Section 3: Natural Resources and Environmental Quality

Overarching Chapter Goal: Protect, conserve and enhance the quality, diversity, and resiliency of Milwaukie's natural resources and ecosystems, and maintain the quality of its air, land and water. Utilize a combination of development regulations, incentives, education and outreach programs, and partnerships with other public agencies and community stakeholders.

Goal 3.1: Prioritize the protection of Milwaukie's natural resources and environmental quality through the use of best available science and increased community awareness and education.

Policy 3.1.1: Partner with community groups, environmental organizations, and others to pursue legislative and administrative rule changes and regional, state, and federal funding for the acquisition, protection, or enhancement of natural resources.

Policy 3.1.2: Promote public education and encourage collaboration with community partners and organizations when developing strategies to protect air and water quality and other natural resources.

Policy 3.1.3: Support the clean-up and remediation of brownfields and other potentially contaminated land by identifying and pursuing available resources for such work in an effort to protect natural resources and the City's groundwater supply.

Policy 3.1.4: Periodically update the City's inventory of wetlands, floodplains, fish and wildlife habitat and corridors, and other natural resources through both technology and in-field verification.

Goal 3.2: Enhance water quality and water resources.

Policy 3.2.1: Support programs and regulations to enhance and maintain the health and resilience of watersheds, riparian and upland zones, and floodplains.

Policy 3.2.2: Support efforts to restore Kellogg and Johnson Creeks and their tributaries and remove the Kellogg Dam.

Policy 3.2.3: Improve and expand coordination with adjacent jurisdictions on the protection and restoration of local rivers, creeks, and other natural resources.

Policy 3.2.4: Maintain the City's regulatory hierarchy that requires a detailed analysis, including alternatives, of how development will 1) avoid, 2) minimize, and 3) mitigate for impacts to natural resources.

Policy 3.2.5: Regulate floodplains to protect and restore associated natural resources and functions, increase flood storage capacity, provide salmon habitat, minimize the adverse impacts of flood events, and promote climate change resiliency.

Policy 3.2.6: When considering development proposals, take into account changes in water flow and quantity associated with climate change and evaluate the downstream impacts of development in upland areas.

Policy 3.2.7: Protect water quality of streams by using best available science to help control the amount, temperature, turbidity, and quality of runoff that flows into them, in partnership with other regulatory agencies.

Policy 3.2.8: Improve stormwater detention and treatment standards through the use of best available science, technology, and management practices to meet water quality standards and achieve wildlife habitat protection and connectivity goals and standards. Establish the City's preference for sustainable stormwater facilities that utilize natural systems and green technology through the use of incentives as well as future code changes.

Policy 3.2.9: Monitor water table levels and ensure protection of the City's groundwater supply, particularly those water resources that provide the City with potable water.

Policy 3.2.10: Coordinate and partner with State and federal regulatory programs to protect the quality of the City's groundwater resources from potential pollution, including potential impacts associated with infiltration from water, wastewater and stormwater pipes.

Goal 3.3: Protect and conserve fish and wildlife habitat.

Policy 3.3.1: Protect habitat areas for indigenous fish and wildlife species that live and move through the City, especially those subject to Native American fishing rights. Focus these efforts on habitat that is part of or helps create an interconnected system of high-quality habitat, and also considers downstream impacts of activities within Milwaukie.

Policy 3.3.2: Consider impacts to habitat connectivity when reviewing development proposals.

Policy 3.3.3: Work with regulatory agencies and private property owners to remove barriers to fish passage and wildlife movement corridors between the Willamette River and its tributaries.

Policy 3.3.4: Protect and enhance riparian vegetation that provides habitat and improves water quality along creeks and streams through the use of best available science and management practices to promote beneficial ecosystem services, such as managing water temperature and providing woody debris for habitat.

Policy 3.3.5: Require mitigation that restores ecological functions and addresses impacts to habitat connectivity as part of the development review process.

