Recreation and the natural environment
Source: Provided by the City of Monroe

10 SHORELINES AND NATURAL ENVIRONMENT

Introduction

Shorelines, open spaces, and the natural environment play an important role in the development by influencing community design and quality of life. Located at the foothills of the Cascade Mountains, near where the Snoqualmie and Skykomish rivers join to form the Snohomish River, Monroe's natural environment has shaped the city from its earliest days.

The natural environment reflects the City's history, diversity, and culture, including the history, culture, and traditional knowledge and practices of the Indigenous people that inhabited the land for centuries before European settlement.

The Shorelines & Natural Environment Element provides an overview of the natural environment, including features such as watersheds, soils, critical areas, and shoreline areas – all features that influence Monroe's planning; and Monroe's Shoreline Management Program (SMP), which sets forth goals and policies reflecting Best Available Science (BAS) to protect and enhance the shoreline environment. However, it is also equally important that the City go beyond BAS and incorporate Traditional Ecological Knowledge (TEK) or Indigenous Knowledge (IK) into practice for resource preservation methods.

Relationship to Other Plans

The Monroe 2044 Shorelines & Natural Environment Element complies with the Washington Growth Management Act (GMA) and the planning goals outlined in Section 36.70A.020. This element directly acknowledges the importance of the natural environment to the overall quality of life with goals to:

- Reduce the inappropriate conversion of undeveloped land into sprawling, low-density development (RCW 36.70A.020(2)).
- Retain open space and green space, enhance recreational opportunities, enhance fish and wildlife habitat, increase access to natural resource lands and water, and develop parks and recreation facilities (RCW 36.70A.020(9)).
- Protect and enhance the environment and enhance the state's high quality of life, including air and water quality, and the availability of water (RCW 36.70A.020(10)).

Other Plans and Regulations

In addition to the GMA and SMP, several regulations relate to shorelines and the natural environment:

Federal

- **Endangered Species Act**. Regulates and protects species listed at the state or federal level, including requirements to provide a Federal Emergency Management Agency (FEMA) Habitat Assessment for any work within a floodplain that has the potential to affect listed species.
- **Migratory Bird Treaty Act.** Prohibits the take of protected migratory bird species without prior authorization by the U.S. Fish and Wildlife Service.
- **Bald and Golden Eagle Protection Act.** Prohibits the take of any bald eagle without the prior authorization by the U.S. Fish and Wildlife Service.
- **Clean Water Act (CWA).** Establishes the basic structure for regulating discharges of pollutants into the waters of the U.S. and regulating quality standards for surface waters.
- **National Pollutant Discharge Elimination System (NPDES).** Addresses water pollution by regulating point sources that discharge pollutants to waters of the United States.
- **National Flood Insurance Program (NFIP) and Biological Opinion.** Managed by FEMA, the NFIP provides insurance to help reduce the socio-economic impact of floods. In 2008, the National Marine Fisheries Service (NMFS) issued a Biological Opinion that determined that the NFIP causes jeopardy to several species protected under the Endangered Species Act (ESA) including Puget Sound salmon and orca whales. In its Biological Opinion, NMFS provided a Reasonable and Prudent Alternative to modify the implementation of the NFIP in a manner that would remove the jeopardy situation. For the City to remain a member of the NFIP, it had to demonstrate to the FEMA how it planned to comply with the Reasonable and Prudent Alternative contained within the biological opinion.

Regional and Statewide

- **Washington Clean Air Act.** Considers air as an essential resource that must be protected from harmful levels of pollution with a goal of preserving, protecting, and enhancing the quality of air for future generations.
- **State Environmental Policy Act (SEPA).** SEPA's basic policy of maintaining and improving environmental quality is implemented primarily through extensive procedural requirements designed to ensure that governmental agencies give proper consideration of environmental matters in making decisions on actions, whether proposed by private parties or the governmental entities themselves, that may impact the environment. The Lead Agency is responsible for identifying and evaluating the potential adverse environmental impacts of a proposal and involving the public.
- **Puget Sound Regional Council (PSRC) VISION 2050.** The Puget Sound Regional Council (PSRC) is a metropolitan planning organization that develops policies and makes decisions about transportation planning, economic development, and growth management throughout the four-county Puget Sound metropolitan area. Monroe is a part of the Puget Sound region's growth and development area and will need to maintain consistency with the VISION 2050 Plan.

PSRC sets forth regulations and standards for housing, regional growth, environmental actions, climate change actions, development patterns, economic development, transportation actions, and public services. Cities should pay special attention to meeting housing needs of moderate- and low-income residents, taking care to not create displacement of marginalized populations, ensure appropriate housing-job balance, establish strategies that reduce greenhouse gases and encourage multimodal transportation, and encouraging job creation not just in urban centers.

- Address climate change and resiliency by ensuring that comprehensive plans, development regulations, and regional policies, plans, and strategies required under RCW 36.70A.210 and Chapter 47.80 RCW (1) adapt to and mitigate the effects of a changing climate; (2) support reductions in greenhouse gas emissions and per capita vehicle miles traveled; (3) prepare for climate impact scenarios; (4) foster resiliency to climate impacts and natural hazards; (5) protect and enhance environmental, economic, and human health and safety; and (6) advance environmental justice.
- Address shorelines of the state by considering the goals and policies of the Shoreline Management Act (RCW 90.58.020) an element of the city's comprehensive plan.

In 2023, the Washington legislature passed and signed into law in House Bill (HB) 1183, which added a climate goal to GMA and requires local comprehensive plans to include a climate element. Jurisdictions that are fully planning under GMA must include in the climate element a resilience sub-element with goals and polices to improve climate preparedness, response, and recovery efforts; and a greenhouse gas emissions sub-element with goals and policies to reduce emissions and vehicle miles traveled. Climate elements must maximize economic, environmental, and social benefits and prioritize environmental justice to avoid worsening environmental health disparities. Monroe must add a climate element with these sub-elements to its Comprehensive Plan by 2029 (WDOC 2024).

After GMA was enacted, the Washington State Legislature subsequently stated that counties and cities must adopt development regulations, using best available science (BAS), that protect critical areas as defined under the GMA (RCW 36.70A.060 and RCW 36.70A.172). The City of Monroe adopted critical areas regulations in 2003 and updated them in 2017. These critical areas regulations were incorporated into the Monroe Municipal Code's Critical Areas Ordinance (CAO) under Chapter 20.05. These regulations were developed in compliance with RCW 36.70A.172, which requires that BAS (WAC 365-195-905) be used in developing such regulations. Also in 2003, the Legislature further strengthened protections for the

Skykomish River shoreline
Source: Provided by the City of Monroe

natural environment under the GMA by clarifying that the goals and policies of the Shoreline Management Act (SMA) are considered goals of the Growth Management Act (RCW 36.70A.020 (15)). In 2023, the Legislature adopted an additional GMA goal, which states that comprehensive plans must include measures that adapt to and mitigate the effects of changing climate and protect and enhance environmental, economic, and human health and safety (RCW 36.70A.020 (14)).

Puget Sound Regional Council's regional plan for growth, VISION 2050, includes two Multicounty Planning Policies (MPPs) related to the environment and climate change, primarily focusing on protecting and restoring natural systems, conserving habitat, improving water quality, reducing air pollutants, and reducing greenhouse gas emissions. These MPPs serve as a framework for updating countywide planning policies. Snohomish County's Countywide Planning Policies (CPPs) draw from these MPPs to create policies for jurisdictions to implement within the County to protect and restore natural systems and public health and mitigate climate change. Goals and policies described at the end of this element are consistent with the MPPs and CPPs.

The Snohomish CPPs include 11 policies to protect the environment and seven policies addressing climate change. These policies are similar to the environmental and climate change policies included in PSRC's VISION 2050. They encourage collaboration between the County and Cities, between Cities, and between jurisdictions and the Tribes. The goal is to protect regional assets such as open space and wildlife corridors and address mutual issues such as stormwater management and water quality.

Finally, Snohomish County coordinates with the cities and special purpose districts within Snohomish County every five years to update the Snohomish County Hazard Mitigation Plan (HMP). Hazard mitigation is the use of strategies to reduce the loss of life, personal injury, and property damage that may result from a disaster. The HMP enables the County, its cities, and special purpose districts to maintain eligibility for disaster-related federal grant assistance as required by the 2000 Disaster Management Act. The HMP also helps Snohomish County, its cities, and special purpose districts meet the Federal Emergency Management Agency's (FEMA's) Community Rating System requirements, a voluntary component of the National Flood Insurance

Lake Tye Shoreline
Source: City of Monroe, Department of Community Development

Program (NFIP) that may help to reduce flood insurance premiums. The HMP identifies the top natural and human-caused hazards affecting communities in Snohomish County and recommends goals, objectives, and community-specific actions to recover or prevent future losses due to these events. Snohomish County communities are most at risk due to potential natural or human-caused hazards including earthquakes, epidemics, hazardous materials incidents (including train accidents), weather events, and flooding. The HMP was last updated in 2020 (Snohomish County 2020).

This Comprehensive Plan Update does not have a Climate Change Mitigation & Resilience Element. However, as part of the update process, a Climate Change Impact Analysis (**Appendix 10-A**) was prepared that examines observed and projected changes of concern for the region.

