Natural Systems Chapter

This Natural Systems Chapter is divided into the following sections:

The Introduction describes the intent of the Natural Systems Chapter and its relationship to Kitsap County=s vision of the future and other Comprehensive Plan chapters.

The Planning Context discusses the requirements of the Growth Management Act and the Countywide Planning Policy as they relate to policies that preserve the County=s natural environment.

The Natural Systems Goals and Policies are divided into the following areas:

A. **Geologically Critical Areas** address land uses in geologically unstable areas.

B. **Aquifer Recharge Areas** address protection of ground water quality and quantity.

C. **Surface Water Resources** address protection of quality and quantity of the county=s streams, wetlands, lakes and marine waters of Puget Sound.

D. **Frequently Flooded Areas** address land use issues in frequently flooded areas.

E. **Plant, Fish and Wildlife Habitat Conservation Areas** address issues related to protection of wildlife habitat.

F. **Air Quality** addresses air quality issues.

Introduction

A s Kitsap County continues to grow, the impact of that growth on the natural environment becomes even more apparent. Access to attractive natural areas and the recreational opportunities made available by fish, wildlife, clean water and open spaces play a large role in enhancing the quality of life in Kitsap County. In order to adequately meet the need for protection, preservation and enhancement of natural systems and resources, the Natural Systems chapter provides a framework for understanding natural systems as they relate to each other, to land use planning and to the regulatory process.

Critical areas include wetlands, critical aquifer recharge areas, fish and wildlife habitat areas, frequently flooded areas and geologically hazardous areas; this chapter summarizes the benefits of and threats to each of these environmental factors. The implementation of the policies outlined in the chapter will aid in the protection and enhancement of these areas. The Natural Systems Chapter works with other chapters within the Comprehensive Plan to protect critical areas and natural features. The Land Use Chapter helps protect sensitive areas by directing intense development away from them and into areas more suitable for industrial uses and increased density. This chapter also works with the Housing Chapter by keeping the community attractive to residents, and retaining the features that contribute to a high quality of life.

Planning Context

T he framework for this section is based on the goals of the Growth Management Act,

Vision 2020 and the Kitsap Countywide Planning Policies. Specifically, the Growth Management Act requires comprehensive plans to protect the environment and enhance the state=s high quality of life, including air and water quality and the availability of water.

The chapter includes policies to protect natural systems and to manage development in hazardous areas while recognizing that development will affect the environment. These policies seek to minimize the impacts of development by preserving and protecting key environmental features, natural systems and resources while increasing predictability; providing for timely and consistent decisions; and allowing for some economic use of properties whenever possible.

Goals and Policies

T he Natural Systems Chapter provides a series of goals, objectives and policies to guide future growth in a manner that preserves the county=s natural environment. The natural systems considered are: Geologically Critical Areas, Aquifer Recharge Areas, Surface Water Resources, Frequently Flooded Areas, Fish and Wildlife Habitat Conservation Areas and Air Quality. Natural systems are specifically addressed in this plan because of their sensitivity to development and because of the human health, property and ecological risks associated with unsuitable development. For a more detailed discussion of each of these systems, please reference the Natural Systems Appendix.

As efforts such as the Kitsap County Groundwater Management Plan are completed and a better understanding of the complex hydrology of the county is refined, it is understood that this Comprehensive Plan, including this section on goals and policies, will be amended accordingly. The Groundwater Management Plan will specifically require State Environmental Protection Act (SEPA) declarations, an environmental impact statement, and concurrence from local jurisdictions with the recommendations.

A. Geologically Critical Areas

G eologically critical areas are places highly susceptible to erosion, landslides, earthquakes or other geologic events. In Kitsap County, the most hazardous of these areas are typically found along the marine shoreline, stream valleys and the steep slopes of Gold and Green Mountains. In many cases, these areas may be extremely desirable for development because of their scenic views or water and beach access, but their development may endanger people, property, public welfare and surface water resources. For these reasons, areas that may be geologically unstable must be designated as critical areas.

For purposes of this plan and implementing regulations, geologically sensitive areas fall into two categories: Geologically Hazardous Areas and Areas of Geologic Concern. These areas are categorized according to the presumed severity of their geologic conditions. Geologically Hazardous Areas pose the more serious threat to life and property.

