# **Chapter 6: Natural Environment**

# **Introduction**

Algona recognizes the significance of the natural environment to the health, sustainability, and longevity of our community. The natural environment is a complex system of interconnected components that interact with each other. Human activity impacts these components, including air, water, soils, plants, and animals. While development is necessary to accommodate human population growth, consideration of the natural environment is required to ensure the community has access to natural lands and associated resources for generations to come. Algona shall accommodate growth by implementing local, state, and federal regulations and thoughtfully considering planning techniques that maintain a healthy and sustainable community.

The purpose of the *Natural Environment* element (<u>RCW 36.70A.060</u>) is to demonstrate Algona's commitment to protecting natural lands and critical areas, complying with the GMA, and maintaining transparency on delineated sensitive and natural lands. Additionally, the *Natural Environment* element describes some of the regulations and processes in place to preserve the natural environment and protect citizens and public or private properties from natural hazards or environmental degradation.

The GMA requires the *Natural Environment* element to describe the existing inventory of associated natural lands, including:

- Critical Areas
- Mineral Resource Lands
- Forest Lands
- Agricultural Lands

Algona only has delineated critical areas within its boundaries, and there are no lands that fall under mineral resources, forest lands, or agricultural lands in accordance with the state's adopted definitions.



Algona is home to a plethora of wetlands scattered throughout the City, attracting Blue Herons and other wildlife. Photo by: Betty Padgett.

The *Natural Environment* element is intended to meet the objectives of the State Growth Management Act (GMA); Endangered Species Act (ESA); State Environmental Policy Act (SEPA); Countywide Planning Policies of King County and Puget Sound Regional Council (PSRC); and other federal, state, and county policies. The GMA requires the adoption of development regulations that protect critical areas (RCW 36.70A.060), and the use of the "best available science" in developing policies and development regulations to protect the functions and values of critical areas (RCW 36.70A.172).

# **Best Available Science**

What exactly does the state mean when it requires the use of "best available science" as it relates to the natural environment, policies, and regulations for critical areas? Local governments are responsible for identifying, collecting, and accessing available scientific information related to protecting critical areas. Additionally, local governments must also determine what constitutes as "best available science". The GMA requires cities to ensure that the best available science measures are used to protect slopes, soils, aquifers, stormwater runoff, and other elements of the environment.

Scientific methods are updated and improved over time, which requires jurisdictions to routinely consider how emerging scientific tools and resources should be appropriately reflected in local policies, regulations, project review, and processes. The comprehensive planning process is an opportunity to examine newly available tools measuring or identifying critical areas. Resources available from state or federal agencies, universities, tribes, subject matter experts, Salmon Recovery lead entities, and Puget Sound Local Integrating Organization technical committees are considered valid sources. The state recognizes that there could be financial constraints relating to utilizing the best available science. While the burden of proof of best available science falls on local governments, the state also allows science and tools that are practical and economically feasible to use.

The purpose of using the best available science is to protect the functions and values of critical areas. While science plays a key role in determining what lands are considered to be critical areas, the functions and values of the area, and determines appropriate mitigation for development, science ultimately creates recommended policies and regulations that can be tailored at the local level. Science cannot be forgone at the local level – jurisdictions do not have the ability to favor competing considerations over science and data.

# National Environment Regulatory Agencies

# Federal:

- National Marine Fisheries Service
- U.S. Army Corps of Engineers
- U.S. Environmental Protection Agency
- U.S. Fish and Wildlife Service
- Federal EmergencyManagement Agency

#### State:

- Washington Department of Ecology
- Washington Department of Fish and Wildlife
- Washington Department of Natural Resources

# Regional/Local:

- Puget Sound Clean Air Agency
- Puget Sound Partnership
- Puget Sound Regional Council
- King County

Additionally, using the best available science helps protect communities from natural hazards by outlining the potential risk and magnitude of development in certain critical areas, steep slopes, and frequently flooded areas.

As of 2024, Algona defines best available science as "current scientific information used in the process to designate, protect, or restore critical areas, which is derived from a valid scientific process as defined by WAC 365-195-900 through 365-195-925. Examples of best available science are included in Citations of Recommended Sources of Best Available Science for Designating and Protecting Critical Areas published by the Washington State Department of Commerce" (AMC 16.18A.040).

# **Defining Our Natural Lands**

As noted above, there are four primary types of "natural lands" as defined by the state. Each city or county planning under the GMA is required to designate if any of the four following natural lands are present within municipal boundaries. Described below are the state's definitions for each type of natural land.