Environmental Characteristics

Hydrology and Watersheds

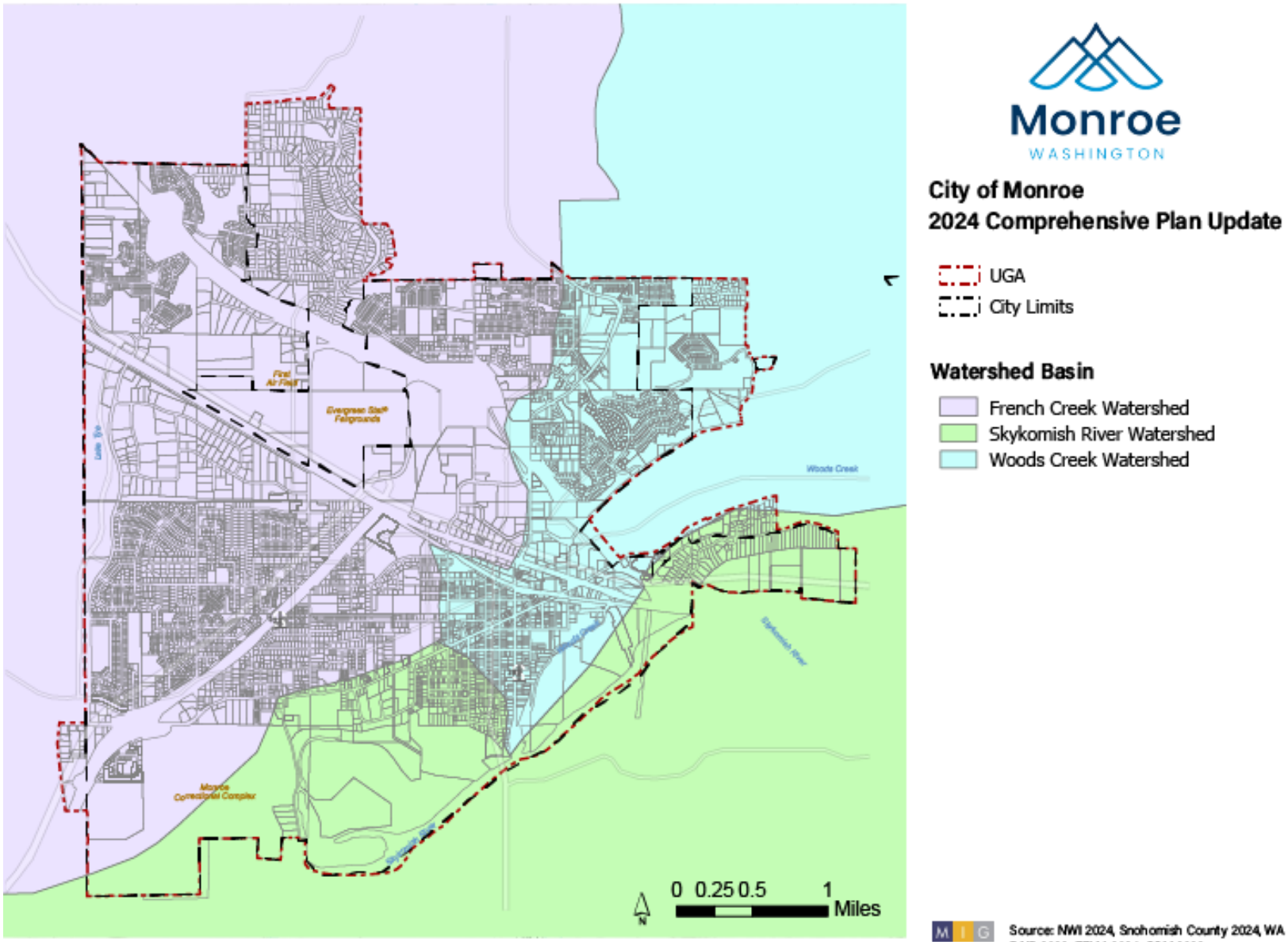
Monroe is located within Water Resource Inventory Area 7 (WRIA 7), the Snohomish River basin. A summary of each of the three watersheds that comprise the Snohomish River basin (see **Figure 10.1**) is provided below. The City prepared a Watershed Planning Assessment (**Appendix 10-B**) in December 2022 to help inform future land use planning decisions. The Washington Department of Ecology (Ecology) recommends assessment of watershed conditions during planning to ensure a more functional and resilient natural environment, develop appropriate solutions to watershed issues, and address potential conflicts between future land use actions and protection of critical areas. The Watershed Planning Assessment characterized the three watersheds located in Monroe using Ecology's Puget Sound Watershed Characterization Project (PSWCP) database and recommended actions the City could take to improve or restore water flow, water quality, and fish and wildlife habitat.

The Watershed Planning Assessment (**Appendix 10-B**) recommends that the City focus on best management practices to protect and conserve water flow, water quality, and habitat processes during future development actions, and find opportunities to repair and remove past degradation to restore these processes and functions where practical.

French Creek Watershed

The majority of the City lies within the French Creek Watershed. French Creek originates in the Cascade foothills to the northeast and is a major tributary to the Snohomish River. French Creek does not flow within the City Limits; however, Cripple Creek, and several other tributaries to French Creek (e.g., Homestead Creek, Creation Creek, Arena Creek, Backhoe Creek) flow into the City from the north and northeast. Within the City limits, the French Creek Watershed is advanced and includes areas of residential development to the northwest and southeast of State Route (SR) 522; the commercial developments along Highway 2 east of Lewis Street, the Evergreen

Figure 10.1 – SNOHOMISH RIVER BASIN AND SURROUNDING WATERSHEDS



Speedway and State Fairgrounds; the Fryelands Business Park; and Lake Tye. Outside of the City Limits, to the northwest, agriculture is the dominant land use. The French Creek Watershed is highly important for surface storage, water recharge, and water discharge, but existing development has degraded the water flow processes.

The watershed is high priority for actions to restore water flow processes, except for the portion of the French Creek Watershed near the northern extent of the City limits, north of Highway 2 and west of N. Kelsey Street, an area which had a moderate surface storage and discharge function pre-development and is considered low priority for restoration. This area may be appropriate for some additional development, but restoration of remaining important areas (e.g., open spaces, wetlands, riparian areas) could also be beneficial (see **Appendix 10-B**).

Woods Creek Watershed

The Woods Creek Watershed is located in the eastern portion of the City, to the east of Chain Lake Road north of Highway 2 and east of Kelsey Street, south of Highway 2. Land use within this watershed is primarily commercial development with residential developments adjacent to the stream in the lower reaches. Woods Creek originates in the Cascade foothills near Lake Roesiger to the northeast and is the largest lowland tributary of the Skykomish River (Snohomish County 2013). Woods Creek enters the City Limits south of Old Owen Road and joins the Skykomish River at Al Borlin Park in the eastern extent of the City. Two additional tributaries to Woods Creek, Cutthroat Creek and Brown Road Creek, are also within the City's urban growth area.

The PSWCP indicates that the majority of the Woods Creek Watershed exhibits a moderate to high level of importance for surface storage and a high level of importance for recharge and discharge. However, due to the extent of development within the watershed, these water flow processes are highly degraded and therefore, this watershed has the highest priority for restoration compared to the other two watersheds that occur in the study area (see **Appendix 10-B**).

Skykomish River Watershed

The Skykomish River Watershed is located along the Skykomish River following the southern extent of the City. Though only a small portion of the City Limits are within this watershed, it is the largest of the three watersheds and also contains the City of Sultan and the City of Gold Bar to the east of Monroe. Land use within the City Limits in this

Woods Creek Watershed
Source: City of Monroe

watershed include Al Borlin Park, Skykomish River Park, and the Cadman sand and gravel operation. No other streams occur within the portion of the Skykomish Watershed within City Limits. Based on the results of the PSWCP, in its natural state, this watershed exhibits a moderate to high level of importance for surface storage and discharge and a high level of importance for recharge. However, due to the extent of development within the watershed, these water flow processes are highly degraded and therefore, this watershed has a high priority for restoration (see **Appendix 10-B**).

Soils

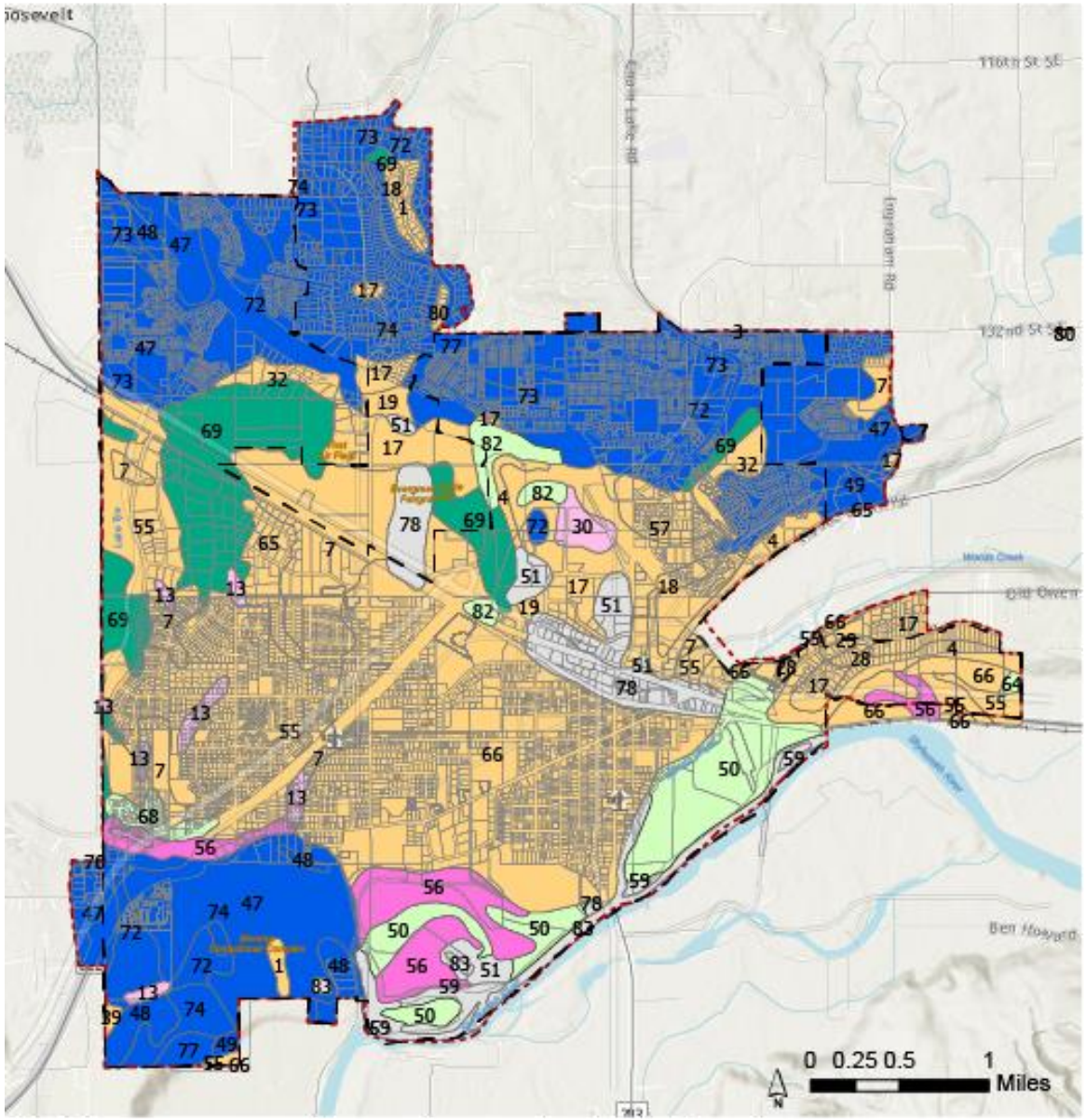
Soils are illustrated in **Figure 10.2**. The majority of the City is underlain by alluvium soils; primarily Sultan silt loam and Puget silty clay loam. Alluvial soils are deposited by surface water during flood events and can remove sediments and nutrients. They also absorb water at a rapid rate and provide the majority of the recharge to Monroe's aquifer system. Soils along the Skykomish are commonly Pilchuck loamy sand and Puyallup fine sandy loam, also considered to be alluvial soils, but in the Entisol and Mollisol soil orders, respectively. These soils are commonly found on floodplains. Soils sloping up to the plateau are primarily McKenna gravelly silty loam, also in the Inceptisol soil order. These soils have a parent material of basal till, which are sediment deposits laid down by glacial activity. These soils are poorly drained and commonly found in depressions and drainageways. Soils in the southwest extent of the City are primarily Tokul gravelly medial loam and Pastik silt loam. These soils are in the Andisol soil order and have a parent material of volcanic ash mixed with loess over glacial till. These soils are moderately well drained and frequently found on hillslopes and till plains.

