Section 5

Open Spaces, Scenic and Historic Areas, and Natural Resources

This section addresses Land Conservation and Development Commission (LCDC) Statewide Planning Goal 5, which requires that open spaces and natural, scenic, and historic resources be protected.

Oregon City is blessed with a wealth of natural resources that visually and physically contribute to its high quality of life and provide a range of ecosystem services. The city's steep topography is carved into 13 watersheds, which benefit from western Oregon's ample rain and collectively support a wide variety of habitats. Oregon City is home to a number of species of fish, wildlife, and plants that are regionally and nationally significant.

As awareness of the importance of natural resources and their relationship to the quality of life has increased, so has concern for protecting the natural environment. Protecting the city's valuable natural resources is thus one of Oregon City's primary goals. In addition, the City must comply with federal, state, and regional laws protecting natural resources, including sensitive, threatened, and endangered species and their habitats.

Oregon City stands out in the region because of its historic character. This section is intended to foster protection of that character by identifying the resources that define the city's historic character and by promoting the development of an aggressive and systematic process that will preserve and enhance Oregon City's special identity.

Open Space

The *Oregon City Park and Recreation Master Plan* (1999) defines natural open space as undeveloped land that is completely or almost completely in a natural state and that is used for passive rather than active recreational purposes.

Open space is usually publicly owned or managed. According to the master plan, the City owns a total of about 38 acres of open space in four sites: Old Canemah Park, River Access Trail, Singer Creek Park, and Waterboard Park. Only Waterboard Park is entirely undeveloped. Clackamas County, Metro, the State of Oregon and the public schools own a total of approximately 278 acres of open space within Oregon City. The master plan recommends adding 250 acres of natural open space, most of which is in Canemah Bluff and Newell Creek Canyon. Metro has already purchased a significant amount of open space in Newell Creek Canyon, the Canemah Bluff and along the Willamette Greenway.

Scenic Views and Sites

Oregon City is blessed with topography that provides outstanding scenic views and sites that create a sense of place and civic identity for both residents and visitors. Distant views of Mount Hood and the Cascade Mountains, as well as nearer views of the Willamette and Clackamas Rivers, Willamette Falls, scenic cliffs, and wooded areas such as Newell Creek Canyon, provide Oregon City with an abundance of scenic amenities, many dramatic and unique. The views and sites are economic and aesthetic resources that contribute to the overall distinctiveness and identity of Oregon City, and they should be protected.

While views of distant landscapes from promontories and high elevations are often protected, views from lower elevations of the higher topographic points of Oregon City have not been as appreciated or protected. These lower elevation views should be considered when development is proposed.

Views can be preserved in a variety of ways, from prohibiting development in particularly significant view corridors to designing structures that are appropriate to a site, using, for example, color and landscaping to hide or minimize visual incongruity. The City should develop guidelines for integrating the built environment with natural resources and continue to adopt and use guidelines to address scenic views, both looking down from higher points and up from lower points.

Major scenic views have been inventoried by the City.

Historic Preservation

In the 1960s, many of the nation's older buildings were lost to urban renewal programs, which negatively affected inner-city core areas by destroying established residential neighborhoods. Many of these neighborhoods were mixed-use, offering a variety of housing and commercial opportunities. The misguided programs led to a loss of inner-city amenities and quality housing and encouraged residential dislocation into the suburbs.

[Preservation] ... is not just a romantic indulgence in nostalgia. It is a physical restatement of the long hallowed American values of frugality, good craftsmanship, and community responsibility.

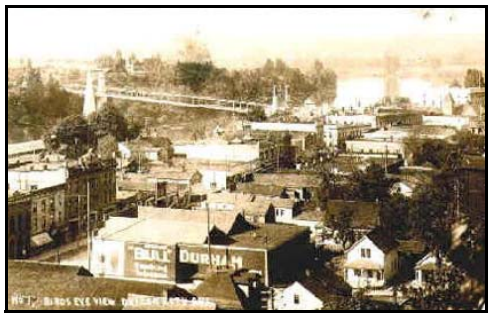
— Bruce Chapman, National Trust

A new attitude toward historic preservation and redevelopment has emerged in the last few decades. Losses in architectural and historic resources and the resulting urban dislocation created a new appreciation for and an awareness of the need to retain the character of neighborhoods. Areas where people have traditionally lived and worked are as worthy of preservation as individual landmarks and memorial sites.

Today, it is recognized that a variety of building types (residential and commercial) and styles contribute to the unique character of a community. When planning for historic preservation, an effort must be made to conserve whole neighborhoods. Retaining these irreplaceable assets requires strong community leadership and cooperation among private and public interests.