Geologically Hazardous Areas

1. Areas with slopes greater than 30% and mapped by the Coastal Zone Atlas or Quaternary Geology and Stratigraphy of Kitsap County as Unstable (U), Unstable Old Slides (UOS) or Unstable Recent Slides (URS), as defined in Table NS-1 of Natural Systems Appendix.

2. Areas with slopes greater than 30% and deemed by a qualified geologist to meet the criteria of U, UOS or URS.

Areas of Geologic Concern

1. Areas designated U, UOS or URS in the Coastal Zone Atlas or Quaternary Geology and Stratigraphy of Kitsap County, with slopes less than 30%; or areas found by a qualified geologist to meet the criteria for U, URS, and UOS with slopes less than 30%.

2. Slopes identified as Intermediate (I) in the Coastal Zone Atlas or the Quaternary Geology and Stratigraphy of Kitsap County, as defined in Table NS-1 of Natural Systems Appendix; or areas found by a qualified geologist to meet the criteria of I.

3. Slopes 15% or greater, not classified as I, U, UOS, or URS, with soils classified by the Natural Resources Conservation Service as Ahighly erodible≅ or Apotentially highly erodible.≅ (See Table NS-2 of Natural Systems Appendix.)

4. Slopes 15% or greater with springs or groundwater seepage not identified in numbers 1, 2, or 3 above.

5. Seismic areas subject to liquification from earthquakes such as hydric soils, as identified by the U.S. Natural Resources Conservation Service, and areas that have been filled with additional soil materials to enhance buildability. In many cases, fill areas are former wetland areas.

6. Areas that are known or suspected to be of concern or hazard but are not previously documented.

Goals

The two preceding designations utilize existing information; as more information on geologic conditions in Kitsap County becomes available, these designations may be revised. The following goals and policies apply to geologically critical areas in Kitsap County.

1. Protect public safety and health, maintain water quality and habitat, minimize erosion of soils and bluffs, and diminish the public cost of repairing areas from damage due to landslides, erosion and seismic activities.

2. Consider geologically critical areas in designating land use and zoning classifications.

3. Maintain and update a county map for land use planning and regulatory purposes

which depicts geologically hazardous areas and areas of geologic concern.

4. Develop a critical areas ordinance which addresses land use controls in geologically critical areas.

5. Protect the forested slopes and ridgelines designated as geologically critical areas. Formulate design criteria for development in areas of geologic concern.

Policies

NS-1 Development in geologically critical areas should occur in a manner that poses no hazard to health or property and that minimizes impacts to the natural environment.

NS-2 The geologically critical areas map shall be based on information from the Coastal Zone Atlas of Washington, the Report Quaternary Geology and Stratigraphy of Kitsap County, and other available geotechnical reports.

NS-3 Hydric soils shall be delineated on a wetlands map and development on these soils shall be in accordance with wetlands policies and regulations.

NS-4 Where information about extensive fill areas is known, fill areas shall be depicted as areas of geological concern.

NS-5 The geologically critical areas map shall be updated regularly to reflect the latest information.

NS-6 Building and land use applications in geologically critical areas will be reviewed to see that public health, safety and welfare are protected.

NS-7 Prohibit development in geologically hazardous areas unless the site is demonstrated by a qualified geotechnician to be suitable for building.

NS-8 Establish development standards in geologically critical areas that promote maintenance of existing vegetation, discourage clearing of ridgelines and slopes for scenic vistas and stormwater drainage impacts.

NS-9 Kitsap County will encourage building sites to be located away from critical areas like steep slopes and breaks-in-slopes.

B. Aquifer Recharge Areas

G roundwater constitutes more than 80% of the water used b moves through the ground to replenish aquifers are known as Aaquifer recharge areas.≅

The quality and quantity of groundwater in an aquifer is closely linked to the aquifer=s recharge area. Although much information is lacking regarding the location of aquifers and recharge areas, it is generally believed that, to a varying degree , most of the county provides recharge to one or more aquifers.

Aquifers and wellhead information has been used in developing the land use element of the Comprehensive Plan. On going review of the aquifer and wellhead information will be necessary to determine the need for future adjustments in the Comprehensive Plan and implementing development regulations.