Critical Areas

The City of Monroe Municipal Code (MMC) defines critical areas as critical aquifer recharge areas (CARAs), fish and wildlife habitat conservation areas, frequently flooded areas, geologically hazardous areas, and wetlands (RCW 36.70A.030(5)) and MMC 22.12.030). WAC 365-196-480 identifies critical area definitions and requirements for natural resource lands.

Cities planning under the GMA are required to adopt development regulations that protect critical areas with the goals of preserving the natural environment, maintaining fish and wildlife habitat, and protecting drinking water (WDOC 2023). Protecting critical areas also helps reduce exposure to risks, such as landslides or flooding, and maintains the natural elements.

Figure 10.2 - SOILS



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2024 Comprehensive Plan Update

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City Limits

Dominant Soil Condition

Andisols
Entisols
Histosols
Inceptisols
Mollisols
Spodosols
Data Not Available

Source: NWI 2024, Snohomish County 2024, WA DNR 2022, FEMA 2024, OSM 2023, Snohomish County 2024, City of Monroe 2024

The City of Monroe protects its critical areas through their Critical Areas Ordinance (CAO) (MMC 22.80). The GMA requires the City to review, evaluate, and if necessary, update their CAO every ten years (RCW 36.70A.130) and are required to use BAS when reviewing or revising the CAO. The City of Monroe completed a substantial update of the CAO in 2017. The City has prepared maps which approximate boundaries for the following critical areas within the City Limits: geologically hazardous areas, wetlands, floodplains and floodways, shorelines, creeks, streams, and natural drainage courses (MMC 22.80.040). The City intends to complete its next update of the CAO in 2025. **Appendix 10-B** discusses fish and wildlife habitat specific to each of the three watersheds in Monroe (French Creek, Woods Creek, and Skykomish River).

Critical Cultural Resources

A Critical Cultural Resource (CCR) is an organic archaeological object of high cultural significance to the Snoqualmie people.

CCRs as trees are often Western red cedar; however, historical, and traditional practices include other species, such as big-leaf maple or cottonwood. Often referred to as a Culturally Modified Tree (CMT) in archaeological terms, the Tribe prefers this broader term. The defining characteristic of a CCR is the visibility of past human modification.

Typical modifications on CCRs include tree branches, bark, and even tree clusters. These living historical markers and resources are an identifiable connection to locations and places of cultural/historical/archaeological significance for the Tribe. It is important that the City look to protecting these significant resources when making land use decisions.

Western red cedar
Source: Flickr.com

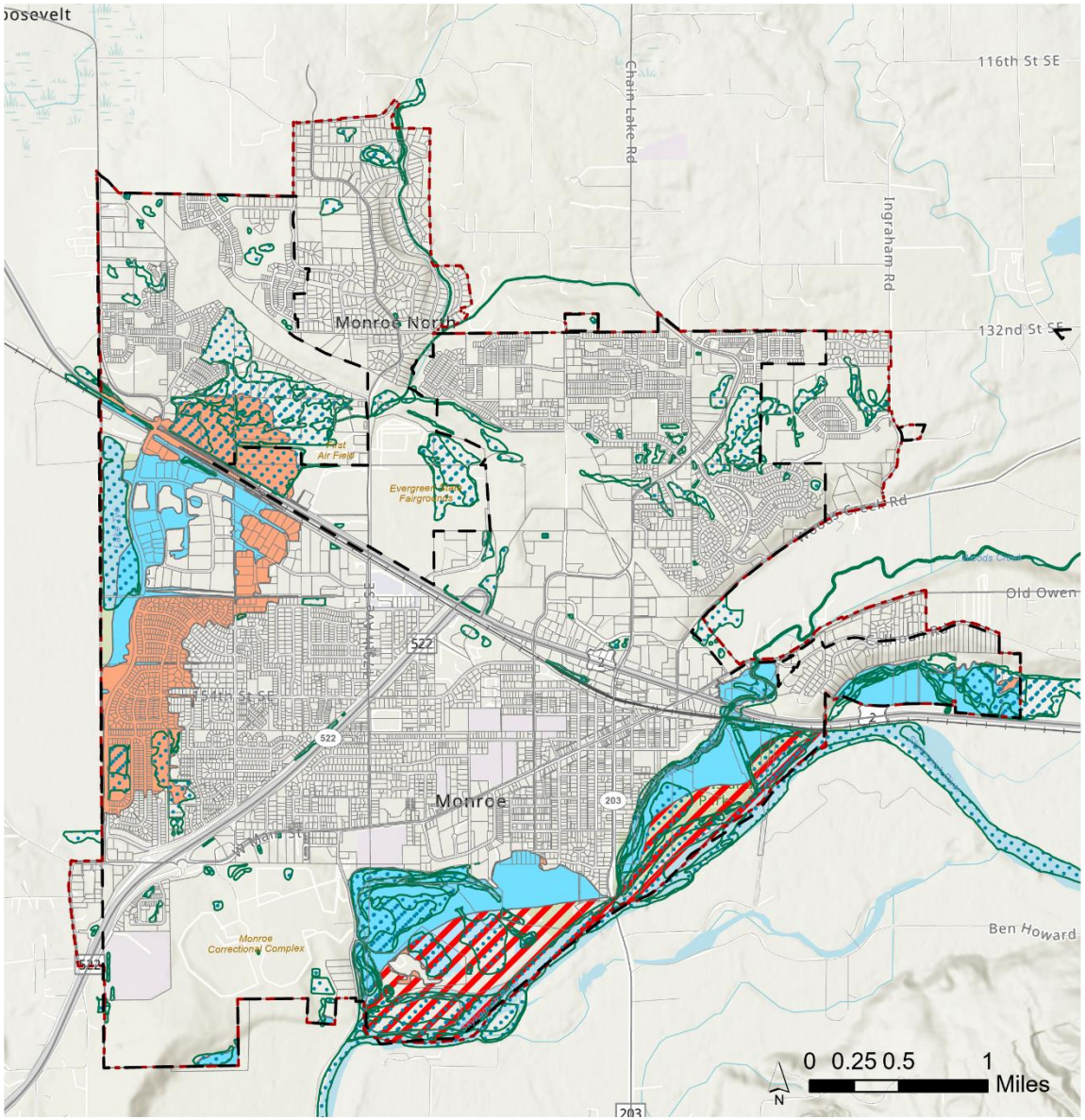
Wetlands

The Growth Management Act defines wetlands as:

"…areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions." (RCW 36.70A.030.48)

Wetlands are illustrated in **Figure 10.3.** Wetlands provide important functions including flood control, groundwater recharge, water filtration and purification, erosion control, shoreline stabilization, and fish and wildlife habitat. Wetlands are also effective carbon sinks, sequestering carbon dioxide from the atmosphere and bolstering

Figure 10.3 – WETLANDS & FLOODPLAINS



Monroe
WASHINGTON

City of Monroe
2024 Comprehensive Plan Update

UGA
City Limits

Floodplains
0.2% Annual Chance Flood Hazard
1% Annual Chance Flood Hazard
Regulatory Floodway

Wetlands

Source: NWI 2024, Snohomish County 2024, WA DNR 2022, FEMA 2024, OSM 2023, Snohomish County 2024, City of Monroe 2024

efforts to reduce the effect of greenhouse gas emissions.

MMC 22.80.090 contains specific development standards that limit the impacts to wetlands so that there is no net loss of wetland functions and values. MMC 22.80.90 requires that each wetland have a protected buffer to minimize potential harm from adjoining land uses. Buffers are vegetated areas that help filter sediments and other pollutants from stormwater runoff, slow stormwater, reduce erosion, and provide a protected pathway for wildlife movement.

The City classifies wetlands into categories determined by the 2014 Washington State Wetland Rating System for Western Washington (Hruby & Yahnke 2023) that reflect each wetland's special characteristics, value, and functions. Buffer widths required by the City are based on wetland category, habitat function, whether a habitat corridor, such as a stream, is present, and whether or not mitigation measures are implemented. Wetland buffer widths required by the City follow the latest BAS and range from 40 to 300 feet (MMC 22.80.090.D.4).

Though wetlands are present throughout the City Limits, the central commercial and residential areas of Monroe south of US 2 are not known to have large wetland systems (City of Monroe 2013a). Important forested wetlands are known to occur along the Skykomish River, Woods Creek, and within the southern boundary of the City adjacent to Al Borlin Park and along the Skykomish River Park. There are also several large ponds within the former Cadman gravel site, likely created as a result of gravel extraction. A large wetland associated with Cripple Creek exists west of the Evergreen State Fairgrounds. Undeveloped upland forest within the northern extent of the City connects the Cripple Creek wetland to another wetland mapped east of the Evergreen Speedway and associated with Arena Creek. Notable emergent and forested wetlands exist near Park Meadows Park, which is located near the western boundary of the City (USFWS 2023).

