions for emergency response, evacuation coordination, and disaster recovery.

Climate Hazards: Wildfire and Wildfire Smoke, Drought and Snowpack Decline, Extreme Temperatures and Severe Weather, Extreme Precipitation and Flooding

Non-Climate Stressors: Volunteer firefighter recruitment and retention challenges, aging equipment, location of facilities, limited staffing in rural areas, staff capabilities, and the increasing frequency and complexity of climate-driven emergency events strain emergency service capacity.

Consequences: As changing conditions increase the frequency and severity of wildfires, floods, and extreme weather events, emergency service agencies face growing demand with limited resources. Extended and higher risk wildfire seasons mean that personnel and equipment are deployed to fire starts more frequently and for longer periods. Simultaneous or compound events—such as a wildfire occurring during a heat wave or flooding immediately following a wildfire—stretch response capacity to its limits. Evacuation coordination for large, geographically dispersed populations is increasingly complex, especially in areas with challenging terrain or limited access. Volunteer fire departments, which serve many rural areas of the county, face recruitment challenges that may worsen as the demands of firefighting increase. Emergency facilities, including fire stations, emergency operations centers, and communication hubs, must remain operational under the very hazardous conditions they are designed to manage.

Existing Adaptive Measures: Chelan County Emergency Management maintains the county's multi-hazard emergency operations plan and coordinates with state and federal partners. The county and fire districts participate in mutual aid agreements with neighboring districts, counties, and state agencies. The 2024 Hazard Mitigation Plan and 2025 Community Wildfire Protection Plan provide strategic frameworks for wildfire and flood mitigation and preparedness. Fire district training programs address wildfire behavior and protective actions. Outreach and educational programs teach homeowners how to reduce wildfire hazards on their homes and properties, and grant programs fund wildfire risk reduction projects.

Fairgrounds, Open Spaces, and Parks

Description: This category includes the Chelan County Fairgrounds, county and state parks, community forests, open space areas, recreational trails, and publicly accessible natural areas throughout the county. These assets provide community gathering space, recreation, ecological

services, and economic value to the tourism and recreation economy. Open spaces can provide protection from natural hazards, such as preserved floodplain and tree canopy.

Climate Hazards: Wildfire and Wildfire Smoke, Drought and Snowpack Decline, Extreme Temperatures and Severe Weather, Extreme Precipitation and Flooding

Non-Climate Stressors: Deferred maintenance, location, limited operating budgets, and increasing recreational demand all affect the resilience and capacity of these assets.

Consequences: Flooding can damage park facilities, trails, and fairground infrastructure, particularly in river-adjacent locations. Wildfire can burn through parks and open spaces, destroying vegetation, infrastructure, habitat, and cultural values, and displacing events and visitors for extended periods. Extreme heat reduces the usability of outdoor spaces during peak summer months, particularly for vulnerable populations who depend on parks and public spaces for cooling relief. The Chelan County Fairgrounds serves as an emergency staging area during disaster events and must remain accessible and operational under hazard conditions. Open spaces and parks that provide urban cooling, stormwater management, and habitat connectivity contribute to community resilience if they are maintained and expanded.

Existing Adaptive Measures: Some parks have invested in shade structures and water access to support heat resilience. The county's parks programs maintain facilities and responds to storm damage. Natural open spaces managed through conservation easements or county ownership provide long-term ecological and natural hazard resilience benefits.

Waste Hauling, Waste Management, and Recycling

Description: This category includes solid waste collection services, transfer stations, landfill operations, and recycling and composting programs serving Chelan County residents and businesses. Waste management infrastructure must remain operational during and after hazard events when debris, ash, and disaster-related waste generation spike significantly.

Climate Hazards: Wildfire and Wildfire Smoke, Extreme Precipitation and Flooding

Non-Climate Stressors: Rising disposal costs, limited landfill capacity, workforce availability, and supply chain disruptions for recycling markets all affect resilience.

Consequences: Transfer stations may be inundated during certain hazard events, disrupting waste collection and disposal services. Wildfire generates large volumes of ash, debris, and demolition waste that overwhelm normal disposal systems and Public Works resources. Post-disaster debris management is logistically complex and requires coordination among county agencies, state regulators, and private haulers. Smoke events can disrupt outdoor waste collection operations and create health risks for waste collection workers.

Existing Adaptive Measures: The county has procedures for emergency debris management in coordination with state and federal agencies. Waste Management, the county's primary hauler, has operational protocols for maintaining service during disruptions.

Vulnerability and Risk Assessment

Understanding where climate risks are greatest—and why—is essential for directing limited resources toward the people, assets, and systems most in need of protection. This section presents the vulnerability and risk assessment findings that form the analytical foundation for the recommended policies and actions that follow.

Methodology

Vulnerability and Risk Frameworks

This assessment uses established frameworks to evaluate the vulnerability and risk associated with each asset-hazard pair. The assessment draws on guidance from the Washington State Department of Commerce, FEMA's Hazard Mitigation Planning methodology, and the Intergovernmental Panel on Climate Change (IPCC) framework for vulnerability assessment.

Vulnerability is evaluated as a function of three components:

- **Exposure:** The degree to which an asset is subject to a given climate hazard, based on the geographic, physical, or operational characteristics of the asset.
- **Sensitivity:** How inherently affected an asset is by a climate impact, considering characteristics such as age, condition, design standards, or socioeconomic factors.
- **Adaptive Capacity:** The ability of the asset, system, or population to adjust to changing conditions and minimize damage, drawing on governance structures, financial resources, institutional capacity, and community knowledge.

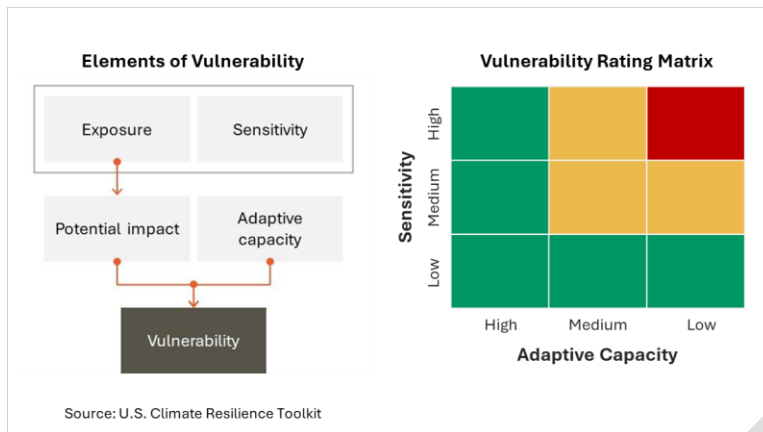
Risk is evaluated as a function of two components:

- **Probability:** The likelihood of a climate hazard event affecting the asset category, based on historical data and future projections.
- **Magnitude:** The extent of damage or loss expected if a hazard event occurs, considering vulnerability, redundancy, replacement cost, and criticality.

How vulnerability ratings were determined

Vulnerability ratings for each asset-hazard pair were determined through a structured scoring process using the following criteria:

Exhibit 18 Vulnerability Assessment Criteria



How risk scores were calculated

Risk scores were calculated by combining probability and magnitude ratings using a quantitative approach:

Exhibit 19 Risk Assessment Criteria

Probability Likelihood of occurring	Magnitude Extent of damage or loss	Probability X Magnitude = Risk
Probability includes historical data and future projections Low Less than once every 20 years Medium Within 5-20 years High Within 1-5 years	Vulnerability Result from vulnerability assessment Redundancy Duplication of systems or components to ensure continued operation in the event of a failure of a single part Financial Loss Potential financial impact based on FEMA/HMP definitions, and asset-hazard pair analysis Criticality Risk to life and safety	Low risk: 3-11 Medium risk: 12-21 High risk: 22-30

Vulnerability and Financial Loss: Low (1) Medium (2) High (3) | Redundancy: Low (3) Medium (2) High (1) | Criticality: Yes (1) No (0)

Risk categories are defined as:

- **Low Risk:** Impacts are unlikely or manageable; lower priority for immediate action.
- **Medium Risk:** Impacts are possible and could be significant; moderate planning priority.
- **High Risk:** Impacts are likely and could be severe; highest planning priority.

Relationship between vulnerability and risk

Vulnerability and risk are related but distinct concepts. An asset may be highly vulnerable but face low risk if the probability of the relevant hazard is low. Conversely, an asset with moderate vulnerability may face high risk if it is exposed to a high-probability hazard. In Chelan County, several asset categories face the combination of high vulnerability AND high probability across multiple hazards. These represent the most urgent priorities for resilience investment.

Limitations and Assumptions

This assessment is subject to the following limitations and assumptions that users should be aware of when interpreting results:

- **Compound and cascading impacts are not fully modeled.** This assessment evaluates asset-hazard pairs individually. The real-world interactions between simultaneous hazards—for example, a wildfire occurring during a heat wave, or a flood following a wildfire—may produce impacts greater than the sum of their parts. Compound and cascading risks, such as a power outage caused by wildfire, represent an important area for further analysis.
- **Climate projections carry inherent uncertainty.** Future climate conditions are projected based on modeled scenarios that represent a range of possible futures. This assessment uses the higher emissions scenario (RCP 8.5) as a planning tool, not a prediction.
- **Asset-level data are uneven.** Detailed condition and inventory data are more available for some asset categories (e.g., county-owned bridges) than others (e.g., farm worker housing). Vulnerability assessments for asset categories with limited data carry greater uncertainty.
- **Adaptive capacity is dynamic.** The adaptive capacity of institutions, communities, and systems will change over time as policies, priorities, investments, and social conditions evolve. Ratings reflect conditions as of the date of this assessment.
- **This assessment does not constitute site-specific engineering or environmental analysis.** Findings are intended to inform policy and planning decisions and should be supplemented with site-specific analysis for capital investment decisions.