In order to protect potable groundwater from contamination, aquifer recharge areas and the waters that flow through them must be protected from degradation and contamination. Some aquifers are more vulnerable to contamination due to their shallow depth, overlying geology, soils, topography.
For purposes of this plan and implementing regulations, aquifer recharge areas are classified in two categories: Critical Aquifer Recharge Areas and Areas of Concern.

Critical Aquifer Recharge Areas

This category delineates those areas which recharge aquifers that are used as or have the potential to be used as a significant potable water supply and have been deemed to be highly susceptible to the introduction of pollutants. Land-use activities within certain distances from wells have potential to impact groundwater.

1. For example, in a Aone-year travel protection zone,≅ it takes one year for groundwater to travel to a well. These zones, when around Group A wells (15 or more connections) are considered Critical Aquifer Recharge Areas.

2. The Hansville Aquifer Recharge Area (an environmentally sensitive area under the county=s SEPA Ordinance) also has been designated a Critical Aquifer Recharge Area.

3. Five year time of travel zones in Wellhead Protection Areas are included as Critical Aquifer Recharge Areas under the following condition: The five year time of travel zone is included when the well draws its water from an aquifer that is at or above sea level and is overlain by permeable soils without an underlying protective impermeable layer.

Aquifer Recharge Areas of Concern

This category indicates those areas that are evaluated to provide recharge to aquifers which provide or have the potential to provide potable water, and are vulnerable to contamination. These areas will be delineated based upon three criteria:

1. Areas with surface soils that permit easy percolation of water, and therefore contaminants, including the following Natural Resources Conservation Service soil types: Grove (11,12,13), Indianola (18,19,20,21), Neilton (34,35,36), Norma (37,38), Ragnar (41,42,43,44,45,46,47).

2. Surface areas above shallow, principal aquifers (less than 300 feet below sea level), and which are not separated from the underlying aquifer by an impermeable layer.

3. Areas of small-well concentration (four or more Group B water systems and/or private wells per quarter-quarter section) as identified by Kitsap County Public Utility District No. 1.

Goals

5. Preserve and protect aquifer recharge areas and prevent degradation of the quality of and quantity groundwater.

6. Develop criteria for designating critical recharge areas and aquifer recharge areas of concern. Identify and map critical recharge areas vulnerable to contamination per minimum guidelines.

7. Evaluate potential impacts on groundwater quality and quantity during the development and redevelopment review process. Consider the cumulative impacts of existing and future development on surface water quality.

8. Enhance the quantity and quality of stormwater recharge.

9. Maintain a groundwater education program for county residents and businesses.

Policies

NS-10 Within one year of adoption of the Comprehensive Plan, the county should work with the Kitsap Public Utility District to assess designation of additional Critical Aquifer Recharge Areas and further refine the designation of Aquifer Recharge Areas of Concern.

NS-10a Kitsap County will initiate review of further aquifer and wellhead information to determine the need for revisions to the Critical Areas Ordinance, Zoning Ordinance and other implementing development regulations to ensure that impacts to groundwater quality and quantity are minimized. This will be particularly important within urban growth areas where the highest intensity of land use will occur resulting in a high percentage of impermeable surfaces.

NS-11 Coordinate with public and private water purveyors and other jurisdictions to designate wellhead protection areas as required by the Washington State Department of Health.

NS-12 Kitsap County should require proposed projects which present a threat to a critical aquifer recharge area to provide geologic or hydrologic information to evaluate the proposal.

NS-13 Project design should address the extent and mitigate the recharge limiting effect of impermeable surfaces or other factors affecting groundwater recharge.

NS-14 Within Critical Aquifer Recharge Areas, the County should limit land uses listed by the EPA Office of Drinking Water exhibit titled AOperations with Potential Threat to Groundwater.≅ Within Aquifer Areas of Concern, listed land use should require appropriate safeguards and/or mitigation.

NS-15 Kitsap County should evaluate proposed projects for their potential adverse impacts upon groundwater quality and quantity.

NS-16 Kitsap County shall implement the recommendations of the Kitsap County Groundwater Management Plan when adopted, using resources available to accomplish higher priority actions first.

NS-17 The County shall carefully evaluate proposed land uses of reclaimed sand and gravel mines due to the susceptibility of aquifers underlying these mine areas.

