



WEST END COMMUNITY COMPREHENSIVE SUBAREA PLAN

**BOARD OF COUNTY COMMISSIONER'S
ADOPTED
FEBRUARY 27, 2007**



WEST END COMMUNITY COMPREHENSIVE SUBAREA PLAN

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The Skamania County Planning Department would like to extend their thanks and appreciation to the residents of the West End Community for their contribution and countless hours of dedication they provided throughout the creation of this plan. Special thanks to all those attending the West End Community meetings (beginning November 15, 2001), referenced by name in the appendices of this subarea plan (Appendix Item 1).

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CHAPTER 1: INTRODUCTION

The West End Planning Process

During the years 2000 and 2001, the Planning Commission and a group of concerned citizens requested the Board of County Commissioners direct the Planning Department to review the County Comprehensive Plan “A” (Planning 1977) to determine if updates were necessary in the West End Community. The high number of individual rezone requests received between the years of 1990 and 2001 prompted this request. Over 1,400 acres were rezoned without the benefit of regional review or broad public involvement during this time period, with no end in sight. The Planning Commission and the citizens determined it was time for the County to review the 1977 Comprehensive Plan and the 1990 zoning (SCC Title 21) to determine what changes were necessary to provide for orderly planned growth that protected the rural character of the West End Community.

The Board of County Commissioners agreed, and directed the Planning Department to conduct a review of the existing 1977 Comprehensive Plan (Planning 1977), the Zoning Code (SCC Title 21), and hold community meetings in the West End Community to find a solution to provide for orderly planned growth that protects the rural character of the West End Community. This Subarea Plan is intended to meet current and future needs of the West End Community and be less likely to be subject to a high degree of change unlike the current state of the 1977 Comprehensive Plan (Planning 1977).

The first community meeting of the West End Planning Process was held at the American Legion Post 122 on November 15, 2001. The process continued for the next three years and resulted in this plan, known as the West End Comprehensive Subarea Plan (Subarea Plan). The Vision Statement, Mission Statement and 10 General Goals specific to the West End (*shown in italics font*) were created, revised and accepted by the West End Community Members prior to sending them onto the Planning Commission and Board of County Commissioners. The accepted version for each is shown in this plan. The work plan used during the West End Planning Process is contained in Appendix Item 2.

Purpose and Intent

This Subarea Plan amends the Skamania County Comprehensive Plan “A” that was adopted in 1977 and amended in 1996 and 1997 (Planning 1977), by creating an area known as the West End Community (West End). For the purposes of this subarea plan, the West End Community is designated as all lands located within Township 1 North, Range 5 East; Township 2 North, Range 5 East; Township 3 North, Range 5 East; Township 1 North, Range 6 East; Township 2 North, Range 6 East; Township 3 North, Range 6 East, Willamette Meridian, lying north of the Columbia River Gorge National Scenic Area boundary and south of the Gifford Pinchot National Forest boundary. See Figure 1-1 for a general map of the West End Community.

The focus of this Subarea Plan is to provide for the local needs relating to land use, including the protection of natural resources, rural life style and property rights. In doing so, the Subarea Plan must meet the State of Washington’s minimum planning law requirements.

This Subarea Plan is intended for use by citizens, the Skamania County Board of County Commissioners, Planning Commission, Hearing Examiner and Department of Planning and Community Development (Planning Department) when acting upon proposals and issues concerning the physical development of the land in the West End of Skamania County.

Relationship of the subarea plan to the County Comprehensive Plan “A”

This subarea plan is not designed to entirely replace the County’s Comprehensive Plan “A” (Planning 1977) but instead supplements the original plan. However, to the extent that the new plan conflicts with the old plan, the new plan is controlling. The new plan is designed to provide updated guidance on land use and transportation issues in the West End Community. The following provides a summary of which Chapters and Sections of the County’s Comprehensive Plan “A” (Planning 1977) still apply in conjunction with the West End Community Comprehensive Subarea Plan.

Chapter I (Introduction) will be replaced.

Chapter II (Circulation Element) will be replaced.

Chapter III (Population Element) will be eliminated as a stand-alone chapter.

Chapter IV (Land Use Element) is what most comprehensive plans would now title Natural Resource Element. Natural Resource Elements include information on the soil classifications and limitations, soil maps, steep slopes, primary agricultural and forestry land, wildlife, shoreline environments and other critical resource areas. In 1996 the Comprehensive Plan “A” was amended to include all Critical Resource Areas as defined by the State of Washington. The general guidance provided by the Chapter IV sections A through G of the 1977 plan, and the general guidance provided in the update to include Critical Resource Areas in 1996, is still considered valid for this subarea plan. The 1977 plan text and maps have been modified to only show the West End Subarea and are included in this Subarea Plan. However, Chapter IV Section H of the 1977 Comprehensive Plan “A”, will not apply within the West End Subarea Plan.

Chapter V (Land Use Plan) will be replaced and will include updated population information.

Chapter VI (Appendices) section A will be modified and included as Appendix Item 3, sections B and C will not apply in the West End Community Comprehensive Subarea Plan.

The 1996 amendment to the Comprehensive Plan “A” to include Critical Resource Areas still applies within the West End Subarea and is incorporated by reference.

Growth Management Act Requirements

The Growth Management Act (GMA) was adopted in 1990 by the State of Washington. Skamania County is one of ten counties not fully planning under GMA. The GMA is listed in the Revised Code of Washington (RCW) as RCW 36.70A. The only sections of RCW 36.70A

that apply to Skamania County are those sections relating to the designation and protection of Critical Resource Areas, and the designation of Agricultural, Forest and Mineral Resource lands, not already characterized by urban growth, that have long term commercial significance.

Relationship of the subarea plan to zoning and other “official controls”

The relationship of the Subarea Plan to the zoning and other official controls is stated by the Washington State Planning Enabling Act’s definition and authorization of development of official controls by a county. Official controls are legislatively defined and enacted policies, standards, detailed maps and other data, all of which control the physical development of a county or any part thereof or any detail thereof, and are a means of translating into regulations and ordinances all or any part of the general objectives of the comprehensive plan or subarea plan. Such official controls may include, but are not limited to ordinances establishing zoning, subdivision control, critical areas, shorelines, and any adoption of detailed maps. (RCW 36.70.020)

In addition, the Planning Enabling Act states, “Zoning maps as an official control may be adopted only for areas covered by a comprehensive plan containing not less than a Land Use Element and a Circulation Element.” (RCW 36.70.720).

Legislative Amendments to this subarea plan (reassessment)

Comprehensive Plans and subarea plans are not written for all time. They are living documents designed to be at once rigid enough to hold a chosen course over an extended period of new growth and development, yet flexible enough to accommodate a wide variety of anticipated and unforeseen conditions. A fundamentally good plan can do this for a relatively short period of time (20 years), during which monitoring, data gathering and analysis for the purposes of “fine tuning” and improving the plan by amendment should be an ongoing process. At the end of this period Skamania County should conduct a major reassessment of the plan.

Procedures for accomplishing individual subarea plan amendments (quasi-judicial)

The comprehensive land use plan (or subarea plan) and all development regulations (official controls) shall be subject to continuing review and evaluation by Skamania County (County) and its citizens. The conclusion of a plan amendment cycle shall occur annually unless no amendments are proposed. A plan amendment cycle means the timeframe when plan amendments are submitted by the applicant (generally the property owners) to the Planning Department, scheduled for public hearing, reviewed and decided upon by the Hearing Examiner (see timeframe below). The applicant can resubmit plan amendments that have been denied by the Hearing Examiner no sooner than three years from the date of denial. Plan Amendments do not constitute an emergency (i.e., an immediate threat to life or property for which action must be taken to alleviate the threat).

The West End Subarea Plan Amendment Cycle (quasi-judicial) and review process is as follows:

1. All subarea plan amendment applications must be completed by the applicant (signed by the applicant and property owners) and submitted to the Planning Department on or before December 31st of each calendar year.
2. The subarea plan amendments will then be placed on the Hearing Examiner’s schedule for public hearing at the following June meeting.

3. The Planning Department will provide written analysis of each plan amendment to the Hearing Examiner for review.
4. The Hearing Examiner will hold at least one public hearing to consider and act upon the quasi-judicial plan amendment application.

A complete application for a quasi-judicial plan amendment must be submitted in writing and include the following:

1. A completed State Environment Policy Act (SEPA) checklist and application fee (as set by the Board of County Commissioners);
2. Comprehensive Plan Amendment Fee (as set by the Board of County Commissioners);
3. Responses to the following:
 - a. Description of the requested Plan Amendment;
 - b. An explanation of why the amendment is being proposed including specific areas of the Subarea Plan needing changes;
 - c. Draft text amendment language, if appropriate;
 - d. An explanation of how the criteria in 4 (below) are met by the proposal;
4. Criteria against which the proposed amendment must be evaluated and found to be in substantial compliance for approval:
 - a. A text and/or map amendment is necessary to resolve inconsistencies within the West End Comprehensive Subarea Plan with which the county has no objection;
 - b. Conditions have significantly changed since the adoption of the West End Comprehensive Subarea Plan or Official Controls to the extent that the existing adopted plan provision or map designation is inappropriate. Examples of significantly changed conditions include, but are not limited to: 1) sixty percent (60%) infill of existing lots within the entire mapping designation being proposed for change; or 2) new technology and uses not originally considered in the text have been developed;
 - c. The proposed text and/or map amendment is consistent with the overall intent of the goals, maps, and land use element of the West End Comprehensive Subarea Plan;
 - d. The proposed text and/or map amendment is consistent with RCW 36.70, those sections of RCW 36.70A to which Skamania County is required to plan under, and West End Comprehensive Subarea Plan policies;
 - e. Additionally, for an amendment to the West End Comprehensive Subarea Plan Map, the proposed designation must be contiguous along a shared boundary to the requested comprehensive subarea plan designation by at least 100 feet or 25% of the width of the property proposed to change, whichever is greater;
 - f. Environmental impacts have been disclosed and measures imposed to avoid or, if not possible to avoid, then mitigate said impacts; and,
 - g. The applicant should examine potential ramifications of the proposed text and/or map amendment to other West End Comprehensive Subarea Plan Elements and official controls and show how the potential ramifications have been considered and addressed.

Vision Statement

West Skamania County will continue to be a predominately rural environment with large open tracts of field and forest lands with residential and limited small scale commercial development. Water quality and quantity will be maintained or improved, and wildlife will continue to abound. It will be a place where its residents can find refuge from the bustle and clamor of the urban and suburban areas of Clark County, Washington and Portland, Oregon.

Mission Statement

To promote conservancy by ensuring abundant natural spaces, preserving peace and quiet, protecting and maintaining air and water quality, and sustaining native flora and fauna.

General Goals:

Goals are often considered to be the cornerstone of the planning process. A goal is an expression of an ideal and a desirable end. Over a period of time the goal remains constant and may never be completely attained. **The following County-Wide Goals continue to apply to the West End Subarea and are listed below:**

- A. To provide for the orderly future physical development of Skamania County.
- B. To coordinate public and private interests in land development.
- C. To promote effective planning and scheduling of improvements so as to avoid conflicts, duplication and waste.
- D. To promote improvements which make our communities more livable, healthy, safe and efficient.
- E. To create opportunities for citizens to take part in planning activities.
- F. To provide opportunities for citizen participation in making governmental decisions regarding land development.
- G. To integrate long-range considerations (comprehensive planning) into the determinations of short-term action (individual development applications).

The following additional general goals, which are specific to the West End Community, should be considered as the basis of the West End Comprehensive Subarea Plan. *(The general goal is shown in italics as accepted by the West End Community Members and Skamania County):*

General Goal 1. Primary Land Use:

Land developments within the West End Community shall be of a nature that promotes and enhances the rural and natural character of the community. This goal is premised upon the idea that certain qualities or values, which are viewed as “rural” by members of the West End community, should be preserved and enhanced. Those values include privacy; mixed residential, agricultural and forestry land uses; peace and quiet; lack of heavy traffic; clean air; clean water; wildlife and fish habitat; open spaces; recreational opportunities; and the least amount of governmental regulation consistent with preserving those and other values protected in the community subarea plan.