Preservation in Oregon City

It would be difficult to find a community in the West with more significant local, state and regional heritage than Oregon City. As the seat of the first provisional government of the Oregon Territory (1843–1849), capital of the Oregon Territory (1849–1850), and the first incorporated town west of the Rockies (1844), Oregon City has many homes, commercial buildings, and sites that are related to its important place in history.



Preservation of these community resources—landmark sites, historic buildings and areas, and archaeological sites—offers an opportunity to maintain and enhance Oregon City's unique identity. A well-developed preservation program can benefit property owners, local historians, students, community spirit, and tourism and increase the appreciation residents have for their city's cultural heritage.

Certified Local Government Program

The State Historic Preservation Office (SHPO) has designated the City of Oregon City as a Certified Local Government (CLG). Administered by the National Park Service, a CLG Program integrates local governments with the National Historic Preservation Program through activities that strengthen decision-making regarding historic places at the local level. The CLG Program seeks to (1) maintain and develop local historic preservation programs that

influence zoning and permitting decisions critical to preserving historic properties, and (2) ensure the broadest possible participation of local governments in the National Historic Preservation Program while maintaining preservation standards established by the Secretary of the Interior. Participating in the CLG Program allows Oregon City to apply for non-competitive and competitive grants administered by SHPO. Surveys of the McLoughlin District in 2002 and the Historic Downtown in 2000 were funded using this grant process. The City is committed to maintaining an active participation in the CLG Program.

Archaeological Sites

Oregon City has important prehistoric and historic resources. For example, Willamette Falls was an important center in Native American culture and attracted great activity well before the 1800s.

Archaeological resources in Oregon have been overlooked by many communities, including Oregon City. Special attention should be given to proposed locations for new construction to avoid impacting archaeological sites. A number of state and federal antiquity laws now provide varying degrees of protection for archaeological sites. Once a site has been damaged by extensive building cover, archaeological values are likely to be lost. If it is likely that a site may yield archeological resources, further review may be needed to ensure that the site can be protected.

Historic Districts

Historic Districts are areas where buildings with national or local historical and/or architectural significance are concentrated. A Historic District is recognized for retaining its "sense of place," meaning that a traditional atmosphere of distinct character is evident. Generally, a Historic District designation requires, through the Historic Overlay Ordinance, that proposed construction, exterior alterations, and demolitions within the district's boundaries be reviewed. To be designated as a Historic District, an area must:

- have architectural features that are well-related and have continuity
- appear as a discrete entity
- exhibit visual harmony in the character of public ways consistent with the architectural character of the area
- have generally compatible uses, including intended uses
- have a majority of properties with historic significance

Oregon City's older areas are valued for their neighborhood character, architecture, and the identity they possess as a result of their role in the development of the city. Unfortunately, some structures have been allowed to deteriorate with a corresponding effect on the character of these areas.

Designation as an historic property ensures an owner that a compatible setting will be maintained. All residents and property owners benefit from the protection and enhancement of property values, incentives for revitalization, and stabilization of an area.

Existing Historic District: Canemah. Canemah is an important example of a relatively intact riverboat town with architectural resources dating from the 1860s. Having evolved from a community for the elite of the riverboat industry to a workers' community, Canemah retains essentially the same sense of place it had in the latter half of the 19th century. Situated above the Falls of the Willamette, it was an important portage town and the major shipbuilding center on the upper Willamette River.

Present Status. Canemah was listed as a Historic District in the National Register of Historic Places in 1977. The area was zoned in 1954 for industry along the river, commercial and multi-family along McLoughlin Boulevard, and multi-family along Third Avenue and portions of Fifth Avenue. In 1982, a majority of the area was rezoned as residential except for a small strip on McLoughlin Boulevard, which was rezoned to Historic Commercial.

In the last 20 years, many homes within the district have been rehabilitated, but some have not been maintained to a level that ensures their significance and status as contributing structures. New construction and exterior alterations need to be reviewed for their long-term effect on the neighborhood and National Register Historic District status.

Proposed Historic District: Downtown. Downtown Oregon City has historical significance as the original town site, following Dr. John McLoughlin's claim of the Willamette Falls area in 1829. The Downtown was surveyed by Sidney Moss in 1842 and Jesse Applegate in 1844. The city grew between the Willamette River and the bluff between 1843 and 1865. Industrial, commercial and residential development all took place. McLoughlin set aside a Mill Reserve in the area closest to the falls where the mills developed. Commercial establishments grew along lower Main Street, and residences were built throughout the area.

After the Civil War, industrial development increased rapidly. A woolen mill was built in 1865, and other small industries and trading establishments expanded. The residential quality of the area deteriorated as the commercial district grew. Access to the upper level was developed and residents relocated there, some physically moving their houses. Over the years, commercial uses have continued to grow, transforming the original pioneer settlement into a Central Business District.