NS-18 Kitsap County should work with appropriate agencies and jurisdictions to conduct studies to determine the quantity and quality of recharge that can be expected from septic systems.

NS-19 Kitsap County should consider the impacts of sewer plans on groundwater quality and quantity.

water conservation and enhance aquifer recharge.

NS-21 In areas with evidence of significant saltwater intrusion, the County should employ actions specified by the state.

NS-22 Coordinate with the Kitsap Public Utility District and other jurisdictions and government agencies to pursue funding for groundwater and wellhead protection efforts.

NS-23 Kitsap County and appropriate agencies and jurisdictions should develop a pilot retention and recharge program to evaluate technologies that retain and recharge stormwater.

NS-24 Kitsap County should work with appropriate agencies and jurisdictions to implement a public education program that promotes water conservation and emphasizes the proper installation and maintenance of septic systems and the proper use and disposal of fertilizers and pesticides including the use of non-toxic alternatives where possible.

C. Surface Water Resources

K itsap County=s surface water resources include all streams, wetlands, lakes and marine waters of Puget Sound. The quality and quantity of these waters is important for public health, fish and wildlife habitat, recreational and commercial pursuits such as shellfish harvesting, fishing and tourism. A network of streams carries water from the county=s uplands to lakes, wetlands and the marine environment. A system of freshwater and saltwater wetlands which stretches throughout the county also plays a vital role in filtering and storing water.

The quantity and quality of the county=s surface waters are greatly affected by land use activities. Due to the continuity between ground and surface waters, many of the actions necessary to protect surface water resources are similar to those necessary for preservation of groundwater quality and quantity. The county=s surface water resources are mapped based upon information provided by the U.S. Fish and Wildlife Service=s National Wetlands Inventory, the Natural Resources Conservation Service and the Washington State Department of Natural Resources; and are shown in Figure NS-8 of the Natural Resources Appendix. As more information becomes available, this map will be revised.

Goals

10. Protect the water quality of rivers, streams, lakes, wetlands, Puget Sound and Hood Canal while allowing for compatible growth and development.

11. Evaluate potential impacts to surface water quality during the development review process.

12. Increase the accuracy of information about wetland and stream locations and types.

13. Develop a critical areas ordinance which protects surface water resource areas including fish and wildlife habitats and wetlands.

14. Enhance and restore degraded wetland, stream and shoreline areas.

15. Develop and implement a countywide Surface and Stormwater Water Management Program Quantity for water and quality. .

16. Improve existing water quality so that water bodies may be removed from the State=s 303d List of Impaired Water Bodies under the Federal Clean Water Act.

17. Educate county residents and businesses about the natural environment and the benefits of healthy surface water resources.

Policies

NS-25 Kitsap County shall safeguard surface water resources by only allowing development that is compatible in critical areas such as steep slopes, wetlands, shorelines and riparian corridors.

NS-26 Kitsap County shall consider cumulative impacts of existing and future development on surface water quality.

NS-27 Kitsap County should minimize and mitigate for impervious surface associated with development.

NS-28 The County=s geographic information system should map the wetlands and streams identified in delineations for site plans and development proposals and should map the findings of professionally conducted local wetlands inventories.

NS-29 The County should support and encourage community groups to sponsor professionally conducted local wetlands inventories.

NS-30 Kitsap County shall encourage best management practices in the use of herbicides and pesticides near surface waters or drainage ditches.

NS-31 Kitsap County shall require construction activities to use best management practices to minimize erosion and siltation problems.

NS-32 The County shall require native vegetation buffers along streams and wetlands to protect the functions and values of those surface waters.

NS-33 Kitsap County shall strive to achieve no net loss of wetland function and acreage in the short term, and a measurable gain of wetland function and acreage in the long term, in the following manner: Avoid direct impacts on wetlands and buffers; minimize direct impacts to wetlands and buffers; and mitigate impacts through creation, restoration, or enhancement of wetlands or buffers.

NS-34 Kitsap County may require larger scale projects to monitor their impacts to surface water quality.

NS-35 Kitsap County should require conversion forestry activities to be carried out in a manner consistent with adopted surface water policies and standards.