In the areas designated as Rural Lands, uses consistent with rural residential values should be encouraged; uses or conditions which would result in development inconsistent with those values should be either minimized through conditional use permits, or prohibited.

Historically, the West End of Skamania County was utilized primarily for agriculture and timber production. Since the late 1980s, the trend has moved toward single-family residential uses with many residents commuting for work to the urban areas of Vancouver and Portland. However, even with the development that has recently occurred, the current overall character of the West End Community is “rural”. There are many large tracts of land remaining within the community that are utilized for agriculture and timber production: primarily tree plantations, Christmas trees, animal husbandry, and hay production.

General Goal 2. Secondary Land Use:

The Community recognizes that limited rural employment opportunities are essential to maintaining its quality of life. New community commercial and neighborhood commercial land uses, as well as cottage occupations, light home industries and professional services, may be consistent with the rural residential character of the West End Community if only allowed subject to conditions that will alleviate adverse impacts to environmental, public safety and aesthetic values. Aesthetic values address issues such as privacy, noise levels and visual issues.

General Goal 3. Forestry

In the areas designated Commercial Resource Lands and Forest Lands, encourage and promote the current and continuing use of area land for the production of timber and miscellaneous forest products consistent with the utilization of Best Management Practices as provided in the Revised Code of Washington (RCW) and the Washington Administrative Code (WAC).

West Skamania County supports both large and small-scale forestry for commercial and private use. Historically, commercial timber production has been the main emphasis of the forest industry in the area. However, incidental forest byproducts are increasingly recognized as contributing to the quality of life and rural character of the West End. Examples of such include: fish and wildlife habitat, ecosystem diversity, and secondary forest products such as mushrooms, greenery, and berries. It is the desire of the residents of the West End Community to continue commercial and private timber production for economic benefit, as well as to recognize, protect, and enhance other forest values.

Generally, the lands designated as Commercial Resource Lands and Forest Lands in this subarea plan are ideally suited to forest management or other natural resource production due to timber type, slope, climate, rainfall, soil characteristics, parcel sizes (acreage), ownership patterns, access, and remoteness or separation from non-resource based residential developments. (For the purposes of this subarea plan, Christmas tree production shall be considered agriculture rather than forestry.) As stated above, the community recognizes the benefits of continuing forestry in the West End, which are summarized below.

Forest land is an economic benefit to the County and, particularly, to the West End. The results of fifteen years of research by the American Farmland Trust (AFT), academic researchers, extension economists, planners, researchers from private organizations and public agencies were published in 2002 in a report titled *Cost of Community Service Studies*. This nation wide report generally shows that tax and other revenues collected from farm, ranch and forest landowners, on average, more than covered the public service costs these lands incur (\$0.36 in average costs for every \$1.00 collected), while residential developments cost more to serve than they collect in revenue (\$1.15 in average costs for every \$1.00 collected). The results of the studies generally show that in the short term, residential development increases the tax base by adding property value, but in the long term open land (farm, ranch and forest land) requires a lower level of public service than residential development, thus limiting the cost increases to governmental budgets.

Forests contribute to all aspects of the community's mission statement. The natural landscape of western Skamania County includes primarily coniferous forest. The journals of the famous early explorers, Lewis and Clark attest to this fact. Thus, forests are essential to ensure abundant natural spaces persist. Forests are natural carbon sinks, meaning they extract carbon dioxide from the air and store it in their cells contributing to clean air. Forested areas also provide water storage preventing stormwater runoff, increasing infiltration, and reducing erosion, which improves water quality. The State of Washington recognized the importance of forests and forest ecosystems to sustaining native flora and fauna when it adopted the forests and fish rules governing timber harvest. Finally, the residents of the West End themselves attest to the peace and quiet forest lands provide.

General Goal 4. Water

Maintain and protect existing quality and quantity of ground and surface waters for domestic use, for area fish and wildlife and to ensure maintenance of existing wetlands.

Water quantity is a primary concern to West End Residents. Sufficient supplies of clean water are essential to support all life. As a result there are many demands placed on water resources. All of the West End residents get their water from individual exempt wells, springs or small private water systems since there are not any municipal water systems in the West End. Most West End residents obtain their drinking water from exempt wells serving a single household. Well depths and yield vary based on local aquifer properties, the extent of aquifer use in a specific area, and the hydraulic continuity between aquifers and surface waters. Maintaining groundwater quality and quantity is, therefore, a priority.

Threatened salmon and steelhead are located in many of the surface waters in the West End. Resident fish species are also present. These fish provide recreational, economic, cultural, and aesthetic value to the region. They require clean, cold water to thrive. Plants, animals, and birds also contribute to the rural character of the subarea and depend on surface and groundwater of sufficient quality and quantity to meet their needs. Existing wetlands provide fish and wildlife habitat as well as water storage and filtration functions benefiting humans and the natural environment.

A balance between the needs of humans, plants, animals, and fish is necessary to maintain the rural character and aesthetics of the subarea. To that end, several programs and activities have been undertaken to assess, protect, and enhance the area's water supply, water quality, fish and wildlife, and wetlands. These include the programs listed below, which have all been integrated in attempts to ensure coordination and consistency, and to avoid duplication of effort.

- Watershed Planning under RCW 90.82/ESHB 2514. These efforts address water quantity, water quality, fish habitat, and instream flows. The Lower Columbia Fish Recovery Board (LCFRB) acts as the lead agency for the 36-seat Planning Unit in Water Resource Inventory Areas (WRIA) 27 and 28. The West End of Skamania County is included in WRIA 28. To date, a survey of existing information (Level 1 Assessment, GeoEngineers 2001) and more detailed assessments focused on filling important data gaps (Level 2 Assessment, PGG 2003) have been completed. This information has been used to develop a draft watershed plan, which addresses water quantity, quality, and instream flow (EES 2004 DRAFT). Products from the following three programs will be used to develop the fish habitat portion of the watershed plan.
- Washington State Salmon Recovery under EHSB 2496. The LCFRB administers the distribution of state funds for salmon recovery and habitat enhancement projects in the lower Columbia region. The ranking process involves review of each project by the LCFRB's technical panel, the LCFRB, and the public, prior to sending its recommendations for funding to the state Salmon Recovery Funding Board, which uses them to allocate funds across the state. The LCFRB ranking strategy will be revised according to the results of the following two programs.
- Subbasin Planning. To mitigate impacts to fish and wildlife due to construction of the dams on the Columbia River, the Federal government required the Bonneville Power Administration (BPA) to set aside money from its operations to restore and protect fish and wildlife populations and their habitat. The BPA formed the Northwest Power and Conservation Council (NPCC) to review projects and allocate funding for such work in the Columbia River basin. In the past funding allocations were not based on a comprehensive strategy. Subbasin planning is the NPCC effort to develop such a strategy. Subbasin assessments were conducted by the NPCC and plans are being developed in cooperation with local agencies, governments, tribes, and residents. The LCFRB is coordinating this work in the Washougal Subbasin under a grant from the NPCC. The work is being conducted in conjunction with Federal Recovery Planning described below.
- Federal Recovery Planning under the Endangered Species Act. Several salmonid species found in the West End are listed under the Endangered Species Act (ESA) as either threatened, endangered, candidate, or sensitive species of concern. There are both federal level and state level ESA listings for vertebrate animals, invertebrate animals, flowering plants and non-flowering plants. These lists are continually being updated for each species and contain hundreds on species. The National Oceanic and Atmospheric Administration (NOAA) Fisheries is required to develop recovery plans for each ESA listed salmonid species. The LCFRB is acting as the lead agency for these efforts on the Washington side of the lower Columbia River, which includes the West End subarea. The NOAA Fisheries Technical Recovery Team defined what constitutes recovery under the ESA for each listed salmonid population and the LCFRB is working to develop a plan to meet these recovery goals with local agencies, governments, tribes, and citizens.

- Skamania West End Water Quality Study. In 1997 Skamania County hired Pacific Groundwater Group to conduct the Skamania West End Water Quality Study to address concerns regarding the quality and quantity of groundwater and surface water in the area arising from increased population growth.
- Growth Management under RCW 36.70A. Skamania County's population is less than 50,000 and the County is not required to fully plan under this state law. The Growth Management Act does require such counties to develop and administer local critical areas ordinances, which include regulation of watershed protection areas, wetlands, fish and wildlife protection, and geologically hazardous areas. In Skamania County these regulations consist primarily of buffer zones bordering streams, ponds, lakes and wetlands and designation of various types of hazard areas where new development is closely monitored.
- Shorelines Management under RCW 90.58. Washington State requires local governments to regulate development along streams and lakes designated as shorelines under RCW 90.58. Skamania County has adopted a Shorelines Master Program to do so.
- Forest Practices Act under RCW 76.09. The Washington State Department of Natural Resources (DNR) regulates timber harvest on state, local government, and private lands.
- NOAA Fisheries. This federal agency is responsible for recovery of anadromous ESA listed fish species including, for example, chum, Chinook, steelhead, and bull trout.
- United States Forest Service. This agency is responsible for management of federal forest lands which make up a significant portion of Skamania County.
- Washington Department of Fish and Wildlife. This agency regulates in-stream work conducted within many of the streams and creeks in the West End. It is also responsible for recovery of non-anadromous ESA listed plant, fish and wildlife species including, for example, the northern spotted owl and western pond turtle.
- Washington Department of Ecology. This agency is responsible for administering and enforcing water rights, shorelines oversight reviews, water quality, and many other water resource programs in the state.

Surface and groundwater quality in the West End is excellent (PGG 1997). Groundwater supplies are abundant in the region (EES 2004 DRAFT). Current West End water demand is estimated as 383 acre-feet per year (afy), or 0.68 million gallons per day (MGD) (EES 2004 DRAFT). The current water demand is .12% (twelve one hundredths of one percent) of the average annual baseflow. Water demand is estimated to increase to 475 afy, or 0.85 MGD, by the year 2020 (EES 2004 DRAFT). The increased water demand would be .15% (fifteen one hundredths of one percent) of the average annual baseflow. This increased water demand can also be shown as 1.6% (one and six tenths of one percent) of the median summer baseflow. Individual household wells are expected to account for nearly all of the estimated increased water demand in the subarea, which is minimal. Such wells were found to have a minimal impact on surface water baseflows in the area and, in some cases, baseflows were found to increase as rural development increases due to septic system return flows (EES 2004 DRAFT). Most individual household wells achieve a flow rate generally adequate for household use and no significant problems regarding the general availability of water within the West End have been found (PGG 1997).

During the community meetings held to develop this subarea plan, the majority of those attending have indicated it would be prudent as well as economically and ecologically responsible to take a conservative approach toward increasing land development until adequate data about the nature of

the aquifers can be supplied. In certain areas of the West End, within isolated aquifers, it is possible that continued density increases and development could adversely affect existing water supplies and resources as well as degrade the Washougal River and its tributaries.

The Washougal River subbasin has been administratively closed to the issuance of new water rights by Ecology since 1987 due to the presence of ESA listed salmonid populations.

Wetlands along the main stem rivers, especially in low-lying terrain near the mouths of these rivers were found to be the most hydrologically significant (PWR 2003 DRAFT) and existing County policies were determined to offer the best wetland management tools in WRIs 27 & 28 (EES 2004 DRAFT). The watershed plan recommends wetland regulations include hydrologic function of wetlands in their wetland protection hierarchy. The Skamania County Critical Areas Ordinance, Title 21A of the Skamania County Code, establishes no-touch buffers surrounding all regulated wetlands.

General Goal 5. Wildlife

Protect and encourage area indigenous wildlife, including game and non-game animals, aquatic species, residential and migratory birds, invertebrates, and native plants through maintenance of natural habitats.