Vulnerability and Risk Results

The following tables present vulnerability and risk ratings for each asset category and climate hazard combination identified. Asset categories are organized by theme.

Natural Resources

Asset Category	Climate Hazard	Vulnerability	Probability	Magnitude	Risk
Sensitive aquatic and terrestrial species and habitats	Drought & Snowpack Decline	High	High	High	High
	Extreme Temperatures	Medium	High	Medium	Medium
	Extreme Precipitation & Flooding	Medium	Medium	Medium	Medium
	Wildfire & Smoke	High	High	Medium	Medium
Cultural sites and culturally significant activities	Drought & Snowpack Decline	Medium	High	Medium	Medium
	Extreme Temperatures	Medium	High	Medium	Medium
	Extreme Precipitation & Flooding	Medium	Medium	High	Medium
	Wildfire & Smoke	High	High	High	High

Water supply, water infrastructure, and irrigation infrastructure	Drought & Snowpack Decline	Medium	High	High	High
	Extreme Precipitation & Flooding	High	Medium	High	Medium
	Wildfire & Smoke	High	High	High	High

Agriculture and Economy

Asset Category	Climate Hazard	Vulnerability	Probability	Magnitude	Risk
Orchards, ranches, vineyards, and other food producers	Drought & Snowpack Decline	Medium	High	High	High
	Extreme Temperatures	Medium	High	Medium	Medium
	Wildfire & Smoke	Medium	High	High	High
Agriculture-related businesses	Drought & Snowpack Decline	Medium	High	Medium	Medium
	Extreme Temperatures	Medium	High	Medium	Medium
	Wildfire & Smoke	Medium	High	Medium	Medium
Industrial land, undeveloped land, LAMIRDs	Wildfire & Smoke	High	High	Medium	Medium
Recreation and tourism	Drought & Snowpack Decline	Medium	High	Medium	Medium
	Extreme Temperatures	Medium	High	Medium	Medium
	Extreme Precipitation & Flooding	Medium	Medium	Medium	Low
	Wildfire & Smoke	High	High	High	High

Built Environment

Asset Category	Climate Hazard	Vulnerability	Probability	Magnitude	Risk
Residential housing and farm worker housing	Extreme Temperatures	Medium	High	Medium	Medium
	Extreme Precipitation & Flooding	High	Medium	High	Medium
	Wildfire & Smoke	High	High	High	High

All public, commercial, and historic buildings	Extreme Temperatures	Medium	High	Medium	Medium
	Extreme Precipitation & Flooding	Medium	Medium	High	Medium
	Wildfire & Smoke	High	High	High	High
Power infrastructure	Drought & Snowpack Decline	Medium	High	Medium	Medium
	Extreme Temperatures	Medium	High	Medium	Medium
	Extreme Precipitation & Flooding	Medium	Medium	Medium	Medium
	Wildfire & Smoke	Medium	High	Medium	Medium
Transportation infrastructure	Extreme Temperatures	High	High	High	High
	Extreme Precipitation & Flooding	High	Medium	High	Medium
	Wildfire & Smoke	High	High	High	High
Sewer, wastewater, and stormwater infrastructure	Extreme Precipitation & Flooding	High	Medium	High	Medium
	Wildfire & Smoke	Medium	High	Medium	Medium
Emergency radio and communications infrastructure	Extreme Precipitation & Flooding	Medium	Medium	Medium	Medium
	Wildfire & Smoke	High	High	High	High

Community and Services

Asset Category	Climate Hazard	Vulnerability	Probability	Magnitude	Risk
Community members, vulnerable populations, visitors, and farm workers	Drought & Snowpack Decline	Medium	High	Medium	Medium
	Extreme Temperatures	High	High	Medium	Medium
	Extreme Precipitation & Flooding	Medium	Medium	Medium	Medium

	Wildfire & Smoke	High	High	High	High
Sheriff Department, Fire Stations, and Emergency Management	Extreme Precipitation & Flooding	Medium	Medium	High	Medium
	Wildfire & Smoke	High	High	High	High
Fairgrounds, open spaces, and parks	Drought & Snowpack Decline	Medium	High	Medium	Medium
	Extreme Temperatures	Medium	High	Medium	Medium
	Extreme Precipitation & Flooding	Medium	Medium	Medium	Low
	Wildfire & Smoke	High	High	High	High
Waste hauling, waste management, and recycling	Extreme Precipitation & Flooding	Medium	Medium	High	Medium
	Wildfire & Smoke	Medium	High	Medium	Medium

Priority Risk Areas

The following table summarizes the highest-priority asset-hazard combinations identified through this assessment. These combinations reflect cases where both vulnerability and risk ratings are High, representing the most urgent priorities for resilience planning and investment in Chelan County.

Asset Category	Climate Hazard	Vulnerability	Risk	Key Concern
Orchards, Ranches, Vineyards, and Other Food Producers	Drought & Snowpack Decline	High	High	Reduced irrigation water availability during peak growing season; chill hour loss threatens tree fruit viability
	Wildfire & Smoke	High	High	Smoke impacts on fruit quality, labor productivity, and market access; direct fire losses
	Extreme Temperatures	High	High	Heat stress on crops and farm workers; bloom and harvest disruption

Water Supply, Water Infrastructure, and Irrigation Infrastructure	Drought & Snowpack Decline	High	High	Fundamental threat to water availability for agriculture, municipal use, and ecosystems
Sensitive Aquatic and Terrestrial Species and Habitats	Drought & Snowpack Decline	High	High	Altered streamflow, warming water temperatures, and habitat loss threatening salmonids and other species
	Wildfire & Smoke	High	High	Repeated fire cycles degrading watershed function, habitat, and ecosystem services
Residential Housing and Farm Worker Housing	Wildfire & Smoke	High	High	99% of county properties face some wildfire risk; farm worker housing concentrated in high-exposure areas
	Extreme Temperatures	High	High	Heat risk in inadequately cooled housing; farm worker housing density amplifies risk
Transportation Infrastructure	Extreme Temperatures	High	High	Pavement damage, bridge joint failure, and heat-related work restrictions
	Extreme Precipitation & Flooding	High	High	73 bridges in floodplains, 10 scour-critical; canyon road closures and debris flows
Power Infrastructure	Drought & Snowpack Decline	High	High	Reduced hydroelectric generation capacity coinciding with peak cooling demand
	Wildfire & Smoke	High	High	Transmission and distribution infrastructure damage; extended outages during fire events
Community Members, Vulnerable Populations, Visitors, and Farm Workers	Extreme Temperatures	High	High	Heat-related illness and death risk for outdoor workers, elderly, and people without cooling access
	Wildfire & Smoke	High	High	Respiratory health impacts; evacuation challenges for populations without transportation or language access

Emergency Radio and Communications Infrastructure	Wildfire & Smoke	High	High	Loss of communications infrastructure during events when it is most needed
Cultural Sites and Culturally Significant Activities	Drought & Snowpack Decline	High	High	Threats to culturally significant species, water sources, and traditional land use practices
	Wildfire & Smoke	High	High	Irreplaceable cultural and archaeological resources destroyed by wildfire

Summary Observations

Several cross-cutting themes emerge from the priority risk analysis:

1. **Wildfire and wildfire smoke generate high-risk ratings across nearly every asset category.** No asset group in Chelan County is immune to wildfire risk, and the combination of high probability and high magnitude makes this the county's single most pervasive climate exacerbated threat.
2. **Drought and snowpack decline threaten the foundational systems that support the county's economy and ecology.** Water is the connective tissue linking agriculture, hydropower, aquatic ecosystems, and community health. Changing water availability and timing affects virtually every other asset category.
3. **Vulnerable and underserved populations face the intersection of multiple high-risk hazards** with limited adaptive capacity. Addressing their needs is both a moral imperative and a practical prerequisite for equitable community-wide resilience.
4. **Infrastructure assets (transportation, power, and communications) face high risk across multiple hazards,** and failures in any one system cascade across others. A flood that closes a bridge, a wildfire that damages a transmission line, or a heat event that causes a power outage each sets off a chain of consequences that affects homes, businesses, emergency services, and communities.
5. **Natural and cultural resources face risks that are largely irreversible.** Unlike built infrastructure, the loss of species, destruction of habitat, and damage to cultural sites by climate exacerbated natural hazard may not be replaceable. This irreversibility warrants preventive investment.

Assessment of Existing Plans and Policies

The following Chelan County plans and policies were reviewed to assess the current state of climate resilience integration and identify gaps to be addressed in the 2026 Comprehensive Plan update.

Existing County Plans

2017 Chelan County Comprehensive Plan (including Resolution 2022-09)

The 2017 Comprehensive Plan provides the foundational land use and policy framework for Chelan County. As originally adopted, the plan addressed natural hazards primarily through its Critical Areas Ordinance and resource and rural lands policies, with limited explicit treatment of climate. Resolution 2022-09, adopted by the Board of County Commissioners in 2022, amended the Comprehensive Plan to incorporate climate resilience goals and policies across multiple plan elements. This amendment represented a significant step forward in integrating climate resilience into the county's planning framework and demonstrated proactive leadership ahead of the HB 1181 mandate. Key areas of strength from the 2022 amendment include recognition of wildfire risk in rural lands policies, water resource conservation language, and acknowledgment of climate impacts as a driver of hazard risk.

Gaps include: limited policy specificity for adaptation actions; limited integration with the Hazard Mitigation Plan, insufficient integration of equity and vulnerable population considerations; the absence of climate risk metrics tied to capital facilities planning; and no systematic monitoring or adaptive management framework.