Policy 3.3.6: Encourage and incentivize voluntary restoration of natural resource areas, including removal of invasive-species vegetation, on-site stormwater management, and planting of native-species or climate-adapted vegetation.

Policy 3.3.7: Develop a habitat connectivity analysis and strategic action plan.

Goal 3.4: Develop a healthy urban forest in Milwaukie.

Policy 3.4.1: Implement and maintain an urban forestry program.

Policy 3.4.2: Pursue the City's goal of creating a 40% tree canopy through a combination of development code and other strategies that lead to preservation of existing trees and planting of new trees and prioritize native and climate-adapted species.

Policy 3.4.3: Provide flexibility in the division of land, the siting and design of buildings, and design standards in an effort to preserve the ecological function of designated natural resources and environmentally-sensitive areas and retain native vegetation and trees.

Policy 3.4.4: Prioritize increased tree canopy in areas that are currently canopy-deficient and can help provide a more equitable distribution of trees in the city, including street trees.

Policy 3.4.5: Enhance protections for existing native-species and climate-adapted trees that contribute to a diverse and multi-aged tree canopy.

Policy 3.4.6: Evaluate the stormwater impacts associated with tree removal as part of the development review process.

Goal 3.5: Encourage and incentivize sustainable design and development practices.

Policy 3.5.1: Provide information about alternatives to conventional construction and site planning techniques that can help increase energy efficiency, utilize existing buildings and reclaimed materials, and reduce long-term costs

Policy 3.5.2 Incorporate sustainable and low-impact building- and site-planning technologies, habitat-friendly development strategies, and green infrastructure into City codes and standards.

Policy 3.5.3: Identify and develop strategies to remove barriers to sustainable design and development, including affordability and regulatory constraints.

Policy 3.5.4: Identify additional opportunities for partner agencies and environmental organizations to provide early feedback and recommendations on reducing environmental impacts associated with development.

Policy 3.5.5: Examine development code changes that help reduce impacts on wildlife, such as bird-friendly building design.

Goal 3.6: Maintain a safe and healthy level of air quality and monitor, reduce, and mitigate noise and light pollution.

Policy 3.6.1: Coordinate with federal and state agencies to help ensure compliance with state and federal air quality standards, while advocating for improved regional air quality standards.

Policy 3.6.2: Advocate for a consistent, effective level of environmental monitoring of local industrial activities by state and federal agencies to ensure that applicable State and federal air quality standards are met.

Policy 3.6.3: Support local efforts such as good-neighbor agreements and partner with community organizations and/or governments that aim to evaluate and reduce local sources of air and noise pollution and their impacts on local residents.

Policy 3.6.4: Encourage or require building and landscape design, land use patterns, and transportation design that limit or mitigate negative noise impacts to building users and residents, particularly in areas near freeways, regional freight ways, rail lines, major city traffic streets, and other sources of noise.

Policy 3.6.5: Continue to enforce and enhance noise standards and pursue other nuisance codes such as odor to address the adverse impacts of industries and vehicles.

Policy 3.6.6: Evaluate impacts to both humans and wildlife related to light and noise pollution and require appropriate mitigation.

Policy 3.6.7: Create standards and best practices for the demolition of buildings to reduce impacts associated with creation or release of dust and air pollutants.

Policy 3.6.8: Incorporate emission reduction and other environmental requirements into the city's contracting process to reduce air quality impacts associated with use of city equipment and activities on city-owned properties or developments.

Willamette Greenway

Overarching Chapter Goal: Protect, conserve, enhance, and maintain the lands and water that comprise the City's portion of the Willamette River Greenway in a manner that recognizes the unique natural, scenic, historical, economic, and recreational qualities that exist along the Willamette River.

Goal 4.1 - Willamette Greenway Boundary: Maintain the Willamette Greenway Boundary and utilize a Greenway Compatibility Review Boundary to implement Statewide Planning Goal 15.