NS-36 Kitsap County shall refer to the recommendations of adopted Watershed Action Plans in refining the critical areas ordinance.

NS-37 Kitsap County should design and implement a wetlands mitigation banking program which uses the Clear Creek drainage basin as a pilot project.

NS-38 Kitsap County should identify degraded streams and wetlands, and develop restoration plans for those water bodies.

NS-39 Kitsap County shall work with the Kitsap Conservation District to encourage development of a farm management plan and limit livestock access to streams and

wetlands, to protect water quality and fish and shellfish habitat.

NS-40 Kitsap County should recognize adopted watershed action plans as part of the Comprehensive Plan, and coordinate the implementation of plan recommendations. Where appropriate, recommendations which apply to all watersheds should be implemented on a countywide basis.

NS-41 The County=s Surface and Storm Water Management Program should include a basin approach to stormwater facility planning.

NS-42 The Countywide Surface Water Program should address agricultural and forestry technical assistance, on-site sewage inspections, boater waste reduction and moderate-risk waste (e.g., household cleaners, lawn care products) reduction.

NS-43 The County should establish a countywide water quality monitoring program.

NS-44 The County=s Surface Water Program shall support and coordinate volunteer stream and wetland restoration and preservation efforts.

NS-45 The County shall design and provide educational materials about surface water resources.

D. Frequently Flooded Areas

F requently flooded areas are lands inundated with water during periods of high rainfall, extreme high tides or strong coastal winds. They typically lie adjacent to streams, rivers, lakes and coastlines and include wetlands associated with these areas. During intense storms, properties located in frequently flooded areas are prone to severe damage. Development in these areas may be hazardous not only to the property owner, but may also aggravate flood conditions on neighboring lands and compound damage to the natural environment.

Kitsap County is not as prone to catastrophic flooding as other counties in the Puget Sound region, due to a lack of major river systems, a preponderance of embayments which soften wave velocities and the presence of steep bluffs along much of the shoreline. Despite this, some coastal and riparian flooding occurs, and localized flooding from drainage problems exists.

The Federal Emergency Management Agency (FEMA) has identified areas throughout Kitsap County that are susceptible to 100-year flood events, known as 100-year floodplains. Other areas inventoried include V-Zones, which are places along the shoreline susceptible to damage from high velocity waves. Areas depicted on FEMA=s National Flood Insurance Program maps as V-Zones and 100 year floodplains are designated frequently flooded areas. Other areas of frequent flooding may be designated as more information becomes available.

Goals

18. Reduce the risk of damage to property, life and the natural environment from flooding. Prevent development on floodplains that might have the potential to damage property or increase height, flow or velocity of floodwater.

19. Prevent land use in floodplains that may degrade water quality during times of flooding.

20. Reduce the occurrence of flooding due to drainage problems and increased stormwater runoff.

Policies

NS-46 Discourage development in frequently flooded areas except when no conditions will be created which will be injurious to life, property or natural systems in time of flooding.

NS-47 In frequently flooded areas, improvements to existing structures shall be constructed using methods and practices that minimize flood damage.

NS-48 Diking and bank protection which may alter the natural hydrology of streams should be minimized, except where used to enhance habitat.

NS-49 Prohibit the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards in other areas.

NS-50 The natural vegetation in floodplains should be maintained, where feasible, to minimize runoff into streams and reduce the risk of increased stream flow, stream velocity and coastal flooding.

NS-51 Where streams flow through watersheds shared by the county and other jurisdictions, the county should pursue coordinated basin management.

NS-52 Prohibit the location of hazardous materials and solid waste facilities in floodplains.

NS-53 Work with the Bremerton-Kitsap County Health District to discourage the location of on-site sewage systems in floodplains.

NS-54 Development regulations should require site design that minimizes impervious surfaces, limits grading and protects areas of undisturbed vegetation in order to decrease stormwater runoff and hydrologic changes in drainage basins.

NS-55 To reduce runoff and related flooding, new development should provide facilities that maintain the quantity of runoff, flow peaks and flow durations at pre-development levels.

NS-56 Through the Surface and Storm Water Management Program, Kitsap County will inventory drainage basins to identify existing and future stormwater drainage problems.

NS-57 Where wetland functions are altered or displaced, replacement shall occur within the drainage basin.