While many of the original impressive Downtown buildings have been lost, a substantial number of historic and/or architecturally significant buildings still stand. The areas from 5th to 9th Streets and from the river to the bluff contain

the largest concentration of historic buildings that merit preservation. The area is generally cohesive, and intrusive or out-of-character uses are relatively few. Improvements could be made in the public rights-of-way to enhance the area as a district without disruption to commercial activity.

The proposed Downtown District consists of eight city blocks from the original Oregon City plat. Total land area of the district is approximately 21 acres. The area is commercial and professional office in use and character and contains approximately 44 structures. Parking lots exist on all but one block.

Present Status. In 2000, a re-survey of the Historic Downtown was conducted to determine the current status of buildings and the potential for the area to be listed as a National Register Historic District. Although the re-survey indicated that Oregon City's central business district is not eligible as a National Register Historic District, it did show that there is potential for restoring a sufficient amount of historic character to resources currently categorized as "Non Contributing in Current State," which would bring the percentage of "Contributing Resources" to an eligible level for a Historic District designation.

The Historic Downtown area is part of the Downtown Community Plan Phase II Implementation Program. Rezoning based on that plan, along with new design guidelines that directly address exterior alterations and new construction in the area, will ensure that future development is compatible with the significant structures of the area.

Proposed Historic District: McLoughlin Conservation District. The McLoughlin District is currently designated as a city Conservation District. However, the findings of a 2002 re-survey of the district, as described below, support its designation as a National Register Historic District.

Conservation Districts

A Conservation District designation is intended to protect the buildings within the district through an ordinance that requires a review of proposed construction, exterior alterations to designated structures, and demolitions. Although not as comprehensive as a Historic District, a Conservation District can ensure that a neighborhood's significance does not erode.

Existing Conservation District: McLoughlin. Many of Oregon City's historic and architecturally significant buildings are above the bluff in the McLoughlin neighborhood. The original Oregon City plat includes the neighborhood area up to Van Buren Street, and it is within this area that early residential development took place, beginning in the 1850s. As the Downtown area changed from a residential to commercial district, home building

increased above the bluff. All of the churches that originally stood in the Downtown eventually relocated to the McLoughlin area as well.

Present Status. In 2002, a re-survey was undertaken to determine the current status of buildings and the potential for the area to be listed as a National Register Historic District. In 2003, Oregon City High School moved from the McLoughlin neighborhood to a new facility on Beavercreek Road. Moving the school provides the City an opportunity to work with the school district to reuse the historic high school building. The City supports any rehabilitation of the campus that would continue its role as a community gathering place and keep it consistent with the Secretary of Interior Standards for Rehabilitation and the Goals and Policies of the Historic Review Board.

Proposed Conservation Districts. Other Historic Districts may exist in this historically important community. The Ely, Park Place, and Rivercrest neighborhoods have many historic properties and may be eligible for designation as Conservation Districts. An appropriate, well-constructed historic preservation plan will provide for identification and establishment of safeguards of these areas, which are important to the quality of Oregon City as a whole and to the identity of the Northwest.

Historic Buildings Outside Identified District Boundaries

There are many historic buildings outside the designated Historic Districts. Some of the buildings are among the oldest in the city, and many stand alone because they were originally built outside of "urban" Oregon City in what used to be farm and pastureland. City areas outside the Canemah and McLoughlin areas have been surveyed to identify the most significant buildings.

Present Status. Efforts to preserve individual historic buildings have been scattered. There is little public recognition of the historic value of significant buildings outside of McLoughlin and Canemah except for the more prominent and expensive estate homes. The Ely, Park Place, Rivercrest, and South End areas in particular have deteriorated, and some of the older homes have been demolished, often to the detriment of the area. Demolition and major incompatible remodeling are critical problems for historic preservation because they are usually irreversible. Private preservation and restoration efforts should be encouraged and assisted by local recognition of significant individual historic buildings throughout Oregon City.

Historic Landmarks

Historic landmarks are structures or sites with unusual historic importance and contribute to the city's identity. Maintenance costs are often returned in tour-

ism revenues. Appreciation of local culture and history is enhanced. Criteria for designation as a historic landmark are:

- association with a major historic person
- association with an historic event or period of time
- association with a former or continuing institution that has contributed to the life of the city
- embodiment of the distinctive characteristics of a type, period, or method of construction, or representation of the work of a master, or possession of high artistic values, or representation of a significant and distinguishable entity where components may lack individual distinction
- association with a group, organization, enterprise in history

Natural Resources

Oregon City's natural resources are the result of the city's topographic complexity, which was created by volcanic activity, erosion and scouring from the post-Ice Age Missoula Floods, and erosion and deposition from the modern Willamette and Clackamas rivers, Abernethy and Newell creeks, and other minor streams. Metro has inventoried, evaluated, and mapped important Goal 5 resources in the region as part of developing a regionwide fish and wildlife habitat protection plan. Two large areas in Oregon City scored 6 (medium quality habitat) on a scale of 1 to 9: along the steep slopes and bluffs overlooking the Willamette River on the western edge of the city, and Newell Creek Canyon. Oregon City will coordinate with Metro to maintain the City's Goal 5 resources inventory in accordance with the new protection plan. The City will also coordinate with the Fisheries Department of the National Oceanic and Atmospheric Administration (NOAA Fisheries, formerly NMFS) and on actions that may affect salmonid habitats.