Policy 4.1.1: Utilize the Greenway Compatibility Review Boundary to identify where the highest level of compatibility review will occur. The Greenway Compatibility Review Boundary will apply within 150 feet of the ordinary high-water line of the Willamette River and in other adjacent areas that have been identified as being in the 100-year floodplain of the Willamette River or areas that have unique or significant environmental, social, or aesthetic qualities. The Greenway Compatibility Review Boundary is depicted on Map XX.

Policy 4.1.2: Kronberg Park and the area occupied by Kellogg Lake are included within the Willamette River Greenway Boundary.

Goal 4.2 - Greenway Design Plan: Allow preparation of a Greenway Design Plan within the Willamette Greenway Boundary.

Policy 4.2.1: The adopted park master plans for Kronberg Park and Spring Park, the downtown design review approval for Milwaukie Bay Park, and the Elk Rock Island management plan will serve the same purpose as a Greenway Design Plan for each of the parks. All future park master plans or amendments to plans will be adopted through the community service use process.

Policy 4.2.2: A Greenway Design Plan may be prepared and adopted as an ancillary plan to the Comprehensive Plan. The Greenway Design Plan may apply to the entire Willamette Greenway or any portion of the greenway. An adopted Greenway Design Plan may provide an alternative review process for development within the greenway provided it is consistent with the adopted plan, and should be updated periodically to reflect best available science and changing conditions along the greenway, including those induced by climate change.

Goal 4.3 - Land Use Review Process: Coordinate public and private land uses and ensure compatibility of uses within the Willamette Greenway.

Policy 4.3.1: Utilize the Willamette Greenway Zone in combination with underlying land use designations to manage uses and implement City Willamette Greenway objectives and Statewide Planning Goal 15.

Policy 4.3.2: Two levels of review will be employed to determine the appropriateness and compatibility of new or intensified uses with the Willamette Greenway.

a. Within the Greenway Compatibility Review Boundary, a Willamette Greenway Conditional Use Permit must be obtained prior to new construction or intensification of an existing use when the new or intensified use is not identified as a permitted planned use within an adopted park master plan or the Greenway Design Plan. Special criteria addressing use, siting, size, scale, height, and

site improvements will be used to review and guide development within the Compatibility Review Boundary.

b. Outside of the Greenway Compatibility Review Boundary, new construction and intensification of uses will be allowed, provided that the scale and nature of the use meets the standards specified in the Willamette Greenway Zone. Development standards for these uses will be used to allow certain forms of development as a use by right.

   The review process will require consistency with the following plans: Willamette Greenway Chapter of the Comprehensive Plan, parks master plans, the Greenway Design Plan, and the Downtown and Riverfront Land Use Framework Plan.

Policy 4.3.3: Setbacks for new or intensified uses may be established through the park master planning process or through a Greenway Design Plan. When not established through these plan processes, the Willamette River Greenway conditional use process will be used to establish setbacks. For uses that are not water-dependent or water related, setbacks will be determined on a case-by-case basis and the uses will be directed away from the river. Existing and proposed uses that are water-dependent and water-oriented may be permitted near or at the water's edge.

Goal 4.4 - Natural Resource Protection: Protect and conserve the natural resources within the Willamette River Greenway while recognizing recreation needs.

Policy 4.4.1: Within the Willamette Greenway, protect and conserve natural resources through the City's two Natural Resource overlay zones: WQR - Water Quality Resource and HCA – Habitat Conservation Area.

Policy 4.4.2: Promote an increase in tree canopy within the Willamette Greenway through tree planting programs and by mitigating for any lost tree canopy that occurs through development, while recognizing the importance of certain public views of the river.

Policy 4.4.3: Support the removal of the Kellogg Creek Dam and the restoration of Kellogg Creek through revegetation of riparian areas with native species. Removal of the Kellogg Creek Dam is consistent with the greenway chapter of the plan and will not require greenway review.