2017 Comprehensive Flood Hazard Management Plan

The 2017 Comprehensive Flood Hazard Management Plan provides detailed flood risk analysis and mitigation strategies for the county's floodplains and other flood hazard areas. The plan provides a strong technical foundation for flood risk management and identifies specific properties, bridges, and infrastructure at elevated risk. Strengths include detailed floodplain mapping, identification of scour-critical bridges, and policies supporting floodplain acquisition and preservation.

Gaps include: flood risk projections based on historical data—much of which pre-dates 1980—rather than climate-adjusted future conditions; limited integration with wildfire risk in the context of post-fire flooding; and the need for updated flood frequency analysis that reflects projected increases in peak streamflow.

2021 Shoreline Management Program

The Shoreline Management Program (SMP) governs development and uses along shorelines of the state within Chelan County's, including the Columbia River, Lake Chelan, the Wenatchee River, and other water bodies meeting the state's shoreline definition. The SMP includes provisions protecting riparian habitat and function, limiting shoreline armoring, and regulating development in flood-

prone shoreline areas. These provisions provide meaningful co-benefits for climate resilience by protecting natural shoreline systems that buffer flooding, filter runoff, and support aquatic habitat.

Gaps include: limited explicit treatment of climate impacts on shoreline processes and habitat; the need for updated guidance on lake-level change; and opportunities to strengthen provisions supporting natural shoreline restoration and floodplain connectivity.

2024 Hazard Mitigation Plan

The 2024 Chelan County Hazard Mitigation Plan, approved by FEMA on December 6, 2024, is the county's primary planning tool for identifying and reducing risks from natural hazards. The plan covers 18 natural hazard types, with emphasis on wildfire, flooding, and severe weather. It includes detailed risk assessments, vulnerability analyses, and a comprehensive list of mitigation actions prioritized by cost-effectiveness and feasibility. The 2024 plan explicitly incorporates changing climate conditions as a factor influencing future hazard risk—a significant advancement over prior plan iterations. It identifies bridge scour, wildfire in the wildland-urban interface, and drought as top priorities.

Gaps include: limited integration with land use and development planning tools; insufficient focus on vulnerable population protection in the mitigation action plan; and the need for stronger linkages between the HMP and the Comprehensive Plan to ensure mitigation actions are reflected in capital facilities planning and development regulations.

2025 Community Wildfire Protection Plan

The 2025 Community Wildfire Protection Plan (CWPP), adopted by the Board of County Commissioners on March 31, 2025, provides a strategic framework for wildfire risk reduction across Chelan County. The CWPP identifies high-risk communities, prioritizes fuel treatment areas, and recommends actions for improving structural ignitability, evacuation capacity, and community preparedness. It reflects extensive collaboration among fire districts, state and federal land management agencies, community organizations, and residents. The plan provides a current, data-driven wildfire risk assessment, identification of priority fuel treatment zones, and a strong community engagement foundation.

Gaps include: limited integration with housing policy and land use planning in the wildland-urban interface; insufficient focus on vulnerable population evacuation; and the need for sustained funding commitments to implement recommended fuel treatments and other wildfire mitigation projects at scale.

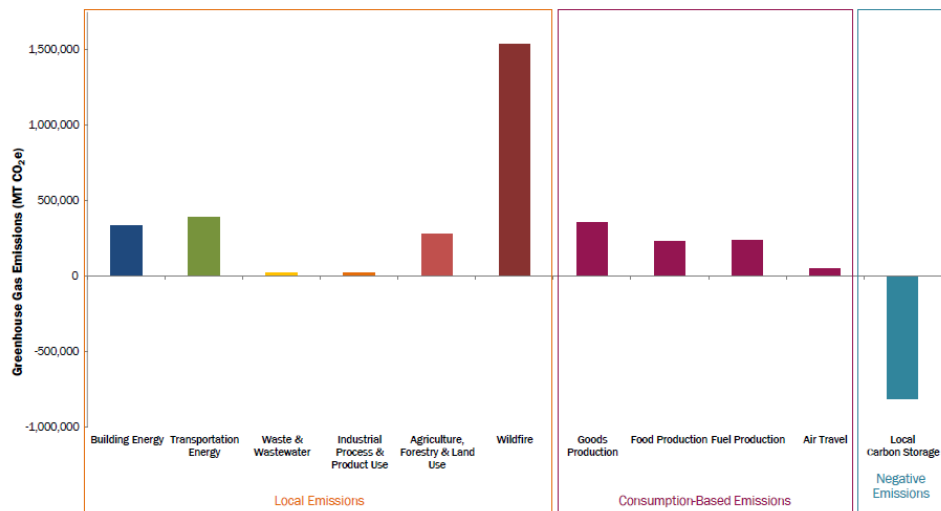
Greenhouse Gas Inventory

Summary and Key Insights

Chelan County participated in the development of a Community Greenhouse Gas Inventory published in July 2025 as part of the broader Our Valley Our Future regional initiative. The inventory

covers multiple emission sources across the county for the years 2016 through 2022, including electricity, natural gas, transportation, agriculture, waste, and critically, wildfire.

Exhibit 20 Summary of Greenhouse Gas Emissions by Sector (Parametrix, 2025)



Key findings include:

- **Total estimated community GHG emissions in 2022 were approximately 2.6 million metric tons of carbon dioxide equivalent (MT CO₂e),** when wildfire emissions are included.
- **Wildfire emissions dominate the inventory.** From 2016 to 2024, annual wildfire emissions averaged approximately 1.44 million MT CO₂e, representing approximately 59% of total local emissions in the inventory baseline year. Wildfire emissions are highly variable year to year depending on the severity of the wildfire season; 2021 emissions were approximately 2.6 million MT CO₂e, while 2023 emissions were approximately 95,000 MT CO₂e.
- **Transportation is the largest non-wildfire emission source,** accounting for approximately 35% of non-wildfire emissions, followed by electricity (approximately 15%), natural gas (approximately 14%), and agriculture (approximately 10%).
- **The PUD's hydropower-dominant electricity mix results in relatively low electricity-related emissions** compared to many Washington counties, providing a significant co-benefit of the county's existing energy infrastructure.
- **Wildfire emissions from fires burning within Chelan County are largely outside the county's direct control,** but local land management practices, including fuel reduction, restoration forestry, and wildland-urban interface management, can reduce the risk and severity of fires and thereby reduce associated emissions.

The full Community Greenhouse Gas Inventory report is available at sustainablencw.org/climate. The wildfire emissions component of the inventory is summarized in detail in the Wildfire Emissions Supplemental Report.

The GHG inventory underscores the importance of wildfire as both a climate hazard and a significant source of emissions in Chelan County. A dynamic in which climate change drives conditions that increase wildfire risk, and wildfires in turn accelerate greenhouse gas emissions, potentially creating a self-reinforcing feedback loop.

Summary of Policy Audit

What Is Working

Taken together, Chelan County's existing plans and policies reflect a meaningful and growing commitment to climate resilience. Key strengths include:

- **A strong hazard mitigation foundation.** The 2024 Hazard Mitigation Plan and 2025 CWPP together provide a robust, technically credible framework for understanding and reducing the county's most significant hazard risks.
- **Proactive Comprehensive Plan amendment.** Resolution 2022-09 demonstrates that the county has already recognized the need to integrate climate resilience into its land use framework ahead of the HB 1181 mandate.
- **Shoreline and critical areas protections.** The SMP and Critical Areas Ordinance provide meaningful protections for natural systems that contribute to climate resilience, including floodplain conservation and riparian habitat protection.
- **Active cross-agency collaboration.** The development of multiple overlapping plans—flood, wildfire, hazard mitigation, shoreline, watershed—has fostered collaborative relationships among county departments and with state and federal partners that provide a foundation for integrated resilience planning.

Looking Ahead – Pathways for Action

Comprehensive Planning

Comprehensive plan updates provide an opportunity to address these gaps by embedding climate resilience throughout the plan's required elements. Specific opportunities include:

- **Land Use:** Strengthening wildland-urban interface development standards; updating floodplain development restrictions based on climate-adjusted flood projections; incentivizing conservation of natural lands that provide climate buffering and habitat connectivity.
- **Housing:** Requiring climate risk disclosure for new housing in high-risk areas; promoting weatherization and cooling upgrades in affordable and renter-occupied housing; establishing minimum climate resilience standards for residential and farm worker housing.
- **Capital Facilities:** Incorporating climate risk screening into infrastructure investment decisions; establishing level-of-service standards that account for future hazard conditions; prioritizing repair and replacement of flood- and fire-vulnerable infrastructure. Establishing a post-wildfire recovery framework that addresses temporary housing, water quality protection, debris management, and rebuilding standards in affected areas.
- **Transportation:** Prioritizing climate-proofing of vulnerable bridges and roads, including the county's scour-critical bridges; incorporating evacuation route analysis for wildfire and flood scenarios into transportation planning.
- **Utilities:** Coordinating with Chelan PUD on grid resilience, demand management, and backup power for critical facilities; addressing water supply planning under future snowpack conditions in coordination with irrigation districts and water purveyors.
- **Rural:** Updating rural development standards to reduce wildfire ignition risk and improve climate resilience in agricultural and resource lands areas; supporting conservation of working lands that provide natural climate buffering.
- **Economic Development:** Supporting agricultural producers in accessing technical and financial assistance for crop adaptation, irrigation efficiency, and market diversification; developing strategies to maintain tourism and recreation economic vitality during smoke, low snowpack/drought, and extreme weather events; ensuring that economic recovery planning accounts for climate-related disruptions.
- **Natural Resources:** Strengthening protections for riparian areas, wetlands, and floodplains that provide natural flood buffering, water quality filtration, and aquatic habitat; supporting landscape-scale habitat restoration that accounts for climate-driven shifts in species distribution; and aligning county natural resource policies with watershed-scale salmon recovery and water resource planning efforts.
- **Parks and Recreation:** Incorporating climate risk into parks capital planning, including flood and wildfire exposure assessments for park facilities and trails; expanding shade, cooling infrastructure, and water access at heavily used recreation sites to protect visitors during extreme heat and smoke events.