Recovery plans managed by the Washington Department of Fish and Wildlife and US Forest Service are either in place or being developed for many ESA listed wildlife and plant species present in the subarea. Planning efforts led by the Lower Columbia Fish Recovery Board (see General Goal 4) are underway to address selected wildlife species including but not limited to dusky Canada goose, sandhill crane, western pond turtle, and selected neo-tropical birds.

The West End of Skamania County is home to, and provides habitat for, numerous wildlife and plant species of importance to local residents. While the bulk of these species have healthy populations, there maybe some that are ESA listed. The community derives value from the presence of these species and desires to maintain them for future enjoyment. Since different habitats support different species, no particular habitat should be entirely eliminated by development activities.

General Goal 6. Fish

Protect waterways and aquatic life by maintaining or re-establishing natural habitat through careful and appropriate land and water use practices.

Planning efforts by the Lower Columbia Fish Recovery Board and other entities (see General Goal 4 above for additional applicable information) are underway to restore several salmonid and other local fish species including various ESA listed and non-listed species. The West End subarea is included in these efforts. Habitat conditions influencing fish population health identified by the technical foundation for the LCFRB's planning process include: passage barriers, stream flow, water quality, nutrient loads, habitat diversity, substrate and sediment, woody debris, channel stability, riparian function, and floodplain function.

The upper Washougal subbasin, within Skamania County, meets the LCFRB salmon recovery/subbasin planning criteria for a hydrologically functioning watershed (LCFRB 2003 DRAFT). Natural and man-made fish passage obstructions present include falls, small dams and culverts (LCFRB 2003 DRAFT). Opportunities for habitat improvement include:

- Increasing spawning gravel and decreasing fine sediments;
- Increasing large woody debris depleted by past land use activities and catastrophic natural events;
- Improving riparian function in the lower watershed; and
- Improving floodplain function and connectivity (EES 2004 DRAFT).

General Goal 7. Community Services

Support only that development which can be sustained within the limits of existing county and community services.

People often choose to live in rural areas because they want to be more self-reliant and farther away from population centers, and often do not need or want many of the services provided in urban areas. Services provided to rural residents include law enforcement protection, volunteer fire protection and volunteer emergency services protection. All County government offices are located in Stevenson, Washington (the County Seat) which is approximately 25 miles to the east of the West End Community. Fire District 4 facilities are located on the Washougal River Road within the West End Community.

Property owners and/or developers are responsible for providing water, sewer and utility facilities as well as any private access to their developments. Typically in the West End Community, water service consists of individual wells or existing surface water diversions, sewer services consist of individual on-site septic systems, and new access consists of graveled private roads. Electrical service is provided to the West End Community by the Skamania Public Utility District (PUD) #1 which is located in the Carson unincorporated area (approximately 30 miles to the east of the West End Community).

With all development (or increases in population) there is an increase in the demands for community services. The County should assist in the reduction of the cost of public services by focusing development in areas where services, utilities and access are provided in adequate capacity, or can reasonably be upgraded by the developer to provide necessary capacity. Additionally, residential development in rural areas should be provided on lands that can physically support it without requiring urban level services. Densities should be low enough to discourage urban sprawl, and should not encroach on the natural environment, significant cultural resources, or natural resource management without mitigation.

The County should promote wise use of public funds in rural areas by allowing service providers to establish rural facility and service standards that are consistent with rural densities and uses.

The County's land use planning should be coordinated with the planning activities of electrical, telephone, and cable providers, to ensure that providers of public services and private utilities use the Land Use Element of this plan when planning for future facilities.

The County shall require developers to ensure that those public facilities and services necessary to support development shall be adequate to serve the development at the time the development is available for occupancy and use without decreasing current service levels below locally established minimum standards.

Rural Residential areas should generally be developed at low levels of intensity (5 acre and 10 acre lots) so that demands will not be created for high levels of public services and facilities. County requirements for housing in rural areas should encourage residential development that is compatible with farming, open space, outdoor recreation, protection of significant cultural resources, rural service levels, and generally with the rural character. Existing areas of more intense rural residential development (2 acre lots) should be acknowledged and maintained, but should not be expanded.

Urban governmental services should not be extended to or expanded in rural areas except in those limited circumstances shown to be necessary to protect basic public health and safety, the environment, and when such services are financially supportable at rural densities that do not permit or promote urban development.

The County should encourage the location of necessary utility facilities within existing and planned transportation and utility corridors, but should also encourage the location and co-location of wireless facilities to enhance service levels.

General Goal 8. Transportation (Circulation)

Maintain existing county roads and assure that new development does not compromise the safety and welfare of residents. General Goal 8 is the basis for the transportation policies listing in Chapter 4: Circulation Element. The County Public Works Department maintains all county roads. All private roads are maintained by the property owners and typically are included in private maintenance agreements. New development should be reviewed by the County Public Works Department to determine the safety of new access and approaches for sight distance. At this time, Skamania County does not accept new roads or existing private roads into the County road system. However, there are private road standards that are required to be completed by the developer as the private road is being constructed.

Public transit services near the West End Community are minimal. There is one transit stop located south of the West End Subarea. This transit stop is located at the intersection of Salmon Falls Road and Highway 14. The public transit service is provided through Skamania County Senior Services. Skamania County recognizes the need for public transportation and encourages further development of the service.

Developments should have adequate access and circulation for all public service vehicles.

The County shall coordinate special events traffic management with the persons, parties or organizations responsible for the management of special events and festivals. The County recognizes the need to minimize the disruption of normal use of transportation facilities during special events and festivals.

General Goal 9. Evacuation

Evaluate the capacity of existing infrastructure to handle safe emergency evacuation procedures for current residents before planning for increases in population. Evacuation plans and procedures, educational materials, and evaluation studies should be coordinated through the Skamania County Department of Emergency Management. The Skamania County Comprehensive Emergency Management Plan indicates in the mission statement that it is the policy of Skamania County that citizens are encouraged to be self-sufficient for up to 72 hours should an emergency or disaster occur.

General Goal 10. Geology

Prohibit development in geologically unstable areas. In addition to the geologically hazardous areas protected in the 1996 amendment to Comprehensive Plan A (Critical Areas), the following areas have shown the potential to be geologically unstable and warrant closer inspection during site specific development review:

- West side of the West Fork of the Washougal River near the steelhead hatchery's water intake
- Mile Post 13.6 on the Washougal River Road near the Fanning property and Camp Melacoma
- Mile Post 0.75 on Skye Road
- Upper Wild Boy Creek headwaters
- Cliffs and roadsides adjacent to Canyon Creek
- Mile Post 3.6 on Canyon Creek Road
- Salmon Falls Road

Figure 1-1

CHAPTER 2: NATURAL RESOURCES

The natural setting of the West End Subarea ranges in elevation from approximately 200 feet above mean sea level to over 2,000 feet above mean sea level. The area consists of hillsides, river valleys, canyons and some level benches (or low plateaus). Beyond the West End Subarea to the north of the Gifford Pinchot National Forest's southern boundary, the topography is generally rugged and mountainous. The Columbia River National Scenic Area and Highway 14 are located to the south of the West End Subarea. The elevations along the Columbia River are near sea level.

The climate is temperate and strongly influenced by topography. Annual rainfall varies from 70 to 130 inches in the Subarea. Precipitation is higher and temperatures are lower as the ground elevation increases moving northerly through the Subarea.

The 1977 Comprehensive Plan "A" included five soils maps that were prepared by the US Department of Agriculture, Soil Conservation Service assisting the Underwood Soil Conservation District (Planning 1977). The five maps depict the portions of the entire County covered by the 1977 Comprehensive Plan "A" and are titled as follows: Agricultural Soils, Soil Slopes, Soils Limitations For Septic Tank Filter Fields, Soils Limitations For Dwellings Three Stories Or Less, and Soils Limitations For Roads. Four of the maps have been modified to show the West End Subarea and are included in this plan as Figure 2-1, Figure 2-2, Figure 2-3, and Figure 2-4.

The United States Department of Agriculture designed a soil classification system that identifies eight broad classes of agricultural soil capability each identified by a Roman numeral. Class I soils have few limitations on agricultural activities and are considered to be primary agricultural land. Class VIII soils have severe limitations and hazards that make them unsuitable for cultivation or pasture land. Skamania County in whole (including the West End Study Subarea) does not contain Class I or V soils. Figure 2-1 presents three grouped categories of soil classes. Class II – III soils are suitable with simple conservation practices for cultivated crops, pasture, hay, woodland and wildlife. Class IV – VI (Class V not present) soils are suitable with complex conservation measures for pasture, hay, woodland and wildlife. Class VII – VIII soils have severe limitations that make them unsuitable for cultivation, pasture or hay. Woodland, wildlife, watershed conservation, and recreation are suitable for these soil classes.

The soils map "Soils Limitations For Septic Tank Filter Fields" is obsolete due to technological advancements in septic system and drainfield design and has not been included. The new "designer" systems cost more to install, but can be located in areas where the "traditional" systems could not.

The information available from the other two "Limitations" maps (dwellings and road), is an important tool used in the planning process by providing general guidance for designating the densities of land use area and locating future roadways (See Figure 2-2 and Figure 2-3). It is also important to remember that engineers and other professionals can modify natural soil

features or can design or adjust the plans of a structure to compensate for most degrees of limitations. Most of these practices, however, are costly. A less costly project could be constructed in the “slight” and “moderate” designations; however the project costs will increase if locating in the “severe” designation. The general goals and policies of geological hazards are addressed in the 1996 Critical Area Amendment to the County Comprehensive Plan “A”. For the purpose of structural development, soil limitations are addressed in the County’s Critical Area Code (Skamania County Code (SCC) Title 21A). The code requires that development either avoid the potentially unsuitable areas, or adequately assess the degree of instability and locate, design and engineer the development to address the level of hazard.

The 1996 Critical Areas Amendment to the County Comprehensive Plan “A” and SCC Title 21A provide guidance and regulations on the designation and protection of critical resources including but not limited to wetlands, frequently flooded areas, streams, rivers, riparian areas, fish and wildlife habitat and conservation areas, and geologically hazardous areas. The maps, data and text of the 1996 Critical Areas Amendment are incorporated by reference into this Subarea Plan. Skamania County will be conducting a review and possible update of SCC Title 21A in the years 2006-2008.

The 1977 Comprehensive Plan “A” Relief Map has been modified to show the West End Subarea and is included in this plan as Figure 2-4. The relief map was originally developed to show the optimum elevation range of human habitation (Planning 1977). The limiting factor for development with regard to elevation is the seasonal snowfall. In the lower portions of the river valleys snowfall is light, and seldom remains on the ground longer than one week or reaches a depth in excess of eight to twelve inches (Planning 1977). The mid-winter snow line in the mountains usually drops to approximately 1,500 feet above mean sea level.

According to the 1977 Comprehensive Plan “A”, the lowest elevations category shown on the map (0-400 feet) is considered the most suitable for development, and the highest elevation category (over 1,200 feet) is the least desirable for development.

The northern portion of the West End Subarea is considered primary timberland and is mainly owned by the State of Washington and timber companies. This portion of the subarea has been designated as Commercial Resources Lands in Land Use Element as shown on Figure 3-1. The entire West End Subarea contains approximately 67,000 acres or 105 square miles. Over 53,000 of the 67,000 acres that are in County, State, or Federal ownership; or are owned by Longview Fibre, the Washougal School District, California Evangelistic, or the Washougal Timber Trails. Other natural resource discussions and related goals and policies are contained in the general goals section of Chapter 1 of this Subarea Plan, in the 1977 Comprehensive Plan “A”, and in the 1996 Critical Areas Amendment.