Fish and Wildlife Habitat Conservation Areas

WAC 365-190-130 defines fish and wildlife habitat conservation as land management for maintaining populations of species in suitable habitats within their natural geographic distribution so that the habitat available is sufficient to support viable populations over the long term and isolated subpopulations are not created. Fish and Wildlife Habitat Conservation Areas (FWHCAs) contribute to the City's biodiversity and occur on both publicly and privately owned lands. Designating FWHCAs is important for determining appropriate development densities, urban growth area boundaries, open space corridors, and incentive-based land conservation and stewardship programs. FWHCAs that must be considered for classification and designation in Monroe, as defined in MMC 22.12.030, include:

- Areas where state or federally designated endangered, threatened, and sensitive species have a primary association (e.g., Skykomish River).

- Habitats and species of local importance, including, but not limited to, areas designated as priority habitats and species by the Washington Department of Fish and Wildlife's (WDFW) Priority Habitats and Species (PHS) program.
- Naturally occurring ponds under twenty acres and their submerged aquatic beds that provide fish and wildlife habitat.
- Waters of the state, including lakes, rivers, ponds, streams, inland waters, underground waters, salt waters and all other surface water and watercourses within the jurisdiction of the state of Washington.
- Lakes, ponds, streams, and rivers planted with game fish by a governmental or tribal entity.
- State natural area preserves and natural resources conservation areas.
- Land essential for preserving connections between habitat blocks and open spaces.

MMC 22.80.110 provides standards for the protection of FWHCAs. The protection standards vary depending on the type of FWHCA, but in general, FWHCAs may only be altered if the proposed alteration of the habitat or the mitigation proposed does not degrade the qualitative functions and values of the habitat.

Streams and Fish FWHCAs

Streams with documented presence of anadromous fish species, such as salmon that spend a portion of its lifecycle in both fresh and salt waters occur within the Monroe City Limits and are designated FWHCAs (NIFC 2023), with the largest being the Skykomish River. **Table 10.1** lists the documented fish species within the portion of the Skykomish River within the Monroe City Limits.

The city regulates all critical areas through the Monroe Municipal Code (MMC) Chapter 22.80 (Critical Areas). This includes activities, uses, and alterations proposed to be located in water bodies used by anadromous fish or in areas that affect such water bodies. The MMC also sets allowable work windows and requires consideration of alternatives that result in less impact to habitat and mitigation.

The City's current minimum stream buffer requirements for all streams are based on the type of stream (fish-bearing or non-fish-bearing), stream flow (permanent or seasonal) and distance to streams with known salmonids.

Salmon
Source: Washington State University Magazine

In 2020, the Washington Department of Fish and Wildlife (WDFW) issued new guidance for the protection of riparian areas. It emphasizes a shift in terminology from the concept of "stream buffers" to "riparian management zones" (RMZs). An RMZ is a scientifically defined area adjacent to rivers or streams that has the potential to provide maximum functions based on something called the Site Potential Tree Height (SPTH). This differs from the use of "buffer," as an RMZ is considered to be wide enough to include the full riparian function. The guidance recommends that an RMZ be delineated on a site-by-site basis and be measured from the outer edge of the Channel Migration Zone, or from the Ordinary High-Water Mark, where a CMZ is not present.

Woods Creek provides migratory areas and spawning grounds for coho, chinook, chum, and pink salmon, as well as steelhead, coastal cutthroat, bull, and dolly varden trout species.

The majority of the City has a 215-foot SPTH, which is only slightly higher than the existing buffer for a Type F stream. Best Available Science also suggests a minimum RMZ of 100ft for all streams in order for pollution removal.

Other FWHCAs

Besides streams and other state waters noted above, there are a number of FWHCAs in Monroe, including areas where state or federally designated endangered, threatened, and sensitive species have a primary association, areas designated as priority habitats by the Department of Fish and Wildlife (WDFW) and open spaces that provide wildlife habitat or connections

Table 10.1 - PRIORITY FISH SPECIES WITHIN THE SKYKOMISH RIVER IN MONROE

Species Common Name (*Scientific Name*)	Fish Use
Chinook Salmon[T] ***(Oncorhynchus tshawytscha)***	Occurrence and Migration
Pink Salmon ***(Oncorhynchus gorbuscha)***	Occurrence, Migration, and Breeding Area
Steelhead[T] ***(Oncorhynchus mykiss)***	Occurrence, Migration, and Breeding Area
Chum Salmon ***(Oncorhynchus keta)***	Occurrence and Breeding Area
Coho ***(Oncorhynchus kisutch)***	Occurrence, Breeding Area, and Migration
Bull Trout[TC] ***(Salvelinus confluentus)***	Occurrence and Breeding Area
Cutthroat ***(Oncorhynchus clarkii)***	Occurrence and Migration

T – Federally listed as 'Threatened'
C – Candidate for state listing
Source: NIFC, 2023

between habitat blocks and open space (e.g., Al Borlin Park).

WDFW lists habitats and species considered to be priorities for conservation and management in their Priority Habitats and Species (PHS) List (WDFW 2022). Priority species include state-listed species; animal aggregations considered vulnerable; and species of recreational, commercial, or tribal importance that are vulnerable. WDFW considers priority habitats to be habitat types or elements with unique or significant value to a diverse assemblage of species. According to WDFW, areas of priority habitats of greater importance to fish or wildlife tend to have one or more of these characteristics:

- Habitat areas that are larger are generally better than areas that are smaller.
- Habitat areas that are more structurally complex (e.g., multiple canopy layers, geologically diverse) are generally better than areas that are simple.
- Habitat areas that contain native habitat types adjacent to one another are better than isolated habitats (especially aquatic associated with terrestrial habitat.
- Habitat areas that are connected are generally better than areas that are isolated.
- Habitat areas that have maintained their historical processes (e.g., historical fire regimes) are generally better than areas lacking such processes.

Lake Tye, located along the western border of Monroe, is mapped by WDFW as supporting a regular concentration of winter waterfowl including northern shovelers (Spatula clypeata), wood ducks (Aix sponsa), mergansers (Mergus merganser), and green-winged teals (Anas carolinensis). A communal roost and nesting location for Vaux swift, a WDFW-designated priority species, is mapped as occurring within a chimney at Monroe Elementary School, located just south of west Main Street (WDFW 2023).

Other FWHCAs generally occur outside of the central areas of the City to the north and south extents where larger wetland complexes and the Skykomish River are located.

Flood Hazard Areas

Flood hazard areas are defined as land in the floodplain subject to a one percent or greater chance of flooding in any given year (commonly known as the 100-year flood). Flood hazard areas are an important element of the natural environment because of the risk

Woods Creek log armory
Source: Provided by the City of Monroe

they pose to humans and the natural and built environments. Additionally, historic losses to salmon habitat have occurred as a result of development encroaching into floodplains.

In addition to minimizing adverse effects to human health, safety and infrastructure, floodplains are ideal locations for salmon habitat restoration. Flood hazard areas are identified by the Federal Emergency Management Agency (FEMA) on their Flood Insurance Rate Maps (FIRMs).

In Monroe, the following areas are identified as flood hazard areas (see Figure 10-3):

- Areas immediately adjacent to the Skykomish River
- Woods Creek
- Lake Tye

In general, floodplains in the City are undeveloped and include open spaces and agricultural fields. Buck Island, the Cadman Sky River Pit, and Skykomish River (Sky River) Centennial Park are located within the Skykomish River floodplain. (City of Monroe 2019). The City updated its flood hazard area regulations in 2020 (Chapter 14.01 MMC).

The Skykomish River and the majority of the land immediately adjacent to it is also mapped as a regulatory floodway. FEMA defines a regulatory floodway as the channel of a river and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than a designated height. Communities must regulate development in these floodways to ensure that there are no increases in flood elevations.

All development proposals in flood hazard areas are subject to City regulations in MMC 14.01 – Flood Hazard Regulations. The purpose of these regulations is to promote public health, safety, and general welfare, and to minimize public and private losses through the following provisions:

- Restricting or prohibiting uses that are dangerous to health, safety, and property due to water or erosion hazards, or that result in damaging increases in erosion or in flood heights or velocities.
- Requiring that uses vulnerable to floods, including facilities that serve such uses, be protected against flood damage at the time of initial construction.
- Controlling the alteration of natural floodplains, stream channels, and natural protective barriers that help accommodate or channel floodwaters.
- Controlling filling, grading, dredging, and other development that may increase flood damage.
- Preventing or regulating the construction of flood barriers that will unnaturally divert flood waters or may increase flood hazards in other areas.

In addition to development regulations, the City manages flooding through their Flood Protection and Management Program.

Examples of how they are reducing flood hazards include:

- Adopting city regulations that support floodplain management and protection (MCC Chapter 14.01).
- Participating in FEMA's Community Rating System which results in a 25% discount on flood insurance for property owners.
- Investing in our stormwater system by inspecting, installing, maintaining, and repairing our pipes, catch basins, ditch lines, and stormwater ponds by converting to more natural and sustainable stormwater catches.
- Maintaining mapping data to better manage floodplain hazard areas.
- Educating the community on potential flood hazards and ways they can be prepared for flooding.
- Encouraging property owners to flood proof homes and purchase flood insurance.
- Purchasing open space in floodplains to preserve undeveloped land.

Geologically Hazardous Areas

Geologically hazardous areas (WAC 365-190-120) include areas susceptible to erosion, sliding, earthquake, or other geological events. Such areas can pose a threat to the health and safety of citizens and development can exacerbate risks when not properly regulated. Geologically hazardous areas regulated by the City include the following:

- **Erosion hazard areas** – areas identified by the US Department of Agriculture's Natural Resources Conservation Service as having "severe" or "very severe" rill and inter-rill erosion hazards.
- **Landslide hazard areas** - areas potentially subject to landslides based on a combination of geologic, topographic, and hydrologic factors. They include areas susceptible because of any combination of bedrock, soil, slope (gradient), slope aspect, structure, hydrology, or other factors.
- **Seismic hazard areas** – areas subject to severe risk of damage as a result of earthquake-induced ground shaking, slope failure, settlement, soil liquefaction, lateral spreading, or surface failure.
- Other areas subject to geological events including tsunami, mass wasting, debris flows, rock falls, and differential settlement.