- Critical Areas: Wetlands, streams, areas with critical recharging effect on aquifers, fish and wildlife habitat, frequently flooded areas, and geologically hazardous areas.
- Mineral Resource Lands: Lands that are not characterized by urban growth and have long-term significance for the extraction of minerals.
- Forest Lands: Lands that are not characterized by urban growth and have long-term significance for the commercial production of timber.
- Agricultural Lands: Lands that are not characterized by urban growth and have long-term significance for the commercial production of food or other agricultural products.



Algona was once an agricultural community from the early 1900's up until the 1960's. Farms were primarily operated by Japanese and Filipino Americans. While no farmlands exist today, remnants of the past are noticeable on large, undeveloped lots.

Photo by: Betty Padgett.

As of 2023, there are no recognized mineral, forest, or agricultural lands within the City. There are recognized critical areas throughout the community; each type of critical area exists within Algona's boundaries. In the next section, *Conditions and Trends*, components of the natural environment and each recognized type of critical area are described.

# **Conditions and Trends**

# **General Conditions**

The City of Algona lies in a river valley running in a north/south direction along SR 167. The City has two drainage basins that bisect the community along 4<sup>th</sup> Avenue North – the Mill Creek Basin to the north and the Lower White River to the south. The valley floor is relatively flat (slopes less than 1 percent). The base elevation of the City is approximately 70 feet<sup>1</sup>. To the west of the City inside and outside the urban growth boundary are steep sloping bluffs (slopes of 50 to 90 percent) which are regulated through the Critical Areas Ordinance (AMC 16.18A-E). To the north and south, the terrain is level with a gradual slope, with drainage generally moving north or south. The City drains to the Green River via Mill Creek to the north, and the remainder drains to the White River to the south as shown in **Figure 1**.

There have been no major changes to the environmental setting of Algona since the *2015 Comprehensive Plan* periodic update; however, Algona adopted a revised critical areas ordinance in early 2015 as part of the implementation and code updates. A map inventory of the City's critical areas was created by a consultant in 2017 using field-gathered observations and records. As of 2024, the City began collecting map files from development projects that require critical areas reports and is updating the critical areas map more routinely to refine the map and provide transparency to the community on critical area delineations.

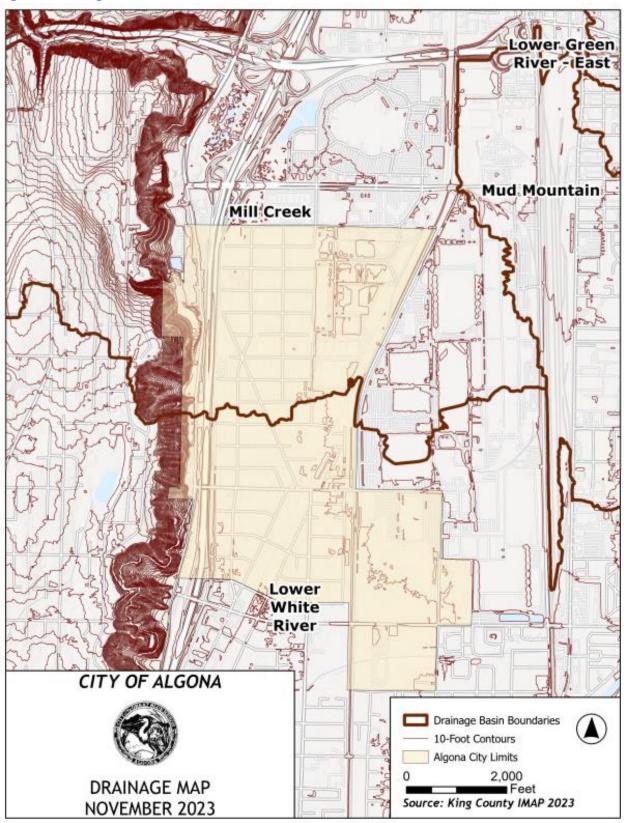


Field observations note that wetlands are located along trails and walking paths in Algona. While these areas have not gone through critical areas verification, the City works with developers and consultants to confirm the viability and rating of potential wetlands prior to any new construction.

Photo by: Betty Padgett.

<sup>&</sup>lt;sup>1</sup> Gray and Osborne, City of Algona Comprehensive Flood Hazard Management Plan. (1997).

Figure 1: Drainage Basins



# Soils

The load-bearing capacity of the soil, the hydric properties, erosion potential and characteristics with respect to shrink-swell potential all play a significant role in development of land. In particular, the hydric properties determine the potential existence of wetlands and signal the potential for other environmental concerns.