Figure 2-1

Figure 2-2

Figure 2-3

Figure 2-4

CHAPTER 3: LAND USE ELEMENT

A. General Policies

In addition to the specific policies governing each of the four land use types, the following general policies shall govern future development in all land use designations within the West End Community Subarea:

1. All West End Community zoning regulations shall be consistent with this Comprehensive Subarea Plan;
2. The land use policy framework and planning process should be utilized as a basis for all decisions and actions related to land use and to assure that such decisions and actions are based on factual information;
3. Parcels of land which do not meet the minimum lot sizes set out in this comprehensive subarea plan and any ordinance implementing this plan, and which were lawfully created prior to adoption of this plan or any zoning ordinance(s) implementing this plan, may be developed subject to all regulations other than those governing minimum lot sizes and dimensions that are in effect at the time a development application is filed;
4. All development shall be in compliance with existing federal, state and local requirements;
5. Three types of developments should be established for each land use designation under this plan and for any zone established to implement this plan. If any use is not listed as one of the following types of developments, then the use is prohibited within that land use designation:
 - a. Allowable uses which are permitted without review by the Planning Department except for compliance with setbacks, buffer requirements, critical area regulations, the State Environmental Policy Act and the Shorelines Management Master Program;
 - b. Review uses, which are allowed, with administrative review by the Department for consistency with standards placed upon those uses, with appeal to the Hearing Examiner; and,
 - c. Conditional uses, which are subject to review and approval or denial by the Hearing Examiner, with appeal to Superior Court. The Hearing Examiner may deny a conditional use permit if the he or she finds the use is inappropriate for the area.
6. The comprehensive planning policies set out herein and all land use designations and land use regulations undertaken pursuant hereto should provide clear and objective standards to govern future development. Said policies, designations and regulations should not be varied or amended without proof of a substantial change in circumstances;

7. In the development regulations, land uses which are neither allowed without review by the Planning Department, permitted subject to conditions, nor named as conditional uses under a land use designation made in this plan or in an ordinance implementing this plan should be prohibited without proof of a substantial change in circumstances sufficient to justify amendment of this plan;
8. All land uses in the West End Community shall be classified with a land use designation and shown on the Comprehensive Subarea Plan map (Figure 3-1) and all implementing ordinances shall be in conformance with such map and Plan policies;
9. The areas designated Commercial Resource Lands 40 (CRL40) shall be conserved for a broad range of forest, agricultural and mineral resource uses to the maximum extent possible and protected from the encroachment of incompatible uses;
10. The areas designated Forest Lands 20 (FL20) shall provide for present and future non-industrial forestry operations, however these areas shall also provide buffers between the Commercial Resource Lands and the Rural Lands designations;
11. The area designated as Community Commercial and Neighborhood Commercial along the Washougal River Road on Figure 3-3 shall be phase-zoned in the development regulations. The first phase will include up to 20 acres from the Washougal River Mercantile Store to Laurel Lane (including the Legion Hall). The remaining area shall be zoned as Rural Lands 2 (RL2) until it can be shown that the phase one commercial area has been built out as commercial uses.
12. All plats, short plats, development permits, and building permits issued for development activities on, or within five hundred feet of, lands designated as Commercial Resource Lands or Forest Lands should contain a notice that the subject property is within or near designated agricultural lands, forest lands, or mineral resource lands on which a variety of commercial activities may occur that are not compatible with residential development for certain periods of limited duration. The notice should also inform that an application might be made for mining-related activities, including mining, extraction, washing, crushing, stockpiling, blasting, transporting, and recycling of minerals.
13. Billboard signs should be prohibited;
14. Local roads and streets should be designed to discourage truck and commercial traffic through residential areas. Loops and cul-de-sacs should be encouraged;
15. Land use permitting processes should be simplified and streamlined to the maximum extent possible;
16. Adequate on-site wells and septic systems should be properly installed, monitored and maintained in accordance with local and state health department requirements;

17. Recognize volunteer fire protection, volunteer emergency services, and County law enforcement protection as appropriate services in rural areas;
18. Opportunities shall be provided for citizen involvement and input on issues in advance of making land use decisions;
19. Countywide plans, policies and regulations governing the State Environmental Policy Act (SEPA), shorelines, critical areas, watersheds, and land divisions are incorporated in this comprehensive subarea plan by reference. Critical areas include wetlands, frequently flooded areas, geologically hazardous areas, wildlife habitat and aquifer recharge areas;
20. The Skamania County Parks and Recreation Master Plan shall be the guiding document for future park improvements, however, those improvements are subject to other regulations including but not limited to: zoning, critical areas, shorelines, and land divisions;
21. Setbacks from new and existing gas pipelines should be required to reduce the potential for accidents near gas pipelines;
22. Land use patterns, which minimize the cost of providing adequate levels of public services and infrastructure, should be encouraged;
23. Land use patterns should follow along roads, rivers, township lines, range lines, section lines or quarter section lines rather than individual parcel lines to provide for uniform regular boundaries between land use designations;
24. Cottage occupations and light home industries should be encouraged in Rural Lands Designations to the extent that they will not require public investment in infrastructure greater than that normally required for residential use of the density allowed in the land use designation;
25. Unconcealed, outdoor storage of non-functioning vehicles and parts thereof, appliances, construction materials, debris and household garbage should be discouraged;
26. Nuisance, noise, and solid-waste ordinances should be strictly enforced by the appropriate County Departments;
27. Surface water run-off (including storm water run-off) from developments should be reduced by:
 - a. Encouraging the retention of natural vegetation or the provision of landscaped areas;
 - b. Encouraging the retention, creation and utilization of wetlands;

- c. Requiring that natural drainage ways be maintained in all new developments and include appropriate setbacks; and,
- d. Encouraging on site retention/detention of all stormwater.

B. Land Use Designations

Four land use types are designated in this subarea plan and are differentiated from each other by the intensity and type of use that may occur in each area. Figure 3-1 shows the location of the land use designations within the West End Subarea. When the term “land division” is used, it shall refer to the creation of new lots through subdivision, short subdivision, deed process (conveyance), or through other exempt processes.

Rural Lands:

The purpose is to provide areas of lower residential density to preserve the rural character of the community. Typically rural lands are used to accommodate demands for rural living and to provide buffers between urban, agricultural and forestry uses.

The Rural Lands Designation is separated into 3 subcategories based on minimum lot size. The subcategories are Rural Lands 2 (RL2), Rural Lands 5 (RL5), and Rural Lands 10 (RL10). The following common policies should govern development in all Rural Lands designations:

- a. Single-family residences should be allowed;
- b. Public facilities and utilities, such as parks, public water access, libraries, schools (K-12), and utility substations should be allowed;
- c. New telecommunication tower facilities should be listed as a conditional use with specific development requirements;
- d. Co-location of new telecommunication antennas on non-BPA towers should be listed as a review use with specific development requirements;
- e. Co-location of new telecommunication antennas on BPA towers should be allowed;
- f. Residential care facilities, child care facilities, private schools (K-12), safe homes, and religious facilities should be allowed. Safe homes are defined as a shelter that has two or less lodging units and has a working agreement with or is owned and/or operated by the Skamania County Domestic Violence Council;
- g. Meeting halls such as, but not limited to civic, social and fraternal organizations should be listed as a conditional use permit;
- h. Cottage Occupations, Light Home Industry, and Professional Services should be allowed, subject to standards protecting rural lands values;
- i. Domestic and Commercial Agriculture should be allowed;
- j. Commercial kennel facilities should be listed as a conditional use;
- k. Commercial uses, other than commercial agricultural uses, cottage occupations, light home industry, and professional services should be prohibited;
- l. Auto repair, vehicle storage yards, and/or the sale of new and/or used automobile, motorcycle, marine, recreational vehicles and/or off-road vehicles should be listed as a conditional use, provided in addition to the standard conditional use requirements, the outdoor storage of non-functioning vehicles and parts thereof are fully screened

- from view from a roadway (public or private) and from adjacent properties under different ownership than the subject property;
- m. Industrial uses should be prohibited, unless specifically listed below by subcategory;
- n. New mobile home parks should be prohibited;
- o. New recreational vehicle parks should be listed as a conditional use permit;
- p. Duplexes should be allowed by conditional use permit and should require 150 percent of the minimum lot acreage;
- q. Multi-family (3 or more units) dwelling units should be prohibited;
- r. Planned Residential Developments, Planned Unit Developments and “Cluster” Developments should be prohibited;
- s. New extraction or processing of mineral resources should be prohibited. However, existing legally established mineral resource extraction and/or processing sites may continue to operate and may apply to expand by conditional use permit; and,
- t. Accessory uses normally associated with a permitted use should be allowed.

In addition to the common policies mentioned above, the following policies should govern development in the **Rural Lands 2 (RL2) designation**:

- a. A minimum of two acres is required for each lot within a new land division, unless the Local Health Department Authority requires greater lot size;
- b. If more than one single family dwelling is constructed or placed on a parcel, the total parcel size (acreage) is required to be at least two times the number of units;
- c. Forest practices and associated management activities of any forest crop, including but not limited to timber, Christmas trees, and nursery stock should be allowed; and,
- d. Other uses that are similar to the uses listed here should be allowable uses, review uses or conditional uses, only if the use is specifically listed in the official controls of Skamania County for that particular land use designation; and,
- e. Existing legally established scout camps, church camps, and/or youth camps may continue to operate and may apply to expand by conditional use permit.

In addition to the common policies mentioned above, the following policies should govern development in the **Rural Lands 5 (RL5) designation**:

- a. A minimum of five acres is required for each lot within a new land division, unless the Local Health Department Authority requires greater lot size;
- b. If more than one single family dwelling is constructed or placed on a parcel, the total parcel size (acreage) is required to be at least five times the number of units;
- c. Scout camps, church camps, and/or youth camps should be permitted as conditional uses;
- d. Forest practices and associated management activities of any forest crop, including but not limited to timber, Christmas trees, and nursery stock should be allowed; and,
- e. Other uses that are similar to the uses listed here should be allowable uses, review uses or conditional uses, only if the use is specifically listed in the official controls of Skamania County for that particular land use designation.

In addition to the common policies mentioned above, the following policies should govern development in the **Rural Lands 10 (RL10) designation**:

- a. A minimum of ten acres is required for each lot within a new land division, unless the Local Health Department Authority requires greater lot size;
- b. If more than one single family dwelling is constructed or placed on a parcel, the total parcel size (acreage) is required to be at least ten times the number of units;
- c. Scout camps, church camps, and/or youth camps should be allowed;
- d. Forest practices and associated management activities of any forest crop, including but not limited to timber, Christmas trees, and nursery stock should be allowed; and,
- e. Other uses that are similar to the uses listed here should be allowable uses, review uses or conditional uses, only if the use is specifically listed in the official controls of Skamania County for that particular land use designation.

Forest Lands 20 (FL20):

The purpose is to provide land for present and future non-industrial forestry operations. A secondary purpose is to provide buffers between Commercial Resource Lands and Rural Lands designations.