Known geologically hazardous areas in Monroe include areas north of Woods Creek Road from Oak Street to the City Limits.

Topographic analysis indicates that approximately 222 acres of land in the City Limits are constrained by slopes of 15 to 40 percent gradient and 56 acres of land are in slopes of 40 percent gradient or greater. All areas with slopes steeper than 40

percent are considered landslide hazard areas. Areas with slopes steeper than 15 percent that have groundwater seepage and relatively permeable sediment overlying a relatively impermeable sediment or bedrock, are considered landslide hazard areas.

The City regulates development in geologically hazardous areas under MCC 22.80.130. In general, alterations of geologically hazardous areas or associated buffers may only occur for activities that:

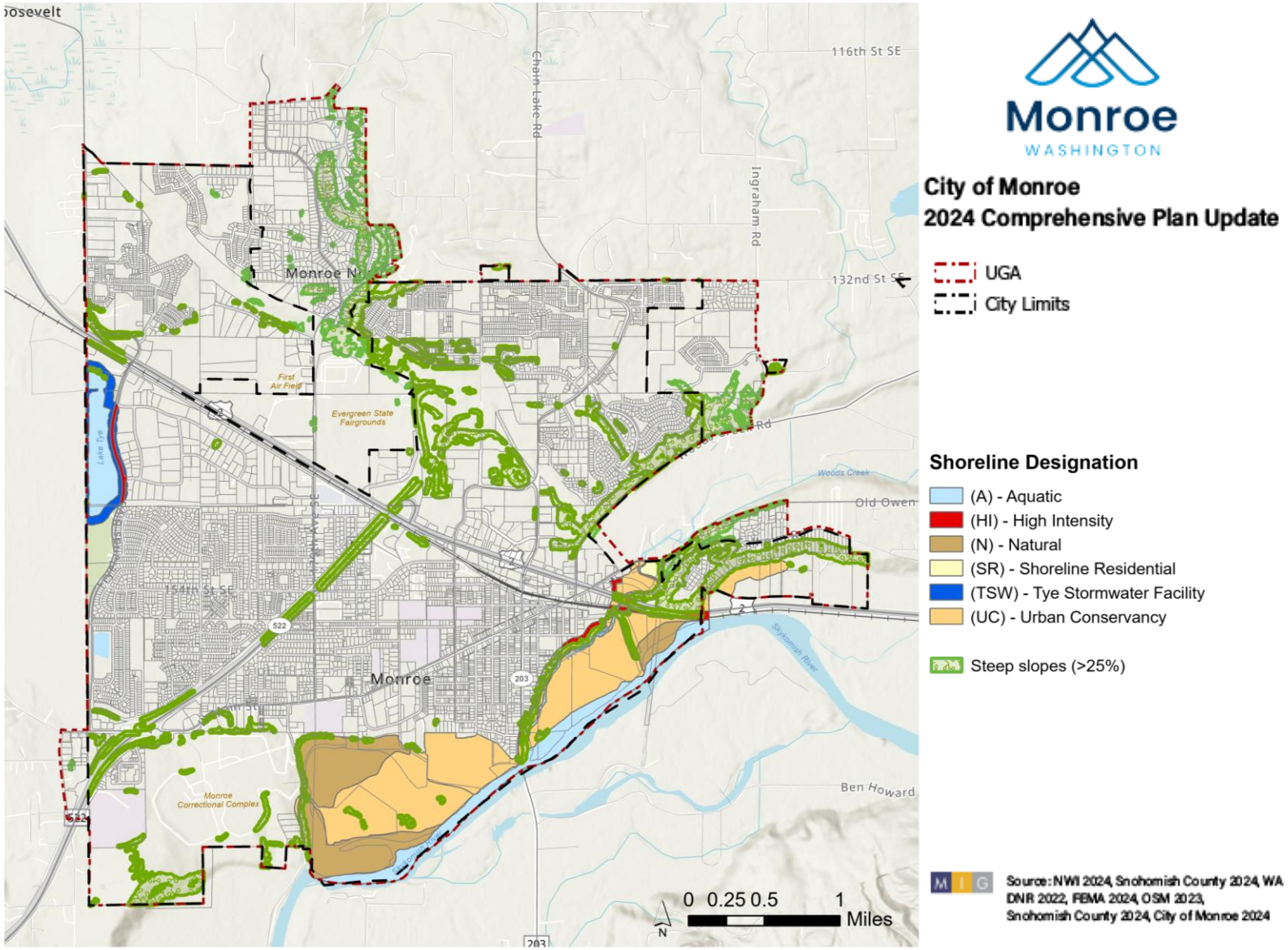
- Will not increase the threat of the geological hazard to adjacent properties beyond predevelopment conditions.
- Will not adversely impact other critical areas.
- Are designed so that the hazard to the project is eliminated or mitigated to a level equal to or less than predevelopment conditions.
- Are certified as safe as designed and under anticipated conditions by a qualified geotechnical engineer or geologist, licensed in the state of Washington.

Critical Aquifer Recharge Areas

Critical Aquifer Recharge Areas (CARAs) are the geographic areas that have a "critical recharging effect on aquifers used for potable water" (RCW 36.70A.030(5)). They are areas that have been identified as sole sources aquifers, areas that have a high susceptibility to groundwater contamination, or areas that have been approved by the state as wellhead protection areas for municipal or district drinking systems. Although no CARAs were known to exist within the City of Monroe at the time the 2015 Comprehensive Plan EIS was prepared, the Snohomish County CARA Map (Snohomish County 2023) shows depths to an aquifer in Monroe between 0 feet and 100 feet. The County CARA Map does not identify a sole source aquifer in Monroe. Groundwater resources in and near Monroe include discontinuous aquifers surrounded by less permeable sediments. Most of the

Lake Tye circa 2013
Source: Alaska Girl at Heart Blog

Figure 10.4 - GEOLOGIC HAZARDS AND SHORELINES



lowland and valley areas of Monroe are built on soils that support moderate infiltration rates, although these areas are generally advanced and the soils highly disturbed. Areas on the north and west edges of Monroe primarily comprised of soils with low infiltration rates, which may increase the risk of surface water runoff in these areas. The Climate Change Impact Analysis (**Appendix 10-A**) did not identify any CARAs within the Monroe city limits.

Shoreline Master Program (SMP)

Shorelines are a key part of the natural environment. They are important resource areas, provide important places for water-dependent development, and are important for public access. The Washington State Legislature passed the Shoreline Management Act (SMA) in 1971 with the overarching goal of preventing shoreline degradation caused by uncoordinated development of the state's shorelines. The policies contained within it strive to foster reasonable and appropriate uses, protect natural resources, and promote public access. In 2003, the Legislature further strengthened protections for the natural environment under GMA by clarifying that the goals and policies of the SMA are considered goals of GMA (RCW 36.70A.020 (15)). The City most recently updated its Shoreline Master Program (SMP) in June 2019 in accordance with the SMA (RCW 90.58), the GMA, and the Washington Department of Ecology (Ecology). The City's shoreline management regulations can be found in Chapter 22.82 MCC– Shoreline Management. In 2020, the City of Monroe adopted an SMP update that was prepared in 2019. Ecology approved the 2019 update on March 15, 2024, and is holding an appeal period which extends through May 14, 2024. The next SMP update is due by June 30, 2029.

Shoreline Jurisdiction

The SMA regulates use of "shorelines of the state" and include the following waterbodies and adjacent shoreland typically within 200 feet of the waterbody:

- All marine waters.
- Streams or segment of streams where the mean annual flow is greater than 20 cubic feet per second.
- Lakes and reservoirs 20 acres and greater in size.
- Associated wetlands.

In Monroe, regulated shorelines of the state include:

- The Skykomish River and Woods Creek within the City's municipal boundary.
- The upland area landward 200 feet of the ordinary high-water mark (OHWM) of the Skykomish River and Woods Creek.
- Tye Stormwater Facility and shorelands 200 feet from its OHWM.
- All associate wetlands.

The Skykomish River is designated as a "shoreline of statewide significance." Management priorities for shorelines of statewide significance are to recognize statewide interest over local interest, preserve natural shoreline character, recognize long term over short term benefits, and to increase public access and recreational opportunities (RCW 90.58.020 and incorporated into the City's SMP).

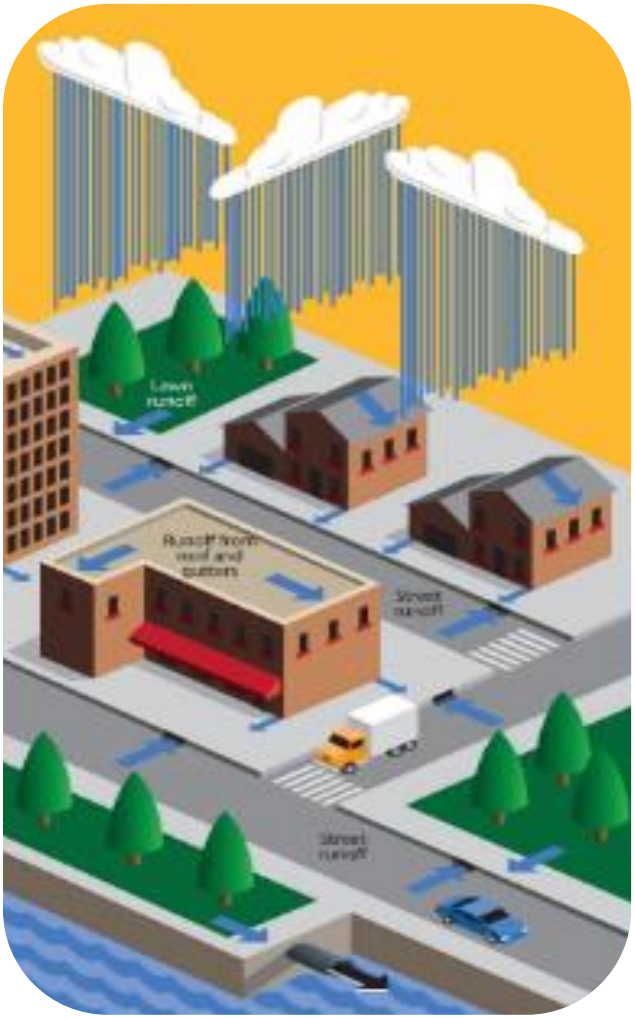
Shoreline Environment Designations

The City's SMP classifies shoreline areas into six environment designations, described in **Table 10.2**. The City's classification system is based on the existing use pattern, the biological and physical character of the shoreline.