Anadromous fish, including salmonids such as coho, chinook, and chum salmon, as well as lamprey eel, were historically plentiful in Oregon City's major waterways. These species supported a rich ecosystem that included a wide range of animals, from insects and small invertebrates within the stream and riparian corridor to large animals such as seals and bears, and birds such as osprey and bald eagles. Native people also relied on these stream resources for food and culture, returning annually to Willamette Falls to harvest salmon and other fish. Declines in anadromous fish species in the Willamette River Basin is a consequence of a variety of land-use practices that have altered or destroyed habitat and changed the hydrographic profile of runoff. Several spe-

cies of salmonids, including chinook salmon and steelhead trout, have been listed as threatened under the federal Endangered Species Act (ESA), which has triggered significant protection and restoration activities throughout the region.

In Oregon City, the Clackamas River along the northern boundary of the city, as well as Abernethy, Newell, Holcomb, Potter, and other creeks provide both spawning and rearing habitat for steelhead trout, coho salmon, and cutthroat trout, which are not currently warranted for listing under the ESA. Riparian corridors, the areas on either side of a stream, are critical to protecting the stream ecosystem and quality of habitat for salmonids and other stream-dependent species.

Oregon City can protect or improve habitat conditions for salmonids and other species by:

- adopting standards and implementing programs that protect vegetation along riparian corridors from destruction or alteration
- removing invasive non-native plant species and re-planting native riparian vegetation
- reducing pulsed storm runoff that can erode banks and alter streambed profiles and gravels
- maintaining water quality and quantity in streams
- maintaining or providing fish passage in all streams

Because virtually all rainfall in the city eventually runs to a stream, these standards and programs need to be applied citywide. Ancillary plans such as the *Oregon City Waterfront Master Plan* (2002), *Oregon City Transportation System Plan* (2001), *Oregon City Park and Recreation Master Plan* (1999), and *City of Oregon City Public Works Stormwater and Grading Design Standards* (1999) are important in ensuring that these resources are protected.

Other unique and important habitats and ecological resources in Oregon City have been identified, including:

- Newell Creek Canyon
- Canemah Bluffs, which contain a variety of unique habitats and plant assemblages
- the rocky cliffs along the Willamette River, which are home to a number of rare plants
- Willamette Falls
- other streams, rivers, bogs and wetland areas

These habitats and resources will be inventoried in the Goal 5 update subsequent to adoption of this Comprehensive Plan.

Because lands surrounding the city within the Urban Growth Boundary have significant undeveloped habitat areas, these lands need to be inventoried to identify important ecological resources to ensure the resources are protected

before development occurs. The City and Clackamas County should ensure that Urban Growth Management Agreements contain provisions for identifying and protecting these resources.

Wetlands. Wetlands and their associated hydrology, soils, vegetation, and wildlife provide a wide range of valuable services to the public. Wetlands enable the City to efficiently meet a number of goals in maintaining the quality of life in Oregon City, such as:

- preventing degradation of stream quality and damage from flooding during storms by storing runoff from precipitation and moderating its release into stream networks
- preventing pollutants and sediments from roadways and other development from reaching streams by filtering the flow of groundwater toward streams
- recharging groundwater aquifers for slow release later into streams and through uptake by vegetation into the environment by reducing the speed of runoff and enabling water to percolate into the ground
- providing habitat for wildlife that is important to residents
- providing open space, recreational opportunities, aesthetic and landscape amenities to buffer various uses, all of which maintain the unique environmental setting of Oregon City

Important wetlands have been identified and mapped by the City and Metro in a Local Wetlands Inventory that will be the basis for protection measures through the Comprehensive Plan, implementing ordinances, and other measures. The inventory is kept by the City.

Streams. Streams define the physical configuration of Oregon City and thus its land-use patterns, transportation patterns, and community functions. The Willamette and Clackamas rivers, major waterways of regional significance, border two sides of the city and create an aesthetic and recreational setting of great value to the city. Other principal streams are:

- Abernethy Creek and Newell Creek, tributaries of the Willamette River; these creeks create major topographic and ecologic areas within the city
- Beaver Creek, a tributary of the Willamette River; Beaver's Creek's minor tributaries create the topographic definition of the city's southern edge
- other creeks that drain directly to the Willamette, such as Singer Creek and Coffee Creek, which drain from the Hilltop area through the McLoughlin and Canemah neighborhoods, respectively.