The following common policies should govern development in the Forest Lands designation:

- a. A minimum of twenty acres is required for each lot within a new land division, unless the Local Health Department Authority requires greater lot size;
- b. Forest practices and associated management activities of any forest crop, including but not limited to timber, Christmas trees, and nursery stock should be allowed;
- c. Uses such as log sorting and storage areas, scaling stations, and forest industry storage and maintenance facilities should be allowed provided the intent of the processing is initial reduction in bulk and/or to facilitate transport of products to a secondary processing center. Such uses should not include commercial and manufacturing uses such as: manufacture of finished wood products such as furniture, lumber, or plywood, nor the retail sales of products from the site;
- d. Temporary crew quarters and/or farm labor housing should be allowed in conjunction with forest or agricultural activities;
- e. Commercial and domestic agriculture uses should be allowed;
- f. The management and enhancement of unique biological areas, and the propagation of fish and wildlife should be allowed;
- g. Water resource management facilities should be allowed;
- h. Only that storage of explosives, fuels, and chemicals, as allowed by state and federal laws should be allowed;
- i. New telecommunication tower facilities should be listed as a conditional use with specific development requirements;
- j. Co-location of new telecommunication antennas on non-BPA towers should be listed as a review use with specific development requirements;
- k. Co-location of new telecommunication antennas on BPA towers should be allowed;
- l. Public facilities and utilities should be allowed;

- m. Scout camps, church camps, and/or youth camps should be allowed
- n. Accessory uses normally associated with a permitted use should be allowed
- o. Only one single family dwelling per legal lot of record should be allowed;
- p. Cottage Occupations, Light Home Industry, and Professional Services should be allowed, subject to standards protecting rural lands values;
- q. Commercial uses, other than commercial agricultural uses, cottage occupations, light home industry, and professional services should be prohibited;
- r. Auto repair and/or vehicle storage yards should not be considered to be cottage occupations, light home industry, nor professional services;
- s. Industrial uses other than forestry uses (b and c above), should be prohibited unless specifically listed in the official controls of Skamania County for that particular land use designation;
- t. New mobile home parks and recreational vehicle parks should be prohibited;
- u. Duplexes and Multi-family (3 or more units) dwelling units should be prohibited;
- v. Planned Residential Developments, Planned Unit Developments and “Cluster” Developments should be prohibited;
- w. The use of explosives for the extraction of gravel and rock should be prohibited in the Forest Lands Designation;
- x. Extraction and processing of gravel and rock for the construction and maintenance of roads and trails within the forest owner’s property should be listed as a conditional use, provided the standard conditional use requirements and the following additional requirements can be met: the ownership contains a minimum of twenty (20) contiguous acres, the land is classified as timberland (forest taxation), and there is a Forest Management Plan for the property. New commercial extraction and/or processing of mineral resources should be prohibited. However, existing legally established commercial mineral resource extraction and/or processing sites may continue to operate and may apply to expand by conditional use permit; (Res. 2018-18)
- y. Recreation facilities should be listed as conditional uses;
- z. Semi-public facilities and utilities should be listed as conditional uses;
- aa. Sawmills, shake and shingle mills, and chipper facilities should be listed as conditional uses;
- bb. Commercial kennel facilities should be listed as conditional uses; and,
- cc. Other uses that are similar to the uses listed here should be allowable uses, review uses or conditional uses, only if the use is specifically listed in the official controls of Skamania County for that particular land use designation.

Commercial Resource Lands 40 (CRL40):

The designation of commercial resource lands is designed to meet the minimum requirements of the Washington State Growth Management Act (Chapter 36.70A RCW) that mandates the designation and protection of forest, agricultural, and mineral resource lands of long-term commercial significance. This designation shall take into account the proximity to human settlement, the size of the parcel, and the long-term economic conditions for the commercial production of timber and agriculture, and the commercial extraction of minerals.

Such regulations shall assure that the use of lands adjacent to agricultural, forest, or mineral resource lands shall not interfere with the continued use, in the accustomed manner and in accordance with best management practices, of these designated lands for the production of food, agricultural products, or timber, or for the extraction of minerals. It shall be required that all

plats, short plats, development permits, and building permits issued for development activities on, or within five hundred feet of, lands designated as resource land (forest, agricultural or mineral uses), contain a notice that the subject property is within or near designated agricultural lands, forest lands, or mineral resource lands on which a variety of commercial activities may occur that are not compatible with residential development for certain periods of limited duration. The notice for mineral resource lands shall also inform that an application might be made for mining-related activities, including mining, extraction, washing, crushing, stockpiling, blasting, transporting, and recycling of minerals.

The following common policies should govern development in the Commercial Resource Lands designation:

- a. A minimum of forty acres is required for each lot within a new land division, unless the Local Health Department Authority requires greater lot size;
- b. Forest practices and associated management activities of any forest crop, including but not limited to timber, Christmas trees, and nursery stock should be allowed;
- c. Uses such as log sorting and storage areas, scaling stations, forest industry storage and maintenance facilities, sawmills, shake and shingle mills, and chipper facilities should be allowed provided the retail sales of products from the site is prohibited;
- d. Temporary crew quarters and/or farm labor housing should be allowed in conjunction with forest or agricultural activities;
- e. Commercial and domestic agriculture uses should be allowed;
- f. The management and enhancement of unique biological areas, and the propagation of fish and wildlife should be allowed;
- g. Water resource management facilities should be allowed;
- h. Only that storage of explosives, fuels, and chemicals, as allowed by state and federal laws should be allowed;
- i. New telecommunication tower facilities should be listed as a conditional use with specific development requirements;
- j. Co-location of new telecommunication antennas on non-BPA towers should be listed as a review use with specific development requirements;
- k. Co-location of new telecommunication antennas on BPA towers should be allowed;
- l. Public facilities and utilities should be allowed;
- m. Semi-public facilities and utilities should be allowed;
- n. Historic sites open to the public that do not interfere with the management of resource lands should be allowed;
- o. Extraction of gravel and rock for road and trail construction and maintenance purposes, and the operation of portable rock crushers, provided the material is used within the CRL40 designation, FL20 designations, or on the forest owners' property should be allowed;
- p. Accessory uses normally associated with an allowable use should be allowed;
- q. Recreation facilities should be listed as conditional uses;
- r. Sand and/or gravel pit, stone quarry, mining, crushing, stockpiling of mineral resources and similar uses for the development of natural resources extracted on-site,

- not otherwise outright permitted under (o) above should be listed as conditional uses;
- s. Aircraft landing field, private, as an accessory use to forest management or a legal non-conforming use should be listed as conditional uses;
 - t. Natural resource training/research facility should be listed as conditional uses;
 - u. Cottage Occupations, Light Home Industry, and Professional Services should be prohibited;
 - v. Commercial uses, other than commercial agricultural uses, should be prohibited;
 - w. Auto repair and/or vehicle storage yards should not be considered to be cottage occupations, light home industry, nor professional services;
 - x. Industrial uses other than forestry uses (b and c above), should be prohibited unless specifically listed in the official controls of Skamania County for that particular land use designation;
 - y. New mobile home parks and recreational vehicle parks should be prohibited;
 - z. Single-family residences, Duplexes and Multi-family (3 or more units) dwelling units should be prohibited;
 - aa. Planned Residential Developments, Planned Unit Developments and “Cluster” Developments should be prohibited; and,
 - bb. Other uses that are similar to the uses listed here should be allowable uses, review uses or conditional uses, only if the use is specifically listed in the official controls of Skamania County for that particular land use designation.

Commercial:

This designation is divided into two subcategories, Community Commercial (CC) and Neighborhood Commercial (NC). The two commercial designations are designed to provide an array of retail and service businesses.

Community Commercial (CC):

This designation provides greater flexibility of the type and size of commercial business that serve the entire West End Subarea and visitors. The purpose is to provide a land use designation for existing core-commercial uses (like the Washougal River Mercantile, Fire Hall, Phone Station and the Legion Hall) to continue and expand and to provide for new commercial services. Residential and commercial uses should be allowed in this designation, which is the same as the County-Wide Community Commercial Designation, except that cluster developments should be prohibited.

Minimum lot sizes should be those required to accommodate the proposed development, including landscaping, open space and parking requirements, any additional zoning requirements implementing this plan and consistent herewith, and all rules and regulations established from time to time by the local health authority and other state agencies. However, a minimum of two acres is required for each lot within a new land division.

Neighborhood Commercial (NC):

This designation is generally located in the small centers of rural communities. The purpose is to enable businesses to conveniently provide residents with the variety of immediate day-to-day goods and services typically sought outside of the context of a weekly shopping trip to the city.

Examples of uses are groceries, convenience items, restaurants, laundromats, beauty shops, fuel, hardware, etc. The size of the designated area and the establishments within it are smaller than urban scale and in harmony with the rural character of the area. Allowable establishments are limited in size to a total floor area of no more than 5,000 square feet and two stories in height (28 feet from grade to highest point on roof). The following policies should govern development in all Neighborhood Commercial designations:

- a. Minimum lot sizes should be those required to accommodate the proposed development, including landscaping, open space and parking requirements, any additional zoning requirements implementing this plan and consistent herewith, and all rules and regulations established from time to time by the local health authority and other state agencies. However, a minimum of two acres is required for each lot within a new land division that will be used for a Single-family residence, unless the Local Health Department Authority requires a greater lot size;
- b. If a total floor area of over 5,000 square feet is requested, then the total floor area size request and the intended use should be reviewed as a conditional use;
- c. Public facilities, semi-public facilities, and/or utilities should be allowed;
- d. Professional services should be allowed;
- e. Retail stores where merchandise is displayed and sold within an enclosed building should be allowed;
- f. Service establishments where services are provided within an enclosed building should be allowed;
- g. Single-family residences should be allowed;
- h. Cottage Occupations, and Light Home Industry should be allowed, subject to standards protecting rural lands values;
- i. Bed & Breakfast establishments, lodging facilities, and/or retreat centers with up to 12 rooms for rent should be allowed, provided the establishments, facilities and/or centers are also owner occupied;
- j. Meeting halls such as, but not limited to, civic, social and fraternal organizations should be allowed;
- k. New mobile home parks should be prohibited;
- l. New recreational vehicle parks should be listed as a conditional use permit;
- m. Off-street parking should be encouraged for all new commercial, and required for new industrial establishments. Pooled or joint-use parking areas may be allowed to achieve this policy;
- n. Ingress and egress to commercial establishments should be regulated to prevent unsafe conditions; and,
- o. Other uses that are similar to the uses listed here should be allowable uses, review uses or conditional uses, only if the use is specifically listed in the official controls of Skamania County for that particular land use designation.

C. Legislative Policies

The Board of County Commissioners is legislative authority on matters regarding this Subarea Plan. The Board of County Commissioners shall consult this Plan on any matters concerning the physical development of the West End of Skamania County, and in dealing with any matters related to this

Plan. This Plan mirrors the County Comprehensive Plan “A” in recommending the following guiding principals:

1. The interests of the Community at large be promoted over individual requests.
2. The rights of individuals to develop their own property in compliance with this Plan be respected.
3. Projects requiring Public Hearings and meetings be reviewed at meetings that are open to the public.
4. Wise decision-making be promoted by the use and consideration of technical and legal information regarding land development.
5. The Board of County Commissioners solicits and gives strong consideration to recommendations made by the Planning Commission on projects and proposals related to this Plan, prior to taking final legislative action.

The County Planning Commission provides a process for reviewing legislative projects and proposals. The Department of Planning and Community Development provide staff and technical assistance to the Planning Commission. The Planning Commission conducts their own meetings to review projects and proposals and then forward recommendations to the Board of County Commissioners for final legislative action. This Plan mirrors the County Comprehensive Plan “A” in recommending the following guiding principals:

1. The Planning Commission should conduct all of their meetings and hearings to meet the standards of the Open Public Meetings Act.
2. The Board of County Commissioners solicits and gives strong consideration to recommendations made by the Planning Commission on projects and proposals related to this Plan, prior to taking final legislative action.
4. Wise decision-making be promoted by the use and consideration of technical and legal information regarding land development.

The Office of Hearing Examiner provides a process for reviewing quasi-judicial projects and proposals, and acts as the appeal hearing body for administrative zoning issues. The Department of Planning and Community Development provide staff and technical assistance to the Hearing Examiner. The Hearing Examiner conducts their own meetings to review projects and proposals and provides for an open record hearing during an appeal hearing. The Hearing Examiner’s decision is appealable to Superior Court as provided for in Revised Code of Washington (RCW) 36.70C. The following are guiding principals for the Hearing Examiner:

1. The Hearing Examiner should conduct all of their meetings and hearings to meet the standards of the Open Public Meetings Act.
2. The Hearing Examiner should conduct all quasi-judicial hearings to meet the standards of the Appearance of Fairness Doctrine.
3. Wise decision-making be promoted by the use and consideration of technical and legal information regarding land development.

D. Population Data

The Washington State Office of Financial Management (OFM) has the responsibility to project population growth rates for local Growth Management Act (GMA) planning purposes. OFM projections are the basis upon which the cities and counties work to identify the amounts and locations of land that will be needed for conversion to housing as growth occurs.