Policy 4.4.4: Manage Elk Rock Island as a natural area park.

Policy 4.4.5: Allow and support environmental education and interpretative displays within the Willamette Greenway.

Goal 4.5 - Recreation: Enhance the recreational use of lands within the Willamette Greenway boundaries while protecting and conserving natural resources.

Policy 4.5.1: Use park master plans to outline the major recreational uses, activities, and conceptual design for each of the parks within the Willamette Greenway.

Policy 4.5.2: The parks within the Willamette River Greenway will serve a variety of needs for the City including:

- Access to the Willamette River for water sports - boating, fishing, swimming, kayaking etc.,

- Recreational trails along the river,
- River and natural area viewing,
- Picnicking, and
- Community events.

The Parks and Recreation Chapter of the Comprehensive Plan will define the primary intent and purpose of each park.

Policy 4.5.3: Within the Willamette Greenway, accommodate a trail system along the river that is intended to connect with future Willamette Greenway trails to the north and south of the City. Develop a trail plan, acquire right-of-way, and build trail segments as funding becomes available.

Policy 4.5.4: Connect City bicycle and pedestrian trail systems with the trail system through the Willamette Greenway.

Goal 4.6 - Public Access and View Protection: Provide, improve, and maintain public access and visual access to the lands and water that make up the Willamette River Greenway.

Policy 4.6.1: Encourage new public access and views within the greenway and to the Willamette River, through dedications, easements, acquisitions or other means.

Policy 4.6.2: Undertake efforts to make existing points of public access more accessible and usable through maintenance and signing.

Policy 4.6.3: As part of the Greenway Compatibility Review process, evaluate proposals for new development and intensification of use for their effect on visual access to the Willamette River and Kellogg Creek from publicly owned land and the public right-of-way. Where impacts are significant, efforts will be made to preserve visual access to the river and creek through dedications, easements, acquisitions or other means.

Policy 4.6.4: As part of the planning effort for parks and other public improvements, ensure that trees and other features are intentionally placed to frame and enhance views of the Willamette River and Kellogg Creek. Enhancing riparian vegetation along Kellogg Creek to improve aquatic habitat conditions for native species will be a higher priority than maintaining or improving views of the creek.

Policy 4.6.5: Based on the Public Use Doctrine, the City acknowledges that the public has the right to recreate on land and water below the ordinary high-water line of the Willamette River.

Goal 4.7 – Downtown: Maintain Milwaukie Bay Park, Dogwood Park, and Kronberg Park as the key public amenities in the downtown that attract people to the area to enjoy the open space, public trails, riverfront access, and riverfront-related development, consistent with the Downtown and Riverfront Land Use Framework Plan and park master plans.

Policy 4.7.1: Provide safe pedestrian connections between the downtown Milwaukie and the Willamette River consistent with the Downtown and Riverfront Land Use Framework Plan.

Policy 4.7.2: Work with Clackamas County Water Environment Services to accommodate recreational and water-related uses at the treatment plant site. This could include full redevelopment and relocation of the facility, shrinking the footprint, adding wetland features, adding a community water quality education center, providing physical access to the river, or capping the treatment plant with park facilities over the plant.

Policy 4.7.3: Within the Willamette Greenway, provide opportunities for limited commercial and recreational services that are focused to support users of the river, the parks, or the trail systems.

Section 5: Natural Hazards

Overarching Chapter Goal: Protect the Milwaukie community from the threats of natural hazards, including those induced by climate change, through risk minimization, education, and adaptation.

Goal 5.1 - Identifying and Reducing Hazard Potential: **Identify areas with high natural hazard potential and develop policies and programs to reduce potential negative impacts.**

Policy 5.1.1: Ensure that City natural hazard maps stay updated and reflect the most recent information and best available science for natural hazard areas, including flooding, landslides, liquefaction, unstable soils, wildfire, earthquakes, drought and sea level rise.