Together, these rivers and streams contribute to the uniqueness of Oregon City and to the variety of natural resource, recreational, and open space values enjoyed by residents and visitors.

Vegetation. The many wooded areas in the city—mainly parks, undeveloped slopes, and undeveloped lots within the Urban Growth Boundary—offer a variety of recreational opportunities, scenic views, and wildlife habitats. Trees in these and other areas should be preserved because trees provide a variety of benefits to the city. They are natural visual, noise, and wind buffers; enhance air quality; filter pollutants from rainwater; help control stormwater runoff; prevent erosion on steep slopes and riverbanks; and help separate conflicting land uses. Trees and treed areas are one means of providing an orderly transition from rural to urban land uses. Total tree cover in the city has diminished as development has occurred without mechanisms to protect urban trees.

The city could benefit from a comprehensive program to conserve and enhance tree cover on public lands and private property. Such a program should include standards and regulations pertaining to cutting of trees on private, undeveloped lands and in view corridors, planting of new trees as part of street or property landscaping, and incentives and assistance for tree planting and maintenance.

Water Quality. Oregon City receives an average of 46 inches of precipitation every year. Other parts of the Willamette and Clackamas river watersheds receive more than 80 inches per year. The city has significant ground- and surfacewater resources that contribute to the physical and cultural identity and natural heritage of the city and to the quality of life for residents. These water resources provide important habitat and ecological conditions for a wide range of fish, wildlife, and plants. Water resources include the Willamette and Clackamas rivers and tributaries of Abernethy, Newell, and Beaver creeks and associated minor creeks. Other water resources include bogs and wetlands perched on Oregon City's unique topography and groundwater that percolate under the city. Because land-use practices and patterns, development design, and city infrastructure and practices can affect the quality and quantity of water resources in the city, the City will seek to protect and restore these resources through a variety of means, including the application of a Water Resources Overlay District, development standards, and civic projects.

Groundwater. The geology of the rocks underlying Oregon City, coupled with high annual rainfall, create conditions for significant groundwater flowing beneath the city and, in some areas, a relatively high water table (groundwater is close to the surface). Groundwater is important to the city in several ways. It can affect the safety and function of buildings and other development, such as streets, when construction meets groundwater. It can also carry chemical pollutants from development, roads, landfills, and industrial sites into drinking water wells and streams. Groundwater provides a slow release mechanism for precipitation that would otherwise run quickly into streams and increase the likelihood of flooding. Groundwater has historically been the source of domestic drinking water for some residences and agricultural wells within the area.

Groundwater provides essential water for the vegetative cover that is so important to Oregon City.

Groundwater within 1.5 feet of the surface is defined as a "high water table." High water tables are of special concern because of their vulnerability to contamination and interception. Because much of Oregon City lies on basalt bedrock that was scoured clean of overlying soils during the post-glacial Missoula Flood events, water does not penetrate deeply or rapidly. Consequently, there are many areas with high water tables in Oregon City. These areas have been inventoried by the State Department of Geology and Mineral Industries. The inventories are kept by the City. Proposed development in these areas is subject to the City's development codes to ensure that it meets applicable engineering standards.

Goal 5.1 Open Space

Establish an open space system that conserves fish and wildlife habitat and provides recreational opportunities, scenic vistas, access to nature and other community benefits.

Policy 5.1.1
Conserve open space along creeks, urban drainage ways, steep hillsides, and throughout Newell Creek Canyon.

Policy 5.1.2
Manage open space areas for their value in linking citizens and visitors with the natural environment, providing solace, exercise, scenic views and outdoor education. Built features in open space sites should harmonize with natural surroundings.

Goal 5.2 Scenic Views and Scenic Sites

Protect the scenic qualities of Oregon City and scenic views of the surrounding landscape.

Policy 5.2.1
Identify and protect significant views of local and distant features such as Mt. Hood, the Cascade Mountains, the Clackamas River Valley, the Willamette River, Willamette Falls, the Tualatin Mountains, Newell Creek Canyon, and the skyline of the city of Portland, as viewed from within the city.

Policy 5.2.2
Maximize the visual compatibility and minimize the visual distraction of new structures or development within important viewsheds by establishing standards for landscaping, placement, height, mass, color, and window reflectivity.

Goal 5.3 Historic Resources

Encourage the preservation and rehabilitation of homes and other buildings of historic or architectural significance in Oregon City.