The OFM estimates that Countywide (including the cities of Stevenson and North Bonneville, the County's population will increase by approximately 3,055 people by the year 2025. Skamania County's growth rate is projected at 1.25% annually until the year 2025.

Based on the 2000 Census Data, the OFM determined that Skamania County has an average household size of 2.612 people per residence. As of July 2004, the West End Subarea includes **715 existing residences**. For the purposes of this Subarea Plan, the current West End Subarea population is calculated to be **1,868 people**. A review of the building permit records shows that in the West End Subarea, the number of residences has increased an average of twenty-six (26) units each year during the last five years. This represents a 3.9% annual increase in the number of residences in the West End Subarea during the last five years.

Using the OFM countywide annual growth rate of 1.25% the West End Subarea population is projected to increase by 546 people by the end of 2025, giving the West End Subarea a total **population of 2,414 or 924 residences**.

Alternatively, using the actual building permit statistic of 3.9% annual increase in the number of residences, the number of residences in the West End Subarea is projected to increase by 868 residences by the end of 2025, giving the West End Subarea a total of **1,583 residences**. In this analysis, the total population of the West End Subarea would be **4,135 people**.

Based on actual building permit statistics, the West End Subarea population is currently increasing at a higher growth rate than the OFM countywide growth rate. However, even using this higher growth rate, the projected population of 4,135 people or 1,583 residences can be accommodated within the Land Use Designations provided by this Subarea Plan. Using the Land Use Designations shown on Figure 3-1, the potential buildout of the West End Subarea is 2,608 residences or a population of 6,812 people. Under the higher growth rate based on actual building permit trends, this population would not be achieved until the year 2039. Using the OFM annual growth rate of 1.25%, this population would not be achieved until the year 2110. Table 3-1 lists the total acreage in each Land Use Designation, the total potential parcels allowed in each designation, the total existing homes in each designation, and the possible new homes in each designation. The acreage of the Land Use Designations is based on the Land Use Designation Map Figure 3-1. It is important to remember the number of total potential parcels has not been reduced for the amount of unbuildable land such as extreme topography, river and stream buffers, wetland buffers, endangered habitat areas, or future roadways.

Table 3-1**Capacity of Land Use Designations to Accommodate New Residences in Comparison with projected demand for the year 2025**

Land Use Designation	Current number of parcels	Total Acres	Potential number of parcels*	Existing homes / structures in each Designation	Total new residences possible	Projected demand for total residences based OFM growth rate	Projected demand for total residences based on building permit trends
RL2	329	1,400	706	204	502	NA	NA
RL5	423	4,190	870	277	593	NA	NA
RL10	192	2,307	280	102	178	NA	NA
FL20	248	10,714	646	107	539	NA	NA
CRL40	101	48,500	1216	0	0	NA	NA
Neighborhood Commercial	13	25	14	11	3	NA	NA
Community Commercial	8	17	8	8	0	NA	NA
Mixed Designations	11	413	84	6	78	NA	NA
TOTAL	1325	67,566	3,824	715	1,893	924	1,583

*The total potential parcels include existing lots that are smaller than the minimum lot size plus the number of new lots that could be created under each designation.

Additionally, using the higher growth rate, the projected population of 4,135 people or 1,583 residences can also be accommodated within the Rural Lands Designations provided by this Subarea Plan without using any of the Forest Lands Designation or parcels that have mixed designations. Table 3-2 shows that the Rural Lands Designations alone can accommodate 1,856 residences or 4,848 people at full buildout. Keeping in mind, however, that full buildout using either growth projections would not happen until sometime between the years 2039 (current building permit trends) and 2110 (OFM countywide growth rate). Clearly, the demand at the year 2025 of either 924 residences or 1,583 residences could be accommodated within the Rural Lands Designations (583+1,273=1,856).

Table 3-2**Capacity of Rural Lands Designations to Accommodate New Residences in Comparison with projected demand for the year 2025**

Land Use Designation	Current number of parcels	Total Acres	Potential number of parcels*	Existing homes in Rural Lands Designations	Total new residences possible	Projected demand for total residences based OFM growth rate	Projected demand for total residences based on building permit trends
RL2	329	1,400	706	204	502	NA	NA
RL5	423	4,190	870	277	593	NA	NA
RL10	192	2,307	280	102	178	NA	NA
TOTAL	944	7,842	1,856	583	1,273	924	1,583

*The total potential parcels include existing lots that are smaller than the minimum lot size plus the number of new lots that could be created under each designation.

The entire West End Subarea consists of approximately 67,000 acres or 105 square miles. This acreage amount includes all private ownership and public ownership (county, state, and federal ownership). Based on the entire Subarea, there is a current population density of eighteen (18) people for each square mile. In contrast, the entire County has a current population density of six (6) people for each square mile. However, it is important to keep in mind that the 80% of the entire County is comprised of the Gifford Pinchot National Forest. At full buildout sometime

between the years 2039 and 2110, for the entire Subarea (6,812 people) the population density would be 64 people for every square mile in the entire Subarea.

In Rural Lands Designations, there are 583 existing residences giving a population of 1,523 people currently living in the Rural Lands Designations. There are approximately twelve (12) square miles within the Rural Lands Designations. Based on just the Rural Lands Designations, there is a current population density of 127 people for every square mile within the Rural Lands Designations.

Using the OFM population projection for the year 2025, the population would be 1,999 people living in the Rural Lands Designations. This would equal a population density of 166 people for every square mile in just the Rural Lands Designations. Using building permit statistics, the population projection for the year 2025 would be 3,416 people living in the Rural Lands Designations. This would equal a population density of 285 people for every square mile in just the Rural Lands Designations.

The potential buildout of 1,856 residences (4,848 people) in just the Rural Lands Designations would equal a population density of 404 people for every square mile in the Rural Lands Designations, keeping in mind that full buildout would not happen until sometime between the years 2039 and 2110.

In comparison, Table 3-3 lists the population density of some neighboring cities based on Census Data from the year 2000. Even at full buildout potentially between the years 2039 and 2110, a population density of 404 people for every square mile in just the Rural Lands Designations would be slightly denser than currently exists in the City of North Bonneville, Washington. It is important to note that while some parts of North Bonneville are densely developed, due to the existing sewer and water systems, there are many large tracts and common areas that remain undeveloped.

Table 3-3
Population Density of selected cities from the 2000 Census Data

City Name and State	Population	Total Land Area in Square Miles	Population Density per Square Mile of Land Area
Camas, WA	12,534	10.91	1,149.3
Washougal, WA	8,595	4.96	1,734.5
Vancouver, WA	143,560	42.79	3,354.7
North Bonneville, WA	593	2.41	246.1
Stevenson, WA	1,200	1.48	813.4
Portland, OR	529,121	134.32	3,939.2
Troutdale, OR	13,777	4.99	2,761.1
Hood River, OR	5,831	2.05	2,839.4

The Land Use Designations of Rural Lands, Forest Lands, Commercial Resource Lands, Community Commercial and Neighborhood Commercial, as defined in this Subarea Plan (Figure 3-1) provide for land use patterns that meet the vision statement for the West End Subarea. By utilizing the Land Use Designations and patterns in the Subarea Plan, the West End of Skamania County will continue to be predominately a rural environment with large tracts of field and forest lands with only residential and limited commercial development. The West End Subarea Plan will provide for the projected population growth of the West End of Skamania County, and the

West End will be a place where its residents can find refuge from the bustle and clamor of the urban and suburban areas of Clark County, Washington and Portland, Oregon.

Figure 3-1 Comprehensive Subarea Plan Map

Figure 3-2 Comprehensive Subarea Plan Map: Inset of T1N, R5E and T2N, R5E

Figure 3-3 Comprehensive Subarea Plan Map: Inset of Commercial Designations – Washougal River Road Area

CHAPTER 4: CIRCULATION ELEMENT

Existing Utility Lines

Bonneville Power Administration (BPA) has several main trunk lines crossing the West End of Skamania County. Additionally, the Northwest Natural Gas Pipeline crosses the West End of Skamania County. The Skamania County Public Utility District (PUD) is the sole provider of electrical service in the West End Subarea. The PUD currently purchases its entire power supply from the BPA.

Existing Terminal Facilities

There are no major terminal facilities in the West End of Skamania County. The Port Facilities are located in Camas/Washougal, North Bonneville and Stevenson, and the Airport facilities are located in Portland, Oregon.

Transportation Facilities

The Skamania County Regional Transportation Plan (SCRTP) dated May 2003, is incorporated into this subarea plan by reference. The SCRTP identifies future regional transportation system needs and outlines the transportation plans and improvements necessary to maintain adequate mobility within and throughout the Skamania County region. The following information is specific to the West End Subarea and is not included in the SCRTP.

A. Existing Road System

Roads are generally defined by functional classification within a transportation system. Skamania County road system is managed by the Skamania County Department of Public Works. A transportation system is comprised of arterial, collector and local access roads, which are defined below:

Arterial: Connect centers of population and economic activity with each other and/or the state system. Provides through-traffic movement. Occurs at reasonable intervals to collect traffic from lesser roads. In the West End of Skamania County (although outside of the Subarea), Highway 14 is considered a major arterial roadway. Table 4-1 lists minor arterial roads located within the west end of Skamania County.

**Table 4-1
West End-Road Inventory-Minor Arterials**

Canyon Creek Road	Washougal River Road (Milepost 8.87-9.87)
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Collector: Serve minor population centers and traffic generators. Channel traffic from local access roads into the arterial routes. Table 4-2 lists collector roads located within the west end of Skamania County.

Table 4-2 West End-Road Inventory-Collector

Belle Center Road	Mt. Pleasant Road	Salmon Falls Road
Skye Road	Washougal River Road (Milepost 9.87-17.32)	

Local Access: Provide first level access to abutting properties. Table 4-3 lists local access roads located within the west end of Skamania County. Private roads are not included.

Table 4-3
West End-Road Inventory-Local Access

Aberdeen Drive	Alder Road	Alder Spur	Bear Road	Prairie Bushlach Road
Daniel Road	Daniel Road South	Dougan Falls Lane	Highland Road	Hillsberry Road
Hoffman Road	Huckins-Buhman Road	Labarre Road	Laurel Lane	Laurel Lane South
Mabee Mines Road	Malfait Tracts Road	McCloskey Creek Road	Newquist Road	North Fork Road
Pohl Road	Riverglen Road	Skamania Mines Road	Strunk Road	Tote Road
Uran Road	West Road			

The west end road system, including all arteries, collectors and local access roads is displayed in Figure 4-1. All public roads in the West End Subarea are two-lane.

Roads are subject to reclassification pursuant to a recommendation from the Public Works Department and action taken by the Skamania County Board of County Commissioners.

B. Levels of Service and Traffic Forecasts

Uninterrupted Conditions: Levels of transportation service are assessed using quantitative measures, which describe operational conditions within a traffic stream, and qualitative measures, such as individual motorist and/or passenger perception of those conditions. A level of service definition considers factors such as speed and travel time, traffic volume, freedom to maneuver, traffic interruptions, comfort, convenience and safety. Levels of service in the West End Subarea are rated A through F, best to worst, based on the Highway Capacity Manual.¹ The following level of service (LOS) definitions may be used to describe transportation during uninterrupted flow conditions:

LOS A: Describes free flow conditions, with low volumes and high speeds. Freedom to select desired speeds and to maneuver with the traffic systems is extremely high. The general level of comfort and convenience provided to the motorist, passenger or pedestrian is excellent.

LOS B: Is in the range of stable flow but the presence of other users in the traffic stream begins to be noticeable. Freedom to select desired speeds is relatively unaffected, but there is a slight decline in the freedom to maneuver with the traffic stream from LOS A.

¹ Transportation Research Board, 1995.