Shoreline Uses

The SMA outlines use preferences and priorities that include the following:

- Reserve appropriate areas for protecting and restoring ecological functions to control pollution and prevent damage to the natural environment and public health.
- Reserve shoreline areas for water-dependent and associated water-related uses.
- Reserve shoreline areas for other water-related and water-enjoyment uses that are compatible with ecological protection and restoration objectives.



Stormwater run-off diagram
Source: City of Monroe SMP website

- Locate detached residential uses that can be developed without significant impact to ecological functions or displacement of water-dependent uses.

The City's SMP follows these priorities and policies and also identifies the uses that are allowed, conditionally allowed, or prohibited in each SED. Shoreline areas, being a limited ecological and economic resource, are the setting for competing uses and ecological protection and restoration activities.

Table 10.2 – SUMMARY OF SHORELINE ENVIRONMENT DESIGNATIONS IN MONROE

SED	Summary	Example Shoreline
Natural	Applied to ecologically intact shorelands providing important and irreplaceable functions (e.g., undisturbed wetlands, estuaries,) where new development or uses could likely result in significant adverse impacts.	• Along Al Borlin Park, between the main channel of the Skykomish River and the side channel as it meanders over time. • Wetlands and forested upland habitat to the north, west and south of the Cadman Site Area.
Aquatic	Applied to aquatic areas and established to protect, manage, and (where feasible) restore these aquatic areas.	• Skykomish River • Woods Creek • Lake Tye
Urban Conservancy	Applied to shorelands appropriate and planned for development that is compatible with maintaining or restoring the ecological functions of the area.	• Most land along Woods Creek. • Skykomish River Centennial Park • Cadman Site park and open space.
Shoreline Residential	Applied to shoreline areas that are predominantly single-family or multifamily residential development or are planned and platted for residential development.	• 3 residential parcels along the top of the bluff west of Woods Creek. • 2 residential parcels located between Old Owen Road and Calhoun Road. • 3 existing residential parcels east of Woods Creek and south of Old Owen Road.
Tye Stormwater Facility	Established to encourage and enhance recreational uses, public access, and appropriate development while accomplishing the waterbody's primary function: storing and treating storm water runoff from nearby lands.	• Shoreline areas adjacent to Lake Tye

Source: SMP, 2019

Public Access to Shorelines

Protecting public access is one of the main goals of the SMA. Public access can include physical access, such as that provided by a trail, floats and docks, promenades, bridges, street ends, and boat ramps. Public access can also be visual, such as viewing towers, views from an overpass, breezeways between buildings or views of prominent shoreline trees. Public access can be formal with paved walkways, identification signs and interpretive displays, or informal, via a small footpath to the beach. Physical access may be implemented through dedication of land or easements, cooperative agreements, or acquisition of land along the shoreline.

Along Monroe's shorelines, public access is provided primarily at Al Borlin Park, Skykomish River Park, Lewis Street Park and boat launch, and Lake Tye Park.

No Net Loss Standard and Shoreline Restoration

The City of Monroe SMP adopts the "no net loss" standard, consistent with the 2003 Washington State SMP Guidelines. The no net loss principle requires that that the ecological impact of future development must be mitigated through a combination of the following:

- Inventorying existing ecological conditions.
- Appropriate permitting that protects the shoreline.
- Restoration projects, as per the SMP policies and regulations.

Permitted development should avoid adverse impacts on the shoreline but may improve conditions through restoration projects. When this is not possible, impacts should be minimized through mitigation.

Chapter 7 of the City's SMP includes a Shoreline Restoration Plan (see **Appendix 10-C**) with the following two main goals:

- Assure preservation, protection, and restoration of salmon habitat to a sufficient extent and quality to support the productivity and diversity of all wild salmon stocks in the Snohomish River basin at a level that will sustain fisheries and non-consumptive salmon-related cultural and ecological values.
- Assure preservation, protection, and restoration of all ecological functions.

Skykomish Kayaking Big Eddy with Boat pickup at Lewis St. Boat Launch
Source: Mountaineers.org

The City participates in several existing and ongoing restoration projects including the Snohomish Basin Salmon Recovery Forum. In 2005, as part of the Snohomish River Basin Salmon Conservation Plan, the City committed to continue to participate in the Forum "to support Plan implementation, evaluation, and management; implement restoration and protection projects in the City of Monroe consistent with the Plan; and implement policies, programs, and regulations consistent with the intent of the Plan as necessary to achieve salmon recovery, needs and goals."

Climate Change

The City prepared a Climate Change Impact Analysis in September 2023, which included a state-of-the-science synthesis on observed and projected changes of concern for the City of Monroe. Changes in air and stream temperatures, precipitation patterns, snowpack, streamflow, sediment dynamics, drought, and wildfire regimes will affect Monroe's ecological assets and critical areas, including fish and wildlife habitats, wetlands, critical aquifer recharge areas, and soils and geologically hazardous areas. The Climate Change Impact Analysis presents trends, observations, and projections for Monroe related to climate change and identified potential impacts on fish and wildlife habitats (aquatic and terrestrial), wetlands, critical aquifer recharge areas, soils, geologic hazard areas. These natural habitats may help to buffer the impacts of climate change in the city, including warmer air and stream temperatures, more extreme flood events, sediment loading of waterways, and lower summer streamflow. Potential impacts of climate change in Monroe are listed below and discussed in further detail in **Appendix 10-A**.

- As drought and extreme heat increasingly co-occur, terrestrial plant species that provide shade to aquatic ecosystems will face greater stress and may experience shifts to younger age classes or species.

Skykomish Estuary
Source: Washington Department of Fish and Wildlife (WDFW)

- Shifts in the composition and abundance of non-native and invasive species may occur, potentially increasing competition stress with native species.
- Warmer and drier conditions may contribute to a shift in vegetation types with more drought-adapted species, including both native and non-native invasive species.
- A projected increase in days with high wildfire danger by mid-century combined with recreational uses in or near some riparian areas can create elevated risk of human-caused fire events despite low projected risk of wildfire occurrence.
- Risks to wetlands include changes in precipitation and increases in air temperatures. These risks may disrupt the ability of wetlands to provide ecosystem services, which include slowing and storing floodwaters, recharging groundwater, filtering pollutants, and supporting habitat.
- Wetlands that historically have rarely dried out are expected to shift to more frequent drying as summer seasons become warmer and drier. This will cause shifts in species types, habitat conversion, or habitat loss. Wetlands are terrestrial carbon sinks and changes to their viability may result in carbon being released back into the atmosphere.
- Increased winter precipitation may have positive effects on wetlands by creating additional side channel habitats, or negative effects such as reduced opportunity for water storage and increased erosion.

Goals, Policies, and Action Items

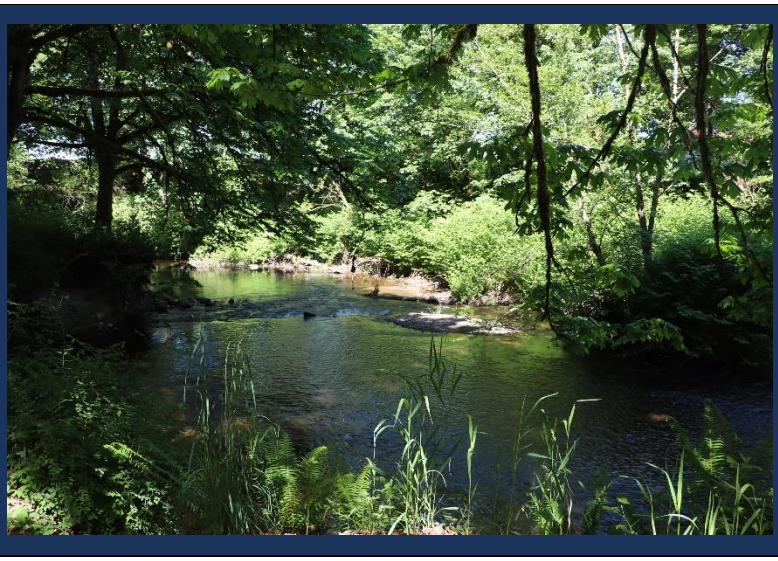
Goals, policies, and action items related to shorelines and the natural environment align with MPPs and CPPs, in addition to issues identified through the community discussions held in Monroe. Each goal includes at least one policy, and as applicable, action items necessary to achieve Imagine Monroe (Monroe's 2021 vision) and Comprehensive Plan Guiding Principles. The policies reflect the importance of shorelines, open spaces, and wetlands, and provide direction for successful stewardship of the community's natural assets, including improving access to shorelines and open spaces and building Monroe's relationship with natural features and the Skykomish River.

Skykomish River Bridge
Source: Provided by the City of Monroe, Credit to Dan Evans

Photo Source: Provided by the City of Monroe

Goal 10.1

Protect and restore natural systems, including shorelines and their buffers, wildlife habitats, and the ecosystem to support Imagine Monroe.



Policy	Action Item	
10.1.1		Use Best Available Science to preserve and enhance the functions and values of critical areas to strive for ecological gains.
	10.1.1.1	*Identify, inventory, classify and protect fish and wildlife habitats, providing special consideration to fish which migrate for spawning.*
	10.1.1.2	*Identify and implement a monitoring and evaluation method to identify net loss or cumulative impacts over time.*
10.1.2		Maintain natural hydrological functions within ecosystems and watersheds and seek restoration opportunities identified in the Shoreline Master Program, as well as WRIA 7 salmon recovery plans, for alignment of projects in the City.