The Soil Survey conducted by the U.S. Natural Resources Conservation Service includes detailed soil maps that can be used for site selection and planning. The survey explains in great detail each soil's suitability for agricultural, residential, sanitary facility, recreational, woodland wildlife habitat, and other land uses. The primary soils in Algona are nearly level, poorly drained, and of fine texture. With a highwater table, placement of buildings and foundation construction is a challenge for new development.

Figure 2 describes each of the soil types that exist within Algona's city limits.

Figure 2: Algona Soil Types<sup>2</sup>

Soil Type	Acres in City (estimate)	Percent of City
Alderwood gravelly sand loam,	6.7	0.4%
0 to 8 percent slopes		
Alderwood and Kitsap soils, very	152.0	8.4%
steep		
Briscot silt loam	84.2	4.6%
Oridia silt loam	6.3	0.3%
Puget silty clay loam	2.0	0.1%
Renton silt loam	115.7	6.4%
Seattle muck	709.7	39.0%
Shalcar muck	11.8	0.6%
Snohomish silt loam	92.5	5.1%
Urban land	633.8	34.9%
Water	3.2	0.2%
Totals:	1,818	100%

# **Surface Water**

According to King County's IMAP, Algona sits on the boundary between the White and the Green River basins. Most of the City north of 3rd Avenue North drains to the Green River system. The rest of the City drains south to Mill Creek and the White River. A stream south of 1st Avenue North and the drainage ditch that runs north/south next to the Boeing facility (known locally as the Boeing Canal or Government Ditch) drain south to the White River. An unnamed tributary to Algona Creek to the west of SR 167 drains north to the Mill Creek/Green River system. It also connects with the ditch along the east side of SR 167, a portion of which drains south to the White River. Future development must consider point source discharges, non-point source discharges, and soil erosion.

<sup>&</sup>lt;sup>2</sup> Source: United States Department of Agriculture, Natural Resources Conservation Service. Web Soil Survey, (2023).

Development can have a severe impact on the habitat value of affected surface water in ways that may impact the viability of the ecological system. The City maintains a storm drainage management plan, consistent with the current edition of the Department of Ecology 2019 Stormwater Manual.

# **Frequently Flooded Areas**

Algona residents are greatly familiar with flooding. Over the last 20 years, Algona has experienced more frequent and intensive flooding along the eastern side of the SR167 corridor. The City of Algona's

flooding problems have occurred since development began but have not been well documented on a regional or national level. The area has always had a high groundwater table which is often at or near the ground surface. Increased development including that of SR 167 altered the original drainage patterns of the City. Flooding is experienced at a heightened rate in the north end of the city from 8<sup>th</sup> Avenue North to Boundary Boulevard where properties in the vicinity experience one to two feet of submergence on a nearly annual basis.

To control runoff and to reduce flood volumes entering Mill Creek (north of Algona), the "Auburn 400 ponds" were constructed in the 1990s, however, maintenance is largely deferred and the pond's ability to detain runoff has been reduced which adds to Algona's flooding issues. Downstream of the ponds approximately 0.3 miles away, is a Mill Creek culvert that is often inundated and therefore, causes backup of flow into the City of Algona.



Flooding is a common occurrence during the winter and spring along 11<sup>th</sup>
Avenue North which is primarily a residential area. Homeowners are
forced to pay for the costs of underperforming stormwater discharge
systems operated and maintained by local, county, and state agencies.

Algona is located downstream from other

jurisdictions along the Mill Creek drainage basin. Runoff generated from other cities – such as the City of Auburn and City of Kent – in addition to other agencies with nearby jurisdiction, including WSDOT and WDFW, and even private entities, PSE in particular, have stormwater drainage systems that connect to Algona.

In 1997, the city created the *Comprehensive Flood Hazard Management Plan* (Flood Hazard Plan) which discussed the historical background of flooding in the city. The plan also provided potential alternatives as well as recommendations for moving forward. As a result, the city adopted the stormwater utility and code requiring construction one foot above the floodplain however, homes still flood, especially in the vicinities of Iowa Drive, 9<sup>th</sup> Avenue North, and 11<sup>th</sup> Avenue North. City of Algona crews have had to sandbag properties to ensure rights-of-way remain passable.