LOS C: Still in the range of stable flow, but marks the beginning of the range of flow in which the operation of individual users becomes significantly affected by interactions with others in the traffic stream. The selection of speed is now affected by the presence of others, and maneuvering within the traffic stream requires substantial vigilance on the part of the user. The general level of comfort and convenience declines noticeably at this level.

LOS D: Represents high-density, but stable flow. Speed and freedom to maneuver are severely restricted, and the driver or pedestrian experiences a generally poor level of comfort and convenience. Small increases in traffic flow will generally cause operational problems at this level.

LOS E: Represents operating conditions at or near the capacity level. All speeds are reduced to a low, but relatively uniform value. Freedom to maneuver within the traffic stream is extremely difficult, and it is generally accomplished by forcing a vehicle or pedestrian to “give way” to accommodate such maneuvers. Comfort and convenience levels are extremely poor, and driver or pedestrian frustration is generally high. Operations at this level are usually unstable, because small increases in flow or minor perturbations within the traffic stream will cause breakdowns.

LOS F: Describes forced or breakdown flow. These conditions usually result from queues of vehicles backing up from a restriction downstream. Operations within the queue are characterized by stop-and-go waves, and they are extremely unstable. It marks the point where arrival flow exceeds discharge flow.

The Southwest Regional Transportation Council assessed the stretch of SR-14 located south of the West End Subarea as having a level of service (LOS) C. Washougal River Road (highway) has a level of service (LOS) B.

Non-Signalized Intersections: Traffic counts were taken for West End Transportation System through 2003. The traffic study monitored volume at several major intersections, distinguishing between passenger vehicles and heavy load transports. These counts were then used in a formula to determine expected vehicular volume on selected roads based on future build-out population projections. Vehicular traffic will increase proportionally to development as described in the Future Road Adequacy section. Intersection traffic count results and forecasts are illustrated in Appendix Item 4.

Levels of service for non-signalized intersections are based on a volume to capacity ratio and the resultant periods of delay. Projections take into account land uses in the area surrounding an intersection and how that traffic may affect the level of service of the intersection in the future. Levels of service in non-signalized intersections in West End are expressed in terms of the average total delay per vehicle in seconds as show below in Table 4-4.

Table 4-4
Level of Service Definitions for Non-Signalized Intersections

LEVEL OF SERVICE	AVERAGE TOTAL DELAY
A	< 5 Seconds
B	> 5 and < 10 Seconds
C	> 10 and < 20 Seconds
D	> 20 and < 30 Seconds
E	> 30 and < 45 Seconds
F	> 45 Seconds

Currently, non-signalized intersections in the West End Subarea are characterized by levels of service A and B, and to a lesser degree, C. However, based on population projections for complete build out, levels of transportation service in some areas of West End could decline to E and F unless substantial road improvements are realized. The Future Road Adequacy Section also addresses this concern with a left turn lane evaluation.

C. Planned and Proposed Road Improvements

The following (see Table 4-5) West End Subarea transportation improvements have been identified in the Skamania County Six (6) Year Road Program (for the years 2004-2009). Projects are selected based on a priority matrix system, which takes into account such factors as traffic volume, roadway condition, local importance and availability of funding.

Table 4-5
Planned Road Improvements for the West End Area

Project Site	Improvement	Year	Other Funding	Local Funding
Salmon-Falls/Canyon Creek Intersection	Turning Lane	2004	0	25,000
Salmon Falls Road (M.P. 0.80-0.95)	Reconstruction	2005	0	180,000
Belle Center Road (M.P. 0.30-1.45)	Reconstruction	2006	0	460,000
Salmon Falls Road (M.P. 0.95-1.53)	Reconstruction	2006-2009	280,000	120,000
Washougal River Road (M.P. 9.94 – 11.62)	Overlay	2007-2010	323,000	107,000
Washougal River Road (M.P. 11.62 – 12.00)	Reconstruction	2009-2011	207,000	68,000
Washougal River Road (M.P. 12.00 – 13.07)	Overlay	2007-2009	240,000	240,000

Source: Skamania County Six (6) year Road Program, 2004-2009. Department of Public Works

In addition to the scheduled improvements listed above, two other transportation-related items should be addressed in the West End Subarea during the horizon of this plan. The first of these is installation of walking path within a one-mile radius of Cape Horn/Skye School. School buses do not transport children living within one-mile of the school. Although sections of walking path already exist in this area, certain segments have yet to be completed presenting a safety concern for school children and other pedestrians.

Second, there are few storm water drains in the West End Subarea, and no storm water plan or standards. Adequate drainage facilities reduce the effects of heavy rainfall and flooding and relieve stress on saturated soils, which are needed to filter septic waste. In some cases, unmanaged storm water runoff may lead to elimination of wildlife habitat, pollution of the community's drinking water supply and negative impacts on streams and wetlands. The potential for adverse impacts from storm water runoff worsens as population and development increase. Serious consideration should be given to development of a storm water plan and standards in the West End Subarea within the horizon of this plan.

D. Summary of Future Road Adequacy

The following summary attempts to answer the following two questions:

- 1) Will existing road widths adequately service the maximum anticipated traffic?*
- 2) Will "Left Turn Lanes" be needed at driveways or intersections to service the maximum anticipated traffic?*

There are 715 existing homes in the West End Subarea. This report assumes that the 1,893 potential parcels in the West End Subarea, that allow homes, will be developed at some time in the future. A factor of 3.34 is used with current Average Daily Traffic counts (ADT) to determine the maximum potential ADT.

Question #1: Will the existing road widths adequately service the maximum anticipated traffic?

General Information: The highest current ADT in the Subarea is on the Washougal River Road at the County-Line, and is 1,960 vehicles per day. The maximum potential ADT at this location is calculated, using a factor of 3.34, to be 6,546 vehicles per day.

ASHTO publication "A Policy on Geometric Design of Highways and Streets 2001, page 59" states in-part "...it would be wasteful to predicate the design on the maximum peak-hour traffic...the use of average hourly traffic would result in an inadequate design...it is recommended that the hourly traffic volume that should be generally used in design is the 30th highest hourly volume of the year, abbreviated as 30 HV...the 30 HV is typically about 15 percent of the ADT."

Arterials (Federal Function Class 07): The Maximum Current ADT in the Subarea is 1,960 and is located at the County-line, milepost 8.87 on the Washougal River Road. This current ADT, at this location, of 1,960 multiplied by a factor of 3.34 yields a Maximum Potential ADT of 6,546. If the

30 HV were calculated as 15 percent of the Maximum Potential ADT of 6,546 the 30 HV would equal 982.

However, traffic counts at this location indicate a Peak-Hour Volume of 162. This Peak-Hour Volume of 162 multiplied by a factor of 3.34 yields a Maximum Potential Peak-Hour Volume of 541, which is substantially less than the 30 HV of 982 as calculated above. For the purposes of this study, the Maximum Potential Peak-Hour Volume is used as the Design Hour Volume (541 in the case of the Washougal River Road at the County-line).

The WSDOT Design Manual, page 440-12, Figure 440-6a, Full Design Level (the most stringent criteria) for Minor Arterials, specifies 2 lanes (12 feet wide each) for all Design Hour Volumes and suggests that for Design Hour Volumes over 700 to “consider four lanes”. The Maximum Potential Peak-Hour Volume, for Minor Arterials in the Subarea, of 541 does not exceed the Design Hour Volume of 700 that is suggested for consideration of four lanes.

All Minor Arterials in the Subarea have adequate, or near adequate, lane widths (ranging from 10 to 12 feet) to accommodate the projected maximum potential traffic volumes.

Collectors (Federal Function Class 08): The WSDOT Design Manual, page 440-14, Figure 440-7a, Full Design Level (the most stringent criteria) for Collectors, specifies 2 lanes (12 feet wide each) for all Design Hour Volumes and suggests that for Design Hour Volumes over 700 to “consider four lanes”. The Maximum Potential Peak Hour Volume for Collectors in the Subarea is 481 at milepost 9.9 on the Washougal River Road does not exceed the Design Hour Volume of 700 that is suggested for consideration of four lanes.

All Minor Arterials in the Subarea have adequate, or near adequate, lane widths (ranging from 10 to 12 feet) to accommodate the projected maximum potential traffic volumes.

Local Access (Federal Function Class 09): The one local access road that was included in the Subarea is Huckins-Buhman Road (with lane widths ranging from 10 to 12 feet).

Huckins-Buhman Road has an ADT of 140 recorded in 1983. Due to the area development that has occurred since 1983, the Maximum Potential ADT would be greater than the 468 resulting from use of the 3.34 factor used above. The Maximum Potential ADT exceeds the maximum ADT required for consideration as a Very Low-Volume Road.

The WSDOT Design Manual, page 430-5, Figure 430-4, Modified Design Level indicates that 11 feet lane widths are adequate for roads with ADTs less than 1000. Lane widths on Huckins-Buhman Road range from 10 to 11 feet.

Question #2: Will Left-Turn Lanes be needed at driveways and intersections to service the maximum anticipated traffic?

WSDOT Design Manual, page 910-18, Left Turn Storage Guidelines (Two-Lane, Unsignalized) is used for the following example at the County-Line on the Washougal River Road, as the worst-case scenario.

The Design Hour Volume (DHV) used is 541 (as used above for Question #1, Arterials). Using a DHV of 541 and a 35 mph speed limit, the percent of Total DHV Turning Left would need to be 13% or greater to warrant a left-turn lane.

This worst-case scenario criterion of 13% of vehicles turning left precludes the use of left turn lanes at all driveway approaches.

Because turning movement studies have not been performed at any of the Subarea intersections, the need for left-turn lanes at intersections in the Subarea is indeterminate at this time. However, cursory field observations indicate that left-turn lanes may be warranted for the following locations:

- 1) Vehicles traveling north on **Salmon Falls Road** and turning left onto **Canyon Creek Road**.
- 2) Vehicles traveling west on **Washougal River Road** and turning left onto **Salmon Falls Road**.
- 3) Vehicles traveling west on **Washougal River Road** and turning left onto **Canyon Creek Road**.
- 4) Vehicles traveling east on **Washougal River Road** and turning left onto **Skye Road**.

ASHTO publication “A Policy on Geometric Design of Highways and Streets 2001, page 342” states “Two-way left-turn lanes have been widely used to provide access to closely spaced, low-volume commercial driveways along arterial roads”. No areas of closely spaced commercial driveways currently exist in the Subarea. Future development of the two Neighborhood Commercial areas may warrant “two way left-turn lanes” if the commercial driveways are closely spaced. Another alternative would include the consolidation of driveway access points for commercial development onto the County roads.

E. Financing Plan

General road construction and repair funding is generated from a number of sources. Traditionally, operating funds for the six year transportation program have come from:

- Federal Forest Funds
- State Forest Funds
- Gas Tax
- Property Taxes
- Surface Transportation Program (ISTEA)
- County Arterial Preservation Program
- Rural Arterial Program

In recent years, declining timber receipts have resulted in fewer transportation dollars for Skamania County. Alternative sources of funding will be needed to recover lost revenue and maintain current levels of service. Federal and state grant and loan funds may be available for installing sidewalks near schools, lighting certain intersections and/or developing a storm water runoff plan and system.

F. Transportation Policies

- Policy T-1: The Public Works Department (Public Works) should strive to provide a safe, convenient and cost effective roadway network with adequate capacity to meet the demand for travel in West End at acceptable levels of service.
- Policy T-2: Public Works should continue to take periodic traffic counts and make road improvements as necessary and feasible to maintain levels of service at “C” or above throughout the horizon of this plan. If the level of service falls below a level “C”, then that road should be included in the six-year road plan during the next annual review cycle for road improvements.
- Policy T-3: Public Works should continue to investigate and pursue alternative sources of grant funding for transportation related construction and maintenance.
- Policy T-4: The County should investigate, and when appropriate, adopt ordinances regarding impact fees charged to developers creating new roads or substantially increasing use on existing roads. The feasibility of creating a local improvement district should also be examined.
- Policy T-5: The County should pursue grant funding and encourage Public Works to provide sidewalks for all county roads within a one-mile radius of the Cape Horn/Skye School.
- Policy T-6: Public Works should ensure adequate lighting for all major public intersections in the West End Subarea.
- Policy T-7: Public Works should develop a storm water drainage plan resulting in expansion of the system to areas not currently served.