Resilient Policy Opportunities

The following policy directions are organized by theme and reflect both gaps identified in the policy audit and priorities identified through the vulnerability and risk assessment. These directions are intended to inform the development of Comprehensive Plan goals and policies.

Agriculture and Food System Resilience

- Support the transition to irrigation technologies that improve water use efficiency, particularly drip irrigation and soil moisture monitoring systems.
- Develop policies that support crop diversification and variety adaptation as a hedge against chill hour loss and shifting growing season conditions.
- Ensure that farm worker housing meets minimum standards for heat and smoke resilience, including access to cooling, shade, air filtration, and clean drinking water.
- Coordinate with the Cascadia Conservation District and WSU Extension to expand technical assistance for climate adaptation on agricultural lands.
- Recognize and support the role of small farms, diversified agriculture, and local food systems in building regional food security resilience. For example, supporting farm-to-school purchasing programs or shifting away from monoculture operations.

Housing and Vulnerable Population Protection

- Establish standards for climate-resilient design in new residential construction, including broad adoption of the WUI code.
- Promote weatherization and energy efficiency assistance for low-income households, elderly residents, and other vulnerable community members.
- Develop policies addressing housing location in high-risk areas, like the wildland-urban interface, with particular attention to vulnerable populations.
- Support expansion of cooling centers, air filtration sites, and emergency shelter capacity for vulnerable populations during extreme heat and smoke events.
- Ensure all climate resilience communications, programs, and resources are available in Spanish and other languages spoken by county residents.
- Work with wildfire response agencies to provide more information on evacuation routes and how to access emergency evacuation information.

Infrastructure Hardening and Redundancy

- Require climate risk screening for all major capital infrastructure investments, using projected future hazard conditions rather than historical baselines.
- Prioritize repair, replacement, or hardening of the county's 10 scour-critical bridges and other flood-vulnerable transportation infrastructure.
- Support investment in backup power systems for critical facilities, including emergency shelters, medical facilities, emergency operations centers, and communications infrastructure.

- Coordinate with Chelan PUD on grid resilience investments, particularly for transmission infrastructure in wildfire-prone areas.
- Update stormwater design standards to reflect projected increases in peak precipitation intensity.

Natural Systems Conservation and Restoration

- Strengthen critical areas protections for wetlands, riparian areas, and floodplains that provide natural flood buffering, water quality filtration, and habitat connectivity.
- Support riparian restoration projects that improve instream habitat conditions, alluvial water storage, and reduce water temperatures for salmonids and other aquatic species.
- Expand conservation of natural open spaces that provide cooling, carbon sequestration, and watershed protection functions.
- Develop policies that recognize and support the conservation and restoration goals of Tribal Nations, as partners in natural resource stewardship.
- Integrate habitat connectivity considerations into land use planning to support species migration and adaptation as climate conditions shift. For example, ensuring wildlife corridors and vegetated buffers.

Water Resource Management

- Update water supply planning frameworks to account for projected mid-century reductions in snowpack and summer streamflow availability.
- Support investment in water storage, aquifer recharge, and water supply diversification to reduce dependence on summer snowmelt.
- Coordinate with irrigation districts and water purveyors to develop drought contingency plans and water conservation programs.
- Protect source water areas through land use policies that reduce contamination risk, particularly in post-wildfire runoff scenarios.
- Address water rights allocation and management in the context of projected future scarcity, ensuring equitable access for agricultural, municipal, and instream flow needs.

Wildfire Preparedness and Community Adaptation

- Adopt and enforce defensible space and fire-resistant building material standards in the wildland-urban interface, using the 2025 CWPP as a foundation. Consider enforcing higher standards than the state building code.
- Incorporate wildfire risk analysis into land use decisions for new development in high-risk areas, including LAMIRDs and rural residential zones.
- Support sustained funding and implementation of the fuel treatment priorities identified in the 2025 CWPP.
- Develop comprehensive evacuation planning that addresses the needs of vulnerable populations, non-English speakers, people without vehicles, and farm workers.

- Establish policies that facilitate rapid, equitable post-wildfire community recovery, including temporary housing, debris management, and water quality protection.

Immediate Opportunities for Action

For County Departments

Capital facilities planning - incorporating future flood and fire risk

County capital facilities planning could be updated to systematically screen proposed investments against projected future hazard conditions. This means evaluating proposed infrastructure against mid-century flood frequency estimates, wildfire risk maps, and extreme heat projections—not just historical baselines. The 73 county-owned bridges in floodplains, and particularly the 10 identified as scour-critical, represent a near-term priority for targeted investment. New facilities could be sited and designed to remain operational under projected future conditions, and existing facilities could be evaluated for retrofitting where cost-effective.

Transportation network climate-proofing

Chelan County's transportation network is a critical lifeline for rural communities, agricultural operations, and emergency response. The county could develop a transportation resilience plan that inventories vulnerable road and bridge segments, prioritizes investments based on risk and consequence of failure, and incorporates climate projections into maintenance and design standards. Canyon road segments and bridge crossings in floodplains should receive particular attention. Evacuation route analysis for wildfire and flood scenarios could be integrated into transportation planning, with a focus on ensuring alternative routes exist for communities that could be isolated by a single road closure.

County fleet electrification and electric vehicle charging

Chelan County has an opportunity to reduce its operational greenhouse gas emissions and demonstrate climate leadership by transitioning its vehicle fleet to electric vehicles and providing electric vehicle charging in employee and public parking lots. A hydropower-dominant electricity supply means that electric vehicles charged in the county operate on some of the cleanest and lowest-cost electricity in the state, making the emissions and cost benefits of fleet electrification particularly strong. The county could develop a phased fleet electrification plan that identifies priority vehicle classes for early replacement, assesses charging infrastructure needs at county facilities, and leverages available funding through Washington's Climate Commitment Act and federal Inflation Reduction Act clean vehicle incentives. Any transition plan should ensure that vehicles used by emergency responders and public works remain operational during the power outages that frequently accompany wildfire and flood events, including investment in backup charging capacity at key county facilities.

Emergency management capacity for compound hazard events

Chelan County's emergency management program has demonstrated strong performance in responding to individual hazard events. As climate-related changes increase the likelihood of simultaneous or back-to-back events, such as wildfire during a heat wave, flood following a wildfire, and multiple concurrent fire starts, the program will need to expand its capacity for compound-event response. This includes updating the Comprehensive Emergency Management Plan to address compound scenarios, investing in mutual aid agreements that provide surge capacity, and ensuring that cooling centers and emergency shelters remain operational during the power outages that often accompany hazard events.

Updating stormwater and sewer infrastructure standards

Design standards for stormwater and wastewater infrastructure could be updated to reflect projected increases in peak precipitation intensity. New infrastructure could be designed using future climate-adjusted rainfall intensity values rather than historical recurrence interval data. Green infrastructure approaches, including bioswales, permeable paving, constructed wetlands, and floodplain reconnection, could be promoted as complements to traditional stormwater infrastructure, particularly in areas where post-wildfire runoff poses acute stormwater challenges.

For Agriculture and the Private Sector

Irrigation efficiency and water supply diversification

Agricultural producers in Chelan County face a fundamental water supply challenge that will intensify over the coming decades. The transition from flood and sprinkler irrigation to drip irrigation systems can reduce water use by 30–50% (Rahman, 2025) while maintaining or improving crop yields. The county and its partners could expand technical assistance and financial support for irrigation efficiency upgrades, leveraging USDA NRCS programs, Washington Department of Ecology water efficiency grants, and other available funding. Diversification of water supply sources—including groundwater development, water storage, and water trading arrangements—can reduce dependence on surface water flows that will become increasingly unreliable in summer.

Crop adaptation strategies

Agricultural producers could be supported in evaluating and implementing crop adaptation strategies, including planting of lower-chill-hour apple, pear, and cherry varieties; diversification into alternative crops better suited to warming conditions; and experimentation with shade netting, evaporative cooling, and other microclimate management tools. WSU Extension and the Cascadia Conservation District are well-positioned to provide leadership in agricultural climate adaptation research and technical assistance. Market development support for alternative and value-added crops can reduce the financial risk associated with diversification.

Wildfire risk reduction in residential and agricultural areas

Property owners in the wildland-urban interface—including both residential and agricultural landowners—can significantly reduce their wildfire risk through defensible space maintenance, use

of fire-resistant building materials, and participation in community-scale fuel management programs. The county and its fire districts could expand outreach and technical assistance for property-level wildfire risk reduction, building on the foundation established by the 2025 CWPP. Agricultural landowners could be supported in managing vegetation along irrigation canals, orchard edges, and ranch lands to reduce fuel loads and ignition risk.

Farm worker housing and health protection

Farm workers represent one of the county's most climate-exposed populations, facing simultaneous risks from extreme heat, wildfire smoke, and limited access to healthcare and emergency services. Agricultural employers could be supported in complying with state law (WAC Chapters 296-307 and 246-358) to provide adequate cooling, shade, hydration, and access to clean air during extreme events. Farm worker housing should meet minimum standards for thermal comfort, ventilation, and structural resilience. Culturally and linguistically appropriate health information should reach farm workers through trusted community channels, including community health workers and peer educators.