Policy 5.3.1
Encourage architectural design of new structures in local Historic Districts, and the central Downtown area to be compatible with the historic character of the surrounding area.

Policy 5.3.2
Evaluate the establishment of Historic and Conservation Districts to preserve neighborhoods with significant examples of historic architecture in residential and business structures.

Policy 5.3.3
Promote the designation of qualifying properties outside Historic and Conservation Districts as historic.

Policy 5.3.4
Support the preservation of Oregon City's historic resources through public information, advocacy and leadership within the community, and the use of regulatory tools and incentive programs.

Policy 5.3.5
Support efforts to obtain historic designation at the city, state and national levels for public and private historic sites and districts. Natural and cultural landscapes should also be considered.

Policy 5.3.6
Maintain Oregon City's status as a Certified Local Government in the National Historic Preservation Program.

Policy 5.3.7
Encourage property owners to preserve historic structures in a state as close to their original construction as possible while allowing the structure to be used in an economically viable manner.

Policy 5.3.8
Preserve and accentuate historic resources as part of an urban environment that is being reshaped by new development projects.

Goal 5.4 Natural Resources

Identify and seek strategies to conserve and restore Oregon City's natural resources, including air, surface and subsurface water, geologic features, soils, vegetation, and fish and wildlife, in order to sustain quality of life for current and future citizens and visitors, and the long-term viability of the ecological systems.

Policy 5.4.1
Conserve and restore ecological structure, processes and functions within the city to closely approximate natural ecosystem structure, processes, and functions.

Policy 5.4.2
Cooperate with Clackamas County, Metro and other agencies to identify and protect wildlife habitat, distinctive natural areas, corridors and linkages and other ecological resources within the Urban Growth Boundary and incorporate the information into the Urban Growth Management Agreement with Clackamas County.

Policy 5.4.3
Identify, initiate and cooperate in partnerships with other jurisdictions, businesses, neighborhoods, schools and organizations to conserve and restore natural resources within and adjacent to Oregon City.

Policy 5.4.4
Consider natural resources and their contribution to quality of life as a key community value when planning, evaluating and assessing costs of City actions.

Policy 5.4.5
Ensure that riparian corridors along streams and rivers are conserved and restored to provide maximum ecological value to aquatic and terrestrial species. This could include an aggressive tree and vegetation planting program to stabilize slopes, reduce erosion, and mitigate against invasive species and stream impacts where appropriate.

Policy 5.4.6
Support and promote public education, interpretation, and awareness of the city's ecological resources.

Policy 5.4.7
The City shall encourage preservation over mitigation when making decisions that affect wetlands and a "no net loss" approach to wetland protection.

Policy 5.4.8
Conserve natural resources that have significant functions and values related to flood protection, sediment and erosion control, water quality, groundwater recharge and discharge, education, vegetation and fish, and wildlife habitat.

Policy 5.4.9
Protect and enhance riparian corridors along streams in Oregon City to increase shade, reduce streambank erosion and intrusion of sediments, and provide habitat for a variety of plants, animals, and fish.

Policy 5.4.10
Encourage and promote the restoration of the hydrologic and ecological character and function of streams and wetlands that have been degraded by channeling or eliminated from the landscape by routing into culverts.

Policy 5.4.11
Maintain and enhance the function and quality of natural wetlands and create, where appropriate, wetlands or swales to moderate the quantity and velocity of water runoff entering streams during storm events and to reduce the amount of pollutants carried into streams.

Policy 5.4.12
Use a watershed-scale assessment when reviewing and planning for the potential effects from development, whether private or public, on water quality and quantity entering streams.

Policy 5.4.13
Adopt and/or establish standards for all new development that promote the use of pervious surfaces and prevent negative ecological effects of urban stormwater runoff on streams, creeks and rivers.

Policy 5.4.14
Comply with federal and state regulations for protecting, conserving and restoring threatened and endangered species and critical habitat.

Policy 5.4.15
Partner with Metro, Clackamas County, the Oregon Department of Transportation (ODOT) and other agencies to establish an invasive weeds management strategy.

Policy 5.4.16
Protect surfacewater quality by:

- providing a vegetated corridor to separate protected water features from development
- maintaining or reducing stream temperatures with vegetative shading
- minimizing erosion and nutrient and pollutant loading into water
- providing infiltration and natural water purification by percolation through soil and vegetation

Policy 5.4.17
Protect and maintain groundwater recharge through conservation and enhancement of wetlands and open space.

Policy 5.4.18
Encourage use of native and hardy plants such as trees, shrubs and groundcovers to maintain ecological function and reduce maintenance costs and chemical use.