Notably, FEMA has not mapped any areas in Algona as floodplain and officially there is no floodplain in the City. Current FEMA flood map data cuts off along the northern boundary line between the City of

Auburn and the City of Algona. However, Figure 2-4 from the 1997 Flood Hazard Plan was derived by extending the estimated 100-year floodplain in Auburn south until it intersected the ground elevation in Algona. The area shown is considered by the City to be an area of potential flooding. In the late 1990s and early 2000s, the northwest portion of the City did flood periodically. Once the downstream conveyance was cleared of vegetation and debris, the flooding seemed to stop. Maintenance of the system is an annual program operated by the City.

To mitigate the apparent flood hazard condition, the City passed an ordinance in 2021 setting a minimum floor elevation requiring a minimum finished floor level of at least seventy-one feet above sea level or one foot above the level of any abutting street, whichever is higher. This is considered adequate to accommodate the area shown on the map.

In 2022, the City won a grant from the King County Flood Control District to update the 1997 Flood Hazard Management Plan to reflect current conditions and determine an approach to finding relief from downstream stormwater inundation in the northern half of the City. The updated Flood Hazard Management Plan is anticipated to be completed in 2024 with a revised flood map and recommendations for policies, actions, and regulations to mitigate flooding.



City Public Works staff typically sandbag vulnerable neighborhoods in northern Algona to reduce the impacts of seasonal flooding. While sandbagging is not a permanent solution, significant infrastructural improvements are necessary to maintain homes and businesses into the future.

# Groundwater

Groundwater is derived from precipitation and surface water filtering through the ground to aquifers. The ground where this filtering process takes place is called an aquifer recharge area. The quality of recharge areas and surface waters needs to be protected to ensure the quality of the groundwater used in the immediate area, as well as the quality of water for users down gradient from the recharge zone. Groundwater pollution is exceedingly difficult, often impossible, to clean.

The groundwater table in Algona can be near the surface in the winter which can cause increases in surface water ponding and decreased the rate of stormwater runoff.

In 2006 a hazardous waste permit was issued to Boeing for its Auburn Fabrication Plant. As part of the permit, the company was required to document and remediate waste "plumes" that had been found in nearby groundwater. A plume was found in the northeast corner of the Algona residential area. The plume contains "volatile organic compounds" (VOCs). There are 46 wells that monitor groundwater at various depths throughout the industrial northeast section of the city. The monitoring wells were installed in 2009 and cleanup continues, but there does not appear to be significant threats to health or water supplies. The levels of TCE (Tetrachloroethylene) contamination found at two locations are below the Federal Drinking Water standard. Testing continues north of 9th Avenue. The Land Use element further describes groundwater and wells within city limits.

# **Climate**

Summers are dry, shorter, warm, and partly cloudy with an average high temperature of 78°F and low of 52°F. Summertime weather brings less precipitation with less than 5 inches of rainfall. Winters are typically cold, wet, and overcast, but comparatively mild in the continental United States. The average winter temperatures are a high of 52°F and a low of 37°F. Most of the precipitation comes in the form of rain during the winter months. Average annual precipitation is 38 inches which does not vary greatly from year to year, however, November is typically the rainiest month with an average of 8.2 inches of rainfall. The prevailing wind is southwesterly most of the year. Snow is uncommon but can occur in Algona. Snow is typically seen between December and February and does not usually exceed 3-inches<sup>3</sup>.

# **Wetlands and Streams**

Wetlands and streams are fragile ecosystems that assist in the reduction of erosion, flooding, and surface water pollution. Both wetlands and streams provide an important habitat for wildlife, plants, and fisheries. Algona is home to a multitude of verified wetland areas which are inventoried in adopted maps. There are limited streams mapped throughout the City, which are mostly noted along existing drainage ditches near roadways, including SR 167, Chicago Avenue, West Valley Highway, and along the railway.

Wetlands and streams have been verified through aerial mapping and field reconnaissance and are identified on a case-by-case basis as new developments are proposed. Before new development can occur on areas with, or adjacent to, critical areas, a critical area review must occur. The wetlands identified are protected under the City's Critical Areas Ordinance (AMC 16.18) adopted in early 2015.

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<sup>&</sup>lt;sup>3</sup> Climate data was acquired from the National Centers for Environmental Information from the National Oceanic and Atmospheric Administration.

As of 2023, the City has begun collecting maps of confirmed critical areas which they use to update their critical area inventory on a routine basis. **Figure 3** shows current critical areas in Algona.

# **Vegetation and Wildlife**

Disturbance of ecological communities and division into isolated habitats are the major causes of the decline in animal and plant species. Conserving viable ecological habitats in an interconnected system is the most efficient way of sustaining native vegetation and wildlife. Species that use habitats conserved for environmental or scenic reasons cannot survive further division of the habitat into small, isolated land parcels.