E. Plant, Fish and Wildlife Habitat Conservation Areas

H abitat conservation areas are places critical to the survival of Kitsap County=s diverse plant, fish and wildlife communities. These areas include a variety of terrestrial, freshwater and marine habitat types and also encompass structural habitat elements such as forested shorelines or standing dead trees (snags).

Recent proposed listing of chinook and summer chum salmon stock under the Endangered Species Act (ESA) and the likely

proposed listing of other anadromous fish species, has greatly increased the concern for habitat protection and restoration in the Puget Sound area.

Protection and restoration of habitat conservation areas and other habitat is key to protecting the biological diversity of Kitsap County and the Puget Sound region. As development changes the face of the landscape, habitat critical to some species is lost or degraded. These losses can be minimized or reduced through land use policies and regulations which address critical habitat issues, as well as through acquisition or preservation of habitat for open space.

A complete inventory of existing or historic habitat types in Kitsap County does not exist. Much of the information available comes from a variety of sources and is specific to certain wildlife species or plant communities. Habitat Conservation Areas are described below. Where they are known, they are mapped in Figure NS-11 found in the Natural Systems Appendix.

Designation

1. Areas identified by the Department of Fish and Wildlife as Priority Habitat, including habitat for federal or state listed endangered, threatened, candidate and sensitive species.

2. Areas identified by the Department of Natural Resources as significant plant communities or known habitat for federal or state listed endangered, threatened, candidate and sensitive plant species.

3. Freshwater and saltwater wetlands (including lakes and ponds under 20 acres) as identified by the U.S. Fish and Wildlife Service National Wetlands Inventory, Natural Resources Conservation Service, Department of Natural Resources or other professionally conducted wetlands inventories.

4. Streams and riparian areas, particularly those which provide habitat for wild anadromous fish or in which fish rearing facilities or release activities exist.

5. Marine habitat areas identified as kelp and eelgrass beds, herring and smelt spawning areas or shellfish beds.

In addition, a number of habitat elements in Kitsap County are important to the well-being of fish and wildlife species. These elements include large parcels of contiguous undeveloped acreage, snags and downed trees, natural shorelines, mature trees along shorelines and wetlands, urban natural areas and habitat corridors. A complete inventory of where these habitat elements exist in Kitsap County has not been conducted. The preservation of important habitat elements is important to the survival of certain species, and areas rich in these elements should be identified as habitat conservation areas. As more information becomes available, the designations and maps will be revised.

Goals

21. Preserve the biological diversity of Kitsap County and Puget Sound.

22. Identify and protect habitat conservation areas and other important habitats throughout the county.

23. Develop a critical areas ordinance and development regulations which protect habitat conservation areas and important habitat elements.

24. Protect, enhance and restore aquatic habitat areas, such as streams, wetlands, lakes, shellfish beds, herring and smelt spawning areas, and kelp and eelgrass beds.

25. Encourage voluntary protection of species and habitat.

26. Identify species of local importance within Kitsap County.

27. Work to restore anadromous fish runs in Kitsap County.

Policies

NS-58 Kitsap County shall work with appropriate state agencies and community organizations to conduct a thorough, countywide inventory of habitat types and areas with important habitat elements. Based upon this inventory, a habitat protection plan should be developed that recommends areas most in need of protection or restoration.

NS-59 Kitsap County shall maintain and update a countywide inventory of existing plant, fish and wildlife habitat and shall make appropriate information available to the public.

NS-60 The County shall work with other government jurisdictions to protect habitat areas and corridors which cross jurisdictional boundaries.

NS-61 The County should work to minimize habitat fragmentation and protect open space and connective corridors.

NS-62 The County shall consider the impacts to habitat conservation areas and fish and wildlife populations in designating land use and zoning classifications.

NS-63 The County=s Open Space Plan should be amended to include the findings of a future habitat inventory and habitat protection plan.

NS-64 Trail systems through habitat conservation areas should be carefully sited to minimize impact to fish and wildlife species.

NS-65 To protect fish and wildlife habitat, the County should consider requiring vegetative buffers along streams, lakes, ponds and marine shorelines. Larger or enhanced buffer areas may be required to adequately protect priority fish and wildlife species.