Section 6

Quality of Air, Water, and Land Resources

Land Conservation and Development Commission (LCDC) Statewide Planning Goal 6 deals with maintaining and improving the quality of these resources. Waste discharges, defined as solid waste, thermal, noise, atmospheric and water contaminants and pollutants that cause harm to human health or the environment, must not "violate or threaten to violate" federal or state statutes. With respect to the air, water and land resources described or included in state environmental quality regulations, such discharges "shall not (1) exceed the carrying capacity of such resources, considering long-range needs; (2) degrade such resources; or (3) threaten the availability of such resources."

All manner of land uses can be sources of waste. The City's influence over potential impacts from waste can be through direct regulation, such as with stormwater treatment standards, through ensuring compliance with federal and state standards, and through actions, such as education and development incentives, to encourage the reduction of impacts.

Air Quality

The quality of air is increasingly recognized as a key factor in the health of individuals, the attractiveness and livability of communities, and the ability of the community to attract and accommodate growth and development. Oregon City has a relatively high quality of air during most of the year, but it also receives airflows from other parts of the urban region that can carry airborne pollutants. Air quality tends to be lower when prevailing winds are from the northwest.

Motor vehicles are the largest source of air pollution in Oregon, and there is growing concern about "personal pollution" from cars, woodstoves, gasoline-

powered lawn mowers, boat engines, paint, outdoor burning, and aerosol products such as hairspray and air fresheners. Other sources of air pollution are dust from agriculture and land development and particulates in smoke from agriculture, forestry, and industry. The Portland metropolitan area is currently designated an "Air Quality Maintenance Area," which means that the area has a history of not meeting National Ambient Air Quality Standards. However, a variety of pollution reduction programs have enabled the region to meet federal air quality standards.

Air quality standards are set by the Oregon Department of Environmental Quality (DEQ). Oregon City should continue to work with DEQ to ensure that existing and new sources of industrial and commercial pollution comply with state and federal standards and to encourage citizens to reduce the amount of air pollution they generate. One of the most important ways Oregon City can help reduce air pollution is to promote land-use practices and transportation alternatives that reduce the use of single-occupancy vehicles. It is also important for the City to encourage the conservation and enhancement of tree cover as a means of filtering particulate pollution in the air.

Water Quality

The City's ground- and surfacewater resource is significant and adequate for its residents. Water resources are:

- the Willamette and Clackamas rivers
- tributaries of Abernethy, Newell, and Beaver creeks and associated minor creeks
- bogs and wetlands
- groundwater under the city

Because land-use practices, development design, and city infrastructure can affect the quality and quantity of water resources, the City will protect and restore these resources through a variety of means. One way is through the Water Resources Overlay District, which is a zoning overlay with development standards to protect surface waters. The overlay district implements the requirements of Title 3 of Metro's *Urban Growth Management Functional Plan* (1998). Another way is through civic projects to restore water features. Restoration and protection of these resources is covered primarily in Section 5 (Open Spaces, Scenic and Historic Areas, and Natural Resources).

DEQ has mapped groundwater flows, also called aquifers, that are known to or have the potential to carry pollutants. Most of these sensitive aquifers are along Abernethy Creek in the floodplain along the Clackamas River. The aquifer in the Abernethy Creek area near the former Rossman's landfill has been contaminated during the past 100 years with a variety of pollutants from the landfill and other activities. Clearance from DEQ may be necessary for future development of properties in this area. DEQ does not allow the construction of drinking or irrigation wells because the contaminated groundwater in the aquifer could be released into the environment and adversely impact public health and safety. DEQ allows only groundwater wells that monitor contaminants associated with the landfill.

Erosion is defined as the movement of solids (earth, mud, and rock) by wind, water, or gravity. Erosion can be a natural process or caused by human activity. Erosion can cause a loss of productive soil, damage stormwater and the sanitary sewer infrastructure, and degrade water quality in streams and rivers, thus affecting habitat quality for aquatic species. Excessive sediment deposition behind dams can decrease reservoir storage capacity and increase the risk of flooding. Removing excess sediment from behind dams and areas of unwanted deposition, such as reservoirs and streams, can be costly. Soil runoff from construction sites is by far the largest source of excess sediment deposition in developing urban areas.

Complying with LCDC Statewide Planning Goal 6 requires adopting policies and standards that protect water quality. The erosion and sediment control requirements of Title 3 will significantly reduce sediment loading to receiving streams. LCDC Statewide Planning Goal 6 and Title 3 requirements are implemented in Oregon City through the Water Resources Overlay District, Erosion and Sediment Control standards, and other provisions of the *City of Oregon City Municipal Code* (1991).