The City supports various deciduous and coniferous trees and native shrubs and grasses through development landscaping requirements outlined in the Landscaping Code (AMC Chapter 22.60). The western fringe of the City (steep slopes) can provide habitat for various wildlife and birds. The more developed portions of the City share the habitat with squirrels and a variety of birds. On October 5<sup>th</sup>, 2023, the City dedicated 8.8 acres of land in the southeast corner of the City as the David E. Hill Memorial Wetland Preserve where Blue Herons are often observed.

The Department of Fish and Wildlife has developed a robust tool to identify critical, priority, and endangered species using their *Priority Habitats and Species* application. This tool was created to show areas that may contain critical habitats, and the department recommends a biologist's field visit before making decisions using the map. The map identifies that Algona is home to priority freshwater forested/shrub wetland habitats as shown in **Figure 4.** Another available tool is through the U.S. Fish and Wildlife Service *Environmental Conservation Online System* (ECOS) which maps out threatened and engendered species active in critical habitats. While the map currently does not show any subject species living within Algona's limits, the City is committed to routinely checking for mapping updates or revised threatened and endangered species lists and taking action if necessary.

# **Related Federal Laws**

# **Species and Habitats:**

- Endangered Species Act
- Migratory Bird Treaty Act
- Bald and Golden EagleProtection Act
- Marine Mammal Protection Act
- Lacey Act
- Wildlife Restoration Act
- Magnuson-Stevens Fishery
   Conservation and
   Management Act
- National Wildlife Refuge System Act
- Land and Water Conservation Fund Act

#### Water:

- Clean Water Act
- Safe Drinking Water Act
- Ground Water Rule
- Source Water Protection
- BEACH Act
- Clean Boating Act

Figure 3: Critical Areas Map

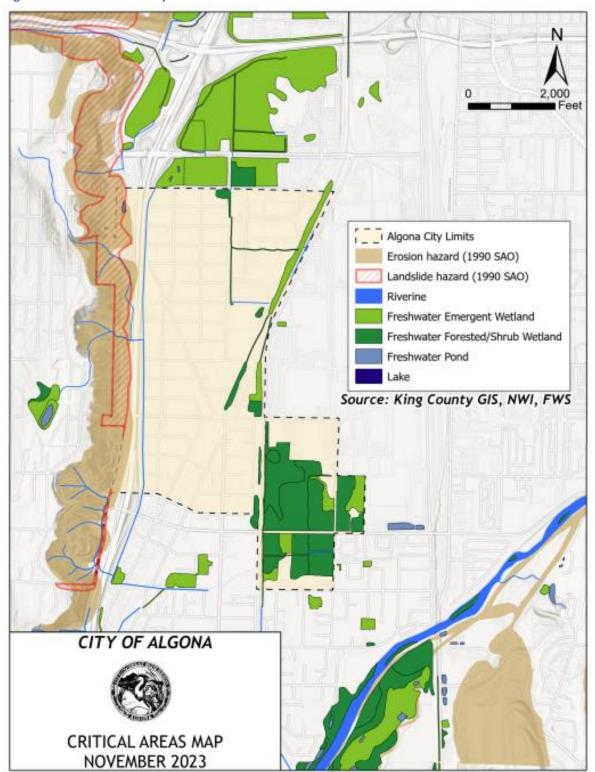
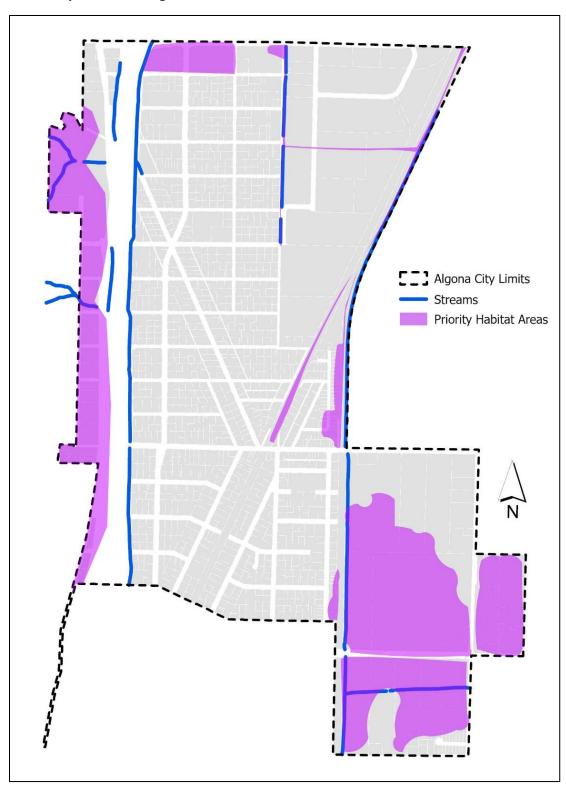