Seasonal diversification and snow-independent recreation

Winter recreation operators, including Mission Ridge, Leavenworth Ski Hill, and Plain Valley Ski Trails, face growing uncertainty as snowpack declines and the snow season shortens. Operators should continue evaluating snowmaking investments and developing snow-independent programming, such as winter hiking, Nordic fat biking, and shoulder-season events to reduce dependence on natural snow conditions. Tourism marketing organizations could expand promotion of spring and fall shoulder seasons and other forms of tourism to distribute visitor activity more evenly across the year and reduce the sector's concentration in the summer outdoor recreation window most vulnerable to smoke, heat, and drought.

River recreation and low-flow planning

Summer recreation businesses dependent on river flows could develop contingency plans for low-flow years and engage proactively in water conservation efforts that seek to reduce the amount of water diverted from the creek/streams and preserve more instream flows. The county and its partners could work with the Washington Department of Ecology and river recreation stakeholders to establish clear communication protocols when flows drop below recreational thresholds, so that businesses and visitors can plan accordingly. The county, cities, and recreation partners should continue to collaborate on localized recreation management.

Visitor safety during extreme heat and smoke events

Outdoor recreation businesses and event organizers could establish heat and smoke action protocols that include adjusted operating hours during dangerous conditions, shaded rest areas and hydration stations, and clear and timely communication to visitors about health risks. Tourism marketing organizations could develop proactive smoke communication strategies that provide accurate air quality information to potential visitors (rather than allowing uncertainty to drive broad

cancellations) and promote indoor recreation alternatives to retain visitors during smoke events. Investment in cooling infrastructure for visitor-serving indoor and semi-outdoor spaces can help businesses remain competitive as summer temperatures rise.

Natural systems conservation as economic investment

The scenic landscapes, clean rivers, healthy forests, and abundant wildlife that draw visitors to Chelan County are themselves threatened by climate hazards, and investment in natural systems conservation is a direct investment in the long-term economic health of the tourism economy. The recreation and tourism sector should continue to engage as an active partner in trail maintenance, riparian restoration, open space conservation, and landscape-scale resilience efforts and advocate for sustained public funding for parks, recreation infrastructure, and watershed restoration as essential economic development investments.

For NGOs and Community Organizations

Vulnerable population outreach and cooling/smoke shelter coordination

Nonprofit, non-governmental, and faith-based organizations play critical roles in reaching vulnerable residents during climate emergencies. Community organizations could be supported in developing heat and smoke emergency mitigation and response plans that include regular check-ins with elderly, disabled, and socially isolated residents; transportation assistance to cooling centers; and multilingual communication. The network of cooling centers and air filtration sites could be expanded and better promoted, with particular attention to accessibility for people without vehicles and people with disabilities.

Habitat restoration and conservation prioritization

Conservation organizations, Tribes, and fish enhancement groups operating in Chelan County, such as Cascadia Conservation District, Cascade Fisheries, and the Chelan-Douglas Land Trust, are important partners in landscape-scale habitat restoration and conservation. Prioritization of restoration investments could increasingly account for climate resilience objectives, including projects that restore floodplain connectivity, improve riparian shade and water temperature conditions, reduce wildfire risk in forested watersheds, and provide habitat connectivity for species moving in response to changing conditions. Tribal participation in regional conservation planning will provide traditional ecological knowledge and support tribal conservation goals.

Advocacy for housing weatherization and retrofit programs

Housing advocates and community organizations should champion the expansion of weatherization and energy efficiency programs for low-income and renter-occupied housing in Chelan County. Existing state and federal programs, including the Weatherization Assistance Program, Community Development Block Grants, and Washington's Climate Commitment Act funding streams, as well as programs offered by Chelan PUD, provide opportunities that can be utilized to increase resilience to extreme weather and wildfire. Advocacy for simplified program

access, Spanish-language outreach, and landlord engagement can help ensure that the benefits of these programs reach the residents who need them most.

Tribal and cultural resource protection partnerships

Indigenous groups with interests in Chelan County hold deep knowledge of the landscape and its history, and face unique climate risks to culturally significant places, species, and practices. County agencies, conservation organizations, and other partners could pursue formal and informal partnerships with tribes on climate resilience planning, habitat restoration, cultural resource monitoring, and emergency preparedness. Government-to-government consultation could be the norm for planning decisions that may affect tribal interests or treaty rights.

For All Sectors

Continued monitoring of climate indicators

The hazard projections and vulnerability assessments presented in this document represent the best available science as of the time of writing. Climate science is advancing rapidly, and conditions in Chelan County will change in ways that are not fully predictable. All sectors should support ongoing monitoring of key climate indicators—snowpack, streamflow timing, wildfire frequency and severity, air quality index, extreme heat day frequency, and flood event magnitude—and should commit to revisiting and updating this assessment regularly (recommended: every Comprehensive Plan periodic update).

Participation in watershed and regional planning efforts

Climate resilience for Chelan County cannot be achieved through county action alone. Water supply, wildfire, and habitat resilience all require coordination at the watershed and regional scale, involving multiple counties, Tribal Nations, state and federal agencies, utilities, and private landowners. Active participation in watershed planning processes, including the Upper Columbia Salmon Recovery Board, the Chelan Basin Integrated Watershed Plan, and other collaborative forums, is essential for advancing county resilience goals within the broader regional context.

Cross-sector collaboration on overlapping risks

Many of the highest-priority risks identified in this assessment affect multiple sectors simultaneously. Wildfire smoke affects agriculture, tourism, and public health. Drought affects water supply, agriculture, hydropower, and aquatic habitat. Flooding affects transportation, housing, emergency management, and waste systems. Effective responses to these overlapping risks require coordination that crosses sector and jurisdictional boundaries. The Climate Advisory Team model developed for this planning process provides a useful template for ongoing cross-sector collaboration. Its continuation or evolution into a standing resilience coordination and collaboration body should be actively pursued.

Existing Resources and Programs

The following programs, funding sources, and technical assistance resources are available to support climate resilience action in Chelan County. This list is not exhaustive and is intended to highlight key opportunities identified through the planning process, including those discussed at the Chelan County Climate Resilience Summit on April 16th, 2026.

Federal Programs and Funding

FEMA Hazard Mitigation Assistance Grant Programs

FEMA offers several grants through their Hazard Mitigation Assistance (HMA) grant programs, including Building Resilient Infrastructure and Communities (BRIC), Hazard Mitigation Grant Program (HMGP), and Flood Mitigation Assistance (FMA), which provides funding for hazard mitigation projects such as property acquisition in floodplains, bridge hardening, wildfire risk reduction, and slope stabilization. Chelan County has successfully utilized HMA funding to reduce risk from natural hazards and should continue to develop a pipeline of shovel-ready projects to maximize future grant opportunities.

USDA Natural Resources Conservation Service (NRCS) Programs

NRCS offers multiple programs supporting agricultural climate adaptation and natural resource conservation:

- *Environmental Quality Incentives Program (EQIP)*: Financial and technical assistance for irrigation efficiency, soil health, and conservation practices on agricultural lands.
- *Agricultural Conservation Easement Program (ACEP)*: Supports permanent conservation easements on agricultural and wetland areas.
- *Emergency Watershed Protection Program (EWP)*: Provides rapid response funding for watershed protection following natural disasters, including post-wildfire debris management.
- *Regional Conservation Partnership Program (RCPP)*: Supports collaborative conservation projects at the landscape scale.

USDA Forest Service Community Wildfire Defense Grant Program

Supports at-risk communities in developing and implementing community wildfire protection plans and fuel reduction projects. Administered through the Washington State Department of Natural Resources.

HUD Community Development Block Grant (CDBG) Program

Flexible funding for community development activities, including housing rehabilitation, weatherization, and infrastructure improvements in low-to-moderate income communities.

EPA Environmental Justice Collaborative Problem-Solving Program

Supports community-based organizations in addressing environmental health disparities, including climate-related health risks in underserved communities.

State Programs and Funding

Washington Climate Commitment Act (CCA) Funding

The Climate Commitment Act's cap-and-invest program generates substantial revenue that is being directed to climate resilience, clean energy, and environmental justice priorities across Washington. Key funding streams relevant to Chelan County include:

- Transportation electrification and active transportation investments
- Wildfire prevention and forest health
- Salmon recovery
- Community resilience grants for vulnerable populations
- Clean Energy Transformation Act implementation support

Washington State Department of Ecology

Ecology administers multiple grant programs relevant to climate resilience, including:

- Flood Control Assistance Account Program (FCAAP): Supports flood hazard identification and mitigation projects.
- Stormwater Financial Assistance Program: Supports stormwater management infrastructure and planning.
- Water Efficiency Grant Program: Supports water conservation and efficiency in municipal and agricultural settings.
- Shoreline Planning Grants: Support shoreline management program updates.

Washington State Department of Natural Resources (DNR)

DNR programs supporting wildfire risk reduction and forest resilience include:

- Forest Health Revolving Account: Funds forest health treatments on state and private lands.
- Wildland-Urban Interface (WUI) Technical Assistance: Support for community wildfire risk assessment and CWPP development.
- Urban and Community Forestry Program: Supports tree canopy expansion and urban heat island mitigation.

Washington State Department of Commerce

Commerce administers planning grants under the Growth Management Act, including funding for Comprehensive Plan updates and Climate Element development. Commerce also administers the Community Economic Revitalization Board (CERB), which supports infrastructure investments in rural communities.