G. Adjoining County Issues:

Clark County was contacted to determine if they plan any improvements to the Washougal River Road and the other West End connections. The Clark County Six (6) year Road Program does not identify any road projects or improvements to any of the Skamania County Road links. Through their Priority Array System, the development on their East End does not compare to the necessary infrastructure upgrade requirements around Vancouver. Therefore, it will be difficult for Skamania County to plan any significant Washougal River Road improvements if the downstream connection remains the same narrow, tight curve roadway for the foreseeable future.

H. Recreational Improvements:

The Skamania County Public Works Department will search for opportunities to improve the identified Recreational Concerns.

- 1) Washougal River Road Bike Path: The current funding sources for road maintenance and improvement doesn't provide for bike paths. Therefore, the Public Works Department will research the available State funds. If funding is identified and it can be incorporated into an existing road project, a bike path or widened shoulder can become a reality.
- 2) Pullout and or sight seeing parking areas: We have designated numerous pullouts and turn around areas into the current road design. The Public Works Department will incorporate this into its design criteria to improve safety and recreational opportunities.
- 3) Public Access to the Washougal River: The County has no public access points to the river. At this point, none are planned in the future.

The County will continue to improve the recreational opportunities on the West End.

I. Conclusion:

Skamania County Public Works Department has indicated it will be very progressive in providing the West End with an above standard road transportation system. The six (6) year plan lists the road projects that have been identified as necessary to meet the future buildout of the West End Subarea. Additional work to protect water quality and overall safety will also be addressed.

Figure 4-1

CHAPTER 5: REFERENCES

- American Farmland Trust. 2002. Cost of Community Service Studies. Skamania County Department of Planning and Community Development, Stevenson, Washington.
- Economic and Engineering Services, Inc. 2004. WRIAs 27 and 28 Watershed Plan DRAFT. Lower Columbia Fish Recovery Board, Longview, Washington.
- GeoEngineers, Inc. 2001. WRIAs 27 and 28 Level 1 Assessment Watershed Technical Memoranda. Lower Columbia Fish Recovery Board, Longview, Washington.
- Lower Columbia Fish Recovery Board. 2003. Review Draft LCFRB Recovery/Subbasin Plan Technical Foundation Executive Summary. Longview, Washington.
- Pacific Groundwater Group. 2003. Effect of Exempt Wells on Baseflow Washougal River Watershed WRIA 27/28 DRAFT. Lower Columbia Fish Recovery Board, Longview, Washington.
- Pacific Groundwater Group. 1997. Skamania West End Water Quality Study. Skamania County Department of Planning and Community Development, Stevenson, Washington.
- Pacific Water Resources. 2003. Hydrologic Modeling of Effects of Land Use Changes WRIA 27/28 East Fork of the Lewis River and Washougal River. Lower Columbia Fish Recovery Board, Longview, Washington.
- Skamania County Code Chapter 21. 1990. Zoning. Skamania County Department of Planning and Community Development, Stevenson, Washington.
- Skamania County Department of Planning and Community Development. 1977. Skamania County Comprehensive Plan "A." Skamania County Department of Planning and Community Development, Stevenson, Washington.

CHAPTER 6: APPENDICES

Appendix Item 1:

West End Community Meetings Attendance for Comprehensive Subarea Planning November 2001 through July 2004

The Skamania County Planning Staff would like to extend their thanks to the following people who attended the West End Community Meetings and volunteered their time and assistance in making the Subarea Plan possible:

A

Beverly Alford
Mike Adams
Orchard Agency
Tom Aspitarte
Linda Anderson
Victor Anderson

B

Kathy Barnes
Brad Barnes
Steven Baunach
Rick Balogh
Sherrill Balogh
Don Bryden
Gigi Bryden
Bob Brown
Jon Brobst
Gary Burnett
David Berry
Steven Berry
Ramona Bennett
Keith Brown
Bill Benson
Shirley Benson
Dean Burk
Gary Burnett
Kathy Burnett
Ken Brundidge
Carolyn Brundidge
Steve Bye
Laura Bye
Le Roy Burns
Robert Burns

Christina Brittain
Larry Baldwin
Helen Baldwin
Laura Barton
Colonel Barton
Craig Burnett
Mark Bowman
Madeleine Bowman
Dennis Brown
Priscilla Brown
Matt Bancroft
Peggy Bancroft
Debbie Buchanan
Josh Bard

C

Judy Craine
Patrick Corrbey
Silvia Calvo
Wilfred Compher
Kathy Chritz
Jeff Chritz
Kevin Cornell
Chris Cornell
Jerry Cates
Lyle Chaffee
Wilma Chaffee
Warren Chandler
Janett Chandler
Dave Czech
Rhonda Cartan
Fred Cartan
Kathy Clark
Peter Clark

Chris Clark

D

Pat Dolan
Darlene Dolan
Bert Dolan
John Dalen
Laurie Dalen
Wayne Dalen

E

Harvey Erickson
Larry M. Erickson
Eric Erickson
Victor Erickson
Brett Eakins
Kyle Eakins
Stephanie Eakins
Leo Erickson
Kim Erion
Jim Erion
John Ensley
Sharon Ensley
Craig Elliott

F

Chris Fuller
Marcus Fuller
Leo Finck
Bill Fosburg
Therone Faris
Chris Frick
Laura Frick

Shannon Frame

G

Dennis Gogolski
Linda Gogolski
Vena Gaines
George Gaines
Jim Gassaway
Dale Grams
John Granholm
J. Michael Garvison

H

Michael Hart
Marian Hays
Marshall Hays
Stephanie Huntington
Ole Helland
June Hays
Don Hays
Mark Hastings
Jack Harper
William Harness
Marie Harness
Alan Harness
Mary Harness
Debbie Harrell
Jerry Harteloo
Bud Harris
Philip Hammill
Les Humes
Ron Huff
Lorraine Huff
Jim Hutchison
Gene Hamilton
Andrea Houts
Nancy Hammrich
Woodrow Hall
Jim Hoffman
Teri Hosman
Maurice Halleck

I

J

Rhonda Johnson
Robert Jackson
Jay Jones
Barbara Jones
Sally Tucker Jones
Shane Jundt
Melissa Jundt
Jon Jordens

K

Rudie Klopman
Muriel Klopman
Steven Klopman
Jon Kolstad
Kathy Kolstad
Joe Kear
Leouard Krutson
Beth Keeth
John Kadow
Pete Kettler
Nancy Kettler
Ken Klaas

L

Pam Lyon
Troy Lester
Dave Lester
Ted Lester
Todd Lester
John Leasure
Liz LaRue
Teresa Lundeen
Jeff Lagerquist
Anna Lehman
Gene Lehman
Jim Lawson
Sandi Lawson
Phil Long
Pam Long

M

Daryl Madden
Karen Mabry
Luther Mabry
Kaye Masco

Eric McCuan
Lou Morisette
Richard Morisette
Shelby Morisette
Fred Morgan
Harlan McIntosh
Flora McIntosh
Gary Morris
Orissa McGlothin
Julie Moon
Sierra Moon

N

Cliff Nutting
Lori Nutting
Wil Niosi
Sharron Nelson
Karl Nense

O

P

Brian Pimm
Kathy Pimm
Rob Pabst
Richard Potter
Stephania Potter
Randy Pollard
Rick Pfeifer
Howard Pelky
Lynn Pelky
Linda Peters
J.W. Peters
Janie Perman
Todd Perman
Mitch Patton
Bruce Pfaender
Irene Pfaender
Dean Pfaender
Paul Pearce

Q

Dave Querry
Donnarae Querry

R

Mary Robbins
Teresa Robins
Jim Robson
Archie Rodgers
Anita Rodgers
Jay Richards
Norita Richards
Mike Rieinhart
Roxanne Renton

S

Cyndi Soliz-Smith
Paul Smith
Daryel Schorr
David Sanchez
Al Seaman
Jim Stein
Deb Stein
Kathy Sheehan
Bill Sowles
Izetta Sowles
Susan Stauffer
Leo Snyder
Donna Snyder
Mary Sauter
Richard Sauter
Lynnette Short
Bob Seafini
William Smith
Steven Schell
Thelma Speights
Henry Stephens
Robert Sutton
Nancy Sutton
JoAnne Skimas
John Skimas
Beverly Schwartz
Honna Sheffield

T

Bud Thorp
Gary Talboy
Elya Talboy
Gary Taylor

J. Taska
Georgia Taska

U

V

Allen Vraspir
John Vraspir
Bernette Vraspir
Rodger VanHoy
Jan VanHoy
Jeremy Vandaam

W

Dorothy Wear
Denver Wear
Dan Wear
Lawrence Whitmire
Jeff Wallua
Larry Whitney
Ed Wiemken
Jeff Wiemken
Kathy Walker
Josie Weltman
Tammy Weissenfluh
David Williams
Jeff Williams
Vera Winton
Darrel Wilhoit
Amy Weissfeld

X

Y

Z

Appendix Item 2:
(insert Comprehensive Subarea Plan work plan page 1)

(insert Comprehensive Subarea Plan work plan page 2)

Appendix Item 3:

The following are resource documents and maps that were used for the Westend Comprehensive Subarea Plan and Map. Most of these documents are available for review from the Planning Department, and other documents must be obtained from the department or agency that created the documents (or maps). However, the Priority Habitat Maps and data are considered by the Washington State Department of Fish & Wildlife to be sensitive and cannot be released by the County to the general public. * The document is available for purchase at the Skamania County Planning Department.

Resource Maps:

WRIA 28 Basin & Sub-basin maps – Department of Ecology – January 2004
Topography and Stream maps – Department of Natural Resources (DNR) – August 1997
Landslide Hazard Map – Maple Hill Landslide Investigation – November 1998
Draft Soil Liquefaction Susceptibility Maps – DNR – September 2003
Priority Habitat Maps – Department of Fish & Wildlife – June 2002
National Wetland Inventory maps – US Department of Interior – 1993
Flood Insurance Rate Maps of Skamania County – FEMA – February 1986
Geologic Map of Washington - Southwest Quadrant – 1987
Orthophoto Maps – DNR – 1997
Skamania County Comprehensive Plan A maps – 1977
Skamania County Zoning Maps – 1990
Clark County 20-Year Rural and Natural Resources Map – February 2001
Clark County Zoning Map – May 2001

Other Resource Documents:

*Skamania County Comprehensive Plan A – 1977
*Skamania County Comprehensive Plan A Amendment for Critical Areas - 1992
Skamania County Emergency Operations Plan – September 2003
Skamania County Comprehensive Emergency Management Plan – January 2004
*Skamania West End Water Quality Study – September 1997
Skamania County Community Action Plan Update – June 2003
Skamania County Parks and Recreation Master Plan – July 2001
Skamania County Regional Transportation Plan – May 2003
*Skamania County Shoreline Management Master Program – July 1986
*Skamania County Affordable Housing Study – September 2001
Priority Habitat Data Books – June 2002
Cost of Community Services Studies – 2002
Population Projection Tracking Report from OFM – January 2004
Soil Survey of Skamania County Area, Washington – October 1990
Volcano Hazards in the Mount Adams Region, Washington – USGS – 1995
Volcano Hazards in the Mount Hood Region, Oregon – USGS - 1997
WRIA 27 & 28 Level 1 Assessment – 2001
WRIA 27 & 28 Level 2 Assessment – In progress (2004)
WRIA 27 & 28 Watershed Plan – In progress (2004)

Appendix Item 4:
(insert Intersection Traffic Count Results and Forecasts)

Appendix Item 4:
(insert Intersection Traffic Count Results and Forecasts)