Figure 4: Priority Habitats in Algona<sup>4</sup>



<sup>&</sup>lt;sup>4</sup> Figure 4 was developed using the Department of Fish and Wildlife's *Priority Habitats and Species On The Web* mapping tool. https://geodataservices.wdfw.wa.gov/hp/phs/

# *Implementation*

The *Natural Environment* element is unique in that there are no proposed capital improvement projects related to maintaining and preserving the environment. Instead, the element is typically implemented by local regulations, plans, and programs that implement the element. The following is a list of Algona's adopted programs protecting natural land:

- Algona Municipal Code Title 16 (Environmental Protection)
- 1997 and 2024 Flood Hazard Management Plans
- Algona Stormwater Management Plan and federal NPDES Stormwater Permit
- Critical Areas Map

# **Relationship to Land Use**

Natural lands and critical areas are considered in the *Land Use* element, which sets zoning precedent for the City over the next 20 years. The *Land Use* element measures the amount of vacant developable land available to meet growth projections for housing and jobs. Vacant developable lands exclude any potential or mapped critical areas, indicating no development is anticipated to be possible in critical areas. Algona has historically rezoned properties with verified critical areas to the Open Space and Critical Areas (OS/CA) zone to protect sensitive lands from any consideration of future development or capacity building.

# Climate Change

In 2023, the Washington State Legislature passed HB 1181 which adds a climate goal to the Growth Management Act (GMA) requiring local jurisdictions planning under the GMA to create a *Climate Change* element with resilience and greenhouse gas emissions mitigation sub-elements or appendices. The element must include the following:

- Include goals and policies to address climate change and develop local resiliency to natural hazards;
- Measure greenhouse gas emissions and vehicle miles traveled;
- Describe and prepare for climate impact scenarios;
- Foster resiliency to climate impacts and natural hazards;
- Protect and enhance environmental, economic, and human health and safety; and
- Advance environmental justice.

King County as a whole is not required to complete the *Climate Change* element until 2029 during the mid-period evaluation for the comprehensive plan. Additionally, the state requires a *Climate Change* element for counties and cities with a population greater than 6,000 as of April 1, 2021<sup>5</sup>, and Algona's population of 3,920 does not trigger the requirement to complete the *Climate Change* element.

<sup>&</sup>lt;sup>5</sup> Office of Financial Management, *Population Estimates.* (2021).

Algona's target population for 2044 is 4,660; while it is currently unlikely that Algona will need to prepare a *Climate Change* element in the near future, the City will evaluate economically feasible opportunities to evaluate Algona's climate impact and reduce greenhouse emissions. Algona recognizes that climate change is anticipated to impact the frequency and severity of natural hazards, such as wildfires and landslides, and climate events, such as flooding or droughts.



The City of Algona partnered with Futurewise to engage the community on the value of wetlands at Algona Days 2023. Susannah Spock with Futurewise used a simulation board to demonstrate how wetlands can be a natural tool to reduce pollutant and flooding impacts in manmade environments. Kids and adults alike were able to add features to the board visualizing how different community conditions can enable or protect communities from hydraulic events. Photo provided by Futurewise.

# **Goals and Policies**

# **GOAL NE-1 Critical Areas**

Review and amend local codes, regulations, and practices using best available science resources to protect critical areas, wildlife habitat, and the natural environment.

#### Policies:

#### NE-1.1

Develop and implement an integrated and comprehensive approach to managing fish and wildlife habitat to accelerate ecosystem recovery, focusing on enhancing the habitat of threatened and endangered species, and species of local importance.

#### NE-1.2

Identify and protect wildlife corridors both inside and outside the urban growth area using best available science, such as Priority Habitats and Species data provided by the Washington Department of Fish and Wildlife. Actively engage with <u>King Conservation District</u> to develop a stewardship program to encourage private landowners to manage their land in ways that support the preservation of sensitive areas and associated buffers.