Washington State Department of Health

DOH programs supporting climate and health resilience include:

- Foundational Public Health Services funding for local health jurisdictions
- Environmental public health tracking programs
- Farm worker health programs and outreach

Washington Weatherization Assistance Program

State-administered program providing weatherization and energy efficiency upgrades for low-income households, reducing heating and cooling costs and improving climate resilience.

Local and Regional Programs

Chelan PUD – Vision 2075

The PUD's long-range planning initiative addresses the future of hydroelectric operations, grid resilience, renewable energy diversification, and customer programs in the context of climate change. Vision 2075 represents a major institutional commitment to climate adaptation that aligns closely with the goals of this assessment. Key initiatives include water resource planning, grid modernization, and demand response programs that can help manage peak summer cooling loads.

Voluntary Stewardship Program (VSP)

The Chelan County VSP is administered by the Cascadia Conservation District and provides technical and financial assistance to agricultural landowners who implement conservation practices that protect critical areas while maintaining agricultural viability. The VSP is particularly relevant to climate resilience because many of the conservation practices it supports also reduce vulnerability to drought, flooding, and wildfire. Agricultural landowners in Chelan County are encouraged to engage with the VSP as a primary entry point for conservation and climate adaptation assistance.

Cascadia Conservation District

The Cascadia Conservation District provides technical assistance, cost-share funding, and educational programs to agricultural producers, landowners, and local governments across Chelan and Douglas Counties. District programs address irrigation efficiency, soil health, riparian restoration, and farm planning, all of which contribute to agricultural climate resilience. The district is a key implementing partner for USDA NRCS programs in the region and serves as a trusted resource for the farming community. The district is also a significant partner in reducing wildfire risk on private property.

Our Valley Our Future

Our Valley Our Future is a regional sustainability initiative covering the greater Wenatchee Valley, encompassing Chelan and Douglas Counties and their incorporated cities. The initiative produced the 2025 Community Greenhouse Gas Inventory and has served as a platform for regional collaboration on sustainability and resilience. Our Valley Our Future provides a model for cross-jurisdictional coordination that can be leveraged for shared climate resilience planning, monitoring, and public engagement.

Sustainable NCW

Sustainable NCW is a local nonprofit organization focused on advancing sustainability and climate action in North Central Washington. The organization played a central role in coordinating the Community Greenhouse Gas Inventory and serves as a bridge between community members, local governments, and regional sustainability initiatives. Sustainable NCW can support public

engagement, education, and advocacy for climate resilience priorities identified in this assessment.

Chelan-Douglas Health District

The Chelan-Douglas Health District provides public health programs and services to residents of both counties, including environmental health monitoring, emergency preparedness, and community health education. The Health District is a critical partner for climate resilience efforts related to extreme heat, wildfire smoke, and the health of vulnerable populations, including farm workers. The district's existing relationships with agricultural employers, community health workers, and Spanish-speaking communities make it an essential partner for equitable climate resilience outreach.

Chelan-Douglas Community Action Council

The Chelan-Douglas Community Action Council is a nonprofit organization dedicated to reducing poverty and improving the self-sufficiency of low-income residents across Chelan and Douglas Counties. The CAC provides a broad range of direct services addressing the root causes of economic vulnerability, including housing assistance, food security programs, early childhood education, and emergency financial assistance. The organization offers programs for home energy assistance and weatherization.

CAFÉ (Community for the Advancement of Family Education)

CAFÉ is a nonprofit organization that advances family and community growth through education. They serve the county's culturally diverse community, providing opportunities in leadership, civic and social engagement, literacy development, and academic advancement. CAFÉ has supported the development of multiple community resources that enhance resilience to hazards such as wildfire and smoke. CAFÉ's deep relationships with Spanish-speaking residents and farmworker families make it an important partner in ensuring that climate resilience resources reach the county's vulnerable populations.

Chumstick Wildfire Stewardship Coalition

The Chumstick Wildfire Stewardship Coalition is a community-based organization working to reduce wildfire risk and build long-term landscape resilience in the Chumstick watershed. The coalition brings together landowners, fire districts, state and federal agencies, and community members to implement collaborative fuel reduction projects, support defensible space programs, and advance community wildfire preparedness at the neighborhood scale. The coalition plays an important role in translating county and regional wildfire risk-reduction goals into on-the-ground action and represents a model for community-led climate resilience that could be replicated in other high-risk areas of the county.

Washington State University Extension – Wenatchee

WSU Extension provides research-based education and technical assistance to agricultural producers, homeowners, youth, and communities across Chelan County. Extension programs on irrigation management, crop adaptation, integrated pest management, and farm business planning

are directly relevant to agricultural climate resilience. WSU's broader research capacity, including through the Center for Sustaining Agriculture and Natural Resources, provides access to cutting-edge science on climate adaptation for tree fruit and other agricultural sectors.

Upper Columbia Salmon Recovery Board

The Upper Columbia Salmon Recovery Board coordinates salmon recovery planning and investment across the upper Columbia River basin, including Chelan County. Salmon recovery and climate resilience are deeply intertwined—healthy, functioning watersheds that support salmon are also more resilient to drought, flooding, and wildfire. The recovery board's planning frameworks and funding streams represent important opportunities for aligned investment in natural systems resilience.

Link Transit

Link Transit provides public transportation services across Chelan and Douglas Counties, connecting residents to employment, services, and community resources. During climate emergencies, particularly extreme heat events, Link Transit can play a critical role in transporting vulnerable residents to cooling centers and emergency shelters. Link Transit's transition to a zero-emissions fleet also contributes to regional greenhouse gas reduction goals.

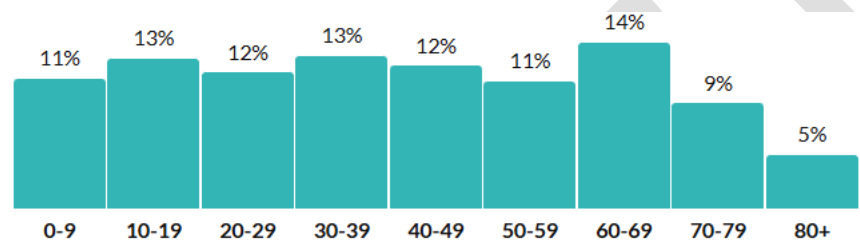
Appendix

Appendix A: Community Demographics and Social Vulnerability

Full Demographic Data Tables

The following tables present detailed demographic data for Chelan County drawn from the Washington Office of Financial Management (OFM) April 1, 2024, population estimates and the U.S. Census Bureau American Community Survey (ACS) 5-Year Estimates (2019–2023). These data provide a more complete picture of the county's population characteristics relevant to climate vulnerability assessment.

Figure A-1: Chelan County Population by Age Group



Source: Washington OFM April 1, 2024, Population Estimates

Table A-2: Chelan County Race and Ethnicity

Race/Ethnicity	Population	Percent
White alone	72,876	92.8%
American Indian and Alaska Native alone	1,649	2.1%
Asian alone	1,100	1.4%
Black or African American alone	864	1.1%
Native Hawaiian and Other Pacific Islander alone	157	0.2%
Some other race alone	943	1.2%
Two or more races	1,886	2.4%
Hispanic or Latino (any race)	22,931	29.2%

Source: U.S. Census Bureau ACS 5-Year Estimates, 2019–2023. Note: Hispanic or Latino is an ethnicity category that overlaps with racial categories above.

Table A-3: Chelan County Household Income Distribution

Income Range	Number of Households	Percent
Less than \$25,000	4,218	14.5%
\$25,000–\$49,999	4,979	17.1%
\$50,000–\$74,999	5,012	17.2%
\$75,000–\$99,999	3,926	13.5%

\$100,000–\$149,999	5,611	19.3%
\$150,000 or more	5,354	18.4%
Total	29,100	100%

Source: U.S. Census Bureau ACS 5-Year Estimates, 2019–2023

Table A-4: Chelan County Disability Status

Disability Type	Number of Residents	Percent of Total Population
Cognitive difficulty	6,832	8.7%
Ambulatory difficulty	5,811	7.4%
Independent living difficulty	4,793	6.1%
Hearing difficulty	3,533	4.5%
Self-care difficulty	2,907	3.7%
Vision difficulty	2,513	3.2%
Any disability	14,735	18.8%

Source: U.S. Census Bureau ACS 5-Year Estimates, 2019–2023

Table A-5: Chelan County Housing Tenure

Tenure	Number of Units	Percent
Owner-occupied	18,982	65.3%
Renter-occupied	10,098	34.7%
Total occupied units	29,080	100%

Source: U.S. Census Bureau ACS 5-Year Estimates, 2019–2023

Table A-6: Chelan County Language Spoken at Home

Language	Number of Residents (5+)	Percent
English only	53,847	72.4%
Spanish	17,291	23.2%
Other Indo-European languages	1,489	2.0%
Asian and Pacific Island languages	894	1.2%
Other languages	893	1.2%
Total	74,414	100%

Source: U.S. Census Bureau ACS 5-Year Estimates, 2019–2023

Washington DOH Environmental Health Disparities Maps

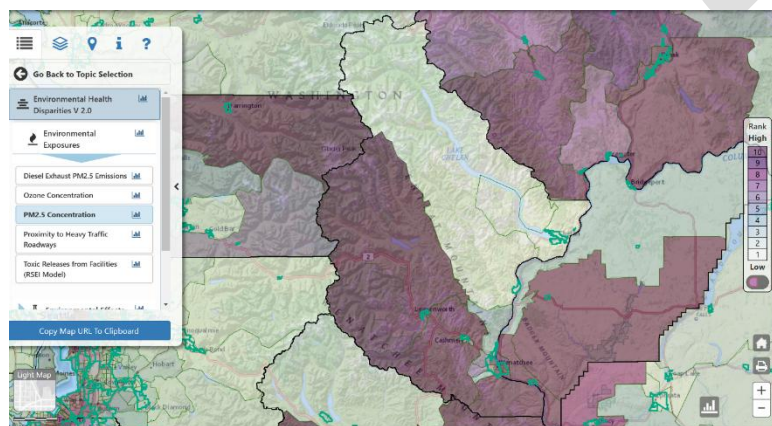
The Washington Department of Health's Environmental Health Disparities (EHD) Map tool identifies communities experiencing disproportionate environmental health burdens by combining environmental exposure indicators, health outcome data, and socioeconomic and sensitive

population factors at the census-tract level. The following summary describes key EHD findings for Chelan County census tracts relevant to climate resilience planning. Full interactive maps are available at the Washington DOH EHD Map [website](#).