Policy 5.1.2: Require the submittal and neutral third-party review of detailed technical reports for proposed development within high risk flood, liquefaction and landslide hazard areas.

Policy 5.1.3: Encourage and prioritize development in areas with low risk of natural hazards and restrict development in areas with high risk that cannot be adequately mitigated.

Policy 5.1.4: Regulate floodplain areas in a manner that protects the public, recognizes their natural functions as waterways and critical habitat, and provides open space/recreational opportunities.

Goal 5.2 - Partnerships and Education: **Continue and expand partnerships with government agencies, utilities, and other groups that can help Milwaukie residents prepare for natural hazards.**

Policy 5.2.1: Continue to coordinate with regional, state and federal agencies on disaster preparedness efforts

Policy 5.2.2: Work with agency partners to address and respond to increased episodes of poor air quality resulting from wildfires in the region.

Policy 5.2.3: Ensure that mapping of the 100- and 500-year floodplain areas stays current and accurate.

Policy 5.2.4: Work with the county, state, and regional partners to regularly update the City's Hazard Mitigation Plan.

Policy 5.2.5: Increase outreach and education for hazard awareness and natural disaster preparedness, especially for low-income, elderly, non-English speaking, and other vulnerable populations.

Goal 5.3 - Infrastructure and Building Resiliency: Ensure that the City's built environment and infrastructure are adequately prepared for natural disasters.

Policy 5.3.1: Ensure that relevant sections of the Milwaukie Municipal Code, most notably those that deal with Flood Hazards, Seismic Conditions, and Soils, are maintained to reflect best available science.

Policy 5.3.2: Increase the quality, resiliency, and redundancy of utility and transportation infrastructure to increase chances of continued service following a natural disaster.

Policy 5.3.3: Promote the retrofitting of buildings for better natural disaster resiliency through education and potential incentives for residential and commercial property owners.

Policy 5.3.4: Encourage development that exceeds minimum building code standards and is built to withstand high intensity natural disasters.

Policy 5.3.5: Prohibit essential public facilities and uses with vulnerable populations from being located within areas at high risk of flooding, landslides, liquefaction, and fire, and aim to relocate existing uses in these areas.

Goal 5.4 - Adaptation and Mitigation: **Develop programs that inform the public about the increased risks from natural hazards and create strategies for how to deal with them.**

Policy 5.4.1: In areas where there is a high risk of flooding or other natural hazards, support efforts by the City and other public and private entities to acquire properties for conservation purposes. Restrict development to uses that have a demonstrated community benefit and for which the natural hazard risks and environmental impacts can be adequately mitigated.

Policy 5.4.2: Increase requirements for protecting large trees, riparian vegetation and wetlands that have the potential to consume and retain large amounts of surface and storm water.

Policy 5.4.3: Coordinate with local, regional, state and federal agencies on disaster preparedness efforts, including coordination for major seismic and flooding events.

Policy 5.4.4: Encourage, and eventually require, green infrastructure and development practices.

Policy 5.4.5: Support expansion of the City's Community Emergency Response Team (CERT) to aid in responding to natural hazard events.

Policy 5.4.6: Create designated emergency routes and provide an array of disaster recovery facilities, with emergency supplies, that can withstand major natural hazard events, and keep the public informed of them through a variety of different outreach methods.

Section 6: Climate Change and Energy

Overarching Chapter Goal: Conserve energy and be prepared for the anticipated impacts of climate change in Milwaukie through efficient land use patterns, multimodal transportation options, wise infrastructure investments, increased community education and incorporating strategies from the City's Climate Action Plan.

Goal 6.1 - Built Environment: **Create a built environment that prioritizes energy efficiency and climate resiliency and seamlessly integrates the natural environment.**

Policy 6.1.1: Encourage the use of innovative design and building materials that increase energy efficiency and natural resource conservation, and minimize negative environmental impacts of building development and operation.