#### **NE-1.3**

Ensure that codes, when updated, contain Best Available Science and Best Management Practices (BMP) covering the following environmental elements:

- 1. Wetlands
- 2. Critical Aquifer Recharge Areas
- 3. Habitat Conservation Areas
- 4. Frequently flooded areas
- 5. Geohazards

# **NE-1.3**

Ensure that codes and standards, when updated and implemented, contain language that designates and protects critical areas including wetlands, fish and wildlife habitat protection areas (habitat conservation areas), frequently flooded areas, critical aquifer recharge areas, and geologically hazardous areas. Adopt new codes and standards containing Best Available Science and Best Management Practices (BMP) in order to protect the functions and values of critical areas, and give "special consideration" to conservation or protection measures necessary to preserve or enhance anadromous fisheries.

#### **NE-1.4**

Locate development and supportive infrastructure in a manner that minimizes impacts to natural features and results in no net loss of ecological function. Promote the use of traditional

and innovative environmentally sensitive development practices, including Low Impact Development (LID) and site design, housing types, materials, construction, and ongoing maintenance.

#### **NE-1.5**

<u>Encourage clustering and density transfers</u> for both commercial and residential development to retain natural features, habitat, and sensitive areas as open space.

#### **NE-1.6**

Reduce stormwater discharge impacts that pollute waters of the state from transportation and development through collaborative watershed planning, redevelopment and retrofit projects, and low-impact development.

#### NE-1.7

Ensure that the City maintains a Sensitive Areas Ordinance (SAO) consistent with the current Washington State Department of Ecology Stormwater Management Manual for Western Washington (SWMM).

#### **NE-1.8**

Coordinate approaches and standards for defining and protecting critical areas, especially where such areas and impacts to them cross jurisdictional boundaries. Consider development of a coordinated regional critical areas protection program that combines interjurisdictional cooperation, public education, incentives to promote voluntary protective measures, and regulatory standards that serve to protect critical areas.

## NE-1.9

Work with state, regional and local agencies and jurisdictions to accomplish air pollution reduction goals.

#### NE-1.10

Ensure that new development, open space protection efforts, and mitigation projects support the <u>State's streamflow restoration law</u>. Promote robust, healthy, and sustainable salmon populations and other ecosystem functions working closely within Water Resource Inventory Areas and utilizing adopted regional watershed plans.

#### NE-1.11

Identify, protect, and designate riparian areas as riparian management zones (RMZs), with consideration for the ecosystem services they provide, such as shade, large wood recruitment, nutrient input, pollutant removal, and important terrestrial wildlife habitat.

# **GOAL NE-2 Environmental Sustainability and Justice**

Encourage environmental stability and justice by integrating sustainable development and business practices with ecological, social, and economic concerns, and addressing environmental impacts on frontline communities and by pursuing fairness in the application of policies and regulations.

#### Policies:

#### **NE-2.1**

Incorporate environmental protection and restoration efforts including climate action, mitigation, and resilience into local comprehensive plans to ensure that the quality of the natural environment and its contributions to human health and vitality is sustained now and for future generations.

#### NE-2.2

Develop and implement environmental strategies using integrated and interdisciplinary approaches to environmental assessment and planning, in coordination with local jurisdictions, tribes, and other stakeholders.

#### **NE-2.3**

Ensure public and private projects incorporate locally appropriate, low-impact development approaches developed using a watershed planning framework for managing stormwater, protecting water quality, minimizing flooding and erosion, protecting habitat, and reducing greenhouse gas emissions.

#### **NE-2.4**

Encourage the transition to a sustainable energy future by reducing demand through efficiency and conservation, supporting the development of energy management technology, and meeting reduced needs from sustainable sources.

#### **NE-2.5**

Enhance the urban tree canopy to provide wildlife habitat, support community resilience, mitigate urban heat, manage stormwater, conserve energy, protect and improve mental and physical health, and strengthen economic prosperity.

## NE-2.6

Ensure all residents of the region regardless of race, social, or economic status have a clean and healthy environment. Identify, mitigate, and correct for unavoidable negative impacts of public actions that disproportionately affect those frontline communities impacted by existing and historical racial, social, environmental, and economic inequities, and who have limited resources or capacity to adapt to a changing environment.

#### NE-2.7

Prioritize natural and manmade places where Black, Indigenous, and other People of Color communities; low-income populations; and other frontline community members live, work, and play.

#### **NE-2.8**

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.

# **GOAL NE-3 Flood Hazards**

Establish local and regional partnerships (i.e., King County Flood Control District) to manage floodplain development and conserve aquatic habitats. Protect public health and safety, regional economic centers, public and private property, and transportation corridors through effective and collaborative floodplain management.

## **Policies:**

#### NE-3.1

Coordinate and fund holistic flood hazard management efforts through the King County Flood Control District.