Quality of Land Resources

Nighttime Light Pollution. Artificial light has extended many human activities well into evening and night and provides much-needed safety along roadways and at intersections. However, much of the nighttime light is wasted into space, as confirmed by satellite images of the earth at night from space. Nighttime light can interfere with viewing starry skies and other outdoor experiences, intrude through windows into homes, and lead to unsafe situations from glare and shadows. In Oregon City, the Haggart Astronomical Observatory at Clackamas Community College is an educational resource for the entire community that is diminished by nighttime light pollution.

New nighttime lighting technology makes nighttime light appropriate for the situation and prevents safety problems and pollution. The technology is readily available, and its benefits to the community are easy to understand. All that is required is a commitment to applying the technology in a flexible and appropriate way.

Noise Pollution. Noise is a part of city life. Noise is generated by, for example, vehicular traffic, emergency vehicles, industrial activities, railroads, aircraft, leaf blowers, sound systems, and construction. Loud, persistent noise is recognized as a serious environmental problem by both state and federal authorities. In 1971, the Oregon Legislature authorized the Environmental Quality Commission to adopt and enforce noise control standards, which are administered through DEQ. The standards cover noise from motor vehicles and industrial and commercial activities.

The most significant sources of noise in Oregon City are major vehicular corridors (for example, Interstate 205, McLoughlin Boulevard, Highway 213, Molalla Avenue, and South End Road), the railroad corridor through downtown and the Canemah neighborhood, the industrial operations of the Blue Heron Paper Mill, and the natural roar of Willamette Falls, especially during the winter. Nuisance noise can also originate from neighborhoods and homes. Local noise control is handled primarily through the Nuisance Code (Section 6 of the *City of Oregon City Municipal Code*) and through design review of development projects to ensure that industry and commercial activities do not negatively impact the immediate neighborhood environment.

Mineral and Aggregate Operations. The Oregon Department of Geology and Mineral Industries has inventoried four areas within Oregon City's Urban Growth Boundary that contain mineral and aggregate resources. These areas are listed in the Natural Resources Inventory of the 1982 *Oregon City Comprehensive Plan*. There are currently no commercial mineral or aggregate removal operations at any of the four sites. Although mineral and aggregate removal operations can be beneficial to a local economy, they are not compatible with urban land uses and quality of life in Oregon City because of noise, dust, traffic, water quality, and other issues.

Goal 6.1 Air Quality

Promote the conservation, protection and improvement of the quality of the air in Oregon City.

Policy 6.1.1

Promote land-use patterns that reduce the need for distance travel by single-occupancy vehicles and increase opportunities for walking, biking and/or transit to destinations such as places of employment, shopping and education.

Policy 6.1.2
Ensure that development practices comply with or exceed regional, state, and federal standards for air quality.

Policy 6.1.3
Set an example through City operations by using and demonstrating practices and technologies that reduce air pollution and protect air quality.

Policy 6.1.4
Encourage the maintenance and improvement of the city's tree canopy to improve air quality.

Goal 6.2 Water Quality

Control erosion and sedimentation associated with construction and development activities to protect water quality.

Policy 6.2.1
Prevent erosion and restrict the discharge of sediments into surface- and groundwater by requiring erosion prevention measures and sediment control practices.

Policy 6.2.2
Where feasible, use open, naturally vegetated drainage ways to reduce stormwater and improve water quality.

Goal 6.3 Nightlighting

Protect the night skies above Oregon City and facilities that utilize the night sky, such as the Haggart Astronomical Observatory, while providing for nightlighting at appropriate levels to ensure safety for residents, businesses, and users of transportation facilities, to reduce light trespass onto neighboring properties, to conserve energy, and to reduce light pollution via use of night-friendly lighting.

Policy 6.3.1
Minimize light pollution and reduce glare from reaching the sky and trespassing onto adjacent properties.

Policy 6.3.2
Encourage new developments to provide even and energy-efficient lighting that ensures safety and discourages vandalism. Encourage existing developments to retrofit when feasible.

Policy 6.3.3
Employ practices in City operations and facilities, including street lighting, which increases safety and reduces unnecessary glare, light trespass, and light pollution.

Goal 6.4 Noise

Prevent excessive noise that may jeopardize the health, welfare, and safety of the citizens or degrade the quality of life.

Policy 6.4.1

Provide for noise abatement features such as sound-walls, soil berms, vegetation, and setbacks, to buffer neighborhoods from vehicular noise and industrial uses.

Policy 6.4.2

Encourage land-use patterns along high-traffic corridors that minimize noise impacts from motorized traffic through building location, design, size and scale.

Goal 6.5 Mineral and Aggregate Operations

Protect the livability and environment of Oregon City by prohibiting commercial aggregate extraction operations within the city and Urban Growth Boundary.

Policy 6.5.1

Prohibit new commercial aggregate removal operations and encourage relocation of existing operations. Aggregate removal for habitat improvement or for public recreational needs is not considered a commercial operation.