Environmental Exposure Indicators Relevant to Climate Resilience

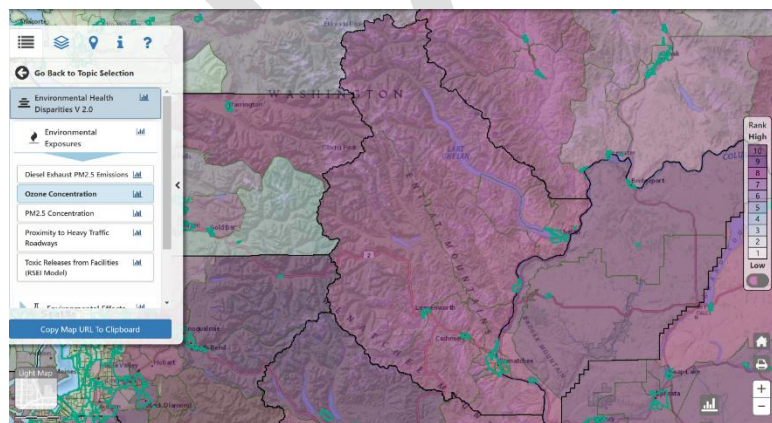
PM2.5 Concentration: Fine particulate matter, the primary pollutant associated with wildfire smoke, presents a greater burden in the more populated areas of Chelan County, including the Wenatchee Valley and Cashmere areas. These areas have higher population density, meaning more residents face respiratory health risks during wildfire smoke events. Census tracts in these areas score in the moderate-to-high range for PM2.5 burden.

Exhibit 21 PM2.5 Concentrations Across Chelan County (WA DOH, No Date)



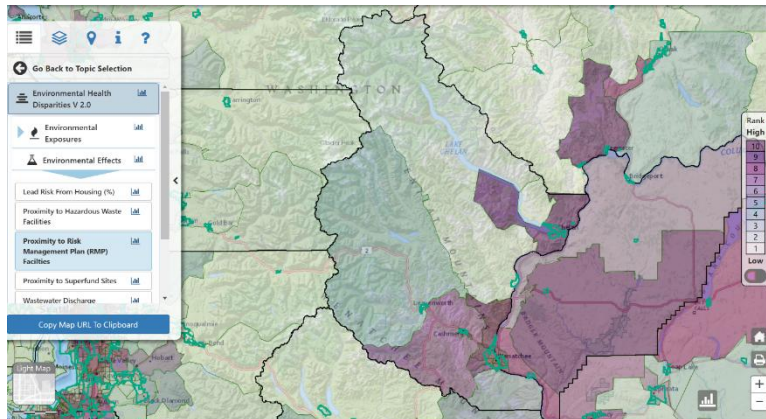
Ozone Concentration: Ozone concentration poses a greater burden across the entire county, reflecting regional air quality conditions in the Columbia Basin and Cascade foothills. All census tracts in Chelan County score in the moderate to high range for ozone burden, indicating a county-wide air quality vulnerability that will be exacerbated by increasing temperatures and wildfire smoke.

Exhibit 22 Ozone Concentration Across Chelan County (WA DOH, No Date)



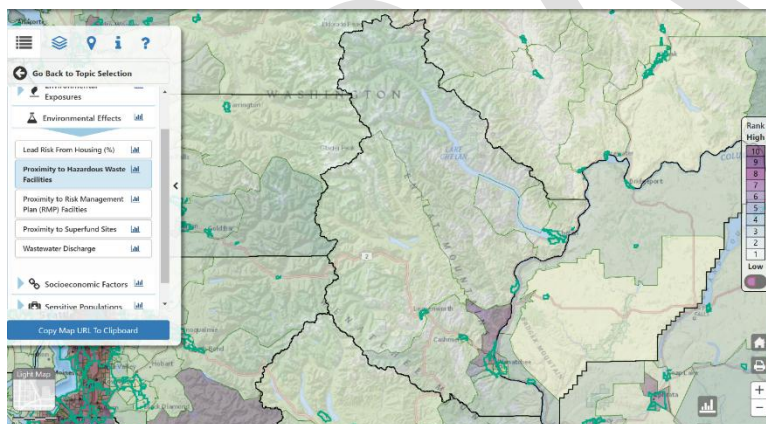
Proximity to Risk Management Plan Facilities: Burden is moderate to high in the southern and eastern portions of Chelan County, where industrial facilities subject to EPA Risk Management Plan requirements are concentrated. Flooding of these facilities during extreme precipitation events could create additional environmental health risks.

Exhibit 23 Proximity to Risk Management Plan Facilities in Chelan County (WA DOH, No Date)



Proximity to Hazardous Waste Storage and Disposal: Moderate to high burden is concentrated in the southeast portion of the county, near industrial and agricultural chemical storage areas.

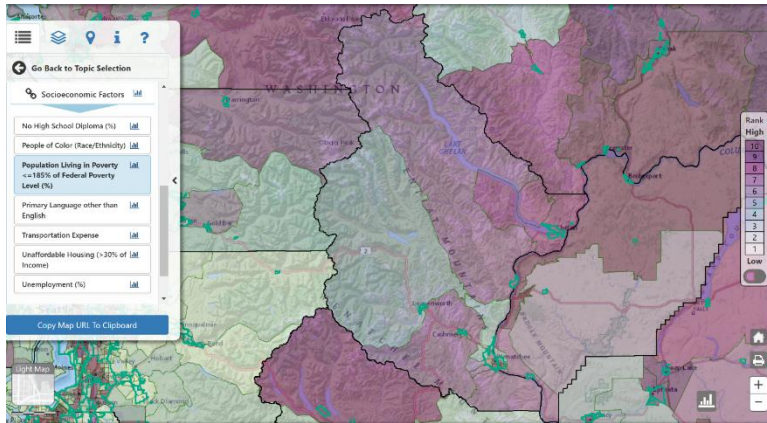
Exhibit 24 Proximity to Hazardous Waste Storage and Disposal in Chelan County (WA DOH, No Date)



Socioeconomic and Sensitive Population Indicators

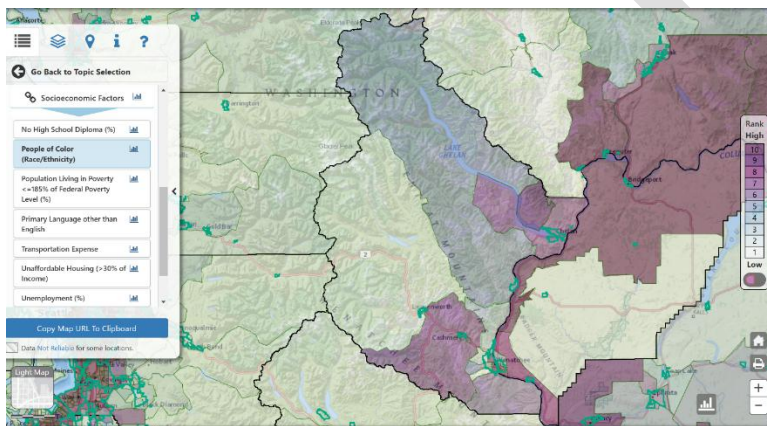
People Living in Poverty: Poverty burden is moderate to high across the entire county, with the highest concentrations in the southern and eastern portions. These areas overlap with agricultural employment centers where farm workers and low-income households face elevated climate exposure.

Exhibit 25 People Living in Poverty in Chelan County (WA DOH, No Date)



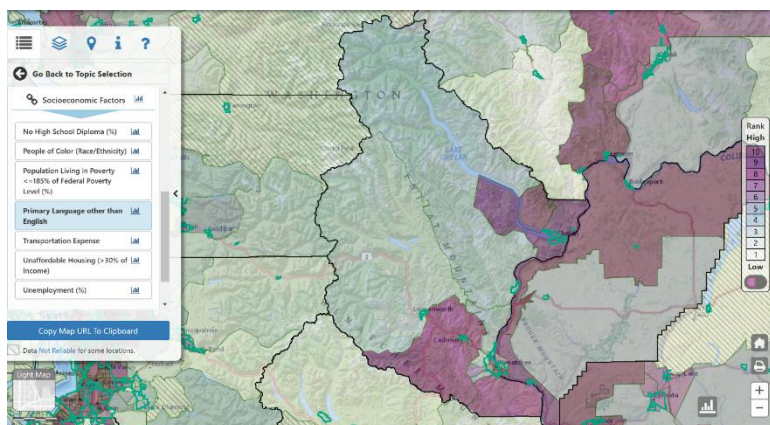
People of Color: All areas of Chelan County have moderate to high scores on this indicator, reflecting the county's significant Hispanic and Latino population and other communities of color. No part of the county is free from potential climate-related environmental justice concerns.

