PURPOSE

The purpose of the Urban Growth Area Element is to identify specific uses, densities and development regulations consistent with the UGA-designation requirements of the Growth Management Act at RCW 36.70A.110.

INTRODUCTION

The Growth Management Act authorizes the designation of Urban Growth Areas (UGAs) in RCW 36.70A.110 to include cities and other areas characterized by urban growth or adjacent to such areas. UGAs are intended to accommodate a projected population growth for the next twenty years. The GMA specifies that future growth should, first, be located in areas that already have public facilities and service capacity and, second, in areas where such services, if not already available, are planned for. In Jefferson County, there are two UGAs:

- City of Port Townsend Municipal UGA; and
- Irondale & Port Hadlock Unincorporated UGA.

The City of Port Townsend is subject to its own Comprehensive Plan and development regulations affecting urban growth and the provision of public facilities and services in the City. The Irondale & Port Hadlock UGA is an unincorporated UGA, located approximately 5 miles south of the City of Port Townsend, adjacent to Port Townsend Bay. This unincorporated UGA is subject to the Jefferson County Comprehensive Plan (CP) and implementing regulations.

An urban growth area defines where urban developments will be directed and supported with typical urban public facilities and services, such as storm and sanitary sewer systems, domestic water systems, fire and police protection services, and public transit services. Urban growth areas enable new development to locate close to vital capital facilities and urban services or "infill" in existing urbanizing areas. UGAs enable fiscal resources associated with capital facilities and urban services to be operated more cost-effectively.

The Urban Growth Area is an area where urban public facilities and services are available, or are planned. Provision of urban public facilities and services may be available through a number of service providers, such as Jefferson County, Public Utility District #1, or some other entity such as a sewer and water district. Discussion regarding specific planning for public facilities and services in the Irondale & Port Hadlock UGA is contained both in this chapter as well as other appropriate chapters of the Comprehensive Plan (CP), including the Capital Facilities Element, as well as supporting appendices of the CP, the Tri Area/Glen Cove Special Study, and the Jefferson County Port Hadlock UGA Sewer Facility Plan of September, 2008.

Detailed planning for the designation of an Irondale & Port Hadlock UGA in compliance with the requirements of the GMA has been on-going since the Jefferson County CP was originally adopted in 1998. Specific policy language in the CP indicated the joint city/county intent to pursue future UGA planning for the “Tri-Area” (including Irondale, Port Hadlock and Chimacum). As part of the on-going joint City/County urban growth area planning, the Tri-Area Provisional UGA (PUGA) was designated by Jefferson County on October 5, 1999 as an...
interim step in the UGA planning process. The PUGA established an interim UGA that included the Irondale and Port Hadlock communities. In-depth analysis and environmental impact review of the land use, population, capital facilities and public services, natural systems and critical area constraints, open space, housing and non-residential land use needs for a Tri-Area UGA are incorporated in the Tri Area/Glen Cove Special Study conducted from 1998-2002. The Special Study includes:

- Land Use Inventory Report dated January 26, 1999
- Regional Economic Analysis and Forecast dated January 26, 1999
- Draft Supplemental Environmental Impact Statement dated June 1999
- Final Supplemental Environmental Impact Statement dated August 1999
- Glen Cove/Tri Area Special Study Final Decision Document dated June 11, 2001
- Tri-Area UGA Capital Facilities Special Study dated November 2001
- Tri Area & Glen Cove Special Study Implementation Plan dated November 28, 2001

Urban growth areas include those areas already characterized by urban growth that have adequate existing public facilities and service capacities to serve such development or areas for which such facilities are planned. Designating UGAs recognizes the existing urbanized development pattern in the county. By designating UGAs, the requirements of both the GMA and County-wide Planning Policies (CWPPs) must be met to ensure that expansion of urban services are provided to encourage infill where logical and feasible.

Further planning analysis of the size and capacity of the UGA was conducted in the Proposed Irondale/Port Hadlock UGA: Dwelling Unit & Population Holding Capacity Analysis, Cascadia Community Planning Services, January 21, 2009.

CWPPs provide a broad framework for UGA planning that were developed in a collaborative process between the City of Port Townsend and the County. Countywide Planning Policy #1.3 provides specific guidance on criteria for the sizing and delineation of UGA boundaries outside of cities:

- Adequate amount of developable land to accommodate forecasted growth for the next twenty years.
- Sufficient developable land for residential, commercial and industrial uses to sustain a healthy local and regional economy.
- Sufficient area for the designation of greenbelts and open space corridors.
- Topographical features or environmentally sensitive areas that may form natural boundaries such as bays, watersheds, rivers, or ridge lines.
- Lands already characterized by urban development that is currently served or are planned to be served by roads, water, sanitary sewer and storm drainage, schools and other urban services within the next twenty years; provided that such urban services that are not yet in place are included in a capital facilities plan.
- The type and degree of existing urban services necessary to support urban development at the adopted interim level of service.

The County-wide Planning Policies also provide selected guidance for the phasing of urban growth commensurate with the provision of adequate urban services to UGAs:

- Land use plans, regulations and capital facility plans for each UGA will be designed to accommodate the projected population. Growth should first be
directed into two tiers: Tier 1—existing commercial centers and urbanized areas where the six (6) year capital facilities plan is prepared to provide urban infrastructure; Tier 2—areas included within the capital facilities plan to receive the full range of urban services within twenty (20) years. Infrastructure improvements necessary to support development in the second tier will be provided by the developer concurrent with development, or by public entities as a result of implementing all or a portion of the capital facilities plan. (CWPP 1.5)

- Before adopting boundaries of UGAs, interim Level of Service Standards (LOS) for public services and facilities located inside and outside of UGAs must be adopted. (CWPP 1.7)
- The full range of governmental urban services at the adopted level of service standards will be planned for and provided within UGAs, as defined in the capital facilities plan, including community water, sanitary sewer, piped fire flow, and storm water systems (CWPP 2.1)
- New development will meet the adopted level of service standards for the UGA as a condition of project approval. Said standards will include interim provisions for those urban facilities identified in the capital facilities plan but not yet developed. New development will contribute its proportionate share towards provision of urban facilities identified in the capital facilities plan. (CWPP 2.3)
- Local public involvement and citizen advice into the formation and development of UGA land uses and supporting urban public facilities and services are also an important component of planning and implementation for UGAs. (CWPP 2.2)

IRONDALE & PORT HADLOCK UGA PHASED IMPLEMENTATION

In 2002, Irondale & Port Hadlock lacked the full range of urban services needed for immediate UGA implementation indicated in CWPP 2.1, above. Therefore, the CP had to plan for the provision of those services as required by RCW 36.70A.110(3). The Irondale & Port Hadlock UGA was implemented in several phases. The initial phase involved amendments to the Jefferson County CP in 2002 to adopt the final UGA boundary, land use map and interim levels of service for urban facilities as well as goals and policies guiding the development of the UGA. This included identification of additional plans and capital facilities (including costs and funding sources) needed to implement the full range of urban services and facilities within the UGA. The next phase involved preparation and adoption of UGA development regulations—Appendix D in the Unified Development Code (UDC), now codified in Chapter 18.18 of the Jefferson County Code (JCC)—including new urban land use districts, permitted use tables, bulk and dimensional requirements and new development standards for the UGA. This phase also included completion of the capital facility plans needed to implement the full range of urban services required in CWPP 2.1, including the adoption of urban level of service standards for UGA transportation improvements, storm water management facilities, and a new sanitary sewer system. These capital facility plans are adopted herein by reference and are included as appendices to the CP. The UGA functional capital facility plans adopted herein include:

- Port Hadlock UGA Sewer Facility Plan, September 2008 (See Appendix)
- Irondale & Port Hadlock UGA Stormwater Management Plan, May, 2004 (See Appendix)
- Irondale & Port Hadlock UGA Transportation Plan, May, 2004 (See Appendix)
Consistent with CWPP 1.5, the adopted Irondale & Port Hadlock UGA General Sewer Plan identifies development “tiers” within the UGA based on where the six (6) year capital facilities plan is prepared to provide urban sanitary sewer service in the UGA core, followed by expansion of sewer service availability throughout the UGA in the 20 year planning period. More complete discussion and analysis of these areas are found in the “Capital Facilities” section of this element and in the adopted UGA General Sewer Plan.

Public involvement was a key component of all phases of UGA planning. The County appointed a UGA Citizen Advisory Committee during the initial Irondale & Port Hadlock UGA boundary and land use planning phase in 2001. The CAC was comprised of local UGA residents and business owners and participated in developing the initial recommendations for the Irondale & Port Hadlock UGA boundary and land use designations adopted in 2002. A UGA Citizens Task Force was appointed in 2004, again comprised of local business owners and residents, to help the Planning Commission UGA Subcommittee develop specific implementing regulations and capital facility development standards for the UGA.

**URBAN GROWTH AREA DESIGNATION CRITERIA**

The GMA specifies certain minimum requirements for UGA formation. These include the following provisions of RCW 36.70A.110:

> An urban growth area may include territory that is located outside of a city only if such territory already is characterized by urban growth whether or not the urban growth area includes a city, or is adjacent to territory already characterized by urban growth. (RCW 36.70A.110(1))

The vast majority of the Irondale & Port Hadlock UGA is “already characterized by urban growth” as stated in CWPP 1.4. In addition, the boundary for the UGA was delineated based on the criteria in CWPP 1.3 with guidance from the Tri-Area Community Plan (1995) and public input from local residents, as required by CWPP 1.3, 1.4 and 2.2. Only limited areas “adjacent to territory already characterized by urban growth” are included in the UGA to: 1) interconnect areas characterized by existing urban growth; 2) incorporate sufficient developable land to sustain the urban growth projected to occur during the 20-year planning period; or 3) provide for a reasonable land market supply factor to discourage adverse land and housing price increases. The Irondale & Port Hadlock UGA is significantly smaller and more compact than the “Tri-Area UGA” originally proposed in the Special Study.

> Based upon the growth management population projection made for the county by the office of financial management, the county and each city within the county shall include areas and densities sufficient to permit the urban growth that is projected to occur in the county or city for the succeeding twenty-year period. 36.70A.110(2)

Adequate land area for the expected growth during the planning period has been designated based on both the projected 20-year residential population growth for Irondale & Port Hadlock identified in the CP as well as the need for commercial/industrial lands identified as a part of the Special Study. The CP population growth projections indicate a 20-year projected growth of 2,353 residents for the UGA. The CP also indicates a large number of existing platted residential lots in the area. Many of these lots are not presently buildable due to their small size. The UGA buildout capacity analysis is presented later in this element. The boundary (i.e., sizing) of the UGA included only those areas “characterized by urban growth...or...adjacent to territory already characterized by urban growth” necessary to accommodate the urban
growth projected to occur consistent with the Act. The Irondale & Port Hadlock UGA includes areas designated for multi-family high density development that are “adjacent to territory already characterized by urban growth” as one means to increase the feasibility for providing sanitary sewer service within the core UGA.

Although the Irondale & Port Hadlock UGA contains a significant amount of existing single-family urban residential development—from a future urban growth perspective—its major intent is to provide more economic development opportunity to serve the unmet regional commercial needs of eastern Jefferson County identified in the Special Study. Secondarily, UGA designation and the provision of urban facilities and services will allow for development of higher density (and more affordable) multi-family housing when a sanitary system becomes available.

*Each urban growth area shall permit urban densities and shall include greenbelt and open space areas. 36.70A.110(2)*

Urban density residential development averages well in excess of 4 dwelling units per acre in the overall UGA as documented in the *Irondale & Port Hadlock UGA Buildout Analysis, dated March 4, 2004*, adopted herein by reference as an appendix to the CP. See also the *Proposed Irondale/Port Hadlock UGA: Dwelling Unit & Population Holding Capacity Analysis*, Cascadia Community Planning Services, January 21, 2009. The Urban Low Density Residential (ULDR) designation on the Irondale & Port Hadlock UGA Zoning Map requires a minimum density of 4 dwellings units per acre, except where the following criteria are met: 1) in areas where no sanitary sewer service is provided for in the adopted Six-Year Capital Facilities Plan; and 2) in such areas within an adopted Critical Aquifer Recharge Area (CARA). The provisions of the Jefferson County Health Department On-Site Sewage Disposal Systems regulations (JCC 8.15) and Unified Development Code (UDC) Section 6.18 (Best Management Practices for On-Site Sewage Disposal in CARAs) shall apply under these circumstances which effectively limit maximum density to approximately 3.5 units per acre. The so-called "bright line" rule adopted by the Growth Management Hearings Boards suggests that four units per acre is a minimum urban density. However, the Boards have also recognized that jurisdictions may apply densities below that line in UGAs if there is a compelling GMA reason for doing so. Protection of critical areas, including CARAs, has been recognized by the Hearings Boards as such a reason. In the UGA, the CARA serves to protect the same groundwater aquifer that supplies the public water supply for the UGA—the Public Utility District’s Sparling Well located within the UGA at the corner of Kennedy Road and Rhody Drive (SR 19). The Zoning Map indicates several additional areas designated for moderate and high density residential development within mandatory sewer service areas that are in close proximity to existing commercial centers and community facilities such as the Chimacum Creek Elementary School and the County Library. Open space and greenbelt areas have also been identified for the UGA, especially along the Chimacum Creek corridor, in associated wetland areas and along the Port Townsend Bay marine shoreline at the mouth of Chimacum Creek where substantial shoreline restoration is planned along the site of a former log dump.

*An urban growth area determination may include a reasonable land market supply factor and shall permit a range of urban densities and uses. 36.70A.110(2)*

Single-family and multi-family residential, urban commercial, light industrial, lands for public purposes, and open space and greenbelt land needs are incorporated in the Irondale & Port Hadlock Urban Growth Area. Sizing of the UGA was intended to include only those areas “characterized by urban growth…or…adjacent to territory already characterized by urban growth” consistent with the Act. A reasonable land market supply factor was applied to
discourage adverse increases to land and housing values in the UGA. Reduction factors to account for lands needed for roads and utilities and preservation of environmentally sensitive areas were also applied based on the specific findings recommended in the Special Study. Documentation of supporting population and land area analysis are found in the Special Study and in the Irondale & Port Hadlock UGA Buildout Analysis, dated March 4, 2004, and the Proposed Irondale/Port Hadlock UGA: Dwelling Unit & Population Holding Capacity Analysis, Cascadia Community Planning Services, January 21, 2009, adopted herein by reference as an appendix to the CP.