NS-66 Buffer enhancement or restoration shall be required where buffers have been degraded or removed during new development.

NS-67 The County shall review building permit applications located within identified habitat conservation areas and should forward to the Department of Fish and Wildlife or the Department of Natural Resources for review those which may pose a potential adverse impact.

NS-68 Kitsap County will work with local, state and federal agencies, area tribes, and adjacent jurisdictions to review county programs and regulations in order to develop recovery plans for anadromous fish species proposed for listing under the Federal Endangered Species Act.

NS-69 **The County shall encourage developers to protect continuous corridors of native vegetation wherever possible, to disturb as little natural vegetation as feasible and to enhance or restore wildlife**

habitat by transplanting or planting native vegetation in the developed landscape.

NS-70 Encourage cluster development to protect fish and wildlife habitat and where possible plan cooperatively with adjacent property owners to provide maximum habitat potential.

NS-71 During the review of conversion option harvest plans, the county shall consider long-term impacts to habitat conservation areas and important habitat elements.

NS-72 The County shall work with other jurisdictions, agencies and private landowners to reduce nonpoint source pollution and implement the recommendations of approved watershed management plans.

NS-73 The County should work with the Department of Fish and Wildlife and local tribes to inventory man-made blockages of fish passageways and prioritize removal of blockages or otherwise restore stream corridors.

NS-74 Minimize sedimentation and turbidity in fresh and marine waters through measures which control stormwater runoff and reduce stream and shoreline erosion.

NS-75 The County should provide information about existing government and private programs pertaining to voluntary habitat protection, enhancement and restoration.

NS-76 The County should encourage private-public partnerships to restore and enhance fish and wildlife habitat.

F. Air Quality

A number of activities associated with urban and rural land uses generate air pollution, including traffic, industrial emissions or byproducts, open burning and wood stoves and fireplaces. When certain weather conditions prevail, pollutants emitted from human activities do not easily disburse, and poor air quality becomes worse.

Air pollution can cause or exacerbate temporary and chronic health problems including bronchitis, asthma and other lung problems and has been linked to cancer. Excessive air pollution may indirectly cause damage to vegetation or impact water quality and may contribute to Aglobal≅ problems, like ozone depletion or global climate change.

At this time, air quality in Kitsap County generally meets or exceeds national and state environmental standards. As the county becomes more urbanized and emissions from traffic, industry, land clearing and domestic burning increase, air pollution may begin to exceed health standards. Areas exceeding air quality standards are subject to stringent state and federal pollution control requirements, which may impact economic development goals, increase pollutant control costs to local governments and affect use of residential wood stoves and outdoor burning.

Goals

28. Ensure clean air for all residents of Kitsap County, and eliminate emissions of harmful pollutants, especially toxins and ozone-depleting chlorofluorocarbons.

29. Kitsap County will meet or exceed the requirements of the federal Clean Air Act Amendments and state Clean Air Washington Act.

30. Coordinate land use, economic development and transportation plans

to minimize or reduce air pollution emissions and concentrations.

Policies

NS-78 **The County shall work with the state and local fire districts to enforce adopted air pollution control standards for stationary-source emitters, such as business and industry, and area-wide source emitters, such as wood stoves, fireplaces and outdoor fires.**

NS-79 To reduce air pollution from outdoor burning, Kitsap County should provide solid and Agreen yard≅ waste collection service at a reasonable cost in urban residential areas, and shall promote on-site, wood-waste recycling facilities at land-clearing operations.

NS-80 The County should encourage the use of alternatives to wood as primary sources of heat in residential areas.

NS-81 To reduce air pollution from traffic, Kitsap County shall promote higher residential densities and job bases within urban growth areas, thus providing greater access to efficient public transportation and other modes of transportation (e.g., walking and cycling).

NS-82 Kitsap County shall discourage siting of commercial, industrial or public facilities where projected air pollution emissions would cause health or smoke/odor nuisance problems to adjacent or nearby land uses such as hospitals, schools or residential neighborhoods.

NS-83 Kitsap County shall work together with other jurisdictions, the Puget Sound Air Pollution Control Authority and the Puget Sound Regional Council to obtain federal and state programs and funding that promote clean air protection and enhancement, particularly through transit planning and attraction of nonpolluting businesses.