Exhibit 26 Concentration of People of Color in Chelan County (WA DOH, No Date)



Primary Language Not English: The predominance of non-English speakers is highest in the agricultural portions of the county, particularly in the Wenatchee Valley and surrounding agricultural communities, where Spanish-speaking farm workers and their families are concentrated. This population faces language barriers that can reduce access to emergency information, health services, and climate resilience resources.

Exhibit 27 Concentration of Non-English Speakers in Chelan County (WA DOH, No Date)



EHD Summary for Climate Planning

The EHD analysis reinforces the importance of an equity-centered approach to climate resilience planning in Chelan County. The populations facing the greatest environmental health burdens—low-income residents, communities of color, non-English speakers, and people in areas with elevated industrial and air quality exposure—are often the same populations with the least adaptive capacity to respond to climate hazards. Climate resilience investments and programs should be explicitly designed to reach these communities, and public participation in climate planning should actively engage them as partners in identifying priorities and solutions.

Appendix B: Primary Information Sources

The following table lists the primary data sources used in developing this Climate Resilience Assessment. Sources are organized by category.

Climate Projections and Data

Source	Description	URL / Reference
Climate Mapping for a Resilient Washington (CMRW)	Washington State's primary climate projections webtool; used for all climate indicator data	https://cig.uw.edu/resources/analysis-tools/climate-mapping-for-a-resilient-washington/
University of Washington Climate Impacts Group (UW CIG)	Research and data on Pacific Northwest climate change, including temperature, precipitation, and snowpack projections	cig.uw.edu
NOAA National Centers for Environmental Information (NCEI)	Historical climate data, severe weather event records, and federal disaster declaration data	ncei.noaa.gov

Western Regional Climate Center (WRCC)	Historical climate station data for the western United States	wrcc.dri.edu
FEMA National Risk Index	Community-level natural hazard risk data and rankings	hazards.fema.gov/nri
FirstStreet Foundation	Property-level wildfire and flood risk projections	firststreet.org
USDA Forest Service WildfireRisk.org	Community-scale wildfire risk maps and planning data	wildfirerisk.org

County Plans and Policy Documents

Source	Description	Date
Chelan County Comprehensive Plan	Primary planning document for Chelan County	2017, amended 2022
Resolution 2022-09	Comprehensive Plan amendment integrating climate resilience strategies	2022
Chelan County Climate Resiliency Strategy	Multi-hazard adaptation plan designed to mitigate climate-exacerbated risks	2020
Comprehensive Flood Hazard Management Plan	Flood risk assessment and mitigation plan for Chelan County	2017
Shoreline Management Program	Regulation of development and uses along Chelan County shorelines	2021
Hazard Mitigation Plan	Multi-hazard risk assessment and mitigation strategy; FEMA-approved	2024
Community Wildfire Protection Plan	Wildfire risk assessment and mitigation strategy for Chelan County	2025

Community and Demographic Data

Source	Description	URL / Reference
Washington OFM Population Estimates	Population estimates for Washington counties and jurisdictions (April 1, 2024)	ofm.wa.gov/data-research/population-demographics/estimates/april-1-official
U.S. Census Bureau ACS 5-Year Estimates	Detailed demographic, economic, housing, and social data (2019–2023)	census.gov/data/developers/data-sets/acs-5year.html
Washington DOH Environmental Health Disparities Map	Census-tract-level environmental burden and population vulnerability data	doh.wa.gov/data-and-statistical-reports/washington-tracking-network-wtn/washington-environmental-health-disparities-map
CDC Social Vulnerability Index	Place-based index of social vulnerability to disasters	atsdr.cdc.gov/place-health/php/svi/index.html

Greenhouse Gas Inventory

Source	Description	Date
Our Valley Our Future Community Greenhouse Gas Inventory	Community GHG inventory for Chelan County and the Wenatchee Valley region, prepared by Parametrix	2025
Wildfire Emissions Supplemental Report	Detailed analysis of wildfire-related GHG emissions for Chelan County lands, 2016–2024	2025

State and Federal Guidance

Source	Description	URL / Reference
WA Department of Commerce Climate Element Guidance	Intermediate Planning Guidance and Climate Element Workbook for GMA compliance	commerce.wa.gov/growth-management
RCW 36.70A.070(9)	Washington State Growth Management Act climate element requirement	app.leg.wa.gov/rcw
HB 1181 (2023)	Legislation establishing climate element requirement for GMA planning	app.leg.wa.gov/billsummary
IPCC Sixth Assessment Report	Global climate science consensus and vulnerability assessment framework	ipcc.ch/assessment-report/ar6/
FEMA Hazard Mitigation Planning Guidance	Federal guidance on local hazard mitigation plan development	fema.gov/emergency-managers/risk-management/hazard-mitigation-planning

Appendix C: Community Engagement and Public Outreach

Climate Advisory Team Overview

The Chelan County Climate Advisory Team (CAT) was established to provide community expertise, local knowledge, and stakeholder perspectives throughout the development of this Climate Resilience Assessment. The CAT was designed to represent the diverse sectors and communities with a stake in climate resilience planning in Chelan County, including agriculture, public health, Tribal Nations, conservation, energy, housing, and community development.

The CAT included representation from the following organizations and sectors:

Member	Organization	Sector Represented
Ryan Williams	Cascadia Conservation District	Conservation
Eric Torres	Chelan-Douglas Health District	Public Health

Nick Rohrback	Chelan-Douglas Regional Port Authority	Economic Development
Chad Kruger	Washington State University	Agriculture
Gerardo "Jerry" Perez	Community Health Plan of Washington	Healthcare and Vulnerable Populations
Kelli Scott	Chelan PUD	Energy and Utilities
Jim White	Chelan PUD	Energy and Utilities
Rowena St. Pierre	Colville Confederated Tribes	Tribal Nations
John Sirois	Colville Confederated Tribes	Tribal Nations

The Climate Advisory Team met regularly from December 2024 through December 2025, with meetings focused on the following topics:

Date	Primary Topics
December 2024	Project orientation, roles and responsibilities, planning process overview
January 2025	Climate hazard overview, local conditions and observed trends
February 2025	Asset inventory review, identification of additional assets and local context
April 2025	Vulnerability assessment methodology, review of draft vulnerability ratings; Policy audit findings, recommended policy directions
December 2025	Risk assessment results, priority risk combinations; Pathways for action

Meeting summaries and materials from all CAT meetings are available upon request from the Chelan County Department of Natural Resources.

Public Outreach Summary

Public engagement for the Climate Resilience Assessment was designed to complement the more technical work of the Climate Advisory Team by reaching a broader cross-section of Chelan County residents, businesses, and community organizations. Engagement activities were coordinated with the broader 2026 Comprehensive Plan public participation program.

Engagement objectives

The public engagement program was designed to:

- Build awareness of changing conditions in Chelan County and the purpose of the Climate Resilience Assessment
- Gather community input on perceived climate risks, local priorities, and potential resilience strategies
- Ensure that Spanish-speaking residents, farm workers, and other underrepresented communities had meaningful opportunities to participate
- Share findings and draft content with the public and incorporate feedback into the final assessment

Engagement activities

Project Webpage: A dedicated project webpage was established on the Chelan County website, providing project background, events and meeting schedules, resources, and contact information for questions and comments. The webpage was available in both English and Spanish.

Community Survey: A community-wide online survey was developed and distributed in both English and Spanish to gather input on residents' climate concerns, perceived vulnerabilities, and priorities for action. The survey was promoted through county communications channels, partner organization networks, social media, and direct outreach to agricultural and farm worker community organizations. Survey results were analyzed and incorporated into the vulnerability and risk assessment, particularly in the identification of locally significant assets and impacts.

Bilingual Outreach Materials: All public-facing materials—including the project webpage, survey, public outreach notices, and promotional materials—were made available in both English and Spanish. Outreach to Spanish-speaking communities was coordinated through CAFÉ.

Public Meetings and Outreach: Public meetings were held at key milestones in the planning process, in coordination with the Comprehensive Plan, to share findings and gather feedback. Meetings were held at accessible locations in the county and provided Spanish interpretation when needed. The Climate Resilience Assessment was also promoted at multiple community events, including Earth Day Fairs.

Resilience Summit: A community Resilience Summit on April 16th, 2026, brought together stakeholders from across sectors to discuss climate risks, existing resources, and opportunities for collaboration. The summit served as a platform for identifying existing programs and funding sources, and for building relationships among organizations that will be essential partners in implementing resilience strategies.

Engagement findings

Key themes that emerged from public engagement activities and informed the assessment include:

- Strong community awareness of and concern about wildfire and smoke as the most immediate and visible climate threat
- Deep concern among agricultural stakeholders about water availability and the long-term viability of irrigated agriculture under reduced snowpack conditions
- Recognition of farm workers and elderly residents as particularly vulnerable populations requiring targeted support
- Interest in practical, funded programs and technical assistance rather than regulatory requirements alone
- Desire for continued cross-sector collaboration and information sharing on climate resilience topics
- Support for coordination with tribal partners on natural resource stewardship and cultural resource protection

Engagement with tribes and vulnerable populations

Both the Colville Confederated Tribes and the Yakama Nation were invited to participate in the Climate Advisory Team. Traditional territories leaders, climate action specialists, and biologists from the Colville Tribes participated throughout the resilience assessment process—providing insight into how climate hazards affect culturally significant resources, places, and the tribal community. Vulnerable populations were reached primarily via CAFÉ, which works directly with the Spanish-speaking and farmworker communities. The Chelan-Douglas Health District represented the perspectives of other vulnerable populations through its participation on the Climate Advisory Team.

Additional information can be found on the Chelan County Department of Natural Resources [website](#).