10.1.3		Identify and designate open space corridors connecting environmentally sensitive areas, view-sheds, recreational and wildlife corridors, or other areas where a contiguous system would provide greater benefit than a series of isolated areas.
10.1.4		Conserve and protect environmentally critical areas, including buffers, from net loss or degradation. Maintain these areas in native growth protection tracts, in perpetuity.
10.1.5		Conserve and protect significant tribal resources, including Culturally Modified Trees (CMTs) and their canopies.
	10.1.5.1	*Create an urban tree canopy inventory, and where available, a CMT inventory, and assess current conditions as a means to measure how well the City's tree-related ordinances are functioning and preserving trees within the UGB.*
	10.1.5.2	*Work alongside tribal entities to understand traditional and culturally responsive ways to protect and care for Critical Cultural Resources (CCRs), such as CMTs, that honor Indigenous Knowledge and Practices.*
	10.1.5.3	*Identify goals, actions, and implementation tasks that would help achieve agreed upon goals.*
	10.1.5.4	*Develop a monitoring and evaluation program to track progress.*

Photo Source: Puget Sound Regional Council (PSRC), Climate Change Guidance, 2022 (https://www.psrc.org/media/6869)

Goal 10.2

Address impacts to the environment related to climate change.

Policy	Action Item	
10.2.1		Prepare and adopt a Comprehensive Plan Climate Change Element by 2029.
	10.2.1.1	*Incorporate emissions reduction actions into the Climate Change Element to ensure that air quality meets or exceeds established Washington and federal standards and that greenhouse gas emissions are reduced in accordance with the goals of the Puget Sound Clean Air Agency.*
	10.2.1.2	*Support the implementation of Washington's climate change initiatives and work toward developing a common framework to analyze climate change impacts in SEPA reviews.*

	10.2.1.3	*Establish and support programs that work to reduce greenhouse gas emissions and increase energy conservation, including the retrofit of existing buildings, expansion of alternative/clean energy within the public and private sector, and the use of environmentally sustainable building techniques and materials.*
	10.2.1.4	*Support using natural systems to reduce carbon in the atmosphere by establishing programs and policies that maintain and increase natural resources that sequester and store carbon, such as forests, vegetative cover, wetlands, farmland, and estuaries.*
10.2.2		Plan for climate adaptation and resilience.
	10.2.2.1	*Establish a framework in the Climate Change Element to identify, anticipate, prepare for, and adapt to likely impacts of climate change on natural systems, infrastructure, public health, and the economy.*
	10.2.2.2	*Include in climate adaptation and resilience efforts the identification of measures to mitigate climate impacts and include a focus on minimizing the impacts on vulnerable populations.*
10.2.3		Support the achievement of regional greenhouse gas emissions reduction targets.
	10.2.3.1	*Provide support for land use, transportation, and development policies that reduce vehicle miles traveled and greenhouse gas emissions from transportation.*
10.2.4		Consider rising sea level in planning.

	10.2.4.1	*Site new and relocated essential public facilities and hazardous industries to areas that are outside the 500-year floodplain.*
10.2.5		Update critical areas based on climate impacts from sea level rise, flooding, wildfire hazards, urban heat, and other hazards.
10.2.6		Protect native vegetation, natural resources, and urban tree canopy as a means of sequestering and storing carbon and mitigating disproportionate climate impacts.

Photo Source: City of Monroe

Goal 10.3

Connect land use with management of a system of surface water and wetland areas that focuses on access to shorelines and surface water for multiple uses.

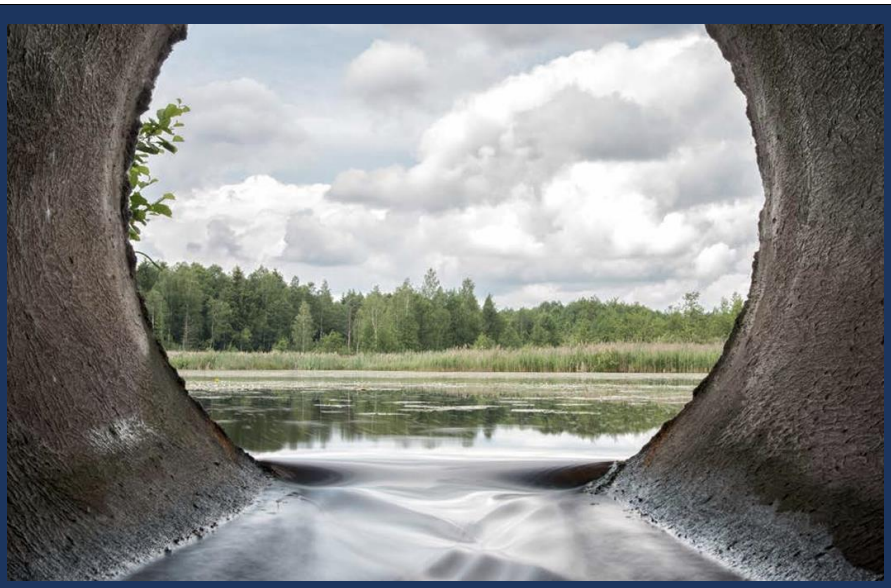
Policy	Action Item	
10.3.1		Manage surface water areas for multiple uses, to include flood and erosion control, wildlife habitat, wetland and stream buffers, open space, recreation, and groundwater recharge functions.
	10.3.1.1	*Apply mitigation sequencing techniques in management of wetland and buffer areas in order to meet No Net Loss of ecological values or functions.*
	10.3.1.2	*Identify and designate areas where a contiguous system would provide greater benefit than a series of isolated areas, including but not limited to open space corridors, connecting environmentally sensitive areas, viewsheds, and recreational and wildlife corridors.*
	10.3.1.3	*Maintain and enhance access to shorelines and their buffers, particularly the Skykomish River, Woods Creek, and Lake Tye.*

	10.3.1.4	*Maintain surface water quality necessary to support the protection of native fish and wildlife meeting state and federal standards over the long term.*
	10.3.1.5	*Restore, protect, and support the biological health and diversity of WRIA 7 in Monroe and those natural systems that support watershed health and hydrological integrity.*
10.3.2		Manage surface water areas for multiple uses, including flood and erosion control, wildlife habitat, usable open space, recreation, and groundwater recharge functions.
10.3.3		Preserve wetlands to achieve no net loss of functions and values.
10.3.4		Pursue opportunities to enhance and restore degraded wetlands and their buffers.
10.3.5		Support the use of mitigation banks located in the City of Monroe for capital improvement projects that are linear, such as road and utility projects.

Photo Source: City of Monroe website

Goal 10.4

Manage open space, shorelines, and natural habitats to improve the environment and reduce conflicts with development.



Policy	Action Item	
10.4.1		Review and update building and development codes on an ongoing basis, incorporating the best and latest standards for development in critical areas.
10.4.2		Promote site development and construction practices that minimize impact on natural systems.
	10.4.2.1	*Limit new or replaced impervious surface.*
	10.4.2.2	*Increase infiltration for stormwater run-off treatment where appropriate.*
	10.4.2.3	*Manage development in geologically hazardous areas using Best Management Practices (BMPs) to promote soil stability, maximize tree retention, follow natural drainage patterns, minimize erosion, and avoid potential landslides during construction and use.*

10.4.3		Consider flood control strategies that preserve full function and do not negatively impact adjacent properties when evaluating development proposals.
10.4.4		Reduce ambient light during nighttime hours through technology and building practices.
	10.4.4.1	*Minimize and manage ambient light levels to protect the integrity of ecological systems and public health without compromising public safety and cultural expression.*

Photo Source: Shutterstock.com

Goal 10.5

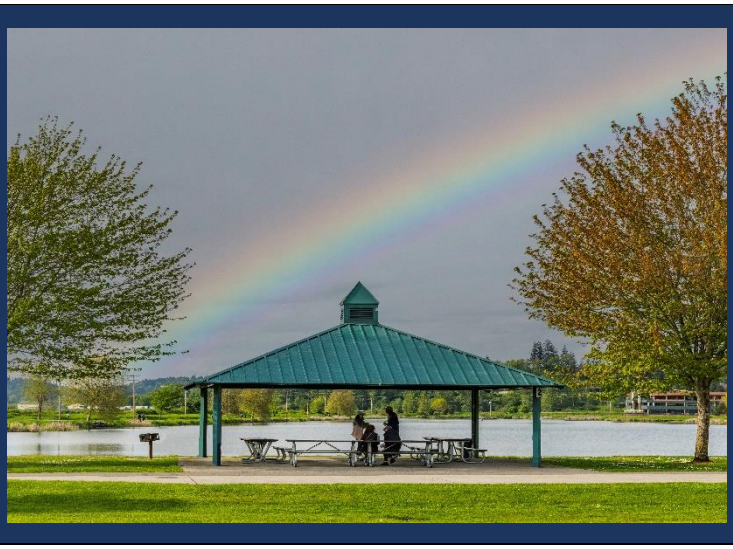
Encourage cooperation and collaboration between government entities and the community to ensure effective and transparent governance of shorelines and the natural environment and stewardship of habitats and species.

Policy	Action Item	
10.5.1		Participate in regional efforts to recover species listed under the Endangered Species Act through activities including watershed planning and restoration.
	10.5.1.1	*Cooperate regionally with state agencies in developing and implementing watershed management plans, water quality management plans, and monitoring programs.*
	10.5.1.2	*Collaborate with WSDOT, Snohomish County, and neighboring jurisdictions to plan and prioritize public and private culvert upgrades to remove fish passage barriers, and provide stormwater passage, and continue to adapt to climate-related water changes into the future.*
	10.5.1.3	*Coordinate land use planning and management of fish and wildlife resources with other local governments within the region, affected state and federal agencies, and affected tribal communities.*
	10.5.1.4	*Coordinate with private and not-for-profit organizations working to restore salmon habitat.*

Photo Source: Provided by the City of Monroe

Goal 10.6

Encourage conservation and sustainability throughout the city.