#### **NE-3.2**

Work cooperatively to meet regulatory standards for floodplain development as these standards are updated for consistency with relevant federal requirements including those related to the Endangered Species Act.

#### **NE-3.3**

Cooperate with federal, state, and regional agencies and forums to develop and implement regional levee maintenance standards that ensure public safety and protect habitat.

#### **GOAL NE-4 Water Resources**

Manage natural drainage systems to improve water quality and habitat functions, minimize erosion and sedimentation, protect public health, reduce flood risks, and moderate peak stormwater runoff rates. Work cooperatively among local, regional, state, national, and tribal jurisdictions to establish, monitor, and enforce consistent standards for managing streams and wetlands throughout drainage basins.

## Policies:

#### **NE-4.1**

Encourage basin-wide approaches to wetland protection, emphasizing preservation and enhancement of the highest quality wetlands and wetland systems.

#### NE-4.2

Support and incentivize environmental stewardship on private and public lands to protect and enhance habitat, water quality, and other ecosystem services, including the protection of watersheds and wellhead areas that are sources of the region's drinking water supplies.

#### **NE-4.3**

Collaborate with the Puget Sound Partnership to implement the Puget Sound Action Agenda and to coordinate land use and transportation plans and actions for the benefit of Puget Sound and its watersheds.

#### **NE-4.4**

Establish a multi-jurisdictional approach for funding and monitoring water quality, quantity, biological conditions, and outcome measures and for improving the efficiency and effectiveness of monitoring efforts.

#### **NE-4.5**

Plan for long term water provision which takes into account future growth and the potential impacts of climate change on regional water resources.

# **GOAL NE-5 Open Space**

Develop strategies and funding to protect lands that provide the following valuable functions: Ecosystem linkages and migratory corridors crossing jurisdictional boundaries; Physical or visual separation delineating growth boundaries or providing buffers between incompatible uses; Active and passive outdoor recreation opportunities; Wildlife habitat and migration corridors that preserve and enhance ecosystem resiliency in the face of urbanization and climate change; Preservation of ecologically sensitive, scenic, or cultural resources; Urban green space, habitats, and ecosystems; Forest resources; and Food production potential.

# Policies:

#### NE-5.1

Identify, preserve, and enhance regionally significant open space networks and linkages (i.e., lands useful for recreation, wildlife habitat, trails, and connection of critical areas) across

jurisdictional boundaries through implementation and participation in the <u>Regional Open Space</u> Conservation Plan.

#### NE-5.2

Preserve and restore native vegetation and tree canopy, especially where it protects habitat and contributes to overall ecological function.

#### NE-5.3

Provide parks, trails, and open space within walking distance of urban residents. Prioritize historically underserved communities for open space improvements and investments.

# **GOAL NE-6 Restoration and Pollution**

Adopt policies, regulations, and processes, related to new or existing fossil fuel facilities, which are designed to: Protect public health, safety, and welfare from all impacts of fossil fuel facilities; Mitigate and prepare for any impacts of fossil fuel facility disasters on all communities; Protect and preserve natural ecosystems from the construction and operational impacts of fossil fuel facilities; Manage impacts on public services and infrastructure in emergency management, resilience planning, and capital spending; Ensure comprehensive environmental review, and extensive community engagement, during initial siting, modifications, and on a periodic basis; and Reduce climate change impacts from fossil fuel facility construction and operations.

#### Policies:

#### NE-6.1

Reduce the use of toxic pesticides, chemical fertilizers, and other products and promote alternatives that minimize risks to human health and the environment.

## NE-6.2

Maintain and restore natural hydrological functions and water quality within the region's ecosystems and watersheds to recover the health of Puget Sound in coordination with other cities, counties, federally recognized tribes, federal and state agencies, utilities, and other partners.

#### **NE-6.3**

Continue efforts to reduce pollutants from transportation activities, including use of cleaner fuels and vehicles and increasing alternatives to driving alone, as well as design and land use.

#### NE-6.4

Reduce and mitigate noise and light pollution caused by transportation, industries, public facilities, and other sources.

# **NE-6.5**

Prevent, mitigate, and remediate harmful environmental pollutants and hazards, including light, air, noise, soil, and structural hazards, where they have contributed to racialized health or environmental disparities, and increase environmental resiliency in frontline communities.

#### **NE-6.6**

Establish partnerships with cultural institutions, faith groups, neighborhood organizations, community centers, and other community resources to understand polluted related harms amongst vulnerable communities. Implement community vetted strategies to reduce impacts to vulnerable populations and areas that have been disproportionately affected by noise, air pollution, other environmental pollutants.