Cities and counties have discretion in their comprehensive plans to make many choices about accommodating growth. 36.70A.110(2)

Planning for an unincorporated UGA in eastern Jefferson County has been on-going since the initial GMA Comprehensive Plan for the County was adopted in 1998. The Special Study was a collaborative joint planning process between the City and the County that entailed a broad analysis of population and employment growth and land use needs as well as alternative UGA boundary configurations and their associated impacts. It presented many choices about accommodating growth. One of the key findings of the Special Study was that the County experienced a significant amount of “retail leakage” to urban areas in adjacent counties due to an inadequate commercial land use base in the County. The City and the County also jointly chose through the Joint Growth Management Steering Committee to accommodate new growth through formation of a Tri-Area Unincorporated UGA rather than accommodate the unmet demand for commercial growth in the existing Port Townsend UGA.

The CP and the CWPPs both identify the Tri-Area (now Irondale & Port Hadlock Unincorporated UGA) as the primary regional commercial growth center for the unincorporated County. However, the lack of a UGA designation and the full range of urban services, including a sanitary sewer system, has been an impediment to significant commercial development and job creation. The UGA planning process involved an extensive amount of public involvement. The Implementation Plan for the Special Study identified and analyzed more specific UGA land use alternatives for the area. As a result of the extensive public involvement process and capital facilities impact analysis conducted throughout the life of the Special Study, the Tri-Area UGA represents a significantly smaller, more compact and more fiscally viable UGA than originally proposed in the DSEIS/FSEIS prepared as a part of the Special Study.

Urban growth should be located first in areas already characterized by urban growth that have adequate existing public facility and service capacities to serve such development, second in areas already characterized by urban growth that will be served adequately by a combination of both existing public facilities and services and any additional needed public facilities and services that are provided by either public or private sources, and third in the remaining portions of the urban growth areas. 36.70A.110(3)

The Special Study included several alternative UGA boundaries and permitted land use alternatives for UGAs in Jefferson County. One of these alternatives (Alternative 1) was not to adopt a new unincorporated UGA but rather accommodate the unmet need for regional commercial growth identified in the Special Study through intensification of the existing Port Townsend municipal UGA. Following issuance of the Final Supplemental Environmental Impact Statement for Jefferson County Comprehensive Plan Amendments, dated August 1999, the Joint Growth Management Steering Committee (comprised of three City
Councilors and three County Commissioners) decided on August 24, 1999 (by a vote of 5 to 1) to move forward with UGA implementation for Irondale & Port Hadlock and to reject implementation of Alternative 1—effectively precluding allocation of the unmet employment and commercial growth needs identified in the *Special Study* to the existing Port Townsend UGA.

The Irondale & Port Hadlock UGA is presently served by a range of public services, including a potable water system, piped fire flow, public transit, and public safety (fire, EMS and sheriff). Outside of the City of Port Townsend, the Irondale & Port Hadlock UGA and Glen Cove are the only areas of the county with that same complement of existing public services. The Glen Cove light industrial area has been designated a “limited area of more intensive rural development” under RCW 36.70A.070(5)(d) and is not subject to an urban growth area designation under the CP. A community sanitary sewer system and adopted urban storm water and transportation level of service standards were the only “urban” public facilities lacking in Irondale & Port Hadlock that precluded UGA compliance prior to the adoption of this chapter. Adoption of appropriate standards and plans for the provision of adequate public services and facilities to serve the UGA are discussed in the Capital Facilities section of this chapter and, as appropriate, in other sections of the Utilities, Capital Facilities, and Transportation Elements of the CP.

*In general, cities are the units of local government most appropriate to provide urban governmental services. In general, it is not appropriate that urban governmental services be extended to or expanded in rural areas except in those limited circumstances shown to be necessary to protect basic public health and safety and the environment and when such services are financially supportable at rural densities and do not permit urban development.* 36.70A.110(4)

The CP and the CWPPs (#2.4) specify that urban public facilities and services are to be provided only within designated UGAs unless required to remedy a threat to public health or welfare or to protect an environmentally sensitive area. The Act does not prohibit unincorporated UGAs—it only suggests a greater level of scrutiny to ensure adequate capital facility planning and provision of urban governmental services. The feasibility of providing the full range of urban services to Irondale & Port Hadlock rests largely upon the levels of service adopted for those facilities and services. Since most urban services are already provided to local residents (i.e., water, public safety), it is the establishment of a community sanitary sewer system that will likely have the greatest fiscal impact. The implementation, phasing, and fiscal requirements of such a sewer system are identified in the *Port Hadlock UGA Sewer Facility Plan, September 2008*, adopted as the UGA General Sewer Plan.

**EXISTING CONDITIONS**

**Land Use**

The UGA encompasses approximately 1,320 acres. Based on the year 2000 census, the resident population is 2,553 persons. The existing land use pattern is characterized by commercial development concentrated along the major highway corridors (Rhody Drive, Ness’ Corner Road, and Chimacum Road) and existing developed single-family neighborhoods in Irondale and Port Hadlock in the northern part of the UGA. There are scattered multi-family apartment complexes mostly located at the fringe of the Port Hadlock commercial core area.
The predominant land use type in the UGA is single-family residential development. It accounts for close to one-half of the existing land uses. Most of the residential neighborhoods south of Irondale Road are largely built-out, although there are a significant number of pre-existing platted lots (from early in the last century) that remain undeveloped. In fact, vacant lands constitute about one-third of the UGA—most of which are concentrated north of Irondale Road and south of Chimacum Creek. Many of these lots are “substandard”—meaning that they cannot meet minimum lot size requirements for on-site septic systems—and therefore must be combined through restrictive covenant or lot consolidation in order to build upon. Under current regulations, the County may authorize single-family home development on pre-existing platted lots provided they meet Jefferson County Environmental Health Department standards for on-site septic systems and drainfields—usually requiring a minimum 12,500 square foot lot (if served by a public water system). Current developed single-family residential lots in the UGA range from 2,500 to 20,000 square feet in size and average about 13,000 square feet.

The remaining existing land use distribution in the UGA includes public and quasi-public facilities such as churches, the County Library and Chimacum Creek Elementary School, the Jefferson County Sheriff’s Office and Jail, Jefferson County Public Works Department Maintenance Yard, and the PUD’s Sparling Well facility along Rhody Drive. In addition there are several neighborhood parks and open space areas.

**Environmentally Sensitive Areas**

The most distinguishing physical feature of the area is Chimacum Creek and its associated riparian wetland system. Chimacum Creek includes habitat for summer chum salmon—a listed species under the Endangered Species Act (ESA)—and also contains steelhead, coho salmon and cutthroat trout. It runs from south to north through the area and determines the northern boundary of the UGA where it empties into Port Townsend Bay. It is contained within a narrow valley and is designated a Class 1 stream—subject to a 150 foot development setback along both sides of the creek—according to the Jefferson County Unified Development Code (UDC). The creek’s riparian corridor and associated setback function as a greenbelt within the UGA consistent with the requirements of RCW 36.70A.110(2). In addition to the wetlands along Chimacum Creek, there are also estuarine and intertidal wetlands along the Port Townsend Bay marine shoreline as well as some isolated upland wetlands. Protection of these areas is regulated under UDC Sections 3.6.8 (Fish and Wildlife Habitat Areas) and 3.6.9 (Wetlands).

Portions of the UGA are vulnerable to groundwater pollution and are designated as a Critical Aquifer Recharge Area (CARA) due to their hydrogeologic soil characteristics and the presence of public water supply wellheads. The Jefferson County Public Utility District owns the water system that serves the UGA. The water system relies on groundwater wells. There is a designated wellhead protection area around the PUD’s Sparling Well and the Kivley Well. Figure 2-2 shows the critical aquifer recharge area within the UGA, including wellhead protection areas and susceptible soils. The CARA is subject to enhanced wastewater treatment standards which, among other requirements, limit land use activities; establish minimum lot sizes for uses dependent upon on-site septic systems for wastewater treatment and disposal; and requires “best management practices” for siting such development—according to Jefferson County UDC Sections 3.6.5 (Critical Aquifer Recharge Areas); 6.18 (On-Site Sewage Disposal Best Management Practices in CARAs); and Jefferson County Code Chapter 8.15 (On-Site Sewage Disposal Systems).

Some geologically hazardous areas are also present in the UGA. These are areas particularly susceptible to erosion, sliding, earthquakes, or other geological events. Steep slopes and
marine bluffs adjacent to Port Townsend Bay and lower Chimacum Creek are prone to impacts related to erosion, seismic events and landslides. Protection of these areas is regulated under UDC Section 3.6.7 (Geologically Hazardous Areas).

The UGA contains limited 100-year flood plain areas designated by the Federal Emergency Management Agency (FEMA). The boundaries of the 100-year flood essentially encompass Port Townsend Bay, the marine shorelines of the Irondale and Port Hadlock community, and the mouth of Chimacum Creek. Urban level residential, commercial or industrial development is discouraged in the 100-year flood plain. Any structure built within the flood plain’s boundaries must provide for adequate protection against the 100-year flood (i.e., structures within the floodplain are constructed at a minimum of one foot above the flood plain elevation). These areas are regulated according to UDC Section 3.6.6 (Frequently Flooded Areas).

**Potable Water & Sewage Treatment and Disposal**

The entire UGA is served by a public water system now owned and operated by Public Utility District #1 (PUD) of Jefferson County. The water source is groundwater acquired by two different wells. The primary source is the Sparling Well located at the intersection of Rhody Drive and Kennedy Road on the western border of the UGA. A secondary well, the Kivley Well, is located just southeast of the Port Hadlock core area of the UGA.

There is no sanitary sewer system presently in the UGA. All wastewater treatment is provided either by individual on-site septic systems or small community-based on-site systems. The Jefferson County Environmental Health Department records indicate no significant failure rates for existing on-site systems in the UGA. Although the concentration of existing on-site septic systems, given the density and proximity of development to the Sparling Well, is an issue of concern that is addressed as a part of the capital facility planning for the new sanitary sewer system.

**PROJECTED POPULATION GROWTH**

Based on a 2004 population of 2,553 persons and the projected 20-year growth of an additional 2,353 persons, the UGA must be able to accommodate a minimum of 4,906 persons by 2024. The new allocation was based on updated Jefferson County overall population projections prepared by the Washington State Office of Financial Management (OFM) in 2002 (after adoption of the initial UGA boundary and land use designations). The new allocation was incorporated into the 2004 Jefferson County Comprehensive Plan Update per RCW 36.70A.130(1)(a).

One of the key efforts of the Special Study was the assessment of future demand for commercial/industrial lands in the County (based on assumed employment growth and other variables). This analysis is contained in the *Regional Economic Analysis and Forecast* prepared by Trottier Research Group dated January 26, 1999 and further addressed in the document titled *Memorandum: Comments on Estimates of Additional Land Needed for Employment Growth* prepared by Trottier Research Group dated September 27, 1999. Hereafter collectively called the “Trottier Report”. The Trottier Report analysis indicated that the Jefferson County economy experiences significant “retail leakage” to urban areas in adjacent counties. Retail leakage is an economic signal that regional commercial levels of service are not being met for County residents, and suggests that the level of commercial development is inadequate to meet the needs of the existing population as well as new growth. The Trottier Report concluded that the County could experience a significant
shortage of commercial and industrial lands over the next twenty years if it maintained strong employment growth.

At the same time, the Special Study noted that the lack of a full range of urban public facilities and services and available developable vacant land in the designated rural commercial centers placed significant constraints on employment growth. In the case of Irondale & Port Hadlock, the lack of a community sewer system is a significant impediment to economic activity since it limits overall employment density and certain economic activities that may be water-use intensive or require special waste processing needs. Furthermore, rural land development standards in effect under the 1998 CP precluded the most efficient utilization of many existing commercial enterprises. During the Special Study many existing businesses in Irondale & Port Hadlock expressed frustration with the inability to expand existing operations due to building size limitations and lot size constraints. Some businesses have left the area to relocate to UGAs elsewhere where the land supply and urban capital facilities and services are more readily available. Even with designation of additional vacant lands for commercial purposes, the majority of the commercial lands designated in the Irondale & Port Hadlock UGA comprise lands already characterized by urban growth or are surrounded by such lands.

COMPREHENSIVE PLAN LAND USE MAP & ZONING DESIGNATIONS

Zoning designations for the UGA are shown in Table 2-1, parts (a) and (b), and are illustrated in the Irondale & Port Hadlock UGA Zoning Map (Figure 2-1). Land use districts correspond to the CP general urban land use designations and zoning districts illustrate the site-specific designations.

The UGA Comprehensive Plan Zoning Map, adopted as a part of this element, is the graphic representation of the densities and intensities of use and the goals, policies and strategies contained within this plan. The Land Use and Zoning Maps were developed based on consistency with the Growth Management Act, community involvement, consideration of the 1995 Tri-Area Community Development Plan, the results of the Special Study, the Proposed Irondale/Port Hadlock UGA: Dwelling Unit & Population Holding Capacity Analysis, Cascadia Community Planning Services, January 21, 2009, and the specific criteria contained within this element.

The Comprehensive Plan Land Use Map should act as a guide for: subsequent Zoning Map designations; the adoption of development regulations; and implementation of future land use decisions. The Growth Management Act requires that implementing development regulations be consistent with the Comprehensive Plan. This requirement will be met by Jefferson County with the adoption of this element and the Irondale & Port Hadlock Implementing Regulations of the UDC.

Amendments to the adopted Zoning Map are subject to the requirements of UDC Section 18.45 JCC.

DWELLING UNIT AND POPULATION HOLDING CAPACITY ANALYSIS

In determining whether the supply of residentially designated and zoned land within the proposed UGA is proportionate to the projected future population, a number of variables and assumptions can affect the analysis and must be considered, including the following:

- Differentiating between developed, underdeveloped, and vacant residential lands;
• The proposed residential designations and densities (i.e. both single-family and multi-family);
• The location and extent of critical areas that may restrict or preclude development in certain areas;
• The need to set aside land for public purposes, including roads, parks, wastewater and stormwater facilities; and
• The need to account for land that will remain vacant over the course of the planning period due to landowner preferences, title disputes, encumbrances and market conditions.

It should be emphasized that this analysis is not an entirely academic exercise: it does not simply identify the total theoretical dwelling unit and population holding capacity of the UGA based only upon gross acreages and proposed zoning densities. Instead, the analysis attempts to more realistically assess the dwelling unit and population holding capacity by accurately differentiating developed, underdeveloped, and vacant residential lands, factoring actual mapped critical areas and their buffers, and taking into account actual projected needs for public lands and rights-of-way (Table 2-1 (a)).

Clearly, the proposed Irondale/Port Hadlock UGA presents limited opportunities for “blue sky” planning. Much of the area was platted in the late 19th and early 20th century, and has seen substantial residential and commercial development over the intervening decades. The area encompasses widespread areas of pre-existing subdivision and development activity that have occurred at non-rural densities.

Vacant land was defined as land with no, or insignificant improvements. Thus, all parcels designated within the Assessor’s land use code as 9100 or 9800 (i.e. “vacant”), or which have an assessed structural improvement that is equal to or less than $10,000 fall within this category.

Underdeveloped land was defined as land occupied by current development that is of relatively low density in relation to parcel ownership size and/or of relatively low structural (improvement) value. This is land that is seen as likely to support further or more intense level of development. If the value of the structures (improvements) was equal to or less than $100,000 and the parcel ownership was equal to or twice the minimum lot size of the applicable zone (e.g. 20,000 s.f. in the Low Density Residential designation), the parcel was deemed likely to develop to its permissible higher density within the 20-year planning period. A typical example of underdeveloped land would include ownership in a neighborhood that currently accommodate one or more additional dwelling unit and still comply with the density limitations of the applicable zone.

Developed land was defined as land with no additional space for development and which has significant structural (improvement) values. This is land that is not likely to support further or more intense levels of development. All land not identified as “vacant” or “underdeveloped” as defined above, falls within this category.

Table 2-1 (a) summarized the results of this disaggregation:
Table 2-1 (a)
VACANT, UNDERDEVELOPED & DEVELOPED RESIDENTIAL LAND

<table>
<thead>
<tr>
<th>Status</th>
<th>Low Density Residential (4-6 d.u. per acre)</th>
<th>Medium Density Residential (7-12 d.u. per acre)</th>
<th>High Density Residential (13-18 d.u. per acre)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Gross Acreage in Zone</td>
<td>801.00</td>
<td>66.00</td>
<td>50.00</td>
</tr>
<tr>
<td>Vacant Land Acreage in Zone</td>
<td>236.10</td>
<td>4.00</td>
<td>8.8</td>
</tr>
<tr>
<td>Underdeveloped Land Acreage in Zone</td>
<td>268.10</td>
<td>35.00</td>
<td>7.60</td>
</tr>
<tr>
<td>Developed Land Acreage in Zone</td>
<td>296.80</td>
<td>27.00</td>
<td>33.60</td>
</tr>
</tbody>
</table>


Table 2-1 (b)
Irondale & Port Hadlock UGA Additional Land Use & Zoning Districts

<table>
<thead>
<tr>
<th>Land Use Designation</th>
<th>Zoning District</th>
<th>Total (Gross) Acres</th>
<th>Vacant (Gross) Acres*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban Commercial</td>
<td>Urban Commercial</td>
<td>272</td>
<td>93</td>
</tr>
<tr>
<td></td>
<td>Visitor-Oriented Commercial</td>
<td>14</td>
<td>7</td>
</tr>
<tr>
<td>Urban Industrial</td>
<td>Urban Light Industrial</td>
<td>25</td>
<td>5</td>
</tr>
<tr>
<td>Public</td>
<td>Public</td>
<td>80</td>
<td>1</td>
</tr>
</tbody>
</table>

Source: Jefferson County Central Services, Jefferson County Department of Community Development
* Vacant Acreage figures are based on Assessor Land Use Codes. March 4, 2004.

**Urban Residential.** The Urban Residential land use designation accounts for the largest share of land use in the UGA. This zone accounts for more than 800 acres; roughly one-third of those acres are vacant, one third underdeveloped and one third developed. The Urban Low Density Residential (ULDR) zone will allow housing density from four (4) to six (6) dwelling units per acre, except, as previously noted, for parcels both outside the planned sewer service area and within a designated Critical Aquifer Recharge Area where the maximum density may not exceed 3.5 units per acre. Moderate Density Residential (MDR) zoning will allow housing at a density of 7-12 units per acre and accounts for 55 total

---

1 Jefferson County On-Site Sewage Disposal Systems (JCC 8.15) allows minimum 12,500 s.f. lot for on-site septic systems with waivers possible to approximately minimum 7,500 s.f., with commensurately higher treatment standard requirements. However the Code does not allow waivers less than 12,500 s.f. for lots within Critical Aquifer Recharge Areas. Therefore standard density in the ULDR zone (inside CARAs and outside of planned Sewer Service Area) is approximately 3.5 du's/acre. Standard density of 4 du's/acre in the ULDR zone (outside CARAs and outside of planned Sewer Service Area) may be achieved only by compliance with the waiver provisions of JCC 8.15. Maximum density of 6 du's/acre in the ULDR only achievable by connection to sanitary sewer(allowed within the Optional Sewer Service Area Overlay)
acres within the UGA. The High Density Residential zone will allow housing at a density of 13-18 dwelling units per acre.

**ESTIMATED DWELLING UNIT & POPULATION HOLDING CAPACITY**

The estimated unit holding capacity of the proposed Irondale/Port Hadlock UGA is determined by multiplying the net available land (i.e. vacant and underdeveloped land area combined) in each zoning designation by the minimum and maximum density permitted within each zone. This establishes a dwelling unit capacity range. The minimum and maximum number of dwelling units is then multiplied by the estimated household size at the end of the planning period to establish an estimated population holding capacity range for vacant and underdeveloped lands within the proposed UGA.

**Table 2-2**

<table>
<thead>
<tr>
<th>Status</th>
<th>Low Density Residential (4-6 d.u. per acre)</th>
<th>Medium Density Residential (7-12 d.u. per acre)</th>
<th>High Density Residential (13-18 d.u. per acre)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net Vacant Acreage in Zone</td>
<td>84.59</td>
<td>2.01</td>
<td>4.25</td>
</tr>
<tr>
<td>Net Undeveloped Acreage in Zone</td>
<td>119.59</td>
<td>18.13</td>
<td>3.79</td>
</tr>
<tr>
<td>Net Total &quot;Buildable&quot; Acreage in Zone</td>
<td>204.18</td>
<td>20.14</td>
<td>8.04</td>
</tr>
</tbody>
</table>

Source: *Proposed Irondale/Port Hadlock UGA: Dwelling Unit & Population Holding Capacity Analysis, Cascadia Community Planning Services, January 21, 2009.*

**Table 2-3**

<table>
<thead>
<tr>
<th>Estimated Total Dwelling Unit &amp; Population Holding Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dwellings</strong></td>
</tr>
<tr>
<td>Estimated Net Additional Capacity of Vacant &amp; Underdeveloped Lands</td>
</tr>
<tr>
<td>Estimated Existing D.U.s &amp; Population on Vacant &amp; Underdeveloped Lands</td>
</tr>
<tr>
<td>Estimated Holding Capacity Range at Build-Out</td>
</tr>
</tbody>
</table>

**CONCLUSION**

Based upon the methodology and assumptions documented above, the proposed Irondale/Port Hadlock UGA appears to include residential land areas and densities sufficient to accommodate the urban growth allocation of 2,353 persons for the 2004 – 2024 planning period, consistent with the requirement of RCW 36.70A.110(2).
If ultimate build-out were to occur uniformly at either the low or the high end of the permissible density ranges in each residential zone, the population holding capacity would range from a net deficit of -296 to a net surplus of +998 in relation to the adopted population target of 4,906 for 2024. However, to assume either a uniformly “low-density” or “high-density” build-out scenario is both unreasonable and unlikely. Instead, it is rational, appropriate, and within the range of discretion afforded to localities planning under the GMA to assume a more plausible density yield rate scenario of 75%. Such an assumption results in an estimated capacity for 2,512 additional people occupying 1,142 dwelling units, and a total population holding capacity of 5,065, some 159 persons over the 4,906 target. This difference is insignificant in the context of an area-wide planning analysis.

**Urban Commercial.** Almost one-quarter of the total UGA is designated for commercial land use. Several different commercial zoning districts may implement this land use designation. The Urban Commercial (UC) zone is the largest constituting approximately 272 acres. It covers both the existing and planned future commercial development in the Port Hadlock core area and along Rhody Drive from Ness’ Corner to the “Dogbone” along SR 19. The Visitor-Oriented Commercial (VOC) zone is applied to the tourism-oriented potential development area around the Old Alcohol Plant.

**Urban Industrial.** Approximately 25 acres of land are designated as an Urban Light Industrial (ULI) zone in the UGA—all but 5 acres of which are already in light industrial use. These uses are located in the southwest corner of the UGA well buffered from the bulk of the residential neighborhoods in the community.

**Public Facilities.** Public facilities (P) comprise 80 acres, including public park and open space areas, the Library and Chimacum Creek Elementary School, the Jefferson County Sheriff’s Office and Jail, Jefferson County Public Works Department Maintenance Yard, and the PUD’s Sparling Well facility along Rhody Drive and the Kivley Well in Port Hadlock.

**CAPITAL FACILITY PLANNING**

Capital facility planning for Urban Growth Areas should be coordinated among the City, County, and special purpose districts or other service providers who may be affected by the advent of new urban growth and the need to plan for the provision of new urban levels of service for public facilities such as sanitary sewer, potable water and public safety. For affected non-County agencies—who may provide these services—to meet their own capital facility plan goals, the County needs to ensure that it does not permit activity which would be inconsistent with their future plans.

County-wide Planning Policy #3 identifies specific actions to be taken regarding joint planning between the City of Port Townsend and Jefferson County that affects incorporated UGAs. The need for continued joint planning with affected public service providers and local residents is a critical component to UGA implementation. Of special importance will be the provision of urban sanitary sewer services and the fiscal impacts of such a system on local residents. Potable water service is already provided by the PUD #1.

Although it is an unincorporated UGA, it is sufficient in size and scope of urban densities and intensities of uses to allow for potential incorporation—should local residents desire and choose to do so at some point in the future. The County will continue to work with UGA residents on the provision of adequate and financially feasible capital facilities.
The strategy of joint capital facility planning is to encourage jurisdictions and service providers to enter into inter-local agreements to facilitate planning in areas of mutual concern. The use of an inter-local agreement enables the affected local governments and special purpose districts involved to work together to review, consider, and resolve issues of mutual concern. The County, PUD #1, local residents and other affected agencies should continue to work together towards the provision of adequate public facilities and services.

This section of this element is intended to address the provision of capital facilities and utilities to the UGA. Level of Service (LOS) standards are established in the Capital Facilities Element of the Plan as may be amended for the UGA by adoption of this element and its appendices related to capital facility planning (i.e., sewer, stormwater and transportation). The adopted level of service standards must be met by utility providers within the UGA.

Many utilities and capital facilities are provided for in the UGA by non-county providers. Many of these utilities are currently being provided at urban standards and do not require amendments to the Capital Facilities or Utilities elements of the CP insofar as levels of service are concerned. These include public water supply (being provided by the Jefferson County PUD #1); electricity provided by Puget Sound Energy; cable television and telecommunications provided by a range of carriers regulated by the Washington Utilities and Transportation Commission (WUTC) and the Federal Communications Commission (FCC), including cellular telephone service provided by AT&T Wireless Services and Verizon Wireless and conventional telephone service provided by Qwest Communications.

These utility providers are controlled by laws and regulations, or franchise agreements. Their requirement to meet levels of service is imbedded in these controls. For example, the State Department of Health (DOH) requires water purveyors like the PUD to have 20 year plans (revised every 6 years) which address service area demand, source of supply, LOS (including fire flow), and a capital program for improvements to meet projected demand into the future. Other utilities have similar requirements to demonstrate to the County and others that they capacity to meet LOS will be in place to meet future demand.

In addition, many other public services and capital facilities are provided countywide by Jefferson County at adopted levels of service that apply countywide and do not distinguish between rural and urban areas. These facilities and services include:

- Solid Waste;
- Parks and Recreation;
- County Maintenance Shop Facilities;
- County Government Administrative Offices;
- County Justice Facilities;
- County Sheriff Facilities;
- County Corrections Inmate Facilities;
- Community Centers; and
- Animal Control Shelter.

Levels of service and Six-Year and Twenty-Year Capital Facilities Plans for the public facilities and services identified above are adopted in the Utilities and Capital Facilities elements of the Comprehensive Plan.

Capital facilities needs associated with implementation of the UGA General Sewer Plan, Transportation Plan and Stormwater Plan and the provision of public water by the PUD have
been included as part of the following section and are also adopted by reference in the Capital Facilities Element of the Comprehensive Plan, as amended.

**Sanitary Sewer Service**

The UGA General Sewer Plan (GSP), adopted in this Comprehensive Plan, is required under state law prior to development of a County sponsored sewer system. It is intended to be general in nature. However, the Port Hadlock UGA Sewer Facility Plan, adopted as the GSP, has been approved by the State Department of Health and State Department of Ecology as an engineering plan. This goes much further than needed as a GSP and carries the sewer facilities planning forward to the Preliminary Design phase.

See Appendix I, Port Hadlock UGA Sewer Facility Plan, September 2008, adopted herein as the General Sewer Plan, for detailed information on Capital Facilities planning and a six-year financing plan.

The adopted GSP provides a preliminary analysis of several alternatives for the development of a public wastewater collection, treatment, and disposal system for the entire UGA over the course of the 20-year planning period. See Appendix I for sewer service area information and mapping.

**Potable Water—Public Utility District #1 of Jefferson County (PUD)**

The Irondale & Port Hadlock (UGA) water system serves the entire UGA and is part of a network of interconnected public water supply systems that serve the Quimper Peninsula operated by the PUD. The UGA system currently has 1,850 connections and projects a total of 3,171 connections by 2025. The water system was purchased by the PUD from the City of Port Townsend in 2002. The system contains two major wells: the Sparling Well and the Kivley Well. The Sparling well and treatment plant currently serve as the primary water supply source for the UGA, the Sparling well was originally drilled to augment the surface water supply to the Irondale and Port Hadlock area from the City of Port Townsend water supply line. The Kivley well was brought on line in 1972 to provide an additional supply.

The UGA water system has a single pressure zone. A one million gallon reinforced concrete reservoir and a two million gallon steel reservoir are co-located on Somerville Road.

The system has five wells. There are two Sparling wells that are currently the primary source of water for the UGA. The PUD is in the process of increasing the treatment capacity of these wells to process 1500 gpm. The maximum flow rate allowed under the current water right for the Sparling wells is 2,250 gpm. Three wells are located at the Kivley well site. The instantaneous water right for the Kivley wells is 200 gpm. The PUD has requested a new water right that would increase the Kivley well capacity to a minimum of 400 gpm. Additionally, the PUD will be increasing the treatment capacity of the Sparling well by a planned 500 gpm by 2006.

The existing water supply source meets the current demands on the UGA water system, however the wells need to be brought up to their full water right. PUD studies indicate that if the state DOH water system design standard of 466 gpd/ERU is used, the UGA water system may only have enough water until the year 2015. The PUD indicates, however, that based on an average daily demand of 350 gpd/ERU (actual PUD consumption records), the PUD water system supply has adequate water rights sources for the 20 year planning
period. The PUD water system plans indicate that a water conservation plan, lower actual UGA water usage (based on local consumption records) and planned system improvements will result in enough water supply to meet the 20 year planning horizon. However, in the best interest of a regional approach to water resource management, the PUD is also in discussion with the City of Port Townsend about purchasing and treating additional wholesale water for the PUD water system. This may provide for a more equitable and better long-term solution to meeting projected demands on the resource.

Three improvement projects are identified in the PUD’s preliminary draft Capital Facilities Plan for the UGA Water System based upon anticipated future demand as follows:

- **Sparling Well Improvements.** In order to provide the water requirements for the next 20 years the PUD is increasing the treatment capacity of the Sparling well by 500 gpm. Estimated Cost: $350,000. Funding Sources: System Development Charges. Estimated Implementation Date: 2004-2005.

- **New Well.** The PUD will be drilling a new production well to maximize its existing water rights, to meet potential future demands, expand system flexibility, and emergency response capacity. Estimated Cost: $375,000. Funding Sources: System Development Charges. Estimated Implementation Date: 2005-2015.

- **Surface Water Sources.** The PUD is working with the City of Port Townsend to increase the amount of wholesale water purchased by the PUD from the City as alternative to pursuing additional groundwater rights.

The current PUD #1 Quimper Water System Plan which, in part, serves the Irondale/Port Hadlock Urban Growth Areas is hereby incorporated by reference into the Comprehensive Plan. Subsequent changes to water system plans shall be consistent with the Comprehensive Plan and be approved through legislative action of the Comprehensive Plan amendment process, outlined in 18.45 JCC, prior to incorporation.

**Stormwater Management**

The UGA Stormwater Management Plan is a planning document that provides guidance to minimize adverse effects of stormwater runoff on ground and surface water, including aquatic resources and habitats, water quantity. It identifies water quality and quantity problems associated with stormwater runoff that may adversely affect the environment and community and provides recommendations for improvements and programs including a cost analysis and an implementation schedule. The primary goal of the UGA Stormwater Management Plan is to preserve and protect water quality and the hydraulic regime within the UGA drainage basins and the receiving waters of Chimacum Creek and Port Townsend Bay.

The Plan identifies specific structural and non-structural solutions to conveyance and water quality problems within the UGA. Structural solutions include constructing detention and infiltration ponds, pipes, and treatment facilities. Non-structural solutions include stormwater management facility inspection and maintenance, public education and outreach, water quality monitoring, and encouraging low impact development.

The Plan was developed in conformance with Jefferson County Comprehensive Plan Land Use and Rural Element: Drainage, Flooding, Stormwater Management Issues and Polluted Discharges. It meets the stormwater management recommendations of the Puget Sound

UGA designation will require the provision of drainage and stormwater management facilities at an urban level of service standard in order to avoid significant stormwater runoff and water quality impacts to Port Townsend Bay and Chimacum Creek and to ensure that stormwater runoff does not contaminate groundwater resources.

The majority of the UGA does not have conveyance systems and will infiltrate stormwater runoff on-site or within the sub-basin. Infiltration in the area is typically good, but varies due to the groundwater table and soils. Most of the stormwater runoff in the UGA infiltrates before reaching a conveyance system. There is a limited existing storm drainage collection and conveyance system that consists of typical components such as catch basins, pipes, open ditches, and, in the Port Hadlock Core, concrete curbs and gutters. There are two outfalls to Port Townsend Bay in the UGA. They convey runoff collected by the Port Hadlock Core storm sewer system and road drainage from Moore Street in Irondale.

Due to the relatively low level of development in the UGA, there is not a high volume of stormwater currently being discharged into Port Townsend Bay. Thus, the overall impact on water quality in the Bay associated with storm sewer outfalls appears to be limited. High fecal coliform counts have been reported in Port Townsend Bay during the summer. However, the UGA Stormwater Management Plan indicates that based on the levels, timing, and location, they do not appear to be associated with runoff from the Port Hadlock storm sewer system or Moore Street.

Nonetheless, the pollutant concentrations are sufficiently high that runoff treatment should be provided, according to the recommendations made in the UGA Stormwater Management Plan. In order to accomplish this goal, the County should coordinate with the Washington Departments of Transportation and Fish and Wildlife and with private landowners to plan, design, fund, and construct treatment facilities at both locations. Hydrologic modeling was used in the UGA Stormwater Management Plan to develop planning level cost estimates for replacing the outfalls and adding a treatment swale for both the Port Hadlock Core storm sewer system and the Moore Street drainage system.

Future development within the UGA will be required to provide flow control (detention and infiltration) and treatment per the Washington State Department of Ecology’s Stormwater Technical Manual standards and to help pay their fair share for those portions of the storm drainage system fronting their property. As additional development occurs within the UGA limits, the amount of impervious surfaces will increase which will ultimately increase peak surface-water runoff rates. To this end, the County intends to manage stormwater to minimize contact with contaminants, mitigate the impacts of increased runoff due to development within the UGA’s drainage areas, provide management of runoff from large and small construction sites, and to preserve fish and wildlife habitat.

The analysis conducted for the UGA Stormwater Management Plan demonstrates that urban development can occur without significant impacts from stormwater runoff provided that there are adequate stormwater management facilities and a UGA Stormwater Management Program.

The UGA Stormwater Management Plan includes policies intended to ensure that development of the UGA does not cause significant adverse impacts related to stormwater runoff. These policies include SWM Policy 1.7 Develop stable and equitable revenue sources to fund a UGA Stormwater Management Program.
The *UGA Stormwater Management Plan* discusses alternative methods for funding capital improvements and Stormwater Management Program activities. These alternatives include grants and loans, developer fees, local improvement districts, and stormwater management fees.

The *UGA Stormwater Management Plan* proposes two capital projects: a stormwater treatment facility and replacement of an existing outfall. The treatment facility will cost approximately $10,000; the cost to replace the outfall would be approximately $144,000. (2004 Year Dollars)

The *UGA Stormwater Management Plan* proposes that parcels in the UGA Commercial, Industrial, and Multi-Family Residential designations would pay a stormwater management fee to fund inspection of stormwater management facilities in those areas. The inspection program would cost approximately $10,000 per year.

The *UGA Stormwater Management Plan* proposes a UGA Stormwater Management Program that would conduct public education, water quality monitoring, and stream gauging. The annual SWM Program cost would be approximately $15,000.

Table 2-4 summarizes the projected *UGA Stormwater Management Plan* Capital Improvements and Program Plan Expenditures and Funding.

### Table 2-4

**UGA Stormwater Management Plan**  
Capital Improvements and Funding: 2005 – 2024

<table>
<thead>
<tr>
<th>Capital Improvements Projects</th>
<th>2004 Cost</th>
<th>Year Planned</th>
<th>Funding Source / Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Port Hadlock Core Water Quality Treatment Facility</td>
<td>$10,000</td>
<td>2005</td>
<td>SWM Fee Port Hadlock Core</td>
</tr>
<tr>
<td>Port Hadlock Core Conveyance Replacement</td>
<td>$144,000</td>
<td>2011</td>
<td>SWM Fee Port Hadlock Core</td>
</tr>
</tbody>
</table>

Source: UGA Stormwater Management Plan May 2004
Transportation

Purpose
The purpose of the Transportation Plan portion of Chapter 2, the Irondale — Port Hadlock Urban Growth Area (UGA) Element, is to amend and augment the Transportation and Capital Facilities chapters of the Jefferson County Comprehensive Plan. This portion of the UGA Element contains information and analysis relative to transportation both within and adjacent to the UGA. The UGA Transportation Plan considers the impacts to transportation due to UGA designation and forecasts the transportation needs and costs for a twenty-year planning period. The UGA Transportation Plan describes the service standards desired for the County’s transportation system within an Urban Growth Area, projects the impact that the land use pattern contained in this Chapter will have on the transportation system, and identifies the improvements necessary to meet future demand. The Jefferson County Comprehensive Plan provides a framework of goals, policies, and strategies necessary to develop transportation facilities throughout the County. This portion of the UGA Plan further defines these goals and policies for development inside the boundaries of the Urban Growth Area at appropriate urban standards. The adopted Jefferson County Comprehensive Plan portions relating to transportation include the majority of policy needed to accommodate this UGA. This text is intended to be an amendment or supplement to the Comprehensive Plan, which should be referenced for additional goals, policies and strategies not specifically detailed in this document.

Introduction
The Washington State Growth Management Act (GMA) was passed in 1990 to encourage planned, coordinated, growth for a more efficient use of the State’s resources by reducing sprawl. One of the ways in which the GMA seeks to accomplish these goals is to require communities to adopt comprehensive growth plans that specify how new population growth will be accommodated. By law, these plans must address the following areas: transportation, capital facilities, utilities, land use, housing, and rural land.

With respect to transportation and transportation infrastructure, the GMA requires the coordinated planning of regional transportation facilities and services. The GMA also mandates that new development cannot occur unless infrastructure is in place to accommodate the increased demand, or will be built concurrent with development.

In response to GMA requirements, the Tri-Area, an area encompassing the Chimacum, Irondale and Port Hadlock communities, underwent a transportation planning and forecasting study in 1999 known as the Tri-Area/Glen Cove Special Study. This study analyzed three land use alternatives over a twenty-year period and evaluated the impact on Jefferson County’s roadways. Building on the work that was completed for the Special Study; the goal of this effort is to produce a Transportation Plan that will serve as a guide for future transportation improvements that will aid in maintaining an adequate level of transportation services and facilities in the Irondale — Port Hadlock Urban Growth Area (UGA). This Transportation Plan includes the following:

- Updated functional classification of county roads
- Updated traffic volume forecasts
- Intersection level of service analysis
- Potential transportation improvements
- Environmental Considerations
- Transportation improvement cost estimates

Through this planning process, the intent is to recognize when and where deficiencies will occur and to provide solutions to capacity needs. Viable solutions may include additional travel lanes, passing and pull-out lanes, turn pockets and signalization of currently un-
signaled intersections. The traffic forecasts used in this plan will provide for adequate urban levels of public facilities and services in the Irondale - Port Hadlock Urban Growth Area.

Existing Conditions

Functional Classification

The roadways and highways in the Irondale -Port Hadlock UGA have been identified according to functional classification. The functional classification system is based on a road’s ability to provide either mobility or access to adjacent land. There are five road classes used to describe roads: principal arterials, minor arterials, major collectors, minor collectors, and local roads. These classes are further defined by specifying whether the road is part of an urban or rural roadway system. Table 1 provides a brief description of the roadway functional classification system. The table is based on WSDOT publication, Guidelines for Amending Urban Boundaries, Functional Classifications and Federal Aid Systems.

As stated above, mobility is a key component in the functional classification system. When reviewing a regional road system, it is important to note that arterials provide the most mobility in the functional classification system. Arterials connect major destination points such as cities and communities. Principal arterials and minor arterials are distinguished by the importance of the destination, and the priority given to mobility. Collectors serve as the link between arterials and local streets. They gather (or collect) traffic from the smallest streets (local access) and direct the traffic onto the arterial system. Local streets are those which provide direct access to property and consequently provide more limited mobility. For local streets, mobility is not considered as important as access to land uses.

Roadway spacing and design standards are directly related to the functional classification of the road. In addition, right-of-way width requirements, lane widths, design speed and other similar characteristics are all related to a roadway's functional classification. Figure 1 illustrates the updated functional classification of roadways in the UGA. It is noted that SR19 has been designated as a Highway of Statewide Significance (HSS) and the functional classification will change from a minor arterial to a principal arterial. This change reflects the highway's increasing importance for the region and as an HSS route that links SRI 04 to Port Townsend.

Traffic Volumes and Level of Service

Figure 2 illustrates existing average daily traffic '(ADT) volumes at several locations within the study area. The most heavily traveled roadways within the UGA include SR19, SRI 16 and Irondale Road with existing traffic volumes peaking on SR19 at about 14,000 vehicles per day (vpd). A very small section of SR19 from Irondale Road to Four -Corners' Road carries a peak of 16,898 vpd. This is due to higher than average Peak Hour volumes along this section of SR19. Given the relatively short period of time SR19 operates at this level and the short length, of roadway that experiences this higher volume of traffic, the operational counts for the entire length of SR19 from Irondale Road to SR -20 were used in the level of service analysis of SR19 as this provides a more accurate picture of existing operating conditions along SR19.
# Table 1

### Roadway Functional Classification Descriptions

**Jefferson County**

<table>
<thead>
<tr>
<th>Functional Class</th>
<th>Urban (5,000 population or more)</th>
<th>Rural</th>
</tr>
</thead>
<tbody>
<tr>
<td>Principal Arterial</td>
<td>Serves regional major activity areas. Carries all inter-urban and significant intra-urban auto and transit trips. Offers most mobility, least land access. Fully or partially controlled access.</td>
<td>Carries statewide or interstate travel. Serves most urban areas with populations of at least 25,000. Provides an integrated network.</td>
</tr>
<tr>
<td>Minor Arterial</td>
<td>Interconnects and augments principal arterials. Distributed travel to areas smaller than those associated with major arterials. Places more emphasis on land access than principal arterials.</td>
<td>Links cities, larger towns and major activity areas (e.g. resorts). Forms integrated network of providing interregional and inter-county service. Spaced so that all developed areas are within reasonable distance of arterial highway. Provide for high travel speed with minimum interference to through movement.</td>
</tr>
<tr>
<td>Major Collector</td>
<td>Provides both land access and traffic circulation within residential area. Provides intra-community continuity but doesn’t penetrate identifiable neighborhoods. Carries local bus routes.</td>
<td>Provides service to county seats and major towns. Links county seats and major towns with nearby cities and arterials. Serves the more important intra-county travel.</td>
</tr>
<tr>
<td>Minor Collector</td>
<td>Collects traffic from local system and channels it to arterials. Provides both land access and traffic circulation within residential neighborhoods, commercial areas, and industrial areas.</td>
<td>Collects traffic from local roads. Provides for all developed areas to be near collector road. Provides service to smaller communities. Link locally important traffic generators with their rural hinterland.</td>
</tr>
<tr>
<td>Local</td>
<td>Provides direct access to abutting land and access to higher classified cities. Offers least mobility. Usually contains no bus routes. Through traffic deliberately discouraged.</td>
<td>Serves primarily to provide access to adjacent land. Provides service to travel over relatively short distances.</td>
</tr>
</tbody>
</table>

**Level of Service (LOS)** is a qualitative measure that combines the features of speed, safety, travel time, comfort, convenience and traffic interruptions. Creation of the Irondale -Port Hadlock UGA changes the UGA land use designation from rural to urban. One of the impacts of this change is a concurrent change in the level of service standard for roadways in the
urban growth area. See Table 2 for roadway level of service definitions. The level of service standard in Jefferson County for rural roadways is LOS C. The established level of service standard for Jefferson County roadways in an urban area is LOS D or better. This difference reflects the understanding that higher volumes of traffic are expected in urban areas because of a concentration of economic activities. These higher levels of congestion are considered acceptable during peak hours.

In 1998 the Washington State legislature passed House Bill 1487 that separated state highways into two categories: Highways of Statewide Significance (HSS) and Regionally Significant Highways (RS). This bill authorizes WSDOT to set level of service standards on Highways of Statewide Significance. SR19 was recently designated as a HSS. The Level of Service standards for SR19 are now set by WSDOT. WSDOT will accomplish this goal through consultation with the Peninsula Regional Transportation Planning Organization (PRTPO) which in turn will consult with Jefferson County. It should be noted that LOS standards employed in this document for SR19 are consistent with PRTPO recommendations but have not been established by WSDOT and are for County planning purposes.

SR19 currently operates at LOS D, an acceptable level for the Urban Growth Area. Outside of the UGA boundary, SR19 continues to operate at LOS D. The PRTPO is currently looking to designate SR19 as a Tourist Corridor. Jefferson County participates in the organization’s planning process and will follow the recommendations set forth by the PRTPO. The PRTPO has identified various roadways on the Olympic Peninsula as Tourist Corridors to address the issues created by fluctuations in traffic volumes during tourist seasons that cause some roadways to drop below the adopted County standard in rural areas. 2.2 million tourists visit the Port Townsend area every year with approximately 50% accessing the area by way of SR19. As established by the PRTPO, Tourist Corridors are allowed to operate at LOS D, similar to roadways in urban areas. Figure 3 shows current Level of Service designations for roadways within the Irondale -Port Hadlock UGA.

**Planned Roadway Improvements**

Jefferson County's Six-Year Transportation Improvement Program (TIP) for 2004 to 2009 plans non-capacity related improvements (channelization and pedestrian facilities) to the portion of Chimacum Road from M.P. 0.41 to 0.98 (vicinity of the Jefferson County shop southerly to the East Fork Chimacum Creek crossing). At this time, the Washington State Department of Transportation (WSDOT) has proposed only one signalization project for the State-owned facilities of SRI and SRI 16 (Ness's Corner) from 2004 to 2009.

**Current Deficiencies**

Under existing conditions and urban standards, there are no current deficiencies in the UGA road system. Intersection and toad segment Level of Service analysis was performed using the Transportation Research Board’s Highway Capacity Software (HCS). This software uses such information as functional class, design hourly volume, free flow speed, road and shoulder widths and number of lanes to determine level of service designations. HCS provides an average LOS designation for the entire intersection, averaging the level of service of both the major and minor legs of the intersection. The minor leg of an intersection is defined as the intersecting roadway that is stop controlled, while the major leg is the roadway which is free flowing. It should be noted that although overall intersection analysis shows no current deficiencies, roadways that intersect SR19 develop long queues and vehicle delays that approach unacceptable levels. This is caused by relatively high volumes of traffic traveling along SR19 with few gaps to allow entering traffic from intersecting roadways.
Non-motorized Transportation

Jefferson County has worked to provide a network of non-motorized transportation facilities to enhance alternative modes to travel by automobile and for recreational purposes. On-road bicycle routes and lanes, wide shoulders, sidewalks and multipurpose trails that link destinations are common examples. The Jefferson County Non-motorized Transportation and Recreational Trails Plan contains a full and detailed list of County owned facilities. Additionally, the Non-motorized Transportation and Recreational Trails Plan found no capacity related deficiencies for the planning period based on the current level of service (LOS) standards adopted in the County’s Comprehensive Plan. The Non-motorized Transportation and Recreational Trails Plan also contains a listing of non-capacity related potential projects and financing alternatives.

### Table 2
**Roadway Level of Service Definitions**
**Jefferson County**

<table>
<thead>
<tr>
<th>LOS Category</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level of Service A</td>
<td>Describes a condition of free flow with low volumes and high speeds. Freedom to select desired speeds and maneuver within the traffic stream is extremely high. Stopped delay at intersections minimal.</td>
</tr>
<tr>
<td>Level of Service B</td>
<td>Represents reasonably unimpeded traffic flow operations at average travel speeds. The ability to maneuver within the traffic stream is only slightly restricted and stopped delays are not bothersome. Drivers are not generally subjected to appreciable tensions.</td>
</tr>
<tr>
<td>Level of Service C</td>
<td>In the range of stable flow, but speeds and maneuverability are more closely controlled by the higher volumes. The selection of speed is now significantly affected by interactions with others in the traffic stream, 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.</td>
</tr>
<tr>
<td>Level of Service D</td>
<td>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.</td>
</tr>
<tr>
<td>Level of Service E</td>
<td>Represents operating conditions at or near the maximum capacity level. 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 disturbances within the traffic stream will cause breakdowns.</td>
</tr>
<tr>
<td>Level of Service F</td>
<td>Describes forced or breakdown flow, where volumes are above the theoretical capacity. This condition exists wherever the amount of traffic approaching a point exceeds the amount which can transverse the point. Queues form behind such locations, and operations within the queue are characterized by stop-and-go waves which are extremely unstable. Vehicles may progress at reasonable speeds for several hundred feet or more, then be required to stop in a cyclic fashion.</td>
</tr>
</tbody>
</table>
Transit

The Irondale - Port Hadlock UGA is served by the Jefferson Transit Authority that provides regular scheduled service to the UGA as well as Port Townsend, Port Ludlow and Poulsbo. Weekday service operates from 6:45 AM to 7:10 PM with Dial-a-Ride available for qualified individuals. Transportation Policy TRP 2.3 in the Jefferson County Comprehensive Plan establishes a minimum level of service based on Annual Transit Revenue Service Hours (ATRSH). The level of service standard of 8400 ATRSH as established countywide by the County’s Comprehensive Plan will continue to be met for the planning period as Jefferson Transit continues to revise its service based on demand as appropriate. Additionally, Jefferson Transit has increased regularly scheduled service to the UGA within the last two years, and will continue to revise service to the UGA as appropriate. Jefferson Transit also provides regular updates to its Operating and Capital improvement Plan.

TRANSPORTATION PROJECTIONS

Population Forecasts and Growth Rates

A range of population projections were presented by the Washington State Office of Financial Management (OFM) for GMA planning purposes. Forecasts to be used in Jefferson County must fall within the OFM's forecast range and the OFM’s intermediate range forecast as endorsed by the Port Townsend City Council's Community Development & Land Use Committee and adopted by the County on August 25, 2003. This forecast proposes a 20-year population projection for the Irondale -Port Hadlock UGA of 2.76% compounded annually.

In addition to population growth, land development and intensification of land use creates additional impacts to the transportation system that exceed that of the projected growth rates in the area. At this time, a General Sewer Plan is under development to allow the County to provide sewer services to areas targeted for public, commercial, industrial and multi-family residential land uses in the core Port Hadlock commercial district as well as sections along SR19. Growth and development of the UGA commercial district is currently limited by the lack of this infrastructure. The introduction of a sewer system will increase land use densities and subsequently impact transportation facilities in and around the UGA. Assuming that the land within the UGA designated as commercial, industrial, and multi-family residential will be developed during a 20-year planning period, 2005 — 2024, the Jefferson County has developed projected rates of development in acres per year, as shown in the following Table 3.

<table>
<thead>
<tr>
<th>Table 3</th>
<th>Projected Development Rates</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Commercial and Industrial Land</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Time Period</strong></td>
<td><strong>Projected Development Rate (acres/year)</strong></td>
</tr>
<tr>
<td>2004</td>
<td>0.9</td>
</tr>
<tr>
<td>2005 - 2010</td>
<td>2.1</td>
</tr>
<tr>
<td>2011 - 2024</td>
<td>3.9</td>
</tr>
</tbody>
</table>

| **Multi-Family Residential** | |
| **Time Period** | **Projected Development Rate (acres/year)** |
| 2004 | 0.9 |
| 2005 - 2010 | 2.1 |
| 2011 - 2024 | 3.9 |

Source: Jefferson County
This assumes that the availability of a sanitary sewer system will affect the rates of development. After the UGA designation is completed and prior to the development of a sewer system, urban commercial and industrial development will be permitted, but only by those developments that can be served by an on-site septic system. It is assumed that the sanitary sewer system will be available by 2011 to designated areas. Using these development rates, 12.6 acres of commercial and industrial land are estimated to be developed during the 2005-2010 planning period and 54.3 acres developed from 2011 to 2024. This growth scenario includes a 15% market reduction factor to account for land that will be unavailable for development during this period.

**Trip Generation**

The impact of land development and intensification on the transportation system is determined through the use of trip generation. Average daily traffic (ADT) rates are based on averages published in the Institute of Transportation Engineer's (ITE) *Trip Generation 6th Edition*. Daily trip generation estimates for proposed land uses in the Irondale-Port Hadlock area were based primarily on the square footage of floor space created by the development and to a lesser extent total acreage of developed land. Average daily trip rates for multi-family residential housing are based on average trips per resident. When using trips per square footage, assumptions were made on the approximate dimensions of the building in question. Each study in *Trip Generation* records the gross floor area of each type of development and the average of these was used to determine an appropriate size. The Jefferson County Unified Development Code was also referred to as a functional standard from which to approximate acreage required for development including parking lots, driveways and setbacks on the specific sites of development. Table 4 summarizes the trip generation rates, site acreage and ADT created by development in the UGA for the 2005-2010 planning period.

**Table 4**

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Code</th>
<th>Trip Rate</th>
<th>Site Acreage</th>
<th>ADT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multi-Family Residential</td>
<td>220</td>
<td>35 residents 3.35/resident</td>
<td>1.6</td>
<td>117</td>
</tr>
<tr>
<td>Boat School</td>
<td>140</td>
<td>5.4 acres 38.88/acre</td>
<td>5.4</td>
<td>210</td>
</tr>
<tr>
<td>Credit Union</td>
<td>912</td>
<td>4,000 SF 265.2/1000*</td>
<td>.5</td>
<td>1061</td>
</tr>
<tr>
<td>Auto Sales</td>
<td>841</td>
<td>25,000 SF 37.5/1000*</td>
<td>4.8</td>
<td>937</td>
</tr>
<tr>
<td>Building Supply</td>
<td>812</td>
<td>16,500 SF 39.7/1000*</td>
<td>.9</td>
<td>655</td>
</tr>
</tbody>
</table>

|                      | 13.2 | 2980 |

* Trip rates are per 1,000 square feet gross floor area

An estimated 2,980 additional daily trips will be created by the development of these sites. The distribution of the vehicle trips onto the roadway system was calculated by percentage characteristics of existing traffic conditions. The majority of trips were distributed along SRI 9, SRI 16, Irondale Rd, and Chimacum Rd, the key circulation routes throughout the area. Distribution percentages were estimated based on the location within the UGA and the type of land use planned for the site. Land available for development is generally situated along
SR19 and SR116, in existing commercial districts. This trend continues through 2010 creating the additional traffic volumes seen primarily on the State Routes and Irondale Rd.

Traffic analysis for the planning period from 2011 through 2024 was based on the assumption that the sewer system would be in place and the intensification of land use adjacent to the sewer system would continue at a higher rate than the 2005 -2010 period. Given 54.3 acres of developable commercial and industrial land by the year 2024, it was assumed that the distribution of land use would be broken down into the following uses:

- 20% (11 acres) light industrial
- 80% (43 acres) commercial/retail

Furthermore, it was assumed that 80% of commercial and industrial development would be concentrated in the existing Port Hadlock commercial district with the remaining commercial and industrial development located throughout the SRI corridor. Trip generation estimates were developed based on a weighted average of trip rates per gross floor area (GFA) for various, common types of commercial and retail developments. In addition to trip rates, average values of GFA for each type of development were taken from *Trip Generation 6th Edition*. These values were used to generate average trip rates per acre of developable land. It was assumed that gross floor area is roughly 21% of total land developed. The remainder is taken up by set backs, parking, driveways, landscaping etc. The 21% value was reached through analysis of existing buildings of similar developments tie in areas comparable to the UGA. The average ratio of gross floor area to total developed came to roughly 21%. This figure was confirmed through calculations involving averages published in *Trip Generation*. Table 5 indicates the types of anticipated development, trip rates and average gross floor area.

**Table 5**

**Trip Generation Rates**

*(2011—2024)*

<table>
<thead>
<tr>
<th>Anticipated Development</th>
<th>Trip Rates per 1000 SF GFA</th>
<th>Average SF GFA</th>
<th>Total Trips</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Quality Restaurant</td>
<td>89.95</td>
<td>9,000</td>
<td>810</td>
</tr>
<tr>
<td>2. Medical/Dental</td>
<td>36.13</td>
<td>15,000</td>
<td>542</td>
</tr>
<tr>
<td>3. Nursery</td>
<td>36.08</td>
<td>9,000</td>
<td>325</td>
</tr>
<tr>
<td>4. Tire Store</td>
<td>24.87</td>
<td>5,000</td>
<td>124</td>
</tr>
<tr>
<td>5. Mini-Warehouse</td>
<td>2.50</td>
<td>12,250</td>
<td>31</td>
</tr>
<tr>
<td>6. Super Market</td>
<td>111.21</td>
<td>20,000</td>
<td>2,230</td>
</tr>
<tr>
<td>Expansion</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Hardware Store</td>
<td>51.29</td>
<td>20,000</td>
<td>1,026</td>
</tr>
<tr>
<td>8. Fast Food Restaurant</td>
<td>496.12</td>
<td>3,000</td>
<td>1,488</td>
</tr>
<tr>
<td>9. Convenience Market</td>
<td>845.60</td>
<td>3,000</td>
<td>2,537</td>
</tr>
<tr>
<td>10. Bank</td>
<td>265.20</td>
<td>4,000</td>
<td>1,061</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100,250</strong></td>
<td></td>
<td><strong>10,173</strong></td>
</tr>
</tbody>
</table>

*Table 5 Notes:*

Gross floor area (GFA) accounts for roughly 21% of total acreage developed. The remainder is taken up by set backs, parking, driveways, landscaping, etc. This relationship between gross floor area and total acreage of development is derived from published averages in the ITE *Trip Generation Manual.*
Dividing the Average GFA by 0.21 results in the square feet required for the anticipated development:

Developed Square Footage = \( \text{100,250 SF} / 0.21 = 477,381 \text{ SF} \)

Dividing Developed Square Feet by 43,560 Square Feet/Acre yields acres required for the anticipated development.

Total Acres of Development = 477,381 / 43,560 = 10.96 Acres

Dividing the Total Trips from the anticipated development by the developed acres producing trips yields the Average Trip Generation per Acre.

Average Trip Generation per Developed Acre = 10,173 / 10.96 = 928 Trips /acre

Multiplying Average Trip Generation per Developed Acre by the total acres of commercial designation (provided by DCD 3/8/2004) yields the projected total trips generated by commercial development for the 2011 -2024 planning period.

Projected Commercial Trip Generation = 928 trips /acre x 43 Acres = 39,919 Trips

Using the data from Table 5 and the methodology described in the Table 5 Notes yields a rate of 4-73 928 trips per acre for typical commercial uses. When applied to the 43 acres proposed for commercial designation, this yields 39,919 average daily trips (ADT) generated by commercial development for the 2011-2024 planning period. The assumption that 80% of this total will occur near the existing Port Hadlock commercial district, 32,393 ADT will be generated from commercial and light industrial development in this area. The remaining 20% of commercial and industrial development is assumed to occur throughout the SR19 corridor and create 8,098 ADT.

Multi - Family Residential

Multi-family residential development will be permitted within the UGA prior to the development of the sewer system but is not expected to develop greatly due to the restraints of on-site septic service. After the assumed availability of the sewer system by 2011, multi - family residential development will proceed at approximately 66 dwelling units per year. This assumption is based on anticipated population growth and residential capacities described in the Irondale & Port Hadlock UGA Preliminary Buildout Analysis (Personius, 3/4/2004). Zoning within the UGA has been updated to reflect this development with the addition of nearly 80 acres of multi - family residential land. This development scenario produces approximately 911 dwelling units during the 2011 -2024 planning period. Assuming an average of 2 persons per unit and 3.35 ADT per person, this creates 6104 trips. These trips typically begin near SR- 116, Chimacum Rd, and the Port Hadlock Intersection. They are then distributed based on existing traffic patterns in the area.

The projected addition of this level of dense residential development will increase traffic and congestion in areas near these dense developments. It will result in a proportionally decreased population locating in the northern portion of the UGA and lower the traffic impacts in this area. The transportation model for 2004 -2010 assumed a traffic growth rate matching population growth at 2.76 %. This rate accounts for increases in vehicles on all roadways within the UGA and is a figure to which trip generation is added. From 2011 - 2024, given that a large percentage of the population is being accounted for through Multi-Family trip generation; it would be inaccurate to assume single- family traffic generation will
continue to increase at 2.76%. During this time period, the traffic growth rate is adjusted to 2% annually with vehicle trips added to describe traffic growth resulting from multi-family residential development. This method more accurately predicts how traffic patterns will change in the UGA with the planned concentration of the population.

Trip Distribution

Distribution of ADT was accomplished through a method of applying percentages from existing turn movement counts. A total of 43,471 trips were assumed to be created through commercial and light industrial development during the planning period. The concentration of population growth into the projected multi-family residential developments is accounted for through the 2.76% traffic growth rate assumed throughout the 2005-2024 period. To more accurately model this concentrated traffic, distribution of the 6,104 multi-family residential trips was concentrated in the areas immediately surrounding the expected development sites. Although these trips do not necessarily add to projected traffic levels on a region-wide basis, they significantly impact these areas and were modeled accordingly. The percentage of vehicles currently entering and exiting intersections was assumed to remain relatively constant through 2024. The only deviation from this process was to increase the percentage of traffic entering the Port Hadlock commercial district from SR19 along SR116. This was done to reflect the desire to route traffic to SR19 along SR116 and the assumption that multi-family residential developments will also be served primarily by SR116, putting a higher burden on this roadway and related intersections. Figure 2 displays existing ADT and 2010 and 2024 projected ADT (including trip generation) for impacted road segments. Tables 6 and 7 show vehicle delay and LOS designations for key intersections in and immediately surrounding the Irondale-Port Hadlock UGA, as well as road segment ADT and Level of Service designations. Five intersections situated outside of the UGA boundary have been included in this analysis due to the potential effect the UGA designation and growth of the surrounding area will have on the intersections. These intersections are:

• SR19/Chimacum Rd/Center Rd (Chimacum Intersection)
• SR19/Woodland Dr/Airport Rd
• SR19/Prospect Ave (Kala Point)
• SR19/Anderson Lake Rd
• SR19/West Valley Rd (Chimacum School Intersection)

Table 6
Intersection Delay and Level of Service

<table>
<thead>
<tr>
<th>Intersection</th>
<th>Existing Delay (seconds)</th>
<th>LOS</th>
<th>Growth Rate¹</th>
<th>2010 Vehicle Delay</th>
<th>2010 LOS</th>
<th>2024 Vehicle Delay</th>
<th>2024 LOS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chimacum²</td>
<td>12</td>
<td>B</td>
<td>2.76%</td>
<td>19</td>
<td>C</td>
<td>493</td>
<td>F</td>
</tr>
<tr>
<td>Port Hadlock³</td>
<td>12</td>
<td>B</td>
<td>2.76%</td>
<td>16</td>
<td>C</td>
<td>323</td>
<td>F</td>
</tr>
<tr>
<td>SR 19 &amp; Irondale</td>
<td>14</td>
<td>B</td>
<td>2.76%</td>
<td>18</td>
<td>C</td>
<td>999⁴</td>
<td>F</td>
</tr>
<tr>
<td>Irondale &amp; Mont.</td>
<td>10</td>
<td>B</td>
<td>2.76%</td>
<td>11</td>
<td>B</td>
<td>25</td>
<td>C</td>
</tr>
<tr>
<td>SR 19 &amp; Four Corners</td>
<td>17</td>
<td>C</td>
<td>2.76%</td>
<td>26</td>
<td>D</td>
<td>257</td>
<td>F</td>
</tr>
<tr>
<td>SR 19 &amp; SR 116</td>
<td>16</td>
<td>B</td>
<td>2.76%</td>
<td>30</td>
<td>D</td>
<td>999⁴</td>
<td>F</td>
</tr>
<tr>
<td>SR 116 &amp; Cedar</td>
<td>14</td>
<td>B</td>
<td>2.76%</td>
<td>17</td>
<td>C</td>
<td>999⁴</td>
<td>F</td>
</tr>
<tr>
<td>SR 116 &amp; Oak Bay</td>
<td>10</td>
<td>B</td>
<td>2.76%</td>
<td>11</td>
<td>B</td>
<td>182</td>
<td>F</td>
</tr>
</tbody>
</table>
The actual growth in traffic volumes is due to a base population growth rate of 2.76 percent per year and impacts to traffic from new development in the Hadlock central core area and along SR 19. The 2011-2024 period assumes a rate of 2.00%.

Table 7  
Road Segment Average Daily Trips and Level of Service

<table>
<thead>
<tr>
<th>Road Segment</th>
<th>From</th>
<th>To</th>
<th>ADT</th>
<th>LOS</th>
<th>Growth Rate *</th>
<th>ADT</th>
<th>LOS</th>
<th>ADT</th>
<th>LOS</th>
</tr>
</thead>
<tbody>
<tr>
<td>SR 19 &amp; Woodland</td>
<td>14</td>
<td>B</td>
<td>2.76%</td>
<td>18</td>
<td>C</td>
<td>78</td>
<td>F</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SR &amp; Prospect</td>
<td>16</td>
<td>C</td>
<td>2.76%</td>
<td>19</td>
<td>C</td>
<td>424</td>
<td>F</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SR 19 &amp; Anderson Lk</td>
<td>18</td>
<td>C</td>
<td>2.76%</td>
<td>28</td>
<td>C</td>
<td>242</td>
<td>F</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SR 19 &amp; West Valley</td>
<td>18</td>
<td>C</td>
<td>2.76%</td>
<td>33</td>
<td>D</td>
<td>999</td>
<td>F</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1 The actual growth in traffic volumes is due to a base population growth rate of 2.76 percent per year and impacts to traffic from new development in the Hadlock central core area and along SR 19. The 2011-2024 period assumes a rate of 2.00%.

2 SR 19 and Chimacum/Center Road intersection

3 SR 116 and Irondale/Chimacum Road intersection

4 Maximum values report by Highway Capacity Software

Deficiencies

Under existing conditions, mobility on SR19 is adequate. There are several unsignalized intersections accessing SR19 in the Irondale, Port Hadlock and Chimacum areas. At this time, these roadways typically experience moderate but acceptable delays as vehicles wait for gaps in traffic on SR19. As volumes build, these gaps in traffic will decrease, creating greater delay on the minor legs of intersections. Long vehicle queues will develop and safety may be compromised since vehicles will not have enough time to merge onto SR19. To maintain mobility on SR19, a minimum number of interruptions to traffic flow (traffic signals) should be pursued. The most appropriate way to avoid excessive signalization is to minimize the number of locations of traffic access onto SR19 as well as control turn movements onto SR19. The intersection of SR19 and SR116 (Ness’s Corner) is the most obvious choice for signalization in the near future. If signalized, traffic could be redirected to this intersection by way of further road improvements to facilitate traffic circulation and mobility. The benefits of this would include the following:

- Limited access to SR19 would increase the mobility along SR19
- Minimize impacts of growth to the neighborhoods along Irondale Rd.
• Greater control of turn movements onto SR19
• Reduce existing delays on the minor leg of the intersection
• Provide safe, efficient route through the UGA for freight and other commercial traffic

It is likely that signalization of the SR19/SR116 intersection would create sufficient gaps in traffic along SR19 to allow safer, more comfortable turn movements onto SR19. Although this intersection will be projected to operate at LOS D by 2010, the minor leg control delay on SRI 16 approaches 62 seconds per vehicle and operates at LOS F. To reduce this delay, relieve congestion and enhance safety, this intersection should be signalized within the next six years.

Several intersections experience similar problems to those of the SR19/SR116 intersection. SR19 typically experiences acceptable flow while intersecting roadways begin to develop long delays as vehicles attempt to turn onto SR19. At intersections with lower turn movements such as SR19 and Woodland Dr, SR19 and Prospect Ave, SR19 and Anderson Lake Rd, minor leg delay and LOS deficiency can be alleviated through the addition of flared-right turn pockets that allow right-turning vehicles space to move around left-turning vehicles. While these intersections are located outside of the UGA, their operational status is dependent on the operational characteristics of SR19 inside of the UGA.

As such, they are included in the transportation analysis for the UGA. Preliminary planning analysis of these improvements and the potential gaps created by signalization at SR19 and SRI 16 show slight increases in level of service through 2024.

If growth and development continues as planned over the next twenty years, further improvements to the road system will be required to maintain adopted Level of Service standards. Signalization of additional intersections will be required to handle significantly increased volumes projected to occur by 2024. In addition, capacity improvements will be required on SR19 and SRI 16 to handle expected higher volumes of traffic.

Based on projected volumes, signal improvements as shown in Table 8 will be required at the following intersections by 2024:

Inside the UGA:
  • Hadlock Intersection
  • SRI and Irondale Rd
  • SRI 16 and Cedar Ave

Outside the UGA:
  • Chimacum Intersection
  • SR19 and West Valley Rd.

The suggested improvements discussed below are based solely on future Level of Service projections and engineering assumptions and judgment. It is assumed these improvements will not be required during the 2005-2010 planning period given estimated LOS projections. At this time, only estimates have been made as to the satisfaction of State recognized Signal Warrants. Satisfaction is based on the following warrants:

• Warrant 1 - Eight Hour Vehicular Volume
• Warrant 2 - Four Hour Vehicular Volume
• Warrant 6 - Coordinated Signal System
• Warrant 8 - Roadway Network

The Washington State Department of Transportation recognizes the above warrants as listed in the Manual on Uniform Traffic Control Devices (MUTCD), Chapter 4C. These locations should be monitored and an engineering study of traffic conditions at each location should...
be performed to determine when installation of a traffic control signal is justified. The timing of intersection improvements along SR19 must consider a balance between providing mobility along the arterial and accessibility from the intersecting roadways.

**Port Hadlock Intersection (Inside UGA).** The Port Hadlock intersection is currently an all way stop controlled intersection in the heart of the Port Hadlock commercial district. At current traffic volumes, this intersection functions extremely well as a stop-controlled intersection. As volumes build toward projected 2024 levels, service at this intersection begins to break down and signalization will be required to handle the denser, urban conditions that are expected as growth occurs in the core Port Hadlock commercial district.

**SR19 and Irondale Rd (Inside UGA).** Conditions at SR19 and Irondale Rd will become similar to that of the intersection of SR19 and SRI 16. Possible widening of SR19 through the UGA to four lanes of traffic would further increase the difficulty and danger of vehicles turning onto SR19. Signalization of this intersection will be required to handle increased volumes on both legs. Due to close proximity, it is possible that a signal at both SR19/Irondale Rd and SR19/Four-Corners Rd (just outside of the UGA) could place unfavorable restrictions on the mobility of SR19. Signal Density on SR19, as described in the Transportation Research Board's (TCB) Highway Capacity Manual (HCM), is borderline to recommended levels with two signals at these intersections. To minimize the number of stops along SR19 and reduce financial costs, it is recommended that an alternate solution to signalization of both intersections be studied.

**SR116 and Cedar Ave (Inside UGA).** Development along SRI 16 and in the Port Hadlock commercial district will increase the importance of SRI 16 as a major collector of SR19. Both legs of this intersection will experience increased volumes and an unacceptable level of service. It is desired and anticipated that SR116 will continue to be the primary route to connect the Port Hadlock core and SR19. Signalization of this intersection will facilitate safety and access to and from SR116 and Cedar Ave. Prior to signalization the addition of right turn vehicle storage on the southbound leg of Cedar Ave should be considered. This improvement will likely increase the functional capacity of this intersection and maintain an acceptable, urban level of service until signal warrants are met.

**Chimacum Intersection (Outside UGA).** Increasing volumes at this all way stop controlled intersection will require signalization to maintain mobility on SR19 and handle increasing volumes along Chimacum Rd /Center Rd due to growth and development expected in the Port Hadlock commercial core.

**SR19 and West Valley Rd (Outside UGA).** Currently this intersection has both left and right turn lanes with adequate storage in each. However, this intersection is the principal access to Chimacum School and at peak times experiences long delays due to traffic to and from the school including numerous school buses. Undesirable delays and safety concerns may dictate signalization of this intersection.

**SR19** Roadway Level of Service capacity for SRI as a two-lane highway with turn lane median is a maximum of 14,300 ADT for LOS threshold "D ". Figure 2 shows that existing conditions approach this threshold. The 2024 volumes for all segments within the UGA are projected to exceed capacity and result in the roadway operating at LOS F. (See Figure 2 and Figure 3.) Capacity improvements will have to be completed to increase the level of service of SR19 to acceptable standards both inside and outside of the UGA. Typically this involves the addition of travel lanes in each direction including illumination, stormwater mitigation, right-of-way acquisition, and wetland reparations. Capacity (mobility)

**SR116** Roadway Level of Service capacity for SR116 as a two-lane highway is a maximum of 12,900 ADT for LOS threshold "D". The 2024 volumes for the segments within the UGA are projected to exceed this threshold and result in the roadway operating at LOS E. Capacity improvements will have to be completed to increase the level of service of SR116 to acceptable standards. Typically this would involve widening the roadway through the addition of a two-way left turn lane, curb, gutter & sidewalk, illumination, stormwater mitigation, right -of -way acquisition, and wetland reparations.

Growth and development in the Irondale-Port Hadlock UGA will have some impacts to the transportation system. A significant portion of that impact will occur on SR19 and SR116. The Washington State Department of Transportation (WSDOT) has jurisdiction over these roads. Continued and increased intergovernmental coordination between WSDOT and Jefferson County will become more important to coordinate transportation improvements within and adjacent to the Irondale -Port Hadlock UGA. The coordination will be necessary to accommodate future population growth and development while mitigating the resulting impacts and increased congestion from both within and outside the UGA.

**ENVIRONMENTAL CONSIDERATIONS**

Human activity can have a major impact on vegetation, wildlife, and water resources. Land use policies seek to protect the environment, conserve our resources, and permit future development only in areas that can support it without significant adverse impact. Protecting the natural environment, including environmentally sensitive lands in developed areas of the UGA requires the following:

- Preserving ecological balance
- Maintaining or improving air and water quality
- Retaining open space in its natural state
- Protecting groundwater from pollution
- Providing public access to and setbacks from environmentally sensitive land

New developments within the Irondale-Port Hadlock UGA will be required to minimize and mitigate adverse environmental impacts. The UGA designation will have little impact on the transportation system. This is not to say that there will not transportation issues or needs associated with growth in and adjacent to the UGA, only that designation as a UGA is not the overriding factor. The foremost effect the UGA will have on transportation will be when the availability of sewers to the commercial/industrial/multi-family zoned designated areas allows them to be developed more intensely and generate higher traffic volumes. The analysis shows that a total of about 43,471 additional trips per day would be generated during the twenty-year planning period and distributed onto the road system.

Transportation decisions are not, and should not be, exempt from environmental review. Impacts to the natural and built environment need to be taken into consideration before any major transportation improvement projects are made. Most transportation projects are subject to state and federal environmental regulations as well as any local environmental laws that apply. County road projects routinely follow NEPA/SEPA regulations unless they are specifically exempted.
**CAPITAL FACILITIES**

The concurrency requirement in the Growth Management Act (GMA) states that "...public facilities and services ... 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." [GMA, Section 2, Planning Goals (12)] This means that public facilities and services must be in place to serve the proposed use at the level of service (LOS) set by the community. Some improvements may be completed in whole or in part, by new development within the UGA. A program should be established to complete construction of these projects in the succeeding time period.

Under current State law and Jefferson' County Comprehensive Plan policies, highways owned by the State (State Routes) are not bound by the constraints of concurrency requirements. In these instances, the timing and prioritization of improvements is ultimately that of the Washington State Department of Transportation. Typically, WSDOT coordinates with the local jurisdiction and regional transportation planning organization to maintain a balance between the free-flow movement of people and goods, and the needs of the local community.

Total transportation facility improvements for the complete 20-year planning period (2005 - 2024) are summarized in Table 8. These improvements are directly or indirectly associated with development and growth in the Irondale - Port Hadlock UGA. WSDOT has classified SR19 as a principal arterial and Highway of Statewide Significance (HSS). This change will likely qualify the roadway for more state and federal funding to bring it into compliance with standards. Transportation facility improvements for the six-year planning period, 2005 - 2010, are included in Table 8. This estimate includes the Chimacum Rd improvements proposed in the Jefferson County Six-Year Transportation Improvement Program (TIP). Proposed improvements to this roadway include:

- Intersection realignments and improvements
- .57 miles of reconstruction

Proposed funding sources for this project include $500,000 in Rural Arterial Program (RAP) funds and $217,000 in local funding.

The SR19/SR116 intersection (Ness's Corner) is a state owned facility. Improvements will likely be funded by a combination of State and local funds. This intersection currently satisfies State warrants for signalization but is well down on the priority list of proposed projects to receive funding. Project funding options, including the application of local funding to this project, should be considered to insure this project is completed at an appropriate time. Proposed improvements include reconstruction and signalization of this intersection to urban standards.

Table 8 also shows transportation facility improvements associated with new development that should require completion or participation by adjacent property owners either through private construction or through a Road Improvement District. Constructing necessary transportation improvements to serve new developments should be required by County Comprehensive Plan policies and Unified Development Code standards to ensure completion. All costs shown in Table 8 include an assumed annual inflation rate of 2.2%.
CONCLUSION

The analysis in this portion of Chapter 2 shows that overall; impacts from the development of the UGA on the transportation system and potential transportation needs in the UGA and adjacent areas are manageable. While the UGA designation may impact transportation by increasing demand earlier than it would have otherwise occurred, the impacts would still be likely to occur without UGA designation. The primary concern has been and continues to be the SR19 Corridor and how future adjacent land use will impact its ability to carry through-traffic.

While this analysis considers the overall growth of the UGA and is based on the land use assumptions provided and known at this time, further analysis of the transportation system should be undertaken when initial land use regulations are in place in order to determine impacts to individual neighborhoods within the UGA. Further analysis should look at impacts to road segments based on zoning designations in a more localized manner within the UGA. This could lead to changes in land use, to transportation standards, or transportation improvements.
<table>
<thead>
<tr>
<th>Route I.D.</th>
<th>Route Name</th>
<th>Description</th>
<th>From M.P.</th>
<th>To M.P.</th>
<th>2005-2010 Cost</th>
<th>Funding Source(s)</th>
<th>Funding Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>932507</td>
<td>Chimacum Rd.</td>
<td>County Shop to W. F. Chimacum Crk.</td>
<td>0.41</td>
<td>0.98</td>
<td>$ 720,000</td>
<td>RAP / Local</td>
<td>Proposed</td>
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<tr>
<td>SR19/116</td>
<td>SR19 @ SR116</td>
<td>Signalization - Reconstruct to Urban Stds.</td>
<td>10.71</td>
<td>10.71</td>
<td>$ 334,484</td>
<td>WSDOT/Local</td>
<td>Proposed</td>
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**Total Non-Capacity Projects 2005 – 2010**

$ 1,054,484

### Non-Capacity Projects 2011 – 2024

<table>
<thead>
<tr>
<th>Route I.D.</th>
<th>Route Name</th>
<th>Description</th>
<th>From M.P.</th>
<th>To M.P.</th>
<th>2011-2024 Cost</th>
<th>Funding Source(s)</th>
<th>Funding Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>SR116</td>
<td>Port Hadlock Intersection</td>
<td>Signalization</td>
<td>(2017-18)</td>
<td></td>
<td>$ 434,297</td>
<td>WSDOT/Local</td>
<td>Unfunded</td>
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<tr>
<td>SR19</td>
<td>SR19 @ Irondale Rd.</td>
<td>Signalization</td>
<td>(2018-19)</td>
<td></td>
<td>$ 346,500</td>
<td>WSDOT/Local</td>
<td>Unfunded</td>
</tr>
<tr>
<td>SR116</td>
<td>SR116 @ Cedar Ave.</td>
<td>Signalization</td>
<td>(2018-19)</td>
<td></td>
<td>$ 346,500</td>
<td>WSDOT/Local</td>
<td>Unfunded</td>
</tr>
<tr>
<td>SR19</td>
<td>SR19 @ Prospect Ave.</td>
<td>Intersection Improvements</td>
<td>(2017-18)</td>
<td></td>
<td>$ 243,270</td>
<td>WSDOT/Local</td>
<td>Unfunded</td>
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<tr>
<td>SR19</td>
<td>SR19 @ Anderson Lk. Rd.</td>
<td>Intersection Improvements</td>
<td>(2014-15)</td>
<td></td>
<td>$ 254,091</td>
<td>WSDOT/Local</td>
<td>Unfunded</td>
</tr>
<tr>
<td>SR19</td>
<td>SR19 @ Woodland Dr.</td>
<td>Intersection Improvements</td>
<td>(2014-15)</td>
<td></td>
<td>$ 254,091</td>
<td>WSDOT/Local</td>
<td>Unfunded</td>
</tr>
<tr>
<td>SR19</td>
<td>SR19 @ West Valley Rd.</td>
<td>Signalization</td>
<td>(2020-21)</td>
<td></td>
<td>$ 361,914</td>
<td>WSDOT/Local</td>
<td>Unfunded</td>
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<tr>
<td>SR19</td>
<td>Chimacum Intersection</td>
<td>Signalization</td>
<td>(2020-21)</td>
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<td>$ 445,160</td>
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**Total Non-Capacity Projects 2011 – 2024**

$ 2,685,823

### Capacity Projects 2005 – 2024

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<th>Route I.D.</th>
<th>Route Name</th>
<th>Description</th>
<th>From M.P.</th>
<th>To M.P.</th>
<th>2005-2024 Cost</th>
<th>Funding Source(s)</th>
<th>Funding Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>SR19</td>
<td>SR19</td>
<td>Widen to Four Lanes</td>
<td>(2020-22)</td>
<td>10.50</td>
<td>$ 5,978,800</td>
<td>WSDOT</td>
<td>Unfunded</td>
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<tr>
<td>SR116</td>
<td>SR116</td>
<td>Widen to Three Lanes (TWLTL)</td>
<td>(2022-22)</td>
<td>0.0</td>
<td>$ 2,408,700</td>
<td>WSDOT</td>
<td>Unfunded</td>
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<tr>
<td>SR19</td>
<td>SR19</td>
<td>Widen to Four Lanes</td>
<td>(2020-22)</td>
<td>9.00</td>
<td>$ 7,174,600</td>
<td>WSDOT</td>
<td>Unfunded</td>
</tr>
<tr>
<td>SR19</td>
<td>SR19</td>
<td>Widen to Four Lanes</td>
<td>(2020-22)</td>
<td>11.75</td>
<td>$ 11,527,100</td>
<td>WSDOT</td>
<td>Unfunded</td>
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**Total Capacity Projects 2005 – 2024**

$ 27,089,200

### Private Developer Projects 2005 – 2024

<table>
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<th>Route I.D.</th>
<th>Route Name</th>
<th>Description</th>
<th>From M.P.</th>
<th>To M.P.</th>
<th>2005-2024 Cost</th>
<th>Funding Source(s)</th>
<th>Funding Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>932507</td>
<td>Chimacum Rd.</td>
<td>Reconstruction to Urban Stds.</td>
<td>0.41</td>
<td>0.64</td>
<td>$ 138,600</td>
<td>Developer</td>
<td>Unfunded</td>
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<tr>
<td>SR116</td>
<td>SR116</td>
<td>Reconstruction to Urban Stds.</td>
<td>0.12</td>
<td>0.47</td>
<td>$ 210,000</td>
<td>Developer</td>
<td>Unfunded</td>
</tr>
<tr>
<td>SR116</td>
<td>SR116</td>
<td>Reconstruction to Urban Stds.</td>
<td>.47</td>
<td>1.11</td>
<td>$ 164,000</td>
<td>Developer</td>
<td>Unfunded</td>
</tr>
<tr>
<td>658909</td>
<td>D Street</td>
<td>Reconstruction to Urban Stds.</td>
<td>0.00</td>
<td>0.10</td>
<td>$ 72,722</td>
<td>Developer</td>
<td>Unfunded</td>
</tr>
<tr>
<td>634509</td>
<td>Hunt Rd</td>
<td>Reconstruction to Urban Srds</td>
<td>0.00</td>
<td>0.20</td>
<td>$ 115,000</td>
<td>Developer</td>
<td>Unfunded</td>
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<tr>
<td>933507</td>
<td>Irondale Rd</td>
<td>Reconstruction to Urban Stds.</td>
<td>1.56</td>
<td>1.79</td>
<td>$ 284,545</td>
<td>Developer</td>
<td>Unfunded</td>
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</table>

**Total Private Developer Projects 2005 – 2024**

$ 984,867

**Total All Projects 2005 - 2024**

$ 31,814,374
GOALS AND POLICIES

As in all elements of this Plan, the goals are general statements while policies are more specific. Goals state the general growth management intentions of the County while the policies are the specific guidelines. Strategies address implementation of goals and policies through specific projects and programs.

The goals and policies of the Urban Growth Area element provide direction for the development of Jefferson County’s Irondale & Port Hadlock Unincorporated UGA. They outline specific criteria for urban development, incorporating issues and opportunities identified by County residents in the public UGA planning process.

Urban Growth Area policies provide the basis for subsequent land use and capital facility planning and implementation in the UGA. This section also provides guidance for the UGA-specific development regulations contained in Appendix D of the Unified Development Code (Irondale & Port Hadlock UGA Implementing Regulations), now codified in Chapter 18.18.JCC.

URBAN GROWTH AREA

GOAL:

UGA-G 1.0 Encourage a balance of commercial and industrial uses for urban-scale and regional-scale economic activities within Urban Growth Areas (UGAs).

UGA-G 1.1 Provide for the orderly development of urban land uses in urban growth areas consistent with the provision of adequate and feasible urban levels of public facilities and services.

POLICIES:

UGA-P 1.1 Encourage and facilitate urban regional-scale economic activities in unincorporated UGAs which provide for countywide goods, services, and employment opportunities.

UGA-P 1.2 New urban growth should be channeled into areas that are already characterized by existing urban growth or adjacent to areas characterized by urban growth. Within the confines of the GMA, urban levels of services for capital facilities should be scaled to the needs of urban growth areas and the ability of businesses, homeowners, workers and the public to finance them.

UGA-P 1.3 Future infrastructure improvements must be appropriate for the planned development densities in the County. UGAs will be implemented where urban public facilities and services are necessary to support higher density residential and/or commercial growth. The level of urban infrastructure must serve the needs of the public, protect the environment and be affordable.
UGA-P 1.4 Encourage growth in the Irondale & Port Hadlock UGA commensurate with the appropriate level of urban public facility and service capacities consistent with adopted plans and interlocal agreements.

(a) Manage development and redevelopment through revisions to the Unified Development Code (UDC) and the application of UGA land use designations and zoning classifications that can be implemented consistent with the adopted levels of service for urban public facilities and services.

(b) Provide urban governmental services at urban levels of services (see Capital Facilities Element, Policy CFP 1.1, and UGA Element, Policy UGA-P 2.8, for list of urban public facilities and their adopted levels of service) prior to or concurrent with development.

(c) The County shall coordinate with the respective purveyor, special district, agency or other entities delivering, or who are anticipated to deliver, urban public facilities and services to ensure that growth and development are timed, phased, and consistent with the provision of adequate urban level facilities and services.

(d) Where the County is not the urban public facility or service provider for the unincorporated UGA, the County may adopt an Interlocal Agreement with the appropriate service provider, where necessary, to ensure the provision of adequate levels of service for urban public facilities and services. Such agreements, when utilized, shall include the level of urban public facilities and services.

UGA-P 1.5 Encourage growth in UGAs that will be served by a combination of both existing urban public facilities and services and any additional needed urban public facilities and services that are provided by either public or private sources. Development within the unincorporated UGA shall be consistent with the densities and intensities of use, bulk and dimensional and other development standards found within this element and the adopted urban public facilities levels of service.

UGA-P 1.6 The Irondale & Port Hadlock UGA has a limited amount of undeveloped commercial parcels suitable for attracting and accommodating regional commercial development. To enhance the potential for commercial redevelopment opportunities in the UGA, parcels currently utilized for and designated as Urban Residential on the UGA Zoning Map (Figure 2-1) may be designated Urban Commercial, provided that those parcels meet all of the following criteria:

1) The parcel rezone request is presented and approved through the annual comprehensive plan amendment process specified in 18.45, JCC.

2) The parcel rezone request is consistent and compatible with the Comprehensive Plan and future needs, documented through a commercial land needs analysis.

Any change from Urban Residential to Urban Commercial shall be reflected on both the Comprehensive Plan Zoning Map and Jefferson County Zoning Map, as they are the same.

UGA-P 1.7 Amendments to the UGA Zoning Map (Figure 2-1) and implementing UGA regulations in Appendix D of the UGA shall be subject to the amendment requirements of UDC Section 18.45, JCC.
UGA-P 1.8  The County should provide for on-going review and evaluation of the Irondale & Port Hadlock Unincorporated UGA to monitor the rate of development, land supply and availability, market conditions, infrastructure implementation and costs in order to identify constraints to growth in the UGA and recommend corrective actions, where appropriate.

**URBAN LEVEL CAPITAL FACILITIES**

**GOAL:**

**UGA-G 2.0**  Limit the establishment or expansion of urban-level development and infrastructure to Urban Growth Areas and Master Planned Resorts.

**POLICIES:**

**UGA-P 2.1**  Ensure that expansion of urban infrastructure occurs in coordination with designated land uses based on projected growth or land supply needs and will be concurrent with amendments to the comprehensive plan.

**UGA-P 2.2**  Ensure that where the County assumes maintenance responsibilities for infrastructure, the infrastructure is adequately designed to meet the area growth needs and to fulfill the functions the infrastructure is intended to perform.

**UGA-P 2.3**  Development shall provide, plan or mitigate for, an appropriate level of service for capital facilities including, but not limited to, potable water supply, fire flow, adequate sanitary sewerage treatment and disposal, stormwater management, and roads, including sidewalks where required by adopted urban road standards.

**UGA-P 2.4**  The planning and implementation of transportation and stormwater management facilities in the unincorporated UGA shall reflect consistency with the goals and policies in the UGA Stormwater Management Plan and the UGA Transportation Plan adopted as components of this Comprehensive Plan.

**UGA-P 2.5**  Maintain consistency with the Capital Facilities Element, Policy CFP 1.1, 1.2, and 1.3, as amended. All adopted Level of Service Standards for Category A, B and C Public Facilities identified in CFP Policy 1.1 shall apply to the Irondale & Port Hadlock UGA, except as may be modified by or provided for separately in Policy UGA-P2.8 of the Urban Growth Area Element or an adopted UGA-specific Capital Facility Plan, including the *Port Hadlock UGA Sewer Facilities Plan, Transportation Plan and Stormwater Management Plan*.

**UGA-P 2.6**  In addition to the LOS adopted for public facilities in UGA-P 2.7 and CFP 1.1 of this Comprehensive Plan, above, adopt Urban LOS standards for the following capital facilities and public services in the Irondale & Port Hadlock Unincorporated UGA:

(a) On-Site Septic Sewage Treatment and Disposal
Per Jefferson County Code Chapter 8.15 (On-Site Sewage Disposal Systems)

(b) **Sanitary Sewer**

Per the adopted Irondale & Port Hadlock UGA General Sewer Plan (minimum 150 gallons per day/ERU)

(c) **Stormwater Management**


(d) **Transportation**

Maintain Level of Service standard “D” or better on all road facilities within Urban Areas (UGAs) and Designated Tourist Corridors as established by the Peninsula Regional Transportation Planning Organization (PRTPO), based upon Average Annual Daily Trips.

(e) **PUD UGA Public Water System Design Criteria**

**Demand**

- Average Daily Demand (466 GPD/ERU)
- Maximum Daily Demand (933 GPD/ERU)

**Fire Flow**

The adopted Coordinated Water System Plan (CWSP) for Jefferson County establishes the Fire Flow level of service requirements for the UGA Water System. The requirements are identified in Table 4-1 of the CWSP, as may be amended.

**STORMWATER MANAGEMENT**

**GOAL:**

**UGA-G 3.0** Minimize the adverse effects on ground and surface water quality and quantity and protect aquatic resources and habitats from stormwater runoff generated within the Irondale and Port Hadlock UGA.

**POLICIES:**

**UGA-P 3.1** Manage stormwater runoff in the UGA in compliance with the Jefferson County Comprehensive Plan and Unified Development Code and consistent with the guidance of the Puget Sound Water Quality Management Plan.

**UGA-P 3.2** Use the technical standards from the Washington Department of Ecology *Stormwater Management Manual for Western Washington* to manage stormwater within the Irondale and Port Hadlock UGA.
UGA-P 3.3 Develop and implement an Irondale and Port Hadlock UGA Stormwater Management Program.

UGA-P 3.4 Increase the public’s knowledge of stormwater runoff issues and support public involvement in stormwater management by developing and implementing a Stormwater Management Public Education component of the Irondale and Port Hadlock Stormwater Management Program.

UGA-P 3.5 Ensure the continued operation of stormwater management facilities by developing and implementing a Stormwater Management Facility Operation and Maintenance component of the Irondale and Port Hadlock Stormwater Management Program.

UGA-P 3.6 Ensure that stormwater management activities are effective by developing and implementing a Water Quality Monitoring and Stream Gauging component of the Irondale and Port Hadlock Stormwater Management Program.

UGA-P 3.7 Develop a stable and equitable revenue source to fund an Irondale and Port Hadlock UGA Stormwater Management Program.

UGA-P 3.8 Maintain an inventory of public and private stormwater management facilities within the UGA.

UGA-P 3.9 Join with State and local agencies and private landowners to plan, finance, and construct regional stormwater management facilities and to remediate existing stormwater management deficiencies.

UGA-P 3.10 Minimize adverse stormwater impacts and preserve aquifer recharge by encouraging Low Impact Development design strategies.

TRANSPORTATION

GOAL:

UGA-G 4.0 Encourage efficient multimodal transportation systems that are based on regional priorities and coordinated with county and city comprehensive plans

POLICIES:

UGA-P 4.1 Encourage the use of roadway features that enhance urban qualities by applying urban standards as deemed appropriate in the Urban Growth Area.

UGA-P 4.2 Require that subdivision and commercial project designs address the following issues:
   a. Cost effective transit and delivery of emergency services;
   b. Provisions for all transportation modes;
   c. Dedication of rights of way for existing and future transportation needs;
   d. Motorized and nonmotorized access;
   e. Sidewalks and bicycle pathways;
f. Compatibility between motorized vehicles, pedestrians, bicyclists, and transit users

g. Inclusion of transit friendly design elements

h. Adequate parking for non-peak period; and

i. Frontage improvements and roadway features to meet urban design standards within the Irondale-Port Hadlock UGA.
STRATEGIES

UGA LAND USE AND REGULATION STRATEGY

Jefferson County’s strategy for UGA land use regulation will be implemented through amendment of the Unified Development Code, development regulations, and permitting ordinances and procedures in public processes to achieve compliance with the goals and policies of the Comprehensive Plan.

Action Items

1. Land use and development regulations which implement UGA goals and policies of this plan shall be prepared, publicly reviewed, and implemented. Existing development regulations shall be reviewed for applicability and revised where appropriate.

2. A set of zoning designations which provides a range of urban development densities, and identifies allowed uses for each zone shall be established to reflect the Comprehensive Plan Irondale & Port Hadlock UGA Zoning Map.
IRONDALE & PORT HADLOCK
URBAN GROWTH AREA

MAP FOLIO

Figure 2-1: UGA Zoning Map
Figure 2-1a: Transitional Rural Zoning
Figure 2-2: UGA Critical Aquifer Recharge Area Map
Figure 2-1: UGA Zoning Map