Policy 6.1.2: Provide flexibility in development standards and permitted uses for projects that address climate change and energy conservation through strategies identified in the Climate Action Plan and/or best available science.

Policy 6.1.3: Advocate at the local, state, and federal level for building codes that increase energy conservation and facilitate emission reductions, and be a model for implementing these higher standards.

Policy 6.1.4: Develop standards and guidelines that contribute to a 40% citywide tree canopy.

Policy 6.1.5: Create a more energy efficient land use pattern that includes but is not limited to infill and cluster development, neighborhood hubs and increased density.

Policy 6.1.6: Encourage the creation of compact, walkable neighborhoods and neighborhood hubs throughout the city that provide a mix of uses and help reduce transportation emissions and energy usage.

Policy 6.1.7: Work with property owners and developers to facilitate the adaptive reuse of existing buildings.

Policy 6.1.8: Incorporate climate change criteria into city decision making processes, including land use applications and development review.

Policy 6.1.9: Streamline review for solar projects on rooftops, parking lots, and other areas with significant solar capacity.

Goal 6.2 - Transportation and Utility Infrastructure: Maintain and expand Milwaukie's transportation and utility infrastructure in a manner that facilitates greater redundancy, energy conservation, and emissions reductions.

Policy 6.2.1: Increase the quantity, quality and variety of Milwaukie's active transportation options, including trails, bike lanes, sidewalks, and transit.

Policy 6.2.2: Work with local businesses and regional partners to increase transit usage and develop last mile solutions to Milwaukie homes, businesses, and neighborhood hubs.

Policy 6.2.3: Identify desired transportation mode splits and use best available science to develop programs and standards to ensure that they are met.

Policy 6.2.4: Reduce barriers to developing renewable energy projects.

Policy 6.2.5: Aim to increase the use of renewable energy vehicles through a mix of infrastructure improvements, incentives, and development requirements.

Policy 6.2.6: Account for rapidly changing technologies such as autonomous vehicles and other intelligent transportation systems during site development review and capital improvement planning.

Policy 6.2.7: Prioritize natural stormwater management systems.

Goal 6.3 - Adaptation and Mitigation: Ensure that the Milwaukie community is informed and prepared to address a changing climate and the need to modify historic norms and behavior.

Policy 6.3.1: Educate residents, businesses, developers and other community members on climate science and the most effective ways they can take action to adapt and mitigate for a changing climate, including transportation and energy choices, local food production and consumption, the sharing economy, sustainability at work programs and waste reduction.

Policy 6.3.2: Be an advocate and early adopter of emerging technologies and strive to be a model for how small cities can adapt to climate change.

Policy 6.3.3: Incorporate best available science related to energy conservation and climate change adaptation into planning and development review.

Policy 6.3.4: Regularly update the City's Climate Action Plan to identify strategies for addressing climate change and include emerging technologies and programs.

Policy 6.3.5: Promote climate-resilient vegetation, landscaping, and local food systems.

Policy 6.3.6: Pursue the development of heat shelters and shading sites, including indoor community spaces that can serve as clean air and cooling centers and shaded outdoor community spaces

Policy 6.3.7: Encourage property owners to retrofit their properties to accommodate renewable energy production.

Policy 6.3.8: Explore opportunities for increasing distributed renewable energy generation through community solar projects and other collective efforts.

Policy 6.3.9: Consider equity and affordability when developing city programs and development standards related to energy conservation and climate change and identify strategies for reducing potential impacts related to increased costs.

Policy 6.3.10: Consider increased population growth due to climate refugees, moving to the area to escape less hospitable climates, and identify metrics and triggers for when additional planning is needed to address potential impacts to housing, infrastructure, and the economy.

Policy 6.3.11: Encourage the use of materials and site development techniques that can mitigate for climate-change induced impacts such as heat island effect and increased flooding.