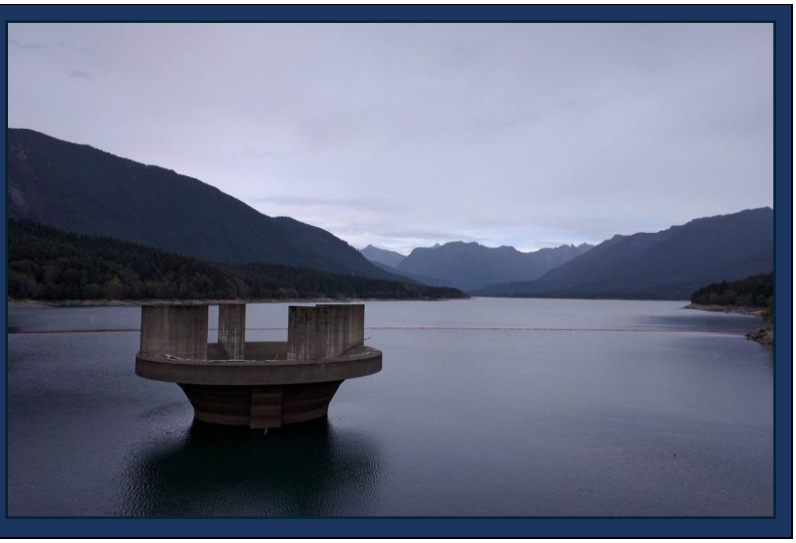


Policy	Action Item	
10.6.1		Minimize impacts to wildlife and water quality from agricultural and planting practices to the greatest extent possible.
	10.6.1.1	*Limit the use of toxic pesticides and fertilizers, incorporating alternative pest management methods, and providing public education about such practices.*
	10.6.1.2	*Use native or Northwest adaptive vegetation on City capital projects, preventing the continued spread of invasive and noxious weeds to habitat areas through implementation of Integrated Pest Management practices.*
	10.6.1.3	*Use a majority of native or Northwest adaptive vegetation that is supportive of wildlife for new developments, including City capital projects, adjacent to wildlife habitats.*
	10.6.1.4	*Support urban wildlife habitat management through education, City actions, and demonstration projects.*
	10.6.1.5	*Employ wildlife habitat-friendly practices in designing and maintaining City parks.*

Photo Source: Spada Reservoir, Sultan School District #311, https://ses.sultanschools.org/o/se/live-feed

Goal 10.7

Improve environmental and health resources related to the natural environment.



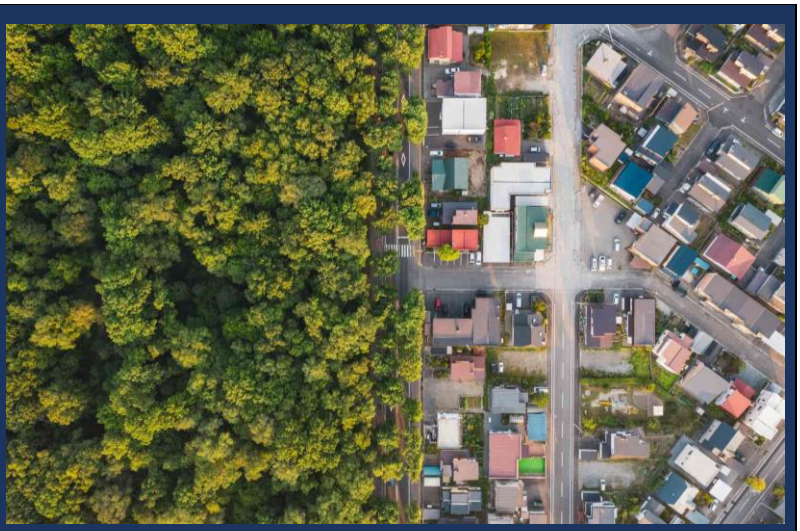
Policy	Action Item	
10.7.1		Provide clean drinking water.
	10.7.1.1	*Support and incentivize environmental stewardship on private and public lands to protect and enhance habitat, water quality, and other ecosystem services, including protection of watersheds and wellhead areas that are sources of the region's drinking water supplies.*
	10.7.1.2	*Work to reduce water consumption and water use by the City.*
	10.7.1.3	*Establish a water use agreement with large-scale retailers or companies to preserve and minimize water consumption, where feasible.*
10.7.2		Maintain and restore natural hydrological functions and water quality within the region's ecosystems and watersheds to recover the health of Puget Sound.

	10.7.2.1	*Reduce the use of toxic pesticides, fertilizers, and other products to the extent feasible and identify alternatives that minimize risks to human health and the environment.*
	10.7.2.2	*Restore – where appropriate and possible – the region's freshwater and marine shorelines, watersheds, and estuaries to a natural condition for ecological function and value.*

Photo Source: Liyao Vie / Getty Images - Treehugger

Goal 10.8

Prioritize vulnerable populations.



Policy	Action Item	
10.8.1		Reduce impacts to vulnerable populations and areas that have been disproportionately affected by noise, air pollution, or other environmental impacts.
	10.8.1.1	*Identify measures to focus on minimizing climate change's impacts on vulnerable populations.*
	10.8.1.2	*Include equitable climate resilience measures in the Climate Change Element.*
10.8.2		Ensure that all residents of the region, regardless of race, social, or economic status, have clean air, clean water, and other elements of a healthy environment.

Photo Source: Provided by the City of Monroe

Goal 10.9

Reduce hazard potential and improve resiliency.

Policy	Action Item	
10.9.1		Plan and prepare to respond to potential impacts from natural and human hazards.
	10.9.1.1	*Assess and plan for adaptive transportation responses to potential threats and hazards arising from climate change.*
	10.9.1.2	*Identify mitigation measures addressing climate-change-related hazards (e.g., sea level rise, flooding, wildfire hazards, urban heat), including multimodal emergency and evacuation routes and prioritizing mitigation of climate impacts on highly impacted communities and vulnerable populations.*
10.9.2		Improve community resilience.
	10.9.2.1	*Enhance urban tree canopy to support community resilience, mitigate urban heat, manage stormwater, conserve energy, improve mental and physical health, and strengthen economic prosperity.*
	10.9.2.2	*Increase resilience by identifying and addressing the impacts of climate change and natural hazards on water, land, infrastructure, health, and the economy.*
	10.9.2.3	*Address climate adaptation and resilience in the Climate Change Element.*

Photo Source: Monroe Historical Society, Provided by the City of Monroe

Goal 10.10

Preserve historic and cultural resources.

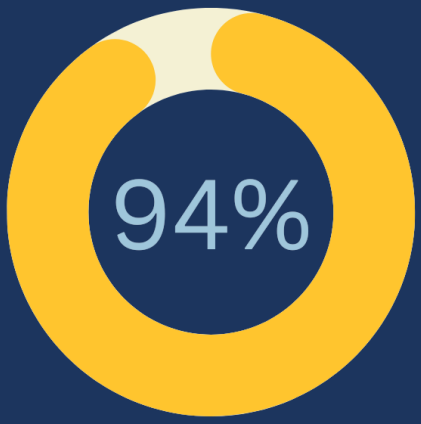
Policy	Action Item	
10.10.1		Identify, preserve, and protect historic, cultural, and archaeological resources.
	10.10.1.1	*Protect and preserve historical, cultural, and archaeological resources consistent with the Washington Department of Archaeology and Historic Preservation and in collaboration with state agencies and tribes.*
	10.10.1.2	*Consider the potential impacts of development to culturally significant sites and tribal treaty fishing, hunting, and gathering grounds and collaborate with tribes to protect Tribal Reservation lands from encroachment by incompatible land uses and development both within reservation boundaries and on adjacent land.*

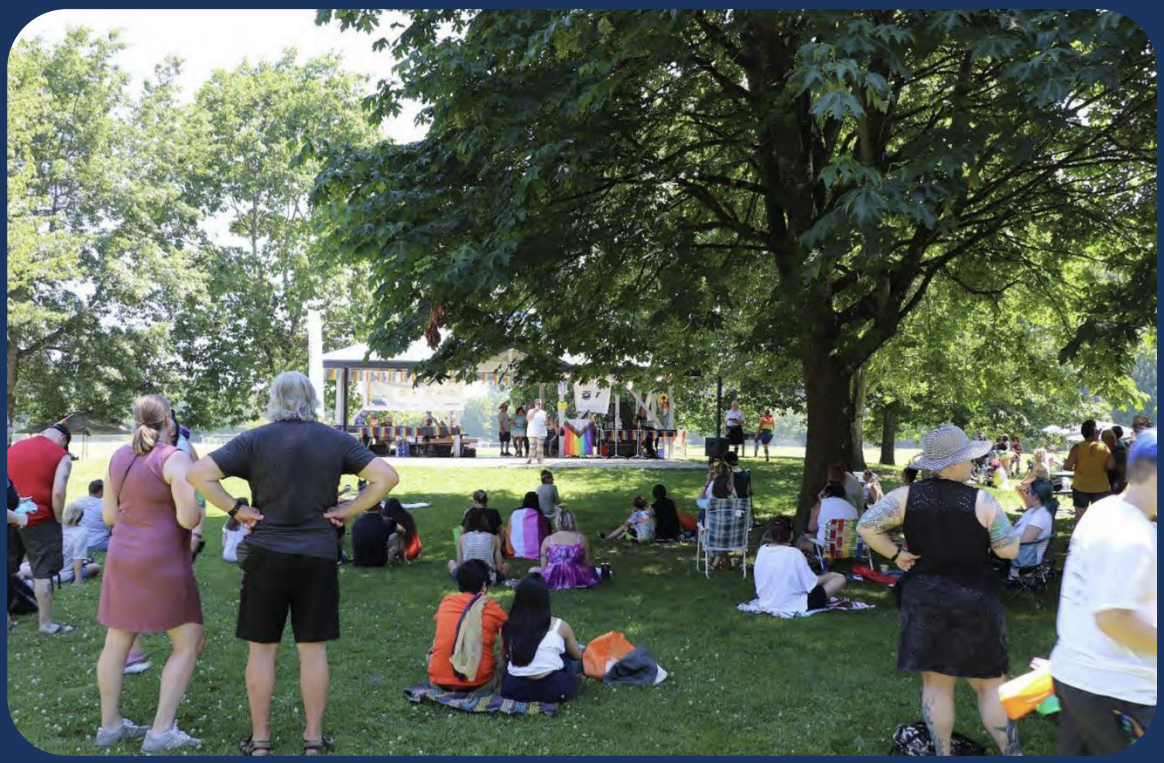
“

It would be nice to have a safe, maintained nature trail system more like the Redmond watershed with restrooms, groomed trails, and walking access to downtown areas.”

The 2022 Parks, Recreation, and Open Space (PROS) Plan revealed that 94 percent of participants are either excited or very excited to see a linked riverfront.”

- Anonymous





Parks PRIDE Event Gathering
Photo Source: City of Monroe, PROS